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Lisa Dush
University of Massachusetts - Amherst

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DIGITAL STORYTELLING AT AN EDUCATIONAL NONPROFIT: A CASE STUDY AND GENRE-INFORMED IMPLEMENTATION ANALYSIS

A Dissertation Presented

by

LISA DUSH

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

February 2009

English

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DIGITAL STORYTELLING AT AN EDUCATIONAL NONPROFIT: A CASE STUDY AND GENRE-INFORMED IMPLEMENTATION ANALYSIS

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LISA DUSH

Approved as to style and content by:

_____
Anne Herrington, Chair

_____
Charles Moran, Member

_____
Matthew Militello, Member

_____
Joseph Bartolomeo, Department Chair
Department of English

DEDICATION

To Lee

ACKNOWLEDGEMENTS

Completing this dissertation would have been impossible without the help of many people. First, thank you Natasha for introducing me to digital storytelling, allowing me to tag along at trainings and meetings, and for sharing so much of your time and expertise. Thank you also Melanee, Maura, Melissa, Melinda, Tyra, Stephanie, Ellen, Damien, Gerald, Hank, Casey, Max and all of the Tech Year staff, for welcoming me into your classrooms and meetings and sharing your wisdom in interviews. It was a pleasure to do this research project at your organization, which makes a real difference in the lives of so many young people. And finally, thank you Tech Year students for your curiosity and your smarts. You made me feel at home at Tech Year and I can't wait to see the great things you achieve in your lives.

At UMass, thank you Charlie Moran for always showing faith in my work—the encouragement has meant a lot to me. Anne Herrington, thank you for your clarity and for always asking the hard questions. Every time I spent an hour talking with you about this project, I felt like I avoided two weeks of unproductive revision. The intelligence, ethical sense, and skill that both you and Charlie bring to your work have been a model for me. Thank you also to Donna LeCourt and Joe Black for coursework that helped to inform this project. And thank you to my UMass colleagues, including Casey Burton Soto, for helping me to refine my own teaching of digital storytelling, and Marni Presnall (along with Aaron, Anna, Oscar and Oliver), for becoming great friends and helping me to not miss home so much.

At MIT, I'd like to thank Mya Poe and Les Perelman, fellow UMass alumni, for helping me to balance two new baby boys and an unfinished dissertation during my first

year as a lecturer. Your understanding and encouragement, plus the stimulation I have gotten from my excellent colleagues at MIT, have been essential as I worked to finish this project.

And finally, thank you Lee, Louis, and Jesse. Lee, thanks to you what could have been a very tough four years felt just as fabulous as all of my others with you. Jesse and Louis, thank you for being sweet, funny, loving—and excellent sleepers. This one's for the three of you!

ABSTRACT

DIGITAL STORYTELLING AT TECH YEAR: A CASE STUDY AND GENRE-INFORMED IMPLEMENTATION ANALYSIS

FEBRUARY 2009

LISA DUSH, B.A., THE COLLEGE OF WILLIAM AND MARY

M.F.A., VIRGINIA COMMONWEALTH UNIVERSITY

Ph.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Anne Herrington

Digital stories—two- to five-minute videos consisting of a first-person voiceover set to a slideshow of personal photographs—combine personal reflection with digital technologies. The stories and the process of making them appeal to many organizations, particularly those with a mission of outreach or education. However, despite the inexpensive and fairly easy-to-use digital technologies involved, organizations have typically had difficulty implementing the practice.

This dissertation presents a case study of one organization that hoped to implement digital storytelling, detailing the 15 months after its Writing Director completed a digital storytelling train-the-trainer workshop. The case study organization, Tech Year, is a one-year intensive college and job-readiness program for urban 18-24 year-olds. The case study aims for descriptive detail, and reflects 300+ hours of site visits, 29 interviews, and extensive document collection. Everett Rogers' theory of organizational innovation is used to frame the case study description.

Tech Year hoped to integrate digital storytelling into its Business Writing curriculum and imagined a number of other utilities for digital storytelling related to

fundraising, recruiting, and student development. During the 15-month research period, a wide range of digital storytelling-related activity happened at Tech Year, including a pilot of digital storytelling in the Business Writing classroom. At the conclusion of the study, however, Tech Year had not settled on a sustainable organizational use or uses for digital storytelling, and organizational members were uncertain whether the practice would persist.

Besides telling an implementation story, the study has a second major aim: to explore theoretically informed reflective tools that might be used by researchers and organizations to assess and direct ongoing digital storytelling implementation efforts. A novel methodology that examines digital storytelling pilots through the lens of North American genre theory, called genre-informed implementation analysis, is both described and applied to the case of Tech Year.

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CHAPTER 1

IMAGINING DIGITAL STORYTELLING

Introduction

In the fall of 2005, Madeline Davis, the writing director at an urban educational nonprofit, attended a four-day professional development workshop to learn a new textual practice called digital storytelling. The workshop, called Spreading the Stories, was framed as a "train-the-trainer" workshop and "capacity building institute." Participants would learn enough about digital storytelling in the course of the twenty-four workshop hours to return to their home organizations and begin implementing the new practice. I was at this training workshop, too—I'd been observing and volunteering with the training organization, Stories for Change (SFC), for nearly a year—and I had with me a research notebook and a question: Why, when attendees showed such excitement about digital storytelling in these workshops, did the practice so seldom get institutionalized back at their home organizations?

A lack of enthusiasm or dearth of compelling ideas was certainly not to blame. Digital stories are two- to five-minute videos, typically personal in their subject matter and consisting of a first-person voiceover and music set to a slideshow of photographs. The video is assembled by the storyteller, who uses free or inexpensive digital editing software. While not new, digital storytelling has of late caught the attention of many organizations, especially those with a mission of outreach or education. Madeline Davis saw digital storytelling as a perfect way to bring technology into the writing curriculum at her organization, Tech Year—a multi-site one-year intensive education and technical skills training program, headquartered in Boston, Massachusetts, with an aim to get

recent high-school graduates on a successful life track through classes and a paid corporate apprenticeship. Besides its possibilities as a classroom project, Madeline could also imagine many other uses for digital storytelling at Tech Year, particularly uses related to fundraising and organizational promotion.

Compelling possibilities aside, the hard fact was that of the many organizations in the Boston area that had been trained by Stories for Change to make digital stories over its five years in business, only one sustained a digital storytelling program for a period of years. Some SFC trainees began the implementation effort at their organizations quickly and with enthusiasm, only to hit a wall after one exhausting story production session. More often, trainees spent notable time imagining and discussing possible organizational utilities for digital storytelling but never got around to actually producing stories. Successful implementation and long-term sustainability of digital storytelling, as with most new practices learned at professional development workshops, was almost unheard of. But in the case of digital storytelling the difficulty seemed connected, paradoxically, to the practice's vast potential. Digital storytelling strikes people as easy, cheap, and full of imagined possibility, but it is difficult to channel these possibilities into a focused and sustainable organizational practice.

There is no lack of conventional wisdom about why new practices do not take hold in organizations and why adoption and implementation efforts in general fail. These explanations—weak leadership, lack of upper-management support or buy-in across the organization, too little funding or time, too long of a gap between the end of a training and the start of an implementation—may be true. But these explanations are also so obvious and general that they provide little practical guidance to those embarking upon a

digital storytelling implementation project. My primary aim with this study was to capture the full complexity of a digital storytelling implementation endeavor by building a richly described portrait of the highs, lows, patterns, and dynamics of one organization's implementation attempts. To this end, I conducted a 15-month case study at Tech Year, beginning in January of 2006 and ending in March of 2007. My research aimed to trace the various uses to which digital storytelling was put and to see if it was possible to assess what progress, if any, Tech Year was making toward finding a sustainable organizational use or uses for digital storytelling.

When I began my research at Tech Year, I had no idea whether, at the end of my research period, I'd be writing the story of a successful implementation or the story of a failed implementation. But as time passed, Tech Year seemed on track to become a digital storytelling success story. When all was said and done, in a little under a year and a half digital storytelling in the Tech Year writing classroom went from idea to reality: in December–January of 2006-7, all of the students at three of Tech Year's six campuses made digital stories; in March of 2007, the staff and students celebrated their accomplishments with a red carpet premiere. But in my exit interviews, when I asked staff across the organization the following question—Do you consider digital storytelling to be implemented or institutionalized as of now?—the answers I heard revealed an incomplete and possibly stalled implementation:

> Madeline Davis, Writing Director: I don't know. These next few months are going to be really telling.
>
> Cooper McCormack, Boston Executive Director: It [the accomplishments of the successful pilot in the writing classroom] feels like it was a huge win. But it's not clear that we can repeat it until we repeat it.

Clark Cross, Boston Chief Academic Officer: Nope, it's not institutionalized. Nope.

The cumulative sense of these exit interviews was that despite a pilot period full of constant, incremental successes, and despite the fact that the original ambition—digital storytelling in the writing curriculum—was met, organizational members still felt a deep ambivalence about whether the practice was indeed implemented and whether it had any long-term viability at Tech Year. Still, however, many at Tech Year remained enthusiastic about the potential of digital storytelling to benefit the organization in a number of ways. This combination of implementation difficulty and excitement raises a second question, one that I also tackle in this dissertation: Is there a way, using a theoretical tool and/or analytical heuristic, that implementers of a multi-purposed textual practice such as digital storytelling can step back during an ongoing implementation effort and assess the progress that has been made toward finding a sustainable use? This assessment would ideally help implementers to make decisions about how to direct their ongoing implementation efforts.

The two guiding research questions for this study were, then:

1) Which of the many possible uses of digital storytelling are explored at Tech Year, and what successes and difficulties arise in the process of piloting these uses?

2) With the help of a well-theorized reflective tool, is it possible, during the implementation process, to assess the sustainability of digital storytelling at Tech Year?

To explore the second of these questions, this project had to be more than simply a case study. To come up with a usable theoretical tool and/or analytical heuristic with which to assess an implementation-in-progress, I needed to utilize, or develop, a theory of what makes a new practice sustainable in an organization. To this end, I have taken an

approach informed by one of the most common theories used to probe textual dynamics in organizational settings, North American genre theory, and worked to turn this descriptive theory into a form suitable for use as a reflective and analytic tool. I suggest a basic model for a sustainable genre, as well as a unit of analysis with which to assess the fit of a new textual practice during an implementation project. This unit, the *genre stabilization*, indicates any and all periods during an implementation when the new textual practice is temporarily shaped into a stabilized-for-now form (Schryer, 1993) that is used to coordinate some distinct type(s) of organizational action. By examining these stabilizations through the lens of genre theory, I suggest, we can take a detailed inventory of the way a new practice like digital storytelling fits or clashes with organizational norms, and thus get a more accurate sense of whether the new practice has, or is getting closer to, long-term viability. A full explanation of what I call a *genre-informed implementation analysis* comes in Chapter 5.

Research on computers and composition has, like much of the research into digital storytelling, focused primarily on the pedagogical benefits of new digital writing practices to individuals. With a few exceptions, both research traditions give little attention to either the organizational benefits or the organizational difficulties that accompany new digital writing practices. Taylor (2002) has offered a set of broad guidelines for writing programs endeavoring to implement digital technologies. He describes "ten commandments" for writing program administrators moving into the world of instructional technology. Taylor's ideas, in their people-centric focus, were helpful as I imagined possible barriers to digital storytelling implementation at Tech Year. Selber (2004), in the concluding chapter to his book on integrating a multiliteracies approach

into English departments, suggests that departments approach their technology integration efforts from a "systematic perspective," and says that, "[…] because change is a function of numerous interrelated forces—some stable, some not—it is fragile and requires ongoing consideration and commitment" (p. 184). Selber outlines a number of "nested contexts" that are implicated when a program attempts multiliteracies work, including the technical, pedagogical, curricular, departmental, and institutional contexts. This complex, interdependent view of context and the idea of "ongoing" implementation were key to my study. Finally, DeVoss, Grabill & Cushman's (2005) recent discussion of the "infrastructures" that underlie new media composition offers one reflective tool for assessing the institutional deployment of new digital writing practices. Like Selber, DeVoss et al. begin with the assumption that digital writing practices exist in a number of nested contexts. Problems in the digital writing classroom, the authors say, cannot and should not be linked to a single factor, but rather must be diagnosed by systematic analysis of both visible factors—such as hardware, software, or teaching problems—and invisible factors, such as departmental or university policies (p. 16).

While these studies offer some preliminary guidance in conceptualizing the full scope of material and organizational issues that might come to bear on Tech Year's implementation efforts, the theoretical framework and methodological guidance offered by existing work in English studies were inadequate to the purposes of my study. As Chapter 2 describes, I needed to turn to fields such as sociology, the rhetoric of science, public policy and organizational studies to build an adequate theoretical scaffold on which to situate my Tech Year study.

Digital Stories as Text; Digital Storytelling as Textual Practice

Alan: What I think digital storytelling is? Just telling, or showing a story so it can be told. It's based on one topic usually, a lot of times it's about serious topics, mostly about—almost like autobiography, most of the time.

Julio: I'd say it's like a picture book, like picture books that kids read, it's visually stimulating and you have your voice that's behind it and it's just telling the story, where you're looking at the pictures and the story's being told right to you. So I see it like a children's digital book.

T.J.: My understanding of digital storytelling? I don't know, I feel like it's keeping with tradition, of storytellers throughout history telling a story. You can help people, or inform people—that's what I think it is, a chance to inform, share stuff.

Rith: It's a person trying to give a glimpse of their life, telling you all the main things, but not really too detailed. There's a whole bunch of pictures, and as you're telling the story it goes along with your story.

Avia: To me I think it's basically about expressing a theme using still images and how we can capture a moment in time and reflect on it. Because it's always easy to make videos, but if you use still images it's really powerful.

Madeline: So let me hear some of the commonalities and some of the differences that you heard between the definitions of what digital storytelling is to you today.

Group: Pictures, voice, audio, music…

This conversation happened near the mid point of Tech Year's digital storytelling implementation, in August 2006, among a group of students and Madeline Davis, who was teaching them digital storytelling in a small pilot course. The students' cumulative definition of digital storytelling, while it addresses the textual features of a digital story much more than the practice of making or distributing the text, captures much of what a digital story looks like: it is a video that uses a storyteller's still photographs and recorded voice to tell a story. The text is generally autobiographical and often serious in its tone,

and the practice is informed by the tradition of oral storytelling, with its emphasis on strength and directness of voice. The narrative at the heart of a digital story tends to be crafted so that it has a complete narrative arc; it begins with conflict, proceeds through rising action, comes to a dramatic climax, and then offers a resolution. Additionally, the videos are typically two to five minutes long, and they are assembled with free or inexpensive software; digital storytelling places an emphasis on using accessible technologies, rather than on striving for high-tech glitz.

One of the most helpful framings of digital storytelling has been done by Jean Burgess (2006), an Australian cultural theorist who has also worked as a digital storytelling trainer. Burgess warns that neither of the traditional models that her academic field, cultural studies, turns on texts—aesthetic appreciation and ideological critique—will do justice to digital storytelling. Burgess instead argues that creating a digital story is an act of "vernacular creativity." One's vernacular creativity is derived both from the media techniques gleaned as a consumer—the artistic sensibilities learned through reading and watching television and movies—and traditional communal cultural traditions, such as collecting, storytelling, and oral performance (p. 207). You don't, that is, need an MFA to have vernacular creativity, it is something that everyone develops through a lifetime's worth of what Burgess calls "everyday cultural production," the art we put into and get out of everyday life.

For Burgess, it is important to evaluate practices like digital storytelling as acts of vernacular creativity, a stance that "shapes our concerns toward access, self-representation, and literacy, rather than resistance or aesthetic innovation" (p. 206). Digital storytelling offers people, and particularly underrepresented and technologically

disenfranchised people, a chance to make sense of and to share their life stories with a wide audience. It is this possibility that makes digital storytelling a compelling topic for researchers in education and composition and rhetoric.

The History of Digital Storytelling

Digital storytelling developed in Berkeley, California, at what is now called the Center for Digital Storytelling (CDS). The history of CDS and digital storytelling is told by one of the CDS founders, Joe Lambert (2002) in his book *Digital storytelling: Capturing lives, creating communities*. Lambert describes himself as having "trained in dramatic theory, literature and writing, as well as the politics of sociology and art" (p. 4). He identifies, that is, primarily as a humanist and activist, not as a technologist. This humanist/activist core has remained with digital storytelling over the years; at the website of the current CDS, which Lambert still directs, digital storytelling is described as so: "What best describes our approach is its emphasis on personal voice and facilitative teaching methods […] our primary concern is encouraging thoughtful and emotionally direct writing" (Center for Digital Storytelling).

Lambert's interest in what would later be called digital storytelling began when he was working at a theater called Life on the Water (LOTH20) and was approached by Dana Atchley, a performance artist and professional videographer. Atchley hoped LOTH20 would produce his solo show, a piece that would have him sitting on the stage in front of a 'virtual campfire,' a video screen playing home video montages he had created over the years, and giving a 'guided tour' of his life by narrating in sync with these videos. The show, called "Next Exit," was in many ways a precursor to digital

storytelling, as it featured a voiceover, personal reflection, reuse of family artifacts, and video.

"Next Exit" was innovative for its time and had a three-year run at various venues in California. But it was an invitation by the American Film Institute (AFI) to Atchley and Lambert, asking them to teach a short workshop on the production skills necessary to make the videos in Atchley's show, which pulled digital storytelling from the realm of art into something that looked more like what the Center for Digital Storytelling later formalized as digital storytelling practice. This workshop, run in 1991, lasted three days, and the model was refined in two subsequent AFI workshops. Lambert, who continued to work with Atchley, was smitten by the process, which he says:

> […] defied my attempts at characterization. It was 'like' many things, but it was also unlike anything I had ever seen before. The sense of transformation of the material, and of accomplishment, went well beyond the familiar forms of creative activity I could reference. And even as the tools themselves frustrated me, I knew that this activity had a special power that could be shaped into a formal creative practice. (p. 10)

Based on this intuition, Lambert radically revamped LOTH20. He shut down theater operations, took out a fifty-thousand dollar loan to buy six digital editing workstations, and created, with Atchley and his future wife, Denise, the San Francisco Digital Media Center (SFDMC), which offered classes on digital editing software and techniques. This center eventually came to focus on digital storytelling, and the three-day production workshop developed for the AFI was refined through hundreds of CDS workshops. Most of the leaders of businesses and nonprofits who teach digital storytelling, including Amy Jacobs, who ran the workshops at which I conducted my initial research, were trained by CDS.

Lambert notes in his book that 1994, the year that SFDMC was formed, was characterized by the "Digital Tsunami" that had been crashing through Northern California. While historians of technology warn us to suspect revolutionary rhetoric attached to new technologies, the mid 1990s did bring a number of new tools that in their utility and their wide availability made quite new compositional practices accessible to ordinary people. Nonlinear video editing, once a very expensive and time-consuming process, which required professional-level skill—film had to be cut and stitched together—could now be done digitally using software with intuitive and user-friendly interfaces. When Apple bundled iMovie into its operating system in 1999, the technology that made digital storytelling possible was for the first time widely available. Today, any computer with a recent operating system—a Mac produced after 1999 and any Windows machine running XP or higher—has video editing software preinstalled.

For digital storytelling to keep a fairly coherent identity despite that tsunami of technological development that continued to roll over the US throughout the next decade, the practice had to resist a number of potential identities; this seems tied to the way its practitioners insisted on staying true to personal storytelling as the core of the process and to the small workshop model—the "personal voice and facilitative teaching methods" prioritized by CDS. This focus has kept digital storytelling more about storytelling than about digital technology; its practice has in fact stayed remarkably consistent despite a general increase in popular technological know-how and an influx of more robust technological tools.

Stories for Change and Spreading the Stories

Amy Jacobs, the founder and director of Stories for Change—the organization that trained Tech Year's Madeline Davis—came to her work through a career path that like Lambert's was not highly technical. She had been an adult literacy instructor and a community organizer, and she started SFC after graduating from the Massachusetts Institute of Technology's program in Urban Studies and Planning, where she followed a community-organizing track. Jacobs' thesis was about using media as a tool for community building in a Texas border town, and her answer to an interview question I asked her when we first met, about what traditions she saw digital storytelling as being rooted in, gives some insight on her approach:

> I think [Stories for Change practice] is rooted in part in my training in community organizing, which was out of the Industrial Areas Foundation model, which is the Saul Alinsky-based model—I was really trained at how to get at people's stories that way, and probably orally—he's a sociologist out of the University of Chicago. And I was also trained in popular education, so a real Freireian-based, the individual story helping to build consciousness around how you connect to a collective story. A lot of the techniques are rooted in participatory ESOL education as well, a lot of that's Freireian-based as well, and then there's this whole media literacy movement—that's not what I've been steeped in, but I've kind of been learning it as I go, like who's telling your story? What images are you choosing and all that. Then there's this kind of digital divide orientation, which I don't really get all that into—technology being a key for disenfranchised communities. And then there's, I think the people in California [at CDS] are more just into the power of individual stories, and that's part of it too. I'd say also community documentary, that's another sort of movement—instead of one person doing documentary, the community taking on the media to do it themselves. And Third World Cinema is another point of influence. It's kind of Third World liberation movements, came out of the 60s and 70s, instead of colonialist movies of Africa, people telling their own stories […]

Spreading the Stories, the four-day professional development workshop at which Tech Year's Madeline Davis learned her skills, was a new project for SFC. Conceived of by Stories for Change and one of its main funding agencies, Mass Tech, Spreading the

Stories was imagined as a way to build a local, supportive network of trained digital storytellers in the Boston area. Applications to the workshop invited participants to a "Digital Storytelling Capacity-Building Institute," which had a main goal of helping organizations to deploy in-house digital storytelling practice. Mass Tech's director, Jason Robinson, a man who had himself learned to make digital stories three years ago and was passionate about the power of story, said in his opening speech to the workshop participants: "We [SFC, funded by Mass Tech] used to go into organizations and do the trainings, but that didn't work, so we're trying this." By building a local critical mass of trained digital storytelling facilitators who could support and encourage each other, Mass Tech and SFC hoped they would improve their success at integrating digital storytelling into organizations.

Tech Year

Tech Year is a one-year intensive program, with sites in Boston, Massachusetts; Cambridge, Massachusetts; Providence, Rhode Island; Washington, DC; and as of fall 2006, New York City. Each site admits 34 students, all between the ages of 18 and 24, for a one-year program. This program begins with a six-month "learning and development" phase, when students take classes in technology, communication, and professional skills. During this phase of the program, students also participate in a range of on-site personal development activities; they might salsa dance on Monday morning, listen to an executive from Fidelity bank talk in the Wednesday afternoon guest speaker slot, and Friday afternoons they can always be found in "Friday Feedback" sessions, where the students and staff come together to share quite direct constructive personal feedback. Through an arrangement with a local college, City College, the students

receive college credit for much of the academic work they do during the learning and development stage of the program. The intention is that these credits will jump-start the students back on the college track. Then, for the second six months of the program, students have full-time "apprenticeships" with local companies, performing entry-level jobs in a variety of different tech support roles. At the time of my research, companies paid Tech Year 20 thousand dollars for each student-employee, some of which was disbursed in the student stipends—these began at a baseline of $180 per week and maxed at $320—the rest of which was fed back into Tech Year operations. As with the first six months of the Tech Year program, the goal of the apprenticeship is to give these students not only an education and skills, but bonafide credentials—college credits and entries on their résumé—making their movement into the worlds of college or work more feasible.

Most of the students enrolled in Tech Year come from low-income households, and all already have a high school diploma or a GED. Few of them have much college or professional work experience. Some, like Rith, had enrolled in college, but didn't make it through their first year. Rith's father died when Rith was a freshman at UMass Boston. He dropped out of school, intending to take a short break to regroup, but soon found himself with a child on the way and a dead-end job as a baggage handler at Logan Airport. Like many Tech Year students, Rith was referred to the program by a friend, who brought him the program application and harassed him until he dropped it off at Tech Year's downtown office. Other students, like Avia, have immigration/naturalization issues that keep them from college. Avia did not qualify for federal student financial aid because of her immigration status, but she did have a work permit, so Tech Year was able to admit her. Other students, like Mikey, are tough kids from Boston, who fell into gang

or drug-related troubles and never made it to college. Many of the students realize quickly into the program that Tech Year is a very lucky opportunity for them; with this realization comes an intense determination to succeed. When Tech Year students eventually started writing digital stories, many found that their best story arc was that of how their life before Tech Year contrasted with their life after.

Back when Tech Year's founder, Alex Parker—everyone at Tech Year, students and staff alike, call him simply "Alex"—was a student in the Harvard Business School, he wrote a business plan in one of his classes for a nonprofit that he imagined would address what he often calls "the unacceptable situation of wasting so much human talent." That business plan was the first draft of Tech Year, which eight years later, in 2000, Parker was able to begin building with the fortune he made during the dot-com era. A business ethos pervades much of the program. The sites are all located in the bustle of downtown financial districts; the Boston site occupies three floors in a gorgeous building with huge windows overlooking Summer Street. As the students arrive at 8:30 a.m., they mix among the streams of business-attire clad professionals exiting the Downtown Crossing train station and heading toward the glass and steel high-rises of the Boston financial district. Students in the program must dress professionally, and they sign a contract at the beginning of the program stipulating that their weekly salary will be docked for "contract infractions," which include a range of behaviors clearly outlined and deemed unprofessional on the contract, including arriving late, not wearing business casual attire, and not completing assignments on time. Beyond having money deducted from their stipends, if students lose too many points they 'fire' themselves and, unless the staff allows them back on a probationary basis, they are out of the program for good.

Students can also earn bonuses if they achieve a certain number of infraction-less weeks. The contract system, while some teachers report difficulties knowing how to enforce it, is, with its clearly outlined expectations and consequences, a key part of Tech Year's "high expectations/high support" model. The staff sets high, clear expectations for students, and provides attentive support to help them achieve these expectations.

By 2010, Tech Year hopes to have a clarified its model enough to offer "Tech Year in a Box"—a model of the program that can be used to start up sites across the country without help from the Boston headquarters. As a growing organization with a business ethos, there is a spirit of innovation—Parker, in particular, is very willing to try new ideas and drop failing ones in search of something that works. In an interview, Parker described Tech Year as always holding true to its four core elements—education, support, work experience, and guidance—yet constantly innovating around that core. Digital storytelling interested him from the start as a possible innovation. In an early email communication about my project, he said:

> I am very interested in how we integrate digital storytelling into our curriculum. I am equally interested to gain some knowledge on tying this to pedagogical gains for our students. The long term success of the medium will in large part be determined by our ability to ensure that it aligns with the learning objectives that we have for our students, ranging from grammar to self-actualization, from technology to critical thinking.

In this comment, Parker shows a no-nonsense, 'bottom line' way of thinking typical of the business world, and that is certainly present at Tech Year. But there is also a supportive and family-like approach; students have mentors within the program and outside of it, they are encouraged to call friends if they don't show for class. The staff is pushed hard, but also given generous professional development funds and reminded often by Parker that he sees their development as a key part of Tech Year's mission.

In my study's earliest stages, when I sat in on the Spreading the Stories training, I looked to identify an organization with a good chance of following through and implementing digital storytelling at its home site. It was not necessary that the organization have an educational mission. Like the classic implementation theorists Pressman and Wildavsky (1984) I wanted to select a research site "in which dramatic elements [that may cause implementation failure] that are essentially self-explanatory are ruled out" (xx). Telling the story of why the nonprofit with barely enough money to buy dry-erase markers failed to implement digital storytelling seemed much less worthwhile than tracing the developments at a site where the new practice had a fair chance of succeeding. Tech Year was the first group among the Spreading the Stories trainees to schedule a training session back at its home site; in fact, it was one of only a handful of organizations that had clear intentions of following the train-the-trainer model proposed at the four-day Spreading the Stories workshop. Tech Year had technology, teachers with knowledge of writing and story, and some compelling reasons for wanting to implement digital storytelling.

In December of 2005, I met up with Amy Jacobs at Madeline Davis' Tech Year office, to listen as Amy and Madeline planned a January on-site workshop in which a group of Tech Year teachers would be trained in digital storytelling. We toured the Boston headquarters, the first of my many walks around its halls, inventorying the computer equipment, and then we returned to Madeline's office to plan the workshop. Near the end of the meeting, Madeline laid out her ambition: by June, six months away, the first set of Tech Year students would be making digital stories.

The Writing Program at Tech Year

> Jack, Technology Director: There was a time when we didn't teach Business Writing, we taught College Writing, sort of a College Writing 1 Class. And there was a lot more of the sort of social stuff, personal narrative stuff, kind of more general composition and writing-type things, and less focus on the business-type stuff. And what we were finding was even the students who were getting into it got out into their apprenticeships and weren't able to write a good business email, or weren't able to put together their assignments for other classes as well as they needed to. And so there was kind of a reaction to that, and a push to say okay let's really make this about business.

> Aaron, Business Writing Instructor: I don't really know yet [what the function of the writing class is at Tech Year]. I'm so across the board on it, because we're a college-slash-corporate training site. […] Half the time I think I'm more or less preparing the soft skills—I can show you what I'm dealing with [presents a paper covered in red ink] […] I've got him, and then I've got some students that are ready to go to college. They wouldn't test out of freshman English, but they'd be ready to start. So the range is *huge*. So what am I preparing them for? They're ultimately supposed to be able to walk in the door to a corporate apprenticeship and function and write email. And not write like he just did in an email, because obviously, if he's got to deal with a customer, he can't do it. So when we place him, we'll have to place him somewhere he doesn't have to write, because I'm not going to turn that around in another four months.

These two comments, the first from Jack, Tech Year's Technology Director, on staff for three and one-half years, the second from Aaron, eight months into his career as a writing instructor at Tech Year, fairly capture the complicated status of the writing program at Tech Year. First, the program suffers from an uncertainty about its primary focus: is it to prepare students for college, as the arrangement to grant college credits would suggest, or is the object to prepare students for their upcoming apprenticeship? Some of the most tangible evidence for this confusion were the scribbles I'd find on the whiteboards of empty meeting rooms, or the handouts forgotten on the photocopier glass, all with different names for the writing course: sometimes Business Writing, sometimes Business Communication, sometimes Professional Communication, sometimes Business

Writing, Reading and Grammar. Not only was there little organizational consensus about the primary focus of the writing course, perhaps more significantly, few of the writing teachers had a strong feeling about which focus should dominate above the others. All accepted their responsibility to prepare students for apprenticeships—generally they did this with a focus on professional forms, like resumes and emails and public speaking—but they also all saw their job as teaching those "soft skills" that Aaron mentions, such as helping students to process the transition from their old social worlds into the corporate world, building self-confidence and teamwork skills, and setting students on a path of lifelong learning. What the teachers did have strong feelings about was that six months was not enough time to accomplish these many objectives.

The later parts of Aaron's comments bring up another major challenge that surfaced often during my time at Tech Year: the students arrive with a wide range of academic skill and experience, and these differences are most visible and difficult to deal with in the writing classroom. Some students enter the program ready for the challenges of college, perhaps even with a semester or two under their belts; others come with severe ESL difficulties and are unable to read at even a high school level. The result of this gap almost always manifests itself in discipline problems, as the more advanced students grow bored with unchallenging class work and begin to act up; in fact, this problem seemed to surface, like clockwork, about two months into each new Tech Year class. Late in my research period, Tech Year began administering an admissions test called the Test of Adult Basic English (TABE), and although the staff was aware that Tech Year's mission depended upon not becoming too exclusive, most were relieved to be taking steps toward a more evenly balanced student population.

At the Spreading the Stories workshop and upon her return to Tech Year, the Writing Director, Madeline, spoke of wanting to integrate digital storytelling into the writing classroom. This ambition to work digital storytelling into an already oversaturated and uneven curriculum in many ways seemed doomed from the start. Digital storytelling is a labor-intensive process: the conventional wisdom is that a digital story takes 24 hours to complete, from writing the script through exporting the final video. A little math—students are in the Tech Year writing classroom four days a week, for one hour and 20 minutes each class—tells us that digital storytelling would take four to five weeks out of an available 21 weeks, or one-quarter of the curriculum. How having a group of 17 storytellers would affect the process—most digital storytelling workshops max out at eight people—was uncertain, but common sense would suggest it would take even longer. It was only the flexibility of Tech Year and its academic schedule—students were accustomed to staying to work after the school day ended, and technical instructors were used to making time for writing projects that required computer use in their classes—that made digital storytelling in the Tech Year classroom seem even vaguely feasible.

Digital Storytelling in Educational Contexts

Substantive research literature that looks at the process and results of digital storytelling in educational settings is just now beginning to be published. For quite some time, most of the publications around the practice were written as practitioner-to-practitioner pieces aiming to inform teachers about the basics of the digital storytelling (Bull & Kajder, 2004; Kajder, Bull, & Albaugh, 2005; Salpeter, 2005) and to offer tips and encouragement. Three recent longer and more deeply theorized articles are

interesting to look at, as they represent a range of ways of conceptualizing the practice with youth.

Glynda Hull and Mark Nelson's (2005) "Locating the semiotic power of multimodality," Alan Davis' (2004) "Co-authoring identity: Digital storytelling in an urban middle school," and Glynda Hull and Mira-Lisa Katz's (2006) "Crafting an agentive self: Case studies of digital storytelling," are qualitative studies of similar settings, after school programs of the 'clubhouse' model, where young people can come on their own volition and work on projects with the help of trained peers and adults. Each of the study sites are also university-community partnerships; both Hull and Nelson's and Hull and Katz's tell of a student at Digital Underground Storytelling for You(th), or DUSTY, a community technology center in West Oakland, California formed by a UC Berkeley professor, and Davis describes students working at the Cyber Cougars Club in Denver, Colorado. The club is a partnership between the University of Colorado at Denver's Lab of Learning and Activity and a local middle school. It is important, if we read scholarship such as this for applicability to Tech Year, to remember that the sites are more voluntary than compulsory, and that as out-of-school time sites, they are far less beholden to standards and outcomes anxiety than are full-time school-like settings such as Tech Year.

For Hull and Nelson, digital storytelling is an example of multimodality, a new text form that "can afford not just a new way to make meaning, but a different kind of meaning" (p. 225). Hull and Nelson aim, as their title says, to locate the particular semiotic potential and power of digital stories. The bulk of the piece is a close reading of one digital story, with simultaneous aims to articulate a method for analyzing multimodal

texts that does more than study each mode (image, voice, music) in isolation, and to apply that model to one digital story that was pre-selected as 'powerful.' Hull and Nelson's project in this article feels New Critical—their analysis proceeds to assess the power and meaning of various authorial decisions, without, oddly, giving any explanation from the author, Randy, about his intentions with the piece. But Hull and Nelson's claim is less about Randy than it is about multimodal composing and its potential.

Many academics in the field of education and, perhaps even to a greater degree, in English studies, are well acquainted with the New London group and their manifesto on multiliteracies (Cope & Kalantzis, 2000). Teachers and researchers at the college level have found their notions of literacy and writing expanded in exciting directions by a definition of writing that sees words as one of many semiotic tools for meaning-making. But multimodality was rarely spoken about at Tech Year. In the simplest terms, the teachers did not have the luxury of addressing multimodality when there was such a short time to prepare students who would need, in the most pressing manner, the dominant literacies of print and oral language to succeed at their apprenticeships. When digital storytelling was framed in terms of literacy, it was only in terms of dominant literacies, such as how the script drafting and revision would improve the students' writing, and how recording the script was practice in public speaking. The multimodal aspects of the process were framed as software and hardware skills training, as well as the dazzle that would attract young people to pay more attention to the important yet somewhat dull work of reading, writing, and public speaking.

Alan Davis' framing of digital storytelling is more in line with Tech Year's than is Hull and Nelson's. Davis advances the "dazzle argument"—digital materials, he says,

attract young people and keep their attention focused on telling and refining their personal stories. This attention to finding a believable narrative for an aspect of one's life, combined with video's ability to 'fix' this narrative for further reflection and eventual internalization, says Davis, makes digital storytelling a powerful tool for helping youth to develop their identities. Davis situates his research among theorists of personal narrative like Jerome Bruner (2003) and Michael White and David Epston (1990), who, along with Gary Kenyon and William Randall (1997), are well known representatives of narrative psychology. All either explore the ways that humans organize their experiences through narrative or how narrative can be used in psychological therapy. Davis' analysis is almost entirely focused on several students' scripts and revisions, with no attention paid to how images or sound play into the process. He argues that the redrafting required by digital storytelling, as well as the way the final product is fixed in time, makes the digital story a possible "developmental tool":

> We hypothesized that the production of digital stories, through a process involving critical reflection and the externalization of personal narrative in the form of an artistic artifact, would serve as a symbolic resource or 'tool' (drawing on Vygotsky's concept) for the youth. […] We believed that the formal and repeated articulation of those changes might provide youth with a more stable, 'crystallized' account that they could draw upon to bring a higher degree of reality or affirmation to the assertion of change portrayed in their story. (paragraph 19)

Hull and Katz's article, published a year after Hull's coauthored piece on Randy's digital story, revisits Randy and his story, this time supplementing textual analysis with interview data. The article also adds a second case study on Dara, a 13-year-old girl who, like Randy, frequents DUSTY. This article, like Davis', looks for a theoretical framework that helps to account for the potential of digital storytelling to help people, and particularly young people, develop a richer, more "agentive" sense of self. Rather than

use Vygotsky and the concept of narrative as a mediational tool, Hull and Katz build a hybrid framework around the concept of personal agency. This framework has four main components. First is research on the dynamic and social nature of narrative, particularly that of Miller (1994), who looks at the ways that narratives are told around, about, and with young children. This storytelling, Miller says, is key in the creation of selves. And because storytelling happens in multiple contexts, narrative offers much potential for the reworking and revision of the self. A second component of Hull and Katz's hybrid framework is Jerome Bruner's (1994) concept of "turning points," and "turning-point narratives," stories that articulate key moments of "internal awakening and agentive activity" (G. A. Hull & Katz, 2006) in a person's life. Knowing these turning point narratives and having them committed to some tangible form are essential parts of how a person understands their own life and their agency in it. Digital stories lend themselves well to articulating such turning-point narratives. A third part of Hull and Katz's framework is Bakhtin's (1981) metaphor of voice, particularly the idea that coming to an internally persuasive discourse, or a convincing notion of one's own self, is a matter of trying on and appropriating the voices of others. Because digital storytellers can appropriate mainstream images (copyright issues aside)—particularly iconic images, such as the World Trade Center towers afire, or photos of famous people—digital storytellers have an ability to align themselves with powerful cultural moments and agents. The final component of Hull and Katz's theoretical framework is research on performance, particularly Urciuoli's (1995) studies of the ways that different sign systems, such as music, dance, ritual and sport, can offer public and social moments of self-enactment. The work of Bauman and Briggs (1990) on the potential of verbal performance to

critically comment on social life is repeatedly cited in the article as that which unites these four theoretical strands.

A large portion of Hull and Katz's article is devoted to teasing out the ways that the two case study youth, Randy and Dara, were able to "[…] assume agentive stances toward their present identities, circumstances, and futures" (p. 40) through the process of making digital stories. Hull and Katz's theoretical framework is richer than Davis' in that it looks at not just the written script as a source of self-making, but also the digital materials (photos and music) and, importantly, the social environment in which the stories were created—the drop-in community center called DUSTY. Both Randy and Dara are familiar faces—leaders and experts—at DUSTY, and Hull and Katz connect their activity in this context to their developing, agentive selves. Dara, an unremarkable student in her school-day life, thrives in the after-school context of DUSTY. Randy, a life-long writer who felt his self-sponsored writing was rarely valued in school, finds in DUSTY's digital storytelling programs a way to make use of his skills as a poet and storyteller.

All three of these substantive studies locate the benefits of digital storytelling in a similar place—the process—because it encourages young people to articulate a true and internally persuasive personal narrative and has great potential to help them develop a sense of self and of personal agency. It is in the telling of the story that most of the value is found—the moment of composition is highlighted more than any moments of use. And finally, likely because these stories were all made in centers where digital storytelling was an established, supported part of the organizational mission, there is no mention of the organizational changes and difficulties that can arise in settings like Tech Year, where

digital storytelling is novel, requiring the organization to adopt new tools and new practices.

Digital Storytelling Utilities Beyond the Classroom and Beyond the Individual

While the success stories told in the three articles described above may motivate those who are considering implementing digital storytelling as a classroom project, they do not help potential implementers to anticipate the full scope of what might happen—good and bad—during the rollout of a digital storytelling implementation in an organization like Tech Year, which is both new to digital storytelling and imagines a wide range of personal and organizational utilities for the practice and the stories. To take clear stock of the organizational utility of digital storytelling at Tech Year, that is, we have to be able to account for costs and benefits that stretch beyond those associated with individual students who are able to complete digital stories.

Although Madeline Davis, the head writing instructor at Tech Year, conceived of digital storytelling as a classroom project with pedagogical ends, the multimedia nature of the digital stories quickly caught the eye of a number of the Tech Year staff, particularly those in development, marketing, and executive positions. These staffers saw the potential of digital stories to hone the Tech Year story, and to circulate that narrative both internally and externally. From the start of the implementation efforts, then, the staff had a number of non-pedagogical utilities in mind for digital storytelling, including playing the stories at Tech Year festivities and fundraising events, and embedding them in the electronic versions of the employee handbook and the Tech Year newsletter.

Tech Year is a pretty irresistible bundle to external funders—it is managed by a savvy businessman, meets a market need, and does social good—and the organization

does indeed pull in a lot of money from corporate and philanthropic donors. The Executive Director of Tech Year, Cooper McCormack, explained their target funding model, which is what he calls a "four-one-one" model, where Tech Year tries to match every private philanthropic dollar with one government dollar and four corporate dollars. Many of the corporate dollars come from the money paid for apprenticeship students, and the government money is in the form of fairly predictable grants, but for the private philanthropic dollars, Tech Year needs marketing. Tech Year has to give potential donors a sense of their mission and their culture, which they do via an organizational video, PowerPoint presentations, brochures, and other standard corporate communication forms. But these materials, like most corporate communication, cannot sustain a complex or nuanced narrative. Although digital stories are short—just two to five minutes—they are based on one to two pages of text, more than PowerPoint slides and slim brochure pages can accommodate. And although the stories rarely take much advantage of the fancy compositional possibilities of multimodal texts, they do pull in photos from life outside of Tech Year and they contain the actual, human voices of Tech Year. As the Executive Director of Tech Year said of digital stories, "it's an important function for us, to be able to get student voices portable." Finally, the centrality of a traditional narrative arc in digital stories, with a beginning, middle and end, as well as a suspenseful conflict and resolution, can win hearts in a way that glossy corporate communication cannot.

While fundraising and marketing were obvious uses for digital stories, many of those at Tech Year recognized a second, non-pedagogical use for the stories, that of solidifying the internal narrative at Tech Year. This narrative consists of the stories that frame staff and students' understandings of their relationship to the organization.

Organizational narratives, as Faber (2002) discusses them in *Community action and organizational change: Image, narrative, identity*, are key to the identities of both organizations and the people within them. The narratives of an organization, the familiar stories of its leaders, its workers, its clients, its formative events, and its important occasions are key to the formation of a discourse within which organizational members interpret their experiences and construct an identity (p. 32). Faber's book is largely about how corporate communications and internal texts create *problems* within organizations—a massage school's low student morale, or a graveyard's image as private and foreboding rather than public and welcoming. Nonetheless, his theoretical framework suggests that digital stories could further refine and strengthen the largely functional discourse at Tech Year.

The research literature around digital storytelling has little to say about these marketing and image-building possibilities of the form. Lambert's (2002) book, however, contains a short conversation with "Next Exit" artist and fellow digital storytelling founder Dana Atchley, called "Emotional Branding." In this interview, Atchley speaks about the corporate storytelling consulting he has done with companies such as Coca Cola and PriceWaterhouse Coopers, which hired him to help executives become better storytellers. Atchley describes some of this work, which aims to shift executives and other employees away from the habit of presenting and into the more compelling practice of storytelling. He also suggests that storytelling can allow stories from employees and consumers to "trickle up" (p. 167) and become part of a product's brand. This idea that storytelling, not necessarily digital, has utility in business settings has gained popularity through the work of Denning (2004; 2007).

There is also some published research on public oral history projects that use digital storytelling to capture and share stories, which is helpful for theorizing the community-building possibilities of digital storytelling. Klaebe and Foth (2003) have described urban community development efforts in Australia that use digital storytelling, and Marcuss' (2003) short article documents several of the community-building possibilities of digital storytelling.

Project Overview and Dissertation Outline

The primary aim of this dissertation is to provide a detailed case study of one organization's attempts to put digital storytelling to use. As I describe Tech Year's experience with digital storytelling over time, I will focus on the first research question described above, which again is: Which of the many possible uses of digital storytelling are explored at Tech Year, and what successes and difficulties arise in the process of piloting these uses? Besides this case study aim, my project also has a theoretical aim: I began the study looking for a theory that might help to clarify the dynamics I would observe at Tech Year and that might help to direct their implementation decisions and efforts. This aim is reflected in my second research question: With the help of a well-theorized reflective tool, is it possible, during the implementation process, to assess the sustainability of digital storytelling at Tech Year? I began the study wanting, that is, not just a post mortem or glory story about digital storytelling at Tech Year, but rather to develop a sense of what well-theorized analytical tool(s) might be used by Tech Year and other digital storytelling implementers to cut through the mass of possibilities and results that continually happen during the implementation of a multi-purposed practice like digital storytelling. With such an analytical tool, implementers could make informed

decisions about which possibilities to pursue, how to interpret pilot projects, and how to move the new practice toward sustainability.

As I described earlier in this chapter, North American genre theory seemed from the start to offer a promising possible analytical tool, because it has been used by researchers to toggle between questions of organizational and individual practice and it focuses on writing, texts, and textual practices. Chapter 2 surveys a number of theories that provide models for how multi-purposed innovations like digital storytelling achieve a focused organizational utility over time, and also examines whether these theories offer any reflective/analytical tools for evaluating an ongoing implementation effort. Chapter 3 outlines my project methodology, describing the ways that I organized my data collection and analysis so as to simultaneously pursue my dual aims of telling the case story of Tech Year's implementation and searching for a theoretical tool that might be used to assess and direct that implementation.

Chapters 4 and 5 are the analysis chapters of this dissertation. Chapter 4 presents the Tech Year case, first drawing a model for Tech Year's progress over my 15 months of site research and then evaluating times during that period to address four key questions, which are sub-questions of my primary research question: 1) What implementation progress was made with digital storytelling as it had been initially locally defined—as a way to teach students writing? 2) What other definitions of digital storytelling surfaced, including possible utilities for it and possible production alternatives to the intensive small workshop? 3) What notable problems and difficulties surfaced? 4) What key successes connected to digital storytelling, individual and organizational, happened? Chapter 5 rereads the case study data with the help of North

American genre theory and the related unit of analysis that I suggest may be helpful to implementers who seek to roll out sustainable implementations—the genre stabilization.

CHAPTER 2

THE ADOPTION AND IMPLEMENTATION OF INNOVATIONS

Introduction

The question of if and how new ideas, practices, and technologies are integrated into social systems has long intrigued researchers in many different disciplines. Sociologists, anthropologists, and scholars of management, public policy, psychology, education, public health, and the rhetoric of science have all contributed to the massive body of research on the adoption and implementation of innovations.[1]

Most of this research, however, is in varying ways not quite on-target for my specific project at Tech Year. First, adoption and implementation research typically considers innovations as constant, coherent entities matched with one main utility. Much adoption/implementation research is traced back to Ryan and Gross' classic 1943 study on the spread of hybrid seed corn among Iowa farmers, and since then, studies have tended to look at well-defined technologies and products—from cell phones to Hush Puppies shoes—with attention to whether and how these technologies and products catch on. One of the key attributes of digital storytelling is its multiple utilities, and my project was concerned with what, if any, uses Tech Year would put the innovation to, rather than with the more general questions of whether and how quickly digital storytelling would take root. Second, much adoption/implementation research looks at the spread of innovations through a large social system, such as a profession or a culture, making both the aperture of the research lens and the scope of these projects wider than that of my Tech Year study. Adoption and implementation research is often a large-scale affair, requiring long research periods (ten or twenty years), a large research team, and, in some

cases, such as social networking research, the use of quantitative number crunching and mapping software. As a solo researcher with approximately a year to devote to data collection, I needed to frame my study within these constraints, and thus the methods of much adoption and implementation research, such as retrospective survey interviews, were not feasible. Finally, while adoption and implementation researchers typically share with me a common goal—to figure out how to predict and maximize the spread of useful innovations—many of the factors these researchers have identified as relevant to the speed and success of adoption and implementation efforts were outside the scope of my project. For example, determining the "innovativeness" of individuals and organizations and fitting them into categories, such as innovators, early adopters, and laggards, has been an important pursuit of adoption/implementation research (Rogers, 2003, p. 282). But doing such a categorization at Tech Year would require an ethnographic immersion that was infeasible for me.

In short, from among the wide array of adoption and implementation research, I made a first pass to isolate those theories that might have something to say about how innovations spread in organizations, leading me to diffusion research (Rogers, 2003; Ryan & Gross, 1943), social network theory (L. Freedman, 2004; Wellman & Berkowitz, 1988; H. C. White, 2008), actor-network theory (Callon, 1986; Latour, 1987; Latour, 1996; Latour, 2005), implementation and implementation evaluation (Chen, 1990; Patton, 1997; Pressman & Wildavsky, 1984), information ecologies theory (Nardi & O'Day, 1999), communities of practice theory (Wenger, 1998; Wenger, McDermott, & Snyder, 2002), developmental work research/activity theory (Engestrom, 1987; Engeström, Miettinen, & Punamäki-Gitai, 1999; Spinuzzi, 2003; Vygotsky & Cole, 1978; Yamagata-

Lynch, 2003), and genre theory (Bakhtin, 1981; Coe, Lingard, & Teslenko, 2002; A. Freedman & Medway, 1994; C. R. Miller, 1984; Schryer, 1993). Next, I further narrowed my literature review by asking the following two questions, which helped me to discern whether the theory under consideration would help me with my two primary research questions:

1) Does this theory provide a model for how multi-purposed innovations achieve a focused utility over time?

2) Does this theory offer any reflective/analytical tools for evaluating the sustainability of an innovation during an ongoing implementation?

The theories that seemed particularly promising with regard to one or both of these questions are reviewed in this chapter. They include diffusion theory, actor-network theory, activity theory, and genre theory.

Diffusion Theory

The most clearly articulated model of the adoption and implementation of innovations comes from a multidisciplinary research tradition known as diffusion research. The term "diffusion" is defined by Everett Rogers as "the process in which an innovation is communicated through certain channels over time among the members of a social system" (2003). In this definition are listed all of the main factors that adherents to the diffusion tradition believe affect the adoption and implementation process: qualities related to the *innovation*, the *communication channels* through which messages about the innovation move, *time*, and the characteristics of the *social system* that is doing the adopting and implementing. Diffusion research aspires to a universal reach; diffusion researchers typically aim to articulate a general process of adoption and implementation

that applies to all innovations, a theory that applies to both bounded organizations and to larger social systems, such as geographic regions and cultures.

Diffusion research took hold in the 1940s and 50s with the work of the rural sociologists. These sociologists were primarily employed in agricultural schools at land-grant universities whose research investigated if and how the farming innovations developed through agricultural research spread among farmers. The canonical rural sociology study, which established the research design and basic model of innovation diffusion used by many future diffusion researchers, was Ryan and Gross' 1943 study of the spread among Iowa farmers of hybrid seed corn developed at Iowa State University. Funded by agricultural school administrators, the researchers' study aimed to explore the reasons for the successful diffusion of "rational technique[s]" (1943) like hybrid seed corn. In other words, planting hybrid corn made rational, economic sense—the seed yielded more corn, was more drought-resistant, and was more suited to mechanical harvesting than traditional seed—but not all sound economic practices spread so rapidly. Ryan and Gross set out to explore both the process by which the corn seed was diffused and the factors, particularly social, that led to its success.

The data analysis done by Ryan and Gross yielded several findings that are still at the core of diffusion research. First, the researchers made the claim that there are two distinct parts of the diffusion process—the spread of knowledge about an innovation and the spread of "conviction" about it. This was the first articulation within diffusion theory of a staged process of adoption and implementation, paving the way for later, more elaborate theories of the process and its stages. A second key finding of Ryan and Gross was that the rate of innovation adoption followed an S-curve distribution, rather than a

normal distribution, or bell curve. Figure 2.1 reproduces Ryan and Gross' findings, where the rate of adoption over time is shown to proceed in an "S" shape. Moving from left to right: for the first few years, adoption of an innovation proceeds slowly, as shown by the lower curve of the S-shape. Between 1927 and 1933, only 25 farmers adopted the new corn seed. But around 1933 the rate dramatically increased, forming the main slope of the "S." In the next six years, between 1933 and 1939, 214 farmers adopted the new seed. After this burst of adoption, the rate of diffusion again slowed, as shown by the gently sloped top of the S-curve.

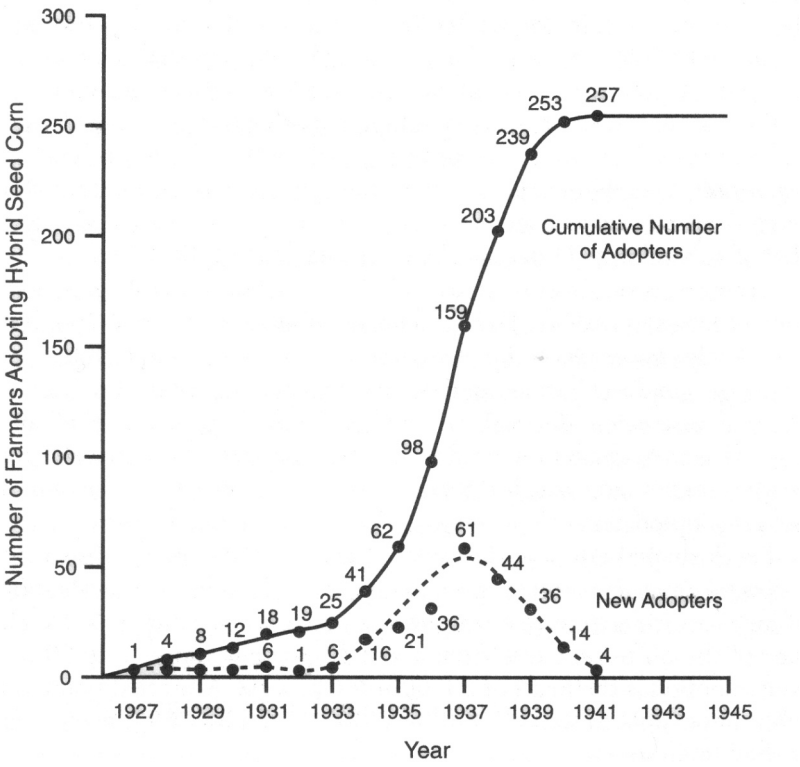

Figure 2.1. **Ryan & Gross' (1943) S-curve adoption rate findings.**
From *Diffusion of Innovations*, by E. Rogers, p. 273.

While Ryan and Gross were tentative about this finding's universality, later diffusion scholars found the S-curve often repeated.

About a decade after Ryan and Gross' study was published, there was an explosion of diffusion research in rural sociology, and then other fields, such as communication, marketing and management, public health, and education also began to produce studies on the diffusion of innovations. The classic, comprehensive volume on innovation diffusion is Everett Rogers' *Diffusion of Innovations*, first published in 1962 and now in its fifth edition. Rogers' academic career, which began in rural sociology and moved to communication, has been devoted to proving his early intuition that diffusion was a "general process, not bound by the type of innovation studied, who the adopters were, or by place or culture"(2003).

While Ryan and Gross' findings, like much diffusion research, are interesting yet not immediately relevant to my Tech Year study, Rogers' work offers potential utility for my study in two ways: first, he presents a model for how multi-purposed innovations are integrated into organizations; and, second, he elaborates a list of innovation-related attributes that connect to the rate of diffusion, which might be used as a heuristic to evaluate digital storytelling's evolving fit at Tech Year.

As described above, the notion that the diffusion process consists of different stages began with Ryan and Gross' separation of diffusion into the knowledge-gathering and decision-making stages. Rogers developed a more thorough model for the individual decision to adopt an innovation, articulating five stages: knowledge, persuasion, decision, implementation and confirmation. While this five-stage model has appeared in all editions of Rogers' classic book, not until the 1995 edition did a model for innovation in *organizations* appear. This development makes sense in terms of the history of diffusion research: decisions about hybrid seed corn, for example, were made by individual

farmers. But when other disciplines got involved in researching diffusion, particularly education researchers, it was clear that in many cases an organization needed to adopt an innovation before an individual could do so.

Keeping in mind some basic characteristics of organizational contexts—that they are characterized by predetermined goals, prescribed roles, an authority structure, rules and regulations and informal patterns (Rogers, 2003)—Rogers devised the organizational innovation process portrayed in Figure 2.2.

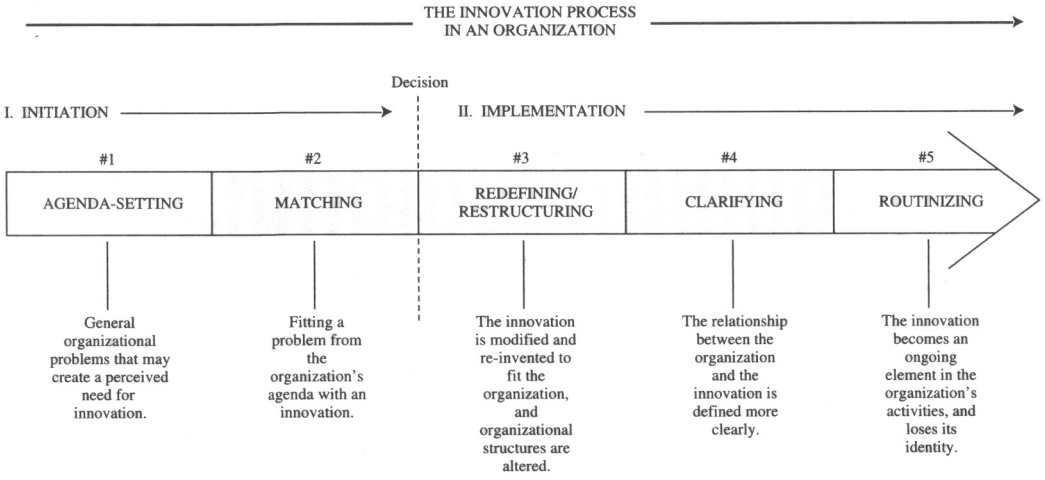

Figure 2.2. **Rogers' model of the innovation process in organizations.**
From *Diffusion of Innovations*, by E. Rogers, p. 421.

This process consists of two main phases, indicated at the top of the model in Figure 2.2: the initiation period, during which an organization senses a need for an innovation and gains information about a specific innovation(s) that might improve their organizational activity; and the implementation period, the time after an adoption decision is made, during which the innovation is put to use. The initiation period is primarily a planning period, while the implementation period involves iterative movement between trials with the innovation and steps to assess and routinize its best use.

While it was unclear at the start of my project if any of this model would apply at Tech Year, it seemed a promising way to frame my case study, mainly because the model emphasizes the high level of redefinition and restructuring that happens in organizational innovation efforts. Rogers names a stage "redefining/restructuring" and notes that both the organization and the innovation mutually adapt—this shifting was predictive of what I hoped to trace at Tech Year. Rogers also gives occasional attention in his diffusion book to the concept of "re-invention," the process by which adopters modify an innovation during adoption. "An innovation," says Rogers, "is not necessarily a fixed entity as it diffuses through a social system" (p. 181). Because his concerns are mainly with questions of whether and how quickly innovations are adopted, Rogers most often frames re-invention in terms of how it affects the fate and speed of implementation projects. He says that generally, reinvention speeds adoption and increases the chance of a positive adoption decision. But he also links re-invention to the innovation's potential sustainability, noting that innovations that can be re-invented are more likely to be sustainable over the long term. So again, having a model that both accounts for the ability of an innovation like digital storytelling to be adapted and reinvented, and which connects that ability to sustainability, made Rogers' model an appealing one for possibly framing my case study of Tech Year.

A second theoretical need that I had for this study was for some sort of analytical tool that would help me evaluate the sustainability of digital storytelling at Tech Year. The tool that has promise in Rogers' work is his list of the five "perceived attributes" of an innovation that play a role in an innovation's adoption fate. These attributes, which are subjective, or "perceived" by those considering the innovation, include its relative

advantage, compatibility, complexity, trialability, and observability. While Rogers does not rule out the possibility of other perceived attributes that might influence implementation, these five, he says, represent a range that is comprehensive, economical, and supported by most adoption and implementation research.

By relative advantage, Rogers means "the degree to which an innovation is perceived as being better than the idea it supersedes" (p. 15). These advantages might include increased economic profit and social prestige, decreased discomfort, and/or saved time and effort. Innovations with a low initial cost and a swift immediacy of reward are also typically perceived as relatively advantageous. Compatibility is "the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters" (p. 15). Complexity is "the degree to which an innovation is perceived as difficult to understand and use" (p. 16). Trialability Rogers describes as "the degree to which an innovation may be experimented with on a limited basis" (p. 16). Those innovations that must be adopted wholesale have a higher degree of uncertainty and thus are less likely to be adopted than those that can be tried and evaluated on a partial basis. And finally, observability is "the degree to which the results of an innovation are visible to others" (p. 16). Those innovations that have openly visible results tend to diffuse more rapidly than those that generate results that are not easy to see.

Rogers suggests that these innovation-related factors can help us to predict at the start of an adoption/implementation effort what sorts of innovations are predisposed to be adopted: namely those that are perceived as having greater relative advantage, compatibility, trialability, and observability, and less complexity. However, I wondered if

this list, when considered in tandem with the concept of re-invention, might have potential to work as a heuristic in my study. I could step back at various points during Tech Year's implementation and evaluate a particular use of digital storytelling—its use as a classroom teaching project, or as a way to hone the Tech Year narrative, or as a marketing tool—and try to project implementation success and possibly sustainability based on that use's relative advantage, compatibility, complexity, trialability, and observability. This assessment could be practically accomplished by shaping the perceived qualities into research questions to ask around a particular use of digital storytelling. Consider, for example, the case of using digital storytelling as a writing classroom project. Table 2.1 shows a set of questions derived from the five perceived qualities that I could ask and which should shed some light on a possible use's likelihood of implementation and sustainability.

Table 2.1. **Translating Rogers' 5 perceived qualities of an innovation into a research question heuristic.**

Perceived Quality	**Research Question**
Relative advantage	Do stakeholders at Tech Year believe digital storytelling offers a relative advantage over other pedagogical tactics and textual forms in terms of the profit, prestige, cost-savings, a savings of time and/or effort it offers? Do they perceive it as having a low initial cost and a quick payoff?
Compatibility	Do they see the practice as compatible with organizational norms and value systems, existing ideas, and their organizational needs?
Complexity	Do they perceive the associated technologies and processes as easy to use?
Trialability	Do opportunities arise for the organization to try the technologies and practice on a limited, pilot basis?
Observability	Are the results of these trials easy for others to see?

A number of writing and education researchers have in fact used or advocated the use of Rogers' perceived attributes in structuring educational initiatives or technology adoption. Vanderslice (2000) suggests that WAC pedagogy might be diffused in universities with attention to Rogers' five characteristics. WAC representatives could evaluate their own WAC initiatives to see in each case whether disciplinary faculty are likely to see the initiative as offering a relative advantage, compatible with their existing courses, available on a partial basis, not overly complex, and offering visible results. Rogers' framework, says Vanderslice, "offers a solid, replicable framework for the process of moving an innovation through a social system over time" (p. 23) and might be used as a heuristic to refine new WAC initiatives. Inman (2000) suggests that a pre-release online writing lab might be crafted around Rogers' five qualities. Inman's idea of designing a prototype around the five attributes, with the collaboration of stakeholders, is an example of one use Rogers suggests for these attributes: they can help a team explore how acceptable an innovation will be during its pre-diffusion stages (p. 227).

Neither Vanderslice's nor Inman's study gets into the nuts and bolts of how to translate the perceived qualities into a research tool, but Table 2.1 offers a feasible possibility. The important question with regard to an organizational innovation, however, is not how to turn these criteria into a heuristic or tool but rather *whose perceptions matter*. Measuring adopter perceptions when the individual is the unit of adoption is straightforward—individuals with positive perceptions of an innovation would be more likely to adopt it than individuals with negative perceptions. Rogers only briefly addresses the question of whose perceptions matter in organizational adoption and implementation efforts, citing one study on the implementation of a health campaign by

the March of Dimes (Goldman, 1994). The study's author designated each local March of Dimes chapter as the unit of adoption, and relied on reports of perceived attributes of the campaign by each chapter's director to make its conclusions. The implication that leaders in the organizational hierarchy make adoption decisions seemed too simplistic for my purposes.

In conclusion, diffusion theory, while little known in composition and rhetoric, offered some compelling possibilities for my study. Rogers' model for the innovation process in organizations, which both provides a staged model for the adoption and implementation of an innovation in an organization and highlights the possibility for redefinition/restructuring, seemed a tempting way to frame my case study narrative. And Rogers' list of the five perceived qualities of an innovation could perhaps be used as a heuristic to evaluate and compare different uses of digital storytelling that were tried over time at Tech Year.

Actor-Network Theory

While diffusion theory makes mention of the possibility of reinvention during an innovation's diffusion, actor-network theory (ANT) takes an innovation's indeterminate nature as its starting point. More than any of the theories discussed in this chapter, ANT can orient a researcher toward the multiple possibilities for an innovation, reminding her to always be ready and looking for new uses.

Actor-network theory was developed by sociologists and historians of science and technology in the 1980s as a challenge to the prevailing model for describing the social dynamic. This prevailing model posed a preexisting and predetermined context (we'll call it Context) into which a fully formed new technology was dropped. This Context, which

might include the attitudes, social patterns, and economic realities of the organization or society where the new technology was introduced, would either welcome or repel the new technology, and telling the story of the new technology was a matter of isolating which contextual factors were most influential in the ultimate fate of the technology. In this formulation, the atom bomb might be said to have succeeded primarily because of political realities, or the telegraph to have failed because of the money put behind the telephone. ANT theorists, however, who noticed that the atom bomb and telegraph were *developing* technologies, whose structure and fate emerged over time and reciprocally with many different factors, themselves also shifting, were unsatisfied with this formulation of social reality. They set about articulating and conducting studies of new technologies based on ANT's key assertion: "a technological project is not *in* context, it gives itself a context" (Latour, 1996, p. 133). Said another way, "the innovation process should be studied as a simultaneous development of an artifact and a network of actors connected to it" (Miettinen, 1999, p. 170).

This important conceptual distinction can provide an implementation researcher with a solid metaphor for emergent reality: the viability of an innovation, says ANT, is a matter of a set of key actors, both human and nonhuman, forming a viable "social aggregate" (Latour, 1996, p. 42), or network, over time. If this network is of sufficient size, strength, and unity, the network becomes a reality and the new technology will, for as long as the network holds up, stick. Thus, when considering the first question by which I evaluated possible theories for framing this project—Does this theory provide a model for how a multi-purposed innovation achieves a focused utility over time?—the answer with ANT is yes. ANT proposes that an innovation's ultimate use is a matter of what

Latour calls "fact-builders," or people with power, constructing a viable network around a primary definition of that technology.

The distinction between Context and an emerging network might be explained by way of a famous ANT example, that of Callon's (1986) scallops. Callon describes how three French scientists made reality of an experimental plan to replenish the dwindling scallop population in France's St. Brieuc Bay through the introduction of a new Japanese method of scallop harvesting. In describing this specific innovation, Callon names four key actors—the researchers, the scallops, the fishermen, and scientific colleagues—and a gradual process through which these key actors coalesced into a viable network. The success of the researchers' project was a deeply rhetorical process, Callon argues, which required that the researchers define roles for all of the relevant actors and do their best to make all the actors accept these roles. If any part of this emerging network, human or nonhuman, could not be wrestled into the network, the project would fail to become a reality. Importantly, Callon opens his famous article by describing the ensuing analysis as "a new approach to the study of power" (p. 196), and his emphasis on the deliberate and willful establishment of a network, or how the three scientists made their vision a reality, is more extreme than that of a number of ANT theorists. What is consistent in ANT is the emergent and fragile nature of new technology.

ANT's simple beauty is to use qualitative research to "render the social world as flat as possible in order to ensure that the establishment of any new link is clearly visible" (Latour, 2005, p.16). Methodologically, the theory's famous maxim to "follow the actors" requires only that a researcher start interviewing actors obviously connected to an innovation's deployment and then progressively extend the network based on who and

what these initial interviewees identify as relevant. A case study like Latour's *Aramis* shows how ANT might help me to describe the multiple and shifting uses for digital storytelling over time at Tech Year. In *Aramis,* which tells the story of the ultimately failed efforts to implement a high-speed train in France, Latour toggles between description of the state of the innovation and interview and document excerpts that show how people are framing or undercutting various definitions of and utilities for the train. Having such a flexible method, and aiming to tell the story of digital storytelling in terms of what actors coalesced around each use of digital storytelling seemed an interesting and perhaps appropriate way to tell my case study story.

Ultimately, however, ANT is more "a program of methodological provocations" than an elaborated, practical methodology (Miettinen, 1999). Engeström, one of the key activity theorists that I will later discuss, critiques it for its "radical constructivism" (1987, p. 126), and in fact Latour's work frames adoption and implementation of innovations as rhetorical in the extreme. The failure of implementation is not a failure of the innovation to meet an organizational need; it is the failure of people within the organization to *persuade others* that the innovation can met an organizational need. Latour's writing also has the humor and lack of data-driven detail that marks those empirical studies that are really less interested in reporting specific findings than in arguing for a broader conceptual shift. In Latour's case, that shift is from a deterministic Context to an emergent reality, where both an innovation and its context are co-constituted.

The metaphor of an emergent network, besides possibly helping to shape the story of my case study, seemed also to offer some potential as an analytical tool. Turning ANT

concepts into a tangible tool, however, is a less straightforward process than using Rogers' five perceived qualities of an innovation to evaluate and compare various uses of an innovation. What might work would be to identify the actors that need to coalesce around a particular use of digital storytelling in order for that use to take hold, and to evaluate both whether these actors are fulfilling their roles and how and how well the fact-builders are creating a unified and coherent definition of the use. As an example, evaluating the classroom use of digital storytelling at Tech Year for its sustainability from an ANT framework would mean identifying those actors that must participate in the network—in this case, a good starting group of actors would be Madeline, the other writing instructors, the CEO and executive team, the students, the technical instructors, and the digital storytelling process. Sustainability would be a matter of the fact-builders creating a believable story about the usefulness of digital storytelling as a classroom project and getting others to believe that story, as well as getting everything nonhuman to cooperate (i.e., to not break).

Overall, ANT was intriguing, but seemed quite challenging to apply practically. It is much more often invoked as a guiding theory than it is used to shape a specific methodology.

Developmental Work Research

If actor-network theory is extreme in its rhetorical and calculated view of how innovations take shape, developmental work research is extreme in the other direction: it is grounded in a belief that earnest and thoughtful people, working together to consciously reform their work, can do so via developing and shaping workplace innovations.

Developmental work research is the name cultural-historical activity theorists have given the applied research that they do. Pioneered by Engeström (1987; 1990), developmental work researchers apply the tool-mediated developmental theories of Vygotsky (1978) and the Russian activity theorists to specific workplaces. They use the concepts of activity theory to describe dynamics around tool use at these sites, with the eventual aim of introducing more effective tools and restructuring work patterns. The developmental work researchers' use of theory to both map organizational dynamics and to conceptualize ways to change everyday behavior was something that I aspired to in my project.

Activity theory is grounded in the work of Vygotsky; particularly his ideas about how culturally created signs and tools mediate human consciousness. Vygotsky argues that human consciousness is not simply a matter of the brain responding to direct stimuli, but rather consciousness is constructed as an individual engages in goal-directed activity with conceptual and physical tools. This relationship is shown in Figure 2.3, where S stands for "stimuli," and R for "response." Rather than a straight, causal relationship—the common understanding in Vygotsky's behaviorist-inclined era—this dynamic is mediated by X, tools. Because these tools are socially created and owned, individual psychology is not isolated and biological (as stimulus-response theories imply), it is cultural. Furthermore, because culture and the mediating signs and tools it makes available change over time, historical development of a culture and the individual's potential development are deeply connected. It is for these reasons that the full name of activity theory is cultural-historical activity theory.

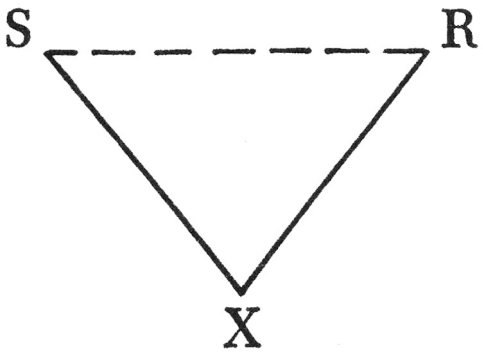

Figure 2.3. **Vygotsky's notion of mediated consciousness.**
From *Mind in Society*, L.S. Vygotsky, p. 40.

Vygotsky's work was also never purely theoretical: he was concerned with the practical question of how to better educate Russian children by creating new mediating tools. This practical strain of activity theory—its advocates' interest in not just diagnosing problems to clarify the status quo but in developing better tools to reform the fundamental structure of human activities—is its link to questions of innovations and their adoption and implementation.

The theory's practical turn, as well as a turn more toward applicability for researching organizational innovation, happened in the later part of the twentieth century with the work of the Finnish researcher Engeström. Engeström conceptualized the *activity system* and developed a visual heuristic to capture its key points, shown in Figure 2.4. The activity system triangle allows a researcher to map an activity at a complex research site, where the top triangle in Figure 2.4 indicates a person or people engaged in goal-directed, tool-mediated action (Vygotsky's triangle), and the bottom three elements—rules, community, and division of labor—indicate those factors that come to bear on the activity's function. This activity system triangle is what Engeström calls an "intermediate theoretical instrument," a heuristic that can be used to map the status of a

complex setting at key moments. Also key to Engeström's work was the idea of "contradictions," potential conflicts either between elements within a single activity system, between multiple activity systems at the same site, or between multiple activity systems that the subject is involved in.

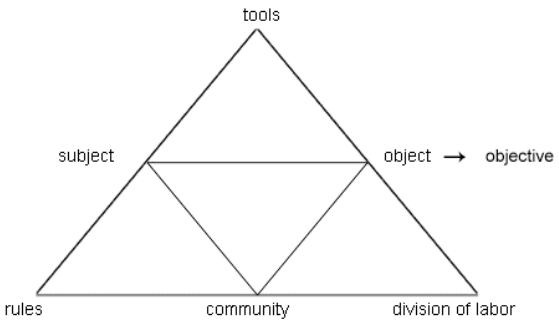

Figure 2.4. **Engeström's activity system triangle.**
Adapted from "Activity theory and individual and social transformation," Y. Engeström, R. Miettinen, & R.L. Punamäki-Gitai (1999), p. 31.

It was Engeström who dubbed applied research from an activity theory perspective "developmental work research." This research is a participatory process, where a team of researchers goes into a troubled workplace and investigates a dysfunctional activity. Typically, researchers trace problems in activities to contradictions made visible in breakdowns in the flow or functionality of a work process. Because of its developmental perspective, the researchers do not end with diagnosis: they help the workers to imagine new tools to better mediate the activity and restructure the activity, and actually make these tools. Then the research team follows the implementation of these new tools, paying particular attention to the move from externalization to internalization, the process in which the new tools are fully incorporated into individuals' work, restructuring the activity. Developmental work research is an impressive way for researchers to be active and helpful at a research

setting. Figure 2.5 portrays these stages of developmental work research (the terminology Engeström uses hints at the complexity of activity theory, which I will later address).

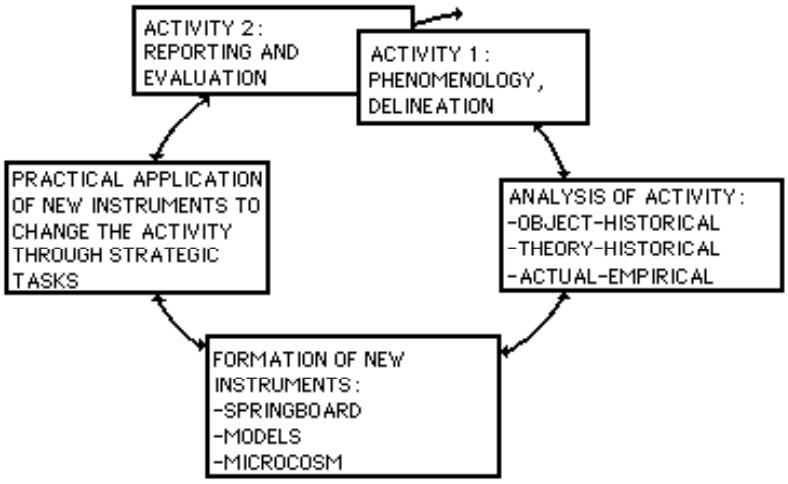

Figure 2.5. **The methodological cycle of expansive developmental research.** From *Learning by Expanding*, by Y. Engeström, p. 268.

Another useful model for the practical use of activity theory is Gay and Hembrooke's (2004) iterative design cycle, presented in Figure 2.6. Although based on the same theory and principles as Engeström's model, this schematic is cast in more familiar language. The authors, who argue in their book that activity theory is an appropriate basis for human-computer interaction (HCI) design, believe that activity theory offers a way for designers to develop computational tools that are appropriate to the contexts in which they will be used. This iterative cycle begins with the researcher examining current practices and activities and looking for tensions, controversies, and conflicts within and between activity systems. This observation spurs the initial design of the new tool, model, or metaphor, which is developed in the implementation stage. Next, the design team tests and evaluates their tool in the real context of its intended use (as opposed, for example, to conducting usability tests in a lab), and they evaluate whether this tool is successfully

mediating an activity and reducing tensions, controversies, and conflicts. As a result of this evaluation, the tool is reconceptualized, revised and redesigned, and once again cycled through the design, implementation, and evaluation stages. This work continues until the tool is truly useful.

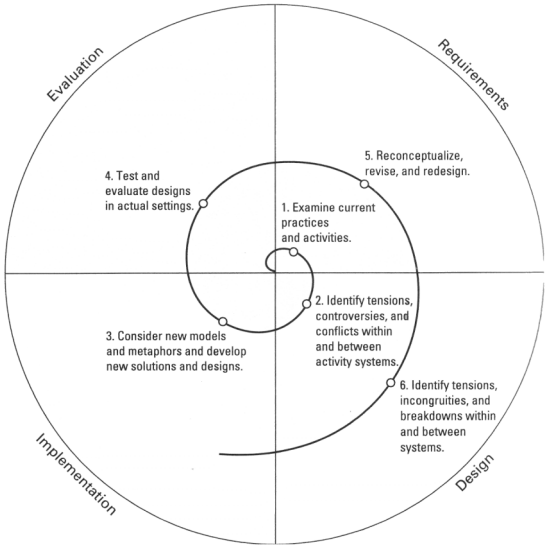

Figure 2.6. **An iterative design cycle, based on the principles of activity theory.**
From *Activity-Centered Design: An Ecological Approach to Designing Smart Tools and Usable Systems*, by G. Gay & H. Hembrook, p. 60.

Even though my work at Tech Year would not allow me to be so involved, and because one person is not enough to enact a developmental work research agenda, I still believed that activity theory might be helpful in providing a model for how a multi-purposed innovation achieves a focused utility over time. Both Engeström and Gay and Hembrooke's models suggest several possibilities for how an innovation achieves its utility. First, they propose that tensions and contradictions in everyday activities and practices invite workers to change the tools they use to mediate these activities and

practices. The success of a new innovation lies in its ability to overcome these contradictions and breakdowns. Finally, they suggest that a new tool must be constantly tweaked and revised over time if it is to achieve success as a mediating tool.

What activity theory ultimately offers is less a descriptive model, like Rogers' model of the innovation process in organizations, than an ideal scenario and prescriptive method for implementing new tools. Importantly, it is also is a theory that has been most often used to describe a process of developing new tools based on the needs of an individual workplace, rather than to describe the process of an innovation imported wholesale without a clear notion of its utility. It takes, then, some creativity to turn activity theory into a descriptive model appropriate to my project. Yamagata-Lynch's (2003) study of a set of high school teachers during a long process of professional technology development linked to a local university is one example of how activity theory can help make innovation's progress more transparent. Yamagata-Lynch does what she calls a "progressive presentation of activity systems" (p. 117) to analyze her data, mapping the activity of technology use at the high school with Engeström's activity system triangles before, during, shortly after, and one year after the teachers' professional development training. Yamagata-Lynch's modeling presents the stages of adoption and implementation not as generic and universal, like Rogers' model suggests, but rather defined by the co-development of a specific innovation and the activity it mediates over time at a local site. Sustainability of the innovation is achieved when contradictions within and between activities are resolved.

It seemed possible, albeit a bit difficult, to explore various uses of digital storytelling at Tech Year by mapping out each use onto the activity system triangle,

where digital storytelling is the tool that mediates a particular activity, such as teaching writing, or promoting Tech Year. Then, I could elaborate successes and difficulties by looking at the fit of digital storytelling with the existing rules, community and division of labor associated with that activity, as well as determine if and how the organization was moving toward a focused utility.

Despite the fact that an activity theory model of Tech Year's implementation process would not be very straightforward, the theory still appealed to me. One reason was because it emphasizes the role that reflective tools can play in an ongoing implementation effort, tools that Engeström calls "intermediate theoretical instruments." Intermediate theoretical instruments are conceptual tools, often visual, that are used by both the researcher and study participants "to break the direct imposition of hypothesis on the data, to provide for detachment and possibilities for alternative explanations" (Engeström, 1990, p. 93). The most famous example is Engeström's activity system triangle, but Engeström proposes other sorts of intermediate theoretical instruments, often very specific to a particular research project, such as a matrix for assessing doctor-patient meetings to classify the data from observations into a form more easily interpreted by activity theory (Engeström, 1990).

The work of Spinuzzi (2003), which draws heavily on activity theory to trace the effect of new information design systems in a workplace (the Iowa Department of Transportation) offers a very sophisticated set of ways that theoretical concepts might be turned into reflective tools with which to diagnose the fit of a tool with organizational activity. Spinuzzi argues for methodological rigor, suggesting that designers should hold themselves to high standards of "repeatability, reliability and validity of research

methods" (p. 23). Key to this rigor is the concept of integrating one's research scope. Spinuzzi here draws on another key aspect of activity theory, Leontev's (1978) three-tiered understanding of human activity. Leontev argued that to fully understand human and cultural activity and development, a researcher must document three levels of behavior: operations (technical and often unconscious behaviors used in the process of completing an action), actions (conscious, goal-directed tasks), and activity (the larger system in which participants are engaged that directs their actions). Spinuzzi says that likewise researchers who wish to understand the complexity of a workplace should examine three levels of activity theory—operations, actions and activities—"so that we can discern how they interact, how they co-constitute each other, and how innovations at any given level affect the other levels" (p. 27). Thus, he identifies research methods for collecting data at each of these levels: for example, longitudinal observations, document analysis, and retrospective interviews to learn about an activity; videotaping a tool-in-use in an activity to collect data about actions; and videotaping and think-aloud protocols to gather data that inform about the operational level of work. Then, Spinuzzi suggests data analysis methods that integrate these different levels of scope, such as activity system diagrams, videocoding databases, and contradiction, discoordination and breakdown (CDB) tables.

Spinuzzi's method is very sophisticated—in fact, in his discussion of the limitations of the methodology, he says that it is labor-intensive, data heavy, and requires trained researchers (p. 56). But with it he does a convincing reading of the complex effects that new tools have on multiple levels of workplace activity. Also attractive to me was that Spinuzzi is able to weave North American genre theory, which I will discuss in

the next section of this chapter, into his theoretical framework. As with digital storytelling, the workplace tools that Spinuzzi traces—methods used by the Iowa Department of Transportation to record traffic accidents, including a paper-based archive, a database, and a geographic-information system—are textual practices, and thus he is able to add an additional layer of insight to his analysis because the tool of focus can be conceptualized as a genre. He calls his methodology, in fact, "genre tracing." Although I knew from the start that Spinuzzi's method was too complex for me to deploy at Tech Year, his idea of conducting research at multiple levels of scope and analyzing this information through tables and diagrams, which might be used to assess implementation progress, was very appealing.

In summary, the work of activity theorists was particularly intriguing to me because of its primary focus on one socially constructed unit of analysis, the tool. As I will later argue about genres, tools are manageable units of analysis that are rich in social and historical implications. The concept of an activity system keeps a researcher focused on many elements of an implementation setting, and encourages the researcher to look at even small problems as potential indicators of deeper contradictions. It also helps the researcher by providing a vision of sustainability, where breakdowns, discoordinations, and contradictions are minimized and tools are functioning well.

There is, however, a steep learning curve to activity theory. Research from an activity theory perspective requires "a bold experimental attitude rather than the attitude of a casual observer and facilitator" (Engestrom, 1987, p. 11). In its true form, it requires implementers and researchers willing to take an interventionist approach to implementing a new tool, being willing to reshape it so that it better modifies an activity, or even

willing to abandon the implementation if it seems that the new tool puts too much stress on the activity with few benefits in outcome or with little resolution of contradictions. It is notable that activity theory has been most frequently taken up as a methodology in information design situations, where this strong role of the researcher/consultant is presumed. Besides its participatory requirements, a methodology grounded in activity theory can necessitate multiple researchers and sophisticated methods of data collection. Activity theory-centered studies, like those of Spinuzzi (2003) and Schryer et al. (2003) can require extensive data collection on multiple levels, including videotaping. And finally, the process of simplifying data to fit the activity system heuristic, while useful intellectual work, is time consuming and the resulting heuristic is difficult to explain to those unfamiliar with activity theory.

North American Genre Theory

North American genre theory, like activity theory, offers a richly theorized unit of analysis, the genre. It was in large part the work of Spinuzzi that suggested North American genre theory might be appropriate for my study, although I came to believe that genre theory would have less utility for my first task—telling the case study story—than for my second task—offering a reflective/analytical tool for evaluating an ongoing implementation.

Genre theory writ large falls into two broad categories: formal and rhetorical. While the formal theory of genre, which is generally used to group texts with similar formal features into sets for literary analysis, is more widely known, it is the rhetorical theory of genre that this study engages. In the 1980s, a group of textual scholars and rhetoricians, led by the work of Miller (1984), synthesized the formal theories of genre,

rhetorical theory, and social theories of human motive and action to redefine genres as "typified rhetorical actions based in recurrent situations" (C. R. Miller, 1994). A genre, in Miller's definition, is thus not simply a collection of texts with similar formal features, but rather a stable textual response that a community develops to respond to situations that recur. It is a text form that helps individuals and groups to accomplish social action deemed important to their group or organization.

A rhetorical theory of genre had a tremendous practical upshot, giving researchers a sensible way to conduct workplace writing research. Looking at genres, like the documents used by tax accountants (Devitt, 1991), the experimental article in science (Bazerman, 1988), or the assignment in the classroom (Russell, 1997; Russell & Yanez, 2003), teaches a researcher about the work processes, the epistemology, and the values of those who use the genre, as well as how these have changed over time. The theory can also help to explain the effect of new genres on work practices and vice versa (Faber, 2002; J. Yates & Orlikowski, 1992). The theoretical work of Bakhtin (1986) was later incorporated into genre theory, positing the unstable and dialogic nature of genres (Schryer, 1993), and recent research has considered the flexibility individuals have in their use of generic forms (Bawarshi, 2003; Schryer et al., 2003; Winsor, 2003). A text, looked at as part of a genre, is thus "[…] a cultural artifact […] a representation of reasoning and purposes characteristic of the culture" (C. R. Miller, 1994). As Paré (2002) elegantly summarizes, Miller's rhetorical notion of genre allowed theorists and researchers to "fuse text and context, product and process, cognition and culture in a single, dynamic concept" (p. 57). Since digital storytelling was a textual form, I believed that conceptualizing it as a genre might be particularly productive.

Ever since the social importance of generic forms was proposed, however, the primary qualitative research paradigm has been to study *entrenched* genres. That is, a researcher enters an organization, has members identify the genres important to their work, then, by combining close-reading techniques like Critical Discourse Analysis with ethnographic field methods to discover the ways genres are used, the researcher can explore organizational values and practices. Paré (2002) and Schryer (1993), for example, apply genre theory in this way. Both begin with the same problem—so-called 'writing problems' among the population they are studying—and both find that a primary source of these problems in organizational genres creating "regular patterns of discourse and action" (Paré, p. 62) that were problematic for the writers.

Studies of new writing practices struggling to fit in an organization and achieve generic status, such as this study, will obviously be more difficult to conduct than studies of entrenched genres, particularly if the researcher hopes to study an in-process implementation effort. A fair amount of lucky timing on the researcher's part is necessary to be on site during an implementation project. In fact, nearly all studies of new genres are after-the-fact and retrospective, such as Smart's (2003) examination of a new set of public relations documents developed to change the image of the Canadian national bank, or Yates' (1989) study of the development of the memo genre over 150 years in American business. Both studies look at stabilized sets of documents before and after a change, comparing the two and speculating on why they took their respective, finalized shapes. Those few studies of in-process textual initiatives, such as Doheny-Farina's (1992) tracing of the rhetorical shaping of a developing business plan, do not use genre theory as a frame.

Despite the fact that North American genre theory has generally been used to study stable textual forms rather than innovative ones, it still seemed a possible aid to conceptualizing adoption and innovation dynamics because, like activity theory, genre theory offers a conceptual nexus through which to simplify complex organizational dynamics. The challenge would be to take the concept of the genre, which has almost exclusively been used as a tool to study entrenched textual forms and the way they reinforce norms in organizations, into a tool that helps make sense of a somewhat defined, but flexible textual practice that organizational members are searching for a utility for. This shift requires also a move that Miller (2007) finds problematic in Spinuzzi's work: it is problems of a practice's fit and utility, rather than problems of a rhetor's "rhetorical production" (Miller, 2007), that are primarily focused on in the analysis. I will address these challenges further in Chapter 5.

The way that I propose to use genre theory to evaluate an implementation effort is to first pose a novel unit of analysis: the *genre stabilization*. During implementation efforts such as that at Tech Year, a new textual practice with broad appeal like digital storytelling will likely serve a number of functions as organizational members experiment with it in various pilot projects. In these periods of targeted experimentation, the new practice temporarily approximates genre status as it settles into a dialogic relationship with the context surrounding the social action it is being used to accomplish. By analyzing these genre stabilizations to see if and how the practice fits with or contradicts existing contexts, we can tease out the full range of social and material possibilities and problems associated with the possible use of the new textual practice. I call this analysis a *genre inventory*.

This genre approach frames adoption/implementation efforts as the process of shepherding a new practice into a position and/or a shape where it can function as an organizational genre—it has a consistent form, helps users negotiate recurrent social situations, and is in balance with the context around it. When implementation is thus conceived, I argue, genre theory offers a powerful way to assess particular pilot uses for their long-term sustainability.

Reflecting on the Theories

From the early parts of my study, activity theory and North American genre theory were the most attractive perspectives for my project, both because they are they fairly well known in composition and rhetoric and because they offer a richly theorized unit of analysis. Both theories also seemed as if they could help me forefront the organizational and individual change and development that accompany the adoption and implementation of an innovation.

But while I was confident that I could use North American genre or activity theory to step back and evaluate the ongoing implementation at Tech Year, I was less sure of how either of these theories would help me to shape a coherent case study story about Tech Year's various efforts with digital storytelling. Both activity theory and North American genre theory, along with actor-network theory, helped me to clarify my data collection methods, but they offered little in the way of a coherent model for how organizational implementations typically roll out over time. In the end, I decided to use Rogers' model of the innovation process (see Figure 2.2) to tell the story of Tech Year's implementation process. This story is told in Chapter 4.

For the reflective/analytical tool, I used North American genre theory to create what I call the genre inventory, as detailed in Chapter 5. Rogers' perceived attributes heuristic (Table 2.1) was another possibility. I will discuss my reasons for designing a tool based on North American genre theory over one based in diffusion theory in more detail in Chapter 5, but will summarize these reasons here. First, Rogers' list of key innovation attributes are fairly narrow and more apt for assessing innovations in profit-oriented business settings than in settings like Tech Year, where the organization's implementation goals are not connected so clearly to implementing innovations that help improve efficiency or profit. For example, Rogers defines an innovation's "relative advantage" as what the innovation offers in terms of economic profitability, social prestige, and savings of time and effort. At Tech Year, the relative advantage of digital storytelling was not assessed in these terms. One of the advantages of using Rogers' theory as a reflective tool is thus largely moot; although Rogers provides terms, these terms would need to be redefined to fit with implementation realities at Tech Year—a nonprofit, educational setting. Second, Rogers' tool is more useful for assessing *individuals'* adoption decisions; whether, for example, person A or B is likely to adopt the innovation based on their perceptions of that innovation. If data about perception is gathered from enough people, it can be used to frame, name, and position an innovation, according to Rogers. My interest lies more in finding a tool that can help implementers to simultaneously evaluate a range of social and material norms at their organization and the innovation's likelihood of bettering these norms.

Ultimately, Rogers' model, as with diffusion theory overall, is oriented toward the question: Will this innovation get implemented here? More developmental theories, like

activity theory and North American genre theory, are oriented toward questions like: What exactly are we doing here? Are the tools we're using appropriate to our ends? And finally, What is possible here?

Notes

1. I have chosen to use the somewhat clunky phrase "adoption and implementation of innovations" throughout this chapter after much consideration: while not a particularly lean or snappy phrase, it is comprehensive. Most scholars of innovation have identified two main components in the movement of an innovation into a social system: adoption, or the process that begins with learning about an innovation and ends in a decision to adopt or not adopt, and implementation, the process of putting the adopted innovation to use in an existing social system. Although the word adoption precedes implementation in this chapter, and although most researchers suggest that organizations move through a linear process of awareness → adoption → implementation, I will refrain from beginning with that assumption of linearity. It seems, that is, that in some cases adoption might also be a decision that is made *after* implementation efforts begin.

CHAPTER 3

METHODOLOGY

Overview

Framing the Research Questions

This project began with my curiosities about digital storytelling and its potential. In the year prior to my research at Tech Year I volunteered occasionally with Stories for Change, assisting with their train-the-trainer workshops. As I listened to participants in these workshops discuss the many utilities that digital storytelling could have back at their home organizations, I wondered: will these imagined utilities really come to pass? Can newly trained digital storytellers take digital storytelling back to the schools, health care centers, and community and cultural organizations that they represent and make use of the practice and the stories?

Turning this general curiosity into specific research questions was a process that began during my volunteering with SFC and continued through the early stages of my Tech Year research. For clarity's sake, the sequence of my evolving research questions, complete with the dates at which each set of questions was written, are included in Appendix A. But in general terms, the focusing of my research questions happened as follows. In October-December of 2005, when I was conducting my first formal research at SFC, documenting what happened at the two Spreading the Stories workshops, my intention was to explore how the success of digital storytelling implementation in organizations was connected to the ways that SFC ran their train-the-trainer workshops. My plan was to investigate the texts, techniques, and concepts used by SFC in the train-the-trainer workshops, and to see if there was a connection between these practices and

the successes and difficulties that Spreading the Stories trainees had after the training, as they worked to deploy digital storytelling at their home sites.

But in the two months after the second Spreading the Stories institute ended, several experiences caused me to shift both the scope of my research and the shape of my research questions. First, as I accompanied Amy Jacobs on her follow-up consulting visits to the newly trained organizations, I realized that it was infeasible to follow up with all or even most of these organizations, which were complex sites with very different ambitions and timelines for digital storytelling. I decided to narrow my scope to two organizations: Tech Year, which primarily intended to use digital storytelling as a classroom practice, and Get Well, a community health care organization that wanted to create and use stories for health care outreach. Second, my experience in January 2006 of collecting data at Tech Year's on-site train-the-trainer workshop, at which Amy Jacobs and Madeline Davis co-taught a group of six Tech Year instructors how to make digital stories, made me reconsider my initial location of digital storytelling success in SFC's training methods. This exposure to Tech Year and its staff made it clear that the way that newly trained organizations took up the practice would have a much bigger role in the fate of digital storytelling than would any handouts, methods or concepts imparted by SFC at their four-day workshop.

By mid-February of 2006, I had narrowed the study still further to use Tech Year as my sole research site. Seeing the range of Tech Year's ambitions with digital storytelling, the arc of their planned implementation (Madeline had written up a "Digital Storytelling Implementation Timeline," detailing milestones in a planned eight-month implementation period), shifted my interest to what became my core research aim: telling

the story of Tech Year's digital storytelling implementation process, with a particular focus on which of the many intended uses that the organization and individuals within it had for digital storytelling would actually come to pass. I hoped to frame this story in terms of a theory, and both genre theory and activity theory were from these early stages in the forefront of my thinking. Both theories helped me to focus on how a new practice could change to match organizational needs and how organizational practice could change in response to the introduction of an innovative tool. Genre theory was particularly appealing because it helped me to consider digital storytelling in light of its nature as a *textual* innovation.

The aim to document Tech Year's ongoing progress with digital storytelling stayed constant through my data collection period, but as I spent time at Tech Year and was increasingly exposed to discussions about how to make digital storytelling sustainable, I grew interested in developing a reflective tool that would help those at the organization to step back and assess their digital storytelling implementation progress, and perhaps also help them to direct their future implementation strategy. Because I had been looking to frame my implementation story in theoretical terms, using either genre or activity theory, I had been collecting data from these theoretical perspectives from the start. But now I began to consider how theory could be used not just to *describe* implementation dynamics but also to evaluate and perhaps intervene in an ongoing implementation.

In the end, I refined my research questions to match these two key research aims of telling a digital storytelling implementation story and developing a theoretically informed analytical/reflective tool to assess the ongoing implementation:

1) Which of the many possible uses of digital storytelling are explored at Tech Year, and what successes and difficulties arise in the process of piloting these uses?

2) With the help of a well-theorized reflective tool, is it possible, during the implementation process, to assess the sustainability of digital storytelling at Tech Year?

Aim #1, Telling an Implementation Story: Qualitative Case Study

The two research questions that I chose to pursue were at root adoption and implementation questions. As Chapter 2 described, adoption and implementation research crosses many disciplines and offers many possible methodologies. Although some research on the adoption and implementation of innovations has been done with quantitative methods—particularly diffusion research, which often relies on surveys, and social network research, in which researchers gather data on social connections and use mathematical modeling and mapping software to assess social relationships—from the start, I knew I would take a qualitative approach to these questions. I made this decision because I was interested not in just a final answer about adoption and implementation success at Tech Year, but in being able to describe the dynamics that I saw happening.

Adoption and implementation researchers working in the qualitative tradition are many; they typically negotiate fairly open access to their research sites and then do time-intensive, inductive studies. There is also an emphasis on flexible methods; from, as Latour says "following the actors" (2005, p. 12) to the iterative cycles of developmental work research (Gay & Hembrooke, 2004). Most adoption and implementation research is necessarily ethnographic as well: the researcher can only make sense of who and what may be influencing implementation if she has some understanding of the culture of the organization.

All of these methodological characteristics—longitudinal, immersive, ethnographic and iterative—imply the need for a large research team with substantial time to devote to their site. I was limited, however, by my lack of person power—I would be a lone researcher. This was the core reason why several weeks into my Tech Year research, when I was still considering a comparative study between Tech Year and Get Well, I decided that the most reasonable approach would be a case study of a single organization.

Researchers can conduct case studies, as any other form of qualitative research, from a number of different paradigms (Creswell, 2007). A researcher coming from the positivist paradigm, such as Yin (2003), looks to derive measurable answers and generalizable knowledge from a case. An interpretivist researcher might use the case study to discover and document local understandings of reality (Merriam, 1998; Stake, 1994). A researcher operating from a participatory or activist paradigm aims to involve and empower the participants at her research site. My approach was most closely aligned with the interpretivist paradigm, which "[…] search[es] for deep perspectives on particular events and for theoretical insights. It may offer possibilities, but no certainties, as to the outcome of future events" (Bassey, 1999, p. 44). While I was motivated by the notion that what I learned from Tech Year might be instructive to other digital storytelling implementers, perhaps even that I might be able to identify somewhat universal implementation trends, I saw value in telling the unique story of Tech Year. It also seemed that there might be a role for participatory research in my study, particularly with regard to my second research question, which looked to derive a reflective tool with which to assess and direct Tech Year's ongoing adoption and implementation process. If

the Tech Year staff was amenable, I was interested in feeding back my findings to them, as well as developing with them some heuristics and other reflective tools that they could use to evaluate their adoption/implementation progress.

Besides choosing, or defaulting to, an overall research paradigm, a case study researcher needs to further specify what *sort* or type of case study she will undertake. There is little agreement on best way to classify case study types, and a number of different typologies exist. Stake (1994) identifies three kinds of case studies: 1) intrinsic case studies, where the primary aim is to describe the case, not build theory; 2) instrumental case studies, where the case is "examined mainly to provide insight into an issue or redraw a generalization" (p. 437); and, 2) collective case studies, where multiple cases are examined together to probe an issue. Merriam (1998) suggests a different typology, one based less on research aim then on the way the study data is written up and interpreted: her three categories are the descriptive case study, the interpretive case study, and the evaluative case study (p. 38). Merriam also notes that a case study might be categorized by the disciplinary approach it takes, such as a historical case study or a psychological case study. Yin's (2003) terms are similar to Merriam's: he identifies the explanatory, exploratory, and descriptive types of case studies. Exploratory studies are often pilot studies, where data collection begins prior to the formation of research questions; explanatory studies look for a cause or theory to explain the case; and finally, descriptive cases, while Yin says they must also have some descriptive theory to organize the research, aim to describe more than to explain.

Of these approaches, my study at Tech Year seems best labeled "at least intrinsic, with hopes of being instrumental." Again, while I would be content to tell the unique

story of Tech Year, I did hope to derive both a model of digital storytelling implementation and a reflective tool that implementers could use in other implementation situations—these I would call instrumental aims.

Aim #2, Assessing and Developing Analytic/Reflective Tools: Using a Multi-Level, Social-Materially-Informed Unit of Analysis

Although Tech Year was my case and thus at the center of my research lens, from the start of my project I was interested in using a unit of analysis derived from socio-cultural theory to frame my data collection and analysis. That is, rather than framing Tech Year as my unit of analysis, which implied an ethnographic scope that I could not achieve, I would look for a way to use a unit such as the activity, the emerging network, the genre, or infrastructures. I refer to these units as "multi-level, social-materially-informed" units of analysis, in that they ask the researcher to investigate and consider a phenomenon from multiple levels of historical and spatial scope (such as the operation, action and activity), and they presume human action as both social and tied up with material circumstances. My initial hope was that such a 'pre-theorized' unit could streamline my data collection process, allowing me as a lone researcher to focus my attention on relevant details in a very complex setting. Here again, both Spinuzzi (2003) and Yamagata-Lynch (2003) offered models for ways that such a robust unit of analysis could help me to look more deeply at the multiple uses of digital storytelling at Tech Year.

Over time, however, I came to consider that such a unit might also work as a reflective tool, a heuristic for evaluating moments and progress during an adoption and implementation process. Importantly, a unit of analysis cannot itself be a reflective tool—

a researcher needs to translate the unit into a data-gathering instrument or data analysis heuristic in order for it to be useful. I was impressed with the tools from activity theory, particularly with the ways that Engeström, Spinuzzi and Yamagata-Lynch put these tools to use, and I worked through the early months of my study to try and use these tools to both direct my data collection and as tentative analysis instruments (specifics are described in the Data Analysis section of this chapter). But by June of 2006, I had abandoned the activity-theory tools for two main reasons. First, I saw the textual nature of digital storytelling as key to both its trajectory at Tech Year and to situating this study in my own academic field. Activity theory does not have any special capacity to make sense of textual tools, which are conceived of in the same way as any other kind of mediating tool. And just as importantly, although the activity system triangles helped to focus my data collection, reminding me to look for contradictions and to focus on rules, community and division of labor (see Figure 2.4), these triangles offered so many different ways to read my data that I was not finding them terribly helpful. Furthermore, these complex triangles were difficult to explain to my study participants. As such, they did not seem particularly useful as practical reflective tools.

From June 2006 on, I committed to genre theory and focused my efforts on finding an appropriate unit of analysis and reflective tool with which to do a genre-informed implementation analysis.

Summary of Theoretical Framework: Hybrid and Evolving

In summary, the design of this study was guided primarily by the ethics and concepts of interpretivist research and case studies. But since I also spent the first seven months of my Tech Year research period trying out potential analytic/reflective tools, I

also occasionally added new foci to my data collection. Since all were rich social, material, and historically aware theories, I believe they led me to collect a rich data set.

Case Selection

Exploratory Research at Stories for Change

This project began in early 2005 with my curiosities about and interest in digital storytelling. Therefore, my first research site was the digital storytelling workshops run by Stories for Change. My access to these workshops was negotiated between myself and the director of SFC, Amy Jacobs, with the understanding that I would volunteer my services at her workshops in exchange for the opportunity to explore the workshops for research possibilities. I was not, in the earliest stages of my research at SFC, doing *formal* research; I helped Jacobs as she facilitated workshops and soaked in what I could. In November of 2005, after eight months of sporadic volunteering with SFC, I asked for and was granted permission by Jacobs, Mass Tech (one of SFC's funders), workshop participants and the UMass IRB to officially begin research at SFC's digital storytelling workshops. During this period, which lasted for two workshops between October 2005 and January 2006, I was a participant observer, still assisting Jacobs with the delivery of workshops but now also tape recording parts of these workshops, compiling field notes, and informally interviewing workshop participants. I was during this time looking for more specific research questions to guide a substantive research study.

Because SFC and the community of digital storytellers in the Boston area had been open and helpful from the start, I was motivated to select a research focus that would be interesting to both my field and to this local community. In an interview during the exploratory phase of my research, Jacobs identified the question of "impact" as one of

her primary curiosities, where "impact" is defined in two ways: 1) whether producing and using a digital story actually changed the storyteller, and, 2) whether the stories or practice affected the organizations who sent their employees to SFC trainings. A second main curiosity of Jacobs and Mass Tech was how to build organizational capacity to produce and use digital stories. Spreading the Stories was marketed as a "capacity building institute," and a central part of its mission was to train organizations to produce and use digital stories back at their home organizations. Both the question of impact and the question of capacity building interested me, but because my scholarly interests lay in the organizational dynamics of texts and textual practices, the question of capacity building struck me as most promising.

After I settled on Tech Year as my primary research site, I ended my research at SFC training workshops, although I still kept in touch with Amy Jacobs, occasionally asking her for advice or documents related to SFC or Tech Year. Though most of my research hours were logged at Tech Year, the cooperation and generosity of SFC, and Amy Jacobs in particular, were key to me being able to do the study.

Choosing Tech Year as the Case

SFC trained 12 organizations at two separate Spreading the Stories workshops, one in October-November of 2005, and another in January of 2006. From this pool, I was looking for an organization that seemed to have a good chance of following through and implementing digital storytelling at their home site. Despite the train-the-trainer approach of Spreading the Stories, Amy Jacobs expected that not all trainees would find the practice compelling or manageable enough for their organization to implement. It was imperative to my project, then, that I choose an organization with a legitimate interest in

and feasible capacity for long-term use of digital storytelling. My first test was simply to ask Jacobs for a short list of organizations that, in her opinion, seemed to have the potential to implement digital storytelling.

Tech Year, which eventually hoped to integrate digital storytelling into their Business Writing curriculum, was one such site. The organization had technology, teachers with knowledge of writing and story, and some compelling reasons for wanting to replicate digital storytelling. I approached Tech Year and one other organization, a community health care organization called Get Well, with a proposal about my study. My early contact with Get Well, which was connected to a university school of public health, indicated a difficult tangle of IRB approval and HIPPA compliance lay ahead. These difficulties, along with the fact that Tech Year showed early enthusiasm about my project, and, as a writing program within an educational organization, was a site more familiar to my discipline, led me to set my focus on Tech Year. It also seemed wiser, as mentioned earlier in this chapter, to limit my research scope to one organization.

I approached Tech Year through my contact from SFC's Spreading the Stories workshop, Madeline Davis, emailing her a description of my proposed study and asking whether Tech Year would like to be involved. Madeline then consulted her supervisor, Tech Year's Chief Academic Officer, Clark Cross, who gave his consent for the study to go forward, saying that it "sounds harmless enough and should not be labor intensive for us." After I received this general consent, I drew up the IRB paperwork and had the study officially approved. I gathered individual consent of Tech Year study participants as they were included in the study.

Choosing the Sample Within the Tech Year Case

Tech Year is a multi-site organization, with two sites at its Boston, Massachusetts headquarters, and additional sites in Cambridge, Massachusetts; Providence, Rhode Island; New York, New York; and Washington, DC. Obviously, I could not do extensive research at all of these sites, but the question of whether to focus on one of the Boston sites exclusively or to branch out and include other sites was a difficult one. The writing team, with whom I spent much of my early research time, was a regional entity, consisting of instructors from the two Boston sites, Cambridge, and Providence. Instructors from these four sites were trained in the January 2006 digital storytelling workshop at Tech Year's Boston headquarters, and the twice-a-year national writing team retreats, of which I attended three, brought together instructors from all sites. Meetings of the Boston/Cambridge writing instructors happened twice a month, and these meetings were an important site of my data collection. So although important curriculum decisions were made at the Boston site, where Madeline and Tech Year's executive staff were housed, the regional writing team would clearly play a role in the adoption and implementation of digital storytelling organization-wide. The national writing team might as well. Because of my limited person power, however, I did most of my early research at the Boston and Cambridge sites. Later in the implementation process, when Cambridge and Boston simultaneously taught digital storytelling pilots, I decided that I would get more valuable data by having a full picture of one site's implementation, rather than a partial picture of two sites. At this point, then, I limited my observations to Boston's fifth floor site, where Madeline taught and I had the most open access.

Besides the question of which sites to focus on, I also had to choose whom at the sites to include in the study. Throughout the 15 months that I was at Tech Year, I selected study participants as they became involved with digital storytelling implementation, as Latour (1987; 2005) says, I "followed the actors." Some of the study participants were obvious, such as Madeline, the writing instructors, the executive staff, and the students making stories. Other interviewees I was led to on the recommendations of those I had already interviewed. As described in the "Overview" section of this chapter, some ethnographic knowledge of the site was necessary to understand the environment of implementation. But because my study's primary aim was to understand the adoption and implementation of digital storytelling, not the general culture of Tech Year, I felt it acceptable to focus my interviews on those most directly linked to digital storytelling and to use site visits to gather my ethnographic knowledge.

Role of the Researcher

There are two important features to note regarding my role as a researcher: 1) I am an interested party who is personally invested in digital storytelling; and, 2) in the course of this study, I shift between multiple research roles, including that of participant observer and complete observer.

Interested

When I learned about Stories for Change, my scholarly and teaching career was already invested in much of what the business did, including teaching people to write stories and exploring the compositional possibilities of new digital technologies. SFC's work was exciting to me, and I tried to learn as much as I could—and not just for the

immediate purpose of writing a dissertation. My curiosity and eagerness, which Amy Jacobs kindly tolerated, meant that before long, I found myself quite involved in the Boston digital storytelling community. During the study, I spent a fair amount of unofficial research time around digital storytelling practitioners, attending strategic meetings, co-facilitating workshops, and helping to plan an online digital storytelling portal.

After I finished collecting study data from SFC, I was occasionally paid by Jacobs to help facilitate digital storytelling workshops. Throughout my research process, I strove to be sure that personal interest did not compromise my research. I have not occupied a paid consultant role at any of my research sites, even though this was once suggested by staff at Tech Year. I have also selected research questions that will not tempt me to cheerlead for digital storytelling, which in an oblique way might be constructed as self-interest.

Early in my Tech Year research, Jacobs departed on a Fulbright scholarship to Spain, leaving a gap of trained digital storytelling facilitators in the Boston area, and I began to take on some consulting jobs leading digital storytelling workshops. I consider this continued contact with digital storytelling and organizations interested in implementation a strength, rather than a weakness, as it has allowed me to check my Tech Year findings against what I have seen happen at other organizations.

Multiple Researcher Stances

As described in the "Case Selection" section of this chapter, the exploratory stage of my research was conducted from a participant observer stance. I had been a volunteer trainer at the Spreading the Stories workshop where Madeline trained, and I accompanied

Amy Jacobs on her follow-up visits to Tech Year, where my role was largely to give advice from a facilitator's point of view. Although I made it clear in my early visits to Tech Year that I was there as a researcher, not a consultant or workshop facilitator (within 15 minutes of meeting the writing team for the first time, for example, I was having them sign informed consent forms)—I decided early on that I wanted to both observe *and* help at Tech Year. This meant both that I would not stubbornly zip my lips and refuse to say anything that might alter the 'natural' course of implementation (for after all, my mere presence was likely affecting that implementation), but also that I hoped to actively feed back some of my findings that would help Tech Year. Sullivan and Porter (1997) refer to a process in which a researcher strives to give something back to her study participants as "ethical doing" (p. 104), and in this study, helping Tech Year occasionally felt both ethical and natural.

In the first analysis chapter of this dissertation (Chapter 4), I have disclosed those moments where I had an active role in events. These moments, I will say by way of preview, were rare. And as time went on, I was less and less directly involved in Tech Year's implementation efforts. Besides occasional digital storytelling advice, I also did some things natural to long-term visitor, such as helping several students with their college application essays, and later hiring one student as a helper in my consulting business (after my Tech Year research was complete). In March of 2007, I presented with Madeline at the Conference on College Composition and Communication. These involvements I count among the most pleasurable outcomes of my research relationship with Tech Year's staff and students.

Data Collection Methods

The data I collected for this study was of three forms: interviews, observations, and documents. In all, I spent three months—from October to December 2005—collecting data at SFC's Spreading the Stories workshops and accompanying Amy Jacobs on follow-up visits to participants' home organizations, immediately followed by 15 months of research on site at Tech Year, from January 2006 to April 2007. As described in the overview section, this study had two central focusing research questions; these questions unfolded at different parts of my study. The first question I began investigating immediately upon my arrival at Tech Year: Which of the many possible uses of digital storytelling are explored at Tech Year, and what successes and difficulties arise in the process of piloting these uses? I continued investigating this question until my research period ended. The second research question—With the help of a well-theorized reflective tool, is it possible to judge whether any progress is being made toward finding a sustainable use or uses for digital storytelling at Tech Year?—was a question that emerged after I had spent several months at Tech Year; it primarily informed the second half of my data collection and the data analysis portions of my research. To clarify trajectory of my methods, I here split the study into two "aims" based on these two research questions—the first aim lasted the entire study and the second began about six months in, as I began to search for theoretical tools that might be used to assess the ongoing implementation and the sustainability of various uses of digital storytelling.

Collecting Data for Aim #1, Telling an Implementation Story

Interviews. Interviews were the best way to investigate the definitions that Tech Year members had of digital storytelling, the hopes they had for the practice and the stories, individuals' attitudes toward digital storytelling, the effects the practice and the stories had on individual and organizational processes, and the specific adoption/implementation plans those within Tech Year had for digital storytelling.

I interviewed most of Tech Year's executive staff, including the CEO, the CAO (Chief Academic Officer), Technology Director and the Executive Director of the Boston/Cambridge sites. I also interviewed most of the writing instructors and assistants at Boston, Cambridge, and Providence (eight of the ten instructors and assistants), two of six technology instructors, five of seven students from the Apprenticeship Management digital storytelling pilot course, and four of twenty-eight students from the full Business Writing pilot. My decisions of who to interview were first made based on the relevance I judged the potential interviewee had to digital storytelling implementation efforts, and second on the availability of that person. Generally, this technique worked well, except with the students from the full Business Writing pilot. These students began their apprenticeships immediately after the pilot was complete, at which point they became difficult to reach. Of the nine students I contacted, only six replied, and only four of these six followed through and scheduled an interview.

My interviews were semi-structured, framed around questions about various potential uses of digital storytelling, attitudes toward the new practice, and experiences with it. I also used interviews to gather ethnographic information about Tech Year, to inquire about events I had seen in observations, and to gather information that I had not

been privy to. While all interviews had a core of questions on adoption/implementation concerns, my earlier interviews tended to ask more about the background of Tech Year and the interviewee's position in the organization, while my later interviews tended to add questions probing backstage dynamics and following up on observations. The key point about my interviews is that I did not always use a standard protocol. For groups of interviewees that were similar—all of the writing students in a class, or all of the writing instructors, for example—I stuck with a standard protocol. But other interview protocols were designed to fit the individual and the time period of the interview.

Appendix B includes three interview protocols, one from early in the study, with the Technology Director; one that I asked of all of the students in an Apprenticeship Management pilot; and one from an interview with Madeline at the end of the study. I re-interviewed Madeline and Clark—the CAO—as they had particularly key roles in the implementation. I also conducted one group interview with writing instructors from the Boston, Cambridge, and Providence sites near the end of my study. This interview was also semi-structured, and it had two main aims: first, to get the teachers talking as a group about a set of exit interview questions, and second, to have them discuss several lists and graphics that I had designed as tentative reflective tools.

All interviews—29 total—were audio recorded and fully transcribed.

Observations. Adoption and implementation researchers working in the qualitative tradition stress the importance of understanding the local environment of implementation, and so site visits were a key part of my methodology. Beyond their value for acquainting me with the Tech Year culture, observations helped me to identify the presence of digital storytelling-related activity, to note problems and difficulties that

arose, to see who was involved in digital storytelling-related activities, to gauge the organizational visibility of digital storytelling, and to see if digital storytelling plans were corresponding with digital storytelling rollout.

In all, I logged approximately 300 hours of observation time at Tech Year. After accompanying Amy Jacobs on her follow-up visit to Tech Year in December 2006, my next observations happened at the three-day train-the-trainer workshop in January 2007, which I attended in its entirety. Next, I attended a writing team retreat for a full day in February 2007, after which I settled into a pattern for four months of attending the twice-monthly writing team meetings. For two months, I spent one day each week at Tech Year, divided between the Boston and Cambridge sites. On these daylong visits, I would sit in on two to four writing classes and other campus events and classes, such as technology classes, feedback sessions, lunch, and Monday kickoff events. During this period of once-a-week visits, my main aim was to get a feel for the organization and for how writing was taught within it, as well as to document any digital storytelling-related activity that was happening. In June and July of 2006, digital storytelling began to gain some momentum and I attended a series of meetings with Madeline and the CEO to compose his digital story, as well as planning meetings related to the Apprenticeship Management pilot. The AM pilot ran from August to early September of 2006—I spent from 2:00-5:00 every Wednesday at Tech Year, observing these classes. There were a number of Wednesday afternoon showings thereafter, which I attended. Then, in September 2006, planning began for the Empowerment curriculum. I attended all four of the planning meetings for this curriculum. When the Empowerment pilot began in December 2006, I attended most sessions of the two pilot classes in Boston—18 of the 26

class meetings throughout December 2006 and January 2007. The final stage of were two Wednesday afternoon meetings to plan the digital storytelling premiere event, in February and March of 2007, and the premiere event itself, which happened in March 2007.

My observation data was of four sorts: notes taken during and compiled directly after participant observation; detailed notes taken during observations; audio recordings of selected visits; and field notes guided by a data collection sheet (see Appendix B, Figure B4). All handwritten notes were typically organized and typed into field notes within one day of their collection, and in these observations I noted setting details, described action, noted interesting incidents and attitudes, and where possible, captured participants' speech directly. Sample B5 in Appendix B shows field notes that I took early in the study.

Document collection. Documents helped me to learn about the definition of digital storytelling as it evolved at Tech Year and the planned stages/phases of the implementation project. I also collected all curricular materials. Finally, I collected all student/staff writing related to digital story production and copies of all of the final digital stories, although in the end, this data was not particularly useful.

Also, early in the study, I was given permission to explore and copy what I wished from Tech Year's network drives—electronic files shared by the teachers and the staff. While little of this material made it into the final study, it gave me some sense of the history and culture of Tech Year. In February of 2006, I was added to the Tech Year internal writing team email list, from which I received five to ten emails each week. Occasionally, these messages were relevant to the implementation process. Madeline and

the other instructors also occasionally forwarded me internal correspondence that they thought I might find relevant to my study, such as praise from outsiders about digital stories and updates on technology problems.

Collecting Data for Aim #2, Assessing and Developing Reflective Tools

While the aim to find an analytic/reflective tool informed my data *analysis* methods more than my data *collection* methods, I did need to collect sufficient data to make use of the multi-level, social-materially-informed units of analysis that I was interested in applying in this study.

Because I was a solo researcher, as discussed in Chapter 2, I could not use some of the data collection methods favored by developmental work researchers and others who collect data for analysis with a multi-level, social-materially-informed unit of analysis. For example, Spinuzzi (2003) and Schryer et al. (2003) advocate videotaping study participants as they work at an activity, to capture operational-level difficulties they may be having. For example, a hesitation moving a computer mouse might indicate that a person is drawing on habits from a different activity system that do not apply in the new activity system. Rather than using data collection methods beyond those that I had in place to gather case study information—interviews, observations, and document collection—I instead made small alterations to these existing methods.

While I initially had an interest in using activity theory to analyze my data, because I had committed by June 2006 to a unit of analysis derived from genre theory, I will only discuss here the ways that genre theory influenced my data collection. Foremost, genre theory kept me focused on texts and textual practices as I interviewed participants, made site visits, and looked though documents. As I began to refine my key

analytical tool, the genre inventory (this was happening in July and August of 2006), I isolated the concepts from genre theory that were important and began checking my data to be sure that it addressed these concepts. For example, as I sat in on the AM course, I was developing the genre inventory heuristic shown in Appendix G. This heuristic made it clear that to conduct these inventories of digital storytelling at any given point in time, I would need information about individual motives, social roles, subject positions, space/time interactions, related genres, contradictions and breakdowns (problems occurring at the level of activities and operations, respectively), and other texts in the genre set. Most of this information I was already gathering via observations and by collecting documents, but some, such as data about individual motives and subject positions I needed to get, or at least check, in interviews. Note that the inventory in Appendix G is incomplete—I inserted question marks in three places: next to Steve and the students' motives for participating in the AM pilot, next to the personal social uses that the AM students were finding for digital storytelling, and next to Steve's handout, indicating that I was wondering if his handouts were similar to the handouts used by the writing instructors. These gaps in my data I then worked to fill by adding questions to my interview protocols and looking through documents.

Ultimately, not until the Empowerment pilot was my data collection for a genre-informed implementation analysis particularly refined. After creating a reflective tool, the genre/context graphic (Appendix H, Figure H1), my data collection grew more structured, although I did not use this graphic for my final analysis. Also helpful for structuring my data collection was the observation sheet presented as Figure B4 in Appendix B. I used this sheet to collect data during all of the Empowerment pilot classes

that I observed, and it was helpful because it kept me focused on data relevant to a genre-informed implementation analysis. One of the promising features of a genre-informed implementation analysis is that it may streamline data collection. Since I was simultaneously developing a method for conceptualizing implementation with the help of genre theory and conducting a case study, I was unable, until the very end of the study, to collect a more focused and streamlined data set. I will discuss this aim, as well as speculate more on appropriate data collection methods in Chapter 5.

Data Analysis

Data Management

Let me begin this discussion with some advice from Merriam's (1998) *Qualitative Research and Case Study Applications in Education*, advice that in my experience rings true:

> Data analysis is one of the few facets, perhaps the only facet, of doing qualitative research in which there is a right way and a wrong way […] the right way to analyze data in a qualitative study is to do it *simultaneously* with data collection […] [W]ithout ongoing analysis, the data can be unfocused, repetitious, and overwhelming in the sheer volume of material that needs to be processed. Data that have been analyzed while being collected are both parsimonious and illuminating. (p. 162)

The "sheer volume" of which Merriam speaks revealed itself to me early in this study, as the interview transcripts, documents and field notes quickly began to pile up (see Appendix C for a comprehensive list of the data). Anxiety over the growing pile started me in the early habit of processing the data as it came in. I annotated my field notes and transcripts with my reflections and ideas, and read through complete case portfolio approximately once a month. Much of my "ongoing analysis" was helped by my second research aim—to find a suitable reflective tool—as I was often working to assess

my data with the help of various reflective tools. For example, in March and April of 2006, I worked to map my data onto activity system triangles. From June–August of 2006, my main curiosity was in trying to show overlapping and new imagined utilities for digital storytelling in tables. In August of 2006, I came up with the genre inventory idea, and began trying to read the various production periods with the help of these inventories. This work continued through the end of my data collection period. Also, throughout the study I kept four lists, to which I would add information as I wrote up observation notes, read through the data, and transcribed interviews. These lists were labeled: 1) "Findings," 2) "Problems/Contradictions," 3) "Successes," and, 4) "Theoretical Claims."

When the time came to do my end-of-the-study analysis, this ongoing analysis was helpful, although more analysis needed to be done. In keeping with my study's dual aims, I split the analytical task into two parts, each organized around one of my two research questions.

Analyzing Data for Aim #1, Telling an Implementation Story

My first analysis task was the case description, which Merriam (1998) describes as the part of a case report where the researcher shares "relatively uncontestable data, presented to readers as they would present it if there" (p. 244). The case description would tell the chronological story of digital storytelling-related activity from the October 2005 SFC workshop at which Madeline was trained, through the March 2007 red carpet digital storytelling premiere event at Tech Year.

Miles and Huberman (1994) suggest that determining a visual way to present your data is itself a sophisticated form of analysis. My experience trying to create or find a model to organize my case story bears their comment out. I had, since late June 2006,

been working to visually present the shifts in Tech Year's ambitions for digital storytelling by plotting these shifts on timelines (Appendix D), and this exercise gave me some sense of the stages that I would divide the Tech Year story into. I had also spent a few months after the bulk of my data collection was complete, beginning in March of 2007, drawing more timelines (Appendix E) based on the idea of genre stabilizations. In preparation for writing the case story, I read once again through the case archive and compiled a long list of any and all data I thought relevant to my first research question, including the shifting definitions and imagined utilities of digital storytelling, the problems that I saw, and the successes that I saw. Using this list, I constructed another timeline to illustrate what I considered to be key moments in the implementation process (see Figure 4.1). With this timeline, I began to write the story of Tech Year's adoption and implementation process.

My first attempt at this case description consumed July and August of 2007, and I found the activity very difficult. The resulting case story was long, overwhelming in its detail, and nearly unreadable. It was clear that I needed some sort of organizing model to shape the story. I returned to the literature, looking to see if any of the adoption/implementation theories that I had read offered a promising model. From these, I selected Rogers' model of the innovation process in organizations (Figure 2.2). I suspected that this model would not be a perfect fit, but Rogers' emphasis on the redefining of the innovation and the restructuring of organizational processes that happen during an organizational adoption/implementation project seemed to fit my research question well. The second try at writing up the case study involved an iterative movement between Rogers' model, my case archive, the messy case study write-up I had already

completed, and an evolving model of my own, based on Rogers'. This process resulted in a much more intelligible case story, and is detailed in Chapter 4.

Analyzing Data for Aim #2, Assessing and Developing Reflective Tools

The second form of analysis I did was to evaluate various reflective tools that might help those at Tech Year to assess their ongoing implementation effort. I tried a number of such approaches. In March of 2006, I began trying to make sense of my data with the activity system triangle. I kept at this for about three months, my enthusiasm waning quickly. I approached Madeline twice during this period with some activity system triangles in hand, and the difficulty I had explaining them, as well as the difficulty she had understanding them, reinforced my decision to drop them. Additionally, I found the thought of trying to explain these triangles to others at the organization almost embarrassing—they seemed to require a sort of theory-speak that I felt inappropriate.

By June of 2006, the idea that digital storytelling could be conceptualized as an unstabilized genre began to organize my thinking about possible reflective tools. My first shot was at a list-like heuristic (Appendix G). I worked with this list through the summer and early fall of 2006, and then began to revise this heuristic in tandem with developing a visual aid to represent key genre concepts, the genre/context graphic (Appendix H, Figure H1). I finalized the genre inventory format as I wrote Chapter 5, settling on a final form for the heuristic and then for each of the three inventories—of the CEO, Apprenticeship Management, and Empowerment course—I looked at data from the case archive during that stabilization and filled out the inventory sheet.

Design for Credibility and Transferability

As a qualitative study with aims to both present a meaningful case and derive a model for implementation that might be of use to other organizations, this study required that I choose methods and put in place checks to maximize the possibility that my findings were, to use Lincoln and Guba's (1985) term, *trustworthy*. In quantitative research, the criteria by which a researcher establishes the trustworthiness of her findings are familiar: validity (internal and external) and reliability. Qualitative researchers, as many have argued (LeCompte, Preissle, & Tesch, 1993; Lincoln & Gubu, 1985), must use a somewhat different set of criteria and techniques to establish trustworthiness. Lincoln and Guba in fact suggest replacing the four common criteria used to evaluate the trustworthiness of quantitative research—internal validity, external validity, reliability, and objectivity—with four parallel terms more appropriate to qualitative research—credibility, transferability, dependability, and confirmability. For this study, I was most concerned with credibility and transferability.

Internal validity, generally understood as the verity of a quantitative researcher's claims that a dependent variable is linked to the independent variable(s) she claims are causal, is more appropriately translated in qualitative research as "the accuracy of information and whether it matches reality" (Creswell, 2007, p. 158). More simply put, internal validity in a qualitative study is the "credibility" (Lincoln & Guba, 1985) of the qualitative researcher's findings. To ensure the credibility of my findings, I used a number of standard techniques. First, prolonged engagement with my research site kept me from making claims based on a small slice of the implementation picture (Lincoln & Guba, 1985; Merriam, 1998). Second, member checks were an important part of my

process (Creswell, 2007; Lincoln & Gubu, 1985; Merriam, 1998). Often I would debrief with the teachers after their classes or meetings, to make sure that they were interpreting events as I did. In terms of more formal member checks, fairly early in the study I made a presentation on my data at the Gathering of Community Digital Storytellers, a conference held at the Massachusetts Institute of Technology that the Boston, Cambridge, and Providence writing instructors attended. I spoke with the teachers after the presentation, to make sure my interpretations seemed sensible to them. I also presented findings at a writing team meeting in November of 2006, and then again in a conference call with three of the writing instructors in March of 2007. Approximately every six months, then, I had a fairly official member check on my analysis. A third important technique that I used to enhance the credibility of my research was triangulation. Although I did not have the luxury of a co-researcher or research team, which would allow for triangulation via multiple investigators, I was able to triangulate both via multiple sources—supplementing documents that I collected and observational field notes that I had made with interview data—and via multiple theories. My second research question, which focused on finding an appropriate reflective tool with which to evaluate sustainability, had me constantly running my data through different theoretical frames and accompanying visual heuristics. I used these three techniques—prolonged engagement, member checks, and triangulation—consistently throughout the study.

Besides producing a credible study, I also hoped to produce findings that would be useful to other organizations embarking on digital storytelling implementation projects. As with internal validity, the familiar quantitative criterion—generalizability—has traditionally been achieved in ways that are not reasonable for qualitative work; for

example, by creating a replicable design that allows for sampling from a large population of sites. Schofield (2002) deals in depth with the problem of generalizability in qualitative research, ultimately arguing that the qualitative researcher use two techniques to improve the generalizability of her study. First, the researcher should select a site appropriate to the general argument she intends to make, selecting a site that is typical if she intends to present a case illustrating what is typical; selecting a site that is extraordinary if she wishes to make a case for what is possible. As described in the "Case Selection" section of this chapter, my selection of Tech Year was deliberate, as the organization seemed both eager and qualified to make progress with digital storytelling implementation. The second technique that Schofield advocates is thick description. Lincoln and Guba (1985) likewise suggest that thick description can yield the qualitative analog of quantitative generalizability—transferability. The naturalistic inquirer, say Lincoln and Guba, "... cannot specify the external validity of an inquiry; he or she can provide only the thick description necessary to enable someone interested in making a transfer to reach a conclusion about whether transfer can be contemplated as a possibility" (p. 316). By collecting data that enabled me to tell the story of Tech Year's implementation process and by telling that story Chapter 4, I aimed to provide sufficient descriptive detail to allow organizations and researchers interested in transferring the findings of this study to other settings to do so.

CHAPTER 4

DIGITAL STORYTELLING OVER TIME AT TECH YEAR

Introduction: Modeling Digital Storytelling at Tech Year

In this chapter, I tell the story of the various uses of digital storytelling that were explored and piloted at Tech Year over my 15-month research period. As described in Chapter 3, one of the analysis methods that I used throughout this study was drawing timelines to show the shifting utilities of digital storytelling explored by Tech Year over time. Of those timelines, the one shown in Figure 4.1, written after the bulk of my data collection was complete, was initially the tool that I believed would help me to write Tech Year's case story. The timeline plots important decisions, meetings, and digital story showings, as well as the production of curriculum and documentation related to digital storytelling, all across time (indicated on the bottom axis of Figure 4.1), Tech Year classes (indicated at the top of Figure 4.1), and periods of story production (indicated by the five labels inside of the horizontal black band at the top of Figure 4.1 and the corresponding grey vertical bands).

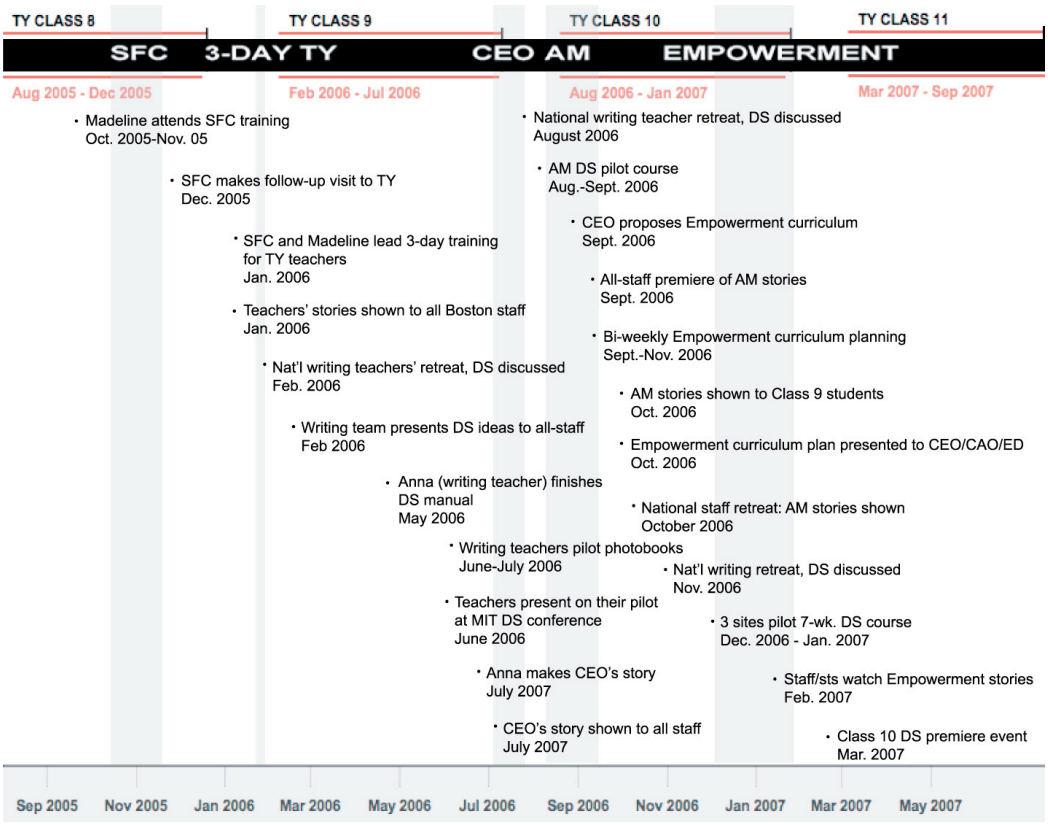

Figure 4.1. **Timeline of digital storytelling highlights at Tech Year.**

Figure 4.1 shows fairly consistent digital storytelling activity over the 16 months following Madeline's SFC training, from December 2005–March 2007. This activity kicked off with planning for and then delivery of a train-the-trainer workshop that happened at Tech Year in January 2006. In this workshop, five writing instructors and one technology instructor learned how to make digital stories. The workshop was followed by six months of fairly regular meetings about digital storytelling, production of digital storytelling related materials (an implementation timeline, a manual, supporting curriculum materials, a conference presentation), and of pilot projects testing different uses of digital storytelling or digital storytelling techniques. These pilots included the teachers experimenting with a photobook assignment in the Business Writing course in

June 2006 and the CEO of Tech Year making a digital story in July 2006. The next pilot digital storytelling activity was in early August 2006, when a small digital storytelling class was run as an Apprenticeship Management course, which brings those Tech Year students who are on their apprenticeships back to campus on Wednesday afternoons for several hours of instruction and social activity. Then, in late September 2006, another three months of planning commenced, this time focused on building a digital storytelling curriculum around the concept of personal empowerment. At the end of this planning, in December of 2006, just about one year after Madeline had completed her SFC training, a digital storytelling curriculum in the Business Writing classroom was piloted.

This timeline worked well as a first-level analytical tool—it helped me to plot digital storytelling-related activity over time and reminded me of key events as I reread my data. But as a tool for helping to tell the story of Tech Year's adoption and implementation process, the timeline had several shortcomings. First, it suggests a much more smooth, steady and incremental implementation than I observed. Also, the timeline does not make clear if a dominant use for digital storytelling is emerging from all of this varied activity. And finally, it does not highlight *patterns* in Tech Year's efforts with digital storytelling. One trend that I noticed, for example, was that when digital stories were publicly shown at Tech Year, the showing would inevitably reenergize planning for digital storytelling pilots. The timeline in Figure 4.1 does not highlight such patterns.

As described in Chapter 2, Rogers' representation of the innovation process in organizations (Figure 2.2) seemed to offer a reasonable starting point for my own modeling of Tech Year's experiences with digital storytelling. Rogers' model appealed because it gave a name to a number of processes that were in play at Tech Year. These

processes include "matching"—when an organization consciously tries to find a good match between an innovation and an organizational need; "redefining"—where an innovation is altered, over time and via experimentation within organizational pilots; and "restructuring"—where the organization's processes change to accommodate the innovation.

But as I worked to fit my Tech Year data into Rogers' model, I began to make changes to that model. Figure 4.2, the final result of my alterations of Rogers' model, allowed for a more precise portrayal of what had happened at Tech Year. I will reference Figure 4.2 throughout this chapter and use it to tell the detailed story of Tech Year's experiences with digital storytelling, so I will begin here by outlining its major features and explaining how and why it departs from Rogers' model.

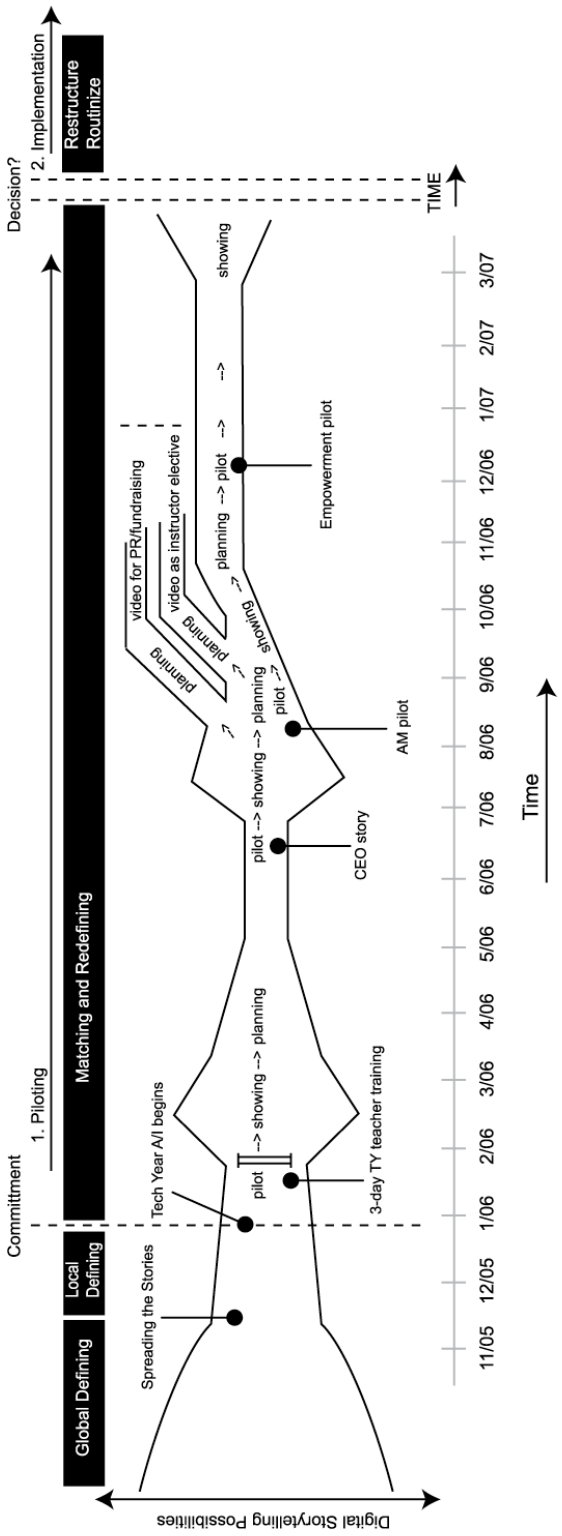

Figure 4.2. **Digital storytelling at Tech Year: Model based on Rogers' model of innovation in organizations.**

A first, fundamental difference between Figure 4.2 and Rogers' model is that Rogers is concerned only with outlining the progress of organizational innovations over time. His model labels and plots only the stages of implementation progress. Because I was interested in looking at the various utilities that digital storytelling was imagined to have, including which of these utilities Tech Year chose to pursue, my model makes use of both the horizontal axis, showing time moving forward, and also the vertical axis, which I use to show the relative number of uses for digital storytelling that were imagined at any given time. The wider the shape in Figure 4.2, then, the more possibilities that were imagined for digital storytelling at that point in time. Also, to the end of tracking the changing uses that digital storytelling was imagined to have at Tech Year, my figure indicates center lines, the double line at late January 2006, which indicate the initial intended use of digital storytelling at Tech Year—using it to teach students writing. Therefore, the expansions, contractions, shifts and paths off of these center lines hold key meaning in my model.

A second fundamental difference between my model and Rogers' is that while Rogers' shows typical innovation progress over time, it does not use units of real time on its horizontal axis. Therefore, Rogers' model shows the five stages of organizational innovation irrespective of the time that they consume (each of the five rectangular boxes at the top of the Figure 2.2 are the same size). Figure 4.2, on the other hand, because it is plotting the results of a case study, is able to give a sense of the speed and rhythm at which stages proceeded over time. These two changes from Rogers' model—adding a vertical axis that measures the range of digital storytelling utilities and plotting events to

scale over time—allowed me to draw a meaningful representation of what I saw at Tech Year, including the actual pacing of events and the patterns over time.

The overall shape of Figure 4.2 identifies a general pattern in my data. Digital storytelling, once it was narrowed to an initial range of utilities that Tech Year would pursue, tended to stick close to that range. But after pilot periods, when new stories were shown to internal Tech Year audiences, the range of possibilities would widen as people across the organization were again reminded of digital storytelling and began brainstorming about organization-wide possibilities. This broadening, however, tended to narrow again in the planning period that preceded the next pilot. Also, we see that the possibilities generally stay centered on the initial intended use of digital storytelling, represented by the center lines at late January 2006. In this case, that initial use—using the digital storytelling process to teach students writing—remained the focus of Tech Year's implementation efforts until July of 2006, when Alex, Tech Year's CEO, made a digital story. At this point, I show a path diverging off of the main figure, representing the planning for the use of selectively produced videos for promotion and fundraising. This activity is shown as a new path, rather than as a widening around the initial use, because it has a loose relationship with digital storytelling. The way that Alex's story was made only marginally fits under the definition of digital storytelling—it was not composed in a group workshop, and while Alex wrote the story and provided many of the photographs, he did not do the video production himself—and it may very well be a different innovation altogether (e.g., organizational video). Likewise, a second divergent path is shown off of the Apprenticeship Management pilot, this time representing the idea that video might be taught as a Tech Year elective or outside of Tech Year, where it

would be a side project for teachers, a way for them to explore interests tangential to their main teaching duties and with little or no official support from Tech Year. The dotted line that caps both of these secondary innovations in Figure 4.2 represents two possibilities: these innovations might themselves become separate innovations, thus beginning their own pilot processes independent of digital storytelling, or their forward progress may influence that of the initial use of digital storytelling in the writing classroom, feeding into the organization's eventual adoption decision about digital storytelling as a classroom practice. As I do not have data up to a clear adoption point, the dynamics surrounding secondary innovations remain a mystery.

Making alterations to Rogers' model also let me begin rethinking the stages that he had named in the adoption and implementation process. One major alteration was necessary because my research period only offered me a partial glimpse of the innovation process at Tech Year. Since I did not see a formal adoption decision made during my time at Tech Year, my model only captures the activity prior to what Rogers calls "implementation." Therefore, I show implementation at the far right of my model, after the double vertical dotted lines, happening or not happening some indeterminate time after my departure.

Rather than compromising my understanding of Tech Year's adoption and implementation processes, I argue that seeing only what Rogers calls the "initiation" stage allowed me to both add detail Rogers' model and to look more critically at the stages Rogers says precede implementation: "agenda setting" and "matching." First, because my research began at Stories for Change, before Tech Year's introduction to digital storytelling, I have modified Rogers' model to include two additional early stages

relevant to an innovation's fate: "global defining," when the innovation is assigned an initial range of possible uses by its inventors and early adopters, and "local defining," where the innovation's possibilities are defined by sources more local to the innovating organization, often by the organization itself. In my study, the SFC workshop and Tech Year's planning around that workshop each contributed to the local shaping of digital storytelling. After these two stages, I add a decision line also absent in Rogers' model, the decision to commit. At Tech Year, before this point, no significant resources, human or financial, had been invested in digital storytelling. The SFC workshop was free, and sending Madeline and a student to it was not outside the range of typical professional development activities at Tech Year. But the decision to buy some basic digital storytelling equipment and to train six other Tech Year instructors in digital storytelling at the January train-the-trainer workshop marked a significant transition in Tech Year's efforts, a commitment. Rogers' model only offers one decision line, marking the organization's decision to adopt the innovation. In Rogers' model, this decision separates the "initiation" process, which is planning-based, from the "implementation" process, in which the innovation is purchased and put to use. Perhaps because Rogers and other diffusion scholars typically study innovations that require a large capital investment and significant changes in the way organizational members do their daily work—for example, new computerized inventory management systems or new technologies for running a farm—his model equates making an adoption decision with making a decision to begin implementing in full force. On the other hand, digital storytelling was an inexpensive technology that would not affect all aspects of Tech Year's work. Purchasing the

equipment and piloting the practice was not a huge investment that marked a transition to an official implementation period.

I have also changed the two primary sub-processes on Rogers' model, from "initiation" and "implementation" to "piloting" and "implementation." "Piloting" seemed the best word to represent the active trials that were happening during Tech Year's pre-implementation period. Finally, I have split up Rogers' "redefining/restructuring" category, since no significant and lasting organizational restructuring driven by digital storytelling happened during my time at Tech Year, although "redefining" of digital storytelling definitely did. As Figure 4.2 indicates, this redefining happened in tandem with what Rogers calls "matching"—connecting an innovation to various organizational problems. "Restructuring" I have moved after my implementation point, and combined with Rogers' term "Routinizing," to indicate the integration of an innovation into organizational routine.

Besides helping me to see the patterns and the dynamics of digital storytelling over time at Tech Year, Figure 4.2 also helped me to organize the story, or the case study narrative of Tech Year's experience with digital storytelling. The remainder of this chapter will tell that story, first briefly describing the local defining that preceded Tech Year's commitment to digital storytelling, and then looking at the periods of matching and redefining that happened during Tech Year's pilot stage. For each of these periods, the analysis addresses four questions:

1) What implementation progress was made with digital storytelling as it had been initially locally defined—as a way to teach students writing?

2) What other definitions of digital storytelling surfaced, including possible utilities for it and possible production alternatives to the intensive small workshop?

3) What notable problems and difficulties surfaced?

4) What key successes connected to digital storytelling, both individual and organizational, happened?

The Local Defining of Digital Storytelling

As many researchers of new technologies have shown, the utilities and even the very definition of an innovative technology or practice are socially constructed. Before digital storytelling was a blip on Tech Year's radar it had been globally defined. Chapter 1 describes much of this global definition, including how the Center for Digital Storytelling and Joe Lambert's book exerted an important influence on circumscribing the boundaries around digital storytelling. Typical ways of creating and using digital stories had been developed and codified before Stories for Change or Tech Year used the practice.

Local defining further clarifies what an innovation is, what its range of possible utilities is, and some of the ways that it might be organizationally deployed. This defining process is local, rather than global, because it happens in contexts closer to the innovating organization, including inside of that organization. In my research, I identify two primary sources of local defining: that done by SFC and that done by Tech Year prior to its commitment to digital storytelling.

Local Defining by Stories for Change

Digital storytelling was first locally defined for Tech Year by the application that SFC's Amy Jacobs and Mass Tech's Jason Robinson sent out to solicit participants for the four-day Spreading the Stories workshop. In this application, which was distributed to

Boston-area nonprofits, digital stories were defined very broadly as "brief multimedia narratives combining voice, imagery, and video." SFC emphasized story over technology, devoting much of the application to describing stories and their power as a resource for community-based organizations. The application explained that with digital storytelling, "organizations can reflect upon, learn from, document, and share the stories that emerge through their practice." Jacobs' interest in using stories for advocacy was emphasized in a section indicating that admission preference would go to "[…] organizations interested in using digital stories to address social/economic/racial justice." Overall, there was less emphasis on some of the global framing of digital storytelling as personally valuable, more on its organizational utilities. Organizations were also directed to explore the relevance of digital storytelling to their mission and goals in the application's long-answer questions, which asked applicants why their organization was interested in digital storytelling, how the practice and the stories might support their organizational mission, what stories might be highlighted in their organizational practice, and how digital storytelling might be implemented into existing organizational programming.

SFC and Mass Tech also locally defined the practice of digital storytelling by who they accepted into to Spreading the Stories. The two organizations evaluated the 13 applications that they received on three main criteria: 1) program development, or whether the organization had carefully considered why and how they would use digital storytelling; 2) multimedia capacity—if the organization had basic technological infrastructure; and, 3) perceived monetary need, or whether there were other ways besides a free workshop that the organization could get digital storytelling training. While Jacobs and Robinson noted on their ranking spreadsheet that Tech Year had an

"education more than community building focus," Tech Year was accepted to the final workshop, along with four other organizations: a community health organization, a youth media literacy organization, a Latino youth advocacy group, and a local cable access TV station. Groups were rejected because their application responses were poorly thought out or because their organization seemed unlikely to follow through with digital storytelling after the training.

If, prior to the four-day Spreading the Stories workshop, digital storytelling had been loosely locally defined as a tool for community-based organizations to use for reflecting, learning, documenting and outreach/advocacy, the workshop itself both reinforced these definitions and added a few others. The slides in Figure 4.3, from the presentation that Amy Jacobs made on the first day of the Spreading the Stories workshop, capture some of the workshop's main themes. Slide 1 conveys the idea that digital storytelling empowers people to tell their own stories, rather than to have stories told about them. Slides 2 and 3 emphasize that digital storytelling is a process, with value at all of its stages, particularly in the showing of the stories. And finally, as shown in Slide 4, the process of making digital stories was said to teach the storyteller about writing, specifically about how to craft an effective story with multiple media. This pedagogical point, not stressed in the Spreading the Stories application, was important to Tech Year, as it offered a way of conceptualizing what students might learn in the process of making digital stories.

Figure 4.3. **Slides from Jacobs' Spreading the Stories PowerPoint introduction to digital storytelling.**

The workshop itself also further defined the practice of digital storytelling by framing the specific ways that it might be deployed. First, the digital storytelling production process was defined as an intimate one: at Spreading the Stories, a small group of nine people participated, and much of the process was devoted to sharing, listening to, and nurturing quite personal experiences revealed in the story-writing process. Spreading the Stories also demonstrated a well-supported process, with four staff to help those nine storytellers. Finally, the workshop was intensive, being the sole focus of the participants for four full days.

Because Spreading the Stories was devoted to training those who would teach others to make stories, it also defined how digital storytelling might be taught, including

the ways the overall process would be divided up into stages (Figure 4.4). This sequence, along with the emphasis SFC gave to several parts of it—particularly the story circle and the showing on the last day of the workshop—were key elements in the local definition of digital storytelling done by SFC. Spreading the Stories also modeled how to teach storytellers new technologies, which SFC did with brief group tutorials followed by project-based experimentation, with support from trainers as problems arose.

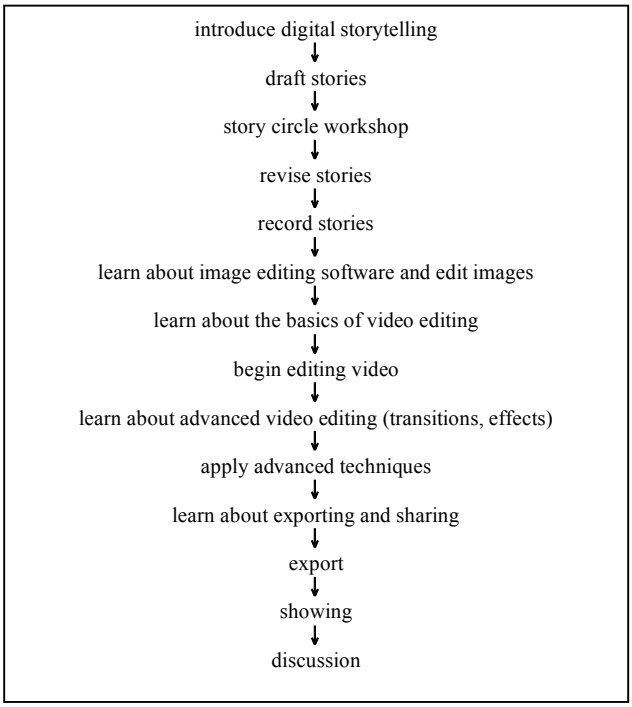

Figure 4.4. **Steps in the Spreading the Stories process.**

Local Defining by Tech Year

The possibilities of digital storytelling were further narrowed by the local defining that Tech Year did prior to their pilot efforts. In Tech Year's application to Spreading the Stories, Madeline shows that digital storytelling is imagined as a teaching tool in her answer to the question "Why is your organization interested in building capacity in digital storytelling? How will digital storytelling support your organizational mission?":

> I am always looking for creative ways that my students can communicate their stories, their struggles, their triumphs and successes—their lives. Most of their life their voice has been under-represented, forgotten and unheard. The digital storytelling process would not only give them the opportunity to hear and see the strength of their voice, but it would do so in a way that combines the different elements of our curriculum—the combination of technical, professional and communication skills. Students would have the opportunity to learn the new technology and techniques involved in the storytelling process, while honing their writing, presentation and public speaking skills. It is really a good match for curriculum integration.

If the primary value for the practice of producing digital stories was situated as pedagogical, Tech Year's Spreading the Stories application also shows that other organizational utilities were imagined for the *products*, the students' stories:

> […] we are always looking for ways to connect our mentors with our students so they can form a relationship, learn from each other and continue to grow a Tech Year network in the corporate community. A presentation could be planned for the mentors to view the stories as well. […] Another opportunity would be in our recruitment phase-when we go into high schools and other community programs and give presentations about the Tech Year program. Students could choose to share their digital stories at these recruitment events so potential students can see the inspiration and diversity that is present in the Tech Year classroom and know they too would be given the opportunity to share and create their own digital stories. […] We have a graduation every six months with over 400 guests in attendance. The graduation ceremony would be a wonderful opportunity to share a selection of student stories in order for them to connect with guests, families, funders, (existing and potential) supporters, mentors, volunteers, CEOs, politicians and internship partners in attendance. All of these opportunities would help improve public awareness of the diversity and potential contained in Boston's urban young adults, as well as clarify just who a Tech Year student is.

The representatives of Tech Year that were sent to Spreading the Stories, Tech Year's head writing instructor Madeline, and Jose, one of her students, further reinforced the emerging local definition of digital storytelling as a pedagogical project for Tech Year, centered in the writing classroom. On the last day of the training, when participants were asked to fill out a "Program Implementation and Work-plan," Madeline and Jose noted that they wanted to implement digital storytelling "because it incorporates the two

main points [technical and communication] of the Tech Year curriculum," reiterating that same aspiration articulated made on Tech Year's application. When Madeline and Jose reported their Spreading the Stories experience back to Tech Year, they showed three stories, which began to give others in the organization a better sense of what a digital story looked like. One was Madeline's story, a well crafted and light piece about how her daily dog walks around her Somerville neighborhood had made her reflect on the value of learning one place deeply. Jose's piece was an advocacy story about a friend who was the child of illegal immigrants and thus could not qualify for financial aid for college. The third story shown was created by another Spreading the Stories participant, Sonia. This story, about how Sonia's personal birth experiences led her to become a dula, was the most personal of the three shown to Tech Year staff, and interestingly, got the coolest reception. There was an early notion that too-personal stories might not be right for Tech Year.

In summary, before Tech Year began piloting digital storytelling, the practice had an initial local definition: students would produce digital stories in the writing classroom, and through the process learn about writing. These student-produced stories would have multiple organizational utilities, for showcasing in events, improving relationships, and clarifying to others the complexity of Tech Year and its students. The writing instructors would have primary responsibility for deploying digital storytelling. And since the intensive workshop was the only production model Tech Year was exposed to, this model was also part of the practice's local definition.

The Pilot Period: Matching and Redefining

The remainder of this chapter describes Tech Year's pilot efforts with digital storytelling. There are no published case studies on the dynamics of an extended pilot with digital storytelling, so I aim here for descriptive richness. As described earlier in this chapter, I have asked four questions of each time period in this description, which again, are these:

1) What implementation progress was made with digital storytelling as it had been initially locally defined—as a way to teach students writing?

2) What other definitions of digital storytelling surfaced, including possible utilities for it and possible production alternatives to the intensive small workshop?

3) What notable problems and difficulties surfaced?

4) What key successes connected to digital storytelling, individual and organizational, happened?

My discussion of each period moves through these four questions in the order in which they are listed, and refers back often to Figure 4.2.

Commitment Begins: Train-the-Trainer at Tech Year

SFC provided twenty free follow-up consulting hours to all Spreading the Stories participants, hours that Madeline used to plan and run a train-the-trainer workshop similar to Spreading the Stories on site at Tech Year. This is the point I mark in Figure 4.2 as when Tech Year "committed" to digital storytelling. While little financial cost was incurred, significant employee time—a huge resource for nonprofits – was required to plan and run this workshop, which would include six teachers: Susie, the other Boston writing instructor; Marie, the Providence writing instructor, and her assistant, Ella; Anna,

the Cambridge writing instructor, and the Cambridge assistant, Leslie; and Hannah, a technical instructor from Cambridge.

The intended way that this train-the-trainer workshop would advance the implementation progress of digital storytelling as a way to teach students writing was ironed out in a December 2006 meting between Amy Jacobs and Madeline Davis. The on-site workshop would train the teachers in the basic skills and concepts of digital storytelling and be a time to talk about how the practice might fit with the existing Tech Year curriculum. The workshop would also offer Madeline a chance to teach digital storytelling, as she would co-facilitate the workshop with Jacobs. Finally, the stories created in the workshop might be used to advance support for digital storytelling as a classroom practice at Tech Year. As Madeline said, "I'm more likely to get a budget if they [the staff] see the product." After the December meeting, Amy Jacobs sent out an email to the six Tech Year instructors who would attend the workshop, reiterating that it had "two goals": for each participant to create a one to three minute digital story, and "to begin thinking through how you would integrate this methodology into your classrooms." Also in the meeting between Amy and Madeline, Madeline articulated for the first time her long-term vision for digital storytelling at Tech Year. By June 2006, seven months after the completion of her SFC training, the students in Madeline's Class 9 Business Writing class would create digital stories.

A second way that the initial definition of digital storytelling as a way to teach writing was advanced during this period was that Amy Jacobs helped Madeline do an inventory of the existing technology in the Tech Year classrooms. The two discussed how well that equipment was suited to digital storytelling and made a list of new equipment to

be purchased. In this December meeting, Amy had Madeline tour her around the computer classrooms at Tech Year, along with Jose, the student who accompanied Madeline to Spreading the Stories. Jose's job was to keep the list of equipment Tech Year needed to purchase and to research prices on the Internet. Jacobs indicated that Tech Year would have to buy an extra scanner, six copies of the Adobe Premiere/Photoshop Elements software, external speakers, headphones, a microphone, and perhaps a DVD burner and an external hard drive, to back up the projects.

The three-day train-the-trainer workshop, which ran on consecutive weekdays at the Boston headquarters in late January (during a Tech Year intersession, when there were no students on site), offered the teachers their first chance to articulate the contact points of digital storytelling with the existing goals of the Tech Year writing course. This articulation began on the first morning of the workshop, January 23, 2006, two and one-half months after Madeline finished her Spreading the Stories training. Madeline opened the workshop that morning with the question: "How do you currently use or incorporate stories in your work, either formally or informally?" In their responses, the teachers noted that they used stories often, as models of good writing, by telling vignettes from their own experience to get assignments started, and by using short stories, novels, and memoirs as centerpieces for analysis and discussion in their classrooms.

Madeline then moved the teachers from this broad discussion of story to her thoughts about why Tech Year and the writing instructors were embarking on "this digital storytelling initiative." To get the discussion started, she laid out a number of reasons that she was interested in digital storytelling. First, Tech Year was growing fast, and it was important to build community, particularly a community of writing instructors.

Digital storytelling, beginning with this train-the-trainer and continuing through the planning and deployment of a new Business Writing curriculum that included digital storytelling, would build such community. Second, Madeline believed it was wise for the writing instructors to get more comfortable with technology in such a technology-centered organization. Third, she wanted the writing instructors to find ways to make more visible what the students and teachers were doing in their writing classrooms. Digital stories, which could be played for internal and external audiences, offered that possibility. Fourth, Madeline believed that personal stories build empathy in classrooms. The digital storytelling process might bring the students in their classrooms closer together and help mitigate discipline issues. And finally, Madeline hoped to integrate more arts into the curriculum at Tech Year, because arts help classroom community grow, promote lifelong learning in the students, and keep the teachers engaged in their teaching.

The teachers were asked at this point to speculate on other ways that digital storytelling made sense for the Tech Year writing classroom. Anna, the Cambridge writing instructor, said that she felt she often gave negative criticism to her students, along the lines of "that's good, but you should write like this, or dress like this." Digital storytelling, for Anna, offered a chance to give her students some positive critique, to meet the students and their lives in more neutral territory. Marie, the Providence site's writing instructor, said that the Tech Year students often had a compelling blend of creativity and tech savvyness, but nothing in the curriculum let them draw on those two skills simultaneously.

Throughout the train-the-trainer workshop, the teachers were encouraged to keep talking about the benefits that digital storytelling might bring to Tech Year, its students, and the writing classroom. The best articulation of many of these ideas came out on the afternoon of the last day of the train-the-trainer workshop, when I pulled aside each of the six participants for a 15-minute interview:

> Susie: I definitely think that we're all looking for something that makes Business Writing as interesting as Tech [classes].
>
> Leslie: I think it will be good because it will combine these two things that are so important to the program, the communication and the tech side.
>
> Anna: A lot of coming to owning your space, owning your position in the professional world, in the academic world, is knowing who you are and being proud of who you are. Doing things like digital narratives that give students a chance to really focus on a specific project, a specific story, for them to decide what's really important about who they are, about their background, about what they want to share with other people and how to represent that with a combination of a story that they write, their own voice—their own tone of voice, their own sense of dialect—and the images that they want to use together, and really focusing on that for a couple of weeks, however long it will take to do that, will give them a sense of turning whatever situation they want to share into a celebration, into a monument of sorts. And that I think does a lot.

While digital storytelling was primarily framed as a practice for teaching writing during this period, the teachers also expressed some other utilities for the stories. Anna said the stories would be "great for fundraising." Leslie noted that they "put a real face on the organization." Anna, Leslie and Marie all thought digital stories might be used to facilitate the students' relationships with their Tech Year advisors and mentors.

Also during this period, a number of problems related to digital storytelling arose. The teachers were anxious that digital storytelling would be hard to deploy in big classes, that the process of revealing a personal narrative might be fraught and difficult for the students, and that teaching the creative, story-generating skills at the same time as

technical skills would be overwhelming. Leslie and Susie capture some of these anxieties:

> Leslie: I'm concerned about implementing [digital storytelling]. I think that logistically it's going to be very difficult. Our classes keep getting bigger—if the writing teacher's in charge of not only helping students on the creative end, but also on the technical end, it's going to be really difficult. And I also think it's going to be emotionally difficult, because I think a lot of times students are uncomfortable talking about autobiographical, personal stuff. And also, even if they're comfortable with the content, they might not be comfortable with their writing. We have a lot of students who have trouble writing, and the revision process is really hard for them.
>
> Susie: [This training workshop] doesn't make me feel like I could do that [teach digital storytelling] with 34 students in the classroom, nine of who will be having a nervous breakdown about something, three who will be high, and the other four who will be pregnant, and I just right now don't… that makes me nervous. But I think if we were given more training in technology—like Photoshop I feel pretty good about, Movie Maker, I feel like that's pretty easy—but the steps that are confusing to me are the transferring things from scanner to network to, you know, the actual software, and the recording piece. But I don't want to make premature judgments based on my own kind of sloppy moviemaking experience.

A number of the teachers worried that digital storytelling wouldn't be perceived as academic enough. Susie captures that sentiment:

> I think there are quite a few people who don't understand how it fits into the Business Writing curriculum. I think it does, because anything that's going to take a narrative, requires a student to come up with a script, edit it, you know the writing process. I think that if we want to sell it to Tech Year, we have to sell it as a process-oriented procedure, just like writing. We also have to sell it as being academic and college-like, because these students are getting college credit and we have to be really careful, because our relationship with City College is very fragile, and very much assembled upon eggshells. So, that's a hard sell, for sure.

My interview with Hannah, the lone technology instructor at the January workshop, struck a remarkably different tone than those with the writing instructors. While the writing instructors were primarily positive about digital storytelling, Hannah

was not. Hannah's main objections to digital storytelling were that it did not connect well to Tech Year's academic objectives and that it was too time-consuming. In her interview, Hannah said that these same concerns were on her mind before the train-the-trainer workshop, the first time Madeline brought the idea of digital storytelling into the learning team meeting. Hannah said that during that learning team meeting,

> I was thinking about what the relevance would be of us spending a lot of time in the curriculum—specifically our program is geared to get students ready for their internships, and I was really wondering what the importance of having them learn Photoshop or editing a movie was [...] I would've preferred them to spend more time on cover letters, interviewing, resumes per se, things they would need, writing appropriate emails—which they already cover. But I was just was worried about what would be cut out of the curriculum for them to take the time and do this.

Hannah also said that although the writing instructors had framed digital storytelling as a technology initiative, the technology used to create a digital story was very different from the technology that Tech Year was currently teaching to students:

> You really have to decide what is necessary for them to know on their internship, because ultimately we're trying to prepare them for that and yes, there are a lot of things that would be beneficial and I'd love to do with them, but just really trying to get them hands-on skills of what they need for their internship […] So that's the key to a lot of things that we spend time on. My students had to know html, so we spent a lot of time learning html. There's tons of things they could've learned in the web, tons of things that I would've loved to teach them, different cool projects we could've done, a lot of Flash—I purposely didn't do Flash, because the majority of them are going to be doing html on the internship. So the same with this, this is really cool—I love new technology, it's something that I think would be fun—I'm just not sure about what the end result would be as far as are they going to gain a lot more skills toward their internship by doing this, or [rather instead] by spending time really knowing how to write an email, resume, cover letter, exactly the things I talked about before.

Another problem that arose during this training workshop was with the technology itself. On the first production day, the teachers got their voiceovers loaded onto the computers and began complaining of slow playback in the video editing

software. Amy Jacobs quickly realized that the computers in Tech Year's classroom had insufficient random access memory (RAM) to handle the high drain of the video editing software used in Spreading the Stories, Adobe Premiere Elements. Amy made the quick decision to switch the teachers over to the free editing software that is packaged with Microsoft Windows, Movie Maker. Movie Maker has its own set of problems—it is notoriously unstable, and prone to freezing and crashing even on powerful computers. These crashes also typically occur late in the editing process, when project files are more complex. These problems happened at Tech Year's train-the-trainer workshop, where on the third day the computers were crashing at a rate of about once every five minutes. Additionally, rather than buy an external hard drive to back up the projects, as Amy had suggested, Madeline had decided to back up to the Tech Year network. One of the instructors, Susie, lost all of her work over a lunch break on the second day of the workshop because of a network error. Overall, the technology at Tech Year seemed quite uncooperative. But perhaps because the teachers expected technology to be difficult, they did not focus on it as a major hurdle.

Despite these problems, there were many successes in the train-the-trainer workshop. The teachers were happy with the chance to get to know each other better—the workshop was a team-building success. They also had a showing on the workshop's final day, at which everyone but Hannah, who felt her story was too personal, screened their stories. Since it was an intersession, the wider Tech Year staff had the time to come in and watch the stories, thus the workshop accomplished some of the internal promotion goals that Madeline hoped for. The teachers' stories would be used down the line at other Tech Year meetings, too. Finally, the teachers took their stories home and used them in a

number of satisfying private ways. The Providence assistant, Ella, had made a story about being raised by her single mother, and gave the story to her mom as a gift. Marie's story was about struggling with Lymes' disease, and showing it to her husband was a powerful experience. Anna, who was in the process of applying to Ph.D. programs, intended to mail a copy of her digital story with her application, to show admission committees how digital media might be used to capture oral histories about contemporary Greek culture. These private utilities seemed to further invest the teachers in digital storytelling.

In summary, during this first period of Tech Year's piloting stage, shown on Figure 4.2 as beginning in late December with Tech Year's commitment to run an on-site train-the-trainer workshop and ending on the last day of that workshop, the writing teachers made significant progress in conceptualizing and preparing themselves for digital storytelling in the writing classroom. The teachers began to build production skills, to better understand the digital storytelling process, and to articulate a language for how digital storytelling matched with and extended the work they already did in their writing classrooms. The teachers also began to explore ways that digital storytelling might serve other organizational purposes, such as fundraising and promotion. Problems arose, too, such as anxiety about coaxing personal material from students and teaching them technology. Possible misalignments between digital storytelling technologies and the technologies Tech Year ordinarily taught students also were raised during this period, and the computers in the Tech Year classrooms were revealed to marginally sufficient for making digital stories. But the teachers produced stories that they were happy with and the larger Tech Year staff was exposed to digital storytelling, both key successes in the project to adopt and implement digital storytelling.

The Writing Team Retreat and Months Following: Planning and Matching for Digital Storytelling in the Writing Classroom

The period between the completion of the on-site train-the-trainer workshop in late January 2006 and the end of the learning and development phase of Tech Year's Class 9, in late June 2006, was projected on an implementation timeline that Madeline drafted early in February (Appendix I) to be the period when the digital storytelling curriculum was drafted and refined. Along those same lines, the July 10 writing team meeting, the first meeting after Tech Year's Class 9 moved on to their apprenticeships, was to be a celebration of the new, completed curriculum. As Figure 4.2 shows, this period began with a growth in the imagined utilities for digital storytelling, as the teachers' train-the-trainer stories were shown and the teachers and other staff at Tech Year talked about possibilities for digital storytelling. But as time went on, those possibilities gradually refocused around the initial local definition of digital storytelling as a way to teach students writing. The key events during these five months were the following: a national writing retreat in early February, during which the teachers brainstormed how digital storytelling might fit into a revised Business Writing curriculum; the monthly writing team meetings, at which this curriculum was further developed; a pilot of a "photobook" assignment by the two Boston teachers, Madeline and Susie; and the writing instructors' presentation at a national conference on digital storytelling, the Gathering of Community Digital Storytellers.

In terms of progress with the implementation of digital storytelling as it had been initially locally defined, as a way to teach the students writing, this was a period of much

reflection on and planning for classroom use of digital storytelling. This planning began less than a week after Tech Year's on-site train-the-trainer workshop, when the writing instructors met for a scheduled national writing team meeting. These meetings, which bring together the writing instructors and assistants from all Tech Year sites, happen about once every six months at Tech Year and are most often held at the Boston site. Madeline set the main agenda item for this meeting: rethink the writing curriculum in light of digital storytelling, and discuss how that curriculum might be redesigned to cut out ineffective components and make room for digital storytelling. By the end of the day-long retreat, each site had generated a draft of a potential revised course curriculum, with at least one unit centered on the production of digital stories.

Besides generating classroom curriculum, Madeline was also able to draw up a detailed plan for the classroom implementation of digital storytelling, called the "Digital Storytelling Timeline" (Appendix I). She created this document immediately following the national writing retreat, and circulated it among the writing instructors and to her supervisor, Tech Year's Chief Academic Officer, Clark Cross. The timeline emphasized the key activities shown in Figure 4.2: planning, production, and showings/discussions. The timeline also included milestones related to documenting the new digital storytelling curriculum; most of the documentation tasks were assigned to Anna, the teacher who was most enthusiastic about digital storytelling during the three-day train-the-trainer workshop. The timeline also added deadlines for applying for external grants to fund digital storytelling, and two visits from Stories for Change to get further technology training. At Amy Jacobs' suggestion, Madeline also included a requirement that each instructor help at least one student to produce a digital story before June. The strategy for

advancing the initial utility of digital storytelling—using the practice to teach writing—was thus captured in an organizational document three months after Madeline had completed her Spreading the Stories training.

The classroom use of digital storytelling was also made more real during this period when the two Boston instructors, Madeline and Susie, piloted a classroom project that they believed would be a digital storytelling stepping stone, the photobook. This photobook assignment, piloted in June in the last unit of the Class 9 curriculum, asked each student to create an extended photo essay bound into a blank book, with a personal narrative about a community the student belonged to at its core. The photobook was imagined by Madeline and Susie to be a first step toward the end goal of offering digital storytelling in their classrooms, appropriate as a stepping-stone because it required use of a personal narrative and photos, key components of a digital story. Madeline and Susie were pleased with the results of this assignment, and they held a reception at Tech Year one evening in June, where students displayed their photobooks for parents and friends.

The teachers also worked on refining their pedagogical rationale for digital storytelling by preparing for and presenting at the Gathering of Community Digital Storytellers, held on the campus of the Massachusetts Institute of Technology in late June. At this conference, Madeline and Susie, along with the new Cambridge writing instructor, Rhonda, and Marie, the Providence instructor, each took turns describing what steps they were taking towards digital storytelling production in their classrooms. Susie and Madeline spoke about the photobook assignment, with Susie noting that they were "implementing [digital storytelling] in little chunks" and that the photobook assignment was designed to "get students to think visually." Marie talked about various

autobiographical prompts she'd been experimenting with in an attempt to help her students draft a narrative; she also spoke about videotaping student presentations "to get them comfortable with talking about themselves on in front of an audience." The teachers also passed around copies of a digital storytelling teachers' manual that Anna, the outgoing Cambridge writing instructor, had produced. This manual was designed as a digital storytelling teaching resource for Tech Year writing instructors. The bulk of the manual detailed how to use the essential hardware and software in the digital storytelling process, and it also included a few curriculum materials, including a broad seven-week lesson plan and a rubric for grading student stories.

Besides generating curriculum, a process that would continue at the monthly writing team meetings throughout the spring, the writing instructors established a strategy for promoting their revised Business Writing curriculum. They decided show some of the digital stories from the January train-the-trainer workshop at an all-staff meeting in March, along with a collaboratively written statement about why they were revising the curriculum. The teachers would show more stories at the next staff meeting, along with some drafted curriculum materials. Madeline saw this visibility as key to moving digital storytelling forward: "They'll [the rest of the Tech Year staff] be hearing from us until they're sick of hearing from us," she said.

As planned, Rhonda read two paragraphs collectively written by the writing team at the all staff meeting in late February of 2006:

> The writing team has been sharing curriculum ideas focused on balancing practical, business-oriented lessons such as e-mail etiquette, resume writing, and grammar with lessons that will, on a practical level, prepare our students for the reading, writing, and thought-based inquiry that is typical of an English 101 classroom while at the same time offering them avenues for self expression and self knowing. By incorporating culturally based readings, multi-media learning,

> field trips, and creative projects into our curriculum, we are offering our students these very opportunities in the hands-on, experiential, visual, and auditory ways that appeal to their learning styles. We as teachers are also spreading our wings beyond a strictly defined business writing focus and incorporating our talents, interests, and passions into the curricula we develop and share with students, thereby making the writing classroom more open to being an interactive experience between teacher and students. Additionally, we are grounding our curriculum in Tech Year's core values of "strive to learn" and "work hard and have fun."
>
> This curriculum will not detract from our students' learning and preparation for their apprenticeships and the jobs they will find after; it will, rather, enhance, deepen, and broaden their learning. Our students will still benefit from important lessons such as e-mail etiquette, making presentations, and writing business letters—all of which are hallmarks of any business writing classroom, yet they will also have the opportunity to read the types of literature that can guide them towards becoming open minded and self-aware in ways that will serve them well in the future. Offering such opportunities positions the writing curriculum as the expressive end to Tech Year's social justice-based mission.

Although digital storytelling is not directly mentioned in these paragraphs, the teachers showed two stories produced in the train-the-trainer workshop before reading these paragraphs, effectively defining digital storytelling as one of the core projects in their revised Business Writing curriculum.

One of the notable happenings at this meeting was that it was the first time that Alex Parker, Tech Year's founder and CEO, gave his verbal support for digital storytelling. Alex explained that he shared the teachers' interest in digital storytelling, and that he was very excited to see the writing instructors' ideas for integrating digital storytelling into the Business Writing curriculum. More of Alex's support was won a few months later, after the teachers had presented at the Gathering of Community Digital Storytellers. Marie had returned to the Providence Tech Year site reinvigorated about digital storytelling, and wrote an assignment for her students modeled on Susie and Madeline's photobook prompt. She had her students produce digital slideshows, and

when they were done, several weeks later, she sent two samples on to Alex. Alex forwarded the slideshows to several people in the education and nonprofit sectors, with the comment:

> Folks—I thought you might like to see this. Just hit "play show" below. The two students mentioned attend the program that I founded, Tech Year, and they have either a GED or a high school diploma. The grammar would indicate otherwise although the thoughts are powerful.

Alex received lots of positive feedback on the stories he circulated, which likely contributed to his continued interest in digital storytelling.

In these months, while the teachers were planning pedagogical uses for digital storytelling, others in the organization, particularly as they watched the teachers' stories and thought about the practice in relation to their own jobs, thought of other potential uses for the stories. Clark, Madeline's supervisor and the Tech Year CAO, said this about his growing interest in digital storytelling:

> Initially I was like, so what, you know. I think Madeline wanted me to be as enthusiastic as her, but my initial reaction was yeah, okay—show me, prove it to me that [digital storytelling] has a place. We take it to a learning team meeting, and there's a lot of questions about it, and I just sat back and listened to the questions, and I think Madeline kept on 'we're gonna do this, we're gonna do it, it's important, we're gonna do it.' So I started thinking about it more, and listening more, and paying attention more, and I kind of over a weekend had almost what you'd call—I don't know if you'd call it an epiphany—but over a weekend I had kind of a turn around on it. Two things happened: one of the other people in the organization has been hammering on me to come up with a newsletter, and in my years in corporations, I've learned that newsletters are fun and interesting for like the first three editions, and after that they become someone else's drudgery. And the bad thing about them is you've created an expectation that they'll happen with some degree of regularity, and almost every job I've taken, in a variety of different companies, being the new guy coming in and you know there's always this attempt to foist the newsletter on me. So you know, um, so. But I saw this [digital storytelling] as a way of opening up communications with a variety of people who, and I'm still, that's where my inclination is now, in terms of the audience, I want—it occurred to me that the audience are the mentors, the audience are the teachers, the audience is the staff at large, the audience is the board, the audience is our funders—what I want to see this

> become, I want to see this as a tool that we can use to tangibly use to change people's perceptions about our kids, and in turn change the workface of America. By the way, I made up that phrase. That's what I want, because it's media, and that's where society is—you can't differentiate in paragraphs anymore, people have become really horrible readers, and even worse writers, and I think it can become Tech Year's bully pulpit.

Although he never gets to the second thing that changed his mind about digital storytelling, Clark expresses what many in the organization saw as the potential for digital stories: as vivid media that might help Tech Year in their ongoing project to make a larger social impact by changing the perception of urban youth.

Jack, Tech Year's Technology Director, voiced another possible organizational use for digital storytelling when I interviewed him in early April of 2006:

> I think it would be an awesome elective class during Internship Management—we call it Apprenticeship Management now, we're trying to change everything from "internship" to "apprenticeship"—our Apprenticeship Management classes happen on Wednesday afternoons, so that's when our students who are out on apprenticeships come back once a week for two hours to be with us. We've broken this up into the first seven or eight weeks is kind of a liberal arts type elective, they usually have three choices at each site, the second seven weeks is kind of a business or technology-related elective, and the third term they actually don't get an elective, everyone does college/career prep stuff. And so the liberal arts electives have ranged everywhere from racial issues in the media, to, I've taught an Econ class at one point, all kinds of stuff—it could be anything. And I think it would be really natural for this kind of thing, because I think there's some people that would get really into it, and just be really psyched, and the amount of time—I *think* it's probably about ten hours of class time—I think that's enough time to do it.

Jack's idea that the practice be part of the student's Tech Year experience, but not in the official six-month "learning and development" phase of Tech Year's curriculum can be conceived of as either another possible utility for digital storytelling, or as undermining the main way that the writing instructors imagined it could be used. In fact, the promotion of digital storytelling, while it on the one hand promoted the teachers' intended use of digital storytelling as a viable classroom practice, also gave organizational members

impetus to begin thinking harder about the ways that the practice did *not* fit in the Business Writing curriculum. This was one of several problems to surface during this period. At the March 6 all-staff meeting, some of the staff questioned aloud whether the practice might be "too artsy," and others wondered where exactly it would fit into the curriculum, as Jack again says,

> On the one hand, it helps them with the sort of self-reflection and the opening up. On the other hand, it doesn't help them as directly with the sort of preparation for the apprenticeship, which fundamentally is the role of this part of the program. So I do find that a little tough. And the question over on the sort of tech side of things, you know my personal feeling on that is it's really not that techie. You know, there's a little piece of it that's okay, you need to learn to use a couple of these tools that are technical tools, Movie Maker and Photoshop. Photoshop you can see an argument for bringing into the tech side, because hey that's just such a useful technology tool anyway. You know, Movie Maker, probably not a useful tool. But I think my feeling is having seen the reaction of some of the technical instructors, and particularly Hannah, who was kind of pushed to go do this, as I'm sure you know, is kind of like, alright, it doesn't fit *naturally* into the technical curriculum, as the curriculum stands now […]

A second problem that arose during this period was a conceptual confusion among the writing instructors. During the February national writing team writing retreat, two primary understandings of digital storytelling in the writing classroom emerged. The first framed digital storytelling as a way for the students to do 'identity work,' to explore the multiple sources of their personal identity. The second framed digital storytelling as multimedia work, with a primary aim to have students write texts that would then be delivered via new technologies. While perhaps not mutually exclusive classroom aims, there was confusion about whether it was the personal reflection and identity exploration key to writing a digital story script or, on the other hand, the digital technologies used in the production of a digital story that was to be the focus of the redesigned curriculum. This confusion revealed itself in the results of a task Madeline gave the teachers at the

February meeting: to begin drafting a new curriculum that kept only those elements of the current curriculum that were valuable and to build in activities that would lead students to one unit centered on digital storytelling. The sample curriculum that Madeline presented in the morning of the February retreat had a bit of both the identity and the multimedia aspects of digital storytelling in it. Madeline's curriculum was split into three 7-week units, each with an identity-related theme: the first unit on individual identity, the next on group identity, and the third and final unit on collective identity. Each unit had a set of core readings, and two or three writing projects, such as altered books, photo stories, and a "collective identity anthology." Madeline imagined digital storytelling fitting in the second unit of her curriculum, on group identity, and her digital storytelling project idea was that students would work "in small groups, paired with students of similar backgrounds or race. Students will work together to create one story that unifies who they are as a group to present to the whole class."

The drafted curriculum produced by the other teachers at this retreat show some confusion about whether the overall project was to refocus the Business Writing curriculum around multimedia technologies or around the identity theme. The Providence instructor Marie and her assistant Ella, for example, had designed three units moving along the individual-to-collective identity continuum described by Madeline, with digital storytelling as the last assignment of the course. Susie, Boston's fourth floor instructor, on the other hand, seemed more concerned about structuring multimedia work into the curriculum, and proposed a photo essay and an audio essay project preceding a last unit on digital storytelling. There was no identity theme in her drafted curriculum. The new Cambridge instructor, Rhonda, who had not participated in the January train-the-trainer

workshop, drafted a curriculum centered on the identity theme that included no multimedia work—not even digital storytelling. The question of whether it was the identity exploration or the multimedia work of digital storytelling that was key to its fit with Tech Year was never addressed at the February 3 meeting.

The teachers not only had conceptual difficulties generating curriculum, they also had practical difficulties. Madeline assigned the task of curriculum revision to the writing instructors in seven-week chunks. They were to come to the March 6 Writing team meeting ready to share their elaborated first seven weeks of curriculum, the April 3 meeting with their second seven weeks ready, and the May 1 meeting with their third seven weeks drafted. This sounded like a reasonable approach, but it had fallen apart by the April meeting, by which point discipline and ESL problems were raging in the teachers' classrooms and had to be addressed. At this meeting, Madeline said, "I definitely think we should go forward with digital storytelling, and Rhonda [the new Cambridge writing instructor] should pilot it with this class, but we definitely have some big fish to fry." In general, it was proving difficult for the teachers to write curriculum on top of their full-time job responsibilities.

After the February writing instructor retreat, as Figure 4.2 shows, it would be six months before another digital story was produced at Tech Year. But, with varying degrees of success, the teachers kept at their curricular planning and promotion of digital storytelling. In terms of planning, they made some progress with further elaborating a curriculum, they piloted one multimedia project in the Boston Business Writing Classrooms—the photobook—and they came together to make their presentation at the Gathering for Community Digital Storytellers. In terms of promotion, they followed

through on the plans to speak on digital storytelling at staff meetings, and they were able to win the support of Tech Year's CEO, Alex.

In summary, however, I would characterize the period after the Writing team retreat, from February 2006 to June 2006, as one with a sum loss of momentum. Most of the goals of the "Digital Storytelling Timeline" (Appendix I) were not met. Rhonda, the new instructor at the Cambridge site, kept being pressed by Madeline to design a similar digital storytelling implementation timeline for Cambridge, but never did so. And despite Amy Jacobs' suggestion that it was very important to keep making stories, the only production in this period was early on, when Anna helped Susie to complete the digital story that she had lost to a network error in the January train-the-trainer workshop. This process was not particularly smooth—they had trouble with Susie's computer crashing again, as well as difficulties rendering the final project into a video. Besides this activity, however, there were no other stories produced for six months after the January three-day training. Rhonda was supposed to make a story in her free time, and although she got as far as scanning her photographs, it was not until many months later, in the next intersession, that she found the time to explore the video editing software. In summary, during this period there was much talk about producing stories, but little action.

More Pilot Activity: The CEO's Story

The next period I will discuss is a short period in July, the first time that a story was produced at Tech Year since the January train-the-trainer workshop. This story was that of Alex, Tech Year's founder and CEO, a narrative connecting the long-term relationship he had with his little brother in the Big Brothers-Big Sisters program to some of the core principles he had as the founder of Tech Year. Figure 4.2 shows another

widening in the digital storytelling possibilities upon the showing of Alex's story, as well as a new path diverging from the initial local definition of digital storytelling, labeled "planning: video for PR/fundraising." Alex's story showed how a digital story could help an organization explore its mission, and in subsequent months, it showed how digital stories could work to promote and raise money for Tech Year. Alex's story also suggested that a few, excellent stories might be a more feasible production goal than having every student at Tech Year make their own story.

While there was no direct planning for digital storytelling in the writing classroom that marked the months earlier, this period may have influenced the implementation of digital storytelling as a classroom project by bringing Madeline, who had charge over the classroom implementation, into a tighter relationship with Alex, Tech Year's CEO. If digital storytelling was going to make it into the Business Writing curriculum, it needed Alex's support. Alex, perhaps motivated by the positive feedback he had received on Marie's students' digital slideshows, had grown more visibly intrigued by digital storytelling of late—he thought it might work as a capstone project, and as "a way to showcase Tech Year's innovative approach to teaching business communication." He had approached Madeline in June to brainstorm about digital storytelling, and they had a meeting at which Madeline walked Alex through a handout distributed in a Race and Education course that she had taken in the fall with Tech Year professional development funds. This handout, written by the Theresa Perry, Madeline's professor, outlined the concept of dominant narratives and counter narratives. For Madeline, the idea that her students' digital stories could serve as counter narratives that might undermine the largely negative dominant narrative about urban youth had been a constant source of inspiration.

Alex, too, was intrigued by the idea of using digital stories to help build what Perry calls a "culture of achievement" at Tech Year. Alex decided that he would make his own digital story, trying to make explicit that culture of achievement.

Alex's story did more work to suggest uses of digital storytelling at Tech Year that were not pedagogical and centered in the writing classroom. One such use was that storytelling might help Tech Year to articulate and promote an organizational narrative. Before Alex played his story for the staff gathered at the national Tech Year staff meeting, he introduced the story as so: "Today is a day to talk about growing Tech Year. The organization is still small, so the great thing is that we can control the culture. We can control the vision and the culture." Alex's story was powerful, an elegantly paced narrative of how his relationship with his little bother David, from the Big Brothers-Big Sisters program, reflected some of the core principles of Tech Year. His relationship with David was consistent—Alex never missed a Saturday visit for three years. The relationship challenged David, who Alex said in his narrative "later […] would tell me he hated me for making me talk to so many white people." And it had at its core the core philosophy of Tech Year: high expectations/high support. As Alex's narrative explained, "When David told me his dream was to study animation, I made a deal: if he could get in and maintain better than a C average, I would pay for his education. It was a fair deal, not a handout." The story ended with the revelation that David was now a successful animator for Walt Disney, as well as a Big Brother himself.

After the story was played for the staff gathered at the national staff meeting, Alex and Madeline further developed some ideas about how digital stories might help in the articulation and promotion of Tech Year's organizational mission. He said his story

and the process of making it, "Helps me to address the question of 'How do you keep a culture alive?' I see lots of potential for this. It might answer the question 'What is it like to be a teacher at Tech Year? A site leader?'" Madeline, who delivered a PowerPoint presentation about Tech Year's narrative, added the idea of exploring dominant and counter narratives through digital storytelling, and passed out the same Theresa Perry handout to the national staff members that she had earlier shown Alex. As Madeline began to discuss Perry's concepts, Alex interrupted to say that when Madeline first showed him the handout, it was very powerful, because "it really reinforced a lot that we were already doing." The next several hours of the meeting were devoted to putting the staff in small groups that were assigned two tasks: to read through a statement that Madeline and Alex had crafted, titled the "Tech Year Narrative," making edits as they saw fit, and, to add to a list of "Ideas/Recommendations/Starting Points," which contained concrete ways that Tech Year might provide "high support" to both its staff and students.

Alex's story also marked the first time a story was produced at Tech Year in a logistical arrangement different than a small, intensive workshop. Alex wrote and recorded the script and provided most of the story's photographs, and Anna, who was working as a project consultant at Tech Year while she awaited the start of graduate school, did all of the story's production. This story production arrangement was one of the main reasons why I presented a new path on Figure 4.2. to indicate this activity. Cutting the group story circle and the self-production out of the digital storytelling process makes it a bit closer to the intra-organizational production of promotional materials than to digital storytelling as it has been globally or locally defined.

While this was largely a successful deployment of digital storytelling at Tech Year, a few minor problems arose. First, Alex's increased interest in digital storytelling brought with it an increased need to justify the practice in terms of outcomes. In one of the meetings with Madeline to revise his story draft, Alex said,

> [W]e need to be able to show that it promotes cognitive development. I don't know much about that, but I trust you can figure it out. We'll need to figure out whether it's the best place to spend our educational dollar. I want to do it because of that, not because it's innovative.

Madeline and the writing instructors had thus far given very little attention to defining outcomes for digital storytelling. Their assumption had been that the stories would speak for themselves, but Alex's words suggested that this was not the case.

Another problem occurred during this period because Alex's story was part digital story, but also part Tech Year promotional material. As a digital story, it had been made by a novice producer using inexpensive hardware and software. While its rough production quality had charm for the internal audience of Tech Year staff, over time, as Alex showed his story to potential funders, he began to be bothered by its low production quality. The story's sound was hissy, the music was a little too loud, and the images seemed, Alex thought, paced a little slowly. If digital stories were going to be used to promote the organization, particularly an organization like Tech Year that put such emphasis on the importance of professional appearance and attitude, the stories needed to look professionally produced.

Overall, however, this was a period of digital storytelling success. The benefits brought by Alex's digital story did not end at the national staff meeting—he had the story burned to a compact disc and carried it around with him, showing it on fundraising

pitches and private meetings. The story was very effective, and with it he was able to persuade several viewers to donate on the spot. And the project was for Alex personally rewarding—he someday hoped to write a book about Tech Year, and this was for him an important first step, drawing on the creativity necessary to write such a book. Anna and Madeline also took pride in the involvement they had in the creation of Alex's story and in structuring the discussion of Tech Year's narrative. As we can see in Figure 4.2, perhaps because of these successes, the next digital storytelling activity followed hot on the heels of Alex's story.

Back to Planning for the Initial Use: The AM Pilot

Whether digital storytelling momentum was started by the public showing of Alex's story or the slow building of momentum suddenly crested, in early July Alex and Clark agreed to all of Madeline and Susie's proposed terms for the first pedagogical use of digital storytelling, which would happen in a pilot Apprenticeship Management course. Apprenticeship Management (AM) courses were offered to students out on their apprenticeships, when they returned to Tech Year on Wednesday afternoons. The digital storytelling AM pilot would be limited to six students, all of whom earned A's in their technical classes during the learning and development phase of the program. Madeline and Susie would co-teach the course, with technical assistance from Steve, one of the technical instructors. The setup of this pilot—three instructors helping six motivated students—was not unlike the high-support model of both the Spreading the Stories workshop and Tech Year's on-site train-the-trainer. To further simplify the process, students would use the narrative and the photos from their photobook assignment as the raw material for their digital stories.

The writing instructors all came together in a national writing team meeting in early August 2006 to plan the AM pilot. Although the course would not be deployed in a writing classroom, the AM pilot was a significant step in the implementation progress of digital storytelling as a way to teach writing, because it marked the first time the teachers had to deal with the reality of teaching students digital storytelling. They had to ready the computer classrooms, ready the staff, ready their teaching documents and lesson plans, and finally, ready their party line, deciding how they would frame digital storytelling to the AM students.

The task of readying the computer classrooms was delegated to Steve, the technical instructor who would assist with the course, and his intern, Christa. The necessary hardware had been purchased back in January 2006 for the three-day train-the-trainer workshop; Steve and Christa mainly had to figure out what software the students would use. They decided to stick with Movie Maker and to use, instead of Photoshop Elements, the photo editing software included with Microsoft Office, Microsoft Picture Manager.

Madeline gave Susie the task of drafting the six-week schedule, which Susie produced by working off of a sample syllabus that Anna had included in her digital storytelling manual. That syllabus followed the general order of the digital storytelling steps presented in Figure 4.4. Susie also pulled together a course description that would be distributed to the students, marking the first time that the teachers had put on paper language framing digital storytelling for students:

> This digital storytelling course is an introduction to the ***crafting*** of a ***non-fiction story***, your story, in the form of a ***memoir***. Much of what you learn about creating and perfecting a ***narrative*** this semester will come from your own process of discovery through ***revision***, as you put fingers to keyboard and give it a whirl.

> Frequent in-class exercises and out-of-class assignments will help you generate ideas and channel your vision into a successful digital story by the end of seven weeks.
>
> During the first half of the course, you will have the opportunity to learn from the work you completed last semester on your photo-books. We will read these works from the vantage point of ***literary critics***, as well as ***directors***. The second half of the course will function as a ***workshop***, granting you the opportunity to learn from each other as you receive feedback from your peers on your digital stories. [Emphases in original]

The emphasized terms in this course description were collated into a handout listing terms that the students should be able to define; the handout also contained some terms from fiction and memoir writing about how to bring stories alive through setting scenes and characterizing. This framing seemed a bit off-task for digital storytelling, but Madeline praised Susie's efforts and said the handout would work great in the pilot.

Planning seemed like it would proceed without a hitch until a problem arose related to the idea of having the students use the photobook narratives they had created in the Business Writing class as the scripts for their digital stories. One of the key problems that had come up when Madeline and Susie had done the photobooks was an epidemic of "captioning." While some of the students had drafted a short, cohesive narrative, they had ended up severely editing or discarding this story in favor of what were essentially captions under their photographs. The students' compositional choice surely had much to do with the limitations of the two-dimensional page: there was not an obvious way to include large blocks of text with photos; captions more naturally fit the medium. Recognizing, then, that the students might not have much of a story script to work with, the teachers began to discuss how they might help the students revise their captions into a

more unified narrative. But none of the teachers had particularly good ideas about how to do this. Soon, the whole plan to use the photobooks as a stepping-stone began to unravel:

> Madeline: I think they should keep the images from the photobook, but go away from the narrative. If they go away from both, they won't get it done. The pictures that the students took were great. But the narrative, it's more like captioning than a narrative.
>
> Susie: You've got to be careful though, because they chopped up all of their pictures to put them in the books.
>
> Marie: And it seems like the pictures, if we keep them, are going to drive the story.

This was quite a deflating moment for the teachers. They felt they had not procrastinated, they had set up a logical plan to move forward in their digital storytelling effort by piloting the photobooks and using the materials in the photobooks as starter material for the digital stories, yet in the twenty-third hour their plan to incrementally implement digital storytelling was clearly crumbling. The work they put into the photobooks seemed at best vaguely useful, possibly totally irrelevant, or at worst, something that they would need to spend precious time *undoing* before they could begin the work of *doing* digital storytelling in the Apprenticeship Management course. The decision was made to give the students the option: if they wanted to use their photobook narrative as their digital story script, they could. But there would also be a series of writing prompts offered to help them generate a new script.

Besides the photobook difficulties, one other important problem arose during this planning period. Now that staff members that had not been involved in either the Stories for Change workshop or the January on-site train-the-trainer workshop were getting involved in the teaching of digital storytelling, they brought to this task different definitions of digital storytelling and different models for implementing it. Rhonda, the

Cambridge instructor, who was to pilot digital storytelling in the Apprenticeship Management course in Cambridge, had prepared herself by using Movie Maker to compose her own digital story. During the August meeting, she explained her composing process, which began with selecting the photos. She had written her narrative, which was less a story than a verbal gloss of the photos, after selecting and arranging her photos:

> So what I did—if I had to write, I wouldn't have been able to write the digital story that I'm so psyched about. What I did was I had a thought, and I started looking for images […] The narration, I couldn't have done it if I had to write it before.

The idea of writing a script first, of paying undivided attention to one's story and working to bring it through a complete arc beginning with a conflict and ending with some sort of change and resolution is sacrosanct to digital storytelling, what separates it from other forms of multimedia composition. Concentrating on the story is also key to framing digital storytelling as an activity appropriate for the writing classroom. Rhonda's framing of digital storytelling then was outside the local and even global definition of digital storytelling.

Christa, Steve's intern, who had also never made a digital story and had in fact watched one for the first time just minutes before the August planning meeting began, suggested another classroom idea, one that reflected her artistic bent:

> Maybe if you're trying to get away from the caption thing, showing [the students] the entire digital story with only photographs, or only images, to say, hey, look, these images don't have any captions, or any words even, but you can understand what's going on. I actually have a series of photos that I could whip up quickly—it's very literal, doing that, it's you know, showing a digital story that includes no sound, or text, just photos alone. I may be a little photo-centric in my head, so stop me if it's not relevant or useful, but showing an entire digital story of just photos, with a very easy concept—I have a series I've been working on, of buses and trains, so just beginning at the train station, getting on the bus, blah blah blah blah, something very easy to follow, seeing it all in photographs, without a single word of explanation. You see what's going on, and you see that the image can

> speak for itself without needing that caption, or that narration. And then saying what if you only had six of those photos, what would you put in between? Like substituting some of those photos with words, but not explaining the ones that are left over.

Like Rhonda's composition process, Christa's idea frames digital storytelling as less about developing a personal story, and more about learning how to communicate with images.

After listening to all of these ideas, Madeline had the following to say:

> So looking at the digital storytelling [manual] that Anna made, I don't know how you guys feel now, but I feel like oh my god, there's so much that we need to prepare [the students] for, and there's so many ways to do it. I don't have a clear idea of how to do that […] I do think that we all have something to learn about this process. Because I don't know how to do it, either. I don't know the best way to teach it. And who knows, you guys, who knows if we're going to find a better way to teach it. We might. It might not be the way that SFC teaches it […] it's kind of treading new water.

Despite the uncertainty, a Tech Year digital storytelling pilot for students was finally happening, and under fairly auspicious conditions, including a small and motivated group of students and the help of new allies, like Steve.

The Apprenticeship Management Pilot

The Apprenticeship Management digital storytelling pilot was a significant step forward in the use of digital storytelling at Tech Year. It was a chance to test plans, assumptions, and documents, and it was a chance to see what students would produce when they were prompted to make digital stories.

The key progress made with the implementation of digital storytelling as it had been initially locally defined, as a way to teach students writing, was that the pilot at last showed the teachers how the students would respond to digital storytelling. In fact, from the first day of the AM course, it was clear that the students, like the staff that had not

been exposed to an SFC-style workshop, would bring their own definitions of digital storytelling to the table. These students definitely had exposure to short, user-made videos, primarily via MySpace and YouTube. On the first day of the Apprenticeship Management pilot, after the students watched a digital story and discussed their questions and expectations about the practice, they got excited about posting to YouTube and MySpace, expressed disappointment that they wouldn't be able to use Flash, which they perceived as fancier software than Movie Maker, wondered if they would be allowed to use movie clips, as opposed to just photos, and seemed disappointed that they only had three minutes to work with. In fact, Madeline ending up devoting two and one-half, out of six total course periods to orienting the students to what exactly digital storytelling was, particularly its focus on crafting a shapely narrative. In the second AM class, what Madeline had conceived of as a brief warm-up activity—brainstorming around the words "digital" and "story"—ended up taking up almost the entire class period, as Madeline answered questions and dispelled myths about what they'd be doing, including that they would not be using PowerPoint, that they should not, like Rhonda, compose the visuals and then write the story, that they could not substitute music for their voiceover, and that they had to read their own voiceover. But in the end all of the students seemed excited to produce their own digital stories, and in fact they ultimately created products that looked quite like 'typical' digital stories.

The AM pilot also gave those at Tech Year a much more realistic sense of the resources necessary to successfully teach digital storytelling to Tech Year students, particularly time and human resources. Issues related to time I will relate below, in my discussion of problems. In terms of human resources, one of the realizations during this

period was that assistance from the technical instructors was important. Steve's involvement in the pilot, and in the digital storytelling effort overall, was something Madeline considered essential to its success. He was a contrast to the rest of the technical instructors, who were either too busy to help, or, like Hannah, seemed to deliberately steer clear of digital storytelling. Steve was in his early thirties, and had spent ten years working in technical start-up companies, but it was his artistic inclinations—he was a musician, and had spent the first year and a half of college studying to be a music educator before switching to computer science—that seemed to draw him to digital storytelling. When I asked Steve why he agreed to help with the AM pilot course, he said,

> I was asked by Madeline to co-facilitate on the project. I wanted to be involved in it for a couple of reasons. My music background, my video interests, wanting to see how the project was going to evolve. It really seemed to capture all the things I was interested in as well, you know music, video editing, writing—all these things, all in one. So that was definitely what drew me to it initially. In addition to that, I also knew that they needed somebody that had these abilities, and they didn't have anybody, so the fact that she was asking me, I was like okay, there's nobody else that's going to do this. I have the opportunity to do this, I have the background to do this, and it's something I'm interested in. At the time I had some time, so I was like, ok, this is definitely something I'm going to do. I'm definitely glad I did do that, and I wrote that 20-25 page document on how to do this stuff—I'm still expanding that—and it turned out to be a very good experience. But I really think that it just captured all my skills.

Steve was helpful both in the production process and because he wrote documentation for the software that the writing instructors were unlikely to write. Steve also formulated a number of ideas about how to teach digital storytelling if and when it was deployed as part of Tech Year's official curriculum. Among Steve's ideas were ways to create "deliverables" throughout the production process, grading individual parts of the story-making process, which Steve believed would both keep the students better on task and

relieve some of the stress the instructors felt when it came time to assign grades to the very personal stories.

Another important development during this period was that the students found compelling ways to define the value of the digital storytelling process. One of the students, Avia, who was experienced with making fan videos, had this take on digital storytelling:

> I was hoping that I could learn a new skill, because I was so used to using [video] clips, instead of just images to project my point of view […] With images, you have to think more, you have to incorporate, you have to see how is it that what you're saying really relates to this photo. And with clips, it's a little bit different, because you have to use a lot of timing, especially if you're using clips from other places. So how do I explain this? With videos, in order for you to explain the scenery, you have to show that scenery. But with images, you only get to use one frame, and it has to express so much more than just a clip.

Another student, Julio, conceived of digital storytelling as a kind of professional training:

> Well, I'm not sure if you'd have to do this within an internship, but if you had to make a PowerPoint presentation, or if you had to convey a message to say a board of directors or something, you'd be able to do it professionally. It wouldn't be sloppy or anything like that […] Just try to make it look professional, not like you just threw it together. Like you spent time and you tried to convey your message clearly.

Both of these students put an interesting and positive spin on digital storytelling.

But the students' differing definitions of digital storytelling also caused some problems. The story circle brought up several of these problems. Julio could not be convinced of the story first, photos later procedure, and ultimately created a very general narrative that was clearly written after laying out his photographs. Tony, who wanted to write about the Oxycontin epidemic in his neighborhood, also wrote a very general story. He knew that digital storytelling was a time to tell a serious story, but he was worried about exposing people in his neighborhood by revealing too much detail. Sophia wrote a

story about her rock star parents, intending it to be a spoof. Madeline had to tell Sophia that a made-up story wasn't an option. Although this digital storytelling workshop had the same number of participants as the on-site train-the-trainer back eight months ago, clarifying what digital storytelling was and what an acceptable digital storytelling narrative looked like took much more time and effort.

Time and pacing in the workshop also did not unfold as it had at Tech Year's on-site train-the-trainer workshop. First off, there was less time available: six 1.5 hour sessions, as opposed to three nearly full days. Not only were there about half the total hours, but having short class periods rather than day-long chunks made the process less time-effective. One student, Rith, addressed the issue of time:

> […] I stayed one night, 'til like 10:30 or 11:30, just to finish it. It shows that we need more time, the actual project, not more explaining. Cause we took a couple of classes to explain it, and we only had a couple of classes, an equal amount, to do it [… and] sometimes when you get going you really want to keep going. I don't know, it might take some time starting up, cause you have to find all your pieces, and open up all your stuff, take you maybe ten minutes to get started, to find all of your pictures and stuff and then start work. And then it takes like another ten minutes to save everything, put away the pictures and stuff. And then the next day you have to do the same thing, so it takes you a lot longer.

As Rith explains, not only did "explaining" take up a lot of the available course time, but the nature of digital media and digital writing meant that the startup and close-down of each production day consumed a large chunk of time. In the end, the students didn't record their narratives until the fifth of six scheduled classes, and almost all of the story production was done in one extended class plus an additional after-work cram session the week after the course was officially over.

A second key problem that arose in this pilot was that the compressed schedule ended up making almost all of the technology teaching fall to Steve. While Steve came to

all of the classes, he did not lead the class until the fourth session, when he took the front of the room to describe the scanning process while Madeline continued working with students one-on-one on their story script revisions. It was Steve that scanned most of the students' photographs and who taught most of the technology. Part of the pilot's premise had been for Madeline to get some experience teaching technology, but the only technological part she participated in was helping the students to record their voiceovers. Furthermore, Susie, who was supposed to co-teach the AM course with Madeline, ended up only helping via electronic comments on drafts, suggesting that she was ultimately not very interested in teaching digital storytelling.

Finally, the class ended in such a rush that one of the most sacred parts of the digital storytelling process, the group showing for all participants, did not happen. A showing was scheduled for the week following the last AM class, but was postponed. Not until three weeks after the end of the pilot were the first three of the six AM student stories shown. The three other stories never had a public audience at Tech Year. And Madeline and Steve never got several of the students copies of their stories. The final stage of producing a digital story, which involves exporting the story out of video editing software, typically compressing it in the process, and then burning the file to a compact disc or DVD is time consuming, particularly when you have a good-sized group of storytellers. On a slow computer, it can take 15 minutes for a Movie Maker file to render into video, and burning to media can take equal that time. Although distribution details were given little attention in either the Spreading the Stories workshop or the Tech Year train-the-trainer workshop, distribution is a key part of the overall digital storytelling process.

Despite all of the difficulties with time, defining digital storytelling, and technology, a number of key successes came out of the AM pilot. Feedback from students and staff on both the digital storytelling process and the stories proved that some of the hopes that the Tech Year staff had for digital storytelling, including that it might help students heal and that the stories might move others were indeed realistic. For example, one of the students, Alan, read a story in the story circle about the death of his stepfather. That process, during which Alan got choked up, and the discussion afterward were powerful:

> Rith: Powerful story.
>
> Alan: I can't believe I choked up over that.
>
> Madeline: Words are powerful, stories are powerful.
>
> Julio: That's a powerful story.
>
> Madeline: There's a lot of emotions. You can say someone died, but think about the emotion that went behind that last sentence. There's a lot of stuff that happened.
>
> Rith: And it's organized sort of like begin, middle, end. You build like a story, and you lead up to like he got sick and passed away. We didn't know what was going on until like… it was good.
>
> Madeline: That last line, read that last line again.
>
> Alan: "I then understood why the quote 'this can't happen to me' is foolish.
>
> Avia: I'm speechless.

Steve described a similar power in the story production process for Rith, who had also written about the death of a family member:

> Rith did a story about his father that passed away, so Rith was staying late, and he wanted to create a digital story that really captured that moment in his life, that transition in his life, and he was never satisfied with the product he was

> producing. So he had to come to the understanding of that, what he had produced and what he had created was to a level that was acceptable and that he could always evolve it. But it was a matter of not letting go of something—he didn't want to let go of his story, he didn't want to let go of his father, he didn't want to let go of a lot of things. So we spent a night and worked on his digital story together, and we had a lot of dialogue, a lot of conversations about his father, and I could see him smile, and him become happy, and him really want to get his family back together. So that was a huge transition for him, I think, because it has changed some of the ways he views his life now and what he wants to do. So that's definitely an impact point. Numerous students did things on, whether it be losing a parent, or drug abuse in their communities, or being mugged—all of those were really impactful stories, so at different times, sitting down with them, you could feel that they had things that they wanted to share, and that was a way of being able to share it without having to directly tell somebody.

The AM pilot was a crucial step, taking digital storytelling from an imagined classroom practice to one actually deployed in a classroom setting, albeit a classroom that was smaller, better staffed, and which had more consistent students than a typical Tech Year classroom. While six student stories had been produced, it did not feel clear that digital storytelling in the writing classroom was any closer to becoming a reality. Madeline was exhausted, none of the writing instructors at other Tech Year sites had followed through on their plans to pilot digital storytelling, and the next class was bearing down on the staff, leaving little time for planning a digital storytelling unit. In fact, since there had been no mention, either casually by Madeline or in any of the official writing team correspondence of late, of digital storytelling being worked into the Business Writing curriculum for Class 10, my assumption was that the AM course might be the last Tech Year digital storytelling initiative that I'd be around to see as a researcher.

Showing the AM Stories and Planning Begins Again

During the months after the AM pilot, two things were happening simultaneously. First, the products of the AM course, the students' digital stories, began to circulate within and outside of Tech Year. And second, the many ideas about how to implement digital storytelling into the writing course were quickly narrowed to a specific idea when Alex proposed that Madeline figure out how to work up a unit around personal empowerment with digital storytelling as its culminating project. Alex had recently visited a nonprofit job skills training program in the Midwest called STEP, which had built a curriculum around reflecting on the self and working toward personal empowerment. Tech Year's tag line is "Empowering urban youth to reach their full potential," and Alex was attracted to the idea that a curriculum similar to STEP's might be developed at Tech Year. Though Madeline said she was "totally caught off guard," by Alex's idea, she took a deep breath and began putting the pieces in place for a pilot of that new curriculum that was to begin three months later, in December 2006. Figure 4.2 shows here a bit of a shift in the initial imagined use of digital storytelling, that it will now be used not as a way to teach students writing but rather as a way to personally empower them.

The primary progress that was made with the implementation of digital storytelling as a way to teach writing during this period was the drafting of a seven-week unit with a digital story as its culminating project, a unit to be deployed at the end of Class 10 in the Business Writing classroom. At long last, Tech Year would have to deal with the logistical realities of its classrooms: as many as 17 students, of differing abilities, taught by one teacher over seven weeks of 80-minute classes. This was quite a difference

from the AM setup of three instructors teaching six students. But at least one of the uncertainties was removed: how to thematically frame digital storytelling. As decreed by Alex, the main theme of the course would be personal empowerment. The plan for the Empowerment curriculum was outlined in an email from Madeline to the job-training director at Tech Year, outlining the key conclusions of a meeting on the new curriculum:

> The empowerment curriculum will be used the last seven weeks of the Business Writing program. Three ideas to be integrated are a required mental wellness check-in with a social worker on site, discussing what is being learned in class. [Second,] connecting with mentors by bringing them into the classroom one day and focusing on reaching out and asking for help on the path to empowerment.
>
> Lastly, the end result will be a digital story that illustrates some aspect of their empowerment story. These stories can then be shared, on a volunteer basis, as outreach to potential students or others. Boston pilots this empowerment curriculum during the last seven weeks of this class. Changes are made during intersession based on the pilot, training to writing instructors is provided in how to implement at each site.

The shift to the Empowerment theme involved a new group of people in the digital storytelling effort at Tech Year's Boston site. Tech Year's social work intern, a graduate student in social work from a nearby university named Erica, was assigned to a curriculum committee that consisted of Erica, Madeline, and the new Boston writing assistant, Eli. Later in the planning process they were joined by Keyanna, a part-time grammar instructor and administrative staff member at Tech Year, who was due to teach Madeline's class during the last seven weeks as part of her transition to a full-time writing instructor position at the Cambridge site. Madeline was set to move into a more administrative role, and had, except for two days a week, moved out of the classroom.

Although the theme for the pilot course was a given, the specific content was up to the curriculum committee. The committee's planning began from the curriculum that Alex had brought back from his visit to STEP, which outlined "five factors that

contribute to personal empowerment": sense of self, motivation, responsibility, regulation of emotions, and education and skills. STEP's curriculum, which focused on giving people the language necessary to formulate the concept of empowerment, read almost like a self-help book. Translating the spirit of STEP's curriculum into a class designed to teach writing was a challenge.

In a process quite similar to that which the writing instructors had gone through nine months earlier, the members of the Empowerment curriculum committee were sent off by Madeline with the task to generate a week-by-week curriculum to discuss at their next committee meeting. Although Madeline had said in the first meeting with the Empowerment curriculum committee that she wanted to keep the pilot simple, perhaps having the students read just one story and one essay about empowerment, building a logical curriculum around the five STEP themes was not easy—the themes did not clearly suggest activities that would lead to the creation of a digital story. The curriculum that the committee was drafting gradually began to have a bifurcated look, half of it reading, thinking and writing about personal empowerment, and the other half devoted to producing a digital story. Over the course of the five curriculum committee meetings, the STEP curriculum's terminology gradually began to fade out of Tech Year's Empowerment curriculum, as the committee realized these words did not exactly capture the sort of empowerment Tech Year students were expected to find, nor did they work well as a framing device for the readings and writing activities they imagined. By the final curriculum meeting, the committee had decided to divide the first three weeks of the course into two units: 1) Defining Your Image: Geography, Socio-Economic and Culture, and, 2) Altering Your Image: Style and Perspective. During this time, students would do

readings and writing exercises related to how self-image is defined and the potential for refiguring your self-image, and from these exercises, the idea was, they would generate a first draft of a digital story script. The last four weeks of the course would be devoted to creating a digital story, hopefully informed by the concepts in the first part of the course.

As I mentioned in the introduction to this section, Figure 4.2 shows a small shift in the initial definition of digital storytelling during this period. While the pilot would take place in the writing classroom and would include lots of reading and writing, there was a sense that writing improvement was not its primary goal. In fact, several executive staff meetings held in the fall of 2006, the possibility of having a separate Empowerment course in the curriculum was raised a number of times. At one meeting, Tech Year's Boston/Cambridge Executive Director, Cooper McCormack, wondered if the Business Writing classroom was really the right place for the Empowerment curriculum "to live." Prompted by Cooper's comment, Alex began to ask Madeline questions about the academic outcomes for digital storytelling, such as "how can we show there's grammar work in this project?" "What percent of time is spent on working with the media, versus what percentage is spent on important stuff, like grammar and critical thinking?" These questions indicated that Alex still saw digital storytelling as a possibility for the writing curriculum, but that he would not back down on his desire to see it connected to clear academic outcomes.

Perhaps because Madeline sensed that digital storytelling might drift out of her purview, she began discussions with Steve and a few other Tech Year staff about starting a small business to promote organizations with storytelling and digital media. This activity I have indicated on Figure 4.2 as another new path off of the initial local

definition of digital storytelling. This second path, which I call "video as instructor elective," is a title that includes both this business venture that Madeline and Steve were planning and Steve's growing interest in teaching video production (but not necessarily by integrating it into the Tech Year curriculum). Steve's interest played out in a second AM course he offered called Video Production 2. As with the use of video for PR, these activities were certainly instigated by Tech Year's experiments with digital storytelling, but they were not really projects in the same spirit as digital storytelling.

As the stories produced during the AM course began to circulate, the key problems during this period arose. At the end of September, the stories of two students—Rith's about his father's death, and Ada's, about drifting apart from a lifelong friend, were shown at a Boston/Cambridge all-staff meeting. After both stories were shown, Cooper, Tech Year's Boston/Cambridge Executive Director, asked for responses. The conversation, while it captures much of the excitement about digital storytelling, also shows some anxieties arising now that students were making digital stories:

> Dave (a liason with internship firms): I think [the stories] are so powerful. I have to admit, I was skeptical at first, I thought it was a cop-out from writing, but now that I see these, it's just so powerful.
>
> Andy (Cambridge Technical instructor). I can't watch these—does anyone else feel that way? I just can't watch them. It's too much.
>
> Jake (Boston development staff): Yeah, I feel weird watching this. I want them here [the students who made the stories]. I feel like I need Rith's permission to watch.
>
> Steve: We did get permission from both Rith and Ada.
>
> Jake: That's not quite what I mean.
>
> Anna (Boston marketing staff): From a marketing perspective, using these will raise questions, about student privacy, and appropriate use. They need to show our brilliance, and never anything else.

> Cooper: This discussion is raising a lot of great questions. We need to think what's the right way to do this so we don't feel like we're co-opting their stories. We also need to think about what its relationship to writing is. There's a lot to do with empowerment and personal growth in this process, maybe that's the natural home for this.

In this conversation, we can see both the support and strain surrounding digital storytelling for the Tech Year staff. Most of the staff were moved by the students' stories, but they couldn't help feeling protective about the students. While the stories' marketing appeal was clear, the staff understood the complications involved with publicly using the stories. Over the coming months, the conversation about students making digital stories continued in both public and private ways. One of the Boston site directors, Rick, decided digital storytelling was not academically beneficial, and came out strongly to both Madeline and others on the staff in opposition of it entering the curriculum. When two other AM students' stories were shown at a weekend staff retreat, the same combination of excitement and trepidation emerged. After each story was shown the whole staff had a group discussion about the student, led by the student's advisor, on that student's potential, their problems, and their progress. This was a novel and useful sort of discussion, but it eventually, however, led to more talk about student privacy and the appropriateness of sharing these very personal stories for marketing or other public uses.

The staff's concern was not unfounded. I was doing interviews with the AM students during the time of the Tech Year weekend staff retreat, and I was hearing from them that some of the organizational uses of their stories made them uncomfortable. Rith said:

> I was pretty nervous, just showing it to the staff and the students, like the only reason why I let them show it to Alex and his staff is because without Alex, it

> won't be Tech Year, and Alex wanted two digital stories from the students. And I was chosen, and I can't really let him down.

Another student, Julio, expressed a similar sentiment:

> Well, I was a little sort of… a little shocked that they [the staff at the retreat] showed it, I didn't really know that they were going to do that. I came in on the Wednesday and everybody came up, 'oh I liked your digital story'… So it was a little, I was like, 'I didn't know you guys would see it' [laughs].

One of the other students, Avia, retold her feelings about *not* being picked for public viewing:

> I busted myself to finish it because Steve said that he wanted mine to show the faculty. But at the last minute they decided that mine wasn't relevant to the Tech Year message and pulled it off. I mean I didn't take it personal but I did feel a bit crushed that it wasn't picked.

These sentiments, however, seemed only to be coming out in my interviews, where the students felt free to speak more candidly than they would to their teachers and the Tech Year staff. Clearly, the students felt little freedom to deny staff requests to play their digital stories, and so the staff had to be responsible about finding appropriate uses. But the students' stories were so compelling, and, once burned to a compact disc, so easy to share, that the temptation to cut corners—to not ask permission, or to ask in a way that did not really give the student a chance to refuse—was strong.

Besides the problems surrounding ethical use of students' stories, at this point in the adoption and implementation efforts, Madeline was clearly fatigued. She said to me, one day in November 2006, just over a month into the Empowerment curriculum planning and still over a month away from starting the pilot course, "this is the longest I've ever spent putting a curriculum together." Madeline continued to defend digital storytelling on a few fronts, particularly from Rick, who was increasingly vocal in his opposition. Madeline told me, in this same conversation, "[…] I'm getting a little bit sick

of digital storytelling." Aaron, the new Boston writing instructor, who had replaced Susie, dealt the Empowerment pilot plans a blow by deciding he was too overwhelmed to take on the pilot in December, although he would do a podcasting unit with his students, so that he was at least experimenting with digital media. Alex, too, was feeling the effects of promoting digital storytelling for nearly a year. He said that he was a bit worried about being perceived as pushing too hard for digital storytelling, that he had heard from several people in the organization, "gee, you're certainly taking quite an interest in this," which made him realize that he needed to back off a bit. And while his own digital story was a great fundraising tool, he also noted that he was getting a little embarrassed by it, that he didn't want Tech Year "to be all about Alex."

But these problems were, again, counterweighted with some powerful successes. One of the AM students, Avia, had posted her story to MySpace and had received many positive comments on it. She noted, "[…] a lot of people were saying oh my God, I didn't know this about you. And it wasn't only my friends that commented, I'd get strangers saying 'I really like this film of yours.'" Rith and Alan, who had made digital stories about the death of their father and stepfather, had both moved their families to tears with these stories. Besides affecting others with his story, Rith had this to say about how the process affected him: "I didn't really get over my dad passing away, and this kind of helped me get over it." Again, as Madeline had imagined even before the Spreading the Stories workshop, making a digital story was a powerful process for the students, and showing the stories often played out in powerful and complicated ways, too.

Another important success in this period was that the Empowerment curriculum committee successfully drafted a syllabus and a daily schedule for a seven-week digital

storytelling unit. The syllabus presented digital storytelling as a "powerful combination of the three major components of the Tech Year curriculum: technology, writing, and empowerment/professional skills," "a meaningful and powerful way to assess and evaluate you, the students, during the last seven weeks of the Tech Year program," and suggested that other utilities both personal and organizational would come from digital storytelling:

> The stories you produce will have other uses within the organization and the Tech Year community via a culminating Digital Storytelling Premiere event where family, friends, and guests will be invited to attend and learn more about Tech Year and its mission. Your stories, in your own words, through your own vision and expression, will provide another dimension in how you express your identity and tell your story. Additionally, your work will illustrate how Tech Year expresses its identity as a program that values diversity, maintains high academic and personal expectations of its students and provides opportunities in its classrooms for empowerment to take place through learning.

One can't read this introduction without hoping that perhaps Tech Year would be able to pull together all of these possible uses for digital storytelling in their Empowerment pilot. The big question, however, was how digital storytelling would work as a regular unit in a regular writing class, surrounded by the whirl of all of the other business and drama that often filled a Tech Year term.

The Empowerment Pilot

The Empowerment pilot course ran in December and January of 2006-7, just over a year after the Tech Year teachers had been trained in the three-day train-the-trainer workshop. At this point, of the original group of writing instructors who had participated in the on-site train-the-trainer workshop—Maria and Ella from Providence, Susie and Madeline from Boston, and Anna and Leslie from Cambridge—only Maria and Madeline remained. While Marie and the Providence site had been left out of the Empowerment

curriculum planning process, Marie also planned to run a digital storytelling pilot, as did Rhonda, who would teach a digital storytelling unit at the Cambridge site. While I heard updates and a final assessment from Providence and Cambridge, I devoted my observation time to Madeline's Empowerment course.

The Empowerment curriculum was the closest that Tech Year would get to piloting digital storytelling as it had been initially locally defined, as a way to teach students writing, during my research period. At last, Tech Year would face the material and logistical realities of teaching digital storytelling to 28 students at a time in the Business Writing classroom over seven full weeks. From the earliest days of discussing digital storytelling, deploying the practice in a class much bigger than a typical digital storytelling workshop had been an anxiety for the teachers; up until the Empowerment course pilot, they had not had to face this anxiety. And while the AM course hand-picked academically skilled students, in the Empowerment pilot, the whole range of Tech Year students, from those severely challenged by ESL issues to those who already had a year of college under their belts would be taught together. There were, however, two affordances were granted to Madeline: first, Keyanna, the new Boston writing teacher-in-training, would co-teach with her; and second, Madeline could use the AM period after the course to plan the digital storytelling premiere event.

Because Madeline and Keyanna needed to figure out ways to keep their students on task over seven weeks, digital storytelling gained an identity as a project over this period. That is, various project management techniques and motivators were put in place to keep the students moving forward. The Empowerment curriculum committee had designed one major project management technique, by requiring that the students collate

their reading responses and short writings from the first three weeks of the course into a portfolio. Students would get in small groups to review their portfolios, and in these meetings choose one piece to revise into their digital story script. The portfolio would also be submitted for a grade. Besides the portfolio, a number of other incentives and mechanisms were put in place to motivate the students and keep them on task. Foremost among these was the promise of a premiere event to happen sometime in the next AM period, at which a number of prizes would be distributed for the best stories. Also significant were some techniques from project management in the business world that Madeline brought into the course, including making all students members of a production or premiere committee, such as the Technical Equipment/Support committee, which had responsibility for assisting with the audio recording, and the Posters/Advertisements committee, which would design the promotional materials for the premiere event. Finally, students had to use several business genres, such as project plans, to organize their group work, and they participated in several business-world activities, such as "breakfast meetings" (coffee and donuts provided), to discuss their progress and accomplish key tasks.

While the Empowerment curriculum had much more planning and documentation behind it than any of the teaching I had seen in the Business Writing course, it quickly revealed itself to be an oversaturated curriculum, lacking a clear focus. The unit had elements of a traditional writing course, with its first three weeks emphasizing reading, writing and portfolio building; elements of a digital storytelling workshop, with three weeks focused on the digital storytelling production process; and, finally, elements of a Business apprenticeship, with the project management genres and activities sprinkled

throughout. This ambitious welding of course objectives was problematic, and quickly became difficult for both the teachers to manage and for the students to get their heads around. At one point, a student, about to submit his writing portfolio, raised his hand and asked Madeline: "Do I write Investment Ops [his technical track] on this, or Business Writing, or Digital Storytelling?" His confusion was representative.

A related difficulty during the Empowerment pilot period was that the empowerment-related readings and responses to these readings did not translate into particularly good digital story preparation. Madeline and Keyanna, as the Empowerment curriculum committee had decided, had the students write reading responses to essays, stories, and poems about personal empowerment. But these responses, while they were approximately the same number of words as a digital story script, did not call for a narrative arc or develop any of the writing techniques that were necessary to write a digital story script. The Empowerment curriculum committee had anticipated the need for some story writing in the early weeks of the pilot, and had designed a number of short writing assignments that aimed to help the students generate narrative writing, but the net effect of having story writing on top of reading responses was of a constant barrage of quickly written texts. The pace of reading and writing, for both the students and the teachers, was overwhelming. And when it came time for the students to review their portfolios for potential story script ideas over donuts and coffee in a business-style meeting, one student's response to his portfolio was typical: "there's nothing in here." Perhaps even more problematic, considering that dramatic action and character change are key elements in a successful digital story, some students spent this meeting talking about themes they wanted to address in their digital story, as opposed to stories they

wanted to tell. Sandra, for example, said, "I think I want to write about appearances, how they're different from who you really are." It's not difficult to imagine a preachy and suspense-less digital story coming from such a starting point.

Keyanna's experience in the Empowerment pilot was a third problem during this period. Keyanna had never made a digital story herself and had not been a part of the year's worth of digital storytelling activity that had already happened at Tech Year. She consequently found herself confused throughout much of the Empowerment pilot. While initially Keyanna was to take the lead on teaching the pilot, with Madeline in more of a backup role, within a week Madeline had decided they needed to co-teach the course. Keyanna and Madeline would meet after each class in the early weeks of the pilot, to debrief and plan the next class, and Keyanna expressed confusion about where she should be taking the students in the class discussions. Were they to discuss the themes of the texts they were reading? Or story structure? This confusion was in part because the students were, by in large, not responding well to the empowerment-related readings. The students seemed particularly turned off by the 'complaining' tone of a number of the texts. They were impatient with writers who bemoaned the difficulties of making the transition between cultures, and rather than identifying with these writers, the bulk of the students took offense at what they perceived to be the writers' weaknesses. When it came time to move into the story production phase, Keyanna was at even more of a loss. She wasn't entirely sure what a digital story was and had no experience with any of the relevant hardware and software. Madeline, faced with the task for the first time of training 28 students across two classes to use several kinds of hardware and software, was far too busy to help Keyanna, and so eventually Keyanna moved from hovering on

the edge of the lab, to checking her email, to leaving the room for extended periods of time.

The remaining difficulties during the Empowerment pilot had to do with logistical issues. First, the timing of the pilot revealed itself to be problematic. While the teachers had from the start imagined digital storytelling as a culminating project or Business Writing course capstone, the last seven weeks of the learning and development phase was also the time when the Tech Year students' anxieties about and anticipation of their upcoming apprenticeships were most in the forefront of their minds. This anxiety surfaced right away, on the first morning of the Empowerment pilot class. One of the students, after reading through the syllabus, grumbled "I don't want to spend time doing work that's not related to my apprenticeship." As the reading and responding part of the curriculum progressed, this objection surfaced a number of times in quite public ways. One of the students, for example, burst out in the middle of a class, when Keyanna was reading a short story out loud: "We ain't got *time* for all of these stories."

A second logistical problem that arose was that, as with the AM period, the front end parts of the digital storytelling process, especially the story circle, consumed much more time than had been allotted in the schedule and the video production time again was insufficient. On January 5, 2007, the story circle began. In a typical Stories for Change workshop, with six to ten participants, this process takes about 1-1 ½ hours. But by the end of the first hour and 20-minute Tech Year class, only three students' stories had been workshopped. The story circle went on… and on… and on. The Tech Year story circle lasted five class periods, nearly seven hours. This put the audio and video production process far behind schedule. And while the students did have a more flexible schedule at

the end of the term, they also had more responsibilities, as they had to do preparatory tasks for their upcoming apprenticeships. In the end, some of the students never finished their stories. Perhaps equally problematic, students with equipment at home worked on their stories in their spare time, giving them a better product to submit for grading and for the Tech Year digital story contest. The story, in fact, that ended up winning the "Best Picture" award, selected by the Tech Year students and staff, was made by George. George used the professional recording equipment he had at home to record and mix his voiceover, and having the chance to record his narrative multiple times, on better equipment, resulted in a much more professional-seeming product. Technical problems with Windows Movie Maker software also surfaced during the pilot. Movie Maker crashes resulted in a handful of unfinished projects. Since scheduling was so tight, there was no time to get these students to restart their projects.

While the story circles were very problematic in terms of scheduling, when I interviewed Keyanna, Madeline, and Marie after the pilot curriculum was done, all three teachers said that the story circle was hands-down the most powerful and meaningful part of the digital storytelling process in their classroom pilots. Madeline hadn't been thrilled with the way the story circle worked in the AM pilot—she felt the students were too reluctant to give each other feedback—and so she spent half of a class walking the students through a discussion on a handout from the packet she'd been given at the Stories for Change workshop, which listed and described "The Elements of Effective Digital Storytelling." Madeline also designated, on my advice, "core responders"—three students assigned to each reader in the story circle, who had the responsibility to lead the discussion. Also with my help, Madeline developed three "core responder questions": 1)

What I want to hear more about is… 2) Two specific points in the story where I really 'got it' were… and, 3) If I were to cut something, it would be… These questions were written on the board in the classroom, to help both the core responders and the other students in the story circle to frame their feedback. The extra structure kept the students focused, and their feedback was in general much more specific and helpful than in the AM pilot. Several staff members from outside the writing team also sat in on the story circles at various points, including Steve, the technical instructor, Cooper, the Boston/Cambridge Executive Director, Clark, the CAO, and staff from both development and job placement. Two of the students choked up as they read their drafts, and when one of the students read a thin and impersonal anecdote about his New Years' Eve, the rest of the students in the circle persuaded him to tell a more meaningful story. Marie, the Providence instructor, said of the story circle process, "[…] just the story itself alone, I have to say the sharing and the effect on the students was just amazing."

The production process, too, revealed some success. In SFC workshops, trainers typically handle the audio editing, but the younger Tech Year students found this part of the process very fun and engaging. As I observed these classes when the students were working in Audacity, the audio editing software, I saw lots of the students calling each other over to their work stations to listen to their edited voiceovers, which many had spliced with music, sound effects, and other students' voices. The engagement the students felt with audio editing further invested the students in their stories, and the sharing of stories during the production process seemed to help connect the students to their classmates. Finally, one student, Dio, described working on his story at home, where his mom would duck into his room every few minutes with a new photograph that she

had dug out of her old photo albums. “Put this one in your story,” she’d say. Dio’s little brother had helped him shoot a brief video clip for his story, all in all resulting in a sort of home/school involvement that was new for Dio.

The day after the Empowerment pilot ended, Madeline sent out the following email to Amy Jacobs and me:

> Here is one of the 30 stories we made this week! More to come! We are done. Is it wrong that I am sick of DS right now? :)

The Empowerment pilot was whirlwind and exhausting: as Madeline said, she was sick of digital storytelling by the end of it. But the stories that Madeline attached to this email, written by Alonzo and Andre about the violence in their Dorchester neighborhood, were powerful. The stories were posted to YouTube, where they were already gathering accolades from viewers. As the stories began to travel outside of the classroom, via the web and compact discs, the next wave of digital storytelling activity began.

Screening the Empowerment Stories: Personal Uses and the Premiere

This period, the months after the end of the Empowerment curriculum leading up to the March 6 premiere event, was when Tech Year got to see the effects of placing digital storytelling into its Business Writing curriculum. These effects were revealed both in anecdotes about the how student stories were impacting viewers and through the formal measurement of students’ perceived learning, done via a survey that asked the students to evaluate the pilot.

Having a completed pilot, with stories to show for it, made digital storytelling in the writing classroom feel much more real. Introducing the stories at the premiere event,

Alex explained to the audience why digital storytelling was appropriate for the Business Writing classroom:

> What's interesting too is that it fits—when Madeline first talked to me about digital stories, she said you know Alex, we teach grammar, we teach construction, we teach critical thought, but it all comes together in what's called a five paragraph essay. Which is something you have to be able to do to write in college. So part of this is that the story is a capstone of a writing course. It has a written document, which is college-level writing, but at the same time, it gets technical skills combined with that. And then there's just something about empowering one, whether it's just understanding yourself better, or someone around you, and your experiences. So it certainly seems like it's had that effect of building skills, but also taking the time to think, and pause, and see where you've come from and where you're going. As you said, it's part of the journey here at Tech Year. As much as skills, it's learning about yourself and where you're headed.

While Alex seemed to be giving public support for digital storytelling as a writing classroom project, his words drift between pedagogical and personal development frames for digital storytelling, suggesting that he realized that digital storytelling could not be framed by cognitive outcomes alone.

The students also seemed to understand the benefits of digital storytelling as both personal and academic. These sentiments come out most clearly in a survey, designed by Madeline (I helped her revise some of the questions) and sent to students via Survey Monkey. The survey got just over 50% compliance, and while a blunt instrument at best, in my exit interviews with Tech Year executive staff it was mentioned several times, giving me the impression that it might hold some sway over how the pilot was assessed. The student replies verified much of what I'd seen in the classroom, but also gave a sense of trends in student response.

First, in order to address the question of whether digital storytelling fit well into the last seven weeks of the writing curriculum, the survey asked this question: Is there

anything that you wish we had done in the last seven weeks of Business Writing instead of Digital Storytelling? Eight of the eleven students who replied to this question answered "No" or had no reply, but the remaining three responses highlight a concern over digital storytelling's relevance to apprenticeship preparation:

> Student 1: I think maybe help students work on college essays rather than creative writing. The reason I say this simply is that I feel some people would benefit more from a practical application of writing rather than digital story telling. Ideally digital stories could have been optional rather than required.
>
> Student 2: More professional written letters for real life situations.
>
> Student 3: I wish we would have stayed on topic. Business writing to digital story telling was a big leap from one subject to another. I still don't comprehend how digital story telling was or is going to help us in our internships.

Also, while most students rated the teachers highly on the things writing instructors typically do well—both the story circle and one-on-one tutoring were rated "helpful" to "very helpful" by a majority of students, those activities that had been explicitly designed to help students think about generating a narrative arc or working with multimedia materials were not highly rated. Interestingly, the "critical readings and in-class discussions," those first three weeks of the curriculum when the students had been so negative about in class, got a wide range of assessments: 30% of students gave it the lowest rating, "Not useful," none rated it "slightly useful," "30% rated it "useful," and 40% "highly useful." Perhaps the students, in hindsight, found the readings useful; or perhaps because the reading and responding was such a big part of the course, it *seemed* useful.

One student's response to a survey question asking the students to describe reactions that they had gotten to their digital stories outside of Tech Year, however,

suggested that some of the problems handling the distribution of stories that surfaced in the AM course were still an issue:

Student 4: No not yet! We haven't gotten a copy of our stories yet!

This comment was made on February 21, nearly one month after the Empowerment course had ended. This failure to follow through on the distribution end, in the case of another student, Angela, had more severe consequences. Angela had been enthusiastic about digital storytelling from the start. She'd rewritten her story draft many times, and was visibly excited with her story's progress. But on the day that Steve and the student Technical committee were hurriedly exporting all of the finished stories to play for students and staff gathered to judge the winners of the digital story contest, Angela's file got corrupted. No one knew this, and when Angela's story was queued to be shown, it only played for about thirty seconds, before freezing in the middle of her narration. Steve rewound the story a bit, and hit play again, but again, the story stopped. But with twenty stories to screen that afternoon, there was no time to help Angela re-export and the screening and judging was completed without Angela's story among those played.

This moment was never acknowledged by Steve, Madeline, Keyanna, or any of the other Tech Year staff. But for Angela, it was huge. When I interviewed her later, Angela turned almost immediately to the day that her story was not shown; clearly, it had colored her whole experience with digital storytelling. At first, she just expressed her frustration: it was unfair that her story was not shown for the awards voting. But her comments later in the interview, in response to a question I asked about what motivated her to do a good job with her digital story, reveal the true nature of the hopes she had for the story, hopes that were dashed when it wasn't aired in public:

Angela: What motivated me the most was that I wanted it to be shown and I wanted people to look it and say wow like, "Angela is not just some goofy kid that doesn't act like us," you know what I'm saying? So I just wanted people to see like what I had to go through because all my friends at Tech Year, they went to public school and they have like this mindset mentality like this is how it is. You see other students talk about their 'hood and how there's a lot of violence. I grew up in a nice neighborhood when I was living in Boston but then when I moved to Rhode Island it wasn't like that, so I just wanted people to see like the change that I had to go through and coming back, having to adapt to all like the violence that's happening, being afraid of walking down the street and stuff like that. So I just wanted people to see like where I was coming from at that point and time.

Lisa: And do you feel like that didn't happen because [the story] didn't get shown at the end?

Angela: I feel like yes. I feel like it didn't come across to people. Because when we first met, or if we meet people coming, like donors and stuff, you talk about a little bit about yourself so people just hear you repeat, repeat, repeat, but if you haven't really sat down—if somebody's there that doesn't know you like that then it's kind of really hard for them to look at you and take you seriously. 'Cause we all had our set cliques. And in these set cliques everyone was cool with this person, everyone knew about this person's information and all this other stuff. So seeing them [the digital stories] all at the same time I found out about a lot of stuff about students that I thought I knew about. So it just kind of hurt.

Angela's experience suggests that the showing of a digital story is just as important as the making of it. After the final premiere event, when I sat down with Madeline for an exit interview, she had come around to the understanding that all of the readings and writings done in the early part of the Empowerment curriculum were not particularly worthwhile. Her idea was to cut the unit down to about three weeks, and omit all writing prompts except those designed to generate a story with a narrative arc. When I asked her if she felt the students were personally empowered by the pilot curriculum, she said, "It's not the empowerment curriculum [i.e, the readings and writings on Empowerment] that did it, but the students are empowered by digital storytelling."

Indeed, at the meeting held to prepare for the premiere, where the students and staff gathered to vote on the stories, and at the premiere itself, it was difficult not to feel that lots of good had come to many of the students through the process of making and showing their stories. After the screening of stories, Alonzo, who did the co-story with Andre, said, "I say we all get an award," to which the class broke out in applause. "There was a lot of deep stories, real deep," said Alonzo. It also seemed that the prospect of the premiere had made the students aware from the start that their stories would be played before a wider audience than the class, and this public audience made them concerned about choosing a meaningful topic and presenting it well. One student said, "The hardest part was trying to find a story that I wanted to write well." When Steve pushed the students to articulate what they thought they learned, particularly in terms of technical processes and writing, the students' answer was interesting: one of them shouted out, "We learned teamwork," to which there was a chattering assent. The committee work and the project management techniques that Madeline had structured into the pilot likely played a part in this.

Also at the meeting to prepare for the premiere event, Madeline asked the students if they felt changed by the process of making their stories. One of the students said, "I had so much in me that basically I wanted to get out, like telling my sister and my mom how much I loved them, and somehow like this thing made me take everything out." George, whose story had won the "Best Picture" award, said this:

> [...] my story, the core was about change. And looking, watching my story the first time—and the first time I showed my mother, she cried, too—and to see the change on video in like a collection really makes you feel good about yourself. It's like wow, I see this transition. A lot of people go through changes, and it just feels normal to them. But when you can look at it, and see the transition on your digital story, you really feel good about yourself. My digital story is up on our

web site, my mentor's web site now, because that transition, it matches what he is trying to do with people. So it really does make you change.

As with the AM students, the Empowerment students in the Empowerment pilot took their stories out of the classroom and into the world. Some of this shows up in their answers to the survey question: "Did you get any reactions to your digital story outside of Tech Year that were personally rewarding or gave you a sense of personal empowerment? Please describe in as much detail as you can.":

Student 1: Yes, people have gave me positive feedback from the internet to people in my community. Some family members feel that I have the mentality to become a motivational speaker for my community.

Student 2: yeah i made my sister cry when she saw it because its something that she did not know about on how much I care for her and thank her for what she has done for me.

Student 3: Yes I got a lot of reaction. My team, the group i hang out with loved it because it was about a soljer who passed away. A lot of DS were about people who were important to them. Great Class I would not change anything really. I had fun learning it. Thanks

Other success stories were floating around Tech Year on the Wednesday afternoons when the students returned to campus. One student, David, had made a story about his best friend's death from cancer and how this had led him to drop out of college. David's mom had watched the story and afterwards told him "That three minutes is worth six months of therapy."

The night of March 6 was the last digital storytelling activity at Tech Year that I saw at Tech Year. Madeline, never one to pass up the opportunity to throw a good party, got a local limousine company to donate a limo to pick up the award winners, and other local companies donated gift certificates for movies and dinner. The premiere committees had worked throughout the AM course to design posters, tickets and fliers, and

announcements, and a good-sized crowd turned out, including Tech Year staff, participants from SFC's Spreading the Stories workshop, staff from Mass Tech, and friends and family of the students. Alex opened the event by crediting Madeline for her vision and creativity, and then introduced his own digital story, which was played for the audience. Then the stories of five students, each of whom had won an award, were played, and the students took questions from the audience. In my exit interviews with Tech Year staff, many remarked on how rewarding it was to see these students handling audience questions with such poise and expertise.

After the Premiere

Within a month of the premiere event, Madeline had turned in her Tech Year resignation. It was an amicable departure; Madeline would keep working at Tech Year through July, but would no longer teach. Although one of Madeline's tasks before her July departure would be to revise and document the digital storytelling curriculum, many of the organizational staff that I interviewed felt that Madeline's departure would have an effect on the continued implementation of digital storytelling.

In the year and one-half since the digital storytelling premiere event, there has been no subsequent digital storytelling activity at Tech Year.

Revising Rogers' Model

In summary, based on Tech Year's experiences, I would offer the general model for adoption and implementation of innovations in organizations portrayed in Figure 4.5. This model is based on empirical evidence, but it might also be seen as normative, suggesting that organizations use pilots to match an innovation to their organizational

problems and activities, redefining the innovation in the process so that it better answers to these problems and fits with these activities. The model also suggests that at some point, a decision needs to be made about how to use the innovation, and then the work of formalizing any necessary organizational restructuring can commence.

***Figure 4.5*. A general model for organizational adoption and implementation.**

Finally, this model suggests that the process of matching and redefining may take a long time, and that implementation is not feasible until implementers can get a clearer sense of how a multi-purposed innovation can be specifically used in their organization.

The next chapter proposes a theoretically informed reflective tool, the genre inventory, which can be used in this essential period of matching and redefining.

CHAPTER 5

GENRE-INFORMED IMPLEMENTATION ANALYSIS

Introduction

An important goal of this study was to go beyond documenting what happened at Tech Year—beyond the descriptive case study of Chapter 4—and to explore theoretically informed reflective tools that might help researchers and implementers to evaluate, focus, and direct ongoing digital storytelling implementation efforts. This goal was captured in my second research question: With the help of a well-theorized reflective tool, is it possible, during the implementation process, to assess the sustainability of digital storytelling at Tech Year?

Unfortunately, my short research period meant that I was unable to both develop a tool and apply it at my research site—this chapter represents only my rationale for and largely post hoc testing of one promising reflective tool. The insight provided by applying such a tool, however, would have been of great use during my time at Tech Year. In an exit interview, the organization's Chief Academic Officer, Clark Cross, gave a succinct description of a problem that many others at the organization had identified: he called digital storytelling "a solution looking for a problem." That is, despite 15 months of pilot efforts, digital storytelling had not been convincingly matched with an organizational problem or need.

Furthermore, even if Tech Year were to be motivated to restart their implementation efforts, the many months of implementation efforts already completed offer little in the way of clear lessons. Although Tech Year was careful to retain all of

their implementation-related materials—including meeting notes, project plans, the handouts used to teach digital storytelling, and the digital stories that had been produced—these materials are an archive with no story to tell or implementation direction to imply. Tech Year has no record of what pilots were successful and why, except for the memories of staff and students, many of whom, including Madeline, have since left Tech Year.

In Chapter 2, I suggested that it might be possible to translate Rogers' five perceived qualities that affect an innovation's implementation success into a heuristic useful for evaluating sustainability during an implementation project. Each pilot might be assessed with a focus on Rogers' qualities: relative advantage, compatibility, complexity, trialability, and observability. It would be methodologically tidy if Rogers' work could both characterize the overall progress of an implementation project, as in Chapter 4, and help implementers to step back and reflect on questions of sustainability and fit during that project. But in practice, these five categories do not yield a particularly insightful analysis. This is primarily because Rogers' attributes are intended to predict or explain adoption decisions made by individuals, rather than assess sustainability or fit. That is, the theory is value neutral—it helps a researcher to gauge an individual's *perceptions* of an innovation's relative advantage, compatibility, and complexity, rather than the *actual ways* that the innovation is advantageous, compatible, or complex.

I argue in this chapter that one of the more familiar textual theories in English studies—North American genre theory—might be translated into a reflective and analytical tool that has great power to help a researcher or implementation team consider concrete questions about fit and sustainability. For those familiar with North American

genre theory, which has proven tremendously useful to both workplace and classroom writing researchers who aim to clarify the ways that recurrent text forms reflect and constitute workplace and disciplinary norms, the idea that genre theory can illuminate the dynamics of an implementation effort and provide implementers with direction might seem curious. Certainly, the theory has not been used this way before.

What I suggest is making use of the rich unit of analysis that is at the center of North American genre theory, the genre, by using it to periodically assess ongoing implementations of new textual practices. During such an implementation effort, a new textual practice with broad appeal—like digital storytelling—will likely be matched with a number of organizationally important recurrent situations and activities—problems looking for solutions. At Tech Year, these included the teaching situation, with the related exigence of finding an effective way to improve the students' writing and technical skills; the fundraising situation, with the related exigence of concisely and powerfully conveying Tech Year's message to potential donors; and the student development situation, with the related exigence of providing students with opportunities to process changes in themselves and prepare for entry into college or professional lives. During an implementation effort, the suitability of digital storytelling as a response to these recurrent situations and activities is tested in pilots. When these pilots are deployed, we can assess them through the lens of genre theory, analyzing them as what I call *genre stabilizations*. Pilots, or genre stabilizations, are particularly fruitful times for research and insight, with much to teach about how a new textual practice fits with or contradicts existing organizational norms, as well as the potential it holds to expand and refine the range of available individual action and organizational activity at the site.

I continue this chapter with a discussion of how and why genre theory can work to evaluate ongoing implementations of new textual practices. I elaborate in some detail the methodology for what I call *genre-informed implementation analysis*, describing the genre stabilization as a unit of analysis and focusing on how a reflective tool, the *genre inventory*, can be used to analyze pilot efforts during an ongoing implementation. I then briefly read some data from Tech Year using this reflective tool. Finally, I elaborate on what I see as one of the most important advantages of this approach: it encourages serious, long-term engagement with an innovation. This engagement pays dividends by both improving the odds that appropriate innovations will be implemented and by helping the organization scrutinize some of its pre-existing norms.

A Genre-Informed Model of Implementation

Genre theory, as a way to classify texts into categories, has been around since Aristotle's time. North American genre theory developed much more recently—beginning in the late 1960s with the work of Bitzer (1968), which was summarized and extended by Campbell and Jamieson (1978). North American genre theorists suggest that genres should be identified not by their similar surface features, but by similarities in the social action they help individuals and groups to accomplish. Devitt (2004) makes a helpful distinction: whereas traditional genre theory would deem business letters a genre, regardless of where or by whom the letters are written, North American genre theory would label business letters written in a company setting one sort of genre and business letters written by students in a business writing course a different genre, because the social action accomplished by each text is different. And whereas traditionally the work of genre theorists was to study individual texts and argue a case for them as exemplars of

a broad genre (the novel, the epic poem), the work of North American genre theorists is to "explicate the knowledge that practice creates" (C. R. Miller, 1994, p.27) by toggling between the study of texts that are repeatedly used in particular social settings and the social action that these texts facilitate.

Miller's 1984 article is the classic reference in North American genre theory. Learning genres, says Miller, is the "[key] to understanding how to participate in the actions of a community" (1994, p. 39) as well as to understanding "what ends we may have" (1994, p. 38) in particular social settings. As a simple example, consider one of Tech Year's important organizational genres (an oral genre): Friday Feedback. Friday Feedback happens each Friday afternoon at Tech Year, when staff and students gather together in a circle and share frank feedback—both positive and negative—directed at specific individuals. Most weeks, the feedback comments are initially focused on a fairly broad set of categories (e.g., time management, teamwork, communication), and the process is always run in an orderly manner, with one of the staff members first taking down a list of individuals who would like to speak and moving the process forward by moving down the names on this list. The practice is designed in large part to teach young people the art of constructive feedback and dialogue. The genre of Friday Feedback allows members of the Tech Year community a range of action that is different than if Tech Year had no official genre for feedback, or if the organization used another model to mediate feedback. As a preview of the upcoming explanation of how textual innovations can be understood with genre theory, imagine if Tech Year did not always have Friday Feedback, if it was an innovation that successfully replaced a formal system of written grievances not accompanied by any official system through which to give

positive feedback. The new genre—Friday Feedback—would offer students and staff new social ends, new roles. For example, staff could more easily publicly praise their students and students could critique staff in a fairly low-stakes setting. The new genre would also change the material circumstances of their interaction, from a system of paper complaints submitted to administrative offices to a recurring Friday afternoon event involving a circle of community members. In Miller's terms, the new genre would give both staff and students a different understanding of how to participate in the actions of their community and likely redefine their sense of what ends they may have as members of Tech Year.

North American genre theory was initially used primarily as a way to diagnose writing problems and possibilities in disciplinary and workplace settings. It is a particularly helpful theory for exploring the challenges that novices face as they enter new disciplines or workplaces and must work with unfamiliar genres (Beaufort, 1999; Berkenkotter & Huckin, 1995). Other researchers that engage the theory have traced shifts in academic disciplines by examining the changes in important genres (Bazerman, 1988), and have explored how individuals are constrained or empowered by the moves allowed to them in certain genres (Paré, 2002; Schryer et al., 2003; Winsor, 2003). Methodologically, North American genre researchers typically identify long-standing textual forms and both study samples of these forms and interview the genre's users.

Understanding textual innovations with genre theory requires a major shift, in that the focus is not on an existing, long-standing genre, but a *potential* genre—a response that *might* be paired with a number of recurrent organizational situations and activities. When the textual form—digital storytelling, in Tech Year's case—is piloted as a

response to a particular recurrent situation, it temporarily approximates genre status. By analyzing these temporary genre stabilizations to see if and how the new textual practice fits, clashes with, or offers new possibilities within these recurrent situations and activities, implementers can get a glimpse of whether the new practice has potential as an organizational genre.

Additionally, North American genre theory is grounded in rhetoric, and it has been most widely used to account for what Miller has called problems of "rhetorical production" (2007). While my proposed analysis allows room for a discussion of the rhetorical work that individuals can and cannot do through digital storytelling, it is important to acknowledge that the vision of genre I describe is not strictly rhetorical. Helpful for clarifying the way I propose defining genres is Medway's (2002) examination of architecture students' sketchbooks. Medway makes a case for the generic status of these sketchbooks despite the fact that they do no explicitly rhetorical work—no one reads them except the authors themselves. Alluding to Miller's 1984 article, Medway argues that texts like these sketchbooks, which are recurrently used by architecture students to record their notes, sketches, and ideas, both 'socialize an urge' (p. 145) and help the students to 'enact the ends that they have learned they may have' (p. 145). He concludes,

> Genre theory may amount to little more than this; that it's helpful to be able to say that when people do roughly similar sorts of textual things in circumstances perceived as roughly similar, then we are in the presence of a construct that is a real social fact—and let's call that a genre. (p. 141)

It is with this looser definition of genre—genre as an indicator and nexus of real social fact—that I move forward.[1]

A genre-informed implementation analysis has four key reasons to recommend it over the other frames of analysis I discussed in Chapter 2, particularly when it is a textual innovation being implemented. First, the theory offers a lean and specific methodology to implementation researchers, be they outsiders or implementing teams looking to document and learn from their own efforts. Implementation projects are often long and involve many people, meetings, and periods of activity. Theories like actor-network theory do not offer the researcher enough guidance on how to practically accomplish their assessments of an implementation. Genre-informed implementation analysis, on the other hand, focuses the researcher's attention on pilot periods, because key information about implementation can be uncovered during pilots. Second, while genre theory itself is complicated, it can be translated into a fairly simple reflective tool—a *genre inventory*—that can be used to analyze and make decisions about an ongoing implementation. The data collection and analysis tools that I present in this chapter, while they can lead to the same developmental discussions as those of the developmental work theorists, are much more user-friendly. Third, genre-informed implementation analysis allows the experience of those who use the new textual practice, including the modifications they employ to the official version of this new practice, to be incorporated as implementation moves forward. This developmental orientation, while it is present in developmental work research, is missing from diffusion theory and actor-network theory. And finally, genre-informed implementation analysis forefronts the flexibility of both innovations and of organizations, reminding implementers of their power to make decisions about how to use a new textual practice and about what individual action and group activity they wish to make possible in their organization.

A Visual Model

Figure 5.1 is a visual schematic that represents a comprehensive genre-informed perspective on the implementation of a new textual practice. I unpack it slowly here, from the outside in, because it is both the key to understanding the view I propose and the basis for methods I later describe.

First, the entire system, bounded by the box, is an organization. Situated within the organization are many genre ecologies, groups of genres that jointly mediate an activity or are available to individuals as they respond to recurrent organizational situations, or exigencies.[2]

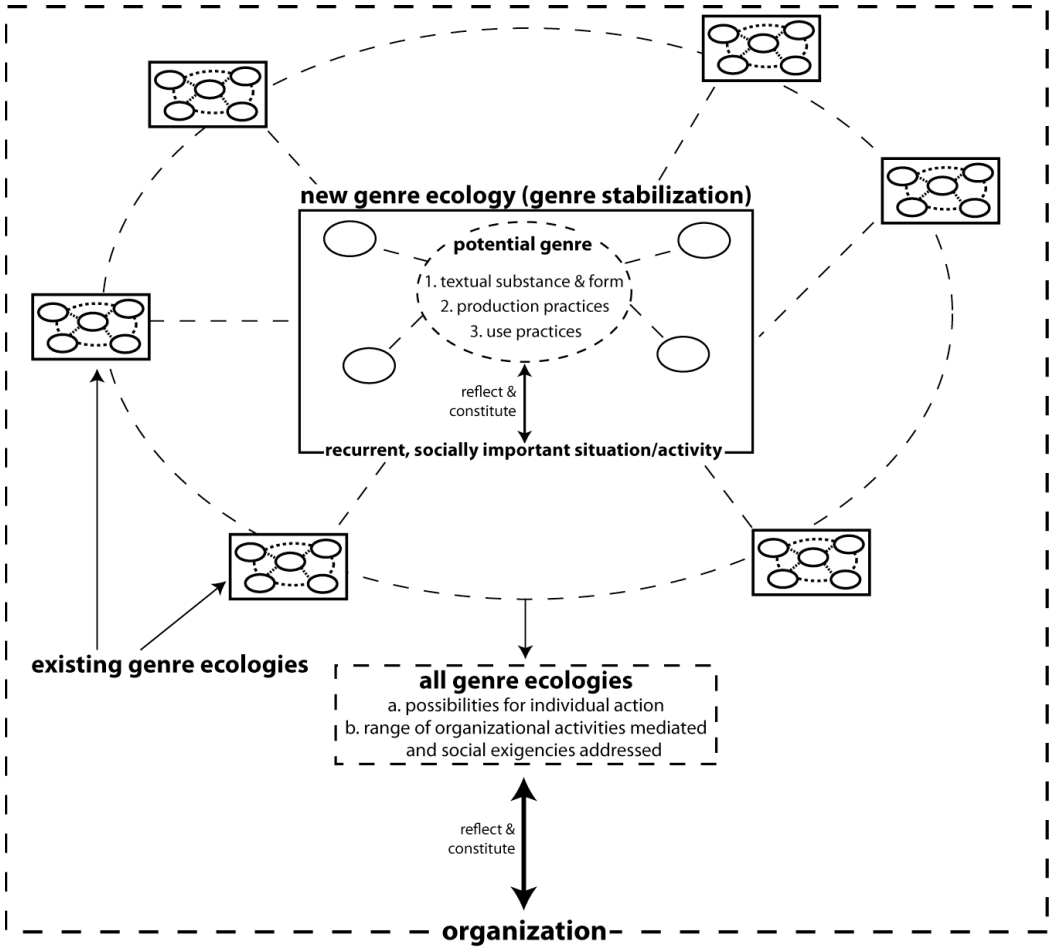

Figure 5.1. **The relationship of genres—existing and new—to recurrent situations/activities and organizational possibilities.**

Figure 5.1 shows six existing ecologies, but any large organization will have countless genre ecologies. In the figure, all of the ecologies are connected by dotted lines, to show the overall interconnection of activities and exigencies and genres in an organization. The collective of these genre ecologies, labeled "all genre ecologies," and the organization are connected by a double arrow. This designates the fundamental connection between an organization's daily activity and its genre ecologies. Within these ecologies lie the possibilities for individual action at the organization and the range of organizational activities mediated within and exigencies addressed by the organization. That is, an organization and its genre ecologies mutually define or co-constitute each other—the genre ecologies reflect the organization and the organization reflects its genre ecologies. The "context" that is the organization is "an ongoing accomplishment" (Russell, 1997, p. 509) of people using genres. While of course organizations are made up of people, social roles, values, norms, materials, and discourse, most all of these contextual factors are linked to and realized within genre ecologies. Genres are, to invoke Blake, the grains of sand in which you can see the world. Or as the genre researcher Paré (2002) says, the genre is a nexus, "fus[ing] text and context, product and process, cognition and culture in a single, dynamic concept" (p. 57).

Next in Figure 5.1, the large genre ecology at the center of the diagram represents a new genre ecology—a genre stabilization—temporarily formed when a new textual practice is deployed in a pilot. At the center of the ecology is the potential genre—digital storytelling, in Tech Year's case—and it is surrounded by existing genres that individuals use to act with it to accomplish key activities or to respond to the exigencies of recurrent

situations. Here again I use a double arrow to indicate the way that this ecology, with its new genre, will construct activity and situation, as well as how activity and situation circumscribe the possibilities for the potential genre.

Finally, at the finest level of detail are three aspects of text and situation that are co-constituted within a genre and situation/activity relationship. In looking for ways to articulate these aspects, my main criterion was that the categories selected be comprehensive, yet few in number: I did not want a lot of categories to overcomplicate the analysis. The three aspects that I have selected—textual substance and form, production practices, and use practices—are built upon the "dimensions of genre" that Paré and Smart (1994) suggest researchers studying genres investigate: textual features, writing processes, reading practices, and social roles. I have used Yates and Orlikowski's (1992) more robust terms *textual substance and form* (p. 301) rather than "textual features." I have also altered Paré and Smart's terms "writing" and "reading" to, respectively, *production* and *use*, to reflect the digital nature of digital storytelling (and many textual innovations). *Use* refers to the ways that a text is distributed and, in the case of a digital story, viewed. More significantly, I have dropped Paré and Smart's dimension of social roles. This choice reflects an understanding that an ecological approach to studying genre is one that incorporates the study of social and material factors into its analysis.

This model forefronts the fairly stabilized yet always flexible nature of organizations. And as far as models for organizational action go, a view of it as linked genre ecologies is fairly straightforward. As I will describe below, the model also points to a reflective tool that is similarly basic.

Evaluating a Pilot with the Genre Inventory

The analysis I suggest focuses on both the recurrent, socially important situations and activities to which a new textual practice is matched—its organizational purposes—as well as the three co-constituted aspects of text and situation that arise when the textual practice is matched with these purposes—textual substance and form, production practices, and use practices. It assesses these four aspects along three time-based categories, all centered on pilots with—or genre stabilizations of—the new textual practice. The first category of analysis considers the question what did the organization *intend* to occur in the pilot? What purpose did organizational members want the new textual practice to meet? What substance and form did they want to see in the texts produced during the pilot? What practices did they intend to be used in the production of the stories. What practices did they intend to be used by those who watched and used the finished texts? The second category of analysis concerns what *actually* happened during the pilot. This question would again be explored by looking at the purposes to which the new textual practice was put and the three co-constituted aspects of text and situation: textual substance and form, production practices, and use practices. The final category of analysis concerns what the organization *desires*. Based on what happened in the pilot, what purposes do they wish the new textual practice to be put and how would they prefer the textual substance and form, production practices, and use practices to stabilize? Practically, the researcher or implementing team would begin their inventory by documenting intended outcomes prior to the start of the pilot; they would track the actual happenings during the pilot; and they would use both of these categories of data to contemplate the desired stabilization after the pilot is complete.

Figure 5.2 organizes these categories of analysis into a very simple reflective tool, the genre inventory, which can be used by either researchers or implementation teams to analyze a pilot. A separate inventory would be done of each pilot. This is the key reflective tool to use in a genre-informed implementation analysis; it not only helps implementers to reflect on a recently-offered pilot, it also serves as a coherent way to document pilots, so that if an implementation effort is suspended, the work done thus far is retained in a systematic form.

Pilot Use/Genre Stabilization #1	**Intended (centripetal)**	**Actual (centrifugal)**	**Desired**
1. Purpose: What recurrent situation does the genre respond to/what important activity does it help us accomplish?			
2. Textual substance and form			
3. Production practices (cognitive, social, material)			
4. Use practices (cognitive, social, material)			

Figure 5.2. **The genre inventory tool.**

The three categories of analysis in Figure 5.2—what implementers intended to happen, what happened, and what the implementers would like to happen in the future—are intuitively sensible ways to look at a pilot. But they are also particularly important

from the lens of genre theory, for they integrate a way to consider both the plans of implementation leaders—most often people with a fair amount of power in the organization—and the modifications that are made by actual users of the new textual practice. I draw here on Bakhtin (1981) and his concepts of "centripetal" and "centrifugal" forces that are in constant play during language use. The centripetal force is the official, centralized plan—the way those in charge imagine a new textual practice should look and operate. It is denoted on the genre inventory by the "Intended" category. Centrifugal forces come into play when language users, in the hunt to satisfy their particular needs, diverge from the centripetal vision of things. For example, in the Business Writing pilot of digital storytelling at Tech Year, Madeline discouraged the students from making what she called "tribute stories," which were stories that paid homage to a friend or family member but often lacked the sort of story arc that Madeline felt was an essential learning outcome of the digital storytelling unit. A number of students, however, driven by needs more pressing than a good grade in the course—such as a desire to honor a loved one or a need to express their admiration for a friend or relative that had passed away—ignored Madeline's vision of digital storytelling and produced a tribute anyway. At other times, centrifugal forces will manifest in what activity theorists call "contradictions" (Engeström, 1990), where behavior learned in a parallel or historical genre causes problems as a person tries to complete an action. One example of this came as both the students and teachers at Tech Year struggled to adjust the way they discussed the stories and essays about empowerment that were intended to be fodder for the students' digital storytelling scripts in the Empowerment unit pilot in the Business Writing course. Both the students and their teachers were accustomed to

approaching these texts from the more familiar framework of critique and analysis, so their preparatory discussions and writing were not conducive to the new activity of crafting a digital storytelling script with a pleasing narrative arc.

Systematically incorporating centrifugal forces into an implementation analysis is important; as Spinuzzi (2003) has argued, official planners and designers can learn a lot from unofficial innovations made by the users of a genre. At Tech Year, for example, the students who made tribute stories against Madeline's wishes were ultimately some of those who were most invested in their projects. Many of them brought their families to the Tech Year premiere and distributed their stories online, both promoting Tech Year and activating parent involvement. That is, their centrifugal impulses and actions produced valuable results, and when reflecting on the pilot, Tech Year would be wise to acknowledge and consider incorporating their innovation. A second reason to consider centrifugal divergences is that they may point to behaviors learned or valued elsewhere—either within or outside of the organization—that will cause persistent problems in the production and use of the new textual form.

Data Collection with Attention to Cognitive/Discourse, Material, and Social Practices

Before I discuss what sense the genre inventory tool can make of Tech Year's pilot efforts, I'd like to briefly address how a researcher or implementation team can collect the data necessary to complete a genre inventory. A perspective on genres that sees them as reflecting and constituting social reality implies taking care to capture all dimensions of that social reality. It is important to characterize production practices and use practices with consideration to three dimensions: cognitive/discourse practices, social

practices, and material practices. When completing the inventory of intentions for a pilot, for example, this means asking questions like: How do we imagine people will think and use language—what cognitive and discourse skills will be emphasized—during the production and use of these new texts? Who will be involved? What social relations and roles will different people and groups take during the production and use of these new texts? What tools and other texts will be used during production and use of these new texts, and how will these practices be practically accomplished in space and time?

Here is where the long tradition of genre research, and of composition research in general, is a great help. It provides us with a sense of a range of methods that can be used to scour these three dimensions of practice related to genre. We might, for example, study cognitive behavior by videotaping writers as they compose and viewers as they watch the new texts, later interviewing them about our observations (Schryer et al., 2003). For guidance on how to identify relevant social and material practices, we can look to the ethnographic methods of workplace researchers who have used genre theory (Dias et al., 1999) or the work of researchers who have examined social and material concerns by combining genre theory with cultural-historical activity theory (Russell, 1997; Russell & Yanez, 2003; Spinuzzi, 2003).

Filling out the first column of the genre inventory, of intended purposes, textual substance and form, production practices, and use practices, is, for a researcher, a matter of conducting interviews, sitting in on meetings, and scouring planning documents to assess what implementers want from a particular pilot. For implementers who are conducting a genre-informed implementation analysis without a researcher's assistance, a key implementer can draft the list and submit it for a check by others at the organization.

Gathering data during the pilot, to fill in the "Actual" column of the genre inventory is more of a challenge. While much of the data related to the textual substance and form of texts made during a pilot can be gathered by examining the finished texts and interviewing authors about these texts, information related to purposes, production practices, and use practices during a pilot requires being on site for most, if not all, of the pilot activity, and being able to separate out what is relevant to implementation from what is not. These site visits are best structured by a data collection instrument that keeps the researcher or implementation team oriented toward the particular concerns of a genre-informed implementation analysis. Although I collected my data using the instrument shown as Figure B4 in Appendix B, a less complex instrument that is more properly aligned with the terminology I am using in this chapter is shown in Figure 5.3.

Date	**Primary activity is related to (circle one) production or use**
Purposes	
Textual Substance and Form	
Substance of texts (themes and topics)? *Form of texts (structural features, media incorporated, language)?*	
Cognitive and Discourse Practices	
Mental and language practices and skills used?	
Social Practices	
Who is involved? *Social roles?*	
Material Practices	
Where is activity happening? What tools are being used? *What documents and genres are used and/or referred to?*	
Note: use a * to indicate possible contradictions or possibilities (centrifugal forces)	

***Figure 5.3*. Data collection instrument for documenting pilot activity.**

The instrument displayed in Figure 5.3 asks the researcher to first note whether the observation is centered on the production of the new text (for example, a class session

where students are producing their stories) or the use of it (such as a screening). In most cases, this selection is easy to make. Data collection is then guided by five main categories. First, under *purposes*, the researcher notes the organizational situations and activities that the new practice is used for. Second, *textual substance and form* is a place to note observations about the themes, topics, structure, media, and language that characterize texts at this point in time. Third, the *cognitive/discourse practices* category is where the researcher can note mental processes and skills used in the production or use of texts at this time. Fourth, in the *social practices* category, the researcher notes who is involved in the activity being observed and what social roles particular individuals and groups take. Finally, the category of *material practices* is a place to indicate how space, tools (including other texts), and time are used. The instrument also reminds the researcher to be on the lookout for problems and possibilities by noting possible centrifugal forces at work.

In terms of practically implementing a genre-informed implementation analysis, having a rigorous data collection instrument is important. When all of the various aspects of genre are accounted for during data collection, generating relevant inventories is much more straightforward.

A Genre Inventory of a Tech Year Pilot

Identifying Genre Stabilizations

The first order of business in a genre-informed analysis of Tech Year's implementation is to identify the genre stabilizations. Again, I have defined a genre stabilization as a period when a new practice temporarily approximates genre status, as it is deployed in an actual pilot and settles into a dialogic relationship with the context

surrounding the social action that this pilot aims to accomplish. I have identified five such stabilizations of digital storytelling during my research period, indicated by the grey vertical bands in Figure 5.4. The criteria I used to identify genre stabilizations were these: first, the pilot use had to fit into the global definitions of digital storytelling; second, the pilot had to primarily have an organizational use (as opposed to personal or extra-organizational); and third, the use had to be actively deployed in a pilot, not just imagined or articulated. The first stabilization, "SFC," is the stabilization that happened during the Stories for Change workshop. While this stabilization is grounded at SFC, not at Tech Year, the shape of digital storytelling as SFC used it was relevant to the implementation progress at Tech Year, and so I include it here. The second stabilization, "3-Day TY," is the train-the-trainer workshop run on site at Tech Year, co-taught by SFC's Amy Jacobs and Madeline Davis. Third is "CEO," when Tech Year's CEO, Alex Parker, created his digital story. Fourth is "AM," or the Apprenticeship Management pilot. And finally, "Empowerment" represents the Empowerment curriculum pilot at Tech Year.

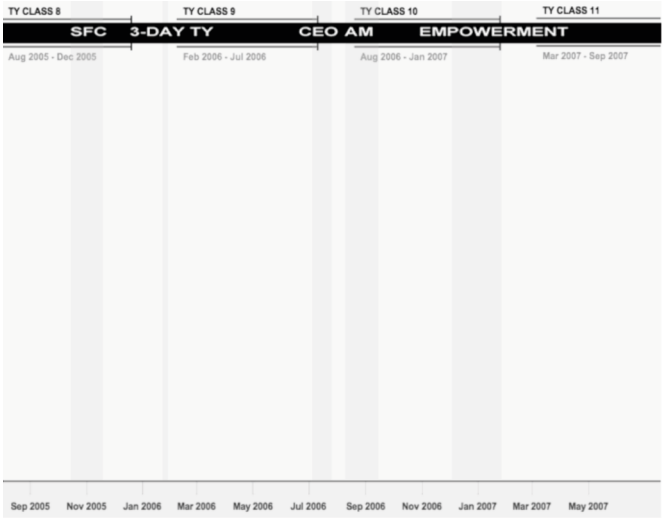

Figure 5.4. **Genre stabilizations during the Tech Year research study.**
Note. Vertical grey bands represent stabilizations.

To clarify why I selected these five periods as genre stabilizations, I will describe several other uses of digital storytelling at Tech Year that I did not assign this label to. After the Apprenticeship Management course, Steve, the technology instructor, ran a "Video Editing 2" Apprenticeship Management course. The course used many of the same hardware and software tools as the digital storytelling AM pilot. But the central project of Steve's course was not to make digital stories, it was to make a group video. The video was about Tech Year, and did not have the fundamental qualities of a digital story, such as an individual's personal narrative and self-sourced photographs. The story circle and group showing, key elements in the digital storytelling process, were also missing in this pilot. Therefore, Steve's course is not a trial with digital storytelling, and does not qualify as a genre stabilization. A second example of digital storytelling-related activity that I did not count as a genre stabilization was centered around Steve and Madeline's business idea. This business, as the two imagined it, would help nonprofits to articulate and then capture in digital form their organizational narratives. Steve and Madeline, in their spare time, produced a short video about Tech Year to try out their idea and potentially use as a sample to promote their venture. But because this intended use was a private project of Steve and Madeline and not imagined to have long-term organizational use for Tech Year, I have excluded it from my analysis of genre stabilizations. Finally, the many uses for digital storytelling that were imagined over my 15 months at Tech Year but never piloted, such as embedding the stories in the organizational newsletter or producing and using stories for new instructor training I also do not count as genre stabilizations. Although compelling ideas, these utilities were never formally piloted. Thus, the particular and often unpredictable material and social

difficulties that surface when a new use of an innovation is deployed could not be identified.

An Inventory of the Empowerment Pilot

Appendix J, Table J1, shows a completed genre inventory of Tech Year's final digital storytelling pilot, the Empowerment unit in the Business Writing course, which ran from December 2006–January 2007. Also included in Appendix J are inventories of the CEO (Table J3) and Apprenticeship Management (Table J2) pilots. On each genre inventory, I have aligned intended outcomes with actual outcomes of roughly the same sort, to highlight convergences and divergences. While I leave it to readers to examine the specifics of the sample inventory, it is important to understand the general moves required to interpret and act on such an inventory. Once the pilot is complete and a list of intended texts and practices is compared to actual texts and practices, it is important for members of an organization to ask three questions: 1) What went according to plan and what diverged from the plan? 2) What are the sources of the divergences between our intended plan and the actual pilot? And, 3) In light of this pilot, what do we want, in terms of textual substance and form, production practices, and use practices, if we proceed with implementing digital storytelling as a tactic to answer to this recurrent, socially important situation or activity? In other words, how do we fill in the "Desired" column?

From inventories to insights. The concept of North American genre theory as it was presented in Figure 5.1 gives us guidance on where to look for answers to the three questions above. During this pilot, a fair number of key intentions were realized. Almost all of the students completed their stories in the time allotted and on an empowerment

theme. The writing teachers handled the majority of the teaching. And the stories were showcased in a premiere event. And many of the key purposes for digital storytelling—including the aim to try something technological in the writing classroom that still centers on developing writing skills, providing opportunities for student reflection and the production of digital stories that build students' relationships with advisors, mentors, and apprenticeship employees, as well as stories that are useful for Tech Year documentation, promotion, and recruiting—happened, at least to some degree. But there were also many divergences between intentions and actual happenings.

Divergences suggest both problems and possibilities. When investigating divergences between planned deployments and actual results, there are a few places to look for problems. First, if there are endemic discrepancies between intentions and reality—if very few things go as planned in the pilot—then it is wise to look for some sort of systemic imbalance between the new practice and existing organizational norms. Perhaps the new textual practice is an unsuitable match for the recurrent, socially important situation or activity that it has been used to mediate in the pilot. Usually, when the key users of the new practice are involved in the implementation, they have enough knowledge to avoid this problem, but it can be a problem with top-down implementations. Second, discrepancies between intentions and reality can occur when other organizational genre ecologies do not match very well with the ecology connected to the new textual practice. Identifying any of these potential contradictions is important, even though they may lead implementers to the realization that the new practice is too much of a stretch to fit in the organization at the present time. There were early indications of such incompatibility at Tech Year by a few members of the technical

teaching staff who felt that the technologies used to make digital stories were not the same sort of technologies Tech Year students needed to learn for their apprenticeships (and thus that the teaching writing ecology was out of step with the technical training ecology). Such problems are major and may lead the implementers to significantly adjust or even abandon their implementation plans.

A more manageable set of problems comes when some of the practices that accompany other genres in the ecology are contradictory to those required by the new textual practice. For example, Tech Year used a method common in writing courses to help students generate their digital story scripts: the students wrote short responses to readings, movies, and multimedia art on the theme of personal empowerment and then compiled these short texts into a portfolio. The intention was that each student would select their favorite document from this portfolio and this would be, with minor changes, their digital story script. But the textual and cognitive practices required to complete the responses in the portfolio were not particularly helpful to the act of writing a story script with a narrative arc. If producing a good script was the goal, having the students revise a single action-driven story, shaping and refining its narrative arc over time, would have been a better technique.

A final source of problems is when the personal exigencies and activities that individuals are involved with outside of the organization influence their behavior. Those students who wrote a story script with a MySpace audience in mind—stories that were inappropriately personal or too casual for a school assignment—are an example of how the pull of other exigencies and activities can cause problems.

Although the previous divergences have been presented as a source of problems, they are also a source of possibilities. As a simple example, when the story production process began, Madeline told the students that they could not use copyrighted music. To drive this point home, she spent some time teaching them how to find royalty-free music online. But several students, again driven by needs more urgent than heeding Madeline's decree, used popular songs in their digital story. One student, David, made a story about a best friend that had died of cancer. For him, it was essential to have a song beloved by this friend as the soundtrack. David decided to write an email to the record company that released the song, and surprisingly, was granted permission to use it in his digital story. In another case, a student named George used two popular songs in his digital story. George's story ended up winning the staff and student-voted "Best Picture," and his spot-on musical choices had a lot to do with the overall effect of the story. Tech Year, in evaluating the Empowerment pilot, might look at whether the success some students had with using copyrighted music might warrant loosening the restriction in subsequent offerings.

In cases where there are discrepancies between intentions and actual occurrences, but the pilot is not overrun by discrepancies, organizational members can work together to generate a list of questions related to these discrepancies. These questions should cover both problems and possibilities, ranging from questions about how certain practices that worked well were deployed, so that they might be successfully repeated, to questions about modifying particular expectations based on unexpected problems or successes, to questions about making material adjustments so that problems might be avoided. At Tech

Year, an inventory of the Empowerment genre stabilization might yield the following sorts of questions:

1) *Questions about how certain intentions were successfully realized, so that they may be repeated in the future*, such as: How did we deploy the student technical committees—the student-led teams that were given the task of conducting all of the required audio recording—that worked so well?

2) *Questions that ask implementers to consider the rationale for their intentions, particularly those intentions that were partially or not at all met*, such as: Is it important that all of the stories look professional and polished, or is the reflective part of the digital storytelling process valuable enough?

3) *Questions about whether student and/or staff innovations are worth incorporating into future offerings*, such as: Are we okay with tribute stories, even without a narrative arc, since they seem to be so compelling to viewers?

4) *Questions about whether problems or possibilities revealed suggest changes in organizational activities and the textual, social, and material conditions associated with practice*, such as: Considering all of the difficulty that Madeline had trying to show sample stories—her classroom was not wired for the Internet, and she had to lug gear and students around to find an open lab—might we consider wiring the writing classrooms or designating a technical assistant to the writing teachers?

5) *Questions that ask if an infusion of resources might help alleviate a problem*, such as: Do we need to get the writing teachers more technical training, since that was clearly very difficult for the two pilot teachers?

Different questions will emerge from each pilot, but at root these questions will all circle back to the same concern: what practical changes must we make in order to sustain this new practice?

Genre-Informed Implementation Analysis: Implications for Implementers

A genre-informed perspective on implementation suggests that successful implementations are targeted implementations. When an organization is introduced to a new textual practice that appears to have many utilities, they should recognize that

focusing their implementations around one or two primary organizational uses will likely speed organizational adoption and enhance sustainability of the new practice.

To this end, an implementation effort should begin with a *pre-inventory* of the new textual practice. A pre-inventory requires in-depth, genre-informed brainstorming be done on the front end of an implementation project to see if and how the new practice might operate in various potential genre ecologies. This brainstorming, aided by questions like those in Figure 5.5, can help implementers to predict which of many possible organizational uses for the new practice are most feasible and also may help implementers anticipate problems that may arise due to poor fit with existing contexts.

1) What recurrent, socially important situations and activities are we most interested in using this new textual practice for?
2) If we implement this new practice in the particular situations and activities listed above, will it allow the organization and individuals within it to accomplish action that current practices do not? What actions?
3) How do we want the texts produced to look, in terms of substance and form?
4) What cognitive and discourse practices will be utilized to produce the texts? Are these practices familiar? Manageable? Desirable?
5) Who will be involved in the production of the texts? What social roles will they occupy? Will this new practice ask people to relate to each other in unfamiliar ways? Do we care to deal with these new relationships?
6) How will the practice require we use organizational time and space? Are these arrangements familiar? Manageable? Desirable?
7) What cognitive and discourse practices will be utilized will be involved in using the texts? Are these cognitive and discourse practices familiar? Manageable? Desirable?
8) Who will be involved in the use of the texts? What social roles will they occupy? Will this new practice ask people to relate to each other in unfamiliar ways? Do we care to deal with these new relationships?
9) How will the use of the texts require we use organizational time and space? Are these arrangements familiar? Manageable? Desirable?
10) Do we have the energy, resources, and drive to deal with all of the changes that have emerged in this inventory? Should we hire or reallocate people to help us meet these challenges?

Figure 5.5. **Pre-inventory: Questions to ask prior to a pilot effort with a new textual practice.**

Organizational members should brainstorm widely to answer question one in the pre-inventory, explore the answer to question two for each of the possible new utilities, and then do more detailed inventories using questions 3-10 for those utilities they see as most promising. Doing a pre-inventory of a textual innovation may even lead an organization to decide to cancel their implementation plans, if the new textual practice does not seem like it will offer enough rewards for the difficulties it will likely cause.

The greatest advantage of a genre-informed implementation analysis is that it encourages sustained engagement with an innovation, engagement with the sort of depth

that helps implementers learn about the needs of both the organization and the people within it. Time spent on implementation, even if it ultimately results in a decision not to adopt the new textual practice, thus becomes time well spent, rather than time wasted. The process also both depends on and facilitates communication between different people within an organization. By giving organizational members the chance not just to express their desires about an innovation, but to also reflect on why those desires were or were not put into practice and to then modify these desires, the tool provides many opportunities for people within the organization to be involved in meaningful planning.

A new textual practice has the potential to alter organizational norms in impressive ways. As Brenton Faber (2002) has said, "when people transgress genres, violate boundaries, and break with routine practices, change becomes possible" (p. 172). In other words, new textual practices, while they face considerable obstacles to long-term sustainability, also bring with them the possibility of altering the range of individual action and organizational activities in an organization. It is the possibility for change that Faber describes that motivates implementers like Madeline and her colleagues at Tech Year. With a reflective and analytical tool such as the genre inventory, these potential changes have a much better chance of becoming a reality.

Notes

1. See also Spinuzzi's work, especially (2003). Spinuzzi has justified the use of the genre as a unit of analysis when the object of focus is not clearly rhetorical. He defines a genre as a "temporarily stabilized social construct" (p. 43).

2. There are many terms for collections of linked genres that people use to accomplish a particular end (Spinuzzi, 2004). I have selected "genre ecologies" (Spinuzzi, 2003; Spinuzzi & Zachry, 2000) because of all the available terms it does the best job of suggesting that work and communication are facilitated not just by generic *texts*, but also by the social and material environment (ecology) that accompanies these texts. Ecology is also an evocative metaphor, as Nardi and O'Day (1999) have described.

CHAPTER 6

FUTURE DIRECTIONS

Genre-Informed Implementation Research: Next Steps

Try the Methodology During an Ongoing Implementation

The obvious next step to take with the genre-informed implementation analysis I have developed is to try the methodology *during* an actual implementation. My analysis of Tech Year after-the-fact suggests that genre inventories yield useful insights and questions about how to proceed with an ongoing implementation project. But the real proof of the tool will be in how well it works during an ongoing implementation effort.

Chapter 5 described the broad steps in a genre-informed implementation analysis, but here I will give a detailed procedure. My description assumes that an outside researcher, rather than an implementation team made of organizational staff, is doing the data collection. One of my primary aims when creating the methods and tools, however, was that the process be simple enough for busy implementers themselves to use. Also, while I hope the methodology would be appropriate to any new textual innovation—a new content management system, or a new assessment tool, for example—I leave that connection to future researchers and here describe a methodology that I believe can be helpful for other organizations that hope to implement digital storytelling.

To be clear, this discussion presents an ideal model of the proposed protocol. It assumes a site that is open to piloting digital storytelling, preferably multiple times. To do genre inventories, you need to see pilots. The description also presumes an organization that is open to participatory research: the methodology asks participants to contribute

their time and ideas in multiple interviews and group meetings, and requires that they are willing to both give feedback to the researcher and consider her suggestions. Before I begin the discussion of the methodology, I point you to Table 6.1, which clarifies some of the key terms that I will use in the discussion.

Table 6.1. **Key terms for a genre-informed implementation analysis.**

Term	Definition
Genre-informed implementation analysis	The overall methodology
Genre stabilization	The unit of analysis
Genre inventory	An analytical technique and a reporting document

The first step in a genre-informed implementation study of digital storytelling is to investigate, through interviews, the various utilities of digital storytelling imagined by people across the organization. A clear and exhaustive listing of these imagined utilities is important because it separates a sense of vague possibilities into a discrete number of possible utilities. Genres have a specific social function, and getting those possible social functions out on the table is important. I would, to this end, advocate that the researcher's initial interview protocol include two questions related to digital storytelling utilities: 1) What ways do you think that digital storytelling might be useful to the organization, and, 2) In what specific time/place settings can you imagine people here using digital storytelling? I also suggest the researcher ask a third question in these initial interviews: 3) What is your definition of digital storytelling? Since I have repeatedly argued that innovations are malleable, susceptible to what Rogers calls "redefinition," getting a sense of the range of digital storytelling definitions is key. I recommend interviewing both the frontline implementers and the key decision-makers at the organization at the outset of

the study, and interviewing anyone else who becomes involved with digital storytelling as the study progresses.

The second step is for the researcher, prior to the first pilot effort, to ask questions two through ten in the pre-inventory (Figure 5.5) of all key implementation players. If possible, I suggest getting all involved in the pilot effort to discuss these questions as a group. This group discussion would ideally result in a fairly targeted planning of the initial pilot, where the planning considers key and often overlooked contextual aspects that might cause problems during implementation. Question number ten in the pre-inventory—Do we have the energy, resources, and drive to deal with all of the challenges that have emerged in this inventory? Should we hire or reallocate people to help us meet these challenges?—is particularly important, as it asks implementers to say whether they are really willing to face the possible challenges of implementation.

The researcher's next phase of work begins as implementers get close to deploying their first digital storytelling pilot. Using the genre inventory tool (Figure 5.2), the researcher documents the implementers' intended plans for the pilot, including what they intend the digital stories produced in the pilot to look like, in terms of their substance and form, what practices they imagine will be involved in producing the stories, and how the stories will be used by others. It is important in this initial survey of intentions to consider cognitive/discourse practices, social practices, and material practices associated with production and use. The data collection instrument in Figure 5.4 is a useful tool for guiding this process. After the inventory is complete, it is important to check it with members of the organization; again, a group meeting that serves to both

check the researcher's assumptions about the intended approach and clarify that approach to all implementers is a good idea.

Next, the researcher observes the pilot in action, using the data collection instrument of Figure 5.4 to structure her observations. She also collects texts to gather data on the range of substance and form taken by the texts produced. Throughout the pilot, the researcher will also use the genre inventory, with its "Intended" category already filled out, to begin noting differences between the actual pilot and the way it had been intended to roll out.

At the completion of pilot, the researcher meets with members of the organization. At this group meeting, the task is to discuss the genre inventory, revising any inaccuracies in it. A list of questions like those in Chapter 5 should be generated. In the weeks following, if the pilot has been successful enough to indicate that digital storytelling might be a good fit for this intended utility, the researcher and implementers work together to fill out the "Desired" category on the genre inventory. Implementers should consider concrete ways to alter their expectations for the texts produced or to change the social and material context of production and/or use to make the next pilot more successful. In some cases, the gaps between intentions and reality might be so extreme that the implementers should consider abandoning this use of digital storytelling, or, in rare cases, abandoning their implementation efforts altogether.

The researcher's next task is to wait until the next genre stabilization, or pilot, and when this pilot commences, conduct the same observation/document collection/inventory process as with the first stabilization. The timing I describe is a major advantage of this methodology—while the researcher does have to be on site for all pilots, the assumption

is that she does not need to be on site during the in-between periods. The key data rests in the pilots. The researcher needs to keep an open relationship with her research site during off-times—perhaps making a weekly visit—so that she would not miss out on any pilot-related activity, but she does not have to be on site all the time or feel like she is missing valuable data by not being on site all of the time.

It is difficult to project the entire arc of this proposed methodology past this point. Ideally, though, the process of planning and documenting intentions for a pilot, documenting the actual events of the pilot, and investigating the discrepancies between plans and actualities would engage implementers and encourage them to see their ongoing digital storytelling implementation as within their control. Additionally, the inventories should be valuable as documentation to use internally or externally.

Limitations

A key limitation of this methodology is that it presumes that organizational implementation is a rational process that implementers can control by making conscious, rational decisions. This presumption of rationality has been long debated in organizational theory, beginning with the work of March and Simon (1958) on "bounded rationality." According to this concept, humans can only understand a small portion of the complexities in an organization and therefore they are unable to make fully rational decisions about the best course of action. March and colleagues later articulated the evocatively named "garbage can theory of decision making" (Cohen, March, & Olsen, 1972) suggesting that "opportunities for choice [in organizations] attract all sorts of unrelated (but simultaneously available) problems, solutions, goals, interests, concerns—just as garbage cans attract garbage" (March, 2008). In the face of this garbage, whatever

grabs a decision-maker's attention—rational or not—may drive them to make an implementation decision. Actor-network theorists like Latour (1996) highlight this limit of rationality in their descriptions of implementation, showing how an innovation's progress is often a matter of uninformed, almost whimsical decisions—more irrational than rational.

But many implementation scholars who forefront the irrational turns that implementations, when not well planned and monitored, can take—Pressman and Wildavsky (1984), for example—in the end argue that reflection with an aim to consciously shape an ongoing implementation is a feasible strategy. In a co-authored chapter to a later edition of *Implementation*, Browne and Wildavsky (1984) propose what they call a "learning evaluation." Such an evaluation is a "… continuous, responsive, utilization-focused, interactive evaluation, accompanied by evaluability and meta-evaluations" (p. 200). A learning evaluation, the authors say, happens during an ongoing implementation and asks, "'What are the emerging issues?' rather than, 'Is this [innovation] reaching predetermined policy goals'" (p. 200). Developmental work theorists likewise argue that implementation efforts are above all opportunities to uncover and understand the nature of work and problems at work. When we begin implementation with the assumption that innovations are inherently flexible, developing a strategy for assessing and designing the shape we want the innovation to take is appropriate. Even the actor-network theorists, who take such a radically constructivist stance toward implementation, might see value in a genre-informed implementation analysis. By giving implementers information about how an innovation fits in an emerging context, the analysis gives these implementers possible ways to frame the innovation to others.

A second, and related concern with the concept of genre-informed implementation analysis is the way that it conceptualizes an organization with respect to the world that surrounds it. Figure 5.1, which represents a model of an organization and its genre ecologies, shows the organization as bounded by a dotted line, indicating a permeable boundary between the organization and the world that surrounds it, a world that includes other organizations, culture at large, the macroeconomic climate, and the other activities that organizational members engage in (e.g., home, social circles outside of the organization). While I have suggested in my discussion of genre-informed implementation analysis and Tech Year's implementation process in Chapter 5 that genre ecologies outside of the organization can influence the implementation process, a clearer articulation of how these extra-organization influences act on implementation is an important next step for this research.

While cultural-historical activity theory seems to offer some guidance, as it gives researchers a way to conceptualize the influence of activities outside of an organization on activities inside, the theory ultimately posits that these various interacting influences can be comprehended and with this knowledge, organizational members can choose a rational course of action. Again, some organizational theorists suggest otherwise. DiMaggio and Paul (1991), for example, propose the theory of "institutional isomorphism," whereby organizations tend to innovate not because members choose innovations that make them more efficient, but rather because members have an unconscious, irrational drive to make their organization similar to other organizations of the same sort. That is, an organization's peers and those organizations it is dependent

upon exert an influence that overwhelms the consideration of what is best for its particular situation.

Conceptually clarifying the possible extra-organizational factors that may influence both the implementation process and the utility of a genre in an organization and integrating these concepts into both the model of genre ecologies (Figure 5.1) and the various tools of genre-informed implementation analysis, including the genre inventory (Figure 5.2), the data collection instrument (Figure 5.3), and the pre-inventory (Figure 5.5) is an important next step for this research.

Future Research Questions

The following future research questions are suggested by my project:

1) What is the result of using genre inventories during pilot efforts? What do the inventories help implementers to notice? Are implementers able to turn these insights into practical changes, in either organizational practice or in the innovation, so that the innovation is more sustainable?

2) Are implementers themselves (without a researcher's assistance) able to use the genre inventory tool and its associated methodology?

3) Can the concept of genre-informed implementation analysis be usefully applied to other textual innovations? What about non-textual innovations?

4) Can genre-informed implementation analysis be used to generate information about academic and personal outcomes of specific textual innovations? (Executive staff and funding agencies are very interested in this information, so having a methodology that can generate it is important.)

5) Is the concept of genre useful for assessing non-textual artifacts? What is gained and lost by using the theory this way?

The first four questions above concern the practical utility of the methodology I propose. The final question brings us back to what I see as the key theoretical concern raised by my study: how far can we stretch North American genre theory without rendering it so general as to not be useful?

Other Areas for Future Research

The challenge, and fun, of this project was its multi-faceted nature—my literature review and methodological framing took me into many different research areas. In these final pages, I would like to make some comments on and speculate about future directions implied by several of these project areas: 1) digital storytelling, 2) implementation theory, especially as it pertains to the field of composition and rhetoric, and 3) writing research in nonstandard educational settings like Tech Year.

Digital Storytelling

Since this study began, the popularity of digital storytelling among educators and organizations has continued to grow. As more and more organizational representatives attend train-the-trainer workshops and endeavor to create their own digital storytelling programming, however, the sense that digital storytelling is not such a "do-it-yourself" practice is beginning to emerge. The Center for Digital Storytelling now offers more extensive digital storytelling training workshops, including a certificate program consisting of a three-day production workshop, followed by an online semester-long course titled "Digital Storytelling for the Curriculum," and culminating in a week-long "Leadership for Digital Storytelling" train-the-trainer session, which focuses on facilitation techniques.

While my Tech Year study was ongoing, I also visited and interviewed a number of other participants in SFC's Spreading the Stories workshops, to get a sense of how they were faring in their implementation efforts. The consensus was that digital storytelling is deceptively complicated. As one of SFC's new trainees said, "I've done a lot of training over the years, with all different kinds of ages, but this is a lot. It's

different than doing a technical training. [It's not] like 'this is how you use Photoshop.'" Although digital storytelling is often aligned with forms of participatory media, such as blogs and fan fiction, these online genres are much leaner and more fully supported by existing technologies, primarily the Internet.

Trained facilitators make digital storytelling workshops work; as Jean Burgess (2006) says, digital storytelling is an "institutionally supported" (p. 209) form of composition as of now. That institutional support, though it is addressed in few promotional or how-to articles about digital storytelling, is typically formidable. Daniel Meadows (2003), who ran Capture Wales, the most extensive digital storytelling project to date (between 2001-08 over 400 residents of Wales made digital stories), gives some insight into the typical support teams that accompany professionally led digital storytelling workshops. A Capture Wales workshop team had the following members: a project manager, a script expert, a video editor, IT support, and a creative director (p. 190). Meadows' team also included Welsh-speaking experts, presumably to negotiate language and cultural differences. This large and professional team was crucial to the success of his project. Staff from organizations who have just finished a digital storytelling train-the-trainer workshop such as Spreading the Stories will not have at their disposal a team like Meadows'. If they are lucky, they will have an enthusiastic and supportive supervisor, a small budget, and a little staffing support or release time. Research that presents and evaluates different models of the digital storytelling workshop—for example, how it can be taught as a semester-long class, or to people interested in telling their stories, but not in learning the technology—would be tremendously useful to practitioners.

The time has come for practitioner-oriented pieces that prepare implementers for the difficulty, not just the promise, of digital storytelling. While most of the publications about digital storytelling continue to promote the promise of digital storytelling without preparing practitioners for the real difficulty of implementation, a recent dissertation has been published about the difficulties that teachers have deploying the practice in their classrooms (Dogan, 2007). Other dissertations have taken on the task of connecting digital storytelling to concrete personal and academic outcomes (Gakhar, 2007; Hug, 2007; Roche-Smith, 2004), also a promising research direction.

Another intriguing area for research would be that which articulates a digital storytelling taxonomy. As my time at Tech Year revealed, a wide range of texts and practices fall under the definition of digital storytelling. A traditional, Center for Digital Storytelling-style digital story is entirely the project of the storyteller, who writes and produces the piece. It is also typically a first-person narrative on a personal topic. But there are a variety of closely associated forms and practices that are still quite close to digital storytelling. Alex's story, which was in form and substance a traditional digital story but which was produced by someone else, is one example. Several of the students were interested in making fictional stories, yet maintaining the basic form and the self-produced nature of a traditional digital story. Many organizations that I have worked with in a consulting capacity are interested in compilation stories, which contain brief snippets and stories told in client or staff voices, as well as personal photographs, but which have no unified story arc and are assembled by a professional. Research that better articulates the range of possible practices would help those organizations interested in digital storytelling to narrow in on the specific sort of stories they would like to make.

The upcoming publication of *Digital storytelling around the world* (Hartley & McWilliams, in press), the first edited collection devoted solely to digital storytelling, will also likely better define the promising research areas around digital storytelling.

Implementation Theory in Composition and Rhetoric

While I have focused my implementation analysis on a specific textual innovation in a specific setting, much of what I wrote in Chapters 2, 4, and 5 struck me as relevant to the challenges faced by many teachers and professionals in the field of composition and rhetoric. Writing teachers and administrators often find themselves confronted by implementation challenges, be it in the first-year writing program, where they may be working to integrate multimedia assignments, or in Writing Across the Curriculum programs, where they may be trying to persuade other departments to try new assignments, practices, and tools. But as a field, we talk very little about the nuts-and-bolts of how to implement our innovations. As a generalization, composition and rhetoric scholarship is primarily consumed with finding pedagogical warrants for new practices. We study whether a new tool or practice can help students and structure our arguments around pedagogical value. But good ideas do not always get implemented. Implementation requires strategy, and strategy requires a sense of how implementation works.

Many of the theories that I surveyed in the process of writing Chapter 2 provide an orientation towards how implementation proceeds. Reflective tools derived from some of these theories could also, as I suggest in Chapter 2, be used to evaluate ongoing implementation efforts by composition and rhetoric professionals. As Vanderslice (2000) has argued, for example, WAC pedagogy might be more effectively diffused to

departments outside of English with attention to Rogers' five "perceived qualities of an innovation." The heuristic I present in Table 2.1 offers a straightforward way to evaluate the likelihood of implementation of particular WAC methods and assignments in light of specific instructors and departments. It also reminds us to keep our innovations "trialable," or available for testing on a small-scale basis, as well as to work to make our implementation efforts and results observable. Some of the implementation-related theories and ideas that I read about but which did not make it into Chapter 2, such as Wenger's (Wenger, 1998; Wenger et al., 2002) community of practice theory, Nardi and O'Day's concept of information ecologies (1999), and Patton's implementation evaluation techniques (Patton, 1990; Patton, 1997) also frame the implementation process in ways that could help writing teachers and program administrators.

While the situation at Tech Year was different than in a typical university setting in that the products of the writing classroom had utility across the organization, resulting in such a wide array of digital storytelling possibilities, I am tempted to think that the general model of adoption and implementation derived in Chapter 4 (see Figure 4.5) and the genre inventory tool might have some applicability for those attempting classroom implementations. Research such as that done by Devoss et al. (2005), which both describes an implementation effort in a specific setting and proposes a theoretically informed reflective tool that can help clarify the source of implementation problems at that setting is promising.

Writing Research in Nonstandard Educational Settings

A final area for future research suggested by this project is the study of writing curricula and pedagogy in nonstandard educational settings. It has been almost 15 years

since Anne Ruggles Gere (1994) appealed to the field of composition and rhetoric to broaden its scope beyond research into college classrooms and explore what she calls the "extracurriculum." But with the exception of workplace writing, the bulk of our field's research attention is still focused on college-level writing classrooms. A 2006 article on the state of research on writing (Juzwik et al., 2006), while it suggests broadening the domain of writing research to consider preschool, middle school, and high school-aged students, makes no note of settings like Tech Year as promising and necessary research sites. But this is a fertile area for research.

At Tech Year, as with many nonprofit educational settings, both the student body and the educational challenge the program was tasked with were compelling. First off, as I noted in my introduction to Tech Year, the student body arrives with a very wide range of aptitudes. Designing appropriate writing and communication tasks for such a diverse group of students is difficult. Second, the program has multiple writing and communication-related instructional aims: to prepare students for the workplace communication they will do on their apprenticeships, to prepare them for college-level writing, and finally to help the students learn to use writing as a tool for self-exploration. Furthermore, the Tech Year teachers—some of whom had taught first-year composition, others who had worked in traditional high schools, and some of whom worked in corporate training—were uncertain of how to rise to all of these challenges in one six-month course, or even if that goal was attainable. They would, I believe, welcome both research into and connections with other nonprofits that face similar challenges. Also, research that already exists on teaching first-year writing, workplace genres, and personal reflection might be used as an entryway into investigations of settings like Tech Year.

Almost every aspect of these sites—from articulating a suitable pedagogy, to longitudinal studies of the students through the programs and on to college or work, to surveys of available curricula—would be compelling and useful.

Besides nontraditional educational settings like Tech Year, which are comprehensive, full-time programs, the other compelling research site suggested by my research into digital storytelling are after-school, often community-based programs like West Oakland's DUSTY and Denver's Cyber Cougars Club. Buckingham (2003) discusses "informal community-based settings" (p. 190) as compelling new sites of learning. These new sites, Buckingham says, can allow for more flexible and relevant kinds of learning than ordinary schools. In my experience, it is often informal, community-based programs that are interested in developing digital storytelling programming. Research that articulates the particular kinds of learning that can be achieved in these settings, where the curriculum need not be driven by anxiety about standards, can begin to better articulate the particular value of these programs. This research would be timely, as more and more school districts—the Boston Public Schools to name one—are moving toward an 'extended day' model, where students spend as much as four hours after the conclusion of the regular school day at school, often in programming run by community-based partner organizations.

Coda

Many who have learned about digital storytelling have agreed with the description given of it by the Center for Digital Storytelling's Joe Lambert: digital storytelling is a creative practice with a "special power" for both those who make and those who see the stories. And because the practice relies on such inexpensive and widely available tools,

that power seems accessible to all. But Tharp and Hills (2004) have raised a key question about digital storytelling and other new digital technologies that have been lauded for their democratic and empowerment potential. They say of these technologies, "The potential for change [cultural, economic, political and social] can easily be seen, but the main question revolves around whether it can be simply achieved" (p. 41). They note, like many other theorists of new technologies that the mere presence of inexpensive digital tools does not mean that individuals or cultures will widely benefit. The potential of any new technology is, rather, "shaped by its introduction into specific social, cultural, legal, economic, and political contexts, which partially define both the ways it will be used and the effects it will have" (p. 41). It is the difficulties that these technologies face and cause when they enter into specific contexts like Tech Year that determine their net effect, whether digital storytelling is truly a widely accessible tool capable of spurring individual, organizational, and possibly even cultural change, or whether its benefits are limited to the few people, like Madeline Davis, lucky enough to attend a Stories for Change workshop.

APPENDIX A

EVOLVING RESEARCH QUESTIONS

This appendix presents the major shifts in my guiding research questions over the course of the study. The questions were extracted from documents (proposals, memos) created on the date indicated. Most of the questions were accompanied, in the original documents, by sub-questions. For the sake of clarity, I have not reproduced the sub-questions.

Notice that items 1-3, which reflect my questions in the first month of my site work at Tech Year, show quite a lot of confusion over the study's main focus. By item 4, however, I was squarely focused on questions about implementation. Items 4-5 show me trying to combine questions about the different utilities for digital storytelling at Tech Year with questions about implementation. Item 7 presents the final questions.

1. 12/19/05

1. How can digital storytelling be taught so that this new practice and the texts produced by it can later be integrated into the attendees' home organizations?

2. 12/30/05

1. What happens when five individuals who have been trained in the new genre of "digital storytelling" at a 3-day workshop attempt to bring this new genre practice back to their work organizations, to either teach the genre practice or use the texts produced in the workshop?

3. 1/25/06

1. *Tech Year Question*: Can a genre that seems to have a good fit with an organization's mission/resources and good timing in its implementation lead to organizational change?

2. *Get Well Question:* How is the teaching of digital storytelling and the use of digital stories accomplished outside of a classroom/curriculum-driven setting?

4. 2/15/06

1. What schema (stage-based, etc.) would help organizations to plan for and thoughtfully integrate new, technologically enhanced genres? What variables and moments are important to consider before and during implementation?

2. Of the various problems that can arise during the implementation of a new, technologically enhanced genre, which are major problems that should be dealt with and which are not so major?

3. Are there things that can be ascertained and/or done before and/or during implementation that will make the process more successful?

4. Is there an articulated/articulate-able writing theory that will help organizations to imagine and more smoothly integrate genres like digital storytelling

5. 2/17/06

1. How do people at Tech Year (the writing instructors, technical instructors, and staff) imagine the genre of digital storytelling? What do they see as its utility for the organization and potential difficulties associated with it? Where do these initial understandings of what digital storytelling is and how it can be useful come from? When and how does this imagined potential change during the implementation process?

2. What are the key factors that influence how digital storytelling fits into Tech Year's organizational business throughout the implementation process?

3. What are the key moments in the uptake of this new genre practice? In what key moments do convictions get formed and things get done RE the digital storytelling initiative?

6. 6/5/06

1. Broadly speaking, what are the imagined possibilities of digital storytelling, as articulated by practitioners worldwide and by attendees (both participants and employees) at SFC's workshops?

2. What are the features of the genre in the specific local setting of the Spreading the Stories workshop?

3. What happens as digital storytelling moves from a functional genre fit for SFC's needs into the actual setting of Tech Year? How does it take shape? What factors are instrumental in that shaping?

4. What happens when data collected and analyzed during an implementation process is presented to organizational members? Can it be used to reflect on and perhaps redirect the implementation process?

7. Final research questions

1. Which of the many possible uses of digital storytelling are explored at Tech Year, and what successes and difficulties arise in the process of piloting these uses?

2. With the help of a well-theorized reflective tool, is it possible, during the implementation process, to assess the sustainability of digital storytelling at Tech Year?

APPENDIX B

SAMPLE DATA COLLECTION MATERIALS

The four items in this appendix—three interview protocols, a sheet that I used to guide my observations later in the study, and a set of transcribed field notes—represent a range of the ways that I collected data at Tech Year.

Item B1 is an interview protocol from early in the study, one tailored to fit the specific questions I wanted to ask Tech Year's technology director. Questions 1 and 7-9 in B1 were asked of all first-round interviewees. Item B2 is an interview protocol for the AM students—the same protocol was used for all of these students. Item B3 is an interview protocol from an interview late in the study, with Madeline Davis. This protocol was, with the exception of questions 6, 11, and 14-16, tailored around questions that I asked only of Davis.

Item B4 is a handout that I designed to take field notes during the Empowerment pilot. The handout focuses the observer's attention on happenings relevant to a genre-informed implementation analysis.

The final item in this appendix, item B5, is a set of typed-up field notes, from early in the study.

B1. Protocol for interview conducted 4/10/06, with Tech Year Technology Director

1. Can you describe your job at Tech Year, including how long you've been here and your major responsibilities? Are you the Technology Director for *all* sites?

2. How much interaction do you have with the writing instructors and the technical instructors?

3. Talk to me a bit about the technology environment here… Does it feel fairly stable, well funded? Are there chances to do creative things with the technology?

When grants are written, are teachers ever involved (if teachers want equipment/software, will they come through you)?

4. Are there any policies in place that you feel get in the way of the ideal use of technology?

5. What do you know about the level of the students' tech skills and tech access?

6. I've heard that one of the goals here is a bit more integration between the tech curriculum and the writing curriculum—have you seen things happening that seem promising in that respect?

7. Can you give me a brief description of what you understand digital storytelling to be?

8. How did you learn about digital storytelling, and what has been your evolving reaction to it?

9. How do you see the practice fitting into the organization?

10. I'd like to run a few ideas that I've heard the teachers and others suggest about possible uses for digital storytelling—can you tell me whether they seem technologically feasible to you?
    - Using stories as outreach for mentors, funders, the board
    - PR
    - Students using stories like a scrapbook, to capture personal memories

11. Have you gotten many debriefs from the writing instructors about how the technology worked in their January workshop? In Anna's efforts to help Susie? Any idea why all of the computers were crashing in January?

12. What are your ideas about how to best learn technology? Teach it?

13. Do you have a writing philosophy? How do you think a person learns to write?

14. What do you think is most important to teach the students in their 6 academic months in the program? How about in the writing end of it?

B2. Protocol for interviews conducted 8/06 – 9/06, with Apprenticeship Management students

1. Age? Where are you from?

2. How did you end up at Tech Year—prior educational/work background?

3. Do you spend a lot of time on computers? Had you done any digital editing work before?

4. Who was your writing instructor? What were the most *enjoyable* parts of the writing course for you? What were the most *valuable* parts—in terms of developing skills or of providing rewarding experiences?

5. Can you see any ways that the work we did in this course connects to work you did in your writing course?

6. Would you call digital storytelling "writing"? If not, what is it to you?

7. In what ways did this class feel similar to and different from a typical Tech Year class?

8. What did you hope to get out of this class when you enrolled? Did you get what you hoped for? What that you didn't expect happened?

9. What interesting moments do you remember from the class?

10. What do you think of your own story? What have you done with it (who have you shown it to, where have you posted it?)

11. What skills do you think you developed in the class, and how will these skills be useful in your professional or personal life?

12. As you were in the class, were you ever thinking about teaching others—friends, other Tech Year students—to make digital stories?

13. What suggestions would you make for improving the class?

B3. Protocol for exit interview with Madeline Davis, 4/07

1. Name parts of the digital storytelling process, as you taught it in the Empowerment course, that felt most successful and seemed to most accomplish what you think should be taught to the students.

2. And what felt bad? Missteps? Things you wouldn't do if you had to do it again?

3. Was anything happening in pilot that you felt you were fighting against but couldn't change?

4. You said you weren't thrilled w/ the AM version of the course—was this better? Why, do you think?

5. What handouts that you produced or which you used felt counterintuitive or not in line w/ what you were trying to do?

6. Which stories best reflect the sort of texts you'd like to see produced? Least?

7. Which students did the unit and subsequent work work best for? Worst for?

8. Did any particular students' stories or composing process change your conception of what digital storytelling was and/or your approach to teaching it?

9. Do you think the students **as a group** gained anything from digital storytelling and its subsequent stages (awards ceremony and its planning)? Do they seem different from other class' students at this point?

10. Articulate the amount of time/energy that you put into this as opposed to other work. How about in comparison to the amount of time you'd typically devote to prep/teaching the writing course? Is it feasible for writing instructors to do this?

11. Is digital storytelling most suited for the writing classroom?

12. The word "empowerment" disappeared from the syllabus—do you still think of it as the empowerment curriculum? Why did it disappear?

13. What did the students' stories make you think about what constitutes empowerment? Do you agree with this construction/definition?

14. Do you consider digital storytelling 'implemented' or 'institutionalized' at Tech Year now? How do you think that happened? And if it hasn't happened yet, will it happen, and how?

15. Do you think it's sustainable over the long term? What will determine its sustainability?

16. What key digital-storytelling related moments do you remember since you've been here?

17. How much were you thinking much about other sites throughout the implementation process?

B4. Field note-taking sheet for middle/later part of the study

Date	Site/Event	Who

Description	Genre set: docs/genres used and/or referred to	
	Genre	*Comments*

Notable social roles and social coordinations	Contradictions
Material factors of note	Successes
Moments of direct shaping of genre	Novel ideas/potentialities expressed

Figure B4. **Field note-taking sheet for middle/later part of the study.**

B5. Sample field notes, from early Tech Year site visit

Field notes: Friday, January 27, 2006
Tech Year, Teacher Training Workshop, Day 3

9:10
We begin with a check in, using the progress chart on the back wall. Leslie and Anna have a rough cut. Marie, Ella, Hannah, and Susie don't yet have their images manipulated.

Amy talks about the plan for today, and says they might not do a group workshop on titles and transitions if everyone is at quite different places.

Leslie is having a problem this morning getting photos off of a CD that she burned the pictures to. I try to help, but can't, and then call Amy over. It ends up that because she is used iPhoto to burn a CD, some extra moves are necessary to get the photos off. This is a fussy, weird, and pretty unpredictable problem.

9:40
I helped Susie to learn the basics of Movie Maker, because she missed the Premiere and Movie Maker tutorial yesterday. Susie seems anxious about moving forward too quickly—doesn't feel ready to edit yet, since she had to miss the afternoon yesterday. While helping Susie, I notice one technology issue: like Marie, she wants to click the Import button as she navigates through trying to get to her photos, rather than double-clicking folders until she finally gets to the place where she wants to import. (This is counterintuitive, though—bad Microsoft design). I also notice that like Marie, Susie doesn't know the keyboard shortcut of using the shift key to select the first and last picture that she wants import.

Susie also says something during the morning about feeling rushed. She says, "I have to teach this stuff, I don't care about the screening. I don't want to slap this stuff together just to get it finished."

Anna, on the other hand, is loving the project. At one point, I hear her say, "I love you Photoshop. I want to marry you." She says this after she has discovered the auto-straighten command in Photoshop and easily fixed one of her photographs.

There is a bit of discord about having a public showing of the finished videos in the afternoon. Madeline comes in very excited and says she wants to ask as many people as possible to the screening this afternoon; Hannah immediately objects. She doesn't want to show something that's so personal to people from work—maybe to friends, she says, but not people from work. Anna says "Invite them!" Hannah again objects; Madeline says, "people from work aren't your friends?" Amy is able to mediate. Amy says sometimes people have a public showing sometimes people don't—either way is okay.

As Susie is working, she catches Madeline and says something about having students think about how a language matches the word patterns on the screen. She says, "it's pretty cool," so her hesitation about pushing ahead with the editing before she was ready seems to be less of a concern now. She's gotten a lot more interested in things now that she's playing with the more sophisticated software, Movie Maker.

10:00
Hannah is doing Google image searches.

Marie calls Amy over, she says “I can see I need more pictures in the middle…” Amy tells her to insert a blank slide and to start working on timing; A’s trying to hurry her ahead.

Amy gives Marie a 10-minute lesson in lining things up in the timeline. Then they switch and Marie starts editing. Later that day, Marie says that this was one of the most productive parts of the workshop, being able to see Amy demonstrate the software really was the moment when it began to make sense.

11:10
Amy teaches Leslie transitions, which she missed because she was doing an interview with me. Madeline watches. There are three things that Amy teaches during this mini workshop: transitions, effects, and adding words and titles. Madeline never writes this down. I wonder if later she’ll remember that these three components were part of this training.

When they’re doing effects, Madeline is sure to show Leslie the film age effect. It’s a similar fascination to that she had with filters in Photoshop.

Madeline asks Amy a question during this tutorial: “So you put the effects directly on the pictures, rather than between them?” I think she’s thinking about how transitions are dropped between the pictures, but this question indicates a pretty fundamental confusion with the concepts in Movie Maker. Madeline is also surprised to see the storyboard feature in Moviemaker. She says, “Premiere doesn't have this. Movie Maker is very user-friendly.”

11:35
Break and check in.
This is really just a stretch break and we play the foot/scream game during it. I notice that Hannah is very uncomfortable playing this game. It seems to reflect her general discomfort with the whole group and process.

I help Marie for a while after Amy does, and tell her it might be best to just skip using transitions with this draft, but she seems hesitant to do that. I’m afraid she won’t finish anything, and transitions seem of minor value but they take a lot of labor. Marie doesn’t know this, though, and she balks at the idea of skipping any part of the process.

Marie’s machine keeps crashing; there’s a lot of crashing of machines during the afternoon. The lab is really quite bad.

One of the Tech Year students, Alex, comes into the lab with another, Maurice. Madeline calls them over, and she says, “Remember when Jose and I were talking about our digital storytelling experience? Do you want to see one?” Alex watches Leslie’s movie, at the end he says “that’s pretty good… What was the fruits?” Madeline says to Alex, “We’re planning to do this with class 10.” Alex says, “That's pretty cool.” Maurice, the second student also watches Leslie’s video. He says, “Excellent. I have a question, though. I

don't know what that [a cow brain] is." Like Alex he has a question about the content in Leslie's film. This is a pretty lukewarm reception, but fair enough for two 20 year-old kids who don't really have much context and were kind of put on the spot.

2:15
Madeline, Anna, and Leslie go out into the other room and start planning for the meeting on February 3. They collaboratively draw up an agenda. One of the concerns is how to get Rhonda and Alice (from DC), two of the teachers who haven't come to the workshop, up to speed with digital storytelling.

Anna also talks about how she'd like to see teachers observe each other.

They talk about the writing team meetings and about having conference calls to involve New York and DC. Anna says that when Madeline sends out the e-mail she should ask everyone to e-mail her with the name of a song they really like—Anna plans to make a mixed CD for everyone.

Later in the afternoon the computers are still freezing up A LOT. Susie has a strange problem—she's gotten logged off while at lunch, which she doesn't realize—all she sees is that her project folder is no longer on the desktop. I guess that it's a login problem, and log her in as administrator—no dice—then as student. Something very weird happens when I do this, the screen freezes up, and then the computer won't even restart w/o freezing. I call Jose over, and it takes him quite a bit of maneuvering to figure it out (has to detach the keyboard and go into bios mode). Sonia [from Get Well, who has come to watch today] is somewhat horrified that problems this complicated can arise. I tell her that this lab is very fussy, but I'm not sure she believes me. Susie has gone to smoke so as not to freak out, and when she returns, she says to me, "This is why I'm worried… these computers are always doing stuff like this." She has a valid concern there.

4:00
Showing. Hannah's is shown first so this can be done in private. She's asked if she wants to introduce it; she says no.

After Hannah's is shown and she gets nice applause and hooting from the other teachers, a pretty big crowd of Tech Year employees comes in. Susie is sitting with one of her students and I hear talking about how she plans to do some preliminary projects with class nine and then roll out digital storytelling with class 10. I count 23 people that come to the showing including Jacob, Clark and Steve.

Leslie's is shown first and in her introduction she says it was a really good experience. She stresses that she's learned a lot of technology and had a lot of fun. Lots of clapping and good reception at the end of her video.

Anna is next and in her introduction she says, "I've really loved playing around with the computer for a few days." Anna also gets lots of claps— her piece has turned out really well.

Marie is next. She says, "I had an awesome time. It was also really great to learn the software." There's a lot of personal disclosure in her video, and she gets some hoots and chants of "Marie" after hers is played.

Next is Ella. She says, "This was a great opportunity to match writing and technology. I really enjoyed myself." Note that the sound quality on hers was not very good but the piece itself was nice.

4:25
Susie's isn't played because it isn't finished yet, but after everyone leaves the draft is screened for the small group. By way of introduction Susie says that her student, Nikki, who was at the showing, said, "How come we didn't do this?" Her other comment is that the technology she learned this week is really empowering.

4:30
Circle debrief.
Madeline uses Amy's evaluation sheet to guide the questions during this time. The first question is *What was most interesting about the workshop?* Susie begins by saying getting to know Marie and Anna. She also really liked the story part of the workshop, the first day when there was some conceptual and theoretical discussion of stories. Leslie goes next and says, "I really loved playing with Movie Maker." Then Ella says, "I'm so proud that we finished."

Madeline's next question is *What was least interesting?* Leslie says she hates scanning. There are really no other objections and somehow the discussion winds around again to good things. Susie again says, "Madeline's introduction on Day one in the morning was a good way to get us thinking."

Then Madeline asks, what was most challenging? Leslie says not being able to change the audio was challenging, particularly making all the elements work together with when you couldn't change the audio. Amy laughs and says you can change it, although she doesn't give an explanation of how difficult it is. Marie says a challenging thing was not getting stuck. She says it was hard to let go of all of her original ideas. Anna says performance anxiety. She says "it was challenging to free myself up to have fun."

Next Madeline asks about ah-ha moments—did they have any? Marie says, "Today I did. This morning I couldn't find my pictures, I was very confused about how Movie Maker worked. But after watching Amy I began to understand it." Susie says she loved making the tiny adjustments and obsessing with the programs. Madeline refines her question and says how about ah-ha moments with how it would fit into the curriculum? She asks Marie to share some of the points that she made on the train when they were riding in this morning. Marie shares her idea about asking for a few volunteers among the students and having them create stories after school, then using these students as team leaders to help teach the other students. Susie mentions a project that Madeline does with paper bag picture books and suggests using this as a storyboard project by putting words

underneath the pictures. Marie talks again and mentions a project that they've done before, having the students make Tech Year promotional materials, and how into that project the students got. She thinks having some kind of focus like that might similarly interest the students. Anna has an idea on the spot: she talks about the e-mail style guide that they have students do, and suggests maybe they have an audio recording component to it.

Madeline says that she talked Clark, and that he said that they need to figure out a way to keep all of this public, otherwise they'll lose it. One of Madeline's ideas is that every staff meeting one of the workshoppers speaks about their progress with the DS initiative.

Next Madeline says that one thing they should all be able to do is to answer when asked describe digital storytelling is. She has everyone in the circle give their definition of digital storytelling. Wish I had this on tape. A few that I scribbled down: Susie talks about folklore and oral storytelling; Hannah is very straightforward and says "presenting a story in a digital format"; Amy gives her definition which is, "a brief digital video that is personal and combines recorded voice images and music..." there's a bit more to this definition; Madeline says, "I see it as a way to connect, it connects communities and people."

Madeline now asks, how are you thinking about sharing your digital story? Anna says that if she gets a final interview for her Ph.D. at Emory she'll take her digital story to her interview to show them about how she might use digital storytelling to capture oral histories of contemporary Greek culture. Ella says she's going to give it to her mom, who feels a bit left out because Ella did a documentary on her aunt last year. Leslie plans to show her story to her boyfriend.

Amy then asked about suggestions that they might have for future workshops that she offers. They all say they would really change very little. Marie suggests they might do two consecutive days with a break and then the third day, rather than one day, a break, then two consecutive days. Susie suggests that might help to have some better instructions on how many pictures to bring to the first day, and it also might help to get a handout that says something like "helpful hints," to give them a sense of what they should work on between the days of the workshop. Marie adds, she might've wanted to learn how to do most everything with the software up front, rather than learning how to do things in sections; that is, not holding off on more complicated stuff like transitions, getting a sense of everything you needed to know before you began the editing process. But she also says she's not certain—she can see the value in learning things in stages.

The next question that Madeline has is whether they want any additional training before they teach. Marie says she might like to pair up with another person and work together on another digital storytelling project. Susie suggests the idea of doing a project with her advisees. Marie suggests the idea of practice teaching with each other. Amy advises that they might do a group project, maybe either a promotional piece for Tech Year or a short video that answers the question: what is digital storytelling? Madeline likes this idea of all the teachers making a story together.

APPENDIX C

LIST OF DATA COLLECTED

Table C1. **Interviews conducted during the study.**

Date	Name/Title
1/26/06	Madeline, Writing Director
1/26/06	Anna, Writing Instructor, Cambridge
1/26/06	Leslie, Writing Assistant, Cambridge
1/27/06	Ella, Writing Assistant, Providence
1/27/06	Hannah, Technical Instructor, Cambridge
1/27/06	Marie, Writing Instructor, Providence
2/3/06	Susie, Writing Instructor, Boston
3/15/06	Clark, CAO
4/10/06	Jack, Technology Director
5/23/06	Rich, Spreading Stories 1 attendee
6/12/06	Rosa, Spreading Stories 1 attendee
6/27/06	Sonia and Laura, Spreading Stories 1 attendee
7/5/06	Madeline, Writing Director
8/4/06	Alex, Founder and CEO
10/11/06	Rith, AM student
10/11/06	Katie, AM student
11/1/06	Avia, AM student
11/8/06	Steve, Technology Instructor, Boston
11/29/06	Julio, AM student
12/6/06	Keyanna, Writing Instructor, Boston
3/19/07	Keyanna, Madeline, Marie (group interview)
4/19/07	Aaron, Writing Instructor, Boston
4/25/07	Cooper, Executive Director, Boston/Cambridge
5/7/07	Madeline, Writing Director
5/11/07	Alonzo, Empowerment pilot student
5/11/07	Angela, Empowerment pilot student
5/12/07	Ada, Empowerment pilot student
5/13/07	Wilson, Empowerment pilot student
5/29/07	Clark, CAO

Table C2. **Site visits made during the study.**

Date	What/Where?
10/28/05	Spreading the Stories 1, Day 1
11/3/05	Spreading the Stories 1, Day 2
11/4/05	Spreading the Stories 1, Day 3
11/18/05	Spreading the Stories 1, Day 4
12/1/05	Spreading the Stories 2, Day 1

12/8/05	Spreading the Stories 2, Day 2
12/9/05	Spreading the Stories 2, Day 3
12/14/05	Follow-up visit to Latino Mission with Amy
12/15/05	Spreading the Stories 2, Day 4
12/16/05	Follow-up visit to Tech Year with Amy
12/20/05	Holiday meeting/strategic planning, SFC and Mass Tech
1/23/06	Tech Year train-the-trainer, Day 1
1/24/06	Tech Year train-the-trainer, Day 2
1/27/06	Tech Year train-the-trainer, Day 3
2/3/06	National Writing Team retreat, Tech Year
3/1/06	All-staff meeting
3/6/06	Writing Team meeting
3/13/06	Meeting with Anna RE recording equipment
4/3/06	Writing Team meeting
4/14/06	Classroom visit
5/1/06	Writing Team meeting/Anna's manual celebration
5/8/06	Classroom visit
5/22/06	Classroom visit
5/30/06	Classroom visit
6/5/06	Classroom visit/Writing Team meeting with Clark
6/12/06	Classroom visit
6/21-22/06	Gathering of Community Digital Storytellers Conference
7/5/06	Madeline and Alex meeting to discuss Alex's story
7/24/06	National staff meeting, Alex's story shown
8/1/06	National Writing Team meeting, Day 1
8/2/06	National Writing Team meeting, Day 2
8/9/06	AM class 1
8/16/06	AM class 2
8/23/06	AM class 3
8/30/06	AM class 4
9/6/06	AM class 5
9/13/06	AM class 6
9/20/06	AM class 7
9/26/06	Empowerment curriculum meeting; AM stories showing at all-staff meeting
10/4/06	AM stories showing; Empowerment curriculum meeting
10/17/06	Empowerment curriculum planning meeting
10/31/06	Empowerment curriculum planning meeting
11/3/06	National Writing Team meeting
11/7/06	Empowerment curriculum planning meeting
11/28/06	Empowerment curriculum planning meeting
12/4/06	Empowerment course
12/5/06	Empowerment course
12/7/06	Empowerment course
12/11/06	Empowerment course

12/12/06	Empowerment course
12/18/06	Empowerment course
12/19/06	Empowerment course
1/2/07	Empowerment course
1/4/07	Empowerment course
1/5/07	Empowerment course
1/8/07	Empowerment course
1/11/07	Empowerment course
1/12/07	Empowerment course
1/15/07	Empowerment course
1/18/07	Empowerment course
1/19/07	Empowerment course
1/22/07	Empowerment course
1/25/07	Empowerment course
2/14/07	Meeting: students create prize categories
2/21/07	Premiere prize judging
3/6/07	Premiere event

***Table C3*. Documents collected during the study.**

Date	Item Description
9/19/05	Tech Year Spreading Stories application
11/18/05	All Spreading the Stories 1 documentation
12/15/05	All Spreading the Stories 2 documentation
12/20/08	All applications to Spreading the Stories
2/3/06	All national Writing Team retreat documentation
2/13/06	Madeline's Digital Storytelling Timeline
3/1/06	Writing instructors' statement RE curricular revisions
5/1/06	Anna's digital storytelling teaching manual
5/8/06 – 6/12/06	Business writing teaching materials
7/24/06	Alex's story and Madeline's PowerPoint for National meeting
8/1/06 – 8/2/06	Draft curriculum from AM course planning at National Writing Team meeting
8/9/06 – 9/20/06	All AM course documentation
10/3/06	Madeline's draft of Empowerment curriculum project plan
10/17/06 – 11/28/06	All Empowerment curriculum planning documentation
12/4/06 – 1/25/07	All Empowerment curriculum/course documentation
1/8/08	Madeline's project update email
3/21/07	All Premiere event materials

APPENDIX D

EARLY EFFORTS TO DETERMINE STAGES IN TECH YEAR'S IMPLEMENTATION PROCESS

The tables in this appendix show two different ways that I experimented with naming stages in Tech Year's implementation project early in my study. Table D1, which I presented at the Gathering of Community Digital Storytellers, attempts to show how implementation was playing out in the early stages at Tech Year. Since I was presenting to a broad audience of people interested in digital storytelling, my aim was to generalize from Tech Year's experience, showing what happens between a train-the-trainer and an on-site, "authentic" delivery of digital storytelling.

I developed Table D2 to organize my research in September of 2007. The table breaks Tech Year's implementation project into stages, and looks at how the various utilities of digital storytelling—those related to production and those related to publication—are either persisting or shifting across stages.

***Table D1*. Stages presented at Gathering of Community Digital Storytellers, 6/21/06.**

Time period or implementation stage	**Organization applies to train-the-trainer**	**Train-the-trainer (t-t-t)**	**Transition time: post - t-t-t; preparing to train others at home site**	**t-t-t attendees train other members at home organization**	**Transition time: figuring out authentic integration model**	**First authentic delivery**	**?**
Main objective during this stage	Sell your organization to the train-the-trainer organization	Learn to produce stories	Sell digital storytelling to those in org that didn't go to t-t-t	Train a core of others and sell them on digital storytelling	Find a 'natural fit' for digital storytelling, so that it can be delivered repeatedly	Teach digi ST to target population.	?
What was happening at Tech Year during this stage? How were the ambitions for	Digi ST is… -- creative way for students to communicate their personal stories -- combines the	Digi ST is… -- 'fun' time away from work -- obligation to complete -- mentoring	Digi ST is… -- way to give students tech skills -- great potential for curriculum	Digi ST is… -- source of writing instructor technology empowerment -- writing	Digi ST is NOT… -- writing/tech curriculum integration vehicle -- teacher	?	?

digital storytelling changing?	tech, pro skills, and communication skills parts of the curriculum -- teaches students new technology and techniques -- hones students' writing and public speaking skills -- outlet for traumatic stories -- funder/mentor outreach -- recruitment tool	experience -- networking -- personal performance -- technology training	integration -- personal storytelling -- 'code-switching' practice	instructor leisure/bonding project -- belletristic/craft project -- way to explore themes: self, community, travel -- documentary work Digi ST is NOT…? -- therapy? Good fit with writing curriculum?	leisure/ bonding project -- part of writing curriculum Digi ST may be… -- way to explore themes: self, community, travel -- craft/fine art -- way to counter dominant narrative of urban youth		
General tendency during this period	Organizations attach to themselves to as many of the various potential uses for digital storytelling as they can at this stage.	Organizational representatives experience DS primarily in personal (as opposed to organizational) terms.	Implementers rhetorically narrow DS to their organization's key goals, even if these goals aren't exactly what they want to focus on.	Some of implementers' real interests/goals resurface.	Real difficulties arise—digi ST is revealed as an 'inorganic genre,' has difficulty hooking in with the 'organically' developed genres of the organization.	?	?
Recommended action for organizations during this period			Be aware that you are strategically narrowing your definition of DS.	Evaluate what's critical to keep implementers' fire—document this. Also discuss shaping to insure survival.	Admit the foreignness of Digi ST and start looking for contradictions with existing genres—return to the general list of possibilities, reevaluate…	?	?

***Table D2*. Stages of Tech Year's overall implementation, 9/06.**
Note. Shaded boxes indicate actual, accomplished functions; white boxes indicate articulated, but as-of-yet unaccomplished functions. Functions are aligned to highlight those that persist across implementation stages.

	Social function of digital storytelling at Tech Year, real & imagined, over time						
	YU Prior to SS	YU During SS	YU 3-day teacher training	Interim	CEO	AM	EMPOWER MENT
IN PRODUCTION		- team-building	- team-building - cross-organizational networking		- hone the TY narrative	- tech/writing instructor collaboration	- tech/writing instructor collaboration - mentor connections - make writing cls as interesting as tech cls -build community in cls
	- curriculum integration	- curriculum integration	- curriculum integration - make writing class as interesting as tech cls - build community in cls	- curriculum integration - make writing class as interesting as tech cls - build community in cls			
IN PUBLICATION			- make visible the work of writing class		- hone the TY narrative - popularize the 'dominant/ counternarrative' idea at TY - control/direct culture of TY - promo for TY - fundraising	- communicate sts' struggles to others - advisor relationships	- make visible the work of writing class - promo for TY - fundraising - communicate sts' struggles to others - advisor relationships - cross-org networking - mentor connection - change perception of urban youth - make DS a TY thing - build counternarr collect.

	- communicate sts' struggles to others - mentor connections - recruitment - graduation ceremony - change perception of urban youth		- change perception of urban youth - build community in cls - document st changes for org - advisor relationships -sts introducing self to professional world - fundraising	- change perception of urban youth - fundraising - make DS a 'TY thing' - fac handbook - tool for hiring employees - newsletter	- build counternarr. collect.		

APPENDIX E

SAMPLE TIMELINE

Figure E1 is an example of how I used timelines to analyze my data. This timeline shows the way that digital stories were exported, distributed and archived across each of the genre stabilizations. Similar timelines were made to trace stories shown, revision methods, tools used to manage the process, and a number of other parts of the digital storytelling process.

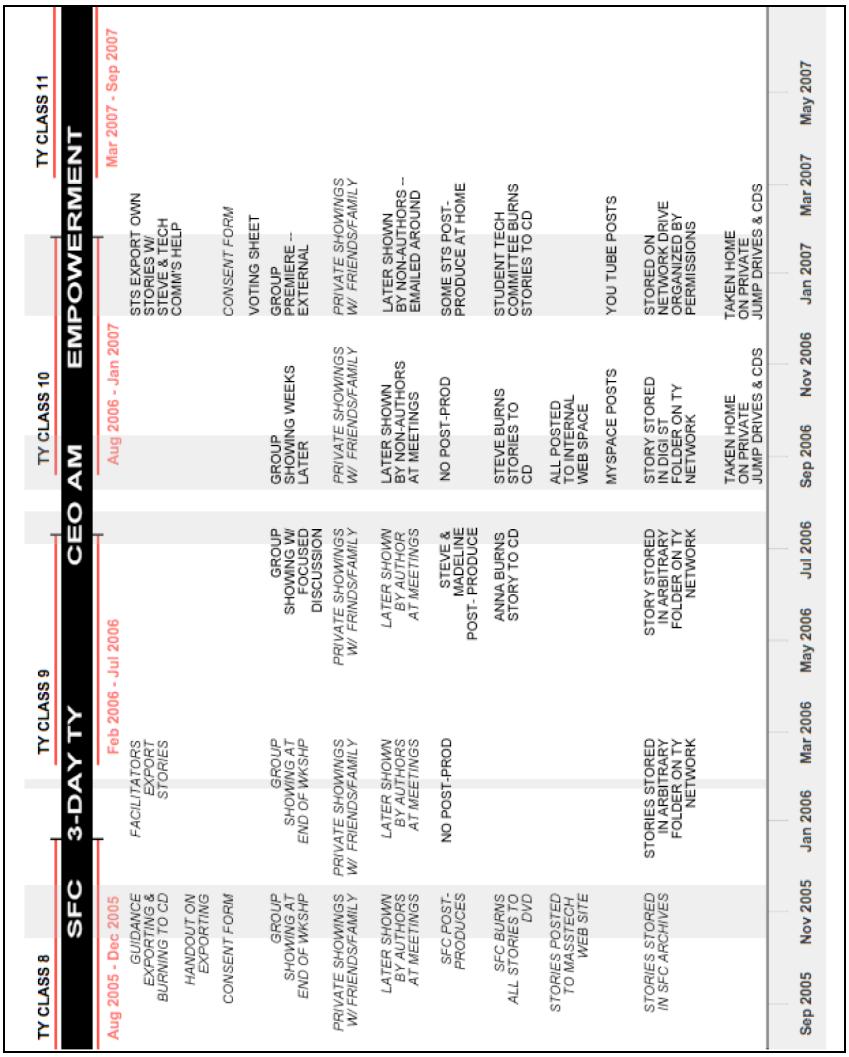

Figure E1. **Timeline representing the ways digital stories were exported, distributed, and archived in different pilots.**

APPENDIX F

ACTIVITY THEORY TRIANGLES AS REFLECTIVE TOOLS

The two figures below show examples of my experiments with Engeström's activity system as a way to analyze data. Figure F1 plots the elements that Engeström identified as important to an activity—rules, subject, tools, community, division of labor, object and objective—as they occurred in the January 2008 on-site train-the-trainer at Tech Year. Figure F2 does a similar mapping of particulars, this time looking at a typical 7-week unit in the Business Writing course. The dotted lines around tools, between tools and the division of labor, and between community and subject all identify contradictions, or problem areas in the activity.

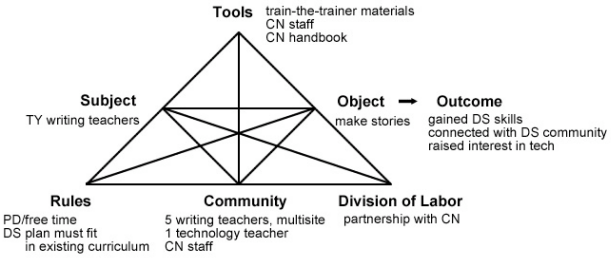

***Figure F1*. Mapping well-balanced writing/technology activity at the January 2006 on-site train-the-trainer workshop.**

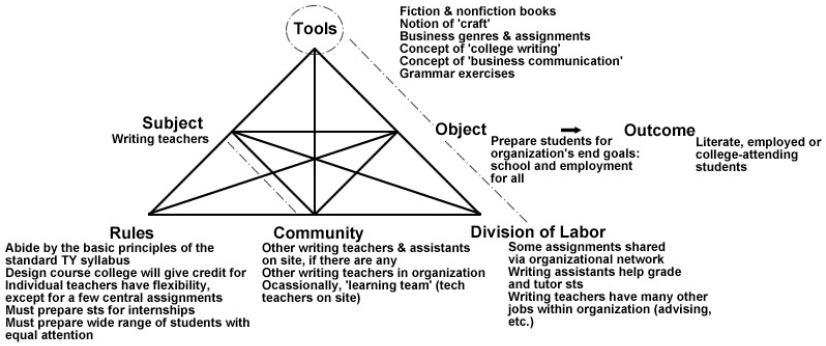

***Figure F2*. Mapping the activity of writing instructors during a typical 7-week unit at Tech Year.**

Note. Dotted lines indicate "contradictions," or typical confusions/problem areas.

APPENDIX G

EARLY GENRE INVENTORY

This appendix contains a genre inventory that I completed during the AM pilot. The inventory was created as I was refining the genre/context diagram, so it is messier in contrast to the completed genre inventories of Appendix J.

Where the word "INTERVIEW" appears below, I was reminding myself to check for relevant information in subsequent interviews.

Genre Inventory, Digital ST in AM course

Who (individuals or group) shaped the genre at this time?

- Madeline, Steve, students

What motives did they have—immediate and longer term?

- Madeline: train self, try DS in classroom setting
- Steve: ? INTERVIEW
- Students: ? INTERVIEW

What social action did the genre, in this form, accomplish?

- Fulfilled AM course requirements
- Students: personal use of stories (Allan—anniversary present; others, MySpace? INTERVIEW)
- Students: technical learning; writing learning
- Teachers: writing and technical teachers working together

What social roles did parties assume in this iteration of the genre?

- Madeline: teacher, technical person
- Steve: teacher, technical person, producer, occasional writing coach
- Students: students, teachers-in-training

What subject positions were parties asked to assume in this genre?

- Students as students; students as technical helpers; students as agents in their lives; students as independent workers; students as apprentices/professionals (more so than during first 6 mos.)
- Madeline as technical person
- Steve as 'fun' technical person (not just business-related technology); Steve as writing coach

What interactions with space and time (material surroundings) does this iteration of the genre encourage?

- 1x week (vs. 4x week during semester)
- 6 sts (vs. 17)
- sts working independently for a long time
- Steve editing
- Lots of class time spent downloading pics
- Students going home at work lunch break to get pics
- Students left alone while teacher goes elsewhere to do audio, etc.
- Single-minded focus on digital storytelling (no resumes or other work to accomplish)

What other genres (historical or contemporary) seem to be influencing this iteration of the genre?

- SFC setup
- Memoir (Susie's handout)
- Technical-style manuals

What contradictions/breakdowns occurred?

- Early objections on students' part: digital stories too negative; no fancy software (Flash, Photoshop); 3 minutes too short; no video; don't want to start with script
- Not much talk in story circle
- Kerry's story—out of 'truth-telling/earnest mode'
- Microphone difficult
- Reading out loud (Steve) vs. hands-on (Madeline)—different teaching styles

Genre set: what texts are being used in the teaching of the genre?

- Steve's manual—visual (like the technical docs?)
- Personal timeline prompt
- Susie's handout of terms (memoir-creative influenced)
- Steve's handout for Day 3—different than writing team handouts?

APPENDIX H

THE GENRE/CONTEXT GRAPHIC AND ASSOCIATED GENRE INVENTORY

Figure H1, the genre/context graphic, was a heuristic that I used to organize my thinking about genre through much of my study. The figure is an attempt to visually portray six aspects of context that a genre both reflects and constitutes. From the top, clockwise, these are: 1) the action that can be accomplished by the organization as a collectivity; 2) the action that individuals within the organization can accomplish; 3) the personal relationships and social order at an organization; 4) the texts and textual practices at an organization; 5) the material environment and work patterns at an organization; and, 6) the naturalized rhetorical frames at any organization—the familiar language and logic used within an organizational context.

While Figure H1 was a helpful way to assure that I was looking at genre in all of its complexity, I ultimately abandoned it for two main reasons. First, it was very difficult to settle on which aspects of context were mutually exclusive; for example, texts seemed part of the material environment and work patterns. I found myself constantly tinkering with the terms I was using, and never happy with the final result. Second, and more importantly, the genre inventory that I devised based on this graphic (see Figure H2) had a lot of categories, and in practice was difficult to use. I felt that implementers would have little patience with such a form.

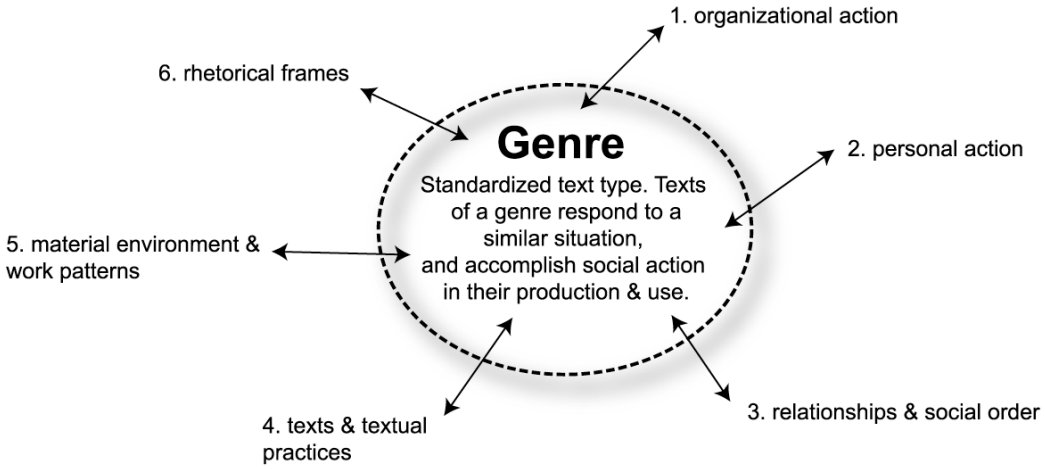

Figure H1. **The genre/context graphic.**

Stabilization:		
Contextual Factor	Descriptive Questions	Evaluative Questions
1. Organizational action	What significant, recurrent form(s) of organizational action did this stabilization mediate (in both its production and its use)? **P** **U**	Did the practice allow the organization to accomplish action that current practices do not? Or in a better way than current practices? What actions? Are these significant enough to the organization's core mission to matter? **P** **U**
2. Personal action	What form(s) of personal action did this stabilization mediate (in both its production and its use)? **P** **U**	Did the practice allow individuals to accomplish action that current practices do not? Are the benefits significant enough to be compelling? **P** **U**
3. Relationships and social order	What people were involved? What kind of relationships and what social roles did these people occupy during this stabilization? **P** **U**	Did any positive or negative relationships or social arrangements surface? Does the organization want these kinds of relationships and this social order? Are these relationships manageable over the long term? **P** **U**
4. Texts and textual practices	What kind of texts and textual practices were used to produce and use this stabilization? **P** **U**	Are the texts ones that the organization has fully developed and/or can support the full development of? Are the textual practices familiar? If not, can the organization support training people in these practices? **P** **U**
5. Material environment and work patterns	What material arrangements and work patterns (time, tools, and space) were necessary to produce and use this stabilization? **P** **U**	Were the available tools sufficient? Was time sufficient? Space? Is this use of time, tools and space sustainable? **P** **U**
6. Rhetorical frames	Within what rhetorical frame(s) was this stabilization cast and understood? **P** **U**	Did we find a way to frame this new practice, in describing and promoting it, so that it felt both familiar and interesting to others in and associated with our organization? If not, can we think of a way to do so? **P** **U**

***Figure H2*. The genre stabilization worksheet.**

APPENDIX I

MADELINE'S TIMELINE FOR DIGITAL STORYTELLING

IMPLEMENTATION AT TECH YEAR

Digital Storytelling Timeline

January 23, 26, 27-Digital Storytelling Workshop

February 3, 2006-All-day writing team meeting

1. Introduction to art and technology integrated curriculum
2. Brainstorming and work session
3. Feedback on curriculum outlines
4. Due date for 1st seven weeks of curriculum-Writing Team meeting-March 6, 2006

February 14-28-Meeting with Anna to discuss documentation manual and grant writing project.

Tues. February 28-Staff Meeting Report -Cambridge College (2nd Floor) 4:30-5:30

1. Rhonda reading description of curriculum and what the writing team is doing over the next six months with Digital Storytelling and our new curriculum.
2. Showing Digital Stories from our January workshop to all staff.

Mon. March 6, 2006-Writing Team Meeting-Boston Site 4:30-5:30

1. Sharing 1st seven weeks of curriculum
2. Feedback on curriculum
3. Challenges and advice
4. Assigning 2nd seven weeks of curriculum
5. Discussing next steps for Digital Storytelling-what we need-supplies, support etc.?-Tentative-Visit from Adam from SFC to offer ideas, support etc.
6. Anna-reporting on writing grant for possible funding for new curriculum.
7. Need volunteer to share a component of their curriculum for March 28 staff meeting.

March 6-April 3-Anna-grant writing and documenting process while teaching Rhonda

Tues. March 14, 2006-Learning Team Meeting-Cambridge or Boston?

1. Writing Team update
2. Susie showing her digital story

Tues. March 28-Staff Meeting-Boston Site-4:30-5:30

1. One writing teacher sharing an arts or technology component that they are integrating within their curriculum
2. Questions from staff for the writing instructors about new curriculum

Mon. April 3, 2005-Writing Team Meeting-Cambridge-4:30-5:30

1. Sharing 2nd seven weeks of curriculum
2. Feedback on curriculum
3. Challenges and advice
4. Assigning 3rd seven weeks of curriculum
5. Conference call-Amy?
6. Anna-report on grant writing and digital storytelling documentation

April 15-Anna's project complete-grant written to at least on source and digital storytelling documentation complete

Tu. April 25-Staff Meeting-Cambridge 4:30-5:30

1. Writing team update-Samples of curriculum
2. Showing Rhonda's digital story

Mon. May 1-Writing Team Meeting-Boston 4:30-5:30

1. Rhonda sharing her digital story
2. Anna sharing her grant writing project and handing out digital storytelling documentation
3. Sharing 3rd seven weeks of curriculum
4. Feedback on curriculum
5. Challenges and advice
6. Digital Storytelling discussion-per site
7. Assigning-Final bound copy of 21 week curriculum-also save it on the T drive

May 1-June 5-Instructors set up individual time to meet with Amy and Madeline to discuss Digital Storytelling implementation for next class.

Mon. June 5, 2006-Writing Team Meeting-Cambridge 4:30-5:30

1. Sharing bound copies of curriculum
2. Feedback and discussion on curriculum
3. Challenges and advice
4. What do you need? Curriculum and digital storytelling.

Mon. July 10, 2006-Writing Team Meeting-Celebration!! 4:30-?

Celebrating new curriculum and all the hard work everyone has put into digital storytelling.

August 21-Class 10 Begins with new curriculum and digital storytelling in place.

APPENDIX J

COMPLETED GENRE INVENTORIES

***Table J1*. Genre inventory for the Empowerment pilot at Tech Year.**

Empowerment pilot	Intended (centripetal)	Actual (centrifugal)	Desired
1. Purposes	Teach writing	Students split on whether unit improved their writing. Staff also split.	
	Build student/mentor and student/advisor relationships	Yes—many stories of mentors and advisors being moved by student stories.	
	Provide opportunity for student reflection & empowerment	Yes. Although these opportunities were not clearly connected to readings and writing done on empowerment themes.	
	Bring technology into writing curriculum	Yes and no. A technology-related project was deployed in writing classroom, but writing teachers did little of the technology teaching.	
	Refresh the Tech Year curriculum with an innovative project	Yes	
	Document student change that happens at Tech Year	Several stories spoke directly to influence of Tech Year	
	Create stories that can aid with recruiting future students	Some stories may be useful. No concrete plans to use them for recruiting yet.	
	Create stories that students can use to introduce selves to apprenticeship employer	Several students used their stories this way. Some stories were too personal for this use.	
		Connect students' families to Tech Year, both when students involved family	

		members in the process of gathering story materials and when families attended the premiere event.	
2. Textual substance and form	Empowerment-themed digital story with a shapely narrative arc Capstone quality Photos primarily from personal collection Copyright-free music	Most stories related to empowerment Many 'tribute' stories Some stories with no narrative arc Highly polished to very rough Digital stories with all stock photos Digital story with personal illustrations Several stories with copyrighted music (one student wrote for and was granted use rights)	
3. Production practices	Stories developed in 3-week reading/writing unit Script selected via portfolio assessment process 3 weeks in lab, with production process proportioned the same way Madeline's 4-day digital storytelling training was Two classes, with total of 38 students Work done in 80-minute classes, 4x/wk Extra time provided during last two weeks Keyanna, apprentice teacher, is primary teacher, Madeline backup Writing teacher handles both technical and	Many texts produced, but few with a narrative arc Very few students find story script in their portfolio Story circle takes six days instead of one Almost all production done outside of class Madeline takes over primary teaching role, particularly in production process. Steve, technical teacher, teaches audio and video	

	writing teaching Student technical committee assists with audio recording/cd burning	editing	
4. Use practices	Students' stories burned to CDs for archival and sharing purposes	Not all stories made it onto CDs (student Tech committee not sufficient when problems arose) Students share stories by posting them on YouTube/MySpace. There, many receive lots of viewer comments.	
	Premiere event to happen several weeks after completion of unit: "Celebration of Empowerment"	Premiere pushed back 2 months—needed to use an elective course during apprenticeship to plan it. Able, this way, to spend more time reaching out and inviting attendees.	
	Stories shown at Premiere to be selected by a staff/student vote	Not all students' stories were voted upon Students showed stories to family/friends, opening up discussions about personal issues Students showed stories to mentors and apprenticeship staff Steve creates archival system and files stories according to what level of sharing permission students have consented to	

***Table J2*. Genre inventory for the Apprenticeship Management pilot at Tech Year.**

AM pilot	Intended (centripetal)	Actual (centrifugal)	Desired
1. Purposes	Teach a humanities-themed AM course	Yes	
	Teach students writing and technology	Yes	
	Improve writing & technical teacher collaboration	Yes	
		Stimulate organization-wide discussion of particular students	
2. Textual features	3-5 minutes	3-5 minutes	
	Personal story, likely based on the students' photobook stories	'Fake' (fictionalized) story Tribute story	
	Emphasis on narrative structure	Story with no narrative arc	
	Photos from photobook Scan additional photos	Many stories used lots of stock photos Some sts had important photos on phone	
	Copyright-free music		
3. Production practices	Stories adapted from photobook or generated on Day 1	All students wrote new stories	
	Use Anna's packet	Steve developed packet	
	Madeline and Susie and Steve teach	Susie does not teach	
	6 sts	Xtra students want class	
	6 class meetings, divided as so:	Backup in story explanation time: many days of explaining what a DS is Steve has to scan outside of class time	
	Work done in 80-minute classes, 1x/wk	Almost all production done in last 2 classes and xtra cram session Lots of setup/shutdown time	

	Writing teacher handles some of technical teaching	Madeline did audio recording—some difficulty Steve gives some story crit	
4. Use practices	Students' stories burned to CDs Showing for staff/students during AM period	Not all stories made it onto CDs Took a long time to schedule showing Two stories shown at Cambridge/Boston staff meeting Two students' stories shown at retreat (w/o permission) Students posted stories on YouTube/MySpace Students showed stories to family/friends Stories archived on Madeline's computer	

***Table J3*. Genre inventory for the CEO pilot at Tech Year.**

CEO pilot	Intended (centripetal)	Actual (centrifugal)	Desired
1. Purposes	Define and build the Tech Year narrative	Yes	
	Excite Tech Year staff about their mission and work	Yes	
	Create product that can be used for fundraising & promotion	Yes—very successful product	
2. Textual features	3-5 minutes	3-5 mins	
	Personal story that also captures 'TY narrative'	Personal story that also captures TY narrative… although may make TY seem to be "all about Alex"	
	Photos from Alex's personal collection and from TY network drive	Two versions: first had repeated photos and rougher-sounding audio	
	Music—no preconceived idea of what sort		
	Tight story that can be shown internally	Not high enough production value to be shown in certain external settings	
3. Production practices	Alex writes script draft Madeline gives revision advice Anna creates video	Alex creates a sort of PSA for 1st draft—no narrative arc. Madeline forwards Alex two sample DS, so he gets better sense of narrative arc	
	Madeline and Alex do the work as an uncompensated add-on to their existing workload; Anna paid extra		
		Madeline and Steve redo recording and photo syncing, to make product more	

		professional	
4. Use practices	Story will be shown to staff to build support for DS and discuss TY narrative	Story shown to staff—discussion a bit flat Story burned to CD that Alex took on one-one donor meetings Story shown at DS Empowerment pilot premiere event Story shown to students in AM pilot Story posted on YouTube	

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