

Michael R Nutt. Barriers to Graduate Student Innovation in Social Media. A Master's Paper for the M.S. in I.S. degree. April, 2011. 107 pages. Advisor: Paul Jones

In 2010, entrepreneurial innovation emerged as the theme for a \$125 million fundraising initiative at the University of North Carolina at Chapel Hill. The leaders of the initiative argue that if universities embrace entrepreneurial thinking then these "engines of innovation" are poised to help solve some of the world's biggest problems. In this paper, I argue that the blueprint for such an engine is far from complete, especially where the role of graduate students is concerned. Over the course of my Master's program, I tried to launch a venture to build a community-owned "social archive site" for poverty alleviation. This paper is a case study of that entrepreneurial effort and the barriers to innovation I encountered.

Headings:

Social Network Sites

Innovation

Entrepreneurship -- Student

Student Groups

BARRIERS TO GRADUATE STUDENT INNOVATION IN SOCIAL MEDIA

by
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Preface

This is a case study of a big idea. My big idea. I have spent my graduate school career trying to convince people that it is a good big idea. In fact, the personal goal of my two-year graduate career was to be able to find a way to employ myself in the pursuit of that big idea after receiving my master's degree. For better or worse, I did not reach that goal. When it came time to decide whether or not I would take a creative and well-paid job at a well-respected library or try to risk bootstrapping a venture that was still trying to find its footing after three years of grueling work, the choice was clear. By the time I got a job offer in March 2011, my venture still had too many uninvestigated risks and no capital, so I chose the library job. In the eyes of the state of North Carolina, I am now the President of both a nonprofit and a limited liability corporation, but the future of those entities is unknown. The case study that follows is an attempt to analyze some of the factors that impeded the successful launch of my venture after graduate school.

I will not be self-employed next year, but that is not to say that I haven't accomplished anything. I set out to start a business, and in the process I created a student group that I am extremely proud of. Whether or not the nonprofit I founded ever takes off, I believe that the student group I started will be around for years to come. Indeed, I hope to help ensure that happens as a supportive alumnus. So if this paper ever seems bitter, the reader should kindly forgive an error of tone and chalk it up to passion instead.

A better manuscript would include more discussion of the highlights and milestones of this journey, but those have been well documented elsewhere.¹

Holden Thorp, chancellor of the University of North Carolina at Chapel Hill (UNC), has identified entrepreneurial innovation as our top fundraising priority. Thorp and Buck Goldstein, University Entrepreneur in Residence at UNC, say that universities are the places where “big ideas are hatched and subsequently translated into reality” (Thorp & Goldstein, 2010, p. 2). However, despite having all the resources available to a graduate student, as well as some advantages unavailable to a typical UNC student, I was not able to translate my big idea into the reality I wanted within the time I had here. Why not? At UNC, I heard about lots of successful entrepreneurs, but detailed accounts of students who try to start businesses and fail are hard to find. In this paper, I want to trace the barriers to innovation that I faced so that university students, faculty, and administrators might benefit from my experiences.

Before I explore what may have kept me from innovating, I would first like to describe the origin of the vision that I have not been able to get out of my head for the last three years. I can trace the big idea back to 2001 when I first heard the radio program *This American Life*. I can say without hyperbole that it was a life-changing event. The combination of interviews, narrative, documentary, field recordings, music, and found audio unlocked something in me I did not know was there. *This American Life* taught me that the stories of ordinary people could be just as engaging as the stories that are manufactured in Hollywood. This simple revelation deflected me from an anticipated career in the music business (thankfully) and towards a professional interest in what is now sometimes called “digital storytelling.”

Digital storytelling is the use of the Internet and inexpensive digital media technology (particularly video and audio) to “explain our identities to each other” (Lambert, 2002). In the early 2000s, this was an innovative idea, and it was hard to find practitioners and examples. Now, each of Facebook’s 500 million users creates 90 pieces of content a month (Facebook, 2011), Twitter reports 600 tweets per second (Weil, 2010), and Myspace has had as many as 46 million status updates and action notifications per day (Perez, 2009). Which is to say, social network sites have blown the lid off of identity explaining. I believe what we have yet to find is a happy medium where new media can be employed to collaboratively create and archive the important stories of our lives, and that is the nucleus of my big idea: to create a “social archive site” that combines the communal experience of a social network site with the stability of a digital archive. I also believe that such social archive sites could be cooperatively owned and operated to generate community economic development.

In 2008, I was employed as a Media Technician in the UNC Department of Communication Studies’ undergraduate media production program. I managed a half-million dollar audio/video equipment checkout room, helped faculty and students realize their creative potential, and worked for a man who is likely to be the best boss I will ever have. I decided I was ready for the next big thing after a remarkable email exchange between a group of alumni that proudly call themselves the “Swain Hall Geezer-Coots.”

The media production program has its roots in UNC’s now defunct Department of Radio, Television, and Motion Pictures, commonly referred to as RTVMP by its alumni. Under the vision of UNC system president William Friday and founding department chair Earl Wynn, RTVMP students such as Charles Kuralt, Carl Kasell, and Reese Felts helped

launch public broadcasting in North Carolina in the 1950s. Students helped run the state's nascent public radio and television stations out of Swain Hall, and after graduation frequently went on to work in North Carolina's commercial broadcast stations. By the 60s and 70s, many of the state's radio and television station managers and owners were alumni of the RTVMP department. There is a long history of media-related innovation at UNC.

In early 2008, a Communication Studies student and employee of the North Carolina Collection at UNC's Wilson Library gave me a DVD full of high quality scans of archival pictures. The pictures featured students, faculty, and staff from the hey-day of RTVMP in the 1960s. The photos were punctuated with racks of bewildering analog electronics, broadcast personalities talking into microphones and cameras, and a fair amount of indoor smoking. The photos were obviously of historical importance – but there was almost no useful metadata associated with each photograph. The stories behind the photographs were obscured.

I had previously met WCPE Program Manager and RTVMP alum Dick Storck, who had enjoyed looking at a folder full of old photographs I had found in my office file cabinet. I knew that Mr. Storck would be interested in this newly discovered trove of archival photographs, so I contacted him to see if he would be willing to help identify the people in the pictures.

While our plans for a larger exhibit of the department's history never coalesced, Mr. Storck and several of the other Geezer-Coots nevertheless found a way to electronically share and annotate the pictures over email (see Figure 1). While the Geezer-Coots' color-coded annotations fleshed out the stories of these remarkable photographs, I was struck by the inadequacy of the tool for the task. While email certainly got the job done in this instance, it was inefficient and cumbersome. Perhaps most importantly, the Geezer-Coots had gone through all the trouble of social annotation for 54

photographs, but the stories still only live in the inboxes of a handful of people. The original photos will remain in their archival folders, separated from the rich context of this collaborative storytelling. At the time, I thought that some kind of wiki would have been a more appropriate tool for this project, because a wiki provides mechanisms for quality control, versioning, and collaborative authorship. Indeed the collaboration, sharing of knowledge, and "sense of belonging to something greater" reflected in these email exchanges is typical of a wiki user (T. D. Moore & Serva, 2007, p. 155). After this experience, I knew that I wanted to build a wiki-based "social archive site" for creating stories, but I also knew that I didn't have the skills to build that system yet. At their core,

06 JY checking camera positions during a remote kine for the School of Dentistry?
I remember this show well--it was at the dental school and we got some beautiful down-the-throat shots for the benefit of our viewing audience



07 Is the FIRST mobile unit for UNC-TV taken at Chatham outside the transmitter building
Of course the first bus, Billy Carmichael paint design, is at Chatham.

First bus ----- aka The Circus Wagon because of colors.



Figure 1. Photos courtesy North Carolina Collection, UNC-CH

the kinds of digital stories I wanted to build and preserve are made of information. After some research, I decided that a master's degree in information science would be the next step in my career, and I enrolled full time at the UNC School of Information and Library Science (SILS) in the fall of 2009.

From the beginning of my information science career, then, I was driven by the desire to solve a problem and build a job for myself around the solution to that problem. Having already worked professionally in several media-related jobs, I was relatively certain that the right job for me either did not exist or else was so rare that it would make more sense to start my own business. Although I only realized it later, I was approaching my graduate school career with an entrepreneurial mindset, viewing big problems as big opportunities (Thorp & Goldstein, 2010). What follows is the story of my attempt to innovate at the University of North Carolina at Chapel Hill.

¹ E.g., <http://www.uncstorylab.org> and <http://communitycollecting.web.unc.edu>

Introduction to The Community Collecting Project

This paper is one part of a four-part master's project called Community Collecting that also includes a business plan, a pitch, and a website:

- 1) The **business plan** is for a nonprofit “social archive site” for sharing and preserving digital stories. The plan is attached as Appendix A.
- 2) The **pitch** is a slideshow designed to attract funding for the nonprofit. The notes for each slide provide the text that would be delivered in person during a live pitch. The pitch is attached as Appendix B.
- 3) This **master's paper** takes the form of a case study. In it, I examine the road that I have traveled since initially conceiving my entrepreneurial idea and subsequently enrolling at SILS in order to pursue it. At the end of this case study, I reflect on the lessons I have learned while trying to start innovative programs within an academic setting.
- 4) The plan, pitch, and this paper, along with a collaborative bibliography of related literature, are collected at the **website** <http://communitycollecting.web.unc.edu>.

Over the course of this project, I incorporated Digital Storymakers Foundation in the state of North Carolina (hereafter referred to as Storymakers). I serve as Storymakers' President and am currently its sole officer. The plan and pitch were also entered into the spring 2011 Carolina Challenge, a business plan competition at UNC.

A potential disadvantage for this venture is being, to the best of my knowledge, a first mover in a little understood social media niche. This niche depends on a “buy local” economy but uses personal and community digital cultural assets as the basis for product offerings. As the saying goes in the business world, the early bird gets the worm, but the second mouse gets the cheese. To mitigate the “first mouse” nature of this venture, the entire Community Collecting project is being released under the least restrictive Creative Commons license.² An important goal of this project is to provide an adaptable framework to encourage other students, individuals, and communities to build their own social archive sites. I hope that open-sourcing the business plan will attract those with the capacity to help me improve the idea, whether through collaborating with me directly or developing the idea through separate ventures.

² <http://creativecommons.org/licenses/by/3.0/>

Intended Audiences

I anticipate that this master's paper will be valuable to three distinct audiences:

- 1) Graduate students
- 2) University faculty and administrators
- 3) Researchers and practitioners in the field of Information and Library Science

Graduate Students

While I am sincere in my effort to eventually launch this venture, the primary goal of this master's paper is distinct from my entrepreneurial goal. In this paper, I hope to provide a model for other students interested in entrepreneurial innovation. This case study is intended primarily for prospective or current graduate students who:

- Believe that entrepreneurial innovation can be used to improve quality of life
- Have an idea to solve a problem
- Would like to use graduate school as a springboard for starting a business to solve the problem

The reader who fits this description will be a lot like me, three years ago. It is my hope that the experiences that I document in this paper will provide useful parables to entrepreneurial students, particularly those interested in the social media industry. I believe that student readers of this paper will be able to increase the efficiency of their time in school through a better understanding of the challenges involved.

There is no shortage of literature on the intersection of entrepreneurship and academia or entrepreneurship education. However, there appears to be a nearly complete dearth of research regarding barriers to entrepreneurial efforts by graduate and professional students *within the university itself*, which is unfortunate since these students have many unique circumstances that can make launching a venture daunting. After six or more years of undergraduate and graduate school debt, Master's and professional school students are less likely to be able to choose the uncertain financial lifestyle of a bootstrapping new entrepreneur. They often earn their degrees in only two years, and rarely live on campus, making it much more difficult to establish social networks that can be leveraged for support in entrepreneurial activities. When I was able to find collaborators in my social network of colleagues and acquaintances, they frequently (and understandably) exhibited a preference for taking care of their own needs and goals rather than prioritizing my own entrepreneurial aspirations. Often they will have found committed partners or have a family. It is nearly impossible to give the proper amount of time to loved ones while also going to graduate school full-time, working a twenty hour per week research assistantship, and trying to start a business. Undoubtedly, the week will not contain enough hours for the entrepreneurial graduate student. The primary purpose of this paper is to help illuminate and straighten the path of graduate students that find themselves in situations similar to mine.

Faculty and Administration

The second type of reader who might benefit from this case study is a faculty or staff member at a large research university who is:

- Involved in efforts to promote or teach entrepreneurship

- Interested in reducing barriers to graduate student entrepreneurial innovation
- Seeking to understand or increase the role of entrepreneurship for graduate students in non-translational disciplines

UNC's own Chancellor Holden Thorp provides my mental model for this imagined reader. Indeed, he was the catalyst for this paper. In 2010, the leader of this university co-authored a book entitled *Engines of Innovation: The Entrepreneurial University in the Twenty-First Century* and launched a \$125 million fundraising effort dedicated to supporting entrepreneurial innovation.

Thorp's efforts to encourage entrepreneurship at UNC had a direct influence on my own academic and entrepreneurial endeavors. His various writings and initiatives were inspiring, educational, and affirming but were just as often frustrating and irrelevant to my own situation. According to its jacket, *Engines of Innovation* is intended to be a "practical guide" for generating high-impact innovation in the halls of academia. Remarkably, however, the 170-page text omits the student perspective entirely. When students are briefly mentioned, they are either as over-simplified cultural abstractions or as the simple objects of teaching. Instead, the authors focus on political and administrative structures that either had little relevance to my entrepreneurial efforts or directly contradicted my experiences. In the book's index, more pages are devoted to the subject of donors than students.

In their introduction, Thorp and Goldstein describe the attributes of an entrepreneurial thinker, and I humbly suggest that my narrative will show I possess all of them. Was it unrealistic for me to think I could start my own business? If so, could the university have done anything more to empower me? If not, what did I do wrong and

how can the university prevent other students from making the same mistakes? I hope my story will inspire faculty and administrators to ponder these questions and to implement the solutions they imagine.

Information and Library Science

In a Delphi study of Library Journal “Movers & Shakers” award winners, Adam Rogers found that risk-taking and flexibility, two entrepreneurial skills, were thought to be the most important for librarians in the near future (A. Rogers, 2010). Out of a list of 28 skills that might change in importance for librarians in the next five years, these two were the ones predicted to become “much more important” by some of the field’s most interesting practitioners.

In the face of perpetually shrinking budgets, it may seem paradoxical at first that librarians are thinking about risk-taking. If every dollar is precious, how can public libraries afford to take chances? In fact, it may be that libraries need to turn to entrepreneurial thinking precisely because of the uncertainty of public funding. Now more than ever, libraries must prove their worth. The decreasing value of large print collections makes libraries an easy target. They must provide a clear and attractive value proposition to their communities in order for those communities to take an interest in protecting them from rampant and drastic budget cuts.

The interdisciplinary nature of the information and library science field means graduates could be highly sought after team members in entrepreneurial ventures if they have experience solving problems and building systems with their knowledge, but often innovators from elsewhere on campus are unaware that their needs require ILS expertise. Every student I spoke with in my introductory database class would have preferred

designing a database for a real client rather than the hypothetical one we built instead. A year later in December 2010, I sat in on a meeting of the Chancellor's Student Innovation Team, where the students tasked with helping to implement the Chancellor's innovation roadmap discussed the need to find a computer science student to create a social database of innovative and entrepreneurial campus activities. These students were completely unaware of the existence of SILS until I spoke up and suggested that our students had the skills they needed. Indeed recent SILS alumnus Brandon Young had already created the exact resource they wanted when he was a member of the Carolina Entrepreneurial Commune. It is my desire that this paper may illuminate some opportunities for the ILS field to further explore and assert its role in the solutions of the world's great new innovations.

The Advantages of an Academic Townie

Before a student might be able to usefully compare my entrepreneurial activities with their own, one should consider that I had several advantages that likely helped me accomplish as much as I did in my short time at UNC. I believe there were several factors that differentiated me from most of the other graduate students I met in my program at SILS. I would like to briefly catalog them here in order to underscore just how difficult it is for a graduate student to launch an innovative venture at a large research university.

1) I was more familiar with UNC than a typical graduate student. I finished the last two and a half years of my bachelor's degree in the UNC Department of Communication Studies in 2004. I went on to work for the same media production program from 2005 until I began graduate school fall 2009. This provided me with advanced knowledge about the resources I would have access to as a graduate student. Perhaps more importantly, as a staff member I came to understand UNC's highly politicized nature and some of the factors that governed access to available resources. Later in this paper, I discuss the process of starting a student group to address media-related needs on campus. I could not have been aware of these needs had I not already spent six and a half years in separate roles as both student and staff member at UNC.

2) I had more flexibility in my course load than a typical SILS student. When I was a staff member, I completed a graduate certificate program in nonprofit leadership. I was able to use 9 hours from this program as transfer credit, and waive a required management course. Additionally, I took a total of six hours of credit in both the summers of 2009 and 2010. Normally, the SILS curriculum requires a student to take twelve credit hours per semester in order to graduate in two years. I was able to reduce my load to nine hours per semester during both spring 2010 and fall 2010, and only enrolled in four credit hours the final semester of my graduate career. The time I saved by not taking as many classes was easily consumed by trying to launch an entrepreneurial venture. It is difficult to imagine how I would have survived four semesters of a full twelve-credit load.

3) I was more familiar with Chapel Hill and Carrboro than a typical graduate student. I have lived in Chapel Hill or Carrboro for all but three months of the last eleven years. My venture was always envisioned as one that was crafted specifically for the Orange County, North Carolina market. The area has many characteristics that make it ideal for Digital Storymakers, including high education levels, deep technology penetration, and a culture friendly to entrepreneurship; if my venture cannot succeed in the Triangle, then it likely would not succeed anywhere. My familiarity with the people and values of the area mitigated a lack of detailed market research. Had I just moved to the county, my lack of knowledge about the area would have made my various proposals, plans, and pitches less convincing.

4) I had already performed substantial academic work related to the problem I wanted to solve. In Social Work's nonprofit leadership certificate program, I began research that culminated in a juried paper that I co-authored and presented with Gilson Schwartz at the 5th Prato Community Informatics & Development Informatics Conference 2008 in Italy. I still regard the argument at the center of that paper – that personal digital stories can and should be used for community economic development – as the truly innovative part of my vision for a social archive site. This previous familiarity with the theory behind my venture helped me to recognize relevant new information when it came along in my classes. I was able to synthesize new ideas much more quickly into my business model because of my previous academic work.

Method

This case study is informed by analysis of various personal and web-based records. Over the course of my two-year (four-semester) program, and particularly in my second and third semesters from January 2010 to December 2010, I collected data and field notes pertaining to Carolina Digital Story Lab (a student group I started during this time) and the Storymakers business plan. Data sources I used for the construction of this case study include:

- One year's worth of field notes and journal entries from meetings, seminars, workshops, and classes relevant to the venture
- Annotated web traffic statistics from Google Analytics for <http://www.uncstorylab.org>, the website of Carolina Digital Story Lab
- Sent and received emails related to the activities of Carolina Digital Story Lab

This set of varied quantitative and qualitative sources provided a timeline for the reconstruction of events, as well as a rich data set for inductive analysis.

Qualitative Stories

This chapter presents narrative details about some of the most significant aspects of my entrepreneurial efforts, beginning with the genesis of the social archive site idea one year before enrolling in graduate school.

The Story Economy

While innovation itself may be as simply defined as a new idea, practice, or object (E. Rogers, 2003), Thorp and Goldstein (Thorp & Goldstein, 2010) argue that for a university to generate *high-impact* innovation, it must offer a solution to one of the world's biggest problems (e.g. climate change, communicable diseases, environmental degradation, extreme poverty, etc.). While the Geezer-Coots provided the inspiration for the social archive site as an information *system* for collecting personal stories, such a system alone would not qualify as "high-impact." After all, the Geezer-Coots' problem was not insoluble; they were seemingly content with their email exchanges.

What I believe to be the truly innovative part of my idea was formed in the UNC School of Social Work in 2008. While I worked full time for the Communication Studies department, I also worked towards the completion of a Certificate in Nonprofit Leadership through the School of Social Work. The certificate required the completion of five graduate-level classes on various aspects of nonprofit leadership, including nonprofit law, executive leadership, and financial management. As an elective for the program, I

took SOWO 881: Community Practice and Planning with Dr. Marie Weil. In this course, I was introduced to John Friedmann's theory of alternative development (Friedmann, 1992). In *Empowerment: The Politics of Alternative Development*, Friedmann argues that the poor are actively engaged in the production of their own lives and that this often precludes participation in the formal aspects of the economy. The activities of the poor usually suffer from "invisibility to official eyes" (Friedmann, 1992, p. 43) because their activities are not reflected in traditional metrics like gross domestic product. This requires us to rethink the poverty problem as a lack of access to bases of social power since traditional economic development is aimed towards accelerating areas of the economy in which the poor do not always participate.

The use of social empowerment as a development tool resonated deeply with me, but Friedmann's theory also felt slightly dated, and framed in the realities of production-based economies. *Empowerment* was authored before the appearance of the world wide web, and I wondered whether the advent of the information economy required a reconfiguration of Friedmann's model, and whether new creative industries might even provide opportunities for the previously excluded to participate in more mainstream economic spaces. Friedmann says an alternative development is necessary partly because the activities of the poor are often incapable of being "traded for money" (Friedmann, 1992, p. 52). But in a knowledge economy, the production of livelihood has a valuable byproduct that can be captured qualitatively through online digital media (and later I would realize, quantitatively through networked social interactions): the story.

At the time, I was a member of an email discussion list for community informatics researchers.³ Community informatics is defined by its founder as "the

application of information and communications technology to enable and empower community processes” (Gurstein, 2008, p. 11). After finishing my research paper for Dr. Weil’s class, I posted it to this discussion list for feedback. To my great surprise, the organizer of the annual Prato Community Informatics & Development Informatics Conferences in Italy suggested that I should submit my paper if I could augment it with a case study. I again turned to the listserv for help, and was surprised again to find a willing collaborator...in Brazil!

Gilson Schwartz, Academic Director of the Universidade de São Paulo City of Knowledge provided an incredible example that made my purely theoretical paper much more convincing. Schwartz had been involved in a project with the Xavante people from Mato Grosso to create cell phone icons and ringtones based on their indigenous knowledge, stories, and songs. These representations of their livelihoods were available for downloading, and revenue generated through digital sales was returned to the Xavante.

After the addition of this case study, the paper was accepted, Schwartz and I met and presented the paper in Italy, and it was published in the conference proceedings (Nutt & Schwartz, 2008). While I was more or less terrified by the whole process (keep in mind, I was simply a UNC staff member with a bachelor’s degree at this point), and far from confident about the paper’s quality, I was energized and thrilled at the positive reinforcement I received at the conference. As the world’s economy seemed to be crumbling around us, I was buoyant at the prospect that I might be on the track of an innovative solution to poverty. However, my contributions to *The Story Economy* were strictly theoretical. As I developed *The Story Economy* over the course of 2008, I was

also working on the first prototype for a story management system, which I called a “wikumentary.”

Wikumentaries vs. Social Network Sites

Wiki inventor Ward Cunningham calls a wiki “The simplest online database that could possibly work” (Cunningham & Leuf, 2002). While this short definition is rather vague, it provides several of the reasons why I believed wikis were the right solution for the kind of historical documentation problem that the Geezer-Coots faced. I wanted to build a publicly accessible system, so providing online access was essential. It would need a database to manage files and metadata. Perhaps most importantly, it would have to be as simple as email or else the barriers to adoption were likely to be too high for widespread adoption. In fact, I wondered whether the Geezer-Coots might simply be able to add their stories to Wikipedia.org, the world’s largest wiki and online encyclopedia (Stvilia, Twidale, Smith, & Gasser, 2008), but the terms of use prevent adding content that is not “verifiable against a published reliable source.”⁴ The information system that was needed would be an individual wiki instance where users could contribute media and their own subjective recollections and stories about the events of their past, regardless of whether or not those stories could be verified by some other source.

In 2008, shortly after the Geezer-Coots’ photo-swapping emails, I bought the domain name wikumentary.net to prototype my vision for collaborative storytelling about personal events. Although I was not the first to come up with a portmanteau of the words ‘wiki’ and ‘documentary,’⁵ I believe I was the first to model this particular vision for collaborative online documentaries. In an effort to demonstrate that wikumentaries could be about anyone or anything, I installed TikiWiki wiki software for the site, and started

adding content about myself, including topics as varied as homebrewed beers I made to bands that I liked to the book club I belonged to, along with photographs and videos (see Figure 7 below). I also maintained a blog on the site to discuss various aspects of the concept of wikumentary.

The screenshot shows the homepage of <http://wikumentary.net>. The main title 'wikumentary.net' is rendered in large, stylized letters with a wood-grain texture. Below the title, the page is divided into several sections:

- Main Menu:** A vertical list of links: Home, About, Blog, Forum, Wikumentary.
- Subscribe to the blog: On Wikumentary:** A section with a red RSS icon and a 'Subscribe' button.
- Search:** A search bar with a 'go' button and a dropdown menu set to 'Entire Site'.
- Blogosphere News:** A section with a link to 'U. of Richmond Creates a Wikipedia for Undergraduate Scholars (2009-04-07T20:36:12Z New Program at Georgia Tech Pairs Computing With...'.
- How to Use This Wiki:** The main content area, featuring a title, a 'history' link, a 'similar' link, and '1 comment'. The text reads: 'This is a wiki. This is a documentary. This is a wikumentary. It is about me, Mike.' Below this is a note on using the wiki and a contact email: 'mike (at) wikumentary.net'. A photo of a young boy sitting on a wooden stool is also visible.
- Login:** A section with a 'user:' field containing 'Mike', a 'pass:' field with masked characters, a 'login' button, and a 'Remember me' checkbox.
- Last blog posts:** A list of four recent blog entries with titles, dates, and times.

Figure 2. Screenshot of <http://wikumentary.net>

I began to think that Cunningham’s definition was overly optimistic. Operation of the wiki I had created was anything but simple and it was debatable whether or not it “worked.” The wiki software I chose, TikiWiki, was frustrating and confusing, and I soon began to spend less time developing the wikumentary side of the site than simply blogging about the ideas behind wikumentary. Additionally, I was rarely ever able to get others to contribute to the site; there were more contributions from spambots than from legitimate users. While I still believed that wikumentary was a promising *idea* – that the

collaborative editing of web pages held much promise for story-based online documentary – my last blog post on wikumentary.net was March 17, 2009, just over a year after I had started the site. This was also around the time I confirmed to UNC that I would attend graduate school at their School of Information and Library Science. I thought to myself something along the lines of, “Well, this website is pretty awful, but that’s why I wanted to go to graduate school in the first place. Maybe I’ll learn something that will help me envision a better system.” That turned out to be exactly what happened.

My first semester at SILS in fall 2009, I took the special topics class INLS 490-151: Social Network Sites with then PhD candidate Fred Stutzman, in which we studied a wide range of social network sites designed for everyone from knitters to business professionals. It quickly dawned on me that social network sites (SNSs), not wikis, were already being employed by millions of users to document the events of their lives. Social network sites are:

...web-based services that allow an individual to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.
(boyd & Ellison, 2007)

In April of 2009, four of the top six most popular websites for hosting digital photographs were SNSs (Schonfeld, 2009). The attractive graphical user interfaces, lack of complex syntaxes, and, most importantly, heavy social interaction, offered several benefits over the wiki-based system I had envisioned. While wikis facilitate sophisticated versioning history that allows for greater quality control (Stvilia et al., 2008), this function is less important in the collaborative documentation of personal stories. Additionally, social

network sites are more familiar than wikis. Nearly half of online adults in the United States use a social network site (SNS), up from only eight percent in early 2005 (Lenhart, 2009). While I was unable to find estimates of the number of wiki users, active editing on Wikipedia, undoubtedly the only wiki familiar to many Internet users, has hovered between 80,000-100,000 *worldwide* for the last four years, and claims 1.3 million users.⁶ By comparison, Facebook claims 500 million active users worldwide.

In the two social archive site prototypes I have created (Wikumentary.net and uncostorylab.org, discussed below), the ability to *edit* content authored by some other person was utilized far less than the ability to simply *comment* on the content. In the documentation of personal stories, it is less important to arrive at one version of the “truth,” reflected in a single text document, than to allow comments, clarifications, and addendums on user-authored texts and supporting documents. This reluctance to edit text authored by others has also been found in previous studies (White, Gurzick, & Lutters, 2009) (Munson, 2008).

With this in mind, for my final assignment in INLS 490-151, I attempted to capture my ideas in a business plan for the first time. Although I said that the company would utilize a content management system called Wikumentary, the plan was SNS-centric, not wiki-centric. This is also when the name Digital Storymakers was born, in large part because I was able to purchase digitalstorymakers dot net, dot org, and dot com. In moves that were outside of the scope of the assignment, I incorporated Digital Storymakers, LLC in North Carolina and began the process to trademark the phrase Digital Storymakers in the software industry (a process which is still ongoing nearly one and a half years later). The establishment of an LLC was perhaps premature. To date,

Digital Storymakers has not earned a dime and in fact has cost me several hundred dollars in annual fees to North Carolina.

Although this early business plan is notable because it represents an important transition in my vision from a wiki-based website to a social network site, there is little that remains in the Digital Storymakers business plan from the document that I turned in to Mr. Stutzman, as I will discuss in the following chapters. Looking back at this assignment with the benefit of hindsight, it becomes clear that the product I turned in was little more than a theoretical academic exercise, lacking a clearly articulated value proposition and so broad as to include “recommendation systems, advertising, podcasting, digital publishing, e-commerce, multimedia pattern recognition and object detection, data mining, and game design.”

During the following spring semester, I met with Mr. Stutzman to discuss my final assignment and the feasibility of launching the business as my master’s project. The most important piece of advice that came from that meeting was that building a system would not be as difficult as building the information-sharing community behind it. He suggested that I start a low-fidelity version of the idea (e.g. an email listserv) to start investigating the links between online and offline social networks. While this was an important piece of advice, it was one that did not immediately sink in. I felt that my time in graduate school would be too short to spend time on building a low-fidelity prototype. This bit of hubris would not last long.

Not Knowing Anything About Business

At Stutzman’s suggestion, I met with ibiblio Director and UNC Professor Paul Jones over lunch on February 26, 2010 to ask him if he would advise a master’s project to

start a business. He agreed, but only after a thorough grilling that concluded with the observation, “It sounds like you don’t know much about business.” This was not an unduly harsh summation of my business experience, but until that moment, I had not considered that fact to be an obstacle. The truth is, I hadn’t considered it at all.

A recurring theme of the School of Social Work’s Nonprofit Leadership program was that funders and the public at large increasingly expected nonprofits to act like businesses and adhere to the principle of the “Triple Bottom Line.” That is, modern nonprofits must not only provide social value and stewardship of environmental resources, but must also generate their own revenues. Until that lunch with Professor Jones, I had mistakenly assumed that my education about business-like nonprofits would be enough to guide me through the establishment of my own innovative venture. After that conversation, I was no longer under the impression that a nonprofit manager and an entrepreneur were the same thing. This conversation and realization led directly to my enrollment in the UNC Kenan-Flagler Business School’s entrepreneurship class Launch the Venture I, discussed below.

As if this wake-up call was not enough for a single lunchtime meeting, Professor Jones also asked another question of me that turned out to be pivotal. “Why you?”

“I’m sorry?” I asked.

“Why are you the person to lead this company you want to start? Why should I believe you can do it?”

I opened my mouth to start talking about my academic resume and work history but immediately realized that I did not have a convincing answer to this question. I had created a *website* about my ideas, held an academic *certificate* in nonprofit management

(not any actual nonprofit management experience), and had written a *paper* that had been published in the proceedings of a small conference for the obscure academic field of community informatics, but these things would largely be theoretical abstractions to a venture capitalist. I had never started or lead a real *organization*. In the split second it took to realize this, Jones realized it as well. Before I could stumble my way through a response, he spared me the embarrassment and explained that I wasn't going to convince anyone to give me resources to build this venture if I couldn't at least explain why I was worthy of them. He predicted correctly that I would face that question many more times if I were really trying to start a business. I understood that a good answer to this question was going to take more than a class at the business school, which was incredibly disheartening at the time. As a graduate student, how could I possibly gain the kind of experience I needed in order to be a convincing leader? A solution to this problem came to me driving back from the North American Handmade Bike Show in Richmond, Virginia.

The Prototype: Carolina Digital Story Lab

The day after I met with Professor Jones I drove to Richmond to ogle ridiculously expensive, handcrafted bicycles with my friend Colin, who was flying in from San Francisco. I had few expectations for the weekend other than an east-coast rendezvous with my childhood friend, but the experience turned out to provide yet another pivotal moment in the progression of the social archive site idea. Colin had also invited his friend Kay, a software developer and two-times CEO from New York City. Over the two-day weekend, he was gracious enough to spend the time it took for me to fully explain my idea. We talked at length about my idea for a cooperative social network site. He was

cautious and asked a lot of questions, some of which I had answers for, and some of which I did not. His expertise in software development and data management was especially helpful. Kay was the first person to impress upon me how technically difficult it would be to build a social network site from scratch, and especially one that was going to pay dividends to its members. I was familiar with administering content management systems, and writing HTML and CSS code, but he suggested using Ruby on Rails as the web application framework for the site. I had no idea what Ruby on Rails was.

I had assumed that building the site was going to require a level of technical expertise above and beyond my own. I am no Mark Zuckerberg, and I was well aware that my vision would require more programming knowledge than I had time to learn. I had imagined that the site could be built with the help of a talented Chief Technology Officer that had skills in data management and large-scale web applications. However, after talking to Kay, I realized I was in a Catch 22: In order to attract resources to the project, including investment capital and the technical talent I needed, I would likely have to build a working prototype, but I would need technical talent to build a prototype.

On the three-hour drive back to Carrboro from Richmond, my conversations with Jones and Kay weighed heavily on my mind. In less than three days, I had come face to face with two major dilemmas: I lacked both the leadership experience and the technical expertise I needed to get Digital Storymakers off the ground. These were significant problems that could derail the momentum without an adequate solution. Turning these problems over in my mind, something clicked, and I made one of the most important decisions of my graduate career: I could solve both of these problems by starting an official student group at UNC! A student group, I reasoned, would provide me with the

“start-up” experience I needed *and* I could build a “low-fidelity” prototype website for the group using a simple content management system. Driving down I-85, I was smiling, laughing, and slapping the steering wheel in excitement. I had actually come up with a single solution to what had seemed to be two nearly insurmountable problems. Of course, another question was waiting for me. Could I execute?

Within two months, I had been granted official student group designation for a group I named Carolina Digital Story Lab. From April to December 2010, I spent an enormous amount of time trying to attract collaborators and resources to the Story Lab. That process is discussed below in the section “Quantitative Stories.”

Launch the Venture...or not

With the Story Lab in motion, I set about my parallel effort to hone and launch Digital Storymakers. I did this primarily by enrolling in the Kenan-Flagler Business School’s MBA 848: Launch the Venture I. This was the first of a four-part, year-long course that is designed to take UNC faculty, staff, and students through the process of launching a venture. Admission into each of the subsequent classes was through a juried application and business pitch. At the beginning of the semester, I made a deal with myself that if I could make it all the way through all four parts of the class, I would try to launch Digital Storymakers after school.

I will not recount all the things that I learned in that class here, but suffice to say that this was when I realized just how right Jones had been when he evaluated my business knowledge. The most important thing I learned was the concept of the value proposition, which had been absent from the first iteration of my business plan for Stutzman’s class. Over the 8 week class, I struggled to come up with the right value

proposition for Storymakers, searching for the right combination of factors that would convince Professor Patrick Vernon that I was onto something. That never happened. Vernon was charismatic and helpful, but my ideas were completely unprepared for the ruthless Socratic inquiry of an entrepreneurial business professor.

Over the course of Launch the Venture I, I changed my idea several times in search of a solid value proposition. In the end, I believe this worked against me and may have been one of the reasons I was not selected to advance to the second module of the course, Launch the Venture II. Every time I opened my mouth to discuss Storymakers, it took a different form. The Launch the Venture series is intended for ventures that are farther along in their development.

Although I had made a deal with myself that I would not pursue my business after graduate school if I did not make it all the way through Launch the Venture, I couldn't make myself let go of the idea yet. After the class ended, I turned my attention to the Story Lab student group, and tried to digest what I had learned in order to prepare for UNC's premiere business plan competition in the forthcoming spring semester, my last.

The Day the Innovation Died

While taking Launch the Venture in September, I took part in a remarkable legal clinic⁷ hosted by the UNC Center for Sustainable Enterprise's BASE program (Business Accelerator for Sustainable Enterprise). The clinic was comprised of two parts. The first part was a lecture by Vaddrick Parker, Attorney of Vaddrick Q. Parker Law Firm, on basic legal principles for start-ups. The second part was a free consultation with lawyers from NC LEAP (North Carolina Lawyers for Entrepreneurs Assistance Program), a public service program of the North Carolina Bar Association Foundation.

I say that the clinic was remarkable not because of the free half-hour I got with NC LEAP Director Mary Horowitz, although that was surely fortuitous. It was remarkable because only two other people (including just one student, a classmate of mine in Launch the Venture I) came to the event to claim the free legal advice. After awkwardly waiting for a few minutes for more people to show up, Parker ran through an abbreviated version of his lecture, and then talked with each of us about our ventures.

During the second part of the clinic, I spoke in private with Horowitz and an intern from the UNC Law School. The most important outcome of this consultation was that the Digital Storymakers business plan did *not*, in her professional opinion, constitute an organization that would fall under North Carolina's definition of a cooperative. Cooperatives were limited to agriculture-related companies.

It was too late to change my pitch to advance to the next stage of Launch the Venture, but in light of this legal advice, after the class, I stopped referring to Digital Storymakers as a cooperative social network site that would re-distribute dividends or returns to its members. I felt that what I was trying to build was already complicated enough, and that without the efficient phrase "cooperative" in my elevator pitch, it would be even more difficult to describe the profit-distribution system I envisioned.

Whether or not Digital Storymakers will ever actually call itself a cooperative remains to be seen. I feel strongly that the cooperative profit distribution mechanic is the truly innovative aspect of my idea. After all, I saw the primary outcome of my venture as poverty alleviation, not digital story preservation. Without a mechanism for profit distribution to members, the idea is much less interesting to me and potentially much less impactful to members. However, in the current version of my pitch and business plan,

member dividends have been removed because of the difficulty in communicating the innovation and because of the unknown legal structures necessary for implementation. I hope that member dividends are still possible in the future, but I do not think it is something I will be able plan without legal counsel that is beyond my reach right now.

Finally, A Competitive Advantage

During my final semester I took only four credit hours, three of which were for the completion of this master's project. The other one-hour course turned out to provide a crucial element to the current iteration of the Storymakers business plan in the form of a badly needed competitive advantage. In INLS 490-161: Building a Personal Digital Library with Professors Reagan Moore and Arcot Rajasekar of the UNC DICE Center, I shifted the Storymakers business plan once again to incorporate the iRODS technology developed by the DICE group. iRODS (Integrated Rule-Oriented Data System) is an open source middleware that I realized could provide the infrastructure for the preservation environment that I wanted Storymakers to be able to provide. Marrying my ideas for a social archive site with iRODS seems like a natural fit, and finally gives me an good response to the question, "Why would I want to use your website when I already have Facebook?" While Facebook makes redundant copies of user information on multiple servers to guard against data loss, they do not provide any data management polices that check for file integrity (R. Moore, 2011), a necessary step for long-term digital preservation.

It is important to make stress a distinction here: iRODS is a good competitive advantage, not a good value proposition. Users seem more than willing to contribute their personal media to repositories that enable content sharing between users, regardless of

any thoughts for the long-term preservation of those media files. Nevertheless, in the future, using iRODS as a middleware technology will enable Storymakers to build a more robust product.

³ <http://vancouvercommunity.net/lists/info/ciresearchers>

⁴ <http://en.wikipedia.org/wiki/Wikipedia:About>

⁵ When purchasing the domain name, I initially wanted wikimentary.org. At the time, that domain was owned by the Wikimedia foundation, who I discovered is fond of buying up ‘wiki’-prefixed domains to leave their options open for spin-off projects.

⁶ <http://stats.wikimedia.org/EN/TablesWikipediaZZ.htm>

⁷ https://cfx.research.unc.edu/res_classreg/browse_single.cfm?New=1&event_id=22710

Quantitative Stories

In this chapter I present the results of my quantitative analysis of field notes recorded for this project, which include annotated web traffic logs for uncostorylab.org and a journal of notes taken during meetings with project collaborators and prospective collaborators.

Google Analytics Data

On May 15, 2010 I installed a WordPress content management system server space given to us by ibiblio and uncostorylab.org was born. I signed up for Google Analytics to track traffic to the site. Analytics is an “enterprise-class web analytics solution that gives you rich insights into your website traffic and marketing effectiveness.”⁸

From May 20 through December 31, I made 58 annotations on our Analytics log about events that I thought might drive (or slow) traffic to the site. “Blog post” was by far the most common two-word phrase from my annotations (13), reflecting a desire to understand how blog posts and meetings affected traffic to the website.

The tables below list the annotations for days with both the highest and lowest numbers of visitors to the site. I did not make annotations every day. I only made them when I felt an event was noteworthy. Therefore, these are not necessarily the heaviest and least trafficked days overall, but only the heaviest and least trafficked days that were annotated.

Analytics Annotations with High Visits/Day		
Date	Annotation	Visits
10/13/2010	ibiblio did something strange?	570
11/18/2010	Reese News blogpost	60
08/25/2010	listerv blasts re: interest meeting	52
09/02/2010	first interest meeting	48
11/30/2010	1000th tweet; blog post	45
09/30/2010	Sent /scistory link to Debbie	43
09/22/2010	#SciStory press releases, blog post	40
08/30/2010	Carolina Center for Public Service newsletter blurb re: interest meeting	35
09/21/2010	painted cube	34
10/04/2010	blog post re: engines of innovation; comm studies listserv blast re: APPLES fellowship	34

Table 1: Annotations with High Visits/Day

In Table 1, an anomaly is obvious, though difficult to explain. On October 13, 2010, there was a strange spike in visits to uncstorylab.org, 539 of which were referred to by ibiblio.org. The Story Lab website was featured on the [ibiblio](http://ibiblio.org) homepage at that time, but the visits had other characteristics which suggested that the visits may have been automatically generated by a link-crawling bot. The reason for the next highest annotation/visit was much more clear: it was related to a front-page scandal in which the head of UNC School of Journalism's experimental online news project reesenews.org was forced to resign over inappropriate messages sent to a student. I wrote a blog post

analyzing reese news' own response to the scandal. The scandal was national news, and uncostorylab.org indexes well with search engines, so it was not surprising that the site earned many visits that day. Also, as might be expected, widespread email listserv announcements and our large general interest meeting were effective drivers of website traffic. New blog posts, advertised via Twitter and Facebook, and syndicated to subscribers via RSS, were also high drivers of website traffic.



Figure 3: Our painted cube

There were also some surprising visit-driving events. The “Debbie” mentioned September 30 is my stepmother, and the link I sent her contains a video of an event for which I served as moderator. It is likely that she was responsible for many of those visits, although she may have also forwarded the link to other friends and relatives. Several days prior to that is the enigmatic annotation “painted cube.” This is a reference to a practice that is a venerable advertising tradition for student groups at UNC. Near the student union is a set of plywood cubes, the sides of which are painted by student groups to advertise upcoming events. Another Story Lab member and I painted an advertisement

for YouTube and Test Tubes. I was skeptical about the value of this practice, but it appears that “painting a cube” may indeed be good website traffic driver (although I can say with certainty that the advertisement did not convince many students to actually attend the advertised event.)

Table 2 illustrates some of the actions which had little effect on visits to the website or that explained why there were few visitors. Following people on Twitter.com was especially ineffective at generating visits to the website, even when those people were also UNC community members. Also surprising was the small effect a local radio station’s story had on website traffic. WCHL was the only local media news outlet to run a story on YouTube and Test Tubes. It is difficult to say whether this generated attendance at the event, but it did not seem to generate web traffic. Not surprising was the effect that a vacation of mine had on the website. This was early in the website’s life and daily traffic to the website primarily depended on some action by me, whether through email, tweeting, or having a meeting with someone. When I was not doing any of those things, traffic to the website dropped precipitously, indicating that it did not have a life of its own yet.

Analytics Annotations with Low Visits		
Date	Annotation	Visits
08/15/2010	end Mike vacation	1
06/13/2010	followed 83 (mostly local) new twitterers (8 returned follows)	2
11/25/2010	Thanksgiving	3
06/27/2010	New blog post	4
06/30/2010	updated analytics code 6PM	4
09/11/2010	WCHL SciStory story published/aired	5
07/02/2010	blog post	7
09/14/2010	HASTAC RT re: SciStory. Started saving every single Story Lab email	7
12/08/2010	Last day of classes	7
08/06/2010	begin Mike vacation	8

Table 2: Annotations with Low Visits

Interestingly, blog posts appear in both tables 1 and 2, perhaps indicating that there are more variables at play that determine whether posts drive visits.

Meetings

Beginning in January, I kept a journal of every meeting that I had related to Carolina Digital Story Lab or the Storymakers business plan. I recorded the date, the attendees of the meetings, and took notes about the topics of discussion. Fall 2010 was the first full semester of the Carolina Digital Story Lab, and my meeting activity was heaviest during this period (Table 3).

Fall 2010 Meetings	
Meetings	54
People met with	79
Average meetings per week	3.2
Average times met with each person	1.6

Table 3: Fall 2010 Meeting Summary

I coded each meeting with the predominant topic or activity of that meeting (Figure 5). For meetings where more than one topic was discussed, the most prominent topic was chosen as the representative topic for the meeting. In the graph below, I defined *Networking* as a meeting initiated by either myself or another party in order to find out more about each other's interests and activities. Although it was the most popular meeting topic, *Networking* meetings were the least productive. Only two of my twelve *Networking* meetings eventually resulted in a working collaboration or product. The two most frequent outcomes of *Networking* meetings were 1) an agreement to continue to talk about ideas that were discussed or 2) the exchange of names of potential third party collaborators. In the second outcome, a possible feedback loop is revealed. It was not uncommon for the parties of unproductive *Networking* meetings to recommend talking to others who also turned out to be unproductive.

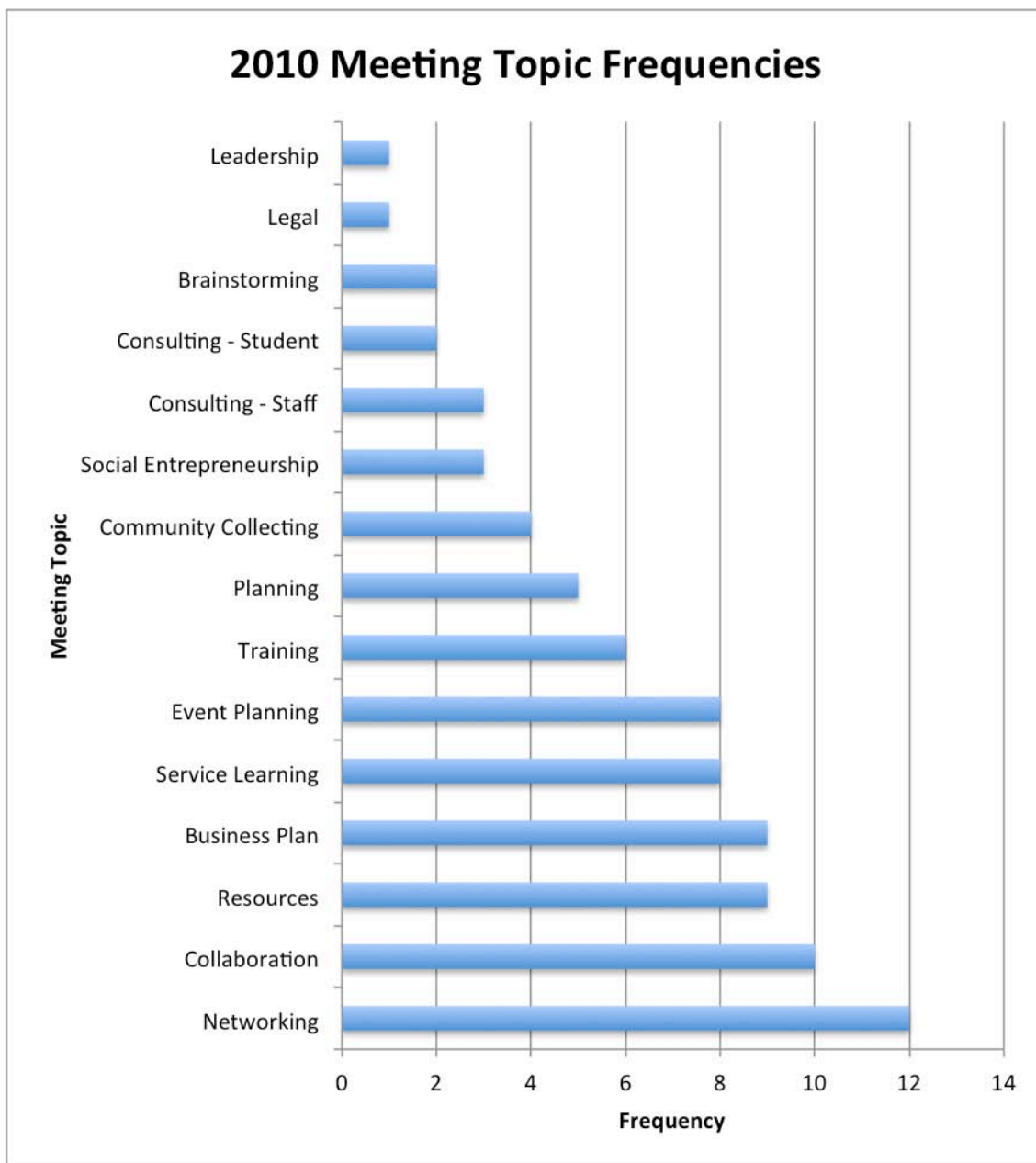


Figure 4: Fall 2010 Meeting Topic Frequency, N=83

In my first and second semesters, I was fairly guarded in my disclosures of dealings with both the Carolina Digital Story Lab and Digital Storymakers as I tried to polish the ideas before wider disclosure. This changed during my third semester when I found out how difficult it was to find collaborators. My meeting frequency increased as I became more vocal about my ideas (Figure 6). In 2010 had 29 meetings from January 1

to August 22, but 54 meetings from August 23 (first day of the fall semester) to December 31.

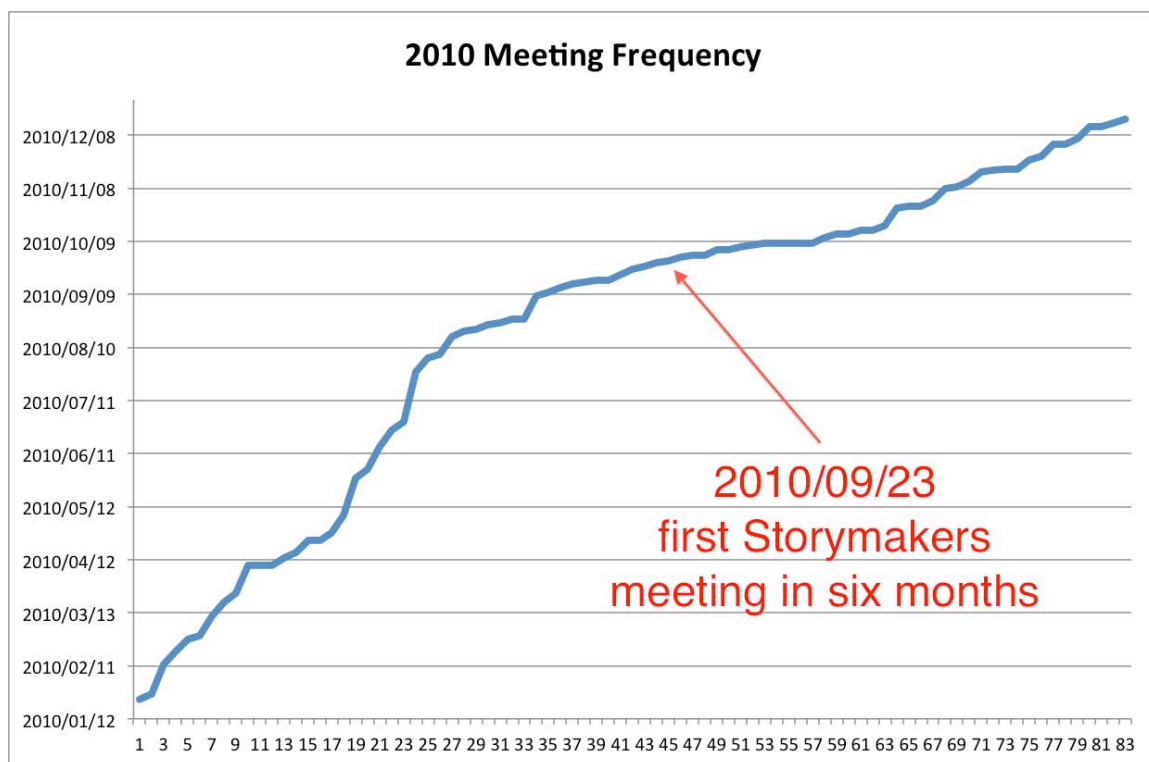


Figure 5: 2010 Meeting Frequency

During 2010, I had meetings regarding both Digital Storymakers and Carolina Digital Story Lab. Storymakers meetings accounted for only 14 of the 83 meetings, and seven of those meetings occurred before March 11. On March 19 I had my first Story Lab related meeting and did not have another Storymakers meeting until September 23, six months later. Clearly, I took my “prototyping” seriously, although it should also be noted that during the first half of fall 2010, I was enrolled in a business school class called Launch the Venture I (the first part of a year-long series of classes). Though I continued to shape the Storymakers idea in Professor Patrick Vernon’s class, I spoke about it with

few people outside the class. The lion's share of my extracurricular time in 2010 was devoted to starting and running a student group, not starting and running a business.

⁸ <http://www.google.com/analytics/index.html>

Personal Lessons Learned

Repeatedly throughout my entrepreneurial experiment, I heard people say that college is a good place to try to start a business because of the supportive environment and available resources. While this is true, I have found that advice from students who have tried and fallen short of their goals is much more difficult to find than the rare success stories that universities like to talk about. What follows is a list of some of the lessons that I have learned through my experiences. I hope that students considering launching a venture while attending a large research university will take these lessons under advisement when planning their own ventures. While I have tried to generalize the recommendations to be applicable to as many students as possible, the reader should use the preceding narrative as a guide for the suitability of applying these reflections to one's own ambitions. Understanding the events that motivated these lessons will help the reader adapt these realizations to individual circumstances.

Complexity makes communication difficult.

From the beginning, my ideas were complex. I often joke that I don't have an elevator pitch; I have a staircase pitch. When I think of a problem like poverty, I see many different causes for such a problem. So when I envision solutions to problems with complex causes, those solutions tend to have a lot of moving parts as well. I still believe that an organization could exist that successfully marries "recommendation systems, advertising, podcasting, digital publishing, e-commerce, multimedia pattern recognition

and object detection, data mining, and game design” to encourage community economic development. However, I am quite sure that organization would not be pitchable venture. While Google’s dazzling array of product offerings suggests that innovative companies can be successful and complex at the same time, I do not imagine Google’s first investors were enticed with the vision of a company that would offer dozens of information products. It would have been nearly impossible to communicate that kind of complexity. The complexity can come later, but the venture has to start as a small seed that can be planted in the minds of others.

When challenged on the complexity of my ideas, I would often respond that complex problems require complex solutions. Now I see that the truth of this statement is almost irrelevant. I realize now that I will never be able to build a company big enough to do all the things I want it to do if I cannot first build a company that does one thing that other people think is valuable.

Over the last three years I have pursued many different aspects of this venture that were interesting to me. It was incredibly educational. And I haven’t felt this creative since back-to-back trips to the Odyssey of the Mind world finals in the 5th and 6th grade. But the end result was that I spread myself too thin and failed to make coherent arguments about the value of what I was proposing. Complexity was my enemy not because the ideas I proposed were necessarily unworkable, but because their complexity constantly impeded my communication with others on a day-to-day level. An example: My student group’s name is so long that even people who are members of the group cannot remember all the words in the right order.

The scope of my idea is baroque, and that has made it difficult to talk to others about. In the last two years, I have started Digital Storymakers, LLC, the nonprofit Digital Storymakers Foundation, and a student group called Carolina Digital Story Lab. Those who are intimately familiar with my ideas have difficulty understanding what the relationships and differences are among the three entities. Moving forward, my analysis of the last three years strongly suggests that I distill the Digital Storymakers plan into the most atomic structure I can.

Competitive advantage is second only to the value proposition.

I found the competitive advantage for my venture only after several iterations of the idea. If I had investigated iRODS sooner, I might have been able to slow my constant cycle of business plan synthesis and revision that made my communication efforts less efficient. I also underestimated the persuasion power of a good competitive advantage. Those Carolina Challenge judges who were familiar with iRODS immediately recognized that as one of the stronger aspects of my plan.

A student group is an excellent way to not start a business.

My three original goals for the Story Lab were 1) to prove that I was capable of leading a new organization 2) to build a prototype social archive site and community, and 3) address digital media needs in the UNC community. It is no surprise that I accomplished all three of these student group goals and not the goal I set to be self-employed after graduation: the starting and running a student group left no time for anything else.

There is nothing I regret about starting Carolina Digital Story Lab. It has certainly been one of the most incredible experiences of my life, and I look forward to watching it

grow for many more years. However, juggling both a new student group and a new venture meant that I was simply too busy to do both successfully. Because I was the only person with skin in the Digital Storymakers game, it was much more important to ensure that the Story Lab was meeting its obligations to its members and our community. A student group is a real commitment of its own, not just a blank slate to test entrepreneurial ideas.

I began the Story Lab thinking that I might be able to convert it into a business. It quickly became evident that trying to start a student group *and* turn it into a business in one year was an unreasonable goal. I did manage to help the three undergraduate Story Lab members win a \$1500 APPLES social entrepreneurship fellowship to start our Social Media Stories program, a revenue-generating social media consulting operation that subsidizes our free trainings. But that is to make money for the Story Lab, not the Digital Storymakers Foundation. Whether or not there will be a relationship between my nonprofit and the student group I started remains to be seen.

You do not have to innovate to start your own business.

As I was told by Vernon, the start-up mechanisms at UNC that I utilized are not designed to help you nail a wooden sign outside your door and yell “Open for business!” They are designed to encourage you to change the world by planning a venture that can scale. That is, they are not geared towards the creation of salary-substitute firms; they are geared towards entrepreneurial firms. If I had spent the last two years making Digital Storymakers a one-man digital media consulting firm rather than a social archive site for poverty alleviation, I feel confident that I would have been able to capitalize on my unique skill set and meet my goal of self-employment after school. When choosing

between start-up resources on campus, be sure to ask yourself what kind of firm you really want to create. Are you willing to create and seize opportunities in the face of risk and uncertainty to change the world, or do you just want to be your own boss? These can be very different things. I am beginning to think that I should make this a two-step process, where I become my own boss first and learn a little bit about making money. If that works, then I can begin to think about high-impact innovation.

My liberal arts education did not prepare me for value proposals.

Before taking Launch the Venture I in fall 2010, I didn't know what a clear value proposition was, which was a significant disadvantage. Whether or not you intend for your innovation to have mostly social benefits or mostly financial benefits, an entrepreneurial student must be able to clearly articulate why her idea has enough value that a customer would be willing to stop whatever it is he's doing and adopt your innovation. As Vernon told me, a new venture has to deal with the world that exists, not the world you're trying to create.

Go to more happy hours.

This sage piece of advice was offered at my SILS orientation when I asked a group of second-year gradate students, "What would you change if you could do your first year over again?" Put less alcoholically, cultivating real-world social networks pays dividends in the amount of social capital you can put towards a new venture. The primary electronic communication channels I used (Twitter, Facebook, and email) were useful for initiating contact and maintaining social capital, but significantly less valuable for securing help, commitments, and collaborators. That honor went to all the incredibly time-intensive face-to-face meetings I had. Though I often felt too busy to socialize, a

more active social life might have ultimately saved me more time by strengthening the quality of my relationships and making electronic communication more efficient.

New organizations need a dedicated team.

On April 27, 2010 I met with UNC Associate Director for Student Activities and Student Organizations Jon Curtis to review my application for official student group status for Carolina Digital Story Lab. The primary outcome of the meeting was that the application was approved, and the Story Lab became an official student group. Because Curtis is also the administrator with the most direct contact with UNC's student groups, at that meeting I also asked Curtis about his opinion for organizing the leadership of the group. I wanted to know whether he thought I should start the group with a highly organized leadership team with clearly delineated roles and titles, or whether it would be best to allow the group to develop first before deciding on what management roles would be best for the organization. He advised that we should start with a loose structure and grow into something more organized after our first semester. I took his advice, and for the first semester of the Story Lab's existence, there were only two people with a title in the organization: myself (i.e., the self-appointed Lab Director) and our Treasurer Brian Leaf.⁹ In hindsight, I believe that it would have indeed been more beneficial to recruit students to fill designated officer positions from the beginning.

Those that you are initially able to attract to your idea will have just as many competing priorities as you do. It is imperative that your team is clearly aware of their responsibilities, or else the lack of accountability will mean that you ultimately have to pick up the slack. The easiest way to ensure this is to give them titles that reflect these responsibilities. If you ask someone to help you keep your website up to date, all the page

edits will still end up be yours. If you make someone a webmaster, they will have to be accountable for at least a minimal set of responsibilities to earn their résumé bullet point.

Have low expectations about collaboration.

As the owner of a big idea, in a university that had all the right resources, in a community that represented the perfect market, naturally I was sure that others would see the value in my idea and be happy to get on board. While people may be happy to entertain your idea and talk to you about it, the numbers of people that will actually help you realize your vision will be a small fraction of those people. I would have benefitted greatly from the expectation that I would only be able to get one or two committed people to help me start either my student group or my nonprofit.

⁹ The Treasurer is the only position required by UNC's Student Congress to receive allocations from the Student Activity Fee. In theory, a student group could be comprised of a single person so long as that person has passed a treasurer certification test issued by the UNC Student Body Treasurer.

Conclusion

Although my two years at Carolina will likely not be the last chapter in the narrative of Digital Storymakers, the path ahead is not clear. Looking back on my accomplishments, I am most proud of the student group I started, Carolina Digital Story Lab. What started as a way to prototype a venture idea is now an official student group with three officers and 134 members to carry on the work that I started. I wanted to know if I could start and lead an organization, and now I feel certain that I can. That knowledge will certainly prove invaluable as I move forward in my career, no matter what shape that career takes.

Despite my own struggles, I remain optimistic about the role of innovation and entrepreneurship in academia, especially through student-led service learning. There is a tired argument at UNC between theory and practice, an argument that usually pits students against faculty. On one hand, as the argument goes, students crave practical instruction and hard skills that they can take to an entry-level job market. On the other hand, faculty members say they want to teach the kinds of theoretical and critical thinking skills that will be valuable five or ten years after graduation, when the former student is ready for management-level positions. Service learning provides a compromise position, where students are asked to demonstrate the value of the classroom theory by putting their knowledge to work solving community problems. The more often

experiential learning can be joined with social entrepreneurship, the better-prepared students will be to launch innovative ventures.

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Author Note

This paper tells less than half the story of my two years in graduate school, because it focuses on what I did not achieve. A more complete (and much longer) manuscript would include the names and stories of all the incredible people who helped me accomplish more than I ever expected to. Until I can author that tome, I wish to thank some of the people to whom I am most indebted.

I made a lot of people listen to me, but no one had to endure more of my vision than my fiancée Ellie Morris. She was usually the first to vet my half-baked ideas, and always a source of inspiration. I owe her untold numbers of trips to the grocery store, and quite a few Date Nights that I ruined by over-committing myself. Thank you for your patience, love.

My student group would have been a labless lab, were it not for the support of the Story Lab's faculty advisor Mark Robinson in the Department of Communication Studies. As my former supervisor, Mark also taught me how it feels to be empowered by your boss, and so provided the model for my approach to leading the Story Lab.

I wish to thank the first Story Lab officers: Brian Leaf, Sarah Dooley, Peter Zasowski, and Nico Carver. The management team of a nascent student organization has to do more heavy lifting than an established one, and I surely would have given up without their Olympian efforts. Peter pulled double duty as the Story Lab treasurer and a teammate in the Carolina Challenge business plan competition. He was therefore my second-most frequent brainstorming partner after Ellie. Sarah was there from the

beginning of Story Lab, taking initiative, pitching in, and being insightful as hell. I couldn't be happier to be leaving the group in her hands.

Two institutional partners that have helped ensure the sustainability of the Story Lab are UNC's service learning program APPLES and Dr. Tessa Nicholas in the Computer Science Department. Dr. Nicholas authored a successful APPLES Ueltschi Grant application, and I am very excited that the Story Lab will be a partner in her service learning class COMP 380: Computers and Society next school year. APPLES also awarded three undergraduate "Labbies" an ACT OUT! Social Entrepreneur Fellowship to start the Story Lab's revenue generating consulting business. When I started the Story Lab, I wanted service learning to be a primary activity of the group, but that proved to be very difficult to do without strong institutional partnerships. Because of APPLES and Dr. Nicholas, the Story Lab is poised to make a big impact next year through its service efforts.

I wish to thank Heather Barnes, Amber Welch, Paul Jones, Megan Strickland, Julia TerMaat, Aleck Stephens, Will Corbett, Sylvia Richardson, Paula Rigoli, Dr. Lisa de Saxe Zerden, Anne Johnson, Dr. Stephanie Haas, Dr. Phillip Edwards, Patric Lane, Molly Sorice, Gary Miller, Joyce Rudinsky, Dr. Deborah Barreau, and Dr. Gary Marchionini.

Finally, I wish to thank my colleagues in the Guybrarians crew, and all the SILS students who danced with DJ Scrubbin Bubbles. I am greatly comforted that the future of information is in the hands of such prolific dancers.

Appendix A: Business Plan

[Note: The business plan that follows was submitted for the semifinals of the Carolina Challenge business plan competition. More information about the competition can be found at <http://www.carolinachallenge.org>]

DIGITAL STORYMAKERS

BUSINESS PLAN

March 2011

Executive Summary

Introduction

Digital Storymakers is a social archive site for sharing and preserving digital stories. We combine the interactive features of social network sites with the stability of a digital archive. Unlike common social network sites, we put our customers in charge of their own data.

Our service allows customers to automatically collect and preserve their digital media, whether it lives on their hard drive or at other social network sites. We also provide an e-commerce platform for our customers to create digital stories with each other and share their creative products with others.

Value Proposition

The social media landscape of today is an ephemeral place where users waste their time and become increasingly alienated from the people they care about in their network. Users share less and less qualitatively rich data on their networks because of privacy fears. At the same time users feel antagonistic towards online services that seek to monetize their personal information to better target advertising. Digital Storymakers instead provides customers with a meaningful social media experience – one that is designed for sharing and preserving the important digital stories of our lives. Rather than building a social media experience on fleeting status updates, we build our experience on the most important parts of our customers' lives and provide them with a digital library that automates the organization and preservation of their files.

Competitive Advantage

Our content management system is built upon iRODS data grid technology, developed by the Data Intensive Cyber Environments (DICE) research group at the UNC-CH School of Information and Library Science (SILS) and Renaissance Computing Institute. We enjoy a significant competitive advantage through our relationships with SILS and DICE.

We offer field placements, internships, and practicums to students at UNC-CH for academic credit, significantly decreasing our labor costs. Additionally, we maintain a strong relationship with the student body of UNC through the Carolina Digital Story Lab, a student group founded by Mike Nutt. Through this student group, Digital Storymakers

is able to recruit student volunteers who are eager to gain experience in the world of social networking.

Industry Analysis

Nearly half of online adults in the United States use a social network site (SNS), up from only eight percent in early 2005 (Lenhart, 2009). The number of people joining SNSs is also expected to continue rising. One of the fastest growing groups on SNSs is older adults who are eager to use social networks to help construct the stories of their lives (Stutzman, 2009).

Products and Services

We offer a suite of three products and services:

- **Story Management System (SMS)** – Our flagship product, SMS, is a content management system for the stories of your life. SMS allows you to upload digital media files to a personal digital library, share them with others, and preserve them for years to come.
- **Self-Publishing** – Through an integrated partnership with the self-publishing site Lulu.com, we offer our customers a way to creatively publish and share their digital media files in a physical format, reinforcing the links between online and offline community.
- **Digital Media Consulting** – We offer customers a wide range of expertise on the use of digital media, from using digital stories in presentations to website construction. Our consulting services are aimed at the typical consumer.

Team

Mike Nutt is a Master's of Science in Information Science candidate and founder of the Carolina Digital Story Lab, a student group at UNC-CH. His hyperlinked CV is available at <http://SMS.net/cv>.

Sylvia Richardson is an Information Science student with an interest in web design and non-profits. She spent her undergraduate years running a small special collections library in California, and is currently working at Rex Hospital as a Webmaster Intern.

Peter Zasowski is an Information Science student with a history background and interests in archives, digitization, and historical preservation. He is currently helping with collections inventory at the Orange County Historical Museum and working for the Carolina Digital Library and Archives.

Keys to Success

- Flawless website functionality and clean, intuitive user interface
- Better help pages and support system than any other CMS
- An active and collaborative user base
- Monetization from Day 1
- Access to supportive and sympathetic leaders in the higher education sector

Key Insight

When we don't control our own data, we aren't able to reap the full benefits of its use.

Empowering people is a much more attractive business model than using personal data to sell advertising. We all generate stories all the time - can we make a sustainable way to monetize that?

Opportunity

Value Proposition

Digital Storymakers provides customers with a trustworthy social platform for sharing and preserving the digital stories of their lives.

We have an unprecedented opportunity to find a sustainable, user-centered model in the social media market: one that simultaneously protects private data and makes sharing digital media meaningful and fun. As social networks become bloated and less personal, social media users receive less and less value from their social media experience, while companies seek to monetize private information to better target advertising. Storymakers provides a Story Management System (SMS) that allows its users to build history together and preserve their digital audio recordings, photographs, and videos for future generations.

In Chapel Hill, we recently suffered the loss of the Chapel Hill Museum, indicating that we may not be able to depend on traditional institutions to preserve our history for us.

The Museum failed because nobody was willing to support the overhead costs of

maintenance and operation. Digital Storymakers provides a digital museum for Orange County, constructed from the extraordinary stories of ordinary people, all through a fun, social interface.

It is often said that history is written by the victors. We like to believe in the democratizing potential of the Internet, but here in Orange County, we still struggle to document the stories of marginalized populations of like the members of the Northside and Rogers-Eubanks neighborhoods. Our SMS will allow customers to construct their stories together through an intuitive interface, and ensure that their digital stories are preserved in the historical record.

Storymakers has a unique competitive advantage in the field of digital preservation through a partnership with the DICE Center at UNC-CH, where an open source data grid technology called iRODS is being developed. iRODS is a piece of “middleware” that is the result of 13 years of research and development to provide digital preservation cyberinfrastructure to organizations like NASA and the National Archives. By the DICE Center’s estimate, iRODS is 5 years ahead of its commercial competitors. Our relationship with the DICE Center will allow for greatly reduced development costs by offering student iRODS researchers field experiences and internships.

Competitive Advantage

Our firm has two significant competitive advantages:

1. We have a **close relationship with the Data Intensive Cyber Environments (DICE)**

Center at UNC-CH. The DICE group is interested in social media applications of iRODS technology, has developers on staff that may be available to help Storymakers, and two grant specialists on staff as well. According to their website (<http://dice.unc.edu/about>) the DICE Center “provides expertise and software technologies in the areas of large-scale data management for collaborative research, digital archiving, and long-term data preservation.” The researchers at the DICE Center wrote and developed the core iRODS technology that underpins the Storymakers story management system (SMS). Mike has taken a class taught by two of the founders of the DICE Center, and Storymakers has secured a letter of support from DICE Center Director Reagan Moore.

2. Storymakers will enjoy significant cost savings by employing student labor whenever possible. Especially during the cash-strapped startup phase, Storymakers intends to employ as many students as possible through paid and unpaid internships, field placements, and practicums. Such positions will be filled by students in the Schools of Journalism, Social Work, and Information and Library Science as well as the Departments of Computer Science and Communication Studies. Storymakers is well positioned to be the only place near the UNC-CH campus for using social media for service learning. Students provide us with low-cost labor, and we provide them with the invaluable experience of crafting a social network site.

Products and services

Technology

Our primary software product, Story Management System (SMS), will be developed using an open source strategy. According to the Open Source Initiative, "Open source is a development method for software that harnesses the power of distributed peer review and transparency of process. The promise of open source is better quality, higher reliability, more flexibility, lower cost, and an end to predatory vendor lock-in" (Open Source Initiative, 2009). In Storymakers' case, open sourcing SMS is also a strategic marketing decision as it aligns us with a specific, established community whose values we share, and provides us with lower development costs by crowdsourcing software engineering.

Products

In keeping with the Storymakers goal of bridging the online and offline worlds, we offer two flagship products in each realm.

Story Management System (SMS)

SMS is the primary interface through which users will build and share their digital libraries.

Digital Story Consulting

The Red Hat model for Apache server software provides the basis for this product offering. SMS will be an open-source product; the code will be freely available for others to download, use, and modify. However, Storymakers will possess valuable knowledge

about the product that others will be willing to pay for. Not only that, but Storymakers will offer individualized, full service story-based marketing consulting. We will council our clients on everything from the equipment and skills necessary to begin producing their own media to the best way to reach their customers through Storymakers SMS. Forrester research has found that media “Creator behavior” is plateauing (2010). Those who aren’t already generating social content will need the services of a firm like ours to provide simple, fun, inexpensive, and effective solutions to getting their stories into the social media landscape.

Industry and Market Analysis

Market Segmentation

The ability to produce information is within us all. We all possess our experiences and therefore a unique context for identifying relationships between entities, events, people, etc. The target customer in this segment is primarily adults; membership in Digital Storymakers will require informed consent about the use of personal information.

Although we will not regulate the content of our members’ stories, we will not cater to their more prurient interests. Our customers will have a wide range of backgrounds, and many of them will be poorer than the average demographic for social network site users (Smith, Schlozman, Verba, & Brady, 2009), and may even be first-time SNS users.

Though our market extends internationally, we will focus on trying to serve those in our immediate geographic area.

Target Market Segment Strategy

Our segment strategy is dictated by our target market: We are combining services in a way that few other competitors are, thus providing services to many who may have been dissuaded from technological use in the past, or unable to procure the means necessary to create content on the web. We offer this market segment a comfortable and supportive environment to grow their technological skillsets, earn revenue, and enjoy connecting with others online.

Industry Analysis

In short, the software publishing industry can be characterized by the word "growth". From 2006-2016, employment in the software publishing industry is projected to grow 32 percent (Bureau of Labor Statistics, 2008). The market for "apps" in particular is experiencing explosive growth: analysts figure that it will be worth \$4 billion by 2012 (MacMillan, Burrows, & Ante, 2009). Another high-growth area in the software industry is that of cloud computing software-as-service. This is advantageous for Storymakers in that it allows us to both 1) access enterprise-level cloud services in a manner that scales appropriately for our company size, and 2) offer our own suite of cloud services, especially those related to member media storage. More generally, the rapid growth of the software industry presents Storymakers with several risks and benefits:

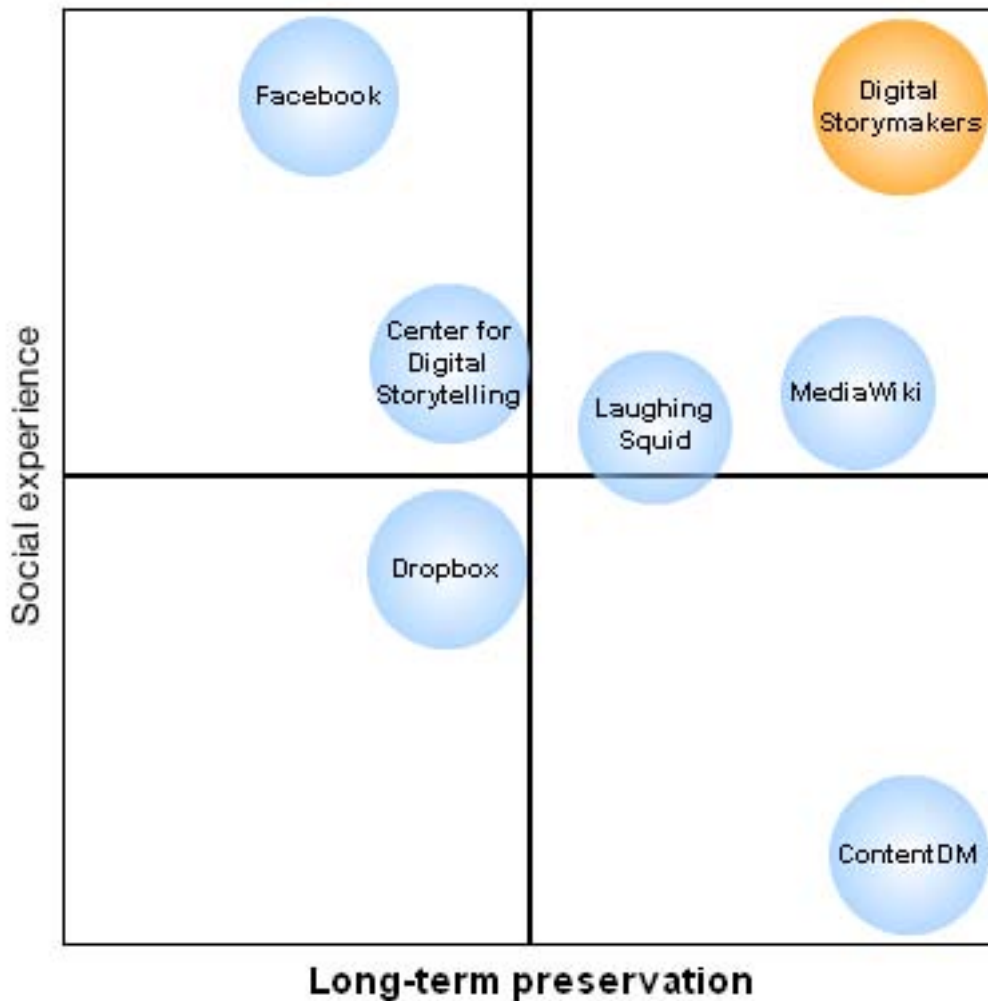
Risks

- Increased competition
- Difficult to stay abreast of developments
- Computer system and network security

Benefits

- Large pool of highly-skilled employable talent from which to draw
- High demand for “business information”
- Increased demand for specialty software
- Falling prices of computer hardware and storage
- Increased demand for technology-related consulting services
- Opportunities in cloud computing software-as-service

Competitive Analysis



MediaWiki

<http://www.mediawiki.org/wiki/MediaWiki>

Currently, Wikipedia.org is the best-known implementation of a web-based wiki.

Additionally, the CMS that powers Wikipedia, MediaWiki, is perhaps the most popular wiki-based CMS. This presents a challenge to change web users' expectations about what a wiki can be, as many will equate "wiki" with "Wikipedia". Several opportunities exist for us to offer products that surpass MediaWiki in functionality and ease of use. The MediaWiki CMS, like most CMSs, requires significant time to learn and master, but still

forces users to work within a relatively strict framework. SMS, on the other hand, will have an intuitive visual icon-based interface and allow users to focus on creating and sharing engaging multimedia content.

CONTENTdm

<http://www.contentdm.org>

CONTENTdm is popular digital collection management software. It is typically used by archives, academic institutions, museums, libraries and other similar organizations. While it allows for flexible and powerful storage and retrieval of multimedia documents, integrates nicely with the web, and scales well, it is priced so that only those with large amounts of cash can afford it. SMS, by contrast, will be free and open source software. Storymakers will generate revenue not from the software itself, but from the value-added services and products associated with our co-op.

Laughing Squid

<http://laughingsquid.us>

The web hosting industry is packed with competitors, so any one web host does not represent a significant competitive consideration. However, Laughing Squid is a well-known example of the kind of innovative, personalized, and socially engaged web hosting service that Storymakers will strive to offer, with a similar hybrid business model. Founder Scott Beale explains, “The revenue generated from the web hosting side of Laughing Squid helps to fund the art, culture & technology of Laughing Squid” (Beale, 2006). While Laughing Squid is an established leader in the area of mixed-mode

social entrepreneurship, they are also quite open about their methods. Laughing Squid will serve as an excellent model on which to base our own hosting services.

Center for Digital Storytelling

<http://www.storycenter.org>

The founder of this nonprofit, Joe Lambert, has done an enormous amount of work to popularize the idea that, "Everybody has a story to tell," and that everybody can tell that story using easily learned media production tools (Lambert, 2002). Additionally, CDS has shown that a community technology center based around storytelling can thrive and generate many positive social outcomes. However, CDS has focused on one particular form of multimedia storytelling to the exclusion of all others: the 3-5 minute video, narrated by the user, illustrated with photos and other digital artifacts, and set to music. While this is certainly a powerful format, the focus is on *storytelling*. That is, for CDS, the digital story is a fixed, linear artifact. Our company focuses on the act of *storymaking*. Stories on the web can be told differently, and we intend to leverage all the capabilities of the Internet to make stories. We make stories for the 21st century: they can be distributed, collaborative, synchronous or asynchronous, and interactive.

Self-Publishing

Lulu

Lulu provides a channel for free publication to authors, while allowing them to retain rights and 80% of the profits from any sales. According to the company, they add approximately 20,000 new titles to their collection each month. Lulu's product catalog includes books (hardcover, softcover, electronic, and photo), calendars, CDs, and DVDs.

Lulu allows free uploading, but charges for any physical product orders.

Blurb

Blurb focuses on photo books, created using either the company's online tool or downloadable free software. In August 2010, Blurb was ranked as the fastest-growing media company on Inc. 500's list of private companies. With Blurb, authors can create and upload content to the Blurb online bookstore for free, but must pay for any physical orders. Through the company's "Set Your Price" program, creators have the option to mark up their products as much as they wish. Blurb pays the authors each month that their profits reach a certain level, retaining only a flat processing fee (USD\$5) for each monthly payment. Like Lulu, Blurb allows users to upload content to the online catalog for free, but there is a cost for each product that is ordered.

BookSurge & CreateSpace

These two companies are currently merging as part of the Amazon group of companies. The company offers a publishing package starting at \$299 for users who already have their files prepared as PDFs, but to start from scratch, the cost rises to \$758. In addition, users can pay to access services such as copyediting, formatting, design, an ISBN assignment, and marketing.

Authorhouse

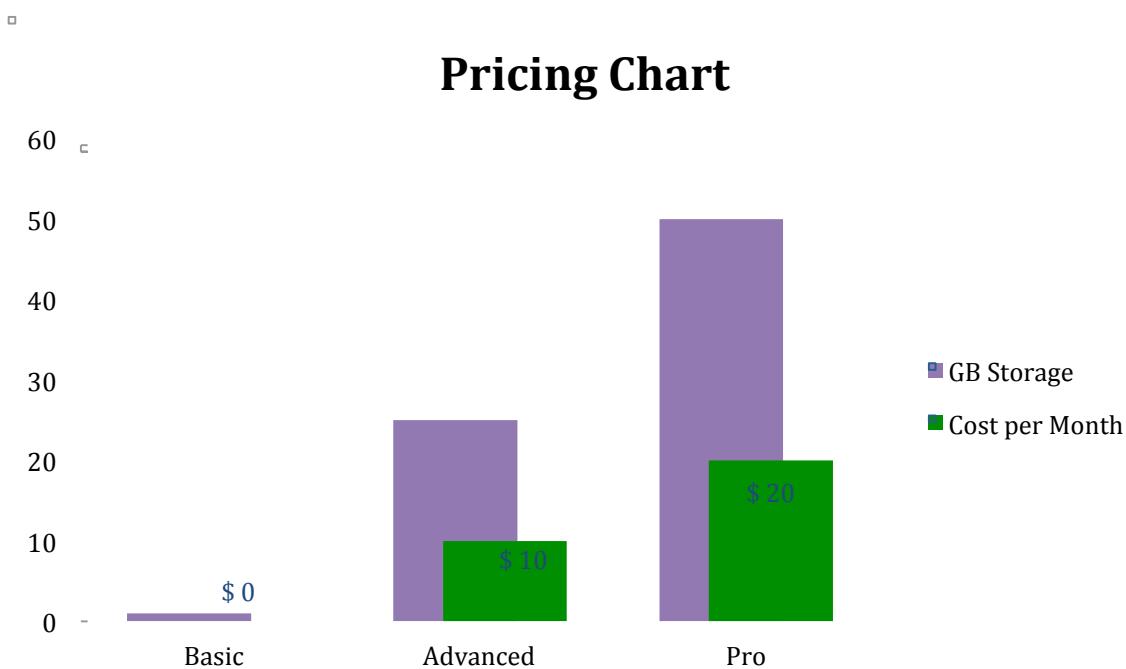
Authorhouse starts users off with inclusive packages depending on the type of product they want to create. Poetry book packages start at \$399, while paperback, hardcover, and children's books start at \$599. All of the options include similar services - custom design and formatting, an ISBN assignment, and marketing.

Marketing Strategy

Our potential market literally includes millions of people. Because the products and services offered by Digital Storymakers are closely tied to a specific geographic community, and because of certain strategic alliances with UNC-Chapel Hill, our initial members will come primarily from the state of North Carolina. It is important to note, however, that Storymakers is a highly franchisable business. We intend to replicate the original model in other places, each franchise developed according to the needs and resources available in that franchise's community.

Pricing

It is difficult to compete in the social media world if your product isn't free or have some free offering. Our SMS will be available at a "freemium" rate based on the amount of media stored in your digital library.



Under the Digital Storymakers brand, users will be able to develop products based on their uploaded creative content. Currently, there are many different avenues for self-publication; each company has its own strengths and weaknesses depending on the products they focus on. Some of the most popular choices include Lulu, Blurb, BookSurge (merging with CreateSpace under Amazon), and Authorhouse.

Promotion

In order to advertise the unique services offered under our label, Digital Storymakers could choose from different options. One method would be a partnership with one of the previously mentioned companies. Lulu, in particular, offers a partners program that allows the original creator to retain 80% of the profits while dividing the remainder evenly between the partner and Lulu itself. In the startup stages, this type of relationship would simultaneously provide access to valuable services for the user and advertise the name and ideas of Digital Storymakers.

Operations

Business Location

At the heart of Digital Storymakers is the idea that online social media should be connected to offline social services. Our work will be carried out at the Digital Storymakers Community Center. Our office will be open to visitors and those interested in the stories of Orange County will be encouraged to use our space as a gathering and organizing space. Users will be free to drop by to get informal advice from others on

digital and social media needs, as well as consult with our professional staff. Having a welcoming, physical space in which to interact with our customers makes us unique among our competitors and emphasizes our trustworthiness. *People* are the key to success in social media - not the technology. We use technology to connect people, and our community center allows us to directly interact with and help satisfy the needs of our customers.

Our Community Center will be located in downtown Chapel Hill, allowing our student employees to easily get to work. Since we are not a retail operation, we will not need very much parking space, but this location allows us to have a high-visibility location.

Operating Facilities and Equipment

The Community Center will be equipped with all the technology necessary to manage a large website, including computers and high-speed business class Internet connections. However, most of our storage services will be leased through cloud vendors, minimizing the need for expensive capital expenditures on server hardware.

Production and Operating Procedures

Our software development team will maintain a normal 40 hour/week Monday-Friday work schedule, but we will have customer service representatives manning the Community Center 7 days a week, 12 hours a day, from 9am to 9pm. Our Community Center will be open 7 days a week to accommodate the all the different work schedules that our customers are likely to have - we want to be accessible as possible to our customers.

A significant portion of our operation - the self-publishing center - will initially be outsourced through a publishing partnership with Lulu.com¹⁰. This will allow individual authors to retain 80% of the revenue from their sales. Digital Storymakers will keep 10% and Lulu.com receives 10%. This partnership will reduce the investment necessary to incorporate self-publishing into our model, but provide a revenue-sharing program for our customers. Our self-publishing market will be branded with the Digital Storymakers name. It will be accessible online, or customer service representatives can assist customers in the creation of products created from their own digital library.

Management

Organizational Structure

Mike Nutt is the initial registered agent of both the for-profit entity Digital Storymakers, LLC, and its nonprofit counterpart Digital Storymakers Foundation. He is currently the sole member of the LLC and the President of the Foundation. The dual-entity nature of Digital Storymakers allows us to use the best features of each. Trust is a necessary component for users to share qualitatively rich information, and so the Foundation will be used for most of the operations that involve using members' personal information. An LLC, on the other hand, is good for making money. The LLC will be used as the revenue-generating arm of the business.

Management Summary

Digital Storymakers is a limited liability company that is owned entirely by its employees and governed by a board of directors. Members and employees elect directors to staggered two-year terms. This structure is typically referred to as an employee-owned cooperative. Giving employees an ownership stake in the co-op empowers them and encourages low turnover. It also encourages efficiency and quality by giving employees a financial incentive to perform at high levels. A minimal staff will be employed until there is enough income to guarantee a larger payroll. This staff will include a Chief Executive Officer, a Chief Technology Officer, and a Chief Financial Officer. During the startup phase, all three of these officers will have to be comfortable in a startup/entrepreneurial environment, where selflessness and the ability to creatively solve problems are essential character traits. One of the primary advantages of the co-op business model is that it allows a company to employ volunteer labor; this is discussed in more detail below.

Chief Executive Officer

As the founder of Digital Storymakers, LLC, Mike Nutt will serve as the chief executive officer and general manager. As Storymakers currently exists in a nascent stage, it is expected that Nutt will take on all of the operational duties of Storymakers until such time as he is able to hire help. At that time, Nutt will still be heavily involved in many of the company's internal operations, but will spend .5 FTE between developing the Storymakers community (through evangelism and sales) and member support services. Being visible and available to the community and potential members will help ensure that

Storymakers is associated with real people and not just seen as another faceless company on the web.

Chief Technology Officer

During the startup phase, our CTO will need to wear many hats. Three broad skill sets will be particularly valuable during Storymakers' early years:

- The ability to manage rapidly scaling data infrastructure, including the ability to move systems from cloud vendors to in-house hardware (or vice versa) when necessary, and the ability to discern when it such movement is necessary.
- Impeccable customer service and communication skills. To a large degree, our reputation will be built on our ability to make technology accessible and fun to use. The CTO needs to be able to ensure that this culture permeates every aspect of Storymakers' technology infrastructure.
- Familiarity with facilitating open source software development and the willingness to spend many hours fixing bugs.

Chief Financial Officer

During the startup phase the CFO will primarily be in charge of managing the accounts of vendors and members, ensuring financial best practices, and helping with administrative duties. As the company grows, this person will be instrumental in suggesting and implementing opportunities for financial growth.

Volunteer labor

A key competitive advantage for Digital Storymakers will be the ability to utilize volunteer labor. This will come in two primary forms: member volunteers and academic interns.

Member volunteers: Members of the site will have the opportunity to volunteer at Storymakers. Volunteers will receive discounts on their SMS prices. While Storymakers will benefit from the extra labor, the continued education of volunteers will also be one of the primary ways we measure our social impact.

Interns: Through partnerships with academic institutions, we will be able to leverage intern labor. We will solicit students from throughout the University, as Storymakers will benefit greatly from the infusion of interdisciplinary ideas. Interns will be particularly useful in the software development cycle.

Strategic Alliances/Partners

From its inception, Storymakers was designed to function in a symbiotic relationship with an institution of higher learning. The business world and the academic world have complementary strengths and weaknesses. A partnership with Storymakers will allow UNC to increase its level of civic engagement, be a primary community economic development engine, and generate a high quantity of valuable research in the field of community informatics.

Storymakers already has support from the following organizations:

- DICE Center <http://dice.unc.edu/>

- Marian Cheek Jackson Center for Saving and Making History
<http://www.jacksoncenter.info/>
- Carolina Digital Story Lab <http://uncstorylab.org>

Additionally, Storymakers expects to be an attractive source of internships and field placements for students in the following UNC-CH departments and schools:

- School of Information and Library Science
- School of Social Work
- Department of Communication Studies
- Department of Computer Science
- Kenan-Flagler Business School
- School of Journalism

Academics that work with Storymakers will have an opportunity to see their research labor bear fruit in an entrepreneurial setting. We will be able to provide to our partner universities exclusive access to selected data sets collected through the Storymakers **site**. We will serve as a story laboratory for them, and we will be able to provide jobs, internships, and field placements to students.

Financials

First Year Staffing Plan

2011 Budget: FTE										
Name	Position	Administratio n	Software Development	Hardware Maintenance	Fundraising/ Marketing	Accounts/ Finances	Member Support	Community Development /Sales	Research & Development	2011 Total
Mike Nutt	Chief Executive Officer	0.15	0.1		0.15		0.25	0.25	0.1	1
TBD	Chief Technology Officer		0.25	0.25			0.25		0.25	1
TBD	Chief Financial Officer	0.25			0.15	0.6				1
TBD	Interns		1.15	0.25	0.35	0.2	0.5	0.25	0.3	3
TBD	Member Volunteers	0.1	3	0.25	0.35	0.2	0.5	0.25	0.35	5
	total FTEs	0.5	4.5	0.75	1	1	1.5	0.75	1	11
2011 Budget: Salaries										
Name	Position	Administratio n	Software Development	Hardware Maintenance	Fundraising/ Marketing	Accounts/ Finances	Member Support	Community Development /Sales	Research & Development	Salary
Mike Nutt	Chief Executive Officer	\$7,500.00	\$5,000.00		\$7,500.00		\$12,500.00	\$12,500.00	\$5,000.00	\$50,000.00
TBD	Chief Technology Officer		\$11,250.00	\$11,250.00			\$11,250.00		\$11,250.00	\$45,000.00
TBD	Chief Financial Officer	\$8,750.00			\$5,250.00	\$21,000.00				\$35,000.00
	total	\$16,250.00	\$16,250.00	\$11,250.00	\$12,750.00	\$21,000.00	\$23,750.00	\$12,500.00	\$16,250.00	\$130,000.00

First Year Operating Budget

Income			
Contributions	25000		
Loans	25000		
Foundation grants	50000		
<hr/>			
Total Support	\$100,000		
Advertising	1000		
Web Hosting Sales	50000		
Domain Name Sales	1000		
Membership Fees	50000		
<hr/>			
Total Revenue	\$102,000		
		Total Income	202000
		Total Expenditures	187450
		<hr/>	
		Change in Net Assets	\$14,550
Expenses			
Salaries	130000		
Employee Benefits	15000		
Training	5000		
<hr/>			
Personnel expenses	\$150,000		
Computer Hardware	15000		
Data_storage ¹¹	13200		
Insurance	1000		
Interest	2000		
Postage and delivery	250		

Printing and copying	1000
Rent	12000
Supplies	2000
Travel	2000
Utilities	4000
<hr/>	
Non-personnel expenses	\$37,450

Startup Funding Sources

Because our brand depends on the trust of our customers through the operation of a nonprofit entity, certain traditional funding opportunities will likely not be available to us while other sources common to the nonprofit sector may be accessible. We are confident that our organization will be attractive to various grantors looking to incubate innovative approaches to technology-based community development.

However, long term reliance on such funds is not sustainable. This is another reason why it is crucial to reach profitability as quickly as possible from our own revenue-generating activities. It is expected that some startup costs will be provided through business loans.

We are currently engaged in competitions to raise our first round of money through two sources:

- \$15,000: **Carolina Challenge** business plan competition
<http://www.carolinachallenge.org/>
- \$200,000: **MacArthur Digital Media and Learning** competition
<http://www.dmlcompetition.net/>

¹⁰ <http://www.lulu.com/partners/>

¹¹ <http://calculator.s3.amazonaws.com/calc5.html>

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Appendix B: Business Pitch

[Note: The pitch that follows was submitted for the semifinals of the Carolina Challenge business plan competition. An animated PowerPoint version of this pitch can be downloaded from <http://www.carolinachallenge.org>]



Digital Storymakers

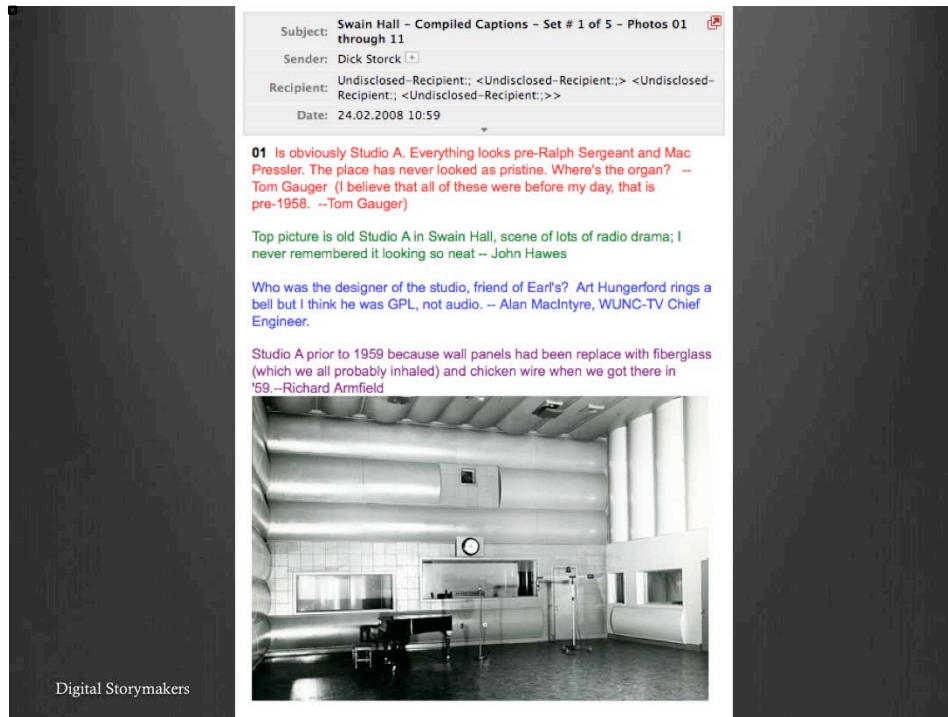
Social Digital Archiving

Introductions – Mike Nutt, Peter Zasowski

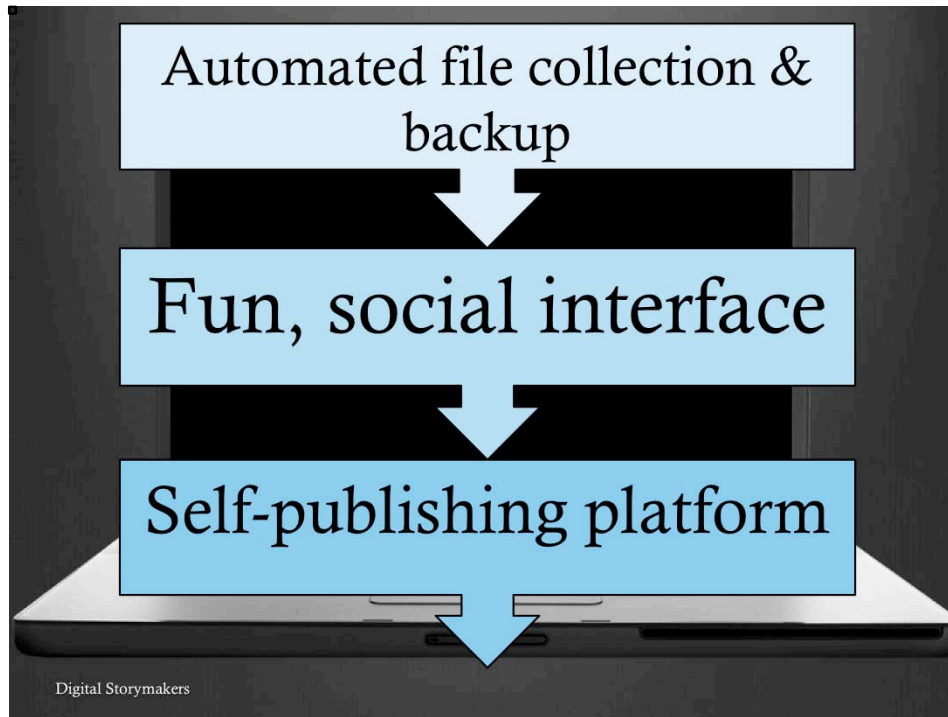
We're here to tell you about a company we're starting called Digital Storymakers, where we're building a new kind of website called a social archive site. We give our customers a way to interact with the extraordinary stories of ordinary people in their community.



The story of the origin of the Digital Storymakers idea, with photographs of the RTVMP department. Photos courtesy the North Carolina Collection, UNC-CH.



A screenshot of the email exchange to identify the people and stories behind 54 historical RTVMP photos from the North Carolina Collection at UNC-CH. We need better tools to share and preserve stories. These stories could die in an inbox.



The Digital Storymakers “story management system” (like a content management system) does three things:

- 1 – automatically collects and organizes your digital media files – your digital stories – into a personal digital library.
- 2 – provides a fun social interface to contribute to a social archive of community digital stories.
- 3 – provides an e-commerce platform for creating physical artifacts from digital stories, like picture books or DVDs of your videos.



1 out of 2 Americans uses a social network site (Lenhart, 2009), but what we want to suggest is that it's not the social media tools that we love – it's the interaction with people you care about (Fred Stutzman, 2010).

The image is a screenshot of a PCWorld website article. At the top, there is a red navigation bar with the PCWorld logo and links for News, Reviews, How-To's, Downloads, Shop & Compare, Apps, and Business Center. Below the navigation bar, there are three promotional banners: a magazine subscription offer, a 'Replay' video player showing a man in a suit, and a text-based advertisement for mobile device services. The main content area has a breadcrumb trail 'PCWorld » Web » Social Media' and a social sharing bar with buttons for Tweet (1), Digg (8), Like (565), 16 Comments, +328 Recommends, Email, and Print. The article title is 'Study: 60 Percent of Facebook Users Mulling to Quit' by Tom S. Noda, dated May 21, 2010. The text discusses privacy concerns on Facebook, and there is a small image of a Facebook logo and tagline.

PCWorld News Reviews How-To's Downloads Shop & Compare Apps Business Center

PCWorld Magazine
Subscribe & Get a Bonus CD
Customer Service

Replay

We have the mobile device to help keep your company.
Click to read case studies on

PCWorld » Web » Social Media

Tweet 1 Digg 8 Like 565 16 Comments +328 Recommends Email Print

Study: 60 Percent of Facebook Users Mulling to Quit

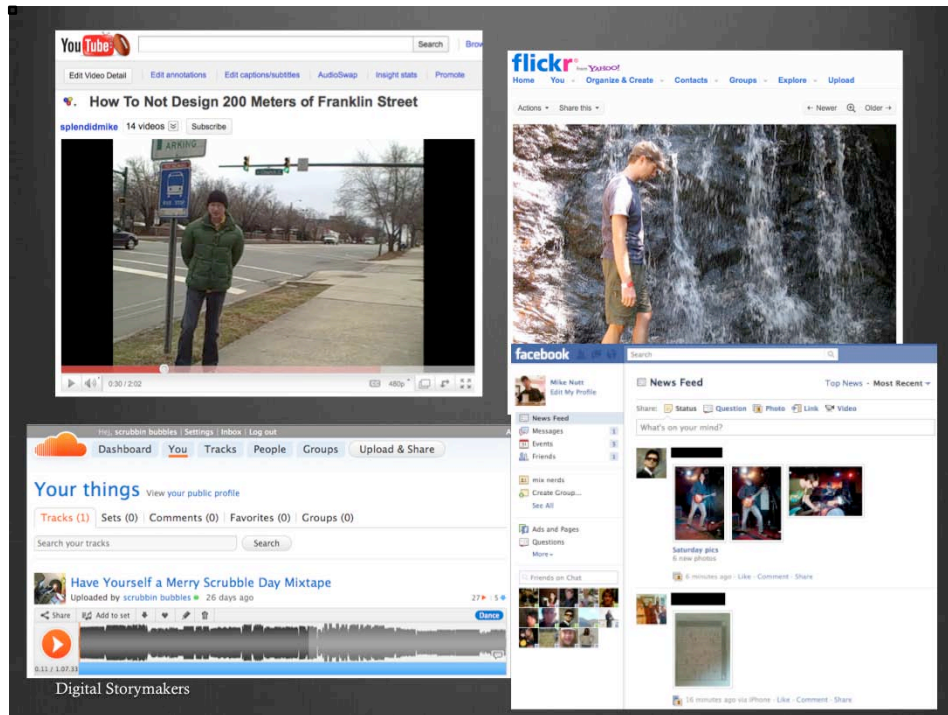
By Tom S. Noda, computerworld.com.ph- May 21, 2010 1:20 am

Due to prevailing privacy concerns, several Facebook members are thinking to quit the popular social networking site -- at least 60% of them -- according to a latest survey conducted by IT security firm, Sophos.

In a poll of 1,588 Facebook users, it revealed that the extent of member concerns is over the network's privacy settings. The online survey showed that almost two thirds of Facebook users are considering leaving, with 16% claiming to have already stopped using Facebook as a result of inadequate control over their data.



There are actually signs that customers are pretty upset with current social media offerings, especially when privacy is involved.



Currently, your digital stories get fragmented across different sites, but our software allows you to gain control of your digital stories again by managing them from a personal digital library.



To preserve your digital stories, we provide access to a social archive where you can contribute to the stories of your community.

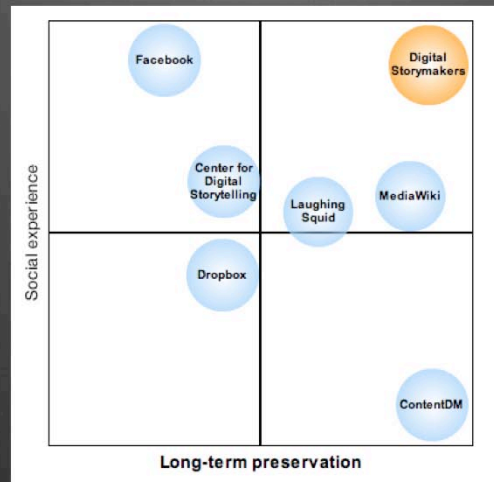
Competitive Advantage

- ⊗ iRODS – Integrated Rule-Oriented Data System developed by the Data Intensive Cyber Environments research group (UNC SILS, RENCi)
- ⊗ low development costs through student internships

Digital Storymakers

When I say “digital preservation” I mean something that is better than the ordinary “back ups” you may be familiar with. Your data can corrupt over time with the data management policies that Facebook uses. iRODS data grid technology provides our competitive advantage. This is data management technology used by NASA and the National Archives! Our story management software is developed through internships and field placements with SILS students.

Competitive Analysis

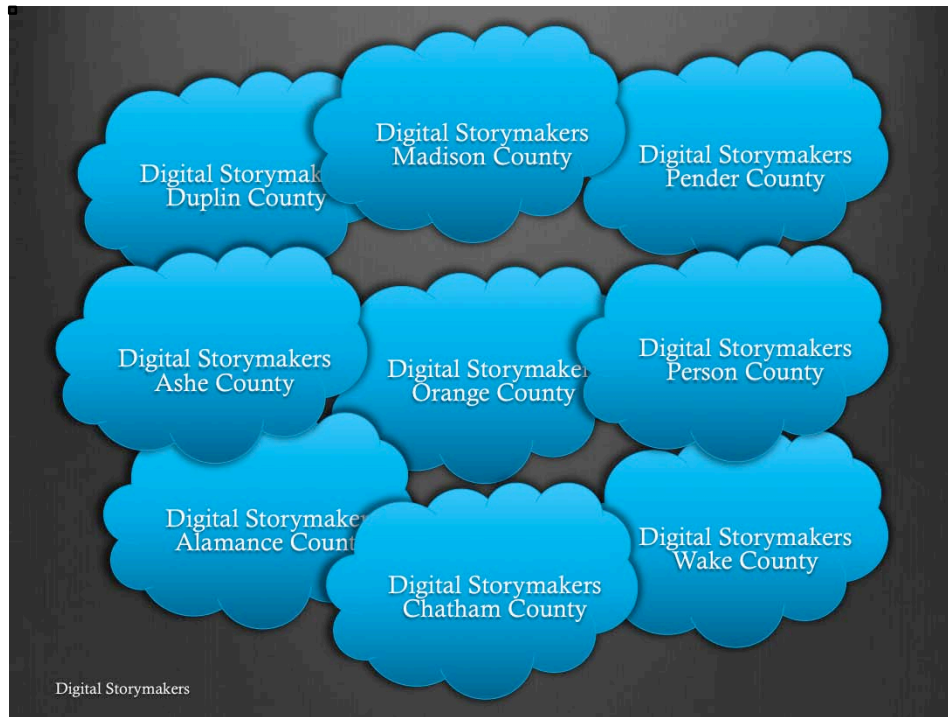


Digital Storymakers

Our competitive analysis shows there is an opportunity for social archive sites that combine the long-term stability of a digital library with the social experience of a social network site.



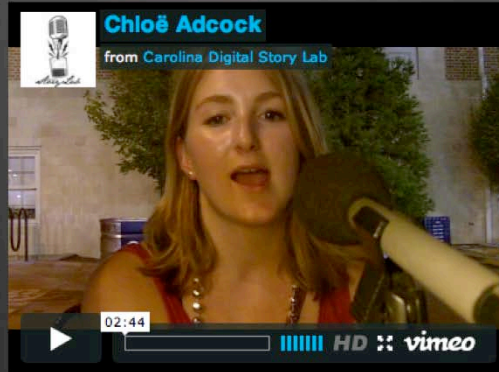
We allow users to self publish CDs, books, podcasts, ringtones, even vinyl records of family oral histories. This reinforces the bonds between online and offline communities and allows us to develop a brand built around the idea of buying local media. Our brand will say, "I feel good about buying local story products because the money is reinvested into your community." The Carrboro farmer's market metaphor: people pay twice as much for tomatoes because they know the product is local.



Our business model is meant to utilize the strengths built into pre-existing local communities, but the technology is very scalable, allowing us to sell locally-owned and operated franchises. There's no reason why every community in the world couldn't have their own social archive site.

Alpha Project

- ⊗ MacArthur Foundation Digital Media and Learning Competition
- ⊗ Carolina Digital Story Lab



Digital Storymakers

Right now we're raising our first round of money to build a prototype with the Carolina Digital Story Lab to ensure that student stories can be preserved for future generations.

Digital Storymakers

- ⊗ “Cloud” access to your personal digital library
- ⊗ Social interface for creating stories
- ⊗ Make your own privacy policies
- ⊗ Digital preservation environment

Digital Storymakers

Once you have your personal library set up, our software allows you do some really cool things.

- Cloud access like drop box
- A cool interface for interacting with your network
- You get to choose what to share
- And here’s where our real competitive advantage is – digital preservation environment.

Digital Storymakers Foundation

- ⊗ Mike Nutt, President
- ⊗ mike@digitalstorymakers.org
- ⊗ <http://twitter.com/storymakers>
- ⊗ <http://communitycollecting.web.unc.edu>

Digital Storymakers

Interested students and collaborators are encouraged to contact Mike Nutt.