

International Journal for the Scholarship of Teaching and Learning

Volume 17 | Number 1

Article 16

May 2023

"Expanding our pedagogical imagination": Faculty Experiences with Scholarly Digital Storytelling across Disciplines

Kelly Schrum

George Mason University, kschrum@gmu.edu

Follow this and additional works at: https://digitalcommons.georgiasouthern.edu/ij-sotl

Recommended Citation

Schrum, Kelly (2023) ""Expanding our pedagogical imagination": Faculty Experiences with Scholarly Digital Storytelling across Disciplines," *International Journal for the Scholarship of Teaching and Learning*: Vol. 17: No. 1, Article 16.

Available at: https://doi.org/10.20429/ijsotl.2023.17116

"Expanding our pedagogical imagination": Faculty Experiences with Scholarly Digital Storytelling across Disciplines

Abstract

Despite growing pressure to increase technology-enhanced assessment, research has repeatedly demonstrated a lack of widespread meaningful integration of technology in higher education. This is in part due to faculty reluctance which is compounded by lack of training and incentives. This qualitative research grounded in the scholarship of teaching and learning (SoTL) is based on in-depth interviews with 25 faculty internationally, across disciplines and teaching contexts, who integrated scholarly digital storytelling into their pedagogy. It examines their motivations for adopting this technology-enhanced assessment and their experiences implementing it, including increased engagement and student learning. It further explores challenges faced and lessons learned that may prove valuable in supporting the expansion of technology-enhanced assessment across disciplines.

Keywords

technology-enhanced assessment, scholarly digital storytelling, student engagement, faculty motivation, qualitative methods

Creative Commons License



This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License.

"Expanding our pedagogical imagination": Faculty Experiences with Scholarly Digital Storytelling across Disciplines

Kelly Schrum

George Mason University

Received: 5 October 2022; Accepted: 17 November 2022

Despite growing pressure to increase technology-enhanced assessment, research has repeatedly demonstrated a lack of widespread meaningful integration of technology in higher education. This is in part due to faculty reluctance which is compounded by lack of training and incentives. This qualitative research grounded in the scholarship of teaching and learning (SoTL) is based on in-depth interviews with 25 faculty internationally, across disciplines and teaching contexts, who integrated scholarly digital storytelling into their pedagogy. It examines their motivations for adopting this technology-enhanced assessment and their experiences implementing it, including increased engagement and student learning. It further explores challenges faced and lessons learned that may prove valuable in supporting the expansion of technology-enhanced assessment across disciplines.

INTRODUCTION

Institutions of higher education have been charged with cultivating "digital competence" (López-Meneses, 2020, p. 70) and fostering student capacity to use "technology in flexible, adaptive and innovative ways" (Bedenlier et al., 2020; Bond et al., 2018, pp. 1-2). Yet despite more than a decade of calls for increased technology-enhanced learning (Keppell et al., 2015; Littlejohn et al., 2012), recent studies have found a lack of meaningful change on a large scale. While there is real potential for transformation in teaching and learning (Bond et al., 2018), technology is often used to replicate "traditional activities" (Sweeney et al., 2017, p. 1) as many faculty continue to teach as they were taught in a pre-digital era (Cilia, 2021; Gachago et al., 2021; Villarroel et al., 2020). Institutional efforts, including faculty development, often fail to emphasize pedagogically informed use of technology (Englund et al., 2017; Gachago et al., 2021; Henderson et al., 2017).

Within the broader focus on digital competency (Carretero et al., 2019; Oliver & Jorre de St Jorre, 2018) is a growing interest in multimedia or multimodal literacy (Belcher, 2017; Literat et al., 2018). This approach reimagines students as knowledge producers rather than knowledge consumers (Alexander et al., 2016; Redecker & Punie, 2017) or as "active prosumers (producers and consumers)" (Bond et al., 2018, p. 14). While this conversation often focuses on undergraduates, it is echoed at the graduate level (Bosch & Casadevall, 2017; Rashid, 2021). Additional research is needed to examine adoption of technology-enhanced assessments beyond a core of "committed individuals" whose successes have been well documented (Price & Kirkwood, 2014, p. 560; Schindler et al., 2017). This includes greater attention to faculty attitudes toward, and motivations for, teaching and learning with technology (Englund et al., 2017) and wider dissemination of best practices.

Scholarly digital storytelling focuses on student production of multimedia work grounded in academic research and digital skill development (Schrum et al., 2021) and can provide a lens into broader implementation of pedagogically informed, technology-enhanced learning. This research looks beyond individual experiences, drawing on interviews conducted with 25 faculty from 20 institutions internationally who integrated scholarly digital storytelling into their teaching across disciplines and institu-

tional contexts, and asks the following research questions: What led faculty to experiment with scholarly digital storytelling? What was their experience implementing scholarly digital storytelling?

LITERATURE REVIEW

There are many examples of thoughtful, even enthusiastic, uses of technology in pedagogically informed ways (Bedenlier et al., 2020; Bond et al., 2020; Sweeney et al., 2017) as well as studies that demonstrate its potential to "foster learners' active and creative engagement" and "deep thinking" (Redecker & Punie, 2017, p. 21). Embracing technology to reshape learning, however, requires time and intellectual effort and for many faculty it also requires learning new skills (Jopp, 2019; Price & Kirkwood, 2014). Reimagining teaching and learning in higher education requires "cognitive flexibility to monitor, challenge, and guide learners toward problem solutions that have disciplinary rigour" (Villarroel et al., 2018, p. 842) and faculty are often reluctant due to fear of failure, lack of incentives or resources, and a reliance on teaching as they were taught (Mercader & Gairín, 2020). Many faculty who were skeptical before the COVID-19 pandemic became even more so during the rapid forced acceleration of online learning (Pelletier et al., 2022).

Given the increasing pressure to integrate technology into the higher education classroom (Morgan et al., 2022), how can faculty be supported in identifying and adapting technologies to enhance learning across disciplines? What will help faculty adapt to learning environments that are increasingly focused on technology? A systematic review of educational technology in arts and humanities (Bedenlier et al., 2020) found that multimodal production promoted student engagement and motivation, leading students to "channel that energy back into their learning" (p. 127). Scholarly digital storytelling integrates disciplinary research with technology (Schrum, 2021; Snelson, 2018) and is fundamentally about student production of academic digital content (Redecker & Punie, 2017). Students "engage in digital authorship through which they become active creators rather than passive consumers" (Snelson, 2018, p. 294).

Scholarly digital storytelling is a flexible technology-enhanced assessment that faculty have adopted across disciplines, teaching contexts, and continents. Fletcher and Cambre (2009) found that

it "fostered creativity and sharing around the theoretical issues of the discipline" in a Canadian anthropology course (p. 121). Industrial design faculty in South Africa found that students "developed intrinsic motivation" and "revealed a strong sense of ownership and pride in their final product" (Gachago et al., 2015, p. 185). In Korea, faculty in an English as a second language course found that it helped students expand their communication skills (Kim & Lee, 2018), while others have documented positive experiences in American studies (Oppermann, 2008), management studies (Nesteruk, 2015), teacher education (Peñalba et al., 2020), media and communication studies (Clarke & Adam, 2012), and international development (Singh, 2014).

Many of these articles, however, as well as several literature reviews (Snelson, 2018; Wu & Chen, 2020), focus on assignment structure and student learning rather than on faculty decisions or experiences. Similarly, much of the research on integrating technology into higher education teaching and learning focuses on individual settings or contexts (Schindler et al., 2017) and does not fully engage with "matters of learning" more broadly (Castañeda & Selwyn, 2018, p. 2). There is a need for qualitative research conducted across time, disciplines, degrees, and institutions "to determine long-term effects of specific technologies on student engagement and to increase generalizability of findings" (Bond et al., 2020, p. 19). This article aims to contribute to this need by examining the perspectives of 25 faculty who used scholarly digital storytelling across disciplines and teaching contexts and posing the following research questions: What led faculty to experiment with scholarly digital storytelling? What was their experience implementing scholarly digital storytelling?

METHOD

In a recent scoping review of SoTL, Manarin et al. (2021) called for more cross-disciplinary work focused on student learning. Felten and Chick (2018) similarly advocate for research that "extend[s] beyond single classrooms" (p. 10). In an effort to understand experiences teaching with scholarly digital storytelling, Schrum conducted semi-structured, in-depth interviews with 25 faculty selected through purposeful sampling (Merriam & Tisdell, 2016). Interviewees were identified in three ways: publications or presentations discussing their experience, conference or workshop attendance to learn about scholarly digital storytelling, and faculty networks. Interviewees represent 20 institutions, 15 disciplines, and six countries, including a range of types of institutions (community college, liberal arts, research intensive) and faculty positions (contingent, tenure track, tenured) (Table 1). Research was conducted in accordance with George Mason University institutional ethical standards and all interviewees consented to participate. All names are pseudonyms. Interview questions focused on faculty goals and experiences teaching with scholarly digital storytelling as well as student learning. All interviews were recorded (video and audio), transcribed verbatim, verified, and validated through member checking and, along with syllabi, rubrics, and sample digital stories, were coded and analyzed using inductive thematic analysis (Braun & Clarke, 2006; Braun et al., 2019). Throughout the iterative process of familiarization, code generation, searching, reviewing, defining themes, and analysis (Braun & Clarke, 2006), data was reviewed multiple times and themes refined to identify patterns of shared meaning.

FINDINGS

Among the faculty interviewed, 14 used scholarly digital storytelling with undergraduate students, seven with graduate students, and four with both. There was notable variation in terms of scale and scope — in some classes, this was a cumulative assignment conducted over many weeks and in others, it was a discrete assignment at one point in the course. Some assignments focused on connecting theory to practice or analyzing course content while others focused on conducting and presenting original research. In some classes, students worked on individual digital stories while others worked in groups and some students had the option of working alone or in teams. Most of the courses were graded while a few were credit/no credit. Some digital stories followed the format of a traditional academic research essay while others were designed as ethnographic, educational, autobiographical, theoretical, reflective, or creative assignments. The intended audience varied as well, including classmates, clients, future students, conferences, or the general public. Some emphasized digital skill development and required a highly polished final product while others emphasized process and content over production value. Some faculty had encouraging colleagues and institutional support while others worked alone or faced skepticism. Despite these many differences, there were clear commonalities centered on scholarly communication through multimodal production of digital content in a formal learning environment.

Motivations

Given the documented reluctance of faculty to experiment with technology, this research offered an opportunity to explore faculty motivation across diverse educational and disciplinary backgrounds. Participating faculty typically mentioned the combined impact of multiple factors, including: learning from a colleague at their institution or via a conference or workshop; incentivization, such as institutional or external funding or course releases; or the desire to improve student engagement, student skills, or their own teaching. Angela felt frustrated with students who "get into a pattern of what they think is required, how an essay is supposed to work" and thought digital storytelling could provide a new opportunity to engage students with content and disciplinary thinking. She expanded this concept, stating, "I just felt like I wanted them to think about how they could communicate something that had more meaning than just an academic exercise." For Alexander, integrating scholarly digital storytelling provided students with "the opportunity to ask and answer particular questions without being bound to a typed paper, a traditional paper." It allowed him to see how students were "producing that knowledge."

Several faculty shared that students were tired of writing essays and taking tests and that they themselves were equally uninspired by grading the same assignments year after year. Calvin talked about "open[ing] up the range of intellectual activities that students could engage with" while making their learning "more relevant." This relevance applied to creating content for an audience beyond one faculty member or classroom as well as acquiring digital skills for future careers. Other faculty talked about the frustrations that led them to rethink assessment selection. Kari felt that she "wasn't getting the students to engage deeply" and Becky similarly said she "stumbled onto digital storytelling" when teaching general education classes. She described her students as "not excited about the material" and felt that they were "just

Name	Discipline	Title	Institution Type	Institution Type	Institution Size
Alexander	Anthropology	Lecturer	Private	Liberal Arts	Small
Angela	History	Assistant Professor	Public	Research	Large
Becky	American Studies	Associate Professor	Private	Liberal Arts	Small
Brandy	Writing	Lecturer	Private	Liberal Arts	Small
Brett	Digital Arts	Associate Clinical Professor	Public	Research	Small
Brittany	Writing	Lecturer	Private	Liberal Arts	Small
Calvin	English	Associate Professor	Public	Research	Large
Carla	Education	Associate Professor	Public	Research	Large
Claudia	History	Adjunct Professor	Public	Research	Large
Crystal	Higher Education	Lecturer	Public	Research	Large
Frank	Medical Anthropology	Associate Professor	Public	Research	Large
Gary	History	Associate Professor	Private	Liberal Arts	Small
Heidi	Medical Anthropology	Research Professor	Public	Research	Large
Isabel	English as a Second Language	Professor	Public	Community College	Large
Jacqueline	Biology	Postdoctoral Researcher	Public	Research	Large
Jessica	Education	Professor Emeritus	Public	Research	Medium
Joel	Modern Languages	Professor	Public	Research	Large
Kari	Sociology	Associate Professor	Private	Liberal Arts	Small
Kristin	Higher Education	Assistant Professor	Public	Research	Large
Liza	Modern Languages	Assistant Professor	Public	Research	Medium
Mark	African American and African Studies	Associate Professor	Public	Research	Large
Meagan	History	Professor	Private	Liberal Arts	Small
Raquel	Modern Languages	Associate Professor	Public	Research	Large
Wanda	Education	Associate Professor	Public	Research	Large
Yvonne	Folklore	Professor	Public	Research	Large

regurgitating my own opinions back at me" without "taking any intellectual risks." Kari talked about her desire for a clear "purpose" that made assignments "worth the investment of time and energy." She further clarified that "the purpose can't just be 'I want my students to make a digital story.' I think you need an explicit, scholarly, substantive purpose in doing it." While reasons varied across interviewees, clear trends emerged that provide insight into strategies for motivating faculty to experiment with technology-enhanced assessment.

Engagement

A central theme throughout the interviews was faculty and student engagement. Faculty became animated when talking about their experiences teaching with scholarly digital storytelling. They remembered details of student projects years later, including topic selection, edits, and revisions, and spoke about the impact of these projects within and beyond the classroom. Faculty used words such as "fun," "excited," and "jazzed" to describe teaching with digital storytelling and many shared their commitment to using it in the future. Alexander talked about the importance of having it in his "arsenal of teaching. It's really opened up a lot of opportunities for me as an instructor and for my students." Frank shared that he, as a faculty member, "loved it. It was just fun in a totally different way than teaching most other things is." Mark described his feeling of "becoming addicted" to using this in his classes because of the high quality of student work. Brandy shared that she "loved the idea of freeing students from the confines of an

essay" and was pleasantly surprised that students "developed a community around it." Jacqueline talked about the impact on her own pedagogy and scholarship, "I can really say that I'm also growing through the process and I'm really learning through all the experiences with the students."

Similarly, faculty reported a noticeable shift in student engagement. They talked about students enjoying scholarly digital storytelling assignments, feeling "genuinely happy" and a sense of "deep satisfaction" (Angela) with their work as well as "real pride" (Claudia) and a "sense of ownership over their learning" (Becky). Brandy was "really surprised at how overboard they went in a good way" and noted that "I think they surprised themselves with how motivated they were. [Digital storytelling] seems to carry its own motivation." Faculty found that students on the whole worked hard on their digital storytelling assignments, exceeding requirements to conduct additional research, expand the project, or perfect minor details. Isabel recalled the energy level as the English Language Learners in her class worked collaboratively and provided feedback on classmate projects, "when you create a project that they're interested in doing, the language starts flying and it's amazing... It's really natural, authentic language and there's a purpose to it." Raquel similarly found value in a language class where she was surprised by "how many times they would record themselves . . . there's an intrinsic motivation to record a lot of times and I'm very pleased."

Alexander remembered students telling him years later how the digital storytelling experience "changed the way I see the world. Literally." He found this "the most rewarding part." Similarly, Jacqueline's students reflected on their experience teaching peers through digital stories, "when you're chatting, you'd say some things that are not completely true, but whatever. . . . If I'm doing the video, I'm really taking care of everything, every single word, every single thing I put on video is correct." Students also expressed excitement about sharing their work. Faculty described class screenings as "exuberant" (Kari) and reported that students shared their work with family, friends, conferences, and workplaces beyond the course. Wanda recalled one student who reported, "I've shown it to everybody I know. I want to stop people on the street and show my digital story. I'm so proud of myself for being able to achieve this." After teaching with scholarly digital storytelling for several years, Frank summed up the lasting impact on students, "It's something that they remember. It stands out amongst all the term papers they've written in their lives."

Among faculty interviewed for this research, more than 50% discussed working with marginalized student populations, including first generation, immigrant, and students of color. Several interviewees talked explicitly about the benefits of scholarly digital storytelling in this context, including a "freedom of voice" (Brandy) not found in formal essays or term papers. Isabel noted that her students exhibited confidence and a "feeling that they belonged and had a presence on campus" for the first time when completing this assignment. One of Mark's students shared that her project "made it ok for her to be authentic as a scholar in this space that so often feels so alienating." Raquel found that students who had initially struggled in her language course began to visit her office hours regularly and submitted multiple revisions to achieve a quality digital story. Joel reflected that this assignment effectively "level[ed] the playing field." Student engagement is not the only measure of a successful assignment, but it does indicate a level of student motivation and enjoyment that is not always present in higher education classrooms.

Student Learning

Faculty and student engagement provides a key foundation for learning, but it is equally important to consider mastery of content and skills. In this research, faculty teaching with scholarly digital storytelling discussed knowledge gains in research, disciplinary thinking, scholarly communication, and digital skills that enhanced learning.

The types of scholarly digital storytelling assignments varied considerably. While some centered on demonstrating understanding of class content, others involved individual or group research on topics within broader course themes. Alexander emphasized assignments that "address the core question" of the course while helping students appreciate that scholarly digital stories were "real academic work" involving "critical inquiry" and "visual literacy." Similarly, Becky emphasized the core disciplinary goals of "looking at the world around them critically," including interrogating assumptions. Some faculty talked about student engagement with course content broadly while others, exemplified by Kristin, talked about student ability to appreciate theory as "not being distanced from them but embedded in their own life and experiences." The very process of creating a scholarly digital story required students to work slowly and iteratively which Calvin found promoted a "deeper engagement with the material" within "a broader intellectual discourse about why this topic actually matters and to whom." Faculty explicitly taught research and disciplinary skills through

these assignments, including active listening (Jessica), professional networking and field experience (Yvonne), placing research in a broader context (Meagan), and an appreciation that you "can't learn from one source" (Jacqueline). As Mark noted, "you still have to do the scholarship, you still have to do the research, you still have to go and find the citations." The main difference is what students do with that knowledge and how they demonstrate their learning.

Scholarly communication is central to academic work and several faculty described the value of digital storytelling for student skill development. Through sharing research, Brett noted, "you learn how your story is being perceived." Isabel's students gained confidence in "how to tell a story," and in understanding the "cultural differences of stories," especially in a multilingual environment. Equally important is the connection to scholarship. Alexander talked about his underlying philosophy that, "the benefit of the academic experience is being able to share your understanding of something, not make it more obtuse" and felt that digital storytelling allowed students to communicate scholarly work in new ways. This experience often empowered students. As Liza explained, her students "believe[d] that they have something to tell" and increasingly saw themselves as "producers of knowledge, not only consumers."

This was reflected repeatedly throughout the faculty interviews. Becky noted, "What I enjoy about it is that . . . suddenly they're producing for a broader audience," gaining expertise and sharing knowledge. Yvonne talked about her own pedagogical shift, "historically, we've really trained students do to what we do as scholars... document this extensive amount of stuff with the idea that you're going to write a book." Most of her students, however, did not aspire to become academics and digital storytelling opened up new possibilities for bridging that gap. It empowered them to "disseminate information in very accessible, small chunks." Jacqueline's students initially believed that they had absorbed all necessary content from lectures. As they started creating digital stories to teach peers, however, they realized that did not understand the content "well enough to be able to explain it." They became "really serious" because they felt the responsibility of disseminating information that other students would utilize.

Faculty mentioned digital skills frequently and valued the opportunity for students to gain hands-on experience creating and producing digital content. Some highlighted the benefit for future professional opportunities while others focused on cultivating student appreciation for multimodal thinking. After experimenting for a few years, Kari began to explicitly emphasize digital skills, telling students, "this is actually one of the skills you're going to get out of this class. You're going to learn how to think about a story, you're going to learn to craft it, you're going to learn to edit it." Carla recalled a student project that utilized visuals effectively by filming an administrator walking through a school as he talked "and then they would flash to images around the school that reinforced his narrative." The final project was "seamless" and showed the "care that was taken in crafting the story." Alexander further emphasized the benefits of visual thinking as having "an eye to aesthetics and not just because it looks pretty, but because it's much more relatable and easily disseminated."

In addition to specific skills, students learned how to learn new digital skills. Brittany described it as a "great lesson in self-directed learning" as the process "encouraged them to experiment by creating stories that were drafts." Students began to see "the technology as flexible and moving and an integrative process" rather than feeling that "things have to be perfect" from the outset. Claudia talked about the value of screening rough cuts with the whole class as students identified problems with images, pacing, audio, and overall flow for peers and for themselves. She noted that "all that stuff becomes apparent when you see it up on the screen. It really does. And that's great because they go back and they fix it." Liza described the production process as "more about problem solving than anything else" which is a critical skill to develop. Faculty identified key aspects of student learning that were visible or enhanced when teaching with scholarly digital storytelling.

Challenges

The faculty interviewed also experienced challenges, including their own doubts and occasional resistance from students. Meagan shared, "I was nervous about it because I was trying something new. It was a challenge for me as a teacher." She also came to realize that while she "conceived that it would be a substitute for a paper, I don't think it's that simple. Or I came to learn that it wasn't that simple." Angela similarly talked about the work involved in integrating a "non-standard assignment" because "we all know what to expect to achieve from asking them to do an essay or to sit an exam," but not from creating a digital story. Kari talked about the intellectual labor involved, "incorporating a big digital story project does require a different approach to your syllabus." She shared that the "reason that I have not incorporated it in every other course I teach is because it would mean basically making new syllabi. And that's a big challenge." Faculty who had taught digital storytelling multiple times talked about their own learning throughout the process and about revising the assessment by including more time and additional steps to support student learning of technology.

Time was a common concern, including balancing disciplinary content and digital skill development. Claudia found that it "took a lot of lecture time" from previous iterations of the course and she "felt like there were gaps" in what she usually covered. Similarly, Jacqueline voiced concern that students learned "a teeny tiny detail out of all the knowledge that students need to acquire" through their digital storytelling project, although she noted that they were more likely to remember it. Faculty also expressed concern about their own technical expertise. Crystal referred to the process as "learning as I go," while Yvonne feared that she did not "have the skills to be teaching this class." Meagan spoke openly about her "lack of confidence" in her own digital skills. She shared that this was "what I was most afraid of," especially as "a professor mid-career who had never done this."

Another common concern was grading. There is a learning curve for faculty (and students) and grading digital stories often requires an evolving process of experimentation and revision. Crystal found that "sometimes there are some challenges between what you hope and expect from students and what they actually produce." Carla refined her rubric each time she taught digital storytelling, working to balance "the different elements of the story" alongside scholarly research and a compelling narrative. Kristin noticed a gap for some students between "how much [the project] meant to them and the quality" and shared that she "really struggled around grading." Having a rubric was helpful, but they can also be "fairly formulaic." Liza has learned over time that "it's about assessing the whole process and not only the

final project," even if that requires additional effort on her part. While Meagan still felt "unresolved" about this issue, Kari had instituted "better supports to ensure there is a very high chance they're going to produce an excellent product." This experience had changed her approach to grading as well, "if they all do amazing, they can all get As," which marked a shift from her previous practice.

Faculty have also encountered resistance from students, including those who preferred traditional assignments or were apprehensive about learning digital skills. Brandy "took it for granted" that students already knew about digital storytelling or could learn it quickly and was "surprised at how difficult the technology was for some of them." Crystal found "a lot of anxiety around the product," while Brett's students found "that the learning curve is steeper or longer than they thought it might be." Claudia noticed that her students struggled with selecting high quality images that were appropriate for a scholarly project, and some selected music that was "too modern" for a history project or "suave, grocery store Musak" that was "glaringly bad." Some of her students struggled to "find an angle, a focus. And a lot of them just stayed stuck in that big picture," although she noted that this was a common issue in essays as well.

Kristin started teaching digital skills to "reduce the fear around the use of technology." Raquel required students to sign a consent form after reading the syllabus to acknowledge awareness of the digital storytelling assignment. Calvin learned to "articulate simply to students the value of doing this project... because it's so foreign to them.... really establishing a clear rationale" for how this project was connected to their disciplinary learning. Creating a scholarly digital story requires intellectual as well as technical commitment and while Jacqueline's students initially thought "it will be done in one hour," they instead found that it takes "a long, long time." All interviewees faced some challenges in shifting to technology-enhanced assessments, as expected with any meaningful pedagogical change. Sharing these openly promotes dialogue and discussion that can ease the transition for other faculty.

Lessons Learned

One key lesson learned was that integrating a technology-enhanced assessment can prompt — in a positive way — faculty engagement with student learning as it offers the opportunity to rethink established ways of teaching. Kari found that "there's something about this format that makes [students] really drill down into the specifics of a particular topic" while keeping "the lessons of the class in mind." The experience led Angela to cover fewer topics and engage students in thinking "about how to communicate historical ideas," a valuable skill students could apply beyond her class. Faculty continued to require quality student work while adapting to the affordances of a digital medium. Alexander noted the need for "a grammar of digital storytelling. Good transitions are part of that. Or understanding lighting or sound. That's like structural grammar." Frank learned to allow room for creativity and noted that "it's surprising how unusual that is" within his discipline. As an added benefit, several faculty echoed Liza's conclusion that the format pushed students to work hard and learn more, "it's more difficult to fake that you're doing something that you're actually not doing."

All faculty interviewed in this research talked about the importance of scaffolding and most added steps to the assignment when teaching it subsequent times. They discussed three

clear benefits to breaking down the project into discrete parts. One was to ensure that students did not wait until the last minute. A second was the importance of framing and conceptual work before beginning production. As Brett noted, "everyone wants to lay their hands on the computer keyboard and start creating right away," but scholarly digital work requires foundational research and planning. Finally, as Brett shared, a scaffolded assignment has the benefit of "more opportunities for iteration, for revisiting the same project again and again." Brittany held individual meetings to review rough cuts and "found that to be very productive" because students then worked to "refine things like transitions and editing." Claudia facilitated in-class reviews while many others had students peer review early drafts or rough cuts outside of class. Crystal talked about how the experience influenced her teaching more broadly, "I've been a lot more thoughtful in my other classes, too, in terms of final assignments and things like how we are building to that. That's a huge part is just walking through."

Support for technology-enhanced assessment varies significantly across institutions and even within institutions. Those with access to instructional and technical support or knowledgeable colleagues encouraged others to seek out available assistance. Those with little or no institutional support found resources online or asked students with digital skills to share their experiences or support the class, formally or informally. Some felt that creating their own scholarly digital story was a critical first step, although others admitted that they had never created one. Sharing examples from former students was also effective in introducing the assignment. Kari was initially concerned that this would "push them in one direction or another," but realized through practice that she "can show them a bunch and it would be inspiring and that they will end up doing something different." Kristin similarly found that sample student work helped "to alleviate the fear of using technology" while also helping her "express that this takes time, it just takes time differently."

Calvin found it useful to "be prepared, learn as much about it as you possibly can" while building "a suitable amount of time into the planning and implementation stages." Simultaneously, shared wisdom suggests the need to be flexible. Faculty recommended starting with clear goals about content and digital skills and an idea of the end result while understanding that trying something new often requires adjustments along the way. Brett shared that if "your goal is to stretch your student's awareness of those opportunities as well as increase their abilities" you, as the teacher, "will need to do the same ... you're going to need to learn and grow and expand along with them." Brett noted that there will be "uncomfortable moments" and encouraged faculty to "embrace that and go for it. I always feel that I'm out of my league, out of my comfort zone." Brittany found this freeing, "it was easier to let go and let them direct the learning" and she "was amazed at how well that worked." She wanted to reassure faculty considering this form of assessment "that the skills that you already have as an academic will allow you to successfully teach one of these projects." Yvonne similarly rediscovered her own strengths, "I'm very good at looking at something that somebody has produced and helping them work through it and strengthen it." Alexander learned to value student voices, "listen to what they need and how they think this tool can work for them... be open to experimentation" and to the many ways students can demonstrate and articulate their learning.

Flexibility can be unsettling for faculty and for students. In addition to a well-designed, scaffolded assignment, faculty suggested managing student expectations. Meagan advised telling students at the outset "be careful because it is fun, but it is scholarly....it's going to demand the college literacies that you will be expected to perform in ordinary writing classes. So don't be fooled. There is rigor here." Kristin reflected that, "It's very easy to think about digital stories as the product and I think that is the least important piece." The processes of creating and reflecting are essential and "bookend" the whole experience. Becky found it helpful "to acknowledge the role that emotion plays in learning" by saying to students, "Look, this might be scary for a lot of you and these are the reasons why. And we're all there." Similarly, Carla tells her students that "fear is normal. And because you're afraid of something doesn't mean you shouldn't do it. So take it a task a time."

Despite the challenges and occasional resistance, the faculty interviewed for this project encouraged colleagues to, as Brittany stated, "dive right in." Kari recommended that interested faculty "just start, take a stab at it... it doesn't have to be perfect the whole time." She reflected that she has "grown a little bit in that area. I'm much more willing to take that leap of faith." She expressed hope that more faculty would do the same.

LIMITATIONS

While the faculty interviewed for this research represent multiple disciplines, geographic regions, and teaching contexts, they were identified because of their work in this area, including several who have taught scholarly digital storytelling multiple times. Some interviewees received grant funding, institutional incentives, and support from colleagues which facilitated the process and encouraged reflective practice while others experimented alone. Faculty who had previously found success with technology-enhanced assessments were able to draw on those experiences when introducing scholarly digital storytelling. In addition, the author, who has experience teaching with scholarly digital storytelling, conducted the interviews in addition to coding and analyzing the data. Engaging with technology-enhanced assessments requires commitment, flexibility, and an experimental mindset and all of the faculty interviewed acknowledged the time and effort required to plan and facilitate scholarly digital storytelling within their classes.

DISCUSSION

Mark shared during his interview that the lasting value of scholarly digital storytelling was "expanding our pedagogical imagination." Many of the faculty interviewed for this research made similar statements about the ways in which introducing this technology-enhanced assessment into their classes opened new possibilities for their own teaching and for student learning. Not all faculty, however, are ready for this kind of change or have experienced technology in the classroom in the same way. Researchers have documented the need for teachers to become "more proficient and/or inspiring" in their use of technology (Selwyn, 2016, p. 1019) and the ongoing deficiencies in efforts to do so (Bond et al., 2018; Venn et al., 2020). As Bond et al. (2020) point out, the potential for educational technology to "improve student engagement has long been recognized," but it is not as simple as "technology plus students equals engagement" (p. 4). Inspiring academics to question, rethink, and successfully change their practice is "notoriously difficult" (Gachago et al., 2021, p. 20).

How, then, does meaningful change happen? While many studies have examined coordinated efforts and interventions, Jopp (2019) writes that we must "acknowledge the role of individual teachers who often drive innovation in teaching and learning" (p. 13). There is much to be learned from discrete examples of faculty organically adopting technology-enhanced assessment — scholarly digital storytelling in this example — across countries, institutions, disciplines, and faculty levels. This research offered an opportunity to explore the experiences of 25 faculty across 20 different institutions who have been experimenting, revising, and rethinking their teaching by introducing scholarly digital storytelling. It posed two main research questions: What led faculty to experiment with scholarly digital storytelling? What was their experience implementing scholarly digital storytelling?

Based on interview data, no single factor led faculty to change their practice. Each individual interviewed cited multiple factors that shaped their decision. While some received institutional support and incentives, such as course releases or stipends, as well as additional support from academic developers or instructional technologists, others experimented on their own. Some reported being inspired through workshops or conference presentations, while others actively sought out solutions to frustrations with their own classrooms. Motivations included lack of student engagement, commitment to teaching digital skills, or the desire to introduce new forms of scholarship. Institutional or disciplinary support can help higher education faculty "in the task of changing their conceptions of teaching and learning" (Englund et al., 2017, p. 84), but other faculty simply need exposure to new ideas or assignment examples. Despite the challenges, faculty observed increased student engagement and learning when teaching with digital storytelling and this often motivated them to continue. Taken collectively, the lessons they learned can inform future practice, including faculty development and incentives at the local, institutional, or disciplinary level.

Integrating technology into higher education pedagogy in a meaningful way is essential. This will require a better understanding of how to embed technology-enhanced assessment into scholarly learning within disciplinary contexts and how to empower students to become active producers of knowledge as well as consumers. It requires teaching digital skills in student-centered, pedagogically grounded ways. Faculty development centered on blending technology with engaging content and disciplinary ways of thinking (Cilia, 2021; Englund, et al., 2017; Instructure, 2020; Venn et al., 2020) can play a role, but widespread implementation will also require more opportunities for faculty to share their experiences in local, institutional, and disciplinary spaces (College Innovation Network, 2022; Gachago et al., 2021).

Scholarly digital storytelling is one form of technology-enhanced assessment that encourages new forms of scholarly communication among learners and has demonstrated effectiveness across disciplinary and institutional contexts. As Yvonne noted, "I'm a big advocate for writing, but a lot of people are engaging with the world through other media" and "teaching our students to communicate" through digital storytelling "is really going to be valuable to them" in their future professional lives. Brandy summed this up as well, "what looks like a simple digital story is really not simple at all." She was proud of the deep learning that she saw in her classroom, including her own, and concluded that "we all learned something." Reaching beyond the faculty who are willing to take intellectual and pedagogical risks

will require additional support and incentives at all levels (Bond & Bedenlier, 2019; College Innovation Network, 2022; Price & Kirkwood, 2014) as well as wider dissemination of the results. Learning from faculty who have done so can lay the groundwork for future efforts.

CONTACT

Kelly Schrum <kschrum@gmu.edu>

REFERENCES

- Alexander, B., Adams Becker, S., & Cummins, M. (2016). Digital literacy: An NMC Horizon Project strategic brief. New Media Consortium. http://cdn.nmc.org/media/2016-nmc-horizon-strategic-brief-digital-literacy.pdf
- Bedenlier, S., Bond, M., Buntins, K., Zawacki-Richter, O., & Kerres, M. (2020). Facilitating student engagement through educational technology in higher education: A systematic review in the field of arts and humanities. Australasian Journal of Educational Technology, 36(4), 126-50. https://doi.org/10.14742/AJET.5477
- Belcher, D. D. (2017). On becoming facilitators of multi-modal composing and digital design. *Journal of Second Language Writing*, 38, 80–85. https://doi.org/10.1016/j.jslw.2017.10.004
- Bond, M., & Bedenlier, S. (2019). Facilitating student engagement through educational technology: Towards a conceptual framework. *Journal of Interactive Media in Education* (1), 1–14. https://doi.org/10.5334/jime.528
- Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2020). Mapping research in student engagement and educational technology in higher education: A systematic evidence map. International Journal of Educational Technology in Higher Education, 17(1), 1-30. https://doi.org/10.1186/s41239-019-0176-8
- Bond, M., Marín, V.I., Dolch, C., Bedenlier, S., & Zawacki-Richter, O. (2018). Digital transformation in German higher education: Student and teacher perceptions and usage of digital media. International Journal of Educational Technology in Higher Education, 15(1), 1–20. https://doi.org/10.1186/s41239-018-0130-1
- Bosch, G., & Casadevall, A. (2017). Graduate biomedical science education needs a new philosophy. *mBio*, 8(6). https://doi.org/10.1128/mBio.01539-17
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa
- Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic analysis. In P. Liamputtong (Ed.) *Handbook of research methods in health social sciences* (pp. 843-860). Springer. https://doi.org/10.1007/978-981-10-5251-4_103
- Carretero, S., Vuorikari, R., & Punie, Y. (2019). The digital competence framework for citizens with eight proficiency levels and examples of use. Publications Office of the European Union. http://publications.jrc.ec.europa.eu/repository/bitstream/JRC106281/web-digcomp2.1pdf (online).pdf
- Castañeda, L., & Selwyn, N. (2018). More than tools? Making sense of the ongoing digitizations of higher education. International Journal of Educational Technology in Higher Education, 15(1), 1-10. https://doi.org/10.1186/s41239-018-0109-y

- Cilia, J. (2021). Academic development to support pedagogically-informed uses of learning technologies [Doctoral dissertation, University College London] https://discovery.ucl.ac.uk/id/ eprint/10138543
- Clarke, R., & Adam, A. (2012). Digital storytelling in Australia: Academic perspectives and reflections. *Arts and Humanities in Higher Education*, 11(1–2), 157–176. https://doi.org/10.1177/1474022210374223
- College Innovation Network. (2022). Faculty as EdTech Innovators: Moving Beyond Stereotypes to Promote Institutional Change. CIN EdTech Survey Series.
- Englund, C., Olofsson, A.D., & Price, L. (2017). Teaching with technology in higher education: understanding conceptual change and development in practice. *Higher Education Research and Development*, 36(1), 73–87. https://doi.org/10.1080/07294360.2016.1171300
- Felten, P., & Chick, N. (2018). Is SoTL a Signature Pedagogy of Educational Development? To Improve the Academy: A Journal of Educational Development, 37(1).
- Fletcher, C., & Cambre, C. (2009). Digital storytelling and implicated scholarship in the classroom. *Journal of Canadian Studies*, 43(1), 109-30. https://doi.org/10.3138/jcs.43.1.109
- Gachago, D., Barnes, V., & Ivala, E. (2015). From consumption to production of knowledge: Using digital storytelling to enhance authenticity of industrial design students' learning. In V. Bozalek, D. Ng'ambi, D. Wood, J. Herrington, J. Hardman, & A. Amory (Eds.) Activity theory, authentic learning and emerging technologies: Towards a transformative higher education pedagogy (pp. 181-91). Routledge.
- Gachago, D., Morkel, J., van Zyl, I., & Ivala, E. (2021). From design thinking to design doing: Experiences from an academic staff development programme for blended course design. In N. Bonderup Dohn, J. Jørgen Hansen, S. Børsen Hansen, T. Ryberg, & M. de Laat (Eds.) Conceptualizing and innovating education and work with networked learning. (pp. 19–35). Springer International Publishing. https://doi.org/10.1007/978-3-030-85241-2_2
- Henderson, M., Selwyn, N., & Aston, R. (2017). What works and why? Student perceptions of "useful" digital technology in university teaching and learning. Studies in Higher Education, 42(8), 1567–1579. https://doi.org/10.1080/03075079.2015. 1007946
- Instructure. (2020). State of student success and engagement in higher education: 2020 global research study and trends. https://www.instructure.com/canvas/resources/insights/student-success-engagement-higher-education-research-study-trends
- Jopp, R. (2019). A case study of a technology enhanced learning initiative that supports authentic assessment. *Teaching in Higher Education*, 25(8), I-17. https://doi.org/10.1080/13562 517.2019.1613637
- Keppell, M., Suddaby, G., & Hard, N. (2015). Assuring best practice in technology-enhanced learning environments. Research in Learning Technology, 23, 1–13. https://doi.org/10.3402/rlt.v23.25728
- Kim, H., & Lee, J.H. (2018). The value of digital storytelling as an L2 narrative practice. *Asia-Pacific Education Researcher*, 27(1), 1–9. https://doi.org/10.1007/s40299-017-0360-3

- Literat, I., Conover, A., Herbert-Wasson, E., Kirsch Page, K., Riina-Ferrie, J., Stephens, R., Thanapornsangsuth, S., & Vasudevan, L. (2018). Toward multimodal inquiry: Opportunities, challenges and implications of multimodality for research and scholarship. *Higher Education Research and Development*, 37(3), 565-78. https://doi.org/10.1080/07294360.2017.138 9857
- Littlejohn, A., Beetham, H., & McGill, L. (2012). Learning at the digital frontier: A review of digital literacies in theory and practice. *Journal of Computer Assisted Learning*, 28(6), 547–56. https://doi.org/10.1111/j.1365-2729.2011.00474.x
- López-Meneses, E., Sirignano, F.M., Vázquez-Cano, E., & Ramírez-Hurtado, J.M. (2020). University students' digital competence in three areas of the DigCom 2.1 model: A comparative study at three European universities. Australasian Journal of Educational Technology, 36(3), 69–88. https://doi.org/10.14742/ajet.5583
- Manarin, K., Adams, C., Fendler, R., Marsh, H., Pohl, E., Porath, S., & Thomas, A. (2021). Examining the Focus of SoTL Literature Teaching and Learning? *Teaching and Learning Inquiry*, 9(1), 349–364. https://doi.org/https://doi.org/10.20343/teachlearningu.9.1.23
- Mercader, C., & Gairín, J. (2020). University teachers' perception of barriers to the use of digital technologies: The importance of the academic discipline. *International Journal of Educational Technology in Higher Education, 17*(1). https://doi.org/10.1186/s41239-020-0182-x
- Merriam, S.B., & Tisdell, E.J. (2016). Qualitative research: A guide to design and implementation (4th ed). Jossey-Bass.
- Morgan, A., Sibson, R., & Jackson, D. (2022). Digital demand and digital deficit: Conceptualising digital literacy and gauging proficiency among higher education students. *Journal of Higher Education Policy and Management*, 44(3), 258–275. https://doi.org/10.1080/1360080X.2022.2030275
- Nesteruk, J. (2015). Digital storytelling: Bringing humanistic inquiry to management studies. *Journal of Management Education*, 39(1), 141–52. https://doi.org/10.1177/1052562914545335
- Oliver, B., & Jorre de St Jorre, T. (2018). Graduate attributes for 2020 and beyond: Recommendations for Australian higher education providers. *Higher Education Research and Development*, 37(4), 821–836. https://doi.org/10.1080/07294 360.2018.1446415
- Oppermann, M. (2008). Digital storytelling and American studies: Critical trajectories from the emotional to the epistemological. Arts and Humanities in Higher Education, 7(2), 171-87. https://doi.org/10.1177/1474022208088647
- Pelletier, K., McCormack, M., Reeves, J., Robert, J., & Arbino, N. (2022). 2022 EDUCAUSE Horizon report: Teaching and learning edition. Educause. https://www.educause.edu/horizon-report-teaching-and-learning-2022
- Peñalba, E.H., Samaniego, C.R.C., & Romero, S.M.A. (2020). Digital storytelling: A tool for promoting historical understanding among college students. Research in Learning Technology, 28, 1–20. https://doi.org/10.25304/rlt.v28.2348
- Price, L., & Kirkwood, A. (2014). Using technology for teaching and learning in higher education: A critical review of the role of evidence in informing practice. *Higher Education Research and Development*, 33(3), 549–564. https://doi.org/10.1080/07294360.2013.841643

- Rashid, R. (2021). Updating the PhD: Making the case for interdisciplinarity in twenty-first-century doctoral education. Teaching in Higher Education, 26(3), 508–517. https://doi.org/ 10.1080/13562517.2021.1892624
- Redecker, C., & Punie, Y. (2017). European framework for the digital competence of educators. https://moodle.ktu.edu/pluginfile.php/428841/mod_resource/content/1/pdf_digcomedu_a4_final.pdf
- Schindler, L.A., Burkholder, G.J., Morad, O.A., & Marsh, C. (2017). Computer-based technology and student engagement: A critical review of the literature. *International Journal of Educational Technology in Higher Education, 14*(1). https://doi.org/10.1186/s41239-017-0063-0.
- Schrum, K. (2021). Developing student capacity to produce scholarly digital work. *Arts and Humanities in Higher Education* https://doi.org/10.1177/14740222211045246
- Schrum, K., Majury, N., & Simonelli, A.L. (2021). Authentic learning across disciplines and borders with scholarly digital storytelling. *Teaching and Learning Inquiry*, 9(2), 1-16. https://doi.org/10.20343/teachlearninqu.9.2.8
- Selwyn, N. (2016). Digital downsides: Exploring university students' negative engagements with digital technology. *Teaching in Higher Education*, 21(8), 1006–1021. https://doi.org/10.1080/ 13562517.2016.1213229
- Singh, J.P. (2014). Development remix: Representing poverty, culture, and agency in the developing world. *International Studies Perspectives*, *15*(3), 243–56. https://doi.org/10.1111/insp.12023

- Snelson, C. (2018). Video production in content-area pedagogy: A scoping study of the research literature. *Learning, Media and Technology*, 43(3), 294-306. https://doi.org/10.1080/1743 9884.2018.1504788
- Sweeney, T., West, D., Groessler, A., Haynie, A., Higgs, B.M., Macaulay, J., Mercer-Mapstone, L., & Yeo, M. (2017). Where's the transformation? Unlocking the potential of technology-enhanced assessment. *Teaching and Learning Inquiry, 5*(1), 41-56. https://doi.org/10.20343/teachlearninqu.5.1.5
- Venn, E., Park, J., Andersen, L.P., & Hejmadi, M. (2020). How do learning technologies impact on undergraduates' emotional and cognitive engagement with their learning? *Teaching in Higher Education*. https://doi.org/10.1080/13562517.2020.1863349
- Villarroel, V., Bloxham, S., Bruna, D., Bruna, C., & Herrera-Seda, C. (2018). Authentic assessment: Creating a blueprint for course design. Assessment and Evaluation in Higher Education, 43(5), 840–854. https://doi.org/10.1080/02602938.2017.14 12396
- Villarroel, C., Boud, D., Bloxham, S., Bruna, D., & Bruna, C. (2020). Using principles of authentic assessment to redesign written examinations and tests. *Innovations in Education and Teaching International*, 57(1), 38–49. https://doi.org/10.1080/14703297.2018.1564882
- Wu, J., & Chen, D.T.V. (2020). A systematic review of educational digital storytelling. *Computers and Education*, 147, 1-14. https://doi.org/10.1016/j.compedu.2019.103786