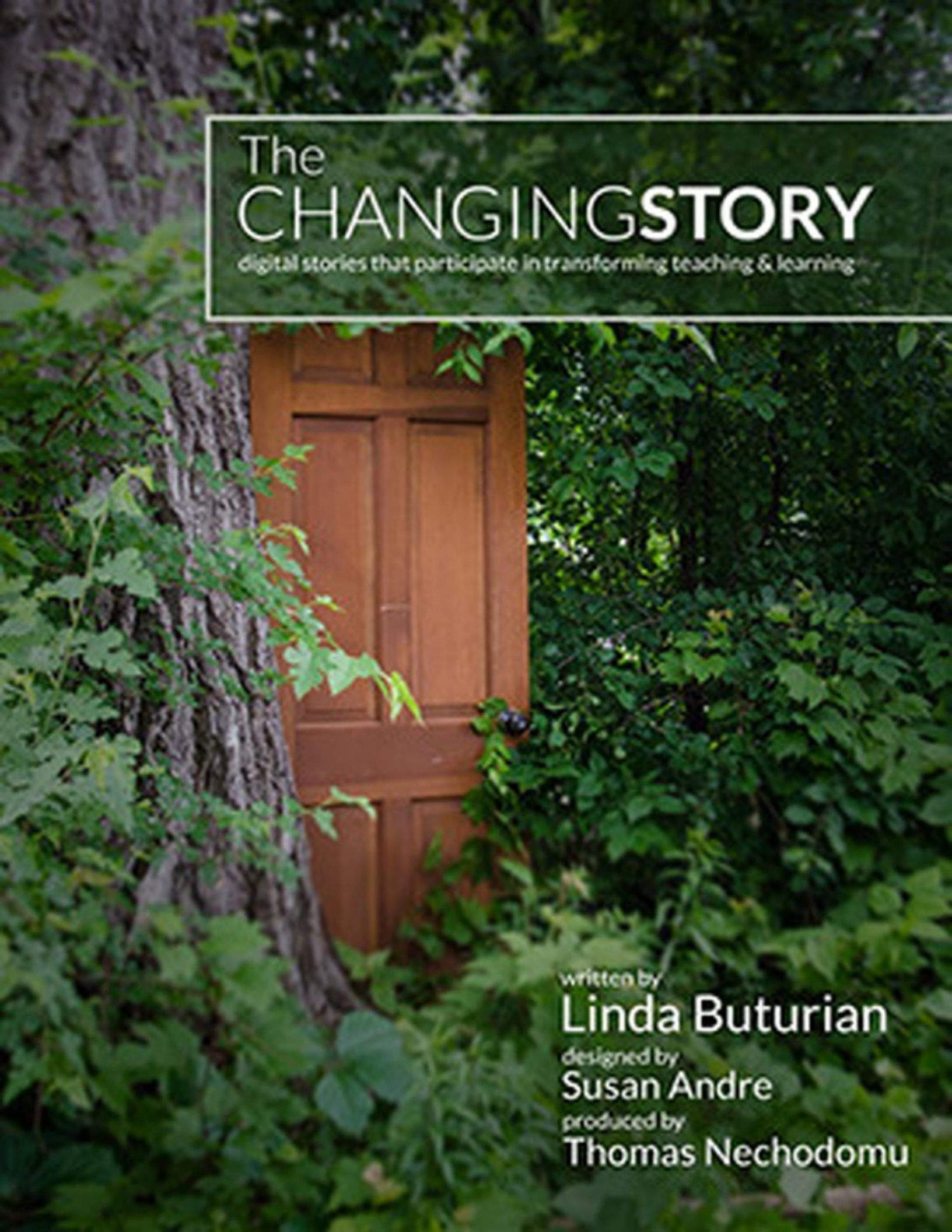
The
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Susan Andre
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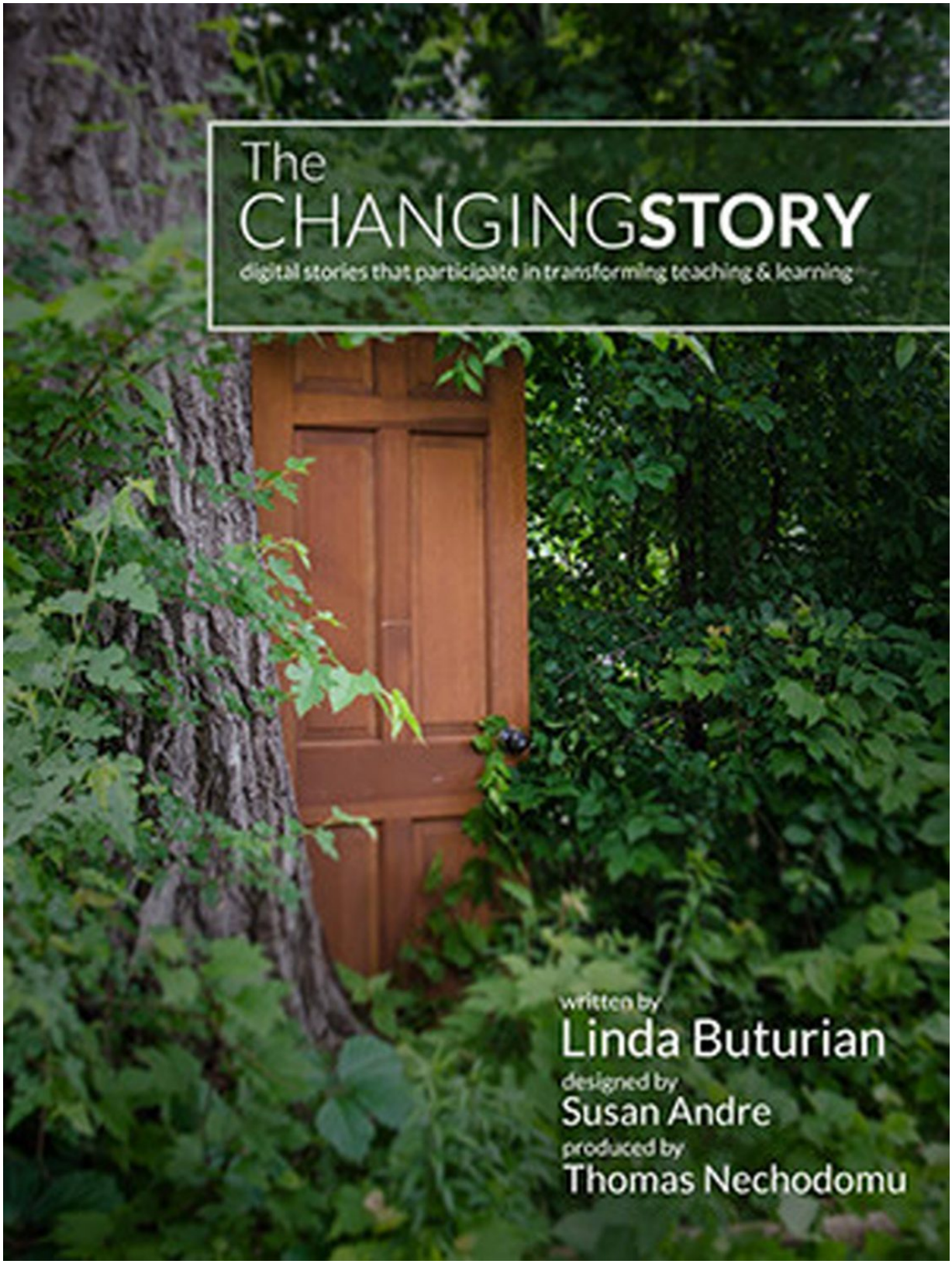
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THE CHANGING STORY

digital stories that participate in transforming teaching & learning

Linda Buturian

CONTENTS

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https://pressbooks.umn.edu/thechangingstory/?p=4

> Because creativity, after all, is a combinatorial force. It's our ability to tap into the mental pool of resources — ideas, insights, knowledge, inspiration — that we've accumulated over the years just by being present and alive and awake to the world, and to combine them in extraordinary new ways.
>
> Maria Popova [1]

To fellow educators:

Welcome to *The Changing Story: Digital Stories that Participate in Transforming Teaching & Learning.*

Stories are at the heart of how we are motivated to learn; they are the hub of the knowledge-wheel. In each chapter of this digital book, from the scaffolding assignments to the examples of students' digital stories, my goal is to provide you with both hands-on methods, as well as inspiration and research, to reveal how digital storytelling can be a powerful medium for communicating subject matter in your teaching as well as in your curricular design. Whether your hope is for students to create digital stories in order to convey a specific concept, or for you to present research findings that require an integrated approach to understanding, stories made with digital media can play a vital role in transformative teaching and learning.

My hope is that, by providing you with pedagogically informed curricula and resources, you will have a more nuanced understanding of the power of story and you can then help students harness that power to create stories that are successful according to your own learning objectives.

Since 2008, when I began integrating digital stories into my undergraduate teaching, my students have exhibited a deeper level of engagement with their subject matter and a stronger sense of ownership of their academic work.

While engaging with *The Changing Story*, you will become familiar with the different elements you are asking students to use while creating their own digital stories – text, video, audio, and motion. Some students will use the elements you ask them to use while others will self-select and gallop ahead on their own, which you should expect. This leads to the baffling contradiction that you will soon discover when designing your own assignments which require digital media: students' technical knowledge in areas like texting and Instagram, does not translate to literacy in other areas that are necessary to create effective academic work in this multimedia realm.

The Changing Story provides scaffolding assignments to build knowledge of and familiarity within these areas:

- Helping students understand the narrative arc of a story.
- Connecting students' interests to academic concepts.
- Providing peer feedback of digital story process and drafts.
- Editing and revising a multimedia project.
- Fair use of material (e.g., images, video, music, research).
- Developing a culturally-inclusive lens for visual knowledge.
- Fostering visual literacy.
- Cultivating critical media analysis.

This digital book also addresses the other contradiction which lies with us: as educators, many of us are asking students to work with digital media and technology that either we have not done ourselves, or haven't yet mastered. We find ourselves skirting our comfort zones and giving over precious class time to navigate technical issues that come along with the mobile devices in the hands of most students. By engaging with *The Changing Story*, you will participate in the process of discovery that is an essential part of what distinguishes between simply completing an assignment and a transformative learning experience. *The Changing Story* will enact with you, explicitly and implicitly through design and content, a participatory use of digital media which our students understand.

Henry Jenkins, Professor of Communications, Journalism and Cinematic Arts at the University of Southern California defines *participatory culture* as:

> A culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another. Participatory culture shifts the focus of literacy from one of individual expression to community involvement. [2]

Given the diverse, global societies and kinds of challenges students will be facing in their futures, students need models of hopeful, creative, collaborative, and integrated approaches to learning and problem–solving, such as the Paraguay Landfill Harmonics — Recycled Orchestra .

The design of *The Changing Story* underscores the recursive nature of learning – occurring over time and through repeated loops. Each time you engage with this book you will build on your knowledge of digital stories in a manner similar to the low-stakes scaffolding assignments presented in this book to help students build toward creating effective digital stories. The interactive nature of the book invites you to participate in your experience; how long you choose to engage, or how many times you click or swipe, is up to you. This is one of the gifts of digital media, which distinguishes it from other mediums. While reading this digital book you will become a learner in a community with others.

Though the research on digital storytelling is still emerging, several scholars and researchers help elucidate what my colleagues and I are experiencing by integrating digital stories into our classes. Bloom's Revised Taxonomy reveals that higher level thinking skills are required for educators to develop stories which effectively communicate content, as well as for students to create stories that successfully demonstrate their academic learning. Each chapter provides you with relevant research and resources.

What *The Changing Story* is not is a plug for certain devices or brands of technology, a technical manual, nor an apology for the importance of technology in the classroom. If you are an educator who has not yet welcomed the tablet or other mobile devices into your classroom, I am not here to persuade you about the value of technology in the classroom. Many educators teach well without technology, and serve as an important model during this paradigmatic transition to technology-informed education.

I designed the assignments in this digital book to be implemented on mobile devices such as laptops, tablets, and smartphones, and for educators who:

- are either interested in or already integrating digital media in their classes,
- understand their mission to include student-centered, participatory learning with technology, and/or
- would like to gain more insight into and examples of digital story assignments that are informed by a multicultural pedagogy which fosters critical and creative thinking.

The Changing Story is also for those of you who find yourselves in a classroom full of students with tablets and laptops and confronted with the mandate to improve student performance – all while experiencing the reality of trundling carts, missing power chords, students switching screens when you walk by, and servers crashing mid–test. Perhaps you fit both of these descriptions. What is happening in your classroom and school is occurring in districts near and far—globally, even – with differing levels of infrastructure, technical support, and professional development opportunities. A parallel increase in technology use is occurring in most of our homes as well, which has implications for what we are navigating in our classrooms.

Whether you have 20 minutes over your lunch break and want ideas for an assignment, or you've been teaching with digital stories and wish to foster critical media literacy or to help students employ a more nuanced integration of images and text, the goals for the book are to provide:

- examples of students' digital stories,
- pedagogically–informed curricula with scaffolding exercises,
- relevant tools and resources,
- related academic research, and
- inspiration to ignite your intellect and imagination.

Note the "*in Teaching*" in the book's subtitle. As technology becomes more ubiquitous in the classroom, good teaching informed by thoughtful pedagogy becomes even more imperative. I hope that by engaging with this digital book it helps you further inhabit your teaching as well as your engagement with your subject matter. In 2007, when I designed a writing-intensive freshmen seminar on water and decided to replace the final research paper assignment with the capstone digital story, I was doing it for the students, reluctantly. I approached integrating technology like having to give blood or emptying the compost bin – a chore. But what I discovered was that the process renewed my energy for teaching. Not the technology, itself – plastic, wires, precious metals, and electricity – but the need to collaborate with colleagues and academic technology staff and students, as well as the energizing impact the assignments had on students. The ushering in of images provided a creative space that renewed, and renews, my work. I wish this for you as well.

The changing story of our teaching points to increased need to model multidisciplinary, culturally inclusive, collaborative, applied approaches to learning. Given the diverse, global societies and kinds of challenges students will be facing in their futures (e.g., increased competition for natural resources, effects of climate change and globalization, more diverse, mobile societies), students need models of hopeful, creative, collaborative, and integrated approaches to learning and problem-solving. *The Changing Story* will provide models to help seed your mind and imagination with possibilities so you can in turn model these approaches and foster these skills with your students.

An essential part of the discourse around mobile devices is the profound impact of the lifecycle of technological devices as well as

the electricity they require on people and ecosystems across the globe. *The Changing Story* explores these impacts through multimedia that can be used in teaching and learning, and provides hopeful models for wise use of technology, such as this recent innovation by engineering students in Lima Peru who created a billboard that generates drinking water.

The "*Participates in*" in the title is a nod to Henry Jenkins' concept of participatory culture which includes us as educators, and it also indicates that digital stories are only one component of the larger pedagogical dynamic which is informed by you. I leave you with the most important insight I've learned:

Lead with your Pedagogy– *Let the Technology Follow.*

Each chapter of the book (except chapter 5) follows this pattern:

- **Quote**
  A relevant quote to the focus of the chapter.
- **Content**
  The concepts and examples of the chapter's focus.
- **Student Work and Reflection**
  Examples of student digital storytelling assignments and four companion video interviews where students reflect on the experiences they had creating their stories and the impact the assignments had on their life.
- **Faculty Interviews**
  Short interviews with faculty, examining their experiences with digital story assignments including input and suggestions for adaption (what worked, didn't work, and why) and cross-discipline-focused reflections.

- **Footnotes**
  Articles, links, poems, and other resources that support the chapter and its content are in the form of in-text footnotes: click on the footnote number to expand the details; click on the footnote number a second time and the information will disappear.

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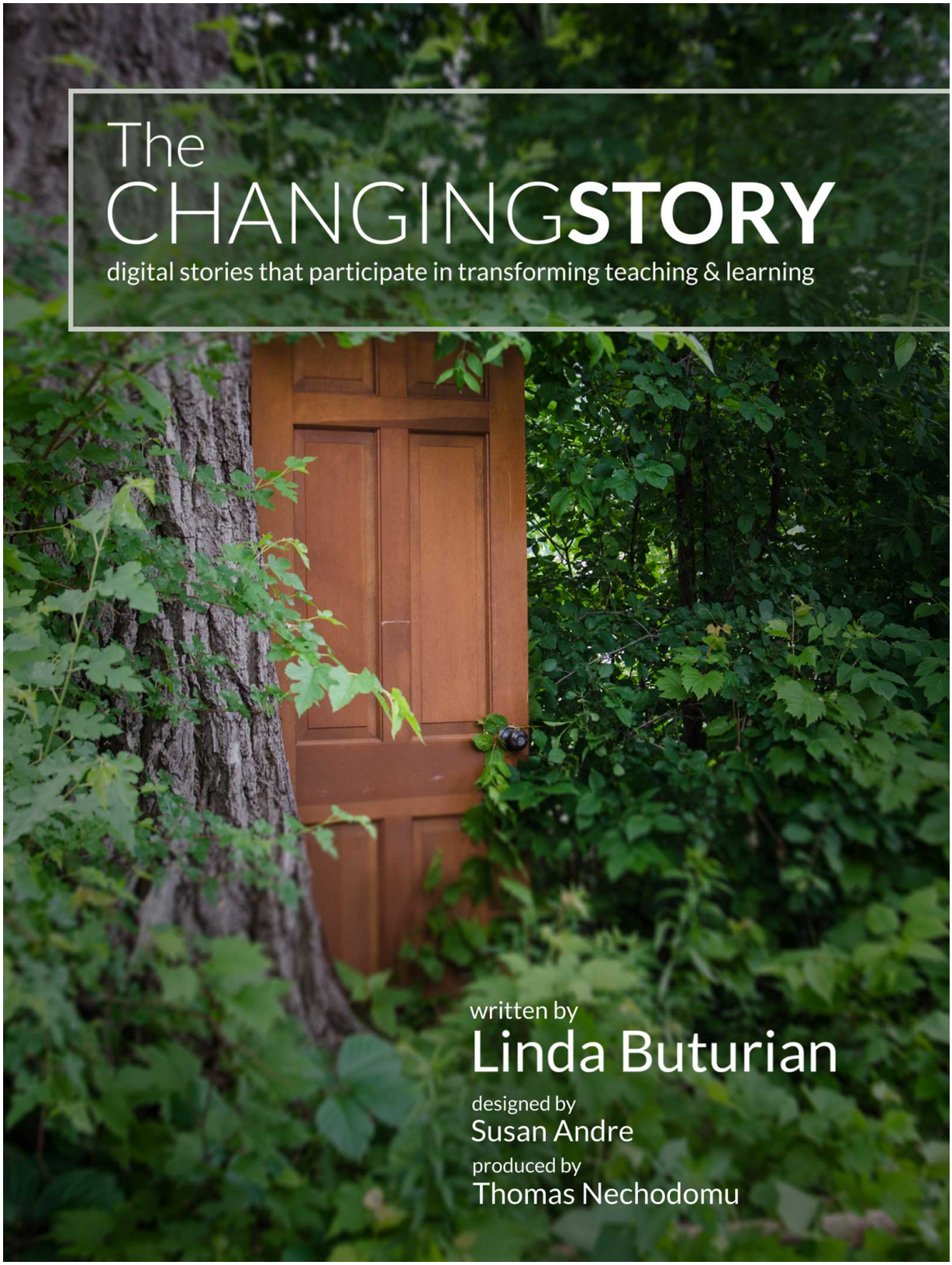
1. [1] ↵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PART I

MAIN BODY

1

CHAPTER ONE | WHAT IS DIGITAL STORYTELLING?

LINDA BUTURIAN

One or more interactive elements has been excluded from this version of the text. You can view them online here:
https://pressbooks.umn.edu/thechangingstory/?p=38

> Digital storytelling can be a potent learning experience that encompasses much of what society hopes that students will know and be able to perform in the 21st century.
> Bernard Robin[1]

Mary was one of 15 freshmen in my undergraduate seminar "Water, Water, Everywhere? Investigating & Protecting our Life Source." The water seminar introduced students to water resource topics from the disciplines representing both humanities and the sciences, and required each student to create a digital story. This particular digital story assignment was a culmination or capstone project which was introduced two-thirds of the way into the semester; each student was asked to create a five to seven-minute movie that combined audio, video, and text in order to educate viewers about a water resource topic. Students integrated research and a first person interview that they conducted with a relevant expert in order to communicate their information in a story form. New to digital

stories Mary was nervous about creating a digital story as she, like most students, had never made one before.

Was it a kind of research paper with pictures?

A digital story by Mary Zahurones, *"Manure Management for Moo-filled Lands"*

Mary chose to do her digital story on manure management on dairy farms as it relates to water issues. Mary had a rhetorical challenge on her hands.

We are talking manure.

Poop.

Cow dung.

Cow pies.

Waste.

For most of us, cow manure was about as interesting as dragging a two-by-four around; we'd rather not visualize the 120-or-so pounds a single dairy cow produces in a day, multiplied by what seemed like a gazillion cows in our state.

We were not inclined to be invested in how surprisingly

complicated manure was as a research topic, nor its importance in the context of water quality, but Mary was.

> Water pollution from manure as well as synthetic fertilizers can lead to serious environmental damage and harm human health.
>
> Mary Zahurones [2]

At this point in the semester, we had learned that Mary's family had a dairy farm in rural Minnesota, and that she was recently named the 58th Princess Kay of the Milky Way. [3]

As the Dairy Princess, Mary served as a kind of ambassador to the 4,500 dairy farmers of Minnesota. The year-long opportunity involved visiting schools, meeting with farmers, participating in parades throughout the state, and having her likeness carved out of 90 pounds of butter at the Minnesota State Fair (with long lines of ice cream-eating fair goers trooping by her posing in a rotating glass cooler for the butter statue).

Her classmates and I suggested to Mary to connect her research in manure management to her family farm – maybe take photos of her working on the farm, of her family's cattle, of the barn and tractor. In terms of the narrator, if she was thinking about being in her own digital story she could include footage of herself being crowned Princess Kay and maybe even talk about manure management with some of the dairy farmers she met.

She could bring her star–power to poop!

The assignment that Mary and the other water seminar students created is one version of the digital storytelling assignments that educators are using for academic purposes. The term "digital story" has become a catch-all for projects ranging from a two-minute narrated PowerPoint to a 10–minute video documentary. For our purposes, the University of Houston's educational website sums it

up cleanly: “Digital storytelling at its most basic core is the practice of using computer-based tools to tell stories.” [4]

Digital Story In Action

Classrooms as a Mandala is loosely based on my essay, *“Everyday Epiphany”*and is a different kind of digital story that uses an interactive interface to tell the story of how a classroom can be more than a place for gathering. The participatory nature of our classrooms are a mandala of sorts that brings students and teachers together in moments of knowledge creation. I collaborated with *The Changing Story* team on *Classrooms as a Mandala* in order to communicate my epiphany that as educators engaging with our students in a classroom, we create a kind of mandala of knowledge.

Instructions: To interact with the multimedia story, *Classrooms as a Mandala,* click or touch different sections of the blackboard to experience an example of how a digital story can take on more forms other than a video.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.umn.edu/thechangingstory/?p=38#h5p-7

A collaborative digital story *“Classrooms as a Mandala”*
Accessible Content Classrooms as a Mandala materials

Stories are foundational to learning

My 20 years of teaching the humanities to undergraduates concurs

with the research that "Stories help build connections with prior knowledge and improve memory." [5]

A colleague I met recently, who is an MD, is choosing digital stories as the means by which to present case studies to the 40 residents he oversees to help them work more effectively with children with terminal diseases. As he put it, "I remember the information from medical school because of the stories about the information, not the information itself."

> Stories help build connections with prior knowledge and improve memory.[6]
>
> As a result, good stories are remembered by students.[7]

As Bernard Robin, Associate Professor of Learning, Design, & Technology at the University of Houston explains, "At its core, digital storytelling allows computer users to become creative storytellers through the traditional processes of selecting a topic, conducting some research, writing a script, and developing an interesting story. This material is then combined with various types of multimedia, including computer-based graphics, recorded audio, computer-generated text, video clips, and music so that it can be played on a computer, uploaded on a web site, or burned on a DVD." [8]

The University of Houston's Digital Storytelling site has identified the core elements of an educational digital story, [8]source: The 10 elements of digital storytelling from Educational Uses of Digital Storytelling (adapting *Seven Elements of Digital Storytelling* created by the Center for Digital Storytelling). [9]

Scaffolding

In Chapter 3, you'll find low stakes exercises aimed at assisting students in becoming familiar with each of the following elements of a digital story:

- The Overall Purpose of the Story
- The Narrator's Point of View
- A Dramatic Question or Questions
- The Choice of Content
- Clarity of Voice
- Pacing of the Narrative
- Use of a Meaningful Audio Soundtrack
- Quality of the Images, Video & other Multimedia Elements
- Economy of the Story Detail
- Good Grammar and Language Usage

> "At its most basic level, a digital story is a story told in a digital format that shares a point of view, often the storyteller's point of view. Digital stories are essentially personal expressions with a purpose. Using personally meaningful visual and aural elements (e.g., personal photos and the storyteller's own narration), the digital storyteller delivers a relevant 'lesson learned' that extends beyond her or his specific experience to human experience in general." [10]

Why digital stories are relevant in today's classrooms

Instructors from across the University of Minnesota, as well as from high schools and community colleges, have used digital storytelling in disciplines from introductory cellular biology to graduate courses for international students. My experience integrating digital stories

in the water seminar led me to adapt the assignment for courses including a hybrid introductory literature course, a first year inquiry course I was team-teaching with a colleague to 100 freshmen using iPads to create the stories, and a learning abroad course in Northern Thailand.

I teach with digital stories as a part of a course design that aims to transform student learning. "Transform" here means: for each student to experience a deepened understanding of their relationship to the subject matter; to gain more of a sense of agency in their own process of learning; and to view themselves as vital participants in a collective working together toward a shared objective. The digital story assignment can play a powerful role in fostering a depth of learning by the individual student, as well as the community that is created in the classroom, about the course content. When successful, each student will emerge from the course with a transformed understanding of both the course material as well as their perceptions of their ability to make a positive difference in society through the use of their academic skills and their participation in the collective. As Joe Lambert put it, author of *Seven Elements of Digital Storytelling*, "Each of us is tasked with the challenge of aligning purpose and passion while negotiating personal autonomy and simultaneously strengthening community ties." [11]

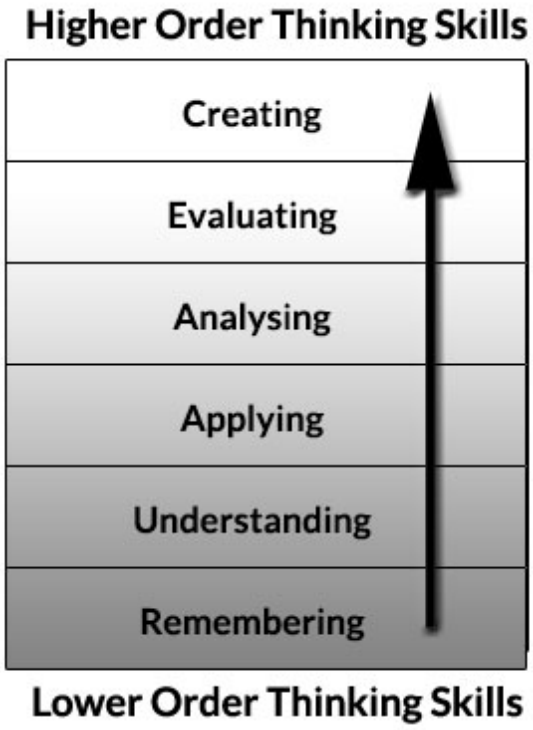
I designed the water seminar to equip students with both knowledge about, and agency in, their ability to navigate the resource challenges they and others will face in their lifetime. The students came into class knowing very little about water and emerged from the course with an introduction into the systems that perpetuate unequal distribution to access to clean water, as well as viewing most every thing they use, eat, and drink as a gift of water – a gift that is inequitably disbursed locally and globally, and a gift

that students are active participants in regard to its quality and accessibility.

No one assignment can achieve this kind of transformative effect. The digital story, when thoughtfully designed, scaffolded, and planned into the learning design for the course, can be a powerful element in the dynamic of transformation. When students go through the process of choosing a topic, creating a storyboard of the multimedia elements and content, integrating research, shooting still shots, video, choosing audio, determining their narrative stance in their story, determining how best to communicate their findings in a visual realm, and then revising and editing it from peer feedback – all the while knowing that their story will be viewed by others – the digital story assignment can be a kind of initiation; a baptism into the fold of knowledge.

Mary was already a strong and excellent student, but her investment in the digital story project helped her become even stronger as her academic work dovetailed with her lived personal experience. Her motivation to do well was also spurred on by knowing that her digital story, along with the other students' stories

would be published on a public college-hosted website where it could be viewed by family, friends, farmers, and more.



Bloom's Revised Taxonomy, from the educational origami blog [12]

While the research on digital storytelling is still emerging, several scholars and researchers help us understand why the process of creating a digital story can be transformative. Bloom's Revised Taxonomy sheds light on the higher level critical thinking skills involved in creating a meaningful, academically viable, digital story. Students must absorb information as well as understand the medium in order to be able to turn around and communicate their findings effectively as a digital story.

Bloom's Revised Taxonomy, from the educational origami blog [13]

The Strongest Voices

The strongest voices on digital storytelling are those of the students and teachers who have worked with and used them in the classroom. *The Changing Story* connects you with some of these voices through video interviews.

Student reflection videos are in Chapters 1, 2, 4, and 5. Paired with each reflection is the digital story assignment that the student speaks about in their reflection. The voices of the students coupled with their work extends a powerful "behind the scenes" view of digital storytelling.

Teacher reflection videos are in Chapters 1 – 4. These video interviews offer a wide range of ideas and experiences from teachers in various institutions from high school to higher ed.

Student Work and Reflection

Sara's digital story went away from the traditional video–based assignment and took the form of a graphic story. Her reflection on how she decided her topic, as well as how it changed her life, is a

beautiful telling of how digital storytelling can, and will, impact your students beyond the classroom.

Student Sara Hayat behind the scenes of *"Remembering an Old Friend"*

Sara's digital story took the form of a graphic story.

A digital story by Sara Hayat *"Remembering an Old Friend"*

Teacher Reflection

The teacher reflection video for Chapter 1 is a general reflection on what digital storytelling is and what it means to teachers. The strongest voices on digital storytelling are those of the students and teachers who have worked with and used them in the classroom. Student reflection videos, placed throughout *The Changing Story*, matched up with the digital story assignments that the students made and speak about in their reflection videos.

In addition to student reflection, *The Changing Story* provides you with teacher reflections as well. At the end of each chapter is a video of teachers from high school and higher ed institutions reflecting on their experiences with digital stories. Chapter 1 is a general reflection on what digital storytelling is and what it means to teachers.

Digital Storytelling in the Classroom

1. Source: Bernard Robin, Associate Professor, College of Education, University of Houston ↵
2. source: The Sustainable Table, an organization that promotes a more sustainable future ↵
3. http://www.kare11.com/news/article/935705/207/Pierz-woman-crowned-2011-Princess-Kay-of-the-Milky-Way ↵
4. source: University of Houston, College of Education ↵
5. source: “Tell Me a Story: Narrative and Intelligence” by Roger C. Schank ↵
6. source: “Tell Me a Story: Narrative and Intelligence” by Roger C. Schank ↵
7. source: Teachers' pedagogical stories and the shaping of classroom participation “The Dancer” and “Graveyard Shift at the 7-11” by Rex, Murnen, Hobbs, and McEachen ↵
8. source: “Digital Storytelling: A Powerful Technology Tool for the 21st Century Classroom” by Bernard Robin ↵
9. source: The 7 elements of digital storytelling from StoryCenter.org ↵
10. source: From pixel on a screen to real person in your students' lives: Establishing social presence using digital storytelling” by Lowenthal and Dunlap ↵
11. source: “Seven Stages: Story and the Human Experience” by Joe Lambert ↵
12. source: Bloom’s Revised Taxonomy ↵
13. source: The Digital Storytelling Diagram, adapted from California State University Long Beach ↵

2

CHAPTER TWO | TYPES OF DIGITAL STORIES

LINDA BUTURIAN

One or more interactive elements has been excluded from this version of the text. You can view them online here:
https://pressbooks.umn.edu/thechangingstory/?p=54

> The habits of wonder promoted by storytelling thus define the other person as spacious and deep, with qualitative differences from oneself as well as hidden places worthy of respect. Martha Nussbaum[1]

I trust you are as busy as me and unless you are a tinkerer by nature, you don't have time or inclination to plunge yourself into the next big tech–thing. Since I began working with the digital storytelling assignment in 2008, I have tried and abandoned several other media–based assignments, apps, and innovations that were recommended to me. Each of these ventures required my time and energy, and often classroom and students' time as well. As I flailed through these attempts, I found myself returning to the digital story assignment, and over the years and in different courses, I adapted the essential elements of the genre to address diverse topics and learning objectives.

Jason B. Ohler, author most recently of the book, *Digital*

Storytelling in the Classroom, sums up the generative nature of this investment:

> Digital storytelling is not only personally empowering but also widely applicable across genres and academic areas. I've seen compelling new media pieces produced by students that explicate the works of authors as diverse as Shakespeare and Sylvia Plath. The new media documentary is rapidly becoming a respected and even expected format for student presentation.[2]

Once you have decided that a digital story is the preferred medium for your learning objectives, the next step is to ascertain which type of assignment is most aligned with your goals. I have found that the Backward Design[3]

> What should students know, understand, and be able to do?

Backward Design brings to mind the line from T.S. Eliot's poem *Four Quartets,* "In my end is my beginning." Picture your students leaving your classroom at the end of the course. What kind of learning do you want them to carry into their futures? How does your digital story project fit in to the "dream of learning" that you wish for your students? As educators we must start with our expansive dreams for learning because the path inevitably narrows due to time constraints, class size, budgets, and standards. If we don't begin with our dreams, we find ourselves defaulting to the textbook assignments, capitulating to what is expected. Thanks to Langston Hughes, we know where a "Dream Deferred" leaves us. In Hughes' opening stanza of "Harlem, "

> What happens to a dream deferred?

> Does it dry up
> like a raisin in the sun?
> "Harlem" by Langston Hughes

Sobering, a teacher who has lost her dream, day after day in front of a class full of students...

Let your dream (or vision) for your students inform your learning goal for the assignment, then proceed to what you count as signs, or evidence, that the students have achieved the goal (this will shape assessment), and what you want them to be able to do once they've created, shared, and reflected upon the making of the digital story project.

Do you dream about:

- Your students harnessing their academic skills and passion to help make the world a better place?
- Your students being able to reflect on their own path to understanding?
- The lights going on in your students' minds about the meaning of a passage they are struggling to translate from another language?

These dreams inform the three different categories of digital story assignments I gathered for *The Changing Story*. There are more variations of these versions, and hybrids too, and you may also have good examples of these or a different kind entirely from your own classes.

Three categories of digital stories

The rest of this chapter examines three categories of digital stories: digital stories as a social education tool, digital stories as a reflective

assignment, and digital stories that communicate a concept. Each type of story includes a description, an application of the Backward Design model, a reflection on the learning objectives that may be fulfilled, and examples of student digital stories from my own as well as colleagues' classes.

Digital Stories as a Social Education Tool

Description

In the water seminar, my capstone digital story assignment asks each student to create a 5–7 minute digital story that educates the public about a water resource topic. In essence, it is a problem/solution assignment. The students choose a specific topic to research, then develop a story that integrates their research and features a first person interview with a relevant person (conducted by the student). I chose this capstone digital story assignment to replace a research paper because students could employ images and music to better share their findings, shape their academic work around their distinct personalities, and use their social media networks to disseminate the stories. The digital story assignment allows students a dynamic forum to communicate their keen sense of justice, educate others, name what is unfair in their region, and suggest solutions.

Dream (Backward Design)

The digital story process provides a crucial element in the transformative learning that occurs throughout the seminar, so that students not only learn about water resource issues, but they are baptized, initiated, and bonded (as in the chemical process) to their

learning. They experience the deep, enduring kind of learning that alters their lens of perception about the connection between water and most everything they come in contact with in their daily lives, as well as their understanding of global issues. I want them to harness their creativity, passion, and unique personalities to inform their digital stories, and because they are comfortable enough with the technology and the concepts, they create an engaging, academically
strong story they are proud to share with friends, colleagues, families, and the public.

Learning Objectives: What should students know, understand, and be able to do?

Know: Accurate knowledge about the topic which includes understanding the topic from multiple perspectives; how to think through their choices in narrating the story, as well as their vantage point on the topic;

Understand: Proficiency in accurately integrating, and citing research; fair, nuanced understanding of problems and possible solutions; rhetorical situations – the stories are housed in a public website the college supports (example: So what does general public know about pharmaceuticals in their water supply? Rainwater harvesting techniques in India?); the learning that occurred in the process of developing, editing, and sharing their digital stories.

Be able to do: To research one topic in depth, experience interviewing a relevant expert, and to communicate their knowledge effectively by using the elements in this multimedia genre; engage in a dialogue about their water resource topic as well as their process of creating the digital story.

Student Examples:

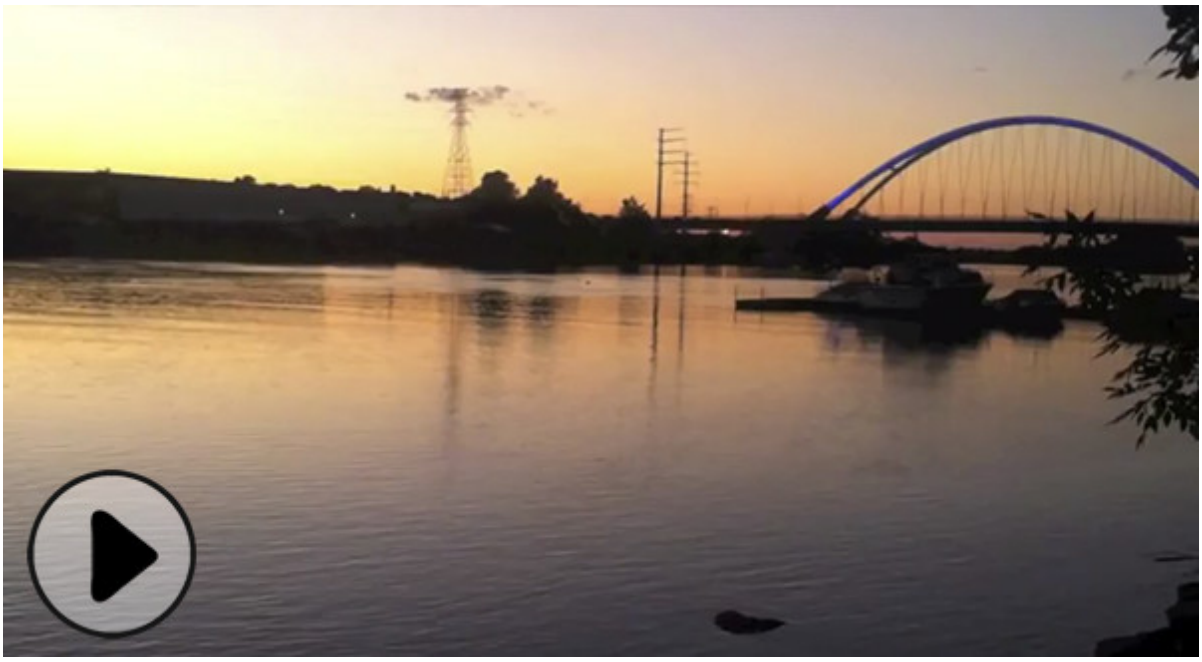
In an upper division course, “Solving Complex Problems: Mississippi Local, Global Community—: Based Approaches to Living with Rivers, Sustainably”, students conducted research and fieldwork in the community and met guest speakers from the arts, sciences, and local organizations. They watched the digital story my colleague and I created, “Mekong Mosaic” and identified resources about other troubled world rivers, such as the Jordan and Nile. Then each student created a digital story about one aspect of the Mississippi River. The digital story assignment incorporates research, an interview with a relevant person from the community, university, or business, and some combination of video clips, music, voiceovers, and photographs. Along with choosing the topic, the student creates a storyboard, writes the story text, selects the music and the specialist they want to interview, as well as chooses the media elements
they want to use. It is harder than it may appear to research, edit, and produce what is essentially a short film in one semester.

Student Megan Trehey's digital story illustrates life along the upper Mississippi River through the artistic expression of Peter L. Johnson. Johnson uses found material, “waste”, from the Mississippi River to create his body of work. Megan’s reflection video shows how a digital storytelling assignment can help your students to reach beyond what they would normally do for a “traditional” assignment such as a research paper.

Student Megan Trehey behind the scenes of *"River Journey"*

A digital story by Megan Trehey,*"River Journey"*

The digital story "Climate Change and the Mississippi River" by Phoebe Ward is an example of what people are doing to address the water–related challenges that are at the heart of many local, regional, and global conflicts.



A digital story by Phoebe Ward,*"Climate Change and the Mississippi River"*

Several of my colleagues are using digital stories to enrich student's learning. A collection of digital narratives by First Year Students with iPads can be seen at the Student Gallery grouped into topics such as: Community, Hard Work: Immigrant Perception of the American Dream, and Bullying in Schools.

Mitra Emad, associate professor of cultural studies & coordinator of Cultural Studies program, University of Minnesota–Duluth, incorporates digital stories that disrupt our preconceived understanding of knowledge. She teaches and writes about cultural constructions of the human body, especially in terms of how the body functions as a site for cultural translation.

Her student, Garrett Soper's Capstone Project *"Eyes"*, is a personal story about his relationship with food, specifically living animals that he has caught and killed.

A digital story by Garrett Soper, *"Eyes"*

Ariana Koras, who also took Emad's *Cultural Studies Senior Seminar*, uses digital storytelling to discuss the Social Charter being developed for the Great Lakes region to establish the waters as common property that belongs to the people and protect them for generations to come.

A digital story by Ariana Koras, *"A Superior Ambition: The Great Lakes Social Charter"*

Digital Stories as a Reflective Assignment

Description

In this assignment, the emphasis is on students reflecting on their process of learning. The Center for Digital Storytelling. [4]

(CDS) is the resource I most identify with this type of digital story, one that is informed by first person narration. The digital story as a reflective assignment seems to lend itself to this metacognitive process, especially with the increasing access to mobile devices: because students have the tools in their hands.

Dream (Backward Design)

Students make the critical shift from unconscious to conscious learning. Through the digital storytelling process, I provide a space for them to reflect on their own journey toward knowledge. To use their voice to reflect on their learning, and choose examples from their knowledge to help viewers connect with how they learned what they learned. In this way, the act of creating the digital story participates in the students' self awareness of their learning.

Learning Objective: What should students know, understand, and be able to do?

- **Know:** Students should know their own learning process; know how to utilize the media elements to communicate their path toward knowing.

- **Understand:** How their learning process fits in the larger construct of the subject matter they are reflecting on.
- **Be able to do:** articulate their learning effectively, both in their digital story as well as in person, to peers in the class, and to the general public.

Student Examples

The following is an example from my course, *Creating Identities through Art and Performance*, in which students create and explore art in different mediums. Students examine concepts such as place, self, and identity. Caitlin Dillon's video "My Shoes Tell a Story" is about her life with running shoes and the journey they've taken her on.

A digital story by Caitlin Dillon, *"My Shoes Tell a Story"*

A final example of a reflective digital story assignment rises out of the University of Minnesota President's Emerging Scholars Program (UMNPrezScholars) which is a four–year opportunity for undergraduate students. Students receive professional advising,

peer mentoring, and opportunities for engagement to ensure a positive and successful University of Minnesota experience. Steve Cisneros, director of the program, has worked with students to create a digital story that combines effective writing with digital media technology . He uses the digital story as a tool for students to identify personal, academic, and career goals and how the University will help them meet those goals.

Digital Stories that Communicate a Concept

Description

In this type of digital story, students create digital stories that communicate their understanding of a relevant concept. Whether it is demonstrating a biological principle, translating a passage in French, or educating the viewer about the benefits of a particular turf grass for a good lawn, the creative possibilities for doing so are endless.

Dream (Backward Design)

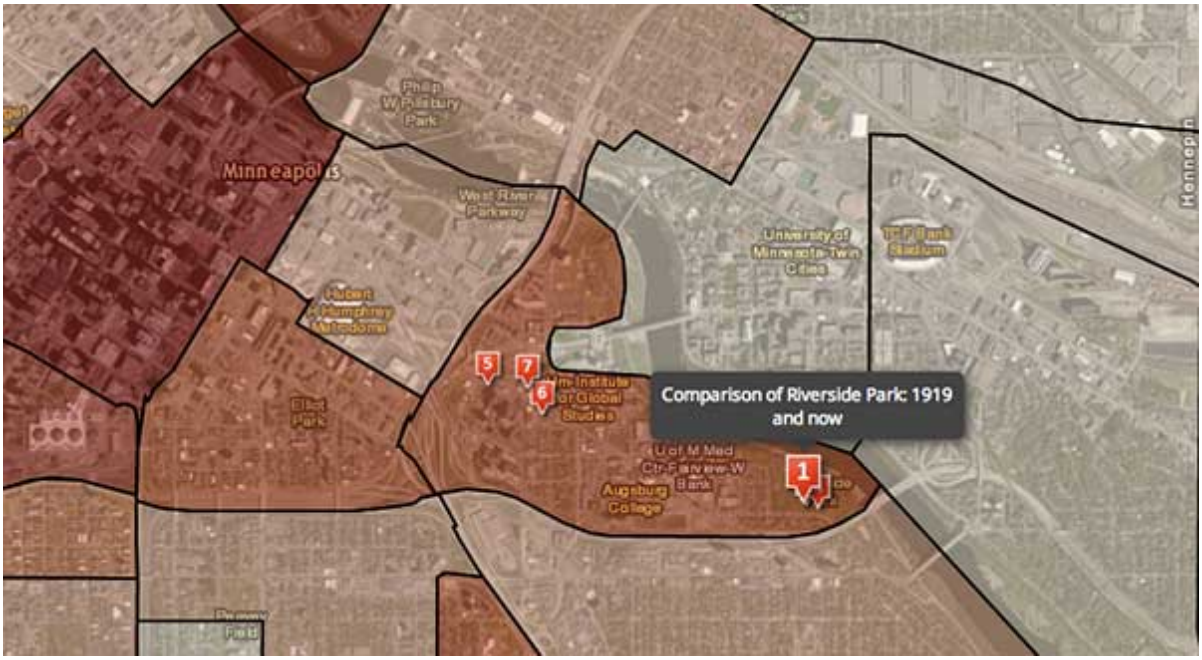
Each student (or group of students) will read, absorb, and integrate the subject matter in such a way that they will be inspired to produce a multimedia story that communicates their understanding of the topic in a creative, engaging way shaped by their distinct personalities. This type of digital story will reveal that students understand the topic in context to the larger, dynamic field of knowledge, as well the significance of the topic to the general public.

Learning Objective: What should students know, understand, and be able to do?

- **Know:** the research analysis of the relevant field; integrating scholarly info effectively as part of the digital story; the connection between specific concept and larger field
- **Understand:** the specific concept, and how it relates in the dynamic nature of the topic; media literacy; rhetorical situations.
- **Be able to do:** give and receive feedback on digital story draft and edit story to strengthen and refine; communicate with peers and general public, both in the multimedia genre and in person; video production; engage viewers creatively; be able to respond thoughtfully to the question of why this matters.

Student Examples

Spatial mapping and digital stories came together in a project co–designed by Assistant Professor Eric Castle (U of M Crookston) and Associate Professor Akosua Addo (U of M School of Music). Addo's "Mapping Arts Play" class and Castle's "GIS Applications" class worked together to design interactive maps that told a digital story about the diverse, immigrant Cedar–Riverside neighborhood near the U of M Twin Cities campus. The dynamic maps facilitated student collaboration while creating an enhanced digital story using the knowledge and expertise of each class.



A digital story by Maria and Bailey, *"Comparison of Riverside Park: 1919 then and now"*

A digital story by Morgan and Joshua, *"Cultural Play in Curry Park"*

Digital Stories for Teaching

Digital storytelling as a teaching tool is an emerging genre in academic learning. Recently my colleague Catherine Solheim, associate professor of family social science at the University of Minnesota Twin Cities, and I created a digital story about our travels to northern Thailand to interview villagers along the Mekong River about the impact of climate change and globalization on their culture and ways of living. We are using it in our respective classes (in different departments) and in our learning abroad course in northern Thailand. I shot most of the interviews and photographs while in Thailand, as Cathy was busy translating and conducting the interviews. We were fortunate to receive support from the college through the help of a videographer to edit and produce the story.

A digital story by Linda Buturian and Catherine Solheim *"Mekong Mosaic"*

The benefits of the digital story as a teaching tool: we are practicing what we ask of our students and discovering the challenges and benefits they most likely encounter. Students like learning from brief engaging videos,and respect the fact that the teacher is doing what is asked of them. We have a teaching resource we can return to.

The challenge: its hard to make a good digital story, and takes a lot of time to shoot, write a storyboard and script, and either find technical support or time to edit and produce a quality story. Mitra Emad, associate professor of cultural studies & coordinator of Cultural Studies program at the University of Minnesota Duluth created the story "Going Digital"
[5] and uses it to teach a unit on debunking digital natives. She has also used it to teach storyboarding in the process of making digital stories. Emad created a story alongside her students in Critical Animal Studies: "Cages"[6]which didn't end up being much about animals, and serves as a relevant lesson for helping students.

Faculty members have produced video abstracts for their research that are similar to student produced digital stories, which can be used in teaching as well. For example, Marla Spivak produced a video abstract[7] for a co–authored article in Environment Science and Technology.[8]

"Don't ask your students to do anything you haven't done yourself" – one of the teaching credos—has been troubled by the presence of rapidly changing technology in the classroom. Back in 2008, the first few semesters I assigned digital stories, I had not gone through the process of making one myself, and that was troubling for me on pedagogical grounds as well as pragmatic matters of really understanding what students were navigating. When the time is right and the opportunity arises, consider creating

your own digital story. It may or may not serve as a teaching tool in your classroom, but it will teach you.

In the Backward Design model, once you have determined which digital story assignment would best meet your learning objectives, you move to determining an assessment that reflects your learning objectives, and then focus on low–stake assignments (scaffolding exercises) that isolate the techniques and elements necessary to create a digital story assignment.

Teacher Reflection

The teacher reflection video for Chapter 2 focuses on the types of digital stories teachers have used in their classes as well as why they chose those types of assignments. Notice the variety in type and style of story and how it influenced their students.

Digital Storytelling Assignments

1. source: Coulter, D. L., Weins, J. R., & Fenstermacher, G. D. (2009). Why Do We Educate: Renewing the Conversation (pp. 148). New York, NY: Wiley & Sons. ↲
2. source: Ohler, J. B. (2013). Digital Storytelling in the Classroom (ch. 3). Thousand Oaks, CA: Corwin. ↲
3. source: The Backward Design Model is helpful in determining the particular tenets and scope of a digital story assignment. Wiggins and McTigh state that, "One starts with the end – the desired results (goals or standards) – and then derives the curriculum from the evidence of learning (performances) called for by the standard and the teaching needed to equip students to perform."[footnote]source: Understanding by Design Method, Wiggins and McTigh, 2000, page 8 ↲
4. source: Storycenter.org ↲
5. https://www.youtube.com/watch?v=A8DefqM6Jhc ↲
6. https://www.youtube.com/watch?v=X1_uwvKch6o ↲
7. https://www.youtube.com/watch?v=31XsEAGveFA ↲
8. https://pubs.acs.org/doi/abs/10.1021/es101468w ↲

3

CHAPTER THREE | SCAFFOLDING EXERCISES

LINDA BUTURIAN

One or more interactive elements has been excluded from this version of the text. You can view them online here:
https://pressbooks.umn.edu/thechangingstory/?p=57

> Just as builders put scaffolding around a building while it is being built, so scaffolding can be used to support a person's learning of written language.Rob Oliver[1]

As teachers we can agree that class time is precious real estate. There never seems to be enough minutes in the hour to cover course content adequately, so it is hard to conceive of dedicating class time for preparatory exercises that build toward stronger digital stories. Besides, each successive group of incoming students is more tech savvy and equipped than the last, and the digital story assignment seems native to their wired existence. Moreover, you're not teaching a technology course; you're helping students solve for X, or making determinations about turf grass, or translating Moliere.

> "Asking students to create a digital story and not giving them class time to do preparatory exercises is like handing them three

> balls and instructing them to go off and learn how to juggle with the proviso that they will receive a grade for how well they juggle."
> *Linda Buturian*

A digital story assignment is a fairly complex project which requires mastering the subject matter as well as using technology effectively to create an engaging, academically viable story in this multimedia genre. If you isolate the steps involved, plan for time to practice, and build upon the skills, both the process and the product of creating a digital story can be rewarding, even transformative.

Asking students to create a digital story and not giving them class time to do preparatory exercises is like handing them three balls and instructing them to go off and learn how to juggle with the proviso that they will receive a grade for how well they juggle. To assume someone can learn how to juggle on their own since they have thrown and caught a ball in the past is akin to believing that students who are adept at texting and editing photos can leverage those skills to create a successful digital story.

Scaffolding assignments are discreet low–stakes exercises that lead up to a digital story assignment and are playful and foster creativity and community. Each exercise focuses on one of the analytical or technical skills students need familiarity with in order to create academically strong, meaningful digital stories.

Take Karen: a straight–A student majoring in business who sat in the front row of my water seminar taking notes on her laptop, waiting to talk with me after class. I recognized something akin to panic in her bright blue eyes. "I can take exams and do research papers no problem, but I've never even opened the movie program on my laptop." This was the first time that Karen had been asked to

communicate her academic findings in a visual medium in a substantial assignment.

Or Mai, the soft spoken student in the back of the classroom who had missed several classes and who I discovered did not own a laptop or camera, was married, had a child, and had to make sure the house, the meals, and her husband and baby were taken care of before coming to class.

Karen and Mai point to the need for low–stakes exercises that provide all students with similar access to practicing necessary skills that build toward story development. The low risk, playful environment fosters a sense of community while helping you identify the skill sets of different students, which can be useful when creating peer groups. The digital divide is alive and well, and if even only a handful of students do not have the same access to technology at home, this apportioned time in class helps to even the playing field.

I use a combination of these assignments throughout the semester to help students become familiar with the elements of a digital story:

1. Connecting students' interests and experiences to course themes in order to create relevant digital stories
2. Taking photographs and videos to strengthen students' ability to create topic–relevant, aesthetically powerful, and culturally respectful images
3. Cultivating visual literacy
4. Analyzing the elements of a digital story as a class
5. Getting into the music
6. Making a two–minute movie
7. Analyzing audience
8. Working through Fair Use and Copyright issues in reference to research, music, images, and video clips

9. Interviewing
10. Narrating
11. Storyboarding
12. Online peer review of complete draft of digital story

Scaffolding Exercises

In this chapter I present many scaffolding exercises for use and inspiration in your own digital storytelling assignments. To keep the chapter flowing and to minimize distractions, the full exercises are located in the Appendix and linked–to from Chapter 3; each exercise has a return link that will bring you back to where you left off in the chapter. Having the exercises compiled in the Appendix also puts them into one convenient location, making it easier for you to search
through and reference them in the future.

1. Connecting students' interests and experiences to course themes in order to create relevant digital stories

Students tend to invest most in topics they are interested in, have experience in, or that directly relate to their academic study. Often these topics are right under their noses—such as a favorite sport or a fascination with weird weather—but it is hard for them to see the potential academic topics glimmering below the surface of their interests. For example, a freshman student in my water seminar who loved baseball chose to create a digital story about the sustainable elements in the design of Target Field, the stadium for the Minnesota Twins; several students from farming families translated their background knowledge into relevant academic topics related to agricultural practices and water conservation.

Throughout the semester I work on connecting what students are naturally interested in to the ideas and concepts they need to become familiar with in class: the following exercises help me accomplish this.

Exercise 1.1

- Freewriting, sharing, and providing feedback

Exercise 1.2

- Index cards on the first day

Exercise 1.3

- Individual or small group conferences with students

2. Taking photographs and videos to strengthen students' ability to create topic–relevant, aesthetically powerful, and culturally respectful images

During the first semester I integrated the digital story assignment, a wise tech fellow told me to hold off on bringing technology into the classroom until I'd established the course content. Cameras, phones, tablets, tripods, computers – they are like writing a dog into a short story—you mean for Sadie the beagle to be a supporting character and she ends up stealing the show. Technology is an especially naughty dog, barking and slobbering over everything and jumping on the tables and taking up precious class time with distractions and questions and quirky glitches many teachers are ill–prepared to respond to. This is the reason why I wait about a third of the way into the semester before I break out the cameras.

Mississippi River by student Marcie LaPointe

I announce that in the next class we will be heading outside to take photos and encourage students to bring a camera they are fond of and have access to. For students who do not have access to a camera, my department purchased cameras and tripods, which I used to lug to class, but more often, most students have their own cameras. In addition, the University of Minnesota has the "Smart Learning Commons" which provides students with technical equipment (such as cameras) that they can check out with their library card. Every semester I loan cameras to students who would not have access to them otherwise. Unwittingly perpetuating the digital divide is a potential risk with these exercises so be aware.

Many students now have smart phones, and I am fine if they prefer to use them for taking photos and videos, but I encourage them to take a few shots with a digital camera and similar shots with their phones.

Exercise 2.1

- Taking students out in the field with their cameras

Exercise 2.2

- Practicing uploading and editing shots and peer–sharing of knowledge to a course blog
- I'm not a photographer or visual artist, so here are some exercises I've used to bring "expertise" into my classroom.

Exercise 2.3

- Artist as a guest in class

Exercise 2.4

- Attend and reflect on a public event by a photographer, photojournalist, videographer, or filmmaker.

Exercise 2.5

- Research good photographers, videographers, and artists and their work.

3. Cultivating visual literacy

How do you help your students take good pictures and video? What strategies do you have for refining the technical aspects of creating digital stories? What assignments do you give that help students foster a culturally inclusive understanding of visual images?

Educators who require images as part of academic work soon

find the contradiction that students who have been weaned on images, and who have been described as visual learners, are not necessarily educated in visual literacy. Many times, students are not immediately able to unpack the cultural and social power of an image and turn around and employ it in a respectful, aware way in order to communicate their knowledge.

Students need scaffolding exercises which include time and space to do a close reading of what they are viewing, and to practice reflecting on the image in a lively, thoughtful way that leads to strong academic discourse. As educators we need to slow students down and help them SEE what they are seeing, then engage with it and reflect on their insights in writing or in conversation.

Exercise 3.1

- Cultivating visual literacy through reading and creating visual communication of academic knowledge

Exercise 3.2

- Fostering visual literacy through practicing a close reading of an image

4. Analyzing the elements of a digital story as a class

We're busy, aren't we? We need assignments that fire on all pistons, that facilitate both content and technical knowledge. Here are two exercises that do both.

Exercise 4.1

- PSA/digital story review

Exercise 4.2

- Select a story to share and analyze

5. Getting into the music

Music is perhaps the most empowering aspect of digital stories – giving students agency over the soundtrack. Often students' initial instinct is to hit it hard, though, and to be obvious about the emotional impact (most of them were weaned on mainstream American TV and movies, after all). Most students are remarkably adept at picking music that matches the content of their digital story; what is it that makes them either a genius or ham–fisted in this area?

Exercise 5.1

- PSA/digital story review

Having students analyze the impact of the music in PSAs or other digital stories is one way to help them become more nuanced in their own use of music; pointing them to good models is another. Music is also the most thorny in terms of copyright (see the "Working through Fair Use and Copyright issues…" section of this chapter).

6. Making a two–minute movie

Giving students a chance to make a mini–movie before they tackle a digital story assignment allows them to practice integrating the elements needed in a low–stakes, fun environment. This allows students to focus on content and employ the multimedia more effectively when they go on to create their digital story.

Exercise 6.1

- Making and sharing two–minute movies in class or in an online forum

7. Analyzing audience

Thinking through and creating a digital story for a specific audience is a powerful learning experience for students. I made the decision from the outset of using digital stories for the water seminar that the website where the digital stories would be archived would be public, and so most of the students shaped their story to the audience of the general public. This required them to own what the general public did and didn't know about their topic, as well as to realize that the academic work they did for my course had a life beyond the confines of our classroom: their friends, their other teachers, or their grandmother, could and would most likely view it!

I gave students the option to choose a specific audience. For example, a Hmong student chose to focus on the problem of high levels of mercury in the lakes in and around Minneapolis/Saint Paul. For her main audience she chose the Hmong residents who fished in the lakes. She chose to interview fishermen, recorded her voiceover in Hmong, and used text to translate in English. Another student, a future elementary teacher, chose to focus on children in Iraq and the challenges they faced around access to clean water. The student directed her story around what a 10–12 year old student could understand and be interested in. Some students choose to focus on fellow college students on a relevant campus issue.

Exercise 7.1

- Find the Audience

8. Working through Fair Use and Copyright issues in reference to research, music, images, and video clips

Aretha Franklin's "Respect" is a required song in the soundtrack for inspiring students to care about copyright issues. To frame this issue in terms of respect helps them to invest in the time needed to parse out citing and respectfully using others' work. Copyright concerns are a hard sell to students who are adept at cutting and pasting in the social medias they communicate in – I am only a few paces behind them. Yet as a working, published writer, with friends who are writers, scholars, musicians and artists, I also understand and believe in the importance of fair use of others' work. I am transparent about my mixed feelings, and also my belief that respect informs the need for the academic arrow (and at times financial nod) to the creators of the knowledge students are accessing for their digital stories. The need for respect is universal—a common need we can all relate too.

There are a lot of resources online for help with copyright and fair use issues. Here are two of my favorites:

- The University of Minnesota
- Interactive tool on Thinking Through Fair Use

Before we begin the digital story capstone assignment in the last third of the semester, students in my writing–intensive water seminar will have written several papers and demonstrated an understanding of how to avoid plagiarism, correctly and effectively incorporate research into their writing, and create accurate paraphrasing, in–text citations, and complete a "Works Cited" page. Still, these issues crop up in the digital story assignment, in part because it is a multimedia genre and there are many elements

students are addressing simultaneously, but also because of the increasingly blinkered cut and paste post–modern pastiche of our living.

Regarding fair use of music. I wish to wave a magic wand and tell you that if you require students to capture the hyperlink and cite the musician, song, and CD in the "Works Cited" page, that you'll be set —fair use for academic purposes. For the most part that would work. But, if you're going to have students share their stories publically, it gets a little more complicated – and often, students will want to share their digital stories in venues outside the academic arena.

Check to see if your school has a copyright policy and, if not, it would be worth spending time thinking through these issues as a department or school and studying the TEACH act and Fair Use and Copyright guides.[2] Some educators adhere to the "10% rule" or only allow 30 seconds of songs, movies, or other works while others take a more holistic approach to use of other's materials.

You can direct students to websites that have Royalty Free or Copyright Permitted Music, including music that is licensed with Creative Commons. If students create their own music it would eliminate copyright problems and add a new layer to the concept of "participatory."

Exercise 8.1

- Review of the student's digital story transcript

Require a transcript of the complete draft of the student's digital story assignment. The process of writing down all the text not only causes students to think through the research integration, but also helps them to assess their story removed from the lure of images. The challenge with the transcript is it is time–consuming for them

to create, and time–intensive for you, the teacher, to assess and respond to.

9. Interviewing

For the capstone digital story assignment, I require students to conduct and videotape a face–to–face interview with a relevant specialist and to integrate excerpts of that interview into their digital stories (for different, or smaller, story assignments, I don't require an interview, but many students choose to include conversations with peers and interviews as part of their stories). The interviewing process provides students with many valuable lessons, brings the subject matter to life in real time, and provides an enduring reminder of the many resources of knowledge available to them other than the Internet. At the University of Minnesota, a Research I university, with the Twin Cities campuses of over 50,000 students, the interview gives students an opportunity to have a one–on–one conversation with, and access to, the remarkable knowledge of researchers and faculty. Many students choose to go out into the community for their interviews and make valuable contacts with businesses and organizations in turn, as well as become more familiar with the rich resources the community has to offer.

It is asking a lot to send young students out to an on–site interview. Experience has taught me the value of familiarizing students with the technical and interpersonal elements of an effective interview in order to honor the time of the interviewee, to maximize the benefit of the conversation (i.e., preparing nuanced questions that yield stronger responses), and to make it a successful and enjoyable experience for the student. There's nothing worse than for students to take the time and effort to prepare for and conduct an interview, only to discover that they had accidentally

tilted the camera just before filming and only the CEO's elbow was recorded, or that the specialist they chose is as dull as dragging a two–by–four around and they have an hour of footage and don't know how to make it come to life for the viewer.

Interviews may usher in permission issues. I applied for an exemption from IRB in order for students to be able to conduct in–person interviews. I worked with my tech fellow on creating a release form. There are confidentiality issues related to interviewing minors and children as well.

Exercise 9.1

- Practicing the technology – In class activity where students conduct and film brief interviews with each other

Exercise 9.2

- Preparing effective questions

10. Narrating

A first person narrator, usually in the form of a voiceover, was and still is one of the spokes on the wheels of digital stories created and inspired by The Center for Digital Storytelling (CDS). The CDS informed my earliest understanding of digital storytelling, and still animates, collectively, our discussions. I allow my students to choose how much they wish to be a presence in their stories by providing models of stories using different kinds of narrative positions. For example, minimal presence of the student in the story (no voiceover, no photos of the student), to maximum presence of the student (both featured in, and doing a voiceover of his/her story), helps students to have agency over this decision.

Exercise 10.1

- View and analyze the role of narrator in two different digital stories, preferably addressing similar topics

11. Storyboarding

A storyboard is a rough visualization of a project that conveys its flow and direction with minimal effort on the part of the storyboarder. In a storyboard for a digital story, each frame is roughly sketched out with both visual and non–visual elements such as voiceovers, music, and any other notes or reminders that offer organizational and structural help for the storyboarder.

Requiring students to create a storyboard goes a long way in helping students make good use of their story elements.

Check out these storyboarding tips from Dreamworks!

Exercise 11.1

- Creating storyboards

12. Online peer review of complete draft of digital story

Requiring students to review each other's digital story drafts allows them to receive feedback from someone other than their teacher.

Exercise 12.1

- Peer review of stories in rough draft form to gain feedback and learn how other students are organizing their stories

Teacher Reflection

As a fellow educator I experience the challenge of essentials

competing for class time. Scaffolding exercises can feel like tossing an extra ball into the already challenging juggle of needs. A little planning and investment earlier in the semester will come back to you and your students in the decreased numbers of technical challenges and the increased satisfaction derived from your students creating stronger, more meaningful digital stories. You will be thanking yourself when it comes time to assess and grade those digital stories, which is the focus of Chapter 4. The Chapter 3 teacher reflection video is a discussion on the different approaches teachers have taken to prepare their students conceptually and technologically for their digital story assignments.

Scaffolding Exercises

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1. source: The “Notes on Teaching Writing” blog ↲
2. Copyright and fair use in education on jasonohler.com ↲

4

CHAPTER FOUR | ASSESSMENT AND EVALUATION

LINDA BUTURIAN

> I wake to sleep, and take my waking slow.
> I feel my fate in what I cannot fear.
> I learn by going where I have to go.[1]

One of the most frequently asked questions at digital storytelling sessions is how to evaluate the stories that students create for our assignments. I trust I'm part of a majority who experience grading and assessment as fraught, an ongoing affliction. This is compounded by the fact that I live my life by poet Theodore Roethke's line, "I learn by going where I have to go." Whether it's deciding to run a café with my best friend in the Oregon cascades in my 20's, or integrating a digital story assignment in my class, I get a lay of the land and then" learn by going where I have to go" – learn while doing. Which makes assessing new assignments challenging, especially when they're the first round of digital story assignments. How do you know what you want students to produce without students first creating digital stories, so you'll know what you're looking for?

If you are eager to see rubrics, skip ahead to the "Rubrics" section of this chapter. Study several rubrics and holistic guidelines, and then amend them to work for your specific learning objectives.

After seven years of teaching with digital stories in diverse courses and iterations, assessment is still a work in progress, but I've learned by doing and through discussion with colleagues and tech specialists. There are also now many more online resources to turn to, from thoughtful articles shedding light on the evaluative process, to specific rubrics to choose from and modify.

Let's consider assessment in light of backward design and participatory learning.

Backward Design

Begin with the end. What are the three most important learning objectives you have for the course, and what part does the digital story assignment play in helping students achieve those learning objectives? Critical thinking? Communicating effectively? Engaging their audience with their findings? Keep your objectives in mind as we consider the end, the true goal of the role assessment plays in our courses, and specifically in the digital story assignment.

Participatory Learning: Including students in the assessment process

Howard Gardner, Harvard Professor of Psychology, helps us dive into the thickets of why we assess and what really matters in our assessment process:

> Let's get real. Let's look at the kinds of things that we really value in the world. Let's be as explicit as we can. Let's provide feedback to kids from as early as possible and then let them internalize the feedback so they themselves can say what's going well, what's not going so well.
>
> I'm a writer and initially I had to have a lot of feedback from

> editors, including a lot of rejections, but over time I learned what was important.
>
> I learned to edit myself and now the feedback from editors is much less necessary. And I think anybody, as an adult knows that as you get to be more expert in things you don't have to do so much external critiquing, you can do what we call self–assessment. And in school, assessment shouldn't be something that's done to you; it should be something where you are the most active agent.
>
> Howard Gardner[2]

Howard Gardner and the Understanding by Design method both prompt me to travel back to the beginning of my courses to consider how I seed the assessment portion of my assignments. I look for ways to prepare the students so when they begin the digital story assignment, they have already inculcated a critical mass of knowledge of at least one learning objective through encounters with it earlier in different learning situations.

Take, for example, an art analysis course I teach where the digital story is an option for the culminating art project. "Effective interplay between use of images, music, and text" is a category in the class' rubrics and assessments. In assignments earlier in the class, which include low–stakes exercises and larger projects, we explore the interaction between images and text; how an effective thoughtful integration of writing, and either images or music, creates a third kind of knowing – a creative expression that is greater than the parts. Through diverse assignments, I highlight examples from student work that demonstrate an adequate interaction, meaning that the image and writing relate, but in a didactic straightforward way where the image does not shed new light on the text and the text simply reinforces the meaning of the

image (or music). I also discuss and show models of art where the images and writing create a frisson of meaning with aesthetic power. Since students have given and received peer feedback on the "Effective interplay between use of images/music and text" rubric category throughout the course, they approach this category in the rubric for the digital story assignment with a nuanced understanding of the objective.

Gardner's point about assessment not being "something that's done to you, it should be something where you are the most active agent" is a recognition that the participatory nature of student's learning extends into the assessment arena. If one of our goals for the digital story assignment is to empower students, to give them agency over topic and creative choices, then shouldn't they participate in the assessment process as well?

This is not to be confused with handing over the reins of the course. As the teacher, you establish the learning objectives; you've made clear throughout the semester what you feel is essential for them to learn about the subject matter and the other elements of learning that occur in a classroom. A thoughtful benevolent power–sharing in the assessment process can engender in students a deeper level of commitment to the evaluative part of the learning. If students take part in creating the criteria and, depending on your comfort level, the process of evaluation, they will be invested in, and grant consent to, the grading.

Depending on time, age of students, class size, and your comfort level, students could create or help create:

- The method of assessment – Rubric? Holistic assessment (i.e., a written or oral feedback from you)? Self assessment? Some combination of these?

- The criteria for grading – Each category that will be assessed, and how many points they will be worth.

For example, if you have a lot of students and you are most comfortable using grading rubrics, then give students three different rubric options and let them determine which one is most reflective of the work they will be doing.

Here is a strategy I have found beneficial to both including students in the assessment process and creating evaluative processes that feel like a more natural result of the process, rather than a giant pain for me to complete, and a traumatic surprise to the students:

1. Whole class assessment: Model the kind of assessment you wish to achieve by having the whole class watch a digital story and participate in assessing it collectively. To do this, share a few different rubrics and discuss. Distribute sample rubrics and discuss. Then have the class watch a digital story made by a student who has taken the class in the past or from a student in a different class. Frame the viewing with a discussion of the key criteria in the rubrics. Have them take notes. I have found that students are often harder on each other than I am and if the environment is conducive, give tough feedback, or a different kind of feedback that wouldn't have occurred to me but is meaningful to the student, as well as helpful for the quality of the digital story.
2. Put students in small groups: Each group is assigned a particular element of the assessment that they will be focusing on, and responsible for assessing. View a second digital story. Allow time for groups to discuss their notes within their group, and then share their results with the rest of the class. What did you discover?

3. Setting criteria: Consider creating with them a set of criteria for an A–level project, for a B–level project, and so on: Students can select which level they will aspire to. In this way they understand what they need in order
to achieve that grade.

Suggestions for first time assessing of digital stories: Transparency & Risk–sharing

If this is your first time teaching a digital story assignment, in a sense, you are co–learners with the students. You are embarking on a new assignment and discovering what you value and find effective, and what you want to head off. Here are some suggestions for sharing the risk with the students:

- Give students as clear a set of guidelines, or a rubric, as you can. Require a complete rough draft of the digital story. Allow time for you to view and respond to rough drafts, if possible using a tool such as VideoANT[3]
for online video annotation.
- If you find that a fair number of students are not achieving a learning element in the rough drafts of their digital stories, revisit what you wrote in the assignment guidelines and what you stressed in your peer evaluation guidelines. Be willing to amend your rubric and share your thought processes with the students. Communicate the changes to the students.
- For the first round of digital stories, consider giving all students the same number of points or percentage for completing all of the steps and requirements you establish in your assignment guidelines. Once you've viewed the stories you'll know what you want, what you value, how to shape your rubric or holistic

assessment in the next round, and you'll have models from this batch to share with the next round of students. If it turns out that students invested more time and energy than the points you dedicated to the project reflect, consider adding points after the fact. While this is hard on us as we have to find those points from somewhere else, and be transparent with the students, it conveys integrity, and tends to engender more respect and trust from the students.

> "I was reassured by having someone else navigating these issues. It helped me to realize these challenges are a part of the digital storytelling process."
> Student, First Year Inquiry

In the first few years of integrating digital story assignments, I taught courses solo and sought out colleagues and tech fellows in the department, across campus, and online for assessment questions. One of the more satisfying experiences teaching digital stories was when I co–taught a *First Year Inquiry* course with a colleague who teaches in the social sciences. Prior to the semester we met several times and hashed out a thoughtful digital story assignment which would occur in the last third of the semester and which would allow students to focus on one of the many topics we addressed in the class. When our first batch of stories came through from 100 students, so did his flurry of email questions:

- " How do I grade Tom's? He did great in voice and personality, but there's hardly any integration of ideas from class?"
- "Susan did well on music and photos, wow, and its funny, but I'm not sure what her topic is."

- “Abdi spent hours learning how to use iMovie, then the night before it was due his computer crashed and he lost his story because he didn’t back it up and he had to do it over; the final product is ok, but I saw the rough draft of the first one and the story was really doing something important and well.”

I was reassured by having someone else battling through these thorny issues. It helped me to realize these challenges are endemic to the digital storytelling process. I can imagine a time in the future when our collective expectations for digital productions will be more refined. The more we can collaborate with colleagues, either in person or online, about assessment, the stronger we all will be.

A concluding thought about assessment and our desires for an ideal product. The digital story, even more than a research paper or other academic product, lends itself to being scrutinized to a different standard due to its visual and multi–medium, as well as the public nature of the audience, whether it be the classmates or the world wide web. While we want our students to do their very best, it’s important to remember what your learning objectives are for your course and digital story. Is your course about the production quality of videos? If not, then production quality should count for less in evaluation. More emphasis and points should be devoted to, for example, whether the student has a voice in her story, and has thought through how to frame her story, and indeed created an arc of a story. More points should be given to the power of the learning that occurred, and whether the story they are trying to tell has been communicated.

The assessment process for digital stories requires us as educators to think deeply about the nature of evaluation. In light of understanding best practices of assessment, the transformative learning that we intend for our students, may extend to us as well.

Digital Story Rubrics

A thoughtfully developed, concise rubric can be a boon to both you and your students, especially with larger classes, and if you have assistants who are helping you with grading. The more explicit you can be about your learning objectives, and the grade point value placed on each skill or concept, the more satisfying the learning process will be for all involved.

Here is a rubric I use for my digital storytelling assignments:

- Digital Narrative Rubric

Feel free to download the rubric and either use it as-is or modify it for your own needs.

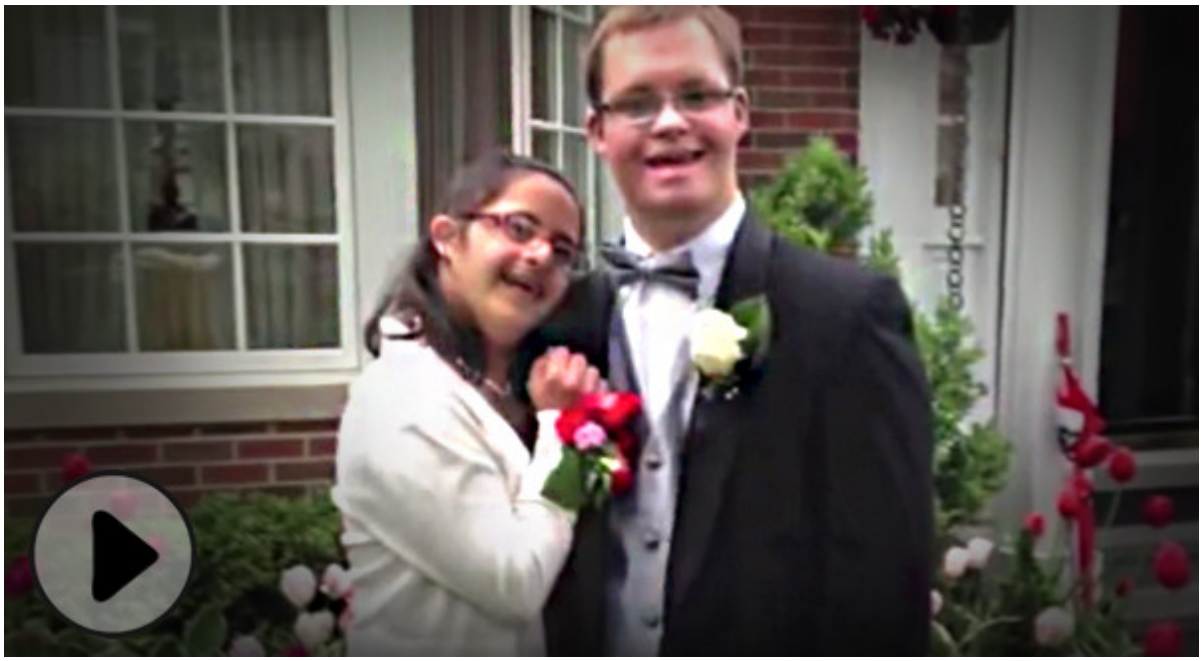
Additional rubric resources:

- The "Assessment and Research" section of Kathy Schrock's Guide to Everything has multiple assessment rubrics.
- The AACU VALUE Rubric development Project has excellent downloadable rubrics that hone in on specific learning outcomes including intercultural knowledge and social responsibility.

Student Work and Reflection

Matt's digital story, "Living with Down Syndrome" is a revealing story about his cousins; his story of how he formulated the idea for his project is also powerful from a digital storytelling standpoint. Watch his digital story and his reflection video on how he made the story and see how Matt took the concepts he learned in class and applied them organically to make this moving digital story.

Student Matt Welch on the making of the digital story *"Living with Down Syndrome"*



A digital story by Matt Welch, *"Living with Down Syndrome: More Alike Than Different"*

Teacher Reflection

Assessing a digital story takes time and thoughtful planning. The Chapter 4 teacher reflection video shows the struggles and successes teachers have had, and continue to have, when it comes to this challenging yet rewarding part of the digital storytelling process.

Assessing Digital Stories

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1. source: “The Waking” by Theodore Roethke ↲
2. source: edutopia.org ↲
3. source: VideoANT website ↲

5

CHAPTER FIVE | "WE ARE THE BATTERY HUMAN"

LINDA BUTURIAN

> Where are we goin' this fine morning?
> What are we doin' this fine day?
> We're doin' the same as ev'ry morning!
> We're stayin' inside on this fine morning.
> Stayin' inside on this fine day.
> We'll stare at a screen, like ev'ry morning.
> -Stornoway, "We are the Battery Human"[1]

Listen to Stornoway's "We are the Battery Human" provided with artist permission.

The digital story assignment assumes that an infrastructure of technology is accessible to all students, whether it is a tablet, a camera, and laptop, or more. Educators who are adapting digital stories into their teaching and learning are likely integrating technology into other aspects of their classroom as well, by choice or by decree. Technology's pervasive reach into our students' lives and our own, along with its global march and impact, begs for the same thoughtful scrutiny we give to other aspects of teaching.

According to the Kaiser Family Foundation, "Youth spend more than 7½ hours a day using electronic media, or more than 53 hours a week, the 10–year study says. And because they spend so much of

that time 'media multitasking' (using more than one medium at a time), they actually manage to pack a total of 10 hours and 45 minutes worth of media content into those 7½ hours."[2]

My family reflects these statistics. If you took a nickel from me every time my husband and I worried about how much time our daughters were spending on their devices, and if you gave me a quarter for every time we talked with our daughters to establish and maintain technology limits, you would definitely come out ahead.

The immersive nature of technology provides digital storytelling topics and research opportunities for educators and students alike. A topic that seems to be hiding in plain sight though, which I believe is elemental to the changing story of educational discourse, is the direct connection between our use of technology (mobile devices in particular) and its impact on our selves, other people, and living systems.

By applying the Backward Design model to the life cycle of the technologies we use in our classroom, and by allowing that to reveal our paradigms of thought about our relationship to technology, my hope is to help educators and students move from an unconscious use of technology to a more dialectical approach to technology. I use the term "dialectical" to mean holding in a dynamic tension contradictory views of technology. Applying the building blocks of participatory learning—transparency, collaboration, and critical thinking—to this endeavor will help us see the transformative power we as educators, and our students, can experience. Where relevant, this process can shape the scope of the digital stories that students create. Let's consider the material elements of mobile devices.

> "Much of the iPad's and its competing products' increased carbon footprint emanates from their need for rare earth

> metals, or "conflict minerals", which are critical for these sophisticated devices' functionality. The iPad and other tablet computers require coltan, the industrial name for columbite–tantalite, a dull black mineral from which even rarer elements are processed. While the recycling of electronics continues to improve, 70% of coltan still comes from mines. Over half of the world's coltan supply comes from Africa, where many nations like the Congo are either unstable or enduring civil war. One–quarter of the world supply of coltan is from Brazil, and another one–eighth is from Australia, so besides the human costs that come from these mining operations, coltan is transported long distances to regions like east Asia where these devices are manufactured." [3]

Pause for a moment and picture the number of devices you see in your schools and then imagine that multiplied throughout the United States. Expand globally. On a recent trip to Thailand I learned that the king of Thailand had committed to giving tablets to all second graders throughout the country; the magnitude of the need for conflict minerals is staggering and the impact on communities in the Democratic Republic of Congo (DRC) and elsewhere is devastating.

When I encountered this information, I went through a similar process as my students do when they discover that a water bottle is not only a convenient way to quench their thirst and that a cellphone is not simply a device that entertains and connects students to friends and loved ones. These objects are also cultural, political, economic, gender, and environmental signifiers, linking our lives to people and ecosystems near and far. My response, like my students, is personal and emotional. At first I blocked out the information, tried to minimize it, and then the horror and guilt

washed over me at the realization of my part in the reality that women and children in the DRC are being raped and murdered for my smart phone to send messages swiftly and to vibrate when I have a text. As a student activist for the DRC put it, "I'm carrying a piece of the conflict in my pocket." [4]

The emotional response to this information, and the resulting move to consider one's personal use of mobile devices, is an important step in transformative learning, as it connects students to global issues in a powerful way. Their natural inclination is to notice what is immediately around them and to do something about it – for example, changing their consumptive patterns. This move is empowering, and this empowerment is at the heart of transformative learning. Students are learning new information and applying it to their living; they go out and tell their friends and the world around them becomes a place that they are connected to and part of. This in turn motivates them to learn more through the digital story process, and to make connections with the information they learn from their research and interviews with experts.

But for those of us teachers involved in participatory education, our responsibility is to work with students to take that personal connection and link it to the political and economic systems as well as the ideologies that shape our society, so that students can analyze the assumptions with the critical thinking skills we are strengthening in order to participate in the process and marshal their academic skills to create more just, sustainable futures.

It appears that I am suggesting adding one more mandate to our overburdened classroom time — that we all teach natural resource justice and resource footprint impacts of technology along with our respective subject matters. I am asserting that by using technology in the classroom without unpacking the global and local

implications of the life cycle and energy use of that device, as well as the deeper issues associated with western use of technology, we are already teaching a world view. As educators we are giving our tacit consent to the zeitgeist of our times, a technical colonialism that outsources the cost and suffering and promotes a view of technology as ethically neutral, benevolent, and rightfully ours: these are simply devices for learning and consuming. By handing students tablets and using terms such as "the cloud," with no unpacking of the reality of energy production, data farms, carbon and water footprints, and impact on workers, communities, and ecosystems from our neighborhoods to the DRC, we are wearing the "black shoe" (Sylvia Plath) of colonialism that our forefathers and mothers used to kick off established complex communities of first peoples.

> "You do not do, you do not do
> Any more, black shoe"[5]

Can we agree that we are too far down the road in terms of greenhouse gases, resource use, and global awareness of our interconnectedness to perpetuate this kind of education? Our ignorance is a kind of poverty that others can see. This particular naiveté, our lack of awareness about the impact of our use of mobile devices, puts the "ugly" before "American." Our students deserve more, as do the Congolese.

It is tempting to think it's not our problem. Individually, we are so small. Shouldn't this belong to legislators and administrators of school districts and software companies? Yes. (See the Dodd–Frank Wall Street Reform and Consumer Protection Act Systems). There is movement toward conflict–free suppliers, but the progress is

glacial. There are tremendous learning opportunities here, and something deeper.

Analyzing our dependence on mobile devices and its ripple effect can be an essential part of modeling citizenship, and an important component of the transformative learning students can experience as they create their digital stories. If we do not integrate this information into our teaching, how will they learn to participate in this elemental part of the changing story? Our futures are intertwined with our students, and we need their generative minds and imaginations and desire to shape more just societies, to design more energy efficient devices, to forge partnerships for conflict free paths from extraction to use. And students are up for it.

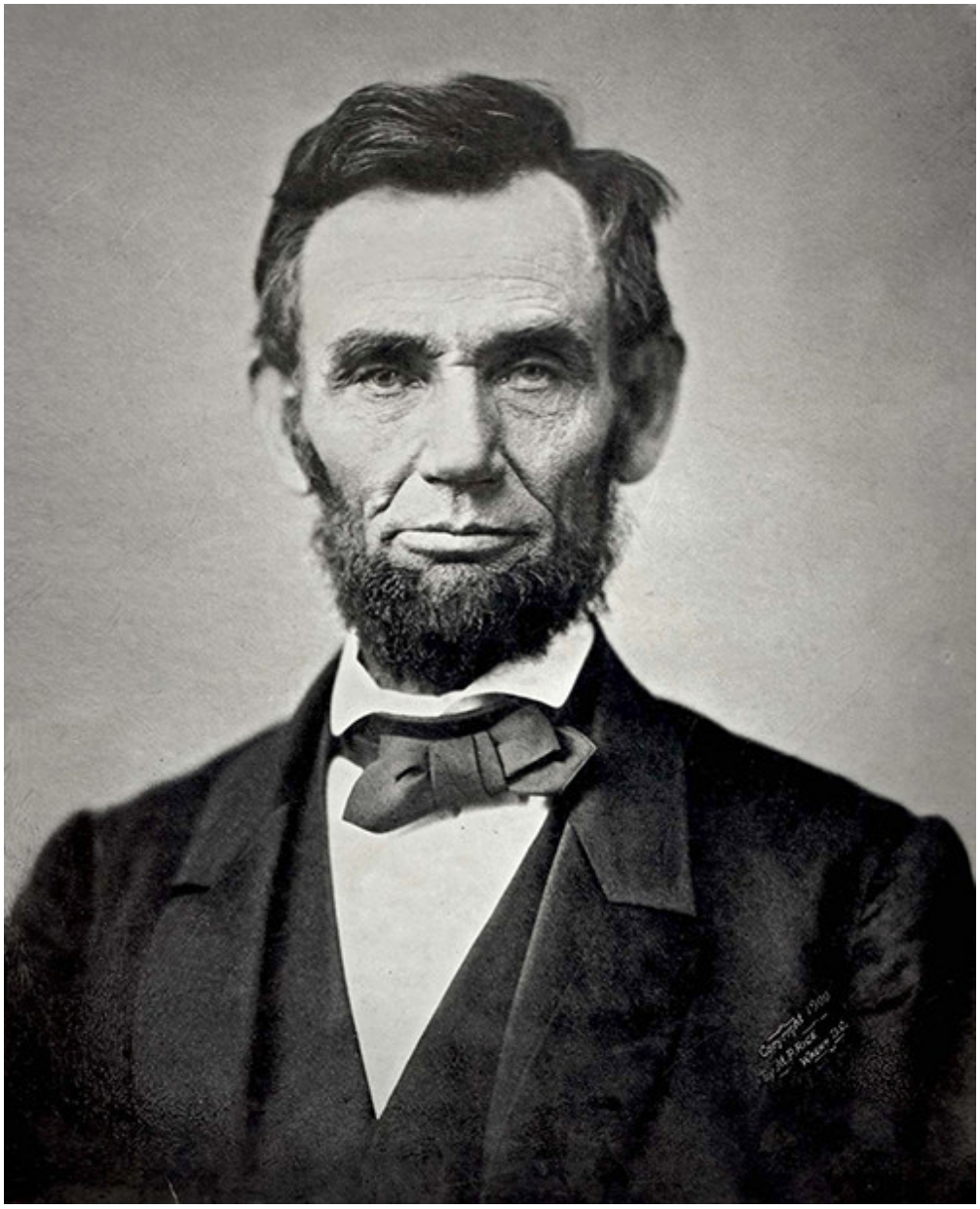
It is important for us to help each other and our students move from an unconscious to a dialectical relationship with these technological devices, not simply because it is the ethical thing to do, but because there is tremendous power in knowing and doing, in applying their education to making a positive difference in society. Through transparency, collaboration, and critical thinking, educators and students can grapple with the pervasive impact our devices have, and at the same time utilize these devices to participate in positive social change.

Am I suggesting we use iPads, smart phones, and laptops to create digital stories about the global impact of these devices? Please. And share them with your colleagues. But I am in year 4 as a faculty member participating in a college initiative where all incoming students receive iPads, and while I have made inroads empowering first generation and immigrant students with wise access to technology, reducing students costs, and helping students create compelling art and socially conscious digital stories, I have still not been able to integrate this information widely in the classroom.

The first step for educators is to decolonize our own minds.

We are a part of the zeitgeist of our times. I am as in–webbed as the next. We are "The Battery Human," members of a society that collude in giving technology power. We make sacrifices of time, money, and energy to it, and therefore it is more powerful than simply a combination of metals, plastic, and energy. Technology is a signifier that outs us yet we are so busy using it we don't notice.

We must, to borrow a phrase from Abraham Lincoln, "disenthrall ourselves" from the western capitalist notions of technology. Through knowledge, dialogue, and action, lift off the "mind–forg'd manacles."[6] that keep us in ignorance, and deprive us of the power to effect change.



> The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew and act anew. We must disenthrall ourselves, and then we shall save our country."
> Abraham Lincoln, Second State of the Union Address (1862)

This is a daunting task. Spend any amount of time researching and reflecting on the impact of capitalism, and the reach of technology,

both, combined, create a hegemonic hold on our capacities for original thought and envisioning societies where the least have what is necessary, and communities and ecosystems thrive.

> "So join the new revolution, revolution!
> To free the battery human."[7]

What happens in the classroom among students and teachers, the alchemy of learning, communicating, in a community, fosters hope. This is our hope. The complex challenges these students will be navigating require both a capacity to sit with not–easily–solved challenges as well as the empathic capacity to "experience" from another being's point of view.

The digital story assignment, when designed thoughtfully, can participate in desiring transparency, strengthening collaborative skills, engaging with complex subject matter, facilitating creativity, and understanding the other.

This hope is foundational to education, revealing the prevailing assumptions that shape societies, providing nurturing classroom situations to foster new ways of thinking, and considering old wisdoms in a new light.

I leave you with student Austin Hermann's digital story and his reflections on the impact it had on his life.

Together, we are changing the story.

Student Austin Hermann on where digital storytelling can take you

A digital story by Austin Hermann, *"Water Wars"*

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1. source: Stornoway ↲

2. source: Washington Post Tech blog ↲
3. source: The Guardian ↲
4. source: Raise Hope for Congo ↲
5. source: Sylvia Plath poem, “Daddy” ↲
6. source: William Blake poem, “London” ↲
7. source: Stornoway ↲

6

CHAPTER SIX | LEARNING THROUGH STORIES

LINDA BUTURIAN

> Life is full of stories. Or maybe life is only stories.
> -Ruth Ozeki[1]

What follows are story-like essays where I share experiences teaching with digital stories. As teachers we look for ways to model what we are educating in the forms that we choose to convey our subject matter; hence, I am employing stories to help us learn more about stories.

My aim is for you to learn about my challenges and insights in the classroom with my students in order to help you make sense of your experiences, as well as to aid you in considering the teaching and learning possibilities of stories.

Paired with each essay is an illustrated version (illustrated story). The illustrations were created by two student artists. My hope is that you do a kind of meta-analysis of your ongoing understanding of different ways of knowing, including visual learning. You could read the essay and then take a few moments to reflect on what you absorbed and how the textual form contributed to your knowledge. Then read and view the paired illustrated story and consider the alchemy of images and text–how the illustration and the writing work together, and how they impact what you learn, feel and think about. Then step back and move recursively between essay and illustrated story, and consider what was left out from the essay in the illustrated version, as well as the power the images generate.

Everyday Epiphany

Read the Essay

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.umn.edu/thechangingstory/?p=71#h5p-2

Illustrated by Young Ye

White Swan

Read the Essay

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.umn.edu/thechangingstory/?p=71#h5p-1

Illustrated by Young Ye

In the Beginning

Read the Essay

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.umn.edu/thechangingstory/?p=71#h5p-3

Illustrated by Lauren Cooper

If a Bridge Falls

Read the Essay

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.umn.edu/thechangingstory/?p=71#h5p-4

Illustrated by Lauren Cooper

Teaching in My Head

Read the Essay

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.umn.edu/thechangingstory/?p=71#h5p-5

Illustrated by Lauren Cooper

As a writer and a teacher at the university level, I care passionately about the need for students to know how to write well-crafted sentences, paragraphs, and essays. I have also come to realize the importance as well as the richness of the "combinatorial" power of thoughtful integration of images and text, as well as the elemental role of story in facilitating transformative learning. With that in mind, I hope you enjoy reading, viewing, and reflecting on these essays and stories. Thank you.

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1. source:A Tale for the Time Being ↵

7
APPENDIX: EXERCISES | THE CHANGING STORY

LINDA BUTURIAN

Exercises

1. Connecting students' interests and experiences to course themes in order to create relevant digital stories

Exercise 1.1

Freewriting, sharing, and providing feedback

In the first week of the semester I present students with one or two writing prompts that are comfortable for students to write about, and also connect to the course topic.

For instance, in the water seminar, I've had students write about an experience they've had that involves water—this could be a family fishing trip, a moment walking down the street and forgetting about time while splashing in a puddle, or helping their school lay out sandbags in preparation for a nearby river to flood. Before students begin writing I clarify this is not graded but will be worth participation points, and they will be sharing them with classmates.

I ask students to describe a true story of an experience that's happened to them. It can be happy, dark, funny, quiet, sad, simple, dramatic, or some combination of these. I encourage them to write in their own voice, usher in the five senses and descriptive detail, and I review the different perspectives (i.e., first, second, third) and suggest incorporating dialogue. I give them about 20 minutes and alert them when they have five minutes remaining.

Time willing, they read their story to one other student (and visa versa). Before they begin I discuss the importance of giving some kind of affirming feedback, as this is a process: sharing their writing and their experience on the first day with someone they don't know. I give them examples of quality responses. Rather than vague phrases, "I liked it. It was good," I instruct them to point to specific parts of the writing that really moved them or reflect on what the story made them think about.

I collect and read the freewrites and begin the process of keeping a mental file on each student of possible research topics. Over the next week, with students' permission, I put freewrites on the screen and have the students read it while I highlight how it demonstrates an aspect of strong writing and models different digital story topics relevant to the freewrite. When the time comes to brainstorm topics for their capstone digital story assignment, I either return the freewrites to them with suggestions for related topics written on them, or I remind students about them in person. Because they have shared their stories with each other, their partners can also notice and suggest topics that the writer may be too close to see.

The freewrite, shared reading, and feedback exercise also fosters the process of creating a sense of community in the classroom, which, in my experience, has been a vital element of transformative learning.

Note: Because the Water Seminar is writing intensive, the initial

freewrite assignment serves other purposes as well, including an example of what the student is capable of writing on that day. In case of possible future plagiarism in research articles, as well as in their digital story assignment, it has been helpful to have an example of the students' writing for comparison.

Exercise 1.2

Index cards on the first day

I ask questions of my students that yield more information about their interests by writing 3–5 questions on the board which they answer on an index card. I make this voluntary and all tend to complete it. Some questions I may ask are:

- What experiences have you had learning about water?
- When you think about water, what comes to your mind? Use descriptive words,
  images, and feeling words. You can also draw or sketch what comes to mind.
- What would you like to learn about water resource topics?
- Where have you traveled, and for what purpose? (for example, family vacation
  or church trip). *Many students have traveled with their family and have done*
  missions work, and these experiences have yielded topics for powerful digital
  stories.
- What kind of experience have you had working with photos, videos, and editing
  online – for example editing photos online, making slide shows, high school

yearbook? *Because the digital story involves use of technology, I usually ask*
a question about prior experience. This helps me to pair a more experienced
student with one who hasn't had as many opportunities.

- Please add anything else you'd like me to know about you, or draw or
doodle here. *If you are fortunate to have artistic students, you can encourage them to create art to integrate in their digital stories, and move in*
the direction of comic/graphic stories.

Exercise 1.3

Individual or small group conferences with students

During the first half of the semester I try to meet with each student one–on–one in my office or at a coffee shop. There is something about meeting students individually in a neutral, non–class environment that allows the conversation to travel to different topics, such as music, which can be relevant for the student's choice of music in the story, or interests such as space travel, sailing, or their desire to make a difference in the world. This helps me direct students to what they are inclined to learn more about.

2. Taking photographs and videos to strengthen students' ability to
create topic–relevant, aesthetically powerful, and culturally

respectful images

Exercise 2.1

Taking students out in the field with their cameras

This experience gives students the opportunity to practice their technical skills out in the field. In the water seminar, I take my students along the Mississippi River, which runs through our campus; shooting outside wakes up their senses to aesthetics and textures around them, which helps them to create stronger photos. Something alchemical also occurs on this field trip—an important shift from passive to active participation in their learning. The freedom and creativity to explore in this safe yet real setting is coupled with the mystery that this magic is hiding in their plain sight every day as they walk hurriedly past the Mississippi River to get to class, or as they run on the bridges as part of their exercise route. The power of making the river the classroom, of featuring it as central to their academic endeavors, participates in transforming their experience of in and out, living lab and classroom, urban and natural, mover and moved.

I often taught the water seminar in early spring; this is Minnesota mind you, so I warn them to dress for the weather. No matter how cold it is, we walk together to a pedestrian bridge over the Mississippi which faces the Minneapolis skyline and a series of bridges, locks and dams, the St. Anthony Falls, and the Guthrie Theatre, jutting over the water. It's dizzying, the beauty, the collision of nature and urban and past, present and future.

Everywhere we look there are angles, texture, shapes, and colors, and we have not even gotten to the Big Muddy yet, with it's dark swirling waters that inspired Mark Twain's *Adventures of Tom*

Sawyer, Langston Hughes's poem, *The negro speaks of rivers*, and provided the poet John Berryman a place to jump to his death.

Water Seminar group photo on the Mississippi River

Then we take a group photo. Sometimes I ask a stranger to take our picture, or I drag a tripod along and ask students to figure out how to attach the camera and find the self–timing feature.

I point out possible routes for taking photos, and discuss respectful photographing of people passing by. Then I stay on the bridge, where the students pile their backpacks, and give them a clear time to return. I require partners or small groups if they are planning to explore beyond my sight. Sometimes I collect cell phone numbers as I do not want to repeat the time when three female students found their way down to the riverbank and got so caught up shooting the contrast between broken concrete and light striking water that they lost track of time. I sprinted across the railroad tracks past a row of graffitid rail cars to the river, worrying about

the students but also practicing what I would say to the parents, "Um, I'm sorry, they just got carried away…"

Exercise 2.2

Practicing uploading and editing shots and peer–sharing of knowledge to a course blog.

Once students have shot out in the field, I take them to a computer lab or our classroom with their laptops/tablets, and work with a technology assistant to teach them how to upload images and video, and to resize, edit, and share their best shots with textual descriptions to a course blog. Students select one or two of their favorite shots, which they share on the blog along with a summary of what they liked or found successful about the particular shot or video clip, and include technical info about how they took it (e.g., "I tried six times to center the concrete slab just as the duck paddled by", or "I was concentrating on the texture of the rocks when a bald eagle flew over and I just aimed and shot"). Along with familiarizing students with technical processes, this exercise facilitates students sharing knowledge and collaborating on best practices, as well as practice sharing their work with a larger audience. Student–to–student learning is an essential component of the transformative process.

Exercise 2.3

Artist as a guest in class.

I bring artists into class so students have the opportunity to meet them, engage with their art, ask them questions, and grow from the feedback they can offer. The following is a reflection on two artists I

have brought into my classroom in the past, videographer Beth Anderson and visual artist Celeste Nelms.

Videographer Beth Anderson, from the University of Minnesota's Institute on the Environment, spoke on how she produced her 2-4 minute videos, and also gave feedback on a student digital story from a previous seminar so students could see what she, a videographer, noticed both in terms of technique and story line.

The students had already begun the process of weaving interview clips in with still shots, music, and text, so they were all ears to what Beth had to say. Of the many insights she provided, the one I highlight here is for students to consider the audio version of their digital stories as separate from the visual shots, so that someone who was only listening to the audio could follow the story line. Beth creates transcripts of her videos and chooses her interviews so that they satisfy the core components of her story; as a writer, this kind of revision of text in order to move the story along makes good sense.

Visual artist Celeste Nelms presented on her sepia photographs involving water. Nelms' art does not elicit a simple response nor does it yield all in one viewing. Her work is poignant, funny, and harkens from a place that stirs conflicting thoughts and feelings including nostalgia, agitation, and longing; the students were fascinated. I wanted students to struggle at levels where they would have to work hard to find words for, and then give them the space to write a reflection on their evolving responses to Nelm's work and to connect their insights to what they'd discovered about their topic and the creation of their digital story. I also wanted to create a place where they could laugh when art was funny, and to reflect on their own repulsion or shock as arrows into cultural norms they were brought up with. Nelms is not an eco-artist, yet her work confronts viewers with what they choose to value and abandon. So few of the

students had had the opportunity to talk with a working artist and they were shocked at how much work went into creating art. A kind of initiation or dawning emerged in their reflections on Nelm's visit. Art, like science, is exacting, has tenets and rigors, all while being a creative mysterious process.

There is representational photography and there is conceptual art. There are realistic depictions of an object, and creative thoughtful play with an object that disrupts our notions of what should be, which helps us to "see it slant" (Dickinson). Both kinds of artists can help students to foster a close gaze and a more nuanced aesthetic for their stories. Essential to students' transformative learning is this opportunity to look closely and engage with an artist's images, to listen to them discuss their artistic process and be able to ask them questions, to reflect on their myriad thoughts and emotions in writing, and then to share and respond with their peers.

I have students reflect on guest speakers' visits and instruct them to articulate specifically what they learned and how it will contribute to their digital storytelling process. Reflecting on learning is also an essential part of the transformative process as it deepens the student's own awareness of their learning and moves them further along in concretizing their knowledge.

Exercise 2.4

Attend and reflect on a public event by a photographer, photojournalist, videographer, or filmmaker.

To help students reflect on the social aspect of their image-taking as well as their digital stories, I invited *New York Times* photojournalist Ozier Muhammad to give a public presentation. Muhammad had just returned from Haiti and shared his post-earthquake photographs. Along with interested public, university colleagues and staff, I required my water seminar students to attend and then to write a reflection on what they learned.

Students need models of culturally respectful images, and Muhammad's photographs honored the integrity of both the viewer and the viewed, and are a reminder of the vibrant resilience of Haitians.

When students learn with community members and colleagues, they understand that their intellectual work is part of the ongoing discourse between what we do at the university, and events that are unfolding in our backyard and across the globe.

When I asked Ozier what advice he would give to students who were using images to help educate and engage the viewer, he said, "Use your images to move the story forward."

Exercise 2.5

Research good photographers, videographers, and artists and their work.

If you don't have time or access to a photographer or artist, assign students to research and share photographers and images they find compelling, and how they could incorporate some aspect of the

work in their image creation. Alternately, have students research techniques for creating good photographs, videography, and art. These exercises are good for a flipped or online classroom.

A few good videos for this exercise are:

- Visual Grammar Video
- Film Look/Shot Design
- Framing and Composition

3. Cultivating visual literacy

Exercise 3.1

Cultivating visual literacy through reading and creating visual communication of academic knowledge.

As educators, we often teach in the learning style we are most comfortable with. We are educating diverse learners – some think visually, others are very linear and text–based. Take, for example, Karen, the straight–A business student who had always done well academically, but had never been challenged to communicate her knowledge in a visual way. She inspired me to think about scaffolding assignments that would not make her experience of creating a digital story akin to being thrown in a cold pool in order to learn how to swim.

In this scaffolding assignment I asked the students to read an interview with ecologist Sandra Steingraber in *The Sun* titled "The Good Earth?" [1] Students were asked to create a visual representation of Steingraber's main points. As they read the

interview, they were expected to take marginal notes of when Steingraber connected her knowledge about environmental issues related to cancer to specific items such as baby bottles, house sparrows, and bottled water, as well as to take note of when she discussed concepts that could be represented visually, such as being adopted, or a fetus growing inside a woman's womb.

The students' task was to communicate Steingraber's points using images to represent those objects and concepts. They could sketch the images or use photos and illustrations from books, magazines, or online sources (I reminded them to track the citation of sources). On a separate page they were to pair their image with a brief summary of the points Steingraber was making related to that object (1–3 sentences in bullet points or paragraph). They practiced paraphrasing Steingraber's points in their own words, but when needed, took care to put quotes around Steingraber's word choice or sentences. (This assignment is also good practice for correct paraphrasing which is necessary for a digital story.)

Once students completed all of their images and brief summaries, they were to move the images around and shape them into a larger picture that was relevant to Steingraber's messages about the connection between man–made chemicals and materials and the rise in cancer rates: a kaleidoscope, river, globe, human, circle—there were many possibilities.

I assessed this scaffolding assignment on the content of their summaries, as well as the meaningfulness and appeal of the visual images, text, and larger image. The following two projects are successful because they are composed of relevant discrete images, and are also arranged to create a larger object that is both visually relevant and engaging.

Drawing by Fee Long Moua

Collage by Angie Offerman

Exercise 3.2

Fostering visual literacy through practicing a close reading of an image.

This exercise helps students to learn how to do a close reading of the visual text that is an image. In essence, you are helping students

draw a parallel between doing a close reading of a literary text and helping them become familiar with the skills necessary to closely experience and understand the power of the image. I chose photographer Gordon Ball's *"Cadets read Howl"* as an example because from the moment I first saw it postcard size on a professor's door, years ago, I stopped, stared, and in a sense fell into the spell of the photo, into the juxtaposition of crisp clean-cut military students earnestly grappling with Allen Ginsberg's searing poem *Howl*. In that moment I felt many things, including a kind of longing for how visual artists can
communicate paradox in an efficient manner, as opposed to the tools of my trade, arranging words into sentences into paragraphs to reveal a paradoxical experience. I also felt hope that a teacher at a military academy would assign *Howl*, and a sense of wonder that our world can contain such vastly differing realities in safe learning spaces.

Photo © Gordon Ball

Once you've chosen the relevant painting, photograph, or drawing, if possible, project the image, and have students have access to digital or print copies at their desks.

1) Ask the students to do a close reading of the image. You can have them work in pairs or small groups, or do a large class exercise. Assign each section of the class (or members of a small group) a different task that helps them study the image. Each group takes notes, discusses, and then should be prepared to present their findings. Encourage the students to pair their insights with specific details in the photograph and to use vivid, precise language to present their findings.

Group 1 is responsible for focusing on the **design** or **layout** of the photograph. Discuss foreground, background, lighting and its effect on viewer. What is the position of Ball when he took this shot? How does that impact what we see? What patterns and shapes do you notice?

Group two focuses on the **mood** of the photograph. How would you describe the looks on the cadet's faces? Consider the colors, the way the cadets are holding the books and sitting in their seats. Expand the photo and look at the cadets in the background of the picture. What is going on there and how does that contribute to the feeling of the photo?

The third group is responsible for **researching** relevant details of the image in order to help the class create a historical, political, and cultural context for the photograph. In this case, they could begin with the title, date, the photographer's bio and any relevant information about the photograph. What information can be found on the academy the cadets are a part of?
Research Allen Ginsberg's bio and poem *Howl*. Read excerpts.

2) Each group presents their findings. Discuss. Connect their

ability to analyze the image to their choices of images for their digital stories. If an image is a visual text, what does that mean for their stories?

3) If you have time and the inclination, you can turn off the projector, ask the students to turn over or off their copies of the photograph, and have them draw the image from memory. This reinforces their kinetic ways of knowing, as well as their subconscious and conscious understanding of the role of perspective, shapes, colors, and light source in impacting our understanding.

4. Analyzing the elements of a digital story as a class

Exercise 4.1

PSA/digital story review

Choose a digital story that features content you are addressing, and divide your class into groups of 3 or 4 to analyze different elements of the story from the list below.

As the class watches the digital story, each person should jot down notes on their respective element. Allow time at the end for group members to discuss their notes, and then have them share their findings.

Here are elements, and corresponding questions, I have students focus on:

Content

- Summarize what new things you learned about the topic.
- What questions do you still have about the content?

Music

- Note every time there is a shift in music.
- Describe the different kinds of music used and reflect on the effect of the
  music on your learning.
- Are there places where the music distracts or enhances your understanding of
  the topic?
- Is the music too loud, too soft, or just right?
- Is the music cited accurately?

Research Integration

- Note every quote and citation.
- Note when a statistic is used and if it is cited in the scene or at the end
  of the story.
- Did the creator of the story employ a skillful integration of research or did
  the research seem dropped in?
- Is there any research you wish you had more of? Was there too much research
  in places?
- Were there places where you wondered if the research was a correct paraphrase
  or possible plagiarism?

Images

- How many images were used?
- Were all the images photographs?
- Were there any charts or art?

- Gather your thoughts about the effect of the images. Were any too obvious,
  irrelevant, culturally disrespectful, or of poor quality?

Role of narrator

- How would you describe the narrator (first person, invisible)?
- Was the narrator present in the story? Did they use a voiceover?
- Did you feel a strong presence of the narrator, or did the narrator choose to
  stay removed from the story?
- What are your thoughts on the effect of the narrator in this story?

Arc of story

The Short Story Plot Diagram

The arc of a story is an important and difficult concept to facilitate when teaching the digital story assignment. As a creative writer, I try to bring the awareness of a story's movement from the beginning to its end, and the importance of the narrator in ushering the viewer into the world of the story. Before I do this exercise I briefly go over the traditional action of a story (see diagram). A good resource on narrative structure in writing that integrates digital media is David Reinhart of the University of Wisconsin Whitewater. [2]

1. How does the arc of the video story you are watching compare with the tradition short story arc? Note: there are many ways to

shape a story and I am not encouraging students to follow the traditional arc. More, I want them to become aware of, and to choose the arc of their digital story.

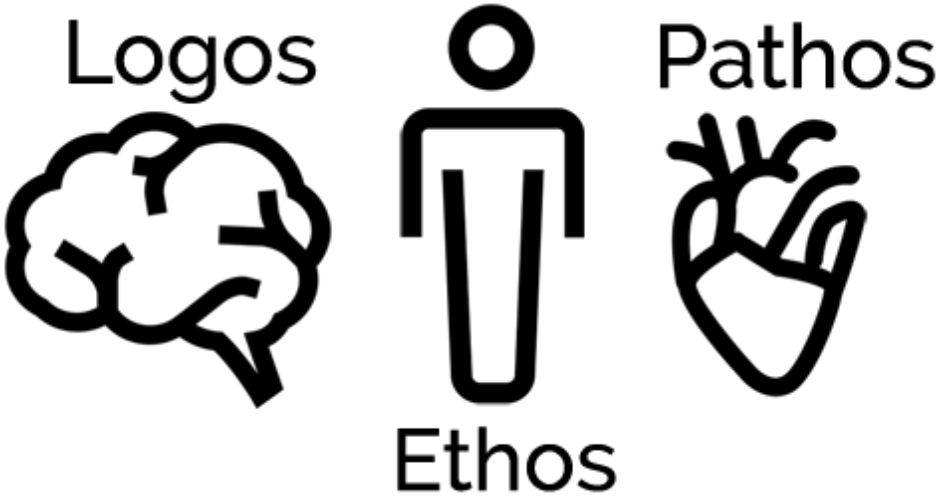
2. Did you find that the progression of the story was effective? If so, why? If not, how could they have organized the story in a more powerful way?

Emotional appeal

- What emotions rise up in you during this story? Point to specific scenes and places where you felt them.
- Were there places where you felt emotionally manipulated? Where you weren't sure what you were supposed to feel?

Ethos, Pathos, Logos

Sometimes it is helpful to assess the rhetorical use of ethos (gaining credibility, trust), pathos (appealing to emotions to engage the viewer), and logos (the use of logic and evidence to substantiate claims) in the digital story.



Logos, Ethos, Pathos Diagram

Takeaway

- What do you come away with after watching this story? What do you feel?
  Anger? Hopeless? Inspired? A call to action?
- What do you think the creator of the story wants you to take from this story?
  What would the creator want you to do?

Variations on this exercise

- Compare and contrast two digital stories about the same topic or choose a
  short film about your subject. Apply analysis to that film.
- This exercise also works well with the University of Houston's modified

  10 elements of educational digital stories. [3] source: Educational Uses of Digital Storytelling website

Exercise 4.2

Select a story to share and analyze

For flipped and online classes, or as a homework assignment, assign students to find a short informational film, PSA, or documentary on a relevant subject. Create a forum where students submit a summary/analysis of the film, which includes the producer, source, brief synopsis, and analysis on both form and content. Each student must also thoughtfully respond to two classmates' submissions.

5. Getting into the music

Exercise 5.1

PSA/digital story review

Having students analyze the impact of the music in PSAs or other digital stories is one way to help them become more nuanced in their own use of music, and pointing them to good models is another. Music is also the most thorny issue in terms of copyright (see the "Working through Fair Use and Copyright issues in reference to research, music, images, and video clips…" section of this chapter).

6. Making a two–minute movie

Exercise 6.1

Making and sharing two–minute movies in class or in an online forum

I always use this scaffolding assignment. Each student makes a two–minute (or shorter) movie which incorporates at least one image, one insight about water, titles, transitions, motion and voiceover: in essence, all the elements of a digital story, but in a low–stakes, fun assignment. Some choose to use this assignment to begin to address their digital story topic while others film a friend jumping through puddles or dogs drinking water at an animal shelter.

Students make their movies in iMovie, Windows Moviemaker, or another program of their choice. If there is time in class we have a mini "premiere" of the two–minute movies and clap after each one.

In a hybrid or online course I have students post links to their movies and require them to comment on at least two other movies.

Here is an examples of a student's two–minute movies from this exercise:

A digital story by Cece, "Water Dino Saves the Day"

7. Analyzing audience

Exercise 7.1

Find the Audience

Have students find examples of sources that address the same topic they have chosen but targeted to different audiences. For example, a children's book on water issues compared to a PBS documentary. Students bring in the sources, give a brief presentation on the strategies, and then make connections with how they will shape their story to their chosen audience.

8. Working through Fair Use and Copyright issues in reference to research, music, images, and video clips

Exercise 8.1

Review of the student's digital story transcript

Require a transcript of the complete draft of the student's digital story assignment. The process of writing down all the text not only causes students to think through the research integration, but also helps them to assess their story removed from the lure of images. The challenge with the transcript is it is time–consuming for them to create, and time–intensive for you, the teacher, to assess and respond to.

9. Interviewing

Exercise 9.1

Practicing the technology – In class activity where students conduct and film brief interviews with each other

This is the time to break out the equipment that you have access to: tripods, external mics, video cameras, smart phones, iPads. Pair up students and have them interview each other about something they know a lot about. It could be a completely unrelated subject matter, such as what their favorite late night snack is, or telling the story behind one of their tattoos. Have them time the interview and, if possible, give them time to compare two different ways of interviewing, for example a smart phone with an iStabilizer (mini tripod) and with/without an external mic.

Reverse roles. Once both partners have interviewed and been interviewed, upload the footage to the computer or tablet they will be editing on. Conclude the class period by having them share what they discovered. If possible, have them project a few seconds of the interview. This step is not only fun, but gives them a glimpse of the rendering and projecting processes.

Audio is by far the most challenging aspect of these interviews. Students shoot a great picture, ask excellent questions and yield rich responses, but what good is it if you can't hear it, or if the audio quality is so poor that the viewer must strain to understand?

Exercise 9.2

Preparing effective questions for real interview

I encourage students to begin their interviews with an easy question, such as how long the person has worked for the organization, or taught at the school, and to conclude with an open–ended question such as "Is there anything elseyou'd like people to know about….?"

Suggestions for helping students prepare for real interviews:

- Check the camera by videotaping for a few seconds, then playing it back
  before they begin the formal interview.
- Make sure the cameras are charged and there are extra memory cards and
  batteries with them.
- Have a back up plan: a digital voice recorder or a notebook and pen.

- Remember to bring the permission form and have the interviewee read and sign
  it before conducting the interview (when relevant).
- Require students to follow up interviews with a thank you note or email that
  includes their contact information.

10. Narrating

Exercise 10.1

View and analyze the role of narrator in two different digital stories, preferably addressing similar topics

Students write up a comparison/contrast and then articulate their vision for their own presence in their digital stories. This exercise can be done collectively as a class, in a flipped classroom, or outside of class. The following is an example of a subtle narrator presence in a digital story:

A digital story by Claire Kurschner, *"Water, Women, and Microfinance"*

11. Storyboarding

Exercise 11.1

Creating storyboards

A storyboard is a visual map, a series of panels that briefly describe the shots of a digital story. The storyboard accounts for what images will be paired with which text, audio, and the sequence of the shots and information.

When I first required storyboards, students created them by hand or by using text boxes in a Microsoft Word document. Dozens of apps and programs have emerged since, and continue to proliferate. Popplet is a favorite among students and me. Drafting out the discreet scenes by hand is still an effective way to help students

connect and anticipate elements of their story, and to track the progress of their narrative arc.

12. Online peer review of complete draft of digital story

Exercise 12.1

Peer review of stories in rough draft form to gain feedback and learn how other students are organizing their stories

The most effective method I've used to help students create strong finished projects in class is to require a complete draft of the digital story with enough time for peers and me to give feedback via an online annotating tool, such as the free University of Minnesota–developed VideoANT. To reinforce the importance of revising the draft, build points into your rubric or evaluation for this specific step such as:

- Suggestions for providing helpful feedback for students on complete drafts of
  their stories.
- Review of digital story draft.

Back to Chapter 3

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1. source: Article: The Good Earth ↲
2. source: Article: The Good Earth ↲

8
COPYRIGHT | THE CHANGING STORY

First edition published January, 2016

Second edition published January, 2017

I have tried to recreate events, locales, and conversations from my memories of
them. In order to maintain their anonymity in some instances I have changed the names
of individuals and places. I may have changed some identifying characteristics and
details such as physical properties.

Design by Susan Andre

Production and editing by
Thomas Nechodomu

All student examples of digital stories are the property of the student and are used with their permission.

All poetry, art, photography, video, and music is used with permission of the
artist and is excluded from the Creative Commons license; artists retain original copyright.

9
MANDALA | THE CHANGING STORY

"Classrooms as a Mandala"

a collaborative digital story

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://pressbooks.umn.edu/thechangingstory/?p=43#h5p-6

The mandala of meaning-making, created by sands of our communal experience, are swept up and released into the waters of life, yet don't disappear but are dissolved into living memories that we carry with us.

A mandala is…
An integrated structure
organized around
a unifying center
– Longchenpa

The essence of a mandala can be found in the circle as "mandala" literally means "circle" when translated from ancient Sanskrit. But a mandala is more than just a circle: it is a container of essence and a

circle within a circle… **we** are a mandala. The idea is that our life is a cycle, repetitive yet whole, and that there is a distinct correlation between the orbits of nature and the nature of our humanity.

Mandala History

Mandala–like patterns have been observed across the ages from the Native American plains Indian tribes to Carl Jung's "Jung Mandala". Through the years, Celtic culture used the symbolic circle in the Celtic knot while Christian culture illustrated the intricate design of the mandala through the creation of labyrinths. Although no single culture is credited with the origin of the mandala, arguably the most common usage of it dates back to the 4th century BCE through Tibetan Buddhist art. The mandala is dynamic, depending on the culture utilizing it.

Mandala Creation

The center of a mandala is where a deity is said to reside, and the designs surrounding it are the temple and metaphorical path that one takes to reach the deity/enlightenment. After the site has been blessed by the four monks who will be creating it, grains of colored sand are arranged into the design over the course of days or weeks. The sand is filled in segments, with one monk working on each of the four sides. As each layer is constructed, starting from the center and working out, the monks wait for each other to finish before moving on. In this way, the mandala symbolizes the power of respectful collaboration.

Mandala Dissolution Ceremony

An enduring theme of the mandala is the impermanence of life. After weeks of meticulous effort to construct the mandala, it is dissolved. Once the mandala is swept away, the monks bless the sand and pour it into a nearby flowing water source. As the sand is released into the water it's healing powers are able to spread to the rest of the world while also returning full circle back into nature.

Invisible Work

by Alison Luterman

Because no one could ever praise me enough,
because I don't mean these poems only
but the unseen
unbelievable effort it takes to live
the life that goes on between them,
I think all the time about invisible work.
About the young mother on Welfare
I interviewed years ago,
who said, "It's hard.
You bring him to the park,
run rings around yourself keeping him safe,
cut hot dogs into bite-sized pieces for dinner,
and there's no one
to say what a good job you're doing,
how you were patient and loving
for the thousandth time even though you had a headache."
And I, who am used to feeling sorry for myself
because I am lonely,
when all the while,
as the Chippewa poem says, I am being carried

by great winds across the sky,
thought of the invisible work that stitches up the world day and night,
the slow, unglamorous work of healing,
the way worms in the garden
tunnel ceaselessly so the earth can breathe
and bees ransack this world into being,
while owls and poets stalk shadows,
our loneliest labors under the moon.
    There are mothers
for everything, and the sea
is a mother too,
whispering and whispering to us
long after we have stopped listening.
I stopped and let myself lean
a moment, against the blue
shoulder of the air. The work
of my heart
is the work of the world's heart.
There is no other art.

The Tools We Need

Bread & Wine

by Anna Bullard

Cloud of Chalk

Felt Eraser

The chalkboard eraser was invented in 1863 by John L. Hammett when he was giving a presentation and happened to discover that wool felt strips cleaned off a slate chalkboard better than rags. Many students who have attended schools with slate chalkboards may recall the all-important duty of going outside after class to clean the erasers, commonly done by clapping two against each other or by pounding them against a brick wall. While harvesting components of an eraser don't necessarily negatively impact the environment, cleaning them caused a significant amount of chalk dust to get into the lungs of people, causing them allergies and coughs, which offsets the nostalgia for slate chalkboards many teachers feel as we continue the transition to white and smart boards.

Our Epiphany

Our classrooms are piles of grains of sand of ideas and knowledge that beg to be tediously compiled into colorful and dynamic mandalas that awe and inspire us. This mandala comes at a very real cost to us, though, in the form of time and effort and natural resources. Our epiphany comes about when we realize that teaching and learning are more than sitting in, or standing in front of, a

classroom; we must know and accept the full impact our teaching has on the world if we'll ever know and accept the full impact our teaching has on our students. –>

Our epiphany comes about when we realize that teaching and learning are more than sitting in, or standing in front of, a classroom; It comes about when we realize our impact on the world which includes our effect on our students.

How We Mark

Chalk

Chalk is composed of Calcium Carbonate, a compound created naturally from dead marine animal shells in aquatic environments. The first traces of chalk date back to prehistoric times when early man used it for cave paintings; it wasn't until the 1800's when the blackboard began to take center stage in the classroom, that the use of chalk began to appear in schools. Anyone who has experienced a 20th century classroom recalls the pesky chalk dust that can permeate a classroom. For this reason, chalk was feared to be the source of respiratory problems. As a result, chalk use has declined in past years as alternative methods of classroom writing have taken its place, most prominently the dry erase marker and whiteboard.

Dry Erase Markers

Dry erase markers consist of a plastic barrel and cap with a porous, pressed fiber element inside (such as felt) that holds the ink. The convenience of writing and erasing without getting chalk on your hands and in your lungs is a nice trade-off for a device that leaves you clean after using it, but the impacts on the environment are

real. The plastic that dry erase markers is made of is almost always unable to be recycled and as many teachers could attest, they end up in the trash can faster than you can say, “where’s a marker that isn’t dried out?”

Questions as a Mandala
The University Avenue Project

by Wing Huie

In “The University Avenue Project” Wing Huie created a human mandala of sorts consisting of 500 photographs of people in a culturally rich urban setting. Huie handed each person a slate chalkboard and asked them a series of questions, and they chose one to answer, writing their response on the chalkboard.

The questions:

- What are you?
- How do you think others see you?
- What don’t they see?
- What advice would you give to a stranger?
- What is your favorite word?
- Describe an incident that changed you.
- How have you been affected by race?

How would you answer?


All are
Same.


I hope they will
not dispoint me
but love me.


Never let your
Fears Determine
your
Decision


Don't
Mess
with
Reality

About the Photographer

Wing Young Huie has been photographing the dizzying socioeconomic and cultural realities of American society, much of it centered on the urban cores of his home state of Minnesota. Although his work has been exhibited nationally and internationally, his most well-known projects are large-scale public installations, including “Frogtown” (1995), “Lake Street USA” (2000) and “The University Avenue Project” (2010), which transformed major Twin Cities’ thoroughfares into epic photo galleries, reflecting the everyday lives of thousands of its citizens in the midst of some of the most diverse concentrations of international immigrants in the country.

From Slate to Circuits

Chalkboard

In 1801, George Baron of West Point Academy came up with the idea of a large blackboard which was the size of a wall; a larger version of the personal sized slate slabs students were already using. Aptly named, slate chalkboards are made from slate, a fine grained rock composed of clay and shale. These materials are extracted from the earth through a process called quarrying, which uses a combination of drilling and explosives to surface the rock, leaving dangerous footprint- creating pits that are many times used as either waste landfills or unstable water collectors.

Whiteboard

While writing notes on his film negatives with a marker pen, a

photographer named Martin Heit noticed that he could erase his writing by wiping a wet rag across the glossy surface. Whiteboards are made in two forms: melamine and porcelain/enamel. Melamine whiteboards are typically found in home offices where the whiteboard is used sparingly, due to the weak nature of melamine. Porcelain surfaces, on the other hand, are much more durable and are the type of whiteboard most commonly found in classrooms. Composed of nickel, cobalt, and glass heated to over 1700 degrees Fahrenheit, porcelain whiteboards have been a classroom staple since their commercial debut in the 1960s.

Smart Board

In 1986, David Martin and Nancy Knowlton had an idea to create an interactive board that had the simplicity of a whiteboard, but with the capabilities of a computer. Five years later, the smart board was born. The smart board is the first interactive whiteboard of its kind, fostering collaborative community in the classroom through the touch control of computer games and software projected onto the whiteboard screen. Since smart boards are a relatively new technology, their popularity has not peaked as it continues to rise in popularity; by 2011 more than 2 million smart boards had been installed worldwide.

10

LINDA BUTURIAN

Every Day Epiphany

By Linda Buturian

Dare I eat an orange? No time for peeling.

Yogurt?

Forgot the spoon.

The hunger I feel after teaching is akin to the student athletes' who come to class straight from practice and set up a minimart of food on their desks.

I move to the board as students gather their backpacks, talking and heading past me through the open doorway. As I erase their story topics I think about how class went and what I need to do in the 9 minutes before the next one.

I forgot my adaptor, had to ditch the powerpoint, and failed to remind them of their next reading assignment.

Tom fell asleep.

Again.

Technology

The t.v. wireless worked for the first time, and students were able to connect to the projector from their tablets at their seats. After weeks of futzing with the technology I experienced what could be—

the flow of discourse unhindered by students walking up, plugging in to the central system and getting presentation nerves. I sat next to Maya near the back while they took turns connecting and sharing their research on their digital story topics–clips of interviews with first generation freshmen describing their adjustments to the U, a data map showing the Twin Cities as a hub for human trafficking, statistics about food deserts in urban and rural communities.

The conversations that emerged among and across these topics felt like we were building something together.

Maya

So much depends on Maya's presence, the invisible line connecting her to me and the other students, the quiet way she has of elevating our discussion. She missed several classes, with no communication. While I erase the digital story topics I consider again the obstacles to her success.

I may have just enough time to eat an energy bar while I go to the bathroom.

I pause before erasing Roethke's line, *"I learn by going where I have to go."*

When I asked Maya to read the poem, "The Waking," she stared at me, as if to say, "**Do I have to?**" Then she inhabited each line and didn't give in to the singsong tendency of the rhyme scheme. The students leaned in to understanding the poem and connecting it to their process of developing their stories.

Mandalas

Morning light from the window tugs at my attention and from this second floor classroom I am level with a pair of red–tailed hawks soaring the currents in the blue sky over the dark swirl of the Mississippi.

I glance at the Minneapolis skyline and the light settling on the twin blue and red–paneled apartment complexes, once referred to as the crackstacks, now home to hundreds of Somali families. When I return my focus to the board, I enjoy the back and forth motion of wiping things clean.

The movement of my hand erasing students' brainstorms brings to mind Tibetan monks dissolving their carefully constructed sand mandalas.

I think about the hours they spend sculpting intricate beautiful mandalas of colored sand reflecting Buddhist culture, which they then wipe away as part of the dissolution ceremony.

In the years since I learned about this cultural tradition, the idea has, as Frost wrote, *stuck to me like a burr as I walk through the field of my days*.

This creating and devolving of a mandala reveals the cycle of our existence on earth. We are born, we come together, we create, and then we pass on, our remains mingled with the elements.

My hand pauses as it comes over me then—the classroom, the board, and what the students and I do every day—is a kind of mandala that we create together.

My mind stalls at the thought that the elevated ceremony the monks enact could somehow correlate to teaching.

No one's going to come to watch me erase a whiteboard or help students understand paradox. I feel strange. For years I have been teaching about epiphany in stories and now I find myself in the midst of one. I let out the breath I didn't know I was holding and become aware of Maya waiting for me by my desk.

Every Day

Every day across the globe, teachers and students compose a mandala of stories: the story of the subject matter, the stories

residing in the teacher and in each student, and the collective story of what is occurring right now, which includes the physical space of the classroom, the light, the time of the day, and all of the stories of the days that came before, and that are coming in the future. The created community is a kind of threshold, this place with these students at this shaping time in their lives.

Digital Stories

Digital stories, at their best, contribute to this dynamic mandala by connecting students' experiences to concepts, research, social challenges and solutions, through the ancient form of storytelling, while harnessing the newest mediums which link students to each other, to the larger community, to land, and other living beings.

At its worst, digital media, stories included, increases the digital divide, capitulates to stereotypes and first level thinking, distances students from each other and the subject matter, and adds to the burden on both students and teachers by perpetuating being "distracted from distraction by distraction" (Eliot).

Every school district in Minnesota is adopting some version of mobile device initiative, and this is unfurling throughout the United States, and globally.

What we as educators are experiencing in our classrooms is occurring in school districts and homes throughout the western world. It is as if we are moving in slow motion through what physicist Thomas Kuhn described as a paradigm shift (*The Structure of Scientific Revolutions 1962*).

While the monks are deconstructing the mandala, they gather sand in a bowl and consecrate it by adding water from a local source. They pour the sand in the water. The sand and water are changed, bonded.

So too the students, and me, as they leave my classroom and

move through their futures.

Stories

Stories are an essential element in the bonding of learning.

Stories in suburban American classrooms, private schools in Dubai, in refugee camps and villages, cannot be erased.

They can be hidden, beaten, standardized, sanitized, monotonized, and commodified, but they endure, and perhaps even thrive, and one of the fulcrums for this possible flourishing is this unlikely technical vessel, the digital story.

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11

LINDA BUTURIAN

White Swan

by Linda Buturian

First class.

Mistakes were made.

The room that Central chose—a long rectangle that felt like an annex to a funeral parlor—was too small for the 60 students crammed against each other in little desk chairs. The textbook order never made it to the bookstore, which I discovered in front of the class as I was reading through the syllabus, expecting the usual nods at the part about required books and instead received an eruption of raised hands and confused expressions. My new TA stood off to the side talking to the bookstore in hushed tones on her cell phone. I felt like a flight attendant during extreme turbulence. This first class of the *"Introduction to U.S. Literature – Multicultural Perspectives"* course resembled my teaching anxiety dreams.

Second class.

I walked down the hall of a building I'd never taught in before trying to locate the replacement classroom.

At the end of the hallway was a sprawling potted cactus backlit against the windows. The strangeness of it in this industrial space made me pause. Was the cactus living, dying or long dead? My mind flashed on Bob Dylan, *"That he not busy being born is busy dying."*

The basement classroom buffeted me with heat and a garish orange light out of *One Flew Over a Cuckoo's Nest*. The space dwarfed the few students who had arrived earlier than me. Sweating, I studied the series of 10–foot long windows, which looked busy being closed. A young man rose from his seat near the front, picked up a metal pole and used it to unlatch the levers at the top. As the cool air seeped into the room I felt affection for him which the grading part of my brain batted down.

The class enrollment went from 44 to 60. There were assurances that the class size will most likely return to 40 next semester. Class size belongs in that part of the Teacher's Serenity Prayer, "fight for small class size", then "accept the things we cannot change." If teachers are fortunate, like me, they have a director who shares their belief in and advocates for keeping the numbers down, but class size is often the domain of the hungry ghosts of commerce and efficiency. It is as if teachers and even their supervisors are on one of those walking belts in the airport which spirits them along to a destination not of their choosing. Teachers everywhere stand as I do, facing a class too large in a room ill fit for their best hopes.

60 students stared at me from rows of desks attached to seats. They were mostly seniors and juniors: engineering, business, science, nursing, kinesiology—satisfying their liberal arts credit. This was most likely their one shot at a close encounter with the literary kind. I have found these classes particularly satisfying in providing a creative space for students pursuing more linear, mathematical programs. When they can apply the focus and logical precision to literary analysis as well as access their creative potentials, the kinds and levels of discourse and discovery is gratifying.

And yet.

I commuted home in the dark puzzling through the irony that I was teaching a literature class with a multicultural focus, and yet a third of the class which were International students, students of color, and English Language Learners (ELL), representing cultures as diverse as Somalia and South Korea, said very little. Their writing revealed a depth of engagement and a nuanced understanding of the images and themes, but most of them were silent in all class discussions and often listened rather than talked in small group discussions.

In regards to the collective, what good is a diverse classroom if the diversity isn't ushered into the learning? I felt like a farmer staring at her field, knowing that good seeds were planted, knowing what the seeds needed to flourish, but not sure how to go about tending to such a large field.

Culture not busy being born is busy dying.

How do I foster easy comfortable dialogue with such a large class? The literary analysis assignments were all text based and graded on one's ability to communicate their understanding in writing. What assignment would put students in the driver's seat, enlarge our understanding of culture, and integrate with literary works? How to feature culture in ways that are relevant to the study of literature, that create an environment that allows students to share their rich traditions?

The many white students inhabit a rich multitude of cultural traditions often invisible to themselves. How to help them access the layers of culture they take part in, which will help open the doors to other students experiences? What will encourage them to share their cultural experiences with the International and ELL students?

A good story is both a window and a mirror.

A story reveals characters and landscapes that are new to our eyes, and yet, at times mirror our own experiences. What if, rather than having students only analyze other stories, they become the storytellers, and they choose which story they want to feature? A story that is both a window into their insights and a mirror. That featured a conversation with someone about that person's cultural tradition that they took part in? Over the next weeks I talked with colleagues about their assignments that foster understanding and sharing of cultural knowledge as well as integrates a cultural artifact (object). What if I combined the use of digital media with cultural artifacts?

It is not a good idea to design new curricula during the semester. This falls under the picture of "Don't do this" — the one with a red diagonal line slashed through it. Mistakes will happen. But sometimes we teachers have to take matters in hand, now, like a farm wife struggling against a bawling windstorm to pull down the bed sheets from the line before they get drenched. I asked my colleagues to share their cultural analysis assignments, gave the class structure a good shake or two, and settled it into the basket of my course.

Culture in a Story Assignment.

Divide class into groups, ideally with 5 students per group. In our case we had 4 groups with 15 students in each.

For four two-hour class sessions, we all met for the first hour, then during the second hour, I dismissed all but one 15 person group, where students in that group shared their Culture in a Story assignments.

Highlights

An Indian student showed photographs of her mother and father, and passed around her mother's wedding Sari as she shared her

mother's story of arranged marriage. The student added that this was the first time she and her mother discussed the marriage tradition as they made Lassi for our class. This assignment brought her mother's life, culture, home to her.

An Asian student pulled up images of his grandfather who had been conscripted as a young man to fight in the war. He called his grandfather on the phone. The soldiers starved and froze in the mountains. They used cardboard for shoes. His grandfather emerged from this experience in his life adamantly against combat, war, ever since.

A white student made Lefse with her Norwegian grandmother while they discussed how she had learned to make it from her mother, and how Lefse was at every holiday meal. She passed out copies of her grandma's recipe, and enough lefse for all to share.

The last one to present was an international student from South Korea, who had a brown paper grocery bag tucked under his chair. He chose to call his father in South Korea and ask him about the cultural symbolism of white swans. It is rare to see a white swan in South Korea. He talked with his father about what he remembered of their trip to the mountains several years ago (I think he was about 14). They came across the first white swan in nature that the student had ever seen. His father stopped in excitement and as they watched it fly over the mountains, he explained that their culture believed that seeing a white swan is good luck and if you make a wish it will come true. His father wished for a better life for his son than he himself had. During their phone conversation his father said his son being able to come to the states and study at the university was proof that his wish came true. After the student projected photos of his father on the overhead, he said, "I didn't know what object to bring, so I just ended up making one." He

reached into his bag and lifted out the white origami swan he created from 180 pieces of paper. We gasped. He knew origami, but had never made a swan before, so googled the design and created one. He passed it around. I held the swan in my hands, wondering at the sturdy lightness of it, the precise symmetry of the folded white papers, the swan–like beauty of its curves.

Mistakes were made.

Risks were taken.

Stories were shared and culture took flight.

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12

Essay:
Teaching In My Head

by Linda Buturian

I glance up at the clock to see there's five minutes left in the seminar.

It's Pavlovian, the connection between me looking at the clock and the students starting to put their devices in their backpacks and moving for their coats. "Hold on now." It's hard to still that momentum. "Next class we're going
to focus on the role of music in the alchemy of your digital stories. The songs you choose can be like a magic carpet that your viewers are carried on to experience your topic, or they can be a distraction that takes away from what's important.
Music is also a royal pain due to copyright issues. For the next class we'll focus on the magic. I want each of you to choose a song that fits with your topic, whether it's the lyrics or the feeling of the song —hope, anger, or information
about your topic. Come prepared to discuss it. We'll also analyze a few digital stories and focus on how the music either reinforces or undermines the content."

Like a long exhale they are out the door.

Karen lingers. She never does. From her front row position in the class and her blonde smiling straight–A Carlson Business School demeanor, she seems to have it all figured out. There is no sparkle

in her blues eyes as she explains, “It’s
just that, I mean ask me to write a paper any day and I can do it no problem, but I’m not technical, I’ve never played around with a camera. They say we’re visual learners but I’m not. I’m just afraid I don’t know how to explain what
I know, you know, not only in writing but with pictures.” A tremor in her lip.

I do what I can to assure her. She looks unconvinced, thanks me, and leaves. As I zip up my ugly brown down coat, bind my wool scarf around my head and face, and walk the four blocks to my car, I parse out Karen’s fears. There’s the fear of technology
which I share and can help her with, but her other anxiety stems from the vast, cumulative monolith of western education that trains students to only communicate knowledge through words and numbers, then sends them out into a world vibrating
with dimensionality.

The winter cold body–searches me, patting down every exposed gap. People rush forward heads down in the grey light as if we are extras on a set of a dystopian movie in an ice age the deck of climate change dealt us. I locate my car on the
third floor and join the lines of others exiting. At 4 degrees, the fuel exhaust from the tailpipes is in stark relief, breath–thoughts made visible escaping from each car; koans of our individualism.

As I merge onto the highway I am trying to match the ripple of my whistle to Andrew Bird’s mighty one at the start of *“Spare–Ohs”*, a song about bird mortality due to pesticides, and love.

“The finches and sparrows build nests in my chimney
With remains of the small flightless birds that you failed to protect
But the yoke isn’t easy in fact it’s a drag
As they’re blowin’ through cornfields and mountains of rags

All over the suburbs across the great lawns
And they're cropdusting gardens all over this town."

Why did I not fill up yesterday on my day off? Because it was too cold, so now I must stop, and it's still too cold. I crank up the volume and leave the door open as I pump gas, then sit watching the cars streaming by on the highway like an armored battalion. Where are we headed, I wonder. What are we defending?

Andrew Bird bellows, *"But nobody cares when it gets in their hair. It gets in their lungs as it floats through the air. It gets in the food that they buy*
and prepare, But nobody cares when it gets in their hair."

I pull my collar closer, an eye on the gas pump, considering how Bird's lyrics go from the specific to the global–sparrows in his chimney to the death count of lost species, and then from the global back to the specific—pesticide use
and our hair. It occurs to me just now that this is in essence the power of the digital story; it couples the student's specific narrative with the broad concept or subject matter.

Click.
Diesel on my mitten.
I swish the tip of it in the dirty washer fluid chunked with ice then wipe it on my coat.

Eating dinner with my daughters and husband, I find myself half–listening to stories of their day while I ponder Karen's fears and how in the next class we could not just talk about music but have students experience its power. HERE NOW.
When I lived in Oregon I used to play tennis with Ruth, a Californian transplant in her mid–50s who hit 3 times a day. At the net I asked her one day what she did for a living and she fished out a business card from her bag, which read:

HERE NOW

Her card flashes in my mind as a signal that I am, once again, teaching in my head, and I turn to my family and the delicious pasta that Jeff prepared for us.

Later, washing dishes at the sink, staring out at the cold dark, Andrew Bird's
"Spare–Ohs" loops in my mind as I try to map out how students will work in small groups while they are listening to, what? Doing, what?

2 a.m. I jolt awake from a dream of a figure in an old–school astronaut suit staring at me as he stands in front of an industrial site. The husband snores. The mind's on fire. Perhaps I could play students a song that demonstrates a topic.
Have them listen, and then get them in small groups to discuss how the song contributes to their knowledge. I lie in the dark, imagining teachers everywhere as they are moving through their days,
chewing on a bagel, jogging down the sidewalk,
while also teaching in their heads. Imagine if we got comp. time for these hours.

Thinking about teaching, while not actually working, could be considered a kind of "beautiful obsession" (V.Morrison), but I am increasingly resistant to any thing that pulls me away from the present. As I watch my students, my family,
me, and really most everyone I know experience the fragmented disruptions of our western, technified lives, I think our ability to be fully present in the moment should be added to the threatened and endangered list.

The next morning in the shower as I am singing
"Spare–Ohs" I have an epiphany. I could play Andrew Bird's song about pesticide spray and birds! (Bird, birds!) I'll print out his lyrics

and pass them out, then students could discuss in small groups and then brainstorm
about the music that relates to their topics, and together go over the Fair Use criteria and apply it to their songs.

As I commute in the predawn darkness I am working out the epiphany. I envision the ideal class, me as DJ with big headphones spinning Andrew Bird's record, the class imbibing his meaning, and them become engaged citizens and active participants
in intellectual discourse.

In my office I type out the lyrics on my new laptop, press print and trot down the hall to the printer/copier. No printing job. Sprint back, more like clomp due to my winter boots, check my computer, go back, see a colleague at the printer running
a hundred copies, and now it's too late for another attempt. I bundle up and rush across campus to class.

9 a.m. I enter the room where the seminar students are already seated and experience the silence that occurs suddenly after animated chatting. I am untangling cords and plugging in the adaptor trying to connect my laptop to the central system
to project in order to display the lyrics as well as my typed directions for the small group activity. Sweating, I glance up at the wall clock, regretting the choice to keep on my wool socks and boots. The one student wanders in late and approaches
me while I'm struggling. "I'm sorry about missing the last couple classes, I had personal issues, did I miss anything important?"

Thought daggers.

I ask him to catch up with me at the end of class. As I step behind the podium, hands raise. I nod to Austin. "Did you want us to write down something about our song to hand in?" Rattled by the technical challenges, I shake my head

no, not remembering all I was going to say to frame Bird's song. I was relying on the lyrics.

"So, we're going to do a practice run. I'm going to play you a song by singer songwriter, Andrew Bird, who is describing how pesticides are being sprayed all over fields and in our lawns, and how they contribute to the death of birds, and
in part because we can't see pesticides we don't care whether they get in our hair and food, etc. So just listen, and then we'll discuss. Andrew Bird's 'Spare–Oh'"

But nobody cares if it gets in their hair...

At the end I wait a few seconds to let the power of his song soak in, then ask for comments.

Silence.

The Inuit have over 50 words for snow, and as a veteran teacher I've discovered a long list to describe the different kinds of silences that occur in a classroom. There are the silences of rebellion, frustration, confusion, and my favorite–the
silence of a class of students bent over their notebooks writing, which is akin to holy reverie. This is clearly not that kind of silence as I can practically see the question marks above students' heads as they try hard to please me, to understand
what I am asking of them.

Austin the Brave asks, "Could you help us out by telling us a little more what the song is about? He kinda mumbles when he sings."

"Um, ok, pesticides, which are petrochemicals, made from oil, and how they are sprayed on our lawns and fields and then drift on the wind and get in our hair and bodies and can disrupt our endocrine systems and give us cancer…Wait,
do you all know what pesticides are?"

"Kinda, but how does this relate to water?"

HERE. NOW. Another kind of silence is the kind where the teacher pauses to consider her options when something she's tried, fails. It feels like hours, those moments in front of a waiting class of students. I could have them listen to Bird's song
again, then go online to research pesticide use and its impact on groundwater and runoff, or accept that I have had a long time to gestate Andrew Bird's music, and his song is a closed door to them in this brief, out of context situation.

"Alright, this is what we're going to do. For the next few class sessions, I want volunteers to bring in a song that's relevant to your topic. Come with a link to lyrics or print copies for the class, write down the album title, song title,
musician, and the copyright info. Revisit the Fair Use criteria at the library site and determine if the song is copyright protected and whether you can use it. Also, summarize your digital story topic, what you want viewers to come away with,
and how the song relates to your topic. Who wants to go first?"

Hands shoot up, then a few more. We make a schedule. Claire says, "I could go today if you want. I think I'm ready."

I take a seat toward the back, next to the one student who tends to nod off.

Claire attaches her tablet to the central system, locates the lyrics and song. "My topic is about water problems in India and how the lack of clean water relates to women's rights, and how microfinance can play a role in empowering women.
At first I was going to use a song that I really like about power and social justice, but then I thought about setting the tone with Indian music, so I went to one of the copyright free sites you mentioned and I think this is ok to use, its
royalty free."

The rhythmic beating of the drum and the ancient sound of the sitar fill the room.

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13

LINDA BUTURIAN

In the Beginning

by Linda Buturian

1981

In the beginning was the word. I wrote to understand and give shape to stories of my life. Then came the camera. I saved up money waitressing at Friendly's and my mom helped me buy it for a high school graduation present. I drove downtown to Click Cameras and the owner helped me choose the Sigma 35 millimeter.

I loved that camera: lining up the holes on the film's edge onto the teeth, the satisfying snap of the back door, and turning the lever to wind up the role. The wait and then the wonder of picking up my package of photos to discover what I captured. (Also, disappointment.) I ignored the manual except to learn how to load/unload the film. It was fun, figuring it out as I went. I would take my camera down to Clifton Gorge and climb on the rocks over the river and shoot the light on moving water on different settings.

That camera was my companion through college, studying abroad, moving to different states, and into the first years of marriage including heading out west in our Volkswagon van. It was the only camera I used for 20 years.

And still I wrote. Writing and pictures together helped me to see my life and to create stories of my living.

2007

In the beginning was the big cardboard box that leered at me in my little office like a menacing animal. Someone had unlocked my door and it was there when I arrived. I convinced the department chair to purchase cameras for my students to make digital stories for a new seminar I designed on water resource topics. Four digital cameras, 2 video camcorders and two tripods.

How did I get here, next to this box?

How do you make something real?

I wanted to make water real for my students. In order to bring the dynamic qualities of water to life, students needed images along with writing. I wanted to access students' visual ways of learning, and to give them a way to share their stories with the public so that they could see that their academic work is a vital part of the discourse around social change. Each student, using cameras and computers, would create a short kind of documentary that they produced and shared.

What was I thinking? I had stopped using my camera years ago as I was busy teaching and raising children and tending a home, which was about the time it all went digital. My husband took the photos and family videos. It was easier to let him do it. I hadn't taken one picture with a digital camera.

I turned to my computer for distraction but I just changed from a PC to a Mac and I couldn't figure out how to find my email. I looked down at my scribbles from my previous meeting with the tech fellow. Hieroglyphics. My face flushed as I replayed earlier in the day in front of the class not being able to project my presentation from my Mac. I felt like a student with learning challenges who reacts defensively when s/he is threatened. I am convinced that technology has a will and that will is against me. A

part of me is shot through with fear that I do not have what it takes to figure out how to learn. And now I have ushered in Pandora's box.

How can wanting to make something real come down to a bunch of technology?

What does it mean to bring images into academic work?

Remember when you were little and frozen in bed in the dark because you knew if you moved a muscle your movement would activate IT and IT would find you.

I forced my hand to dial the phone.

"PsTL Tech fellow Caroline speaking."

"Um, the cameras. They are here–"

"Great! We'll be right down."

Vicki and Caroline came in smiling as if they didn't see the beast. They approached the box, excited. Pulled out the cameras. Started snapping and clicking and actually reading the instructions.

"Wow this has 8 megapixels with a 10X optical zoom. Students will love playing with these." As they looked through viewfinders and read the manuals, they brainstormed about how to ID and package the cameras to make it easy to check out and for students to use and share.

I nodded and smiled while inside I quaked.

"Here."

Caroline held up a digital camera to me.

"Take a picture."

I stared at it.

"Like this." She came over and showed me where to look, how to focus, and which button to press to take the shot.

My hands copied her moves. I peered through the viewfinder and took photos of them with thumbs up. I shot the box. I got up and

looked out the window at the Minneapolis skyline, then zoomed in on the river below.

In the beginning were people who helped me.

2008

Students make their way along the river, taking photos of the Big Muddy, turning to catch the bald eagle peering at them from the tree-lined bank. Another student has the video camera on the tripod to practice for his interview with a water resource specialist. Students on the bridge are capturing the Minneapolis skyline, the sweep of the Mississippi, the visual stir of past present and future. They are figuring it out as they go.

In the beginning were the students. They compelled me to conquer my tech-fears to guide them in creating stories about water, shaped by their unique personalities. They inspired me to believe that our academic work can be dynamic and part of the changing story.

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14

LINDA BUTURIAN

If a Bridge Falls

by Linda Buturian

August 1, 2007, 4:30 pm

Jeff drives south into Minneapolis on Interstate 35, the girls in the back seat with headphones on. I'm looking out the window, trying to ease the pain in my foot by pressing my heel to the floor. Jeff turns off I35W to Hwy 280 to go to the running store in St. Paul. I talk to the owner about my plantar fascia and he directs me to a pair of shoes and shows me how to stretch. I am happy when he gives me a free pair of thick socks I would never buy myself.

As we drive to the Stadium to meet Jeff's coworkers and to watch the Twins baseball game, he lists everyone who is coming. It is rush hour and we inch nearer, find a parking spot, then walk toward the stadium. Helicopters circle and there seems to be a lot of police. We live in the country and don't know what's normal, but why so much security for a ball game?

6:00 pm

We find our row and the friends who had arrived and settle in, waiting for the empty seats between us to be filled. We eat popcorn and hot dogs and check our phones to see where the others are. There are lots of cellphones on the ears of people.

There is the current before the knowing. An electricity among us

and throughout the stadium. One of Jeff's coworkers announces that the I35W Mississippi River bridge just collapsed and there are still four friends who haven't arrived who would be taking that route. We all pull out our phones to make calls and find out details. The lines are jammed. A co-worker who is listening to the game on his radio updates us. During rush hour, when the interstate bridge was packed with eight lanes of bumper-to-bumper traffic and construction vehicles and equipment, two lanes of the entire span of the bridge collapsed in sections. Some cars fell on a freight train that was passing under the bridge, others plunged 60 feet into the Mississippi River.

No announcements over the loudspeaker. It is as if the air in the stadium has been sucked out of all of us as we are frozen in the intake of breath before feeling. Murmurs and worried looks and phones. The dull crack of the bat in the green far below. As each friend arrives and all are accounted for, we heave in relief. We try to enjoy the game.

We walk to our car and tell the girls to put their headphones on and listen to music, so we can hear the news. We need time to figure out how to explain to an 8 and 6 year old that London Bridges Falling Down is not just a nursery rhyme. And to keep them from images of the bus with over 60 kids which is teetering against a guardrail next to the collapse, with a nearby semi in flames. Several people are identified as dead, with more to be expected, and many are injured. Every ambulance in Minneapolis has been called in. Governor Pawlenty declares this a "catastrophe of historic proportions" and vows to spend millions on rebuilding the bridge and inspecting other bridges across Minnesota. Jeff and I rewind and calculate the time we would have been heading to the I-35 bridge had it not been for the pain in my foot.

August 8, 2007

I commute in the dark, listening to the news as I drive on I35. "Structural flaws" which were reported by MnDot, combined with the heavy weight of traffic and construction equipment, seem to be the cause. Nine people are dead, over a 100 injured, and more are missing. The husband of a woman who was killed says that Governor Pawlenty should be charged with murder. I am thinking, along with the grief over people lost, about the environmental impact of a bridge and so many cars collapsing into the already undermined Mississippi river.

Three lanes of traffic on I35 slow as we approach the site of the collapse. It is surreal, the floodlights positioned across the freeway revealing a blockade of orange construction barrels. In a dreamlike procession we all funnel off on the 4th Street exit, my turnoff. Waiting on the ramp, I stare down at the blockade and workers and trucks. It is eventually my turn to drive over the 4th street bridge and as I am merging and braking, I glance left at the three lines of headlights approaching on the highway I just drove on, and then right. I could hit a tennis ball to the edge of the collapse. Lights beam on an irruption of boulder size chunks of concrete piled atop each other, zig zags of twisted metal and glass like Frankenstein's incisions, dirt and jagged rebar and steel pieces and machines and workers and cops. Spotlight on an apocalypse, an abyss, on Dickinson's "zero at the bone." I grip the wheel and inch forward.

I am in front of my class of students who have pinched faces and hunched bodies and I don't know what to say. We are animals without an alpha, forced from the den of our protection. I ditch my lesson plans and ask the students to move the rows of desks into a circle. We sit in silence then slowly share who we know that is

connected to someone who was on the bridge, what we fear, what this means.

August 8, 2007 – September 18, 2008

Back and forth I commute and for the next year watch the highway and bridge being built faster than Moses parting the sea. I listen to the stories of the family members of the victims, and of those who survived the collapse and are recovering from blunt trauma injuries and PTSD, noting that, aside from the first report of the husband declaring Pawlenty should be charged, this part of the narrative disappears from the media coverage and is replaced with discussions of which entity is at fault, and terms including: "structural deficiencies", "girders", "corrosion on gusset plates", and "trusses." Millions of dollars has been directed at statewide review of all bridges throughout the state.

From my second floor classroom I look down on the Mississippi River and watch as a barge appears loaded with steel gusset plates and trusses from the bridge, and the big machine with the pincers picks up and places them on the opposing grassy bank of Bohemian Flats. Tiny men waving arms direct the arrangement. The metal trusses look like rusted Sanskrit, eerie and beautiful, characters of words with no meaning forming a language we don't understand. The language of money and blame, resolutions and lawsuits, life after death.

Day after day after month after month those plates and trusses wait like floating signifiers until they become fixtures we don't see anymore and then suddenly they are gone. Shipped to D.C. for court cases. People's conversations are now only punctuated with talk of the bridge collapse. We are experiencing the smoothing over of time, the erasure of media memory. Grass is seeded, watered, and greened on the riverbank.

The bridge is built earlier than the year estimated time of completion. It is white and gleaming and thick with sturdiness and the highway is smooth and welcomes us again, the huddled masses, in our automobiles. We drive and remember and drive and forget.

End of October, 2008, 4:00 pm

Across from the Coffman Union I am sitting on a cement bench allowing myself to lean back on the brick wall, waiting for the #16. Lots of people stand around me, looking the same way down University street. I am tired, backpack on ground, my feet sore in my comfortable not-cool shoes. I rise slowly in anticipation of my bus. A female student peers at me and asks, "Do you remember me?" I do.

We sit next to each other, catching up on the years since she was in my class. As we cross the Mississippi, we look over at the cars streaming along the new I35 bridge and I murmur about how fast it went up.

She nods smiling then not. "My Aunt was on that bridge. And my cousin." Her lip quivers. "It took three days for us to realize they were missing, and two weeks before they identified their bodies. We had to wait to have a burial and a ceremony." I touch her arm. The air around us shifts and passengers that didn't seem to be listening exude sympathy as they too have been holding the memory like a conversation that is waiting for the next voice.

10:30 pm

I shut my book, turn off the light, and close my eyes to find the aunt and cousin there, approaching the bridge in their car then dropping 60 feet into icy cold water and settling with the others in the river. Concrete. Trusses. Darkness. Fish darting away.

Fish darting away. I watch as the aunt and cousin turn into fish and swim upward from their metal coffin. As each of the 13 victims

who died in the collapse become different kinds of fish in the Mississippi. They move with the current through the river then swim into our minds, into the collective memory of all of us: Governor Pawlenty, eyewitnesses, ambulance drivers, EMTs, the police, doctors, nurses, hospital workers, morticians, journalists, photographers, camera crew, funeral home owners, architects, bridge-builders, construction workers, welders, pavers, insurance agents, lawyers, government employees, legislators, pastors, commuters, teachers, students, artists, neighbors, family members, mourners throughout the world. Even as we carry on our lives looking away, forgetting them, they swim in us.

Back to chapter 6

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Resume reading
Chapter 1

ABOUT THE CREATIVE TEAM AND ACKNOWLEDGEMENTS

About the Creative Team | The Changing Story

> "Students led me to integrating digital stories in my classes and they inspired me to create this book." Linda Buturian

Linda Buturian is a writer and teacher in the humanities at the undergraduate level at the University of Minnesota. In 2008, Linda taught her first digital story assignment in an undergraduate seminar of 15 students. The seminar introduced students to water resource topics, and Buturian chose digital stories to replace the research paper because she believed that students would learn and communicate their findings about water more effectively in this visual multimedium. That first year, all sense would flee from her when she'd push a wrong button in class or was confronted with a technical question that she didn't know how to answer (and there

were plenty). Her lack of affinity for technology put her in the unexpected position of a learner, which continues to inform her design of digital story assignments. What led her to persist, to seek out colleagues and technical staff and apply for academic technology grants, was the students' increased engagement with the subject matter, their deep investment in their digital stories, and the transformative learning that occurred, in great part due to the process of creating digital stories.

> "I want to usher that energy of exploration into our learning. My students are invested in the dynamic discovery of learning through the combinatorial force of images and writing." Linda Buturian

As a writer with a background in the humanities, Linda approaches her digital story assignments as distinct rhetorical situations and builds toward the final product in a similar manner as she would a major writing project, through scaffolding exercises, feedback on drafts, and opportunities for revision. The low–risk exercises isolate one of the elements, techniques, or content issues students need to create powerful effective stories. These scaffolding exercises are designed to be adapted for all students, from K–12 to graduate, as well as local and global community programs.

In 2008, Linda was referred to as an "early adaptor" in digital storytelling and in the sped–up world of technology, was soon being called upon as an expert. She has integrated digital story assignments in all of her face–to–face and hybrid undergraduate courses and has worked with other educators to do the same. Her knowledge and experience has led her to present on integrating digital media in teaching and learning. "I want to usher that energy of exploration into our learning. My students are invested in the

dynamic discovery of learning through the combinatorial force of images and writing."

Linda is the author of the book, World Gone Beautiful: Life along the Rum River *and received the University of Minnesota College of Education and Human Development Distinguished Teaching Award in 2012.*

Susan Andre is a design leader in web projects, educational tools, and content strategy in the College of Education and Human Development, and teaches Media Design in the School of Journalism at the University of Minnesota. She is an interdisciplinary designer and developer with a passion for innovation, technology, and fine arts. She combines her interests in design, communications, and the arts and applies them to emerging technologies. Susan has worked on projects ranging from project management of a documentary on the genocide in Rwanda to shooting video and photography on the impact of globalization on people living along the Mekong River in Northern Thailand. Her artist books have been collected by the Musuem of Modern Art in New York City, Banff Centre in Calgary, and private collections in North America.

The first time Thomas Nechodomu taught, at the age of 16, he used a non–traditional style of creating highly engaging physical learning spaces that drew his students in and made them visibly excited to learn—their excitement inspired him to spend his life exploring how to help others experience learning in the same, fascinated manner as he does. As an instructional designer, Thomas' practice is informed by his passion for learning, his expertise in adult learning theory and sound pedagogy, and his deeply–held belief in the efficacy of breaking traditional teaching models to accomplish new, exciting, and engaging paths to learning. Thomas lives in a converted railroad freight house in the Lowertown neighborhood of Saint Paul, Minnesota with his husband, cat, and their 1,100 books.

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One or more interactive elements has been excluded from this version of the text. You can view them online here:
https://pressbooks.umn.edu/thechangingstory/?p=221

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- Creating Identities through Art & Performance
- Literatures of the United States, Multicultural Perspectives, and Stories of Social Change: Global Perspectives
- Solving Complex Problems: Mississippi Global & Local – Community-based Approaches to Living with Rivers, Sustainably
- Global Change in Thailand 2015: Learning Abroad Course

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