

# The Expansion of Digital Storytelling into Content Area Instruction

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**Abstract:** To help attract new graduate students and also to help integrate technology into content area courses, faculty members at the University of Houston began teaching “linked” pairs of courses in 2006, by combining a graduate course on digital photography and storytelling with a popular culture in education course. Based on the success of this coupling, another pair of linked courses, combining digital photography and storytelling with a course on the Historical Development of Children’s Literature, was developed in 2008. In this article, the authors discuss the need for these linked courses, the benefits to students and instructors, and an overview of the specific technology tools and resources used in the courses.

## Dealing with a Decline in Master’s Degree Enrollments

Over the past several years, the number of Master’s students enrolling in Instructional Technology (IT) courses at the University of Houston has seen a gradual decline. Although the number of doctoral students has remained the same, or even increased over the past five years, the number of Master’s students admitted to the IT program, one of twelve program areas within the Curriculum and Instruction Department, has declined significantly. Since 2003, Master’s student enrollment in the IT Program area has declined approximately 60% (University of Houston, 2008).

Faculty members in the IT Program have investigated the cause of this decline and found several possible causes. One factor is that enrollments have been affected by the changing state of technology both in schools and throughout society. A decade ago, many students enrolled in the IT Master’s Program because they wanted to learn more about computers and how to harness the power of instructional technology. In the mid 1990s, a rush of new technologies became available that could be integrated into the classroom and facilitate instruction in new and unexpected ways. Many students applied to our program hoping to learn to design websites, create and evaluate distance education projects and gain skills in developing multimedia-rich instructional materials. However, as computer technology has become more affordable and easier to use, individuals who earlier might have considered pursuing a Master’s degree in IT found they no longer needed this degree to gain technology skills and expertise. The growth of the World Wide Web has provided potential students with access to numerous technology tutorials and answers to their most frequently asked questions, some of the same information they would receive in Instructional Technology Master’s

courses. Although, our IT Master's Program contains a varied mix of theory and hands-on application courses, we believe some of the decrease in enrollments is due to the fact that graduate courses are just one of many ways technology skills can be acquired today.

Another factor that has contributed to the reduced number of Master's students enrolling in our IT courses is the reduced incentive for in-service teachers to return to graduate school to pursue a Master's degree. In the public school system in Texas, a Master's degree is not a requirement to become a certified teacher, and in-service teachers who do earn a Master's degree find that the increase in pay they receive once they obtain the degree amounts to only a fraction of the cost that was spent obtaining it.

In the past, many in-service teachers came into the IT Master's Program, hoping they would be able to move out of the classroom and into a position as a technology specialist or facilitator for their school or district upon completion of the degree. However, over the last few years, schools and districts in southeast Texas have markedly reduced the number of these positions, and many existing teachers, curriculum specialists, and librarians who do not possess a Master's degree are being hired for these remaining jobs. Additionally, the ever increasing cost of tuition and fees students must pay to complete a Master's degree is one more reason we have found that enrollment numbers have declined in many program areas, including Instructional Technology.

## **The Push for Integrating Technology in the Content Areas**

At the same time that enrollments have declined, our university, like many similar educational institutions, is encouraging faculty to embrace the use of instructional technologies in their teaching and create innovative ways to deliver course materials to students. Hiring, tenure, and faculty compensation decisions in recent years have begun to include an examination of how faculty members are using technology in both their teaching and research. In addition, as at many other institutions, the push for faculty to tie technology use to their particular content area is being encouraged across the entire university, in our College of Education and in all of the program areas in our Department of Curriculum and Instruction. We are in the midst of a push toward what Mishra and Koehler (2006) describe as the basis of good teaching with technology, by combining technology expertise, with sound pedagogy and strong content area knowledge.

## **The Emergence of Linked Courses**

Against this backdrop of declining enrollments and the push for more and better integration of technology, faculty members and administrators in the College of Education at the University of Houston are exploring ways to both attract new students to enroll in graduate courses and to design and deliver more innovative and technology-rich course offerings. One of these approaches we began using is the "linked courses" model. In these linked courses, two faculty members, one from the IT Program and the other from a content area, work together to offer two courses where the content is thematically and pedagogically connected, with a major emphasis on technology tools and resources. Students who enroll in one of the linked courses are required to enroll in the corresponding linked course so that each of the two courses contains the same group of students.

The benefits of using this linked course model are many. Graduate students at the University of Houston, who typically work full-time and enroll in courses part-time, are able to gain six hours of credit by taking the linked courses instead of the usual three hours they receive when taking a single graduate course. In addition, students' skills in the use of instructional technologies are increased when this technology use is tightly integrated with the content knowledge covered in the companion linked course.

There are also benefits for the faculty members who teach linked courses, as they are intellectually challenged and inspired by teaching alongside a faculty colleague. Faculty who teach a linked course may choose to either modify an existing course or create a new course not offered before, but in either case, we feel the linkage helps make the content and presentation of course material fresh and interesting to students. Additionally, we have found that that connecting the content area instruction with technology assignments and projects provides a much stronger educational experience for students than when the IT courses are taught as individual stand alone courses.

### **A Shift in Focus for a Digital Photography Course**

The Educational Uses of Digital Photography and Digital Storytelling is an Instructional Technology graduate course at the University of Houston's College of Education that has been offered since 2004. Over the last few years, the content of the course has gradually moved away from an emphasis on digital cameras and photographic techniques and moved more toward the use of digital images in designing and creating digital stories (Robin & Pierson, 2005). In the course, students learn to use a wide range of digital imaging tools including still image digital cameras, graphic scanners, and various websites that provide access to digital images, such as image search engines from Google and Yahoo. However, the most important shift in the course over the last few years has been to connect the technology of digital imaging and storytelling to content area themes and concepts and the linked course pairing has proved a successful way to do this.

### **The Evolution of Popular Culture and Digital Storytelling**

We have now offered the Digital Photography and Digital Storytelling course linked with the course on Popular Culture in Education for three years in a row (Robin, 2007; White & Robin, 2008). In the Digital Photography/Storytelling course, students use a popular culture topic as the basis for a digital storytelling project due at the end of the semester. Students create and collect still images, speeches, music, video clips, conduct interviews with content experts, write and re-write scripts, develop storyboards and design and create digital stories based on their popular culture theme. Thus, this linked pair of courses combines the resources of two different program areas in our College of Education and attracts students from both program areas, Instructional Technology and Social Education.

The Social Education program area at the University of Houston addresses issues in social studies education, media and cultural studies, and critical pedagogy within a broader context than traditional teacher education. A particular focus is on community collaboration and alternative texts for teaching and learning, all within a critical context advocating more democratic education. All courses have community service and “doing” social education components, and the program area continuously seeks ways to deliver courses through non-traditional approaches, including online, hybrid, and off-campus offerings. Thus, the linking of an IT course and a Social Education course provides a fertile testing ground to design an innovative course offering which will both attract new students and extend the scope of our curriculum.

The Popular Culture in Education course is required for graduate students in the social education program area. The program area includes students completing their social studies teaching certification while also completing their Master's degree, as well as students who are already teaching and are working solely on a Master's degree in social education. A smaller number of doctoral students also take the course. The purpose of the course is to investigate popular culture as a tool or strategy for teaching and learning. The underlying theme of the course is that popular culture is a powerful societal force that has great potential for critical application in the classroom. The course is comprised of face-to-face, online, and community-based popular culture projects.

An issues-based approach to popular culture is a particular focus. Therefore, cultural studies and media literacy are themes addressed throughout the course. Cultural studies suggests allowing for multiple perspectives within popular culture, focusing on alternative texts employed by different groups, students, gender, race, ethnicity, etc. Media literacy suggests that several critical issues are embedded in popular culture including the following:

- Economic, market, and consumer issues
- Cultural preferences and social factors
- Ideology, dominance, and agendas
- Mass appeal issues
- Moral panic issues

A major underpinning of the course is that teachers and their students really need to critically investigate such issues in a broader context as these issues directly affect our daily lives.

Initially, students are asked to critically investigate the concept of popular culture in American society and its potential role in schools. Much of the course is web-based with students analyzing readings and reviewing web sites focused on aspects of popular culture. Media literacy modules comprise the essence of the first half of the course as an online extension. Subsequently, general popular culture/media studies themes include the investigation of music, movies, television, literature, sports, and technology. Community-based investigations include experiences at art museums, theaters, lectures, festivals, volunteer opportunities and other related events.

Students are placed into groups to research specific popular culture themes. They are asked to conduct a seminar that engages the class in critically investigating their particular theme. The investigation should include modeling of popular culture integration in teaching. It should also integrate a variety of technology/media, which is where digital storytelling comes into play. Students are also asked to complete various popular culture reflections and engage in online discussion based on the theme for each week.

Perhaps the dominant text in the course is technology. Technology is critically investigated as an alternative text and example of popular culture early on in the course. The Internet is used in each class with references to relevant web sites such as You Tube and Google Video samples, the class online discussion forum, and new technologies including Podcasts, Blogs, and Wikis. Traditional technologies such as PowerPoint, DVD, and CD are also used. Ultimately students are asked to develop digital stories as an integral part of their major project for the linked courses. The popular culture themes selected by students over the last three years are shown in the tables below.

Art	The Berlin Wall	Fast Food
1st Generation Americans	Heroes	John Lennon
Guns and Violence	Hollywood's Portrayal of African Americans	September 11 <sup>th</sup> Terrorist Attack
The Palestinian Conflict	Marathon Running	Tattoos
Teen Pregnancy	The American Dream	Football
Television	Childhood Obesity	Vietnam
Race and Prejudice	Print Media	Dealing with Disease

Table 1: Popular Culture Themes used by Students in 2006

Music	Media Literacy	Cartoons
Television	Sports	Technology
Food	Fashion	Propaganda
Art	Technology	Movies
Literature	Print Media	Toys and Games

Table 2: Popular Culture Themes used by Students in 2007 and 2008

Evaluations of three semesters of these linked course projects has shown improved application of popular culture as an alternative text in secondary social studies and particularly more creative applications of technology with digital storytelling. Many of the students have gone on to present their classroom successes/applications of their linked projects at local and regional social studies conferences. Some have continued on into further degree programs exploring related topics. Others are participating in two large grant projects that have technology and alternative text applications as particular goals for improving the teaching of American history. What we are definitely seeing is the improved application of technology tools in student developed projects – class projects, history fairs, etc.

In future semesters, we hope to continue with the linked popular culture and digital storytelling course, increase application of this type of instruction in our grant projects, and possibly work toward the establishment of a university center for innovative technology and history education. Such projects will serve to facilitate more systemic integration of these applications in schools and society.

## **Of Pilgrim's Progress and Digital Storytelling**

Based on the success of the linked courses with the Social Education program area, in the fall 2008 semester we began a new pair of linked courses combining the Digital Photography and Digital Storytelling course with a course on the Historical Development of Children's Literature.

The Historical Development of Children's Literature is a graduate course that attracts highly motivated graduate students specializing in reading, language arts, literature, and early childhood education. Taught as a seminar, this course traces the history of literature for children in England and the United States. History, biography, and classic children's literature meld together as students read such titles as *Robinson Crusoe* and *Little Women* and examine the work of great illustrators from Walter Crane to Randolph Caldecott to Leslie Brooke.

Since this children's literature course is linked with the Digital Photography/Storytelling course, each student studying the history of children's literature is creating a digital story that has some connection to the overall development of juvenile literature. Specific topics students have selected include: the evolution of series books, the development of movable books, the life and works of Laura Ingalls Wilder, and interviews with senior citizens discussing the books they read as children. Benefits of the pairing of these two courses include causing the students to be more attuned to visual representation as they search for images to use in creating and telling their digital stories. Also, peer tutoring has evolved naturally as those with greater technological skills offer their help to classmates for whom all this technology is new.

While the above benefits of pairing courses might have been predicted, one that could not have been may offer the best reason of all for linking the development of children's literature with digital storytelling. As students study the trends affecting the growth of children's books over the decades, they take that knowledge and use it to think about current and future trends in the field. This brings them face to face with the newest trend in juvenile book publishing—the increasing connection between the printed book and corresponding websites and video games dedicated to the new titles.

In a recent *New York Times* article, Rich (2008) discusses the connection between books and the Internet, an advertising consultant turned author for children, P.J. Haarsma, who designed a video game to go with his first book is quoted: "You can't just make a book anymore." Matching a novel for young readers with a video game, "brings the book into their world, as opposed to going the other way around."

At the time of this writing in the fall of 2008, the bestselling book in the United States is Christopher Paolini's third book in his "Inheritance" fantasy series—*Brisingr*. To accompany the release of the book, Paolini's publisher,

Random House, had an online game developed to go with the book. According to the *New York Times*, “About 51,000 people have signed up since June to play and chat on message boards on the site.”

What linking the history of children’s literature with digital storytelling has done is to show students that *once upon a time* is not necessary long ago and far away. It might be as close as a current bestselling novel and the video game and website that offer 21<sup>st</sup> century readers ways to make the solitary act of reading more interactive.

## Incorporating Web 2.0 Tools and Resources into the Linked Courses

In the linked courses, we also wanted our students to become familiar with many of the Web 2.0 tools now freely available online. Some of these tools which Stopforth (2006) describes as the *humanification* of the web are perfectly suited for our students to use to edit and organize digital images (Picasa), participate in online discussions (Blogger), and upload digital stories to an online location where they can be viewed by others (Google Video). As Stopforth (2006) points out these tools are all about the user and “match, not contradict, the way we normally communicate with each other.”

### Using Picasa 3 to Organize and Edit Digital Images

Since so many useful resources exist that support the use of digital imaging, we include the use of Google’s free Picasa 3 software program ([http://picasa.google.com/#utm\\_medium=embed&utm\\_source=pwlogin](http://picasa.google.com/#utm_medium=embed&utm_source=pwlogin)). Picasa allows our students to organize and edit digital images they find online, create with a scanner, or take with a digital camera. One of Picasa 3’s most useful tools for students just beginning to work with digital images is the Picture Collage feature, which students are asked to use early in the semester. For an initial assignment, students must find digital images related to the content they are studying and use Picasa 3 to create a picture collage on that topic. Examples from each of the fall 2008 linked courses are shown below.

					
<p>Popular Culture Student Collage  <a href="http://courses.coe.uh.edu/brobin/site/cartoon-collage.jpg">http://courses.coe.uh.edu/brobin/site/cartoon-collage.jpg</a></p>		<p>Children’s Literature Student Collage  <a href="http://courses.coe.uh.edu/brobin/site/gulliver-collage.jpg">http://courses.coe.uh.edu/brobin/site/gulliver-collage.jpg</a></p>			

### Using Blogs for Online Communication and Submitting Technology Assignments

#### *Course Discussion Blog*

We also use Goggle’s free blogging software, Blogger, to support online discussions related to topics and issues that arise in the courses. In this blog, the instructor serves as the moderator and posts discussion assignments which the students then respond to with their own comments.

#### *Individual Student Blogs*

In addition to using a single discussion blog for the each course, students are required to create a personal blog which they use to submit weekly assignments throughout the semester. Because both Picasa and Blogger are owned and supported by Internet search engine giant, Google, the programs work well together and images created in Picasa, can easily be posted to a blog on Blogger by clicking on a single “Blog This!” button and following the on-screen prompts. An example of a student blog from each of the fall 2008 linked courses is shown below.

	
Popular Culture Student Blog <a href="http://courses.coe.uh.edu/brobin/site/student-pop-blog.jpg">http://courses.coe.uh.edu/brobin/site/student-pop-blog.jpg</a>	Children's Literature Student Blog <a href="http://courses.coe.uh.edu/brobin/site/student-lit-blog.jpg">http://courses.coe.uh.edu/brobin/site/student-lit-blog.jpg</a>

Another useful feature of Blogger for our students is the simple way that video clips can be uploaded and embedded within a blog post. Since many of the assignments require students to create a video file (for example, a early version of part of their digital storytelling project), using Blogger's video upload feature makes the process relatively easy and gives students the ability to discuss their work and include pertinent details and questions within the posting. And since video clips uploaded in Blogger are hosted on Google Video (<http://video.google.com/>), this eliminates the need for the university to provide large amounts of online storage space for each student.

	
Adding Video to a Blog Posting <a href="http://courses.coe.uh.edu/brobin/site/upload-video-blogger.jpg">http://courses.coe.uh.edu/brobin/site/upload-video-blogger.jpg</a>	Student Blog Posting with Video Clip <a href="http://courses.coe.uh.edu/brobin/site/video-blog.jpg">http://courses.coe.uh.edu/brobin/site/video-blog.jpg</a>

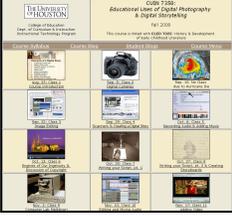
## From Still Images to Full-Motion Video

Many of the digital stories that our students create include only still images, rather than a combination of still images and video clips. We have found that most students, especially those just learning to create digital stories, are more comfortable using still images and are relieved to learn that mastering digital video is not a requirement for our course. In addition, many of our students look for ways to reduce the costs associated with being enrolled in graduate school so they are pleased to find that powerful image editing software options, some with sophisticated features normally found only in expensive programs, are available on the web for free. A few of the free programs that our students use include: Adobe Photoshop Express (<https://www.photoshop.com/express/landing.html>), Picnik (<http://www.picnik.com>), flauntR (<http://www.flauuntr.com>), Sumopaint (<http://www.sumopaint.com/beta>), and FotoFlexer (<http://fotoflexer.com/>).

Since many students who take the linked courses come from program areas outside of IT, a large percentage of them are novice technology users who have little experience using more complex technology tools and applications, such as digital video cameras and editors. Nonetheless, we have found that as students learn to successfully create digital stories using still images, they increasingly ask for instruction on how to add video clips to their digital story projects. Consequently, we now include some class sessions related to locating, creating and adding digital video clips to digital stories. Although doing so is optional, we have found that a growing number of students successfully learn to use full-motion video clips in their final semester projects and the quality of this work increases each time the linked courses are offered.

## Online Access to Course Materials, Student Assignments and Final Semester Projects

All of the course materials and student assignments related to the Digital Photography and Storytelling course are placed online so that students can view their own work as well as the work of other students. The course website and examples of student work may be viewed by accessing the links below.

	
<p>Popular Culture Digital Photo/Storytelling Weblinks  <a href="http://courses.coe.uh.edu/brobin/7358-pop/pop-menu.htm">http://courses.coe.uh.edu/brobin/7358-pop/pop-menu.htm</a></p>	<p>Children's Literature Digital Photo/Storytelling Weblinks  <a href="http://courses.coe.uh.edu/brobin/7358-lit/lit-menu.htm">http://courses.coe.uh.edu/brobin/7358-lit/lit-menu.htm</a></p>

## Where Do We Go From Here?

Plans under consideration for future linked courses include converting the digital storytelling course to an online or hybrid course. This would give the content area faculty more time to devote to their half of the linked courses and would be less demanding on students. The current linked course offering has students attending both courses back to back for four hours per class session, with the first two hours devoted to the content area course and the last two hours devoted to the digital photo/ storytelling course. This reduces the amount of time each faculty member can spend with students, who by the end of the classes are often feeling tired and overwhelmed at the amount of information covered in a class. However, if the digital photo course is to be taught online, optional hands-on sessions in the computer lab will probably be needed, perhaps staffed by graduate students who already successfully completed the linked courses in an earlier semester.

We survey all students who have completed the linked courses and their input (which may be viewed online at: <http://courses.coe.uh.edu/brobin/7358-lit/lit-final-projects/lit-student-comments.htm>) will help determine the future direction of our linked courses. After multiple offerings, now with two different content areas, we feel our linked courses have been successful for students who have completed them and for faculty members who have taught them. Through the linked courses, we have met our goals of designing innovative course offerings for our students through the integration of technology and content area material and we have attracted new students into these courses as they continue to evolve.

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