

Multidisciplinary Exploration of Peruvian Culture Through Visual Design and Website Development

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Abstract

In this paper we discuss our work with the interdisciplinary application of the PROSE (Problem, Research, Objectives, Strategy and Execution) model of visual development to teach key cultural concepts as an approach to design within Digital Media (Stewart, 2007). The project emerged in response to a curricular need on the part of digital media students to become aware of the role of cultural assumptions and perceptions in the creation of new media imagery and content. Our project was designed to address the question of whether students will experience a change in response to the question: Is the Internet culture-neutral or is it instead a space for people to embed their culture in terms of content, design, and navigation of a Website (Underberg and Zorn, 2013; Underberg, 2010)? We will explore these issues through discussing our Scholarship of Teaching and Learning (SoTL) project to develop innovative modules in Digital Imagery and Digital Cultures and Narratives courses related to the PeruDigital project — an immersive, interactive Website about Peruvian festivals (PeruDigital, 2013).

Integrating Key Cultural Ideas into Website Development

The classes taught by Jo Anne Adams and Natalie Underberg-Goode, Digital Imagery and Digital Cultures and Narratives, respectively, used the concept of integrating a 'key cultural idea' into websites in order to present cultural materials. As Underberg explains (2010), it was necessary to identify and integrate key cultural ideas into such folk culture-oriented digital media projects as the website for Florida folk artist Lilly Carrasquillo in order to present her Puerto Rican identity in a non-linear and interactive medium. Ideas from such scholars as Jorge Duany (1996, 2000) on diaspora and hybrid cultures provided ideas,



especially Duany's conception of contemporary Puerto Rican identity as a fluid and hybrid construct. These conceptions inspired the decision to design the website as an online space for exploring the themes of cultural hybridity and memory landscapes through, for example, creating a splash page which combined Mexican-style sun masks with Puerto Rican Taíno petroglyph imagery (Underberg, 2010).

PeruDigital: A Website about Peruvian Festivals and Folklore

This concept of a key cultural idea is also represented in the PeruDigital project, a website about Peruvian festivals which Natalie Underberg-Goode and the late anthropologist Elayne Zorn started in 2007 to publicise and interpret the archives of the Institute of Ethnomusicology (IDE) at the Pontifical Catholic University of Peru-Lima. The website uses the potential of hypertext and digital environments to address how linguistic communities view and interpret the world. Specifically, the project interrogates the diverse ways that hypermedia may look and function for diverse linguistic and cultural communities (Christensen, 2003).

In designing the digital environment, we integrated interactivity and immersion into the design to allow for multiple perspectives: ethnographer (engaged in the descriptive study of human culture), participant (the spectator or performer) and sponsor (who organises the social event). This design choice raises interesting questions about the impact of perspective on social experience. For example, how does the role of the ethnographer differ from that of the spectator? How do participants view and understand cultural events like a festival in comparison to ethnographers?

Anthropological themes such as the functions of the festival and the role of ethnic identity and history in expressive culture established the theoretical basis for choosing and presenting ethnographic materials in the PeruDigital project (see, for example, such Andean studies works as Allen, 2002; Arguedas, 2002; Babb, 1998; Bigenho, 2002; Canepa, 2001; De La Cadena, 2000; Femenias, 2005; La Rosa & Mejía, 2006; Mendoza, 2000; Romero, 1993, 2001; Turino, 1993; Ulfe, 2004). As Andean scholars know, Peruvian festivals can be massive, all-encompassing events that involve entire communities and are intimately tied to local economic and political structures. They are also characterised by the so-called festival cargo system, in which local community members assume responsibility for organising the event, with the expectation that after their term ends someone else will take on this responsibility, and the organiser or sponsor assumes an important status in the community based not on his monetary wealth—because the organisation of the festival has likely put him in great debt—but on the respect he's now afforded. In a sense, Peruvian festivals put in to play a distinctive Andean conception of wealth, one which includes the



ability to mobilise cooperative labour. The idea of communal or mutual aid labour (which in the state service sense during the Inca empire was known as the *mit'a*) is very important in Andean culture. Successfully mobilising a network to take on a cooperative task is one way to demonstrate social influence. In this sense, being able to role play as a festival sponsor may allow the user to experience this key cultural idea—wealth as cooperative labour, power through strength of community bonds, and community celebrations as rooted in the social economy of a region. This is one of the ways we have tried to integrate ideas from game design into the navigation experience of the Website, advocated by virtual heritage expert Erik Champion (Champion, 2006).

The pilot website takes users on a virtual guided tour of a busy downtown Lima plaza and the site of the Lord of Agony festival in Piura on the North Coast. The Lima environment is based on a downtown plaza where visitors encounter avatars who relate to other Peruvian regions, including Piura, and a Catholic University student, and interact with objects and texts that provide an introduction to Peru's regions, religion, festivals and other folklore. Visitors can also explore the first festival environment, dedicated to the Lord of Agony festival in Piura, and learn about the festival, interact with avatars, objects and texts, and learn about the performance and preparation for the festival. Now that we have outlined the background to the PeruDigital project, we will turn to outlining the way in which the SoTL project was designed and implemented.

The SoTL Project

As part of our SoTL project, we developed modules for our respective courses, and created and distributed pre- and post-project surveys to test the hypothesis that: Through the application of uniform rigorous research methods (PROSE), more in-depth information will lead students to become more sophisticated authors of visual language and transmedia content to communicate the planning, performance, and study of Peruvian festivals as presented in the PeruDigital project. The PROSE model, drawn from Mary Stewart's book *Launching the Imagination: A Comprehensive Guide to Basic Design* (2007), asks students to apply the following methodology to their design projects:

1. Define the problem;
2. Do research;
3. Determine the objective;
4. Devise a strategy;
5. Evaluate results (Stewart, 2007).



This design method was applied to each class. Specifically, in Adams' Digital Imagery class, students were directed to critique and then propose alternative designs for the PeruDigital website, while in Underberg-Goode's class they were given the assignment to write an outline for an interactive narrative based on the world of the PeruDigital website—the objective was to understand the capacity of digital media to tell a story (about Peruvian culture) and enable multiple perspectives (in this case, festival sponsor, participant and ethnographer). The pre- and post-test surveys evaluated attitudes about the role of culture in understanding and experiencing digital media. In addition to introducing the PROSE model as a design method, Underberg-Goode and Adams did a content analysis of the projects after the projects were completed. This, in addition to reflection papers, added an additional layer of data to the SoTL research project. Below we present the project progression we followed in each of our classes.¹

DIG3138C Digital Imagery Project Progression

Project One: Sense of Place: To communicate the observations and visceral response each student artist has to a particular location. Students were asked to select a public or private location and record their own observations and feelings through writings, drawings and photography. By asking the students to concentrate on the process of embodied experience and deliver visual materials that convey their personal reflections, Adams' goal was to introduce the concept of presenting intangible human experience through symbolic visual representation.

Project Two: Self-Presentation: To create a body of professional presentation materials for use in communication to potential digital media clients or employers. Through self-reflection and identification of symbols that assist in the Irving Goffman concept of 'stage' as described in *The Presentation of Self in Everyday Life* (1959), Adams' intent was to lead the students to understanding audience perception.

Project Three: Critical Analysis and Alternate Solution to the PeruDigital Website: To utilise the cause and effect critique method to analyse the aesthetic and subjective visual communication of the current PeruDigital website and offer alternative design solutions. The cause and effect model of critique assigns the reviewer the task of evaluating the impact of the design decisions made. Using the key factors of level of unity, amount of variety, visual rhythms, attention to detail and the overall concept conveyed, students determine which are the most effective tools and look for areas of success to build stronger impact in terms of the information delivered and personal reaction.

Project Four: Alternate Visual Solutions to the PeruDigital Website: To implement the alternative solutions promoted by your classmates in the previous assignment



to fully develop the visual presentation of the PeruDigital website core message; the idea of how esteem in the community is created through service to the community by sponsoring festivals, and the three points of view from the sponsor, participant and ethnographer's perspective. Project four is the fruition of the impact of the intellectual and practical explorations in the first three projects. The goal was for students to implement the understanding of perception of time and place, representation of others' personal characteristics in favorable terms and education in cultural symbols through an interactive web environment with nuanced respect for cultural differences.

DIG3024 Digital Cultures and Narratives Project Progression

The project involved creating a treatment or brief outline for a videogame storyline. Students were instructed to use their imagination to envision a game environment, characters and storyline. The treatment should have the game storyline's beginning, middle and end. In addition, students were told to outline a main character who undergoes some kind of development or growth during the course of the game and a description of their game setting or environment, the objects in it, and how they will be used.

Project One: PROSE Model Explanation: To apply the PROSE model to the DIG 3024 course project and give students a 'road map' for completing the project using the PROSE model's convergent thinking process. The PROSE model, as an example of convergent thinking, involves pursuing a previously determined goal using a linear progression and focused problem-solving. Students were guided through the steps in the PROSE model, and given suggestions and resources for completing each step that follows:

1. **Define the problem:** Students were instructed to draw on ideas from lectures and readings, and using knowledge of story structure gained from class lectures and readings to create a narrative description of how to use environments, avatars, and objects from the PeruDigital project (already existing or new elements to be designed) to illustrate a key cultural idea. The treatment should have, as Bates (2004) outlines, the game storyline's beginning, middle and end. In addition, students needed to outline a main character who undergoes some kind of development or growth during the course of the game and a specific game setting.
2. **Do research:** Students were instructed to review their notes on the website, including information on each of the festivals, the characters in the environments, and objects which are found in the interactive environments, and then to conduct additional research as necessary to complete their project.
3. **Determine your objective:** Students were instructed to consider the following questions in determining their project objective:



- Which perspective am I using (sponsor, participant or ethnographer)?
 - What are the particular concerns of this perspective?
 - What experiences about being a sponsor, participant or ethnographer do I want to express?
4. Devise a strategy: Students were instructed to consider the following questions in helping to devise their particular narrative creation strategy:
 - In which environment(s) do I want to base my project? How does the story you envision relate to exploration of space?
 - Based on the perspective I have chosen, what is the backstory of my main character? What is she doing in this environment?
 - What is the storyline? What is the beginning, middle, end? How do they correspond to the functions of those elements in the game story outlined by Bates (2004)? What is/are the source(s) of conflict?
 5. Execute the strategy: This involved having students put their strategies into practice according to a definite timeline and appropriate milestones, including an in-class progress report to the class outlining their work accomplished, work needed to be accomplished and discussion of challenges faced.
 6. Evaluate the results: Students were told that they would doing a Peer Evaluation of each others' assignments near the due date, to give students the opportunity to work collaboratively in identifying project strengths and areas for improvement.

Project Two: Character Worksheet: To apply McKee's (1997) distinction between characterisation and true character to the classic film *Chinatown* (1974), screened in class, and to the design of a character who undergoes some kind of narrative experience within the story world of PeruDigital. Students were directed to choose one of the three possible perspectives: festival planner, performer or ethnographer as the basis for designing a character.

Project Three: Peer Evaluation of Game Treatments: To involve students as peer evaluators of classmates' ideas from class, including narrative structure, character, integration of ethnographic research into digital media environments and computer-based storytelling, and to apply these to rough drafts of the final project. Students were assigned to review each others' papers according to such questions as the following:

- Does the game beginning introduce the player to the game world and indicate the hero's problem? Does the hero's problem somehow relate to the Peru setting/content of PeruDigital?
- Does the game's middle consist of escalating obstacles/challenges? What are these, and how do they relate to the player's problem or goal?





- Does the game end offer a final confrontation and resolution of some kind? What is it? Are there multiple potential endings? If so, what are these?
- Does the character design indicate potential for some kind of development or growth during the course of the game? If so, what? Is the motivation for the protagonist's actions clear?
- From what you can tell from the brief treatment, how is research information about Peru gathered from the website and, as appropriate, additional research included in the design of this game treatment?

As mentioned earlier, as part of the SoTL project students were also given pre- and post-test surveys to evaluate attitudes about the role of culture in understanding and experiencing digital media. We briefly discuss those results first before going onto the projects the students created.

Surveying Student Social and Cultural Attitudes

The questions on the pre- and post-test surveys were identical between the two classes, with the exception of one question. The survey asked ten questions that addressed student comfort with interacting with those who were different from them; their attitudes toward their community and family's heritage; whether it was important to learn about other cultures for their professional and academic careers; whether real-world identities or bodies have any influence in virtual space; and whether digital media can aid people in understanding unfamiliar experiences. In both classes students showed increased comfort in interacting with those who were different from them and increases in appreciation of heritage; in both classes the results indicated more students understood the ability of interactive media to enable multiple interpretive frames or perspectives, and to allow the audience to experience a different way of life; while the question of whether 'culture matters' in terms of how people experience digital media and in terms of whether this knowledge will help in a future career did not show a dramatic change from beginning to end of the semester. What appeared to happen is that the students who disagreed strongest with the idea that 'culture matters' remained approximately the same, while for others there was a slight increase in agreement with the idea in Adams' and a slight decrease in Underberg-Goode's class. Despite this, a number of the student reflections on the game treatment assignment in Underberg-Goode's class testified to the usefulness of the project for teaching them how to integrate 'real-world concerns' like culture into new media projects.





Digital Imagery Student Critiques and Redesign Proposals

The class came up with 21 points in their class consensus. The critiques mainly revolved around two areas: refining visual aesthetics and navigation. Students noted the potential mismatch between the graphics on the site (vector graphics, which many students viewed as ‘cartoonish’ and therefore aimed at children) and the text (which was aimed at a generally educated adult audience). This suggestion to clarify audience was also a concern voiced by the PeruDigital Advisory Board. Another area of critique was the site navigation. Students suggested clarifying the navigation structure by including a site map and centralising media in one site.

Students in the Digital Imagery class also created a number of proposed redesigns (8 in total). To illustrate, we will focus on three such representative proposals below.

1. The first redesign used the symbol of the condor and bold colors overall. In their design justification, students concentrated on navigation and consistency in imagery, writing that: ‘We have organised and designed our website to be simple and consistent throughout in order to allow users to move fluidly from the beginning to the end of the website...All pages have scroll bars to the right of the content boxes that allow users to navigate up and down through the information.’
2. The second redesign combined dark blue with gold and integrated a symbol from a highland Andean weaving. In the justification for their design, the team focused more than the previous group on how design elements were intended to be rooted in research on Andean culture. For example, they explain that: ‘The main design element on all pages is a stacked yellow/brownish design that is meant to represent an Andean cross. There is also a red condor that is carried out throughout all the pages.’ This group, like others, attempted to give what in graphic design and business jargon is called an ‘identity’ to the site, meaning a consistent ‘logo’ that would tie the site together—something students noted in their critiques was missing from the pilot site.
3. The third redesign was the ‘winning’ site redesign proposal—the one that the majority of the class ranked most highly. This group went beyond redesigning the graphics to propose an ambitious redesign to the interactive environment entirely, integrating ideas about making the 2D space of the computer screen seem more three-dimensional, and reorganising the site so the user chooses a guide and a destination before exploring the site. This is the redesign we adapted elements of for the redesign of the site, to which we will return later.



Digital Cultures and Narratives Game Treatments

Students in the Digital Cultures and Narratives class, on the other hand, took the basic project guidelines and developed an interesting array of Peru-based interactive narrative experiences. Here we will discuss a brief cross-section of some of these game treatments and student reflections on their classmates' work to give an idea of the kinds of story experiences they developed and how students evaluated them in light of class themes.

1. One student used the 1940s *Indiana Jones* story world from film to develop an adventure based in the world of Peruvian archaeological excavations. In his presentation he noted the similarity of his game narrative to the classic *Zelda* game *Ocarina of Time* — several students in the class noted the influence of ideas from popular commercial video games on their development of the research-based narratives. Other games mentioned as influences included *Myst* and *Assassin's Creed*. This story, like a number of others, showed less creative application of cultural ideas to the assignment. As one student wrote in his reflection on the presentations: 'Some students seemed like they did not really research the PeruDigital project enough and just chose a setting and regurgitated some basic "hero saves princess" story.' It was gratifying to see that some students called out other students for this very critique, which goes to the heart of what we were trying to teach in the class.
2. Another student, like several others, based his game story on ideas from Inca myths. His story was based on the myth 'The Condor Seeks a Wife', about the custom of 'bride stealing' in which a condor kidnaps a young woman and takes her to his lair high up in the mountains. This story does not exactly take place in the world of PeruDigital in the sense of being about festivals but it does indicate research on Peruvian culture which was able to be gleaned from the PeruDigital Website and using the idea of perspective effectively (so that you become a character in a myth and experience the culture from that vantage point). One student wrote in a reflection about this particular story that it really stood out. The student writes:

The game involved you going up to rescue her [the woman]. The storyline was very in depth and interesting. There seemed to be a lot of dialogue and information about Peruvian culture that taught me many new things. This game is a perfect example of what we were learning all year: how digital culture is integrated with our physical cultures.

Another student observed:



When I did my videogame treatment, I, just like everyone else in the class, looked up myths surrounding Peru's festivals. I read the stories and tried to think of a way to change one into a videogame... However, as I began to hear other people describe their videogames, I realised what I hadn't had the courage to do. They adapted the myths, and created engaging gameplay and fascinating game ideas. I wasn't brave enough to bend the facts a little, create a more three-dimensional character, invent character backgrounds... For example, a classmate chose the same festival I did. Instead of just following the exact myth, he created a very interesting back story.

3. Another student, like several others, based the story on a character who is disassociated with her cultural identity. He set the game during the set-up for the Lord of Agony festival in Piura and integrated ideas from a *Cookie Mama*-style video game, in which the higher score you get, the higher your relationship with your Aunt. If you do well, she does not make a scathing comment; if you do badly she does. In the process, the character starts building interest in her heritage. Social relationships are built into the design of the game: the more impressed the Aunt is, the more relationship points you get. In the story, the character goes from being a festival planner to performer (dancer), which presents her (and the player) with an interesting challenge: she has to learn a particular dance by 9pm the night before the festival, and it is not something she can learn by herself — she must interact with more experienced characters to learn. One student wrote in a reflection about this story:

I thought it was interesting that all these games involved a character that had lost touch with their culture and religion. My game also features a protagonist who embarks on a journey that ends up restoring some of those beliefs and practices. It seems to be a story that most people can relate to, especially in the United States. As we get exposed to new ideas and beliefs throughout our lives, we sometimes lose the traditions we grew up with. I myself no longer speak very much Spanish, even though it is the first language I ever spoke.

4. By far the most-praised game treatment was the one about being a festival planner. Particularly intriguing were the social ideas that were skillfully embedded in the game, which demonstrated a clear integration of ideas from research about Peruvian culture into the narrative logic. As one student put it: "The idea of having the player having to talk to her teammates to build up trust is a very interesting concept."





Conclusion

Based on our findings in this research project, we suggest that student perceptions regarding cultural issues can be affected at the personal level and that students can learn to communicate and disseminate culturally appropriate content, but that students' initial resistance to explicitly addressing such potentially controversial issues such as ethnicity and ethnic identity must be taken into account in designing and carrying out such pedagogical models.

While the particular SoTL project under consideration worked with Peruvian festivals and folklore as a content area, ideas from the methods followed can be applied to media and digital arts education more generally. The PROSE model provides a clear set of guidelines to structure the way students can move from identifying the problem through the research, objective and strategy determination, and, finally execution and evaluation stage in new media design. This model can then be applied to the learning domains of visual design and interactive narrative as modeled by Adams and Underberg-Goode in their respective project progressions. Future researchers may want to apply these methods to different topics to ascertain what aspects work across themes as well as how the techniques need to be adapted in diverse learning contexts.

Overall, we found that giving students the constraint of working with a specific topic — especially one that may be at first unfamiliar to them — can help trigger their creativity. This approach required them to find creative ways to interpret, both visually and interactively, how different language and cultural communities see and understand the world. And this, we argue, can help provide students with cultural competency skills they will need in the digital media careers of the twenty-first century.

Footnotes

1. The discussion of the project progression draws from a PeruDigital curriculum guide created by Adams and Underberg-Goode (formerly Underberg), currently available through the UCF Digital Ethnography Lab Website (<http://www.digitalethnography.dm.ucf.edu/>).

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