

Reflection Paper on OLIT Masters Program

Discovering IT in OLIT

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Since 1994, I have worked in the field of public lands interpretation, a method of informal education which uses narrative and interaction to educate visitors about the value of resources in a park, museum, or zoo. In 1999, I moved to the realm of computer-based interpretation, and spent the next several years developing websites, multimedia performances, CD-ROMs, and ecommerce applications.

I applied for the OLIT masters program hoping to gain professional credentials for my work (primarily for priming federal contracts and grants), and to learn what I could be doing better. But shortly after the program began, I gained a new goal.

In September of that year, I went camping with the former recreation director of the Bureau of Land Management, Rodger Schmitt. I interviewed him for an OLIT 540 assignment, and he told me that the next decade was crucial for raising public consciousness about the value of public lands—for recreation, for healthy ecosystems, for spiritual renewal, and for natural resources—and warned me that unless people outside of the American West learn about these values, corporate interests will succeed in their efforts to privatize our most valuable public resources. I took his warning seriously and began to look at how new media could be used to inspire those Americans who do not visit public lands to value their heritage.

During my course of studies in OLIT, I sought the answers to these questions: what kind of computer-based experience most closely mirrors an interpretive experience at a park or museum? How could this method be used to create an educational program to interpret the history and value of public lands? What is the most effective way to frame a values-based message with the computer as medium?

Fall 2003

I began forming my query with literature reviews for OLIT 561 and OLIT 540. The literature review for Adult Learning examined the methods and results of all kinds of non-personal interpretation, and the literature review for the Introduction to OLIT focused on computer-based interpretation (see Appendix B: Papers for the OLIT 540 literature review). Both courses helped me hone my research skills and understand academic writing.

Both literature reviews were inconclusive, though instructive for revealing a near-complete dearth of research on computer-based interpretation. Some interesting things emerged about the nature of the learning that happens when a visitor has a meaningful interpretive experience. One is that certain factors heavily influence the likelihood that a visitor will have a meaningful experience, and one is that the effects of interpretation and result in significant value changes over the course of the learner's lifetime. As a reference for myself, I developed two rubrics: one assesses the functionality of a website (based on federal standards), and one translates the "principles of interpretation" into development guidelines for new media based on existing research.

In OLIT 501, I learned how to create effective course materials. I discovered the key is careful planning—a big surprise to me, who had always created projects based on the vague idea that "it would be cool." I was also able to revisit an earlier professional failure and develop a training course for the visitor center employees and volunteers I used to manage. I worked closely with my former employer to design an 8-hour training course which would work for employees of the organization, federal employees, and volunteers, as a self-paced course or facilitated by an instructor. Taking Adult Learning

and Instructional Design and Development concurrently was particularly beneficial, as I began to understand how educational theory works in practice.

During the winter break, I worked on a grant for the Institute of Museum and Library Sciences (IMLS) to fund an online Public Lands Museum. I realized that the methods I had learned in ISD and the research I had done on computer-based interpretation was invaluable for framing the message of the grant. Even though I did not get the grant (the sponsoring organization did not qualify), it was clear that what I would learn in OLIT would help me write stronger grants and proposals. At the urging of various guest speakers in OLIT 540, I had joined my professional association—the National Association for Interpretation—and applied for a competitive scholarship to the 2004 National Workshop (which I won).

Spring 2004

I was excited about my second semester, and I was not disappointed. In OLIT 525, I applied what I had learned in ISD to a project nearer to my interests—a tutorial on safety in the Chihuahuan desert (see Appendix A: Multimedia). Learning to use the Dreamweaver application with the CourseBuilder plug-in was very useful, and I have adopted this suite as my primary development tool. I also learned the utility of applying planning to a multimedia project. During the learner analysis, I discovered that my target audience had very low English literacy, so I adjusted my design to rely more on multicultural avatars and graphic images rather than pages and pages of text.

In OLIT 526, I was excited to learn how intelligent agents can facilitate computer-based learning, and to explore how artificial intelligence can support a narrative structure

in computer applications. I increased the scope of my supplemental readings to include works on artificial intelligence, interface design, and interactivity.

OLIT 508 reinforced the lesson of OLIT 540, that intelligent design is all-important. I realized that what I was missing in my previous work was a coherent set of objectives and methods of measuring and valuing how well the project accomplished those objectives. This is the key piece of information which had been hampering me all along. For some reason it had never occurred to me to plan what the audience would get out of a project and how I could tell when the project had met its goals.

In the IMLS grant, I had proposed to begin an evaluation of how an online Public Lands Museum could achieve its ambitious goals of inspiring Americans to value public lands. In OLIT 508, I created a developmental evaluation plan to do this, and began implementing it as soon as the semester ended.

Summer 2004

During the summer, I worked mostly independently, conducting the Public Lands Museum evaluation project, and building a proof-of concept program for cultural tourism in western Wyoming.

Conducting my evaluation was extremely difficult. I had not received my grant because the sponsoring organization did not qualify as a museum organization, and I began questioning whether a museum was the best format. Visitor surveys did not support the idea of a museum, nor did traffic to the existing Public Lands Museum. If not a museum, then what? A list of readings on new media I had compiled during OLIT 526 led me into game theory, which overlaps almost perfectly with interpretive theory.

Both games and interpretation engage a person through narrative, personal discovery, and immersion in an multisensory environment. Both games and interpretation are leisure activities sought out by people who are interested in the topic. Both games and interpretation rely on theories of flow or optimal experience, expectation/satisfaction, and fun (although ludologists have developed the concept of fun more thoroughly than interpreters). Games and interpretation involve the player/visitor at a personal and emotional level, encourage reflection, and can be enjoyed by a group or an individual. The comparisons go on and on. Needless to say, I was convinced that this was the way to go with my grand public lands vision.

A few weeks before the end of the semester, I discovered a non-profit organization called Serious Games. Some time ago, Serious Games had sponsored a think-tank to come up with blueprints for a set of educational policy games. One group had drafted a plan for a public lands game, which gave me hope. I was hoping that the think tank had gone forward with the plan to build a public lands game, and I could sign on as an intern, but that was not the case; the project had been conceived, then abandoned. As Dr. Boverie emailed me toward the end of the summer, “this may be the work of a lifetime, not the work of a semester.”

While I was struggling with my newfound information, I was also developing a simulated road trip through western Wyoming (see Appendix A: Multimedia), which was another attempt to remedy a professional failure. In 2000, I had guided a week-long trip through this area so that my client, a teacher from New York City, could learn about environmental issues in the West. I tried to tell him everything I know (while driving through wildfires at top speeds), and he not only had a completely miserable time, but

learned next to nothing. With the simulation, I focused on how we can learn history and current events from our public lands, and how historical events cause current conditions (e.g. prehistoric deposits resulting in concentrated areas of oil and gas exploration).

I realized in OLIT 525 that my method of creating a design document was inadequate for creating multimedia, and tried another form. This was slightly more successful, although I overlooked several key concepts required to program the application. *Game Programming for Flash* (2004), which came out toward the end of the summer, helped me learn how to organize the design so it is useful for the programmer. One beta-tester commented that the simulation was exactly like going on a road trip with me, so it was successful on at least one level.

I took one class over the summer, which was something of a disaster. The course, on reading educational research, could have been helpful, but the students (non-OLIT) were so disruptive as to make the course nearly unbearable. Critical reading of research is useful, but the material was not as interesting as the difference between the professor and students of this course and the professors and students I had encountered in OLIT. I realized I was learning as much about instruction from participating in the OLIT courses as I had doing the readings or assignments.

Fall 2004

In the fall, I began an internship, with my partner organization, Iuffakind Design. The mostly self-directed project would be to finish a project for which we had contracted in 2003: to create a game (*Load the Wagon*) about the goods traded along El Camino Real de Tierra Adentro, the Spanish colonial road from Mexico City to Santa Fe. My tasks were: to create a design document that would actually be of use to the programmer

and visual designer; to develop assets for the game, including a narrative structure and graphics; and to develop a lesson plan to help teachers incorporate the game into their social studies curricula.

Developing my internship proposal led me to write a paper on incorporating game design with interpretation, and sharing it with an online peer-reviewing community, at the Instructional Technology Forum (<http://it.coe.uga.edu>). The paper was well-received and I am currently incorporating the comments I received into a version for publication. This side project helped me to synthesize a summer of research, and also confirmed for me that I was on the right track.

Originally, I had envisioned the Load the Wagon feature as more of a toy, where players could load up a cart with merchandise, then watch the oxen lumber off. Thanks to comments made by classmates in OLIT 540, I decided to incorporate real game features: randomness, challenge, and dramatic interaction.

With my new model, I was able to develop the game fully, and to use concept mapping (also learned in OLIT 540) to map out a logically consistent game world. I set to work collecting assets, fine-tuning the mathematical models for calculating profit, and other game structures, and building the content database, which includes scripted dialogue, images, and interpretive text describing the cargo. I also began work on a lesson plan and teacher guide so that teachers in New Mexico could incorporate the game into their history curricula.

While developing the lesson plan was difficult, the task that really stretched my abilities was learning object-oriented programming in Flash. Although I was first

introduced to OOP many years ago, my internship project has helped me begin to really understand how to create and use programming objects.

OLIT 533 helped me understand the power of the simulation I had made over the summer, and how to make it more instructional and useful for the player. Taking the undeveloped idea generated by the Serious Games think tank, I fleshed out a design for a Public Lands Game (see Appendix B: Papers), which has a core landscape simulation generated by real geographic data, and an overlying game structure to educate players as to the costs and benefits of various recreational opportunities on different kinds of public lands. Although this project still fell short of interpreting the value and history of public lands, it was a step in the right direction. A game of this kind would help visitors understand the consequences of their use, and also to explore taboo behaviors in a risk-free environment. In addition, the core simulation could be used in diverse applications.

OLIT 533 also reinforced what I was learning in my internship, namely that a well-structured simulation offers an excellent, though biased, model of the real world. My group project for the course was critiquing the historical game, *The Oregon Trail*, and I realized that historical simulation contains many biases, even when it is an accurate depiction of the historical context. Although this would not be as much of a problem with *Load the Wagon*, I determined to make the simulation model transparent for the educators, in order to facilitate understanding of the historic context and lessons presented in the game.

OLIT 541 offered a “trial by fire;” an opportunity to define my professional persona; to practice my newly-developed training skills; and to sharpen my professional image. The first assignment, creating a brochure and a resume, helped me finally to

answer the question, “What do you do for a living?” I also distributed these materials widely at the NAI conference, and through other professional channels.

OLIT 541 offered me a final opportunity to revisit past shortcomings, as I conducted a consulting project for a client to revise a website I had designed and built with Iuffakind Design four years ago. All the OLIT “tricks” I had learned—using a collaborative approach, involving stakeholders, using activities to encourage dialogue and reflection—worked perfectly, and the clients were delighted with the process and the outcome. More than one staff member confided in me that she had learned new things about the organization as a result of the evaluation process.

Spring 2005

My final semester, I am focusing on approaching culturally-sensitive topics in land management and interpretation. In OLIT 546, I plan to do the bulk of my work (literature review and group project) on teaching history to a diverse audience. This is currently a particularly sensitive topic, and I would like to gain a more comprehensive understanding of what political and cultural issues are at stake in interpreting history.

My elective, Cultural Resources Management (Archeology 570), is structured for contract archeologists or federal agents who need to ensure compliance with land management law, but it is extremely useful for me in planning broad interpretive and educational projects, such as the public lands simulation I outlined in OLIT 533. Again, I will focus on historical interpretation, with a project to broaden the scope of historical interpretation in Grand Teton National Park to include private individuals whose homesteads lie within park boundaries.

Conclusion: What does IT mean in OLIT?

The OLIT program offered a broad overview of the application of pedagogic principles in adult education, whether facilitated by an instructor, a computer system, or a hybrid. However, in my forays into the professional IT forums, I discovered that I am not really practicing the same thing the other IT professionals are. Instead, my work in the OLIT program has helped me develop a hybrid model which can be effectively applied in my field.

Instead of feeling cheated out of courses about SCORMS and e-learning, I feel grateful that OLIT has offered me a broad theoretical base, and plenty of practice in application, which can extend to grant and proposal development, multimedia planning and production, or anything else I might try my hand at in the future (even personal instruction!). The literature reviews and supplemental reading I have done have greatly supported my personal quest, but without the supporting framework of ISD, learning theory, research and evaluation, I would have no way to apply the knowledge.

I would have liked to take more IT-specific classes, and hope that someday OLIT will build bridges with more tech-oriented departments in order to broaden the scope of that aspect of OLIT instruction. Currently, I am educating myself about the interpretive possibilities of mobile technology and touch-screen kiosks. In an ideal world, I would have loved to partner with programmers in the computer science department to explore some of these different media platforms (and to network with simpatico professionals). Regardless, I have a solid idea of what I can provide to the multimedia development process, and I plan to continue to build bridges between content professionals and programmers and graphic designers.