UNITED STATES SOCIETY FOR EDUCATION THROUGH ART

ZIEGFELD AWARD 2012

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Thank you for honoring me with the National Edwin Ziegfeld award. Dr. Ziegfeld made many lasting and timeless contributions to our field as the first president of our National Art Education Association and the founding president of the International Society for Education in the Arts. In this presentation, I will pay particular attention to Ziegfeld's 1962 comments on technological advancement and computers. I do this with a spirit of respect for his prescient ideas while at the same time issuing challenges and possibilities of my own and sharing a few dinosaur babies along the way.

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Dr. Ziegfeld (1962) was intrigued while at the same time wary of technological advancement. Fifty years ago, he wrote, "The machine is both the liberator of man [sic] and his potential enslaver. While being thoroughly aware of and enthusiastic about the former we are scarcely aware of the latter. While exulting in our temporal freedom we do not realize how we ourselves are changed by the machines we have created" (p. 4).

Wariness aside, Ziegfeld realized the potential of computer technology. He referenced the first International Conference on Information Processing in Paris in 1959 referring to microseconds as laying way for nanoseconds. He quoted William Lawrence's article in *New York Times* about automatic machinery making computers or machines helping to breed machines, stating "The experts attending the conference foresaw, within a matter of years, electronic devices which will memorize all the knowledge in the world." (p. E7). Of especial significance to my discussion today is Ziegfeld's value of the quote, "When you come down to it, what is the difference between machine-thinking and your own thinking?"(p. 6).

Indeed, contemporary digital approaches and priorities are paramount in today's society and our millennial students' lives. Brown (2000), Howe and Strauss (2003), and Prensky (2001,

2005) agree that these "digital natives" (Prensky, 2001) are accustomed to using technologies to locate information, communicate, and maintain their social communities. We could say that as Ziegfeld noted fifty years ago, computers have become so much a part of our lives that we hardly notice their existence. Walter Benjamin (1969) wrote, "For contemporary humans the representation of reality is real only if it is represented free of all equipment" (p. 233-4). In essence, the idea is to erase the distance between the work and its viewer. Such erasure or transparency in computer technology is typically associated with the fading of the computer interface. The layers of programming and code are not immediately visible on the screen. The computer user sees only the windows in much the same way as the surroundings in a movie theater or even the furniture in our living rooms disappear as we are immersed in the technology of the movie, television, and computer screen. Put another way—in a real sense, technology has diminished our need to think about what is happening or to understand the connections between the parts. The processes of technology are becoming rapidly invisible and therefore unimportant to the user. People just want the technology to work.

I link Ziegfeld's reference to the idea that there is no difference between machine-thinking and your own thinking with the idea that individuals who have been raised with computers have different approaches to learning. They are typically intuitive visual communicators, have strong visual-spatial skills, learn better through discovery, can shift their attention rapidly, and are able to respond quickly (Oblinger & Oblinger, 2005). According to Oblinger and Oblinger (2005), "they develop hypertextual minds, they leap around," and often gravitate towards a multilinear thought process" (p. 2.4).

Hypertextual and multilinear are two terms that have resonated strongly with me over the years. In fact, for the past 17 years I have been steeply involved in hypertextual approaches to teaching, learning, and research. I was greatly influenced by Dr. Marjorie Wilson at Penn State who introduced me to the hypertext software Storyspace. My former high school art students based all of their art study, learning and making in Storyspace computer webs. From the Art I students with varied artistic and interest levels to the Advanced Placement students dedicated to making the visual arts an integral part of their future, the compelling ability of hypertextual linking propelled their work beyond the curriculum standards and expectations (See Figure 1.). So much so, that my grading changed from not calculating how much they had learned from me, but gauging it more on how much I learned from them (Taylor, 2000).

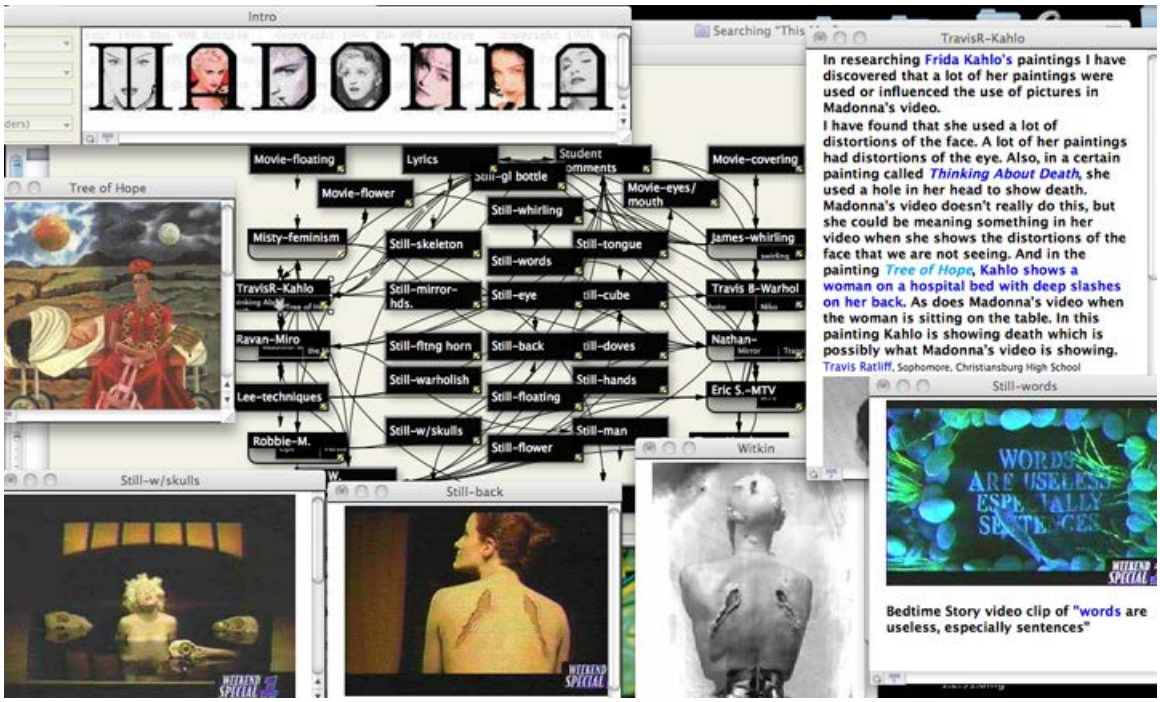

Figure 1. My former high school art students based all of their art study, learning and making in Storyspace computer webs.

I have continued using Storyspace in my university teaching. While at Radford University, my art education students created units of instruction with the software to reveal their understanding of interdisciplinarity, standards-based curriculum design, and idea-based curriculum building. When I moved to the University of Georgia, the software Tinderbox became my hypertext of choice. In addition to unit planning, my graduate students used Tinderbox to organize their research and readings in ways that greatly facilitated their writing. I continue to use Tinderbox at Virginia Commonwealth University in many of the same ways as well as with my own class preparation, research and writing.

I have been extremely fortunate that my institutions have supported my hypertext habit. In fact, several of my colleagues have tried using the software in their classes or personally with their research over the years. But, quite frankly there is very little use in art education beyond my own work. I am afraid to say that perhaps hypertext has become my dinosaur baby.

According to author Warren Berger (2009) a dinosaur baby "describes a quirky and idiosyncratic creation that is destined to be loved only by its creator" (p. 59). We've all had our share of those in the form of cool ways of working, teaching, lesson planning, and even ways of creating lesson plans. In other words, dinosaur babies can be ideas for the next great thing that maybe just didn't quite make it or no matter what you did or do, other people just

don't understand why or how it works for them. They don't "get it." Some examples of dinosaur babies in education may be open classrooms, paddling, varied approaches to making color wheels, and maybe even Latin. Admitting that your idea is not for everyone is hugely difficult because your dinosaur baby becomes your reality.

Warren Berger suggests that we can approach most any problem or issue with what he and designer Bruce Mau call "design thinking." Design thinking involves asking basic naïve questions such as "What is a computer web for? And does it have to be hypertext?" Other aspects of design thinking involve listening, watching, embracing constraints, delving deeper, working the metaphor and the use abductive reasoning to envision fresh possibilities and forge new mental connections.

So, as a still proud mother of my dinosaur baby I began listening and trying to figure out what it was about hypertext or specifically Storyspace and Tinderbox that people didn't like, want, and found impractical or nonfunctional. Primarily, the teachers did not like the interface. They were confused by the many and tangled lines and arrows. They wanted to know or rather to see visually what was inside the boxes or notes as well as what the links meant. Other concerns lay in the fact that you had to own the software to use it. So, in our case, the students could only use it in the labs on campus unless they purchased it themselves. The fact that it was not universally used and accessible was and is probably the biggest complaint along with its inability (or involved process) to connect directly to WWW browsers and/or other apps like Delicious, Flicker and of course, Facebook.

I must tell you that throughout this whole process, I have not been sad or unhappy with my dinosaur baby. On the contrary, I like most all of us in art and education, love a good challenge. The idea that this problem may be insurmountable has been even more exciting. You see, I firmly and absolutely believe that acquiring information is not the same as developing understanding. And understanding is developed through subjective links and connections made between what students are learning in the classroom and their other realms of experience. In other words, when we can see that what we are learning is meaningful to us, it matters. It simply makes sense. When students can develop and make connections themselves and be involved with the class experience, their learning is enduring and connective. This kind of enduring, connective learning involves caring, excitement, and intrigue with not only the study taking place in the classroom, but with the world and our place in it. Students who connect their studies with their own lives,

hopes, and future plans are better able to leave knowing that their education experience applies to their lives and future. And working in a hypertextual environment that not only enables connections, but compels them, is an excellent catalyst for this kind of meaningful and relevant learning.

So, fast forward ten+ years during which such influences as Harry Potter, interactive computer games like Myst, iPods, smart phones, and iPads sparked more ideas and endless possibilities. And, perhaps most importantly has been the continued quest for authentic means of assessing what students know and are able to do in the visual arts. With the high stakes testing associated with the No Child Left Behind act (Chapman, 2005) a number of years ago, we art educators have been holding our breath as we face the possibility of large scale testing in the visual arts. And I wondered why embedded assessments and formative assessments couldn't give us the data comparable, but more meaningful than standardized test results. The more I talked, the more I was rebuked and the more determined I became.

In 2009, I joined forces with colleagues in the School of Education at VCU and Qatar University and received a grant from the Qatar Research Foundation to research for the software development of eLASTIC: Electronic Learning and Assessment Tool for Interdisciplinary Connections (See Figures 1 & 2). For the past three years I and my colleagues have worked with art and English teachers in 4 high schools in Doha, Qatar. The first year we worked to get ideas from the teachers and students. In other words, we listened long and hard to what they needed and wanted. We watched what the students were doing and how they were doing it. We shared the ways that hypertextual linking could engage students in associative and relevantizing learning. Throughout the process I collaborated with software developers to create a number of versions of the software. It grew and expanded in response to the teachers' and students' ideas over the second year. And this, our third and final year, I am concentrating on how to mine the data from the eLASTIC files that the students have created.

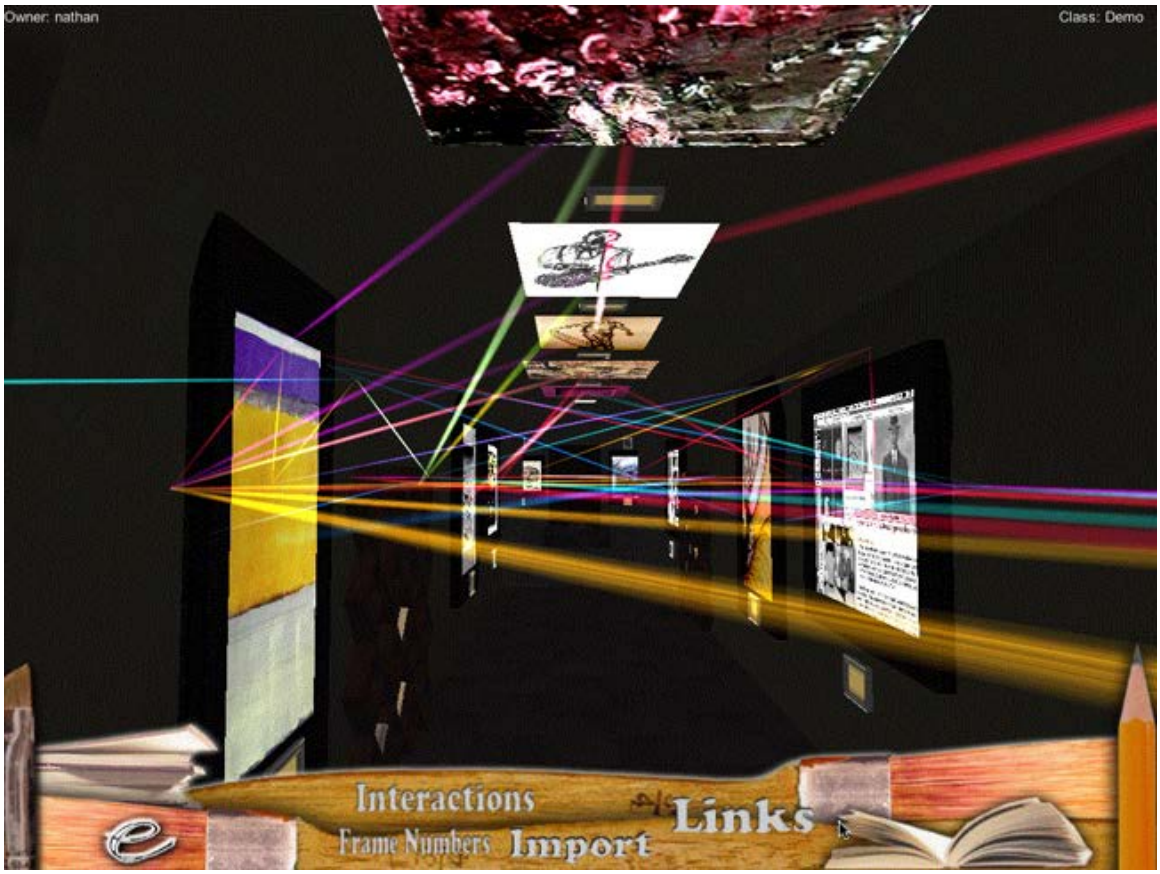

Figure 2. Links are visible in eLASTIC: Electronic Learning and Assessment Tool for Interdisciplinary Connections when lights are out.

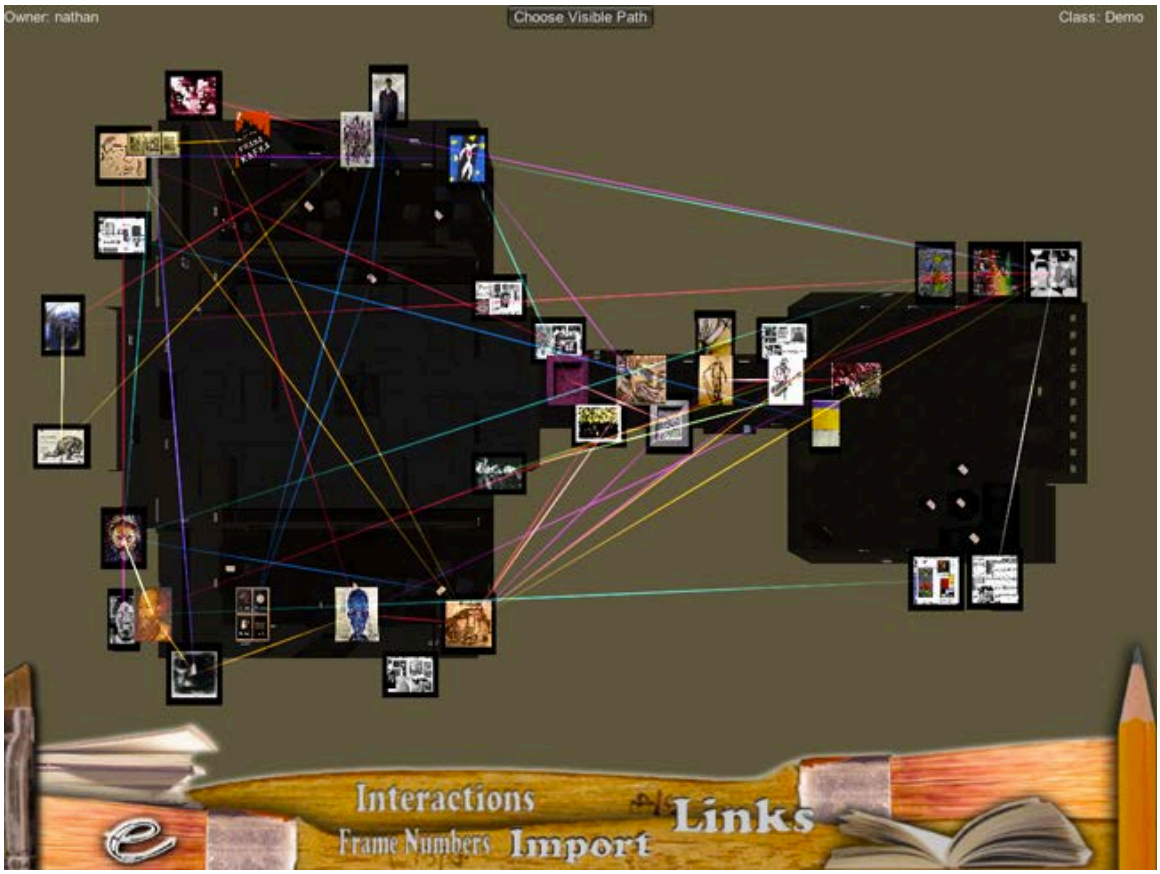

Figure 3. Overhead view of eLASTIC.

I have returned to Tinderbox to assist in this process as I work with art teachers to begin formulating ways to determine markers or indicators of proficiency levels within eLASTIC (See Figure 4). Currently we are working with the U.S. National Standards of the Visual Arts and linking them to the standards used in the Qatar Schools. We are starting this way simply because we are more familiar with our own standards and also, because this is a very difficult process and not one that the teachers in Qatar were comfortable engaging in from a distance.

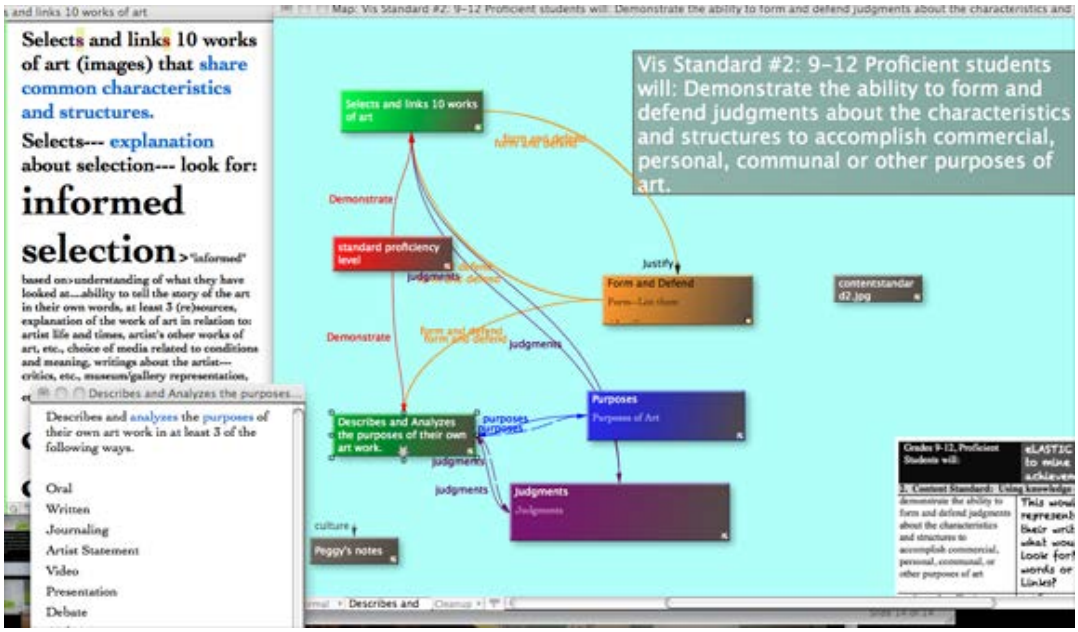

Figure 4. I returned to Tinderbox to assist in this process as I work with art teachers to begin formulating ways to determine markers or indicators of proficiency levels within eLASTIC.

Again, eLASTIC is currently in beta testing and will continue for some time to come to stretch and grow to be:

- universally accessible
- made to mimic a real world environment so that reading and understanding what goes where is made easy through recognizable visual metaphors
- be viewed and maneuvered through in multiple ways to see and make links
- house multiple file formats and be displayed, stored, and/or shared in multiple ways.
- linked directly to web browsers and other apps so that information can be linked to, from or pulled into or away from the environment.
- available for multiple devices so that the virtual learning environment becomes a game complete with levels, rewards and ways of sharing.

As Dr. Ziegfeld (1962) wrote "It is in an atmosphere of freedom that a student can be inventive, for under such circumstances he is willing to try new ideas and to develop confidence in them" (p. 6). I believe that eLASTIC provides that atmosphere of freedom. Yes, my dinosaur baby is growing up and with the help and critical input from many people for some time to come, hopefully eLASTIC or whatever name she is given will be beautiful in more than just my eyes.

In conclusion, I am absolutely thrilled by this prestigious National Edwin Ziegfeld award. But, mostly I think, I am grateful for the validation. We educators work so hard to make a difference. We do this of course through our teaching and are rewarded daily in the classroom. But, it is the vast time and effort we devote to research that may give us pause. Although we believe strongly in the power of the arts to make a difference in the world and specifically in education, we may often wonder if anyone else understands much less values the research that we do. So, gratefully I can say yes, this award is telling me that people are reading, understanding and truly care about my efforts, dinosaur babies or not. And for that validation, I am motivated, appreciative and indeed truly honored. Thank you.

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