

AGENT BASED LEARNING
INTERACTIVE ART WALK



Agent Based Learning Environments.

INTRODUCTION

One of the most difficult things to impart to students, as well as the general public is the meaningfulness, value and significance of contemporary and modern art, here defined as art since World War II. In many respects, the beautiful presentation of paintings in museums has contributed to people's lack of understanding just as much as the presentations have contributed to establishing an artists place in art history. By removing paintings, photographs and sculpture from their cultural context, the creator's environment, the geographical origins and their place in historical timelines, museums can sometimes end up displaying what seem to be isolated iconography. Students may love or hate a work of art, often because things other than 'pretty' pictures are hard to understand when they have become detached from the culture that gave meaning to their inclusion in a museum to begin with. Like many academic subjects, seeing or memorizing names and dates give few clues as to why the artwork matters at all. Black (2009) states:

The problem is that the students do not have a body of perceptual experiences that they draw upon when learning this new subject matter for they only learn about the subject matter rather than also develop a feel for it. Recent basic cognitive research in perceptually-grounded or embodied cognition provides a framework for understanding this distinction, and for designing educational environments that foster this deeper level

understanding. (p. 3)

Museum patrons and students, then have needed to accept or reject the status of a painting by its place in a museum or a book, and don't always get a fully satisfactory answer to their questions about why an artwork matters or a real sense of what makes art resonate and have meaning.

Though exploring contemporary art can seem unsatisfying because of the uncertainty about a work's stature or value, it can also potentially be a student's lifelong key to unlocking the entire field of art history. Because it is created around us and in our environment and social milieu, contemporary art in many ways may ultimately be easier to understand than other artwork. If a teacher can provide a deeper, richer context for how and why a specific modern artwork came to be, like any more immediate experience, things that occur within the realm of our own experience can be easier to relate to and can serve as the pathway to museum artifacts outside our experience. In tracing the path of a modern work of art over time, students can see 'living' examples of how art history is made, and how one work, placed in a more full cultural context becomes 'historical', museum worthy and significant. Students are also able to potentially put themselves in the shoes of the audience for their own artwork by critiquing and exploring the work of artists from their own time.

Though contemporary art can often seem outrageous, irrelevant or comical, the case of one particular artist, Sherrie Levine, is a story that illustrates how art is not always the

relic removed from real life that students think it is. It is also a great example of how a modern story can embody a student's own experience, giving them the means for a broader connection into how art comes about and becomes significant. In the 1980's, Levine photographed pictures from a book by the famous depression era photographer, Walker Evans and then exhibited the 're-photographs' (or 'appropriated' photographs) at a conceptual photographic exhibit. Sued for copyright infringement by the Walker Evans estate and enjoined from selling her work, Ms. Levine's conceptual argument was that there is no real originality and that appropriation of ideas, images and concepts was central to art.

In the eighties, this seemed like the stance of an outlier, on the fringe of the modern art world. She was a downtown East Village wannabe artist. Today, however, some of her more famous 'appropriations' hang framed in New York City's Museum of Modern Art, as well as most of the major museums throughout the world. We look back and realize that Ms. Levine seemed to be peering into the future and the birth of the digital age, in which 'appropriation' of anything and everything began to take center stage. Borrowing and even plagiarizing existing ideas have in fact become a central theme of contemporary existence, and not just for artists. Levine, in the mean time went from 'thief' to important twentieth century artist and a central figure on the topic of artistic originality in the twentieth century.

It would be impossible to once imagine Levine's artistic story as a learning experience for students. Yet because our world these days constantly deals with 'appropriation', copies and originality in the age of the Internet, Levine and her work provide a context for us to view one artist and their art, and gain a wider understanding of art history beyond names, dates and museum walls. Any student can briefly put themselves in Levine's shoes, and thus perhaps the shoes of other working artists. Through this students can begin to glimpse the more human, relevant meaning of art, get a feel for what art is 'really' and how something came to hang on that austere, white museum wall. Illustrating to students that all art starts with a person who had an idea and is not just a picture and date in a book is the beginning of 'understanding' in the constructivist sense.

CREATING THE INTERACTIVE GAME

For my agent based learning environment, I will be designing as an educational game, created for students in either high school or college. I am planning to specifically use an augmented reality (AR) game that presents four of works of art, where students explore the artists, the context the artist worked in and the historical time in which the work was created. Since AR games can "potentially teach 21st century skills, such as interpretation, multimodal thinking, problem solving, information management, teamwork, flexibility, civic engagement, and the acceptance of diverse perspectives" (Schrier, 2009), it seemed like a good choice for putting art into a more meaningful context and removing from it's isolated presentation in a museum. The game will rely

on handheld devices with Internet access and a built in GPS, as well as provide for a walking tour of galleries, artist 'hangouts' and locations relevant to the chosen artists. The ultimate goal of the game is to assist a museum curator in selecting one painting or sculpture, of four possible choices that will be explored in the game, to purchase for the collection of a major museum. As Schank, Fano, Bell and Jona (1993) state, " the emphasis on working towards a goal serves to ensure that designers will include opportunities to acquire and practice useful skills while illustrating to students the potential utility of the skills they are learning." By going deeper into the artist's lives, the cultural milieu and historical context of the selected artists, the game players need to answer a final question about the significance of a piece of artwork without a set right or wrong answer. Not just because the of value artwork is subjective (an argument usually made), but because it can be difficult to peer into the future and know what will fade into the background because of historical circumstance and what will seem, like Levine's work, a crystallizing idea about specific time and place in history. After all, could we really know Andy Warhol would be right about the cult of celebrity? Or in the case of Sherrie Levine, could we know that computers were about to reshape the concept of ownership and originality? Maybe.

In this game, the primary agents are the four selected Artists, (Robert Longo, Laurie Simmons, Robert Gober and Annette Lemieux) who are assigned the task of providing information about their lives, their ideas, the places they lived and worked and their influences, as well as explicit statements about the ideas in their work. Each artist's

information can be accessed through a portal in the handheld device. All four Artist agents are living presently in New York City or lived in New York for a length of time (Annette Lemieux is currently a visiting artist at Boston College) and have created a significant footprint in their lifetime, through major exhibitions and work sold to major museums, including museums and galleries in New York. They have also all published at least one book or written guide that gives personal insights, reflections and stories about their life in art. Still, they are not household names like an Andy Warhol or Edward Hopper, making the outcome of the game less certain. By choosing artists with a large body of work, collections of critiques written about them and multiple catalogs written by curators, as well as a location that students can physically access, students playing the game can engage with authentic materials and places from which to learn about these artists. As Black (2009) says “there are three steps involved in a grounded cognition approach to learning something: 1. Have a perceptually grounded experience. 2. Learn to imagine that perceptually grounded experience. 3. Imagine the experience when learning from symbolic materials.” Students will then be immersed in both an environmental and intellectual way in the background of the four artists and their works while they are exploring physically and using the handheld portals.

Another agent in the game is the Curator agent (again accessed through a portal on the handheld device), who gives more definition to the included works of art and why they seem to matter, not only to museums, but also to the larger cultural landscape. Because curators, unlike art historians help create art history by entering the dialogue between

artists, their audience, and knowledgeable critics, all within the context of current culture, they will be the primary guide/facilitator in the game. They help determine the criteria for inclusion and select from all the art produced those pieces that are defining for a period, location or time. In this game, the agent of the Curator will provide the player with overarching questions and explicit criteria for considering each piece of art. As Schank, Fano, Bell and Jona (1993) state “the fact that there is no definitive right answer does not mean the experts do not have their preferences.” Going back to the case of Sherrie Levine, we say her point of view was about the idea of originality, but a curator’s point of view about Levine might have been that she arrived just at a moment in time before the digital copy made the idea of originality even more fleeting and pertinent. Additionally curators around the world came to the conclusion that she was one of the best representatives of a significant group of artists focused on ‘appropriation’ in art. In other words, the artist and curator don’t necessarily see the art as meaningful for the same reason, but instead fit together in time, like two pieces of a puzzle. The Curator agent has the overview and the wide screen view, as well as the task to continually review trends among many artists while defining groups and categorizing work. The Curator agents job is to abstract and generalize by looking at art production overall.

Still not enough, to make the game fully meaningful, we need the agent of the Art Historian. Art Historians, unlike Curators do not influence the history of art (by definition), but record it, gather it and define it once it has occurred. Their valuable

contribution is the more retrospective view, as well as the historical criteria through which art is viewed. By the time an Art Historian is examining artwork it is past, not present. In this game, the agent of the Art Historian is there to give tips about how the past may or may not be relevant to the present. The Art Historian may interject facts such as 'it was really the impact of World War II and the Nazi's political use of imagery that finally pushed figurative imagery out of paintings. Around the world artists saw the devastation caused by the use of imagery for political ends and so the era of true abstraction began' or 'the appropriation of images was a New York based movement that began in the seventies and informed the work of a group of artists called the conceptualists.' Though the agent of the Art Historian is not really there to influence the outcome of the game, the agent can offer information to give students a broader sense of history and help students see that art history like other subjects we study is a long dialogue carried on from era to era. Sometimes artists in the present are re-asking questions asked before and providing new answers to them and at other times artists are discarding old questions altogether. As Schwartz (1998) says:

The question for constructivists focuses on the kinds of activities needed to help people best construct new knowledge for themselves. Often, the act of listening to a lecture or reading a text is not the best way to help students construct new knowledge. At other times, this may be exactly what is needed." (p. 476)

The Art Historian agent is present in the game as a teacher of facts.

Along with the four Artist agents, the Curator agent, and the Art Historian agent, students will have access through the handheld device to the walking Tour, a collection of links to art Catalogue entries compiled for the game and linked to stops on the walking tour, as well as biographies of the artists compiled through links to select websites. Additionally, through the Artist agent, students will be able to browse other works by the artist, compiled through a single link in the handheld device for each artist. Students are given a period of a few weeks to work on the game, taking the walking tours as time permits them. There are four tours in different locations in New York City, with each tour touching on all four Artists and their lives and work. Each tour takes about 45 minutes and students will work in pairs. The object of the game, to recommend a work of art to the curator, is achieved by making a case for one of the artist's work to be included in a major museum. Students make their case by compiling evidence from the biographies, artist quotes, catalogues, tours, input from the Curator and comments from the Art Historian, as well as their own opinions. Students are required to submit a short essay, written with their partner with their recommendation for the museum purchase. In their essay students are required to cite evidence from all the resources provided to them, using links to the websites, catalogues and curator comments, as well as supporting imagery in the form of other works by the artist or even images captured on the handheld during the tour.

A critical component of the game is the walking tour, in which students physically explore the actual world of the artist. One of the Artist agents for example, Robert

Longo, started his graphite drawing by taking a preliminary photograph of a female model on his New York apartment rooftop. In his biography, he explains that the feeling of motion in the drawing was obtained by throwing tennis balls at her as she twisted and turned on the rooftop. Other Artist agents frequented bookstores like the Strand or bought their supplies down on Canal St. in New York City. And others frequented cafes or restaurants like Mr. Chow's, while still others have consistently shown their work in New York galleries like Metro Pictures . The students can enter and examine other works in these galleries. As Robert Gober, one of the Artist agents states, "After all, in terms of influences, it is as much the guy who mugged me on 10th Street (in NYC), or my beloved dog who passed away much too early, as it was Giotto or Diane Arbus." Thus the walking Tour attempts to include elements of the artist's everyday experiences, giving students direct contact with what they saw, felt and heard as they created their art pieces.

Also, as mentioned previously students are able to link to numerous catalogue entries from exhibitions featuring the Artists agents. As an authentic learning task, the game requires that students contend with a variety of real opinions and critiques of the artists work. The categories to which these artists belong may seem alternately clear and confusing depending on the perspective offered. A curator catalogue from Europe may view the artist one way, an American curator catalogue may view them in a different way. Additionally over time their place in art may have evolved or their work may have taken a turn in another direction. The importance of the

Catalogue section is to illustrate the idea that art, like other subjects, has an emergent dimension. Since artists are human, like all people they can change.

The Curator agent, who poses questions along with every Catalogue selection helps students to focus on what might be some of the most important criteria for making their decision about which work might be ultimately chosen. In a real museum setting, the Curator would be the final decision maker in the process of acquiring artwork and would best demonstrate the critical thinking skills students would need to make their decision. Students are made aware from the games outset that the Curator agent is closest to their function in the game. In many ways, students are working as a second curator, who will voice their opinion also.

Overall the agents in the game hope to make use of the design of a Study Support Environment using the ICON design model where students, as outlined in Black McClintock (1995) engage in:

1. Observation: Students make observations of authentic artifacts anchored in authentic situations. (Tour, Art Work, Catalogue)
2. Interpretation Construction: Students construct interpretations of observations and construct arguments for the validity of their interpretations. (Catalogue, Tour, Biographies, Artist Works, Final Essay)
3. Contextualization: Students access background and contextual materials of various sorts to aid interpretation and argumentation. (Catalogue,

Biographies, Curator, Art Historian)

4. Cognitive Apprenticeship: Students serve as apprentices to teachers to master observation, interpretation and contextualization. (Curator)
5. Collaboration: Students collaborate in observation, interpretation and contextualization (Tour partner, Curator)
6. Multiple Interpretations: Students gain cognitive flexibility by being exposed to multiple interpretations (Catalogue, Curator, Art Historian, Artist)
7. Multiple Manifestations: Students gain transferability by seeing multiple manifestations of the same interpretations. (Catalogue, Curator)

Though most of the agents actually function as searchable databases, the Curator Agent poses questions throughout the tours that students answer and is monitored by the teacher/guide/ game designer in the form of a chat room. Over the course of the walking tour icons appear for locations that refer the students back to the database in the form of the Catalogue, the Art Historian, the Art Biographies and words from the Artists themselves. In answering the Curators questions about these specific resources, the students end up with a set of answers that can ultimately give shape to criteria for their final decision about who is the more worthy artist. For example, the Curator may ask if it appears the artist's idea has been done before by referring to Art Historian entries or the Curator may ask if current events gave shape to any of the artwork by referring to a Catalogue entry. The artist Robert

Longo, for example, created his work of a woman in business attire, just at the peak of the frenetic activity on Wall St. in the nineteen eighties, capturing a moment in time. Does a student think this is the important criteria or should the artist present an idea that is more broad, that is something that applies to a larger group of people? The Curator is there to guide the students, focusing them on criteria that are used by numerous other curators in the past. Of course, less the Curator seem like a teacher teaching, it is helpful to note than in a recent Whitney Museum of American Art Biennial Exhibition (one of the main exhibits in the world that confers an elevated stature to contemporary American artists). The museum decided to use a large group of American curators to decide on the artists in the show. After a preliminary meeting, each curator submitted a list of fifty artists, and the group of curators discovered they had NO overlap on the lists. This illustrates that the Curator agent is a guide, but not an authority in the way we generally perceive them to be. As Graesser (2008) states “agents can demonstrate (i.e., model) good learning strategies. Students rarely have the opportunity to observe other students exhibiting good learning strategies in the classroom and other typical settings in school systems.”

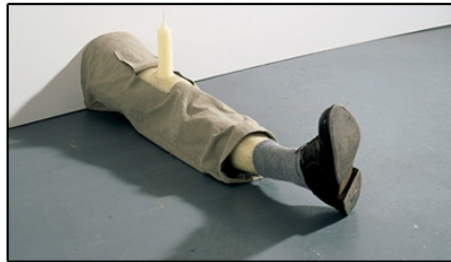


SAMPLE MAP: AGENTS APPEAR ON THE TOUR

The Game Agents



Annette Lemieux
Artist



Robert Gober
Artist



Laurie Simmons
Artist



Robert Longo
Artist



The Curator



The Catalogues



The Art Historian



The Tour



Artist's Stories

STUDENT MOTIVATION

Student's motivation in this game is ultimately based on the students taking up the cause of one artist's future and becoming their advocate with the Curator, though it is also possible that students decide none of the work should be purchased for the museum and voice their opinion in this direction. In requiring students to take a stand that doesn't have a clear answer, students in part take on the role of a real curator. They temporarily become history makers rather than observers. In putting students in the history 'maker' role, they are no longer passive observers of artistic status conferred by a museum, but actively engaged in deciding if the status is warranted by the meaning or lack of meaning the artists exhibit in their work. Students may find in the course of their investigation into each work that the role of the artist is a bit over blown and this is fair enough. But it is also possible students may discover that they can relate to the ideas the artists presents and that art isn't really as removed from everyday life as they previously thought. Students are also motivated by partnering with another student, who may alternately act as tutor, student of the partner, associate and devils' advocate. Through student's participation in the tour, their need to answer the goal question at the end and interaction with the Curator and student partner, students participate in a game that is both constructivist and situated cognitively. As Schrier (2009) clarifies "in Constructivism, learners actively construct their own knowledge, instead of passively receiving information from a teacher or guide. They learn cooperatively and socially, and upon reflection on their own learning process. In the

Situated Cognition approach, context and learning, knowing and doing, are seen as interdependent.” Because students must construct their answer to the final question from the resources provided and the environment they acquire the knowledge in, their motivation is being able to choose for the collection and speak with a certain authority about why their choice matters. In some sense the motivation is simply the right to an opinion.

ASSESSMENT OF LEARNING

In assessing the learning that occurs during the game it is possible to review the student essays and establish a rubric or set of criteria for evaluation.

By asking the following questions, designers of the game can understand some degree of the learning that occurred:

- Did students refer to information from the Catalogue entries in their decisions?
- Did students focus narrowly on a few references or use a range of information provided in the game?
- Did students complete the tours and access the icons during the tours?
- Did students internalize criteria presented by the Curator by explicitly using it?
- Where students able to clearly explain the ideas and concepts presented in the artists work?

- Did students explicitly refer to the historical background presented by the Art Historian?
- Did students start to independently formulate their own criteria for their decision?
- Did students demonstrate critical thinking skills when choosing their artist?
- Did students provide arguments for their choices? Or emotion? Or both?
- Did the students come to identify with any of the artists ideas? Where students able to make a connection between the work of the artist and something in their life?
- Where students able to come to an agreement with their game partner or did they find they needed to submit two choices to the museum? Was collaboration and communication a positive result?

In looking at the skills learned in the course of the game, the evaluation can also assess whether students were able to manage the information provided during the course of the game; whether they were able to use and integrate the technology provided for their learning; were they able to distinguish fact from opinion; were they able to work with both textual information and imagery; and finally did students successfully navigate important thinking skills like interpretation, problem solving, analogy and the metaphorical components inherent in art.

Additionally, a thorough evaluation of the game might include questions to the participants in how the game might be improved, through both written

evaluations and verbal interviews. The primary interest of the designer would be whether, through the agent of the Curator, students eventually discover clear criteria for making the decisions and even more importantly whether students could make the connection between art and something in their own world.

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