

REALITY ENDS HERE:
ENVIRONMENTAL GAME DESIGN AND PARTICIPATORY SPECTACLE

by
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Acknowledgements

A project of this kind is inherently collaborative. It takes many hands to design and test a game, and many more to implement it in the wild. But it is impossible to separate the dancers from the dance. A game does not exist without its players. And so I would like to begin by thanking all those who participated in any way in the playing of the 2011 version of *Reality Ends Here*. Each of you constantly surprise me with your enthusiasm, trust, and ingenuity. You made this happen, and I can't wait to see what you do next.

My primary design partner for this project was Simon Wiscombe. Simon's fingerprints are all over this game, and it would not have taken the form it did without his involvement. Simon is a unique kind of triple-threat--artist, performer, and engineer--and each of those qualities were invaluable in the rapid prototyping and implementation of the game. I sincerely hope I am lucky enough to collaborate with Simon again.

Three members of the faculty at the USC School of Cinematic Arts (SCA) were especially instrumental in making this project happen. Professor Holly Willis initiated the project in her capacity as head of the Envisioning the Future Group at the SCA. Holly's vision and dedication are the foundations upon which this effort is built. I will be forever grateful for the trust she placed in me to design and execute this project. Professor Tracy Fullerton worked tirelessly to push me as an artist and designer. Tracy was deeply involved and invested in the design and implementation of the game. Like Simon, her

fingerprints can be found everywhere on this project. Without her energy and wisdom, this project may well have died in childbirth. Professor Tara McPherson is the chair of my dissertation committee. Tara's guidance, support, and involvement in this project helped me to understand how I could use design to articulate an argument about the role of games and new media in the generation of culture and the remaking of lived environments. Tara's role as instructor of the class which ran in parallel to the game augmented the project in ways impossible to enumerate here. That both Tara and Tracy took on this effort during their sabbaticals is a testament to the dedication and passion they bring to all their work.

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This project was an experiment. By stepping into unknown territory, I opened myself to the risk of failure. But the finite nature of our existence, and the infinite nature of the unknown, moots success or failure in any professional domain. What really matters are our relationships to the people who are closest to us with whom we share our brief journey through this wilderness. Kiki Benzon's love, humor, editing prowess, and advice have long sustained me in this regard. My appreciation for her goes far beyond the limits of this project.

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Abstract

This document defines the emerging practice of “environmental game design.” This practice is contextualized within a body of theory regarding the production of space and the changing nature of spectacle. Within this context, five interrelated theses regarding environmental game design are presented. These theses are illustrated through discussion and documentation of the central practical component of my doctoral research: *Reality Ends Here*, an environmental game designed to effect immediate change in the community of learners at the USC School of Cinematic Arts (SCA). Drawing on the research and methodology underlying the design and implementation of *Reality Ends Here*, this document argues for the transformative potential of environmental game interventions across a range of domains.

Chapter 1: Introduction

For those who would like to see change, the price of inaction will be to see the least desirable features of the status quo exaggerated and even more firmly entrenched.

- Seymour Paper, *Mindstorms*

Over the course of 122 days during of the Fall of 2011, a group of about 100 students at the USC School of Cinematic Arts in Los Angeles, California sacrificed weekends, evenings, and other moments of spare time to plan and create media projects, stage special events, critique one another's work, and share their creations with the world. They extensively documented their experiences with hours of video footage, hundreds of photos and blog posts, and thousands of status updates. They formed into groups of varying size and aesthetic disposition, came up with their own ideas, and produced their work using their own "DIY" equipment. The often elaborate artworks they produced included short films, animations, video games, board games, screenplays, live events, websites, installations, documentaries, transmedia hoaxes, plays, and more. Friendships were made, reputations were forged, blood, sweat, and tears were shed, an environment was transformed, and stories were told. This collaboration, creation, and reflection was not a part of the students' coursework.

Few of the students involved in this creative social activity knew each other prior to the fall of 2011. Nearly all were "freshmen" undergraduates beginning their first year of post-secondary education in one of the five Divisions at the USC School of Cinematic Arts. As they arrived, the University made efforts to introduce them to one another, using orientation sessions and other communications to promote a culture of intellectual

diversity, collaboration, and creativity. In addition to these traditional methods, the University also provided the students with a game to play. Some of the students referred to this game as “Reality”; others simply called it, “The Game.” They were not told to play it, nor were they directly told that it existed. It was a secret game they discovered on their own. Many of the students, upon learning of the secret, kept it so; others spread whispers, online and off. But as the game unfolded, it became difficult to ignore. It became a spectacle.

This spectacle was not made *for* the students as much as it was made *by* them. It played out online on Facebook, Twitter, YouTube and other platforms; and offline, in student dormitories, campus spaces, and the streets of Los Angeles. It told the story of the friendships, partnerships, rivalries, and dreams forged through the situations of the game. It was more than just a spectacle. It was a *participatory spectacle*.

This document is about the process of engineering participatory spectacle through environmental game design. Environmental game design is the practice of designing games with and around the physical, digital, social, and emotional environment of players so as to manifest an impact on the way in which that environment is used. This terminology is drawn from the domains of urban planning and architecture. David MocarSKI, Chair of the Environmental Design program at the Art Center College of Design, describes environmental design as “a human-centered discipline that is focused on the design of a user’s total experience,” involving “spatial, object and emotional

communication.” Designers working in environmental design “plan, design, and implement systems . . . that are added to or overlaid onto and into existing or planned places and spaces” in order to enable “wayfinding,” “interpretation,” and “placemaking” (Calori). Environmental game design is the application of game mechanics to these ends.

Insofar as the experiment in informal learning conducted at USC is its centerpiece, this document is specifically concerned with how environmental game design can impact communities of learners. In this sense, the discussion contained herein speaks to what John Dewey identifies as the “intimate and necessary relation between the processes of actual experience and education.” This relationship has long been understood as being crucial. As Socrates suggests in *Meno*, teaching is distinct from the mere transfer of facts: rather, it entails creating the conditions necessary to assist learners in their own “discovery of truth.” The contours of a given educational environment can vary widely, from the contained experience of home schooling, to the explosive bustle of a major urban university, but the primary responsibility of educators is always and most essentially to give structure to this environment so as to make it conducive to intellectual and moral development. As Dewey notes, writing in 1938, “it is the task of the educator to recognize surroundings, physical and social, that exist so as to extract from them all that they have to contribute to building up experiences that are worth while.” This document is intended to shine a light on the role of environmental game design in the

processes of “recognition” and “extraction” that are required to create meaningful and social experiential learning systems in the present day.

Our capacity to learn and unlearn, both as individuals and as communities, is fundamental to our civilization. This document is therefore also about the role of environmental game design in impacting all manner of lived environments. While the project presented herein is designed to impact a very specific group of often economically-privileged young people at an expensive post-secondary media arts school, the principles underlying its development do not require any specific arrangements of capital or demography, nor are they strictly linked to educational contexts. This document is intended to show how spectacle can be oriented toward and directed by real participation through environmental game design, and how this kind of play can be a positive force in many corners of our civilization. It is about how artists, entertainers, educators, and activists can use this form of design to embolden and empower communities to actively engage in the construction of their realities. This is not a survey or a blueprint or a proof. Rather, it is a provocation.

1.1 About This Document

This document is intended to capture the thinking underlying the design of *Reality Ends Here* as a means of provoking further investigation into the application of environmental game design and participatory spectacle across a range of domains, from education to activism to entertainment and beyond.

The first chapter of this document begins with a brief “Background” section. This section positions *Reality Ends Here* within the history of the USC School of Cinematic Arts, and introduces the metaphors of dream and spectacle which will be returned to throughout this document. The second section of the introductory chapter, “Research Trajectory,” traces the evolution of my art and design practice as it moved away from linear cinematic storytelling and toward nonlinear and spatialized forms of narrative and interactivity. This trajectory frames the third section of the introduction, wherein I present a critique of alternate reality games (ARGs). This discussion is intended to reveal the ARG as a very specific form of puzzle- and event-driven interactive transmedia storytelling. While a crucial influence on the emerging practice of environmental game design, the specific nature of the ARG excludes games such as *Reality Ends Here* from being defined as such, necessitating the invention of a new term of art. The rationale underlying this term of art will be discussed through a brief examination of the limits of related terms.

Chapter One will conclude with a presentation of the theoretical groundwork for environmental game design and participatory spectacle. This presentation is intended to surface five main ideas. First, that the foundational interactions between individuals within a given environment constitute a performance or spectacle, and that this performance or spectacle in turn shapes and constrains possibility within the environment; second, that designing a sustainable and meaningful intervention into this process necessarily entails both activating the agency of the inhabitants of the

environment, and systematizing the process of reflecting this agency back upon them in the form of narrative; third, that preparing such interventions requires a deep analysis of the affordances and limitations present in the social environment; fourth, that conducting this analysis entails reconsidering what we mean by space and place in the context of mobile and social media and other forms of ubiquitous computing; and fifth, that any design process of this sort is inherently iterative and must be permeable to the input of participants. These core ideas weave together interrelated strands of theory and practice drawn from the urban interventionist art practice of Situationism; the learning theories of John Dewey, Seymour Papert, and others; the sociological investigations into performance and social establishments conducted by Erving Goffman; and the contemporary practice of mobile and environmental game design, among other sources. This section will also include an exploration of the notion of the spectacle from the point of view of participation. This discussion, informed by the writings of Stephen Duncombe, Henry Giroux, and others, will surface the democratic affordances of the spectacle and position it as a tool for community transformation. This perspective will be contrasted with more traditional views that conceive of the spectacle solely as a mechanism for domination. The notion that a generative text is required to structure and sustain participation in the spectacle will be central to this discussion. Game mechanics will be proposed as a fruitful source for this generativity.

In Chapter Two, I will present the design philosophy underlying *Reality Ends Here*. This presentation will identify five key theses regarding environmental game design and

“impact.” This chapter is most relevant to game designers and the range of communities invested in the notion of “games for change” or “impact games,” but also has implications that will be of interest to those who are thinking or working through the use of games in fields such as entertainment, advertising, and community art practice.¹ The theses presented in this chapter will be illustrated with documentation from the 2011 iteration of the game. This documentation is not presented in the form of scientific assessment data, but rather through the narration of specific passages of play. To assess the impact of *Reality Ends Here* with anything approximating scientific rigor would involve a multi-year longitudinal study of participant outcomes.² Further, it is my position that the impacts of this game are best demonstrated in terms of social and cultural outcomes that are easily captured through narrative but elusive when approached quantitatively.

Chapter Three contains a complete design breakdown of *Reality Ends Here*, illustrated with additional documentation. In Chapter Four, I will close this document a discussion of the key successes and failures of the game, and critical reflections on impact games, “gamification,” and *Reality Ends Here* itself. Several Appendices are also included. These Appendices contain additional documentation, interviews³ regarding the design process, and other materials.

¹ Regardless of their provenance or purpose, all games seek to transform subjectivity through the procedures of play. In this sense, there is no such thing as an “instrumental” or “applied” game; rather there are simply things that we can call games, and then there is everything else.

² Research collaborator Benjamin Stokes has already taken some significant steps toward producing this data.

³ Readers looking for a more informal discussion of the key principles, design elements, and outcomes of *Reality Ends Here* may wish to begin by reading the interviews with Nathan Maton and Henry Jenkins included in the appendices. These interviews cover much of the territory that is explored in depth in Chapters 2 and 3 of this document.

Readers are invited to use this document in whatever way suits their research interests. While each chapter contributes important elements to the overall picture I am trying to paint, I recognize that many readers will be primarily interested only in certain aspects of this discussion. Due to the restrictive formatting requirements placed on doctoral dissertations, I have found it necessary to sequence the arguments contained herein in a somewhat artificial manner. The optimal form for a work such as this would be a website or other interactive artifact. Such a form would enable navigation by keywords and search terms, and would open new possibilities for dialogue. In lieu of such a form, readers are advised that this text is designed to at least partially withstand a nonlinear traversal: whenever possible, key terms are redefined in context so as to render individual chapters legible independent of the rest of the text.

Finally, it should be noted that this document represents only a third of my dissertation project. In keeping with the ethos of the Interdivisional Media Arts and Practice (IMAP) program, the scholarly contribution of which this document is a part is made through the aggregate of theory and practice. Readers are thus invited to explore and reflect upon the website for the current version of *Reality Ends Here*, which can be found at <http://reality.usc.edu>.⁴ Because *Reality Ends Here* is inherently about documenting and narrating the activities of the community of learners at the SCA, the website that

⁴ Readers who wish to access certain non-public elements of the site will require a login. Please contact the author directly at remotedevice@gmail.com to be emailed the appropriate credentials. Further, as with all forms of digital media, the website that mediates gameplay for *Reality Ends Here* is a castle in the sand. Readers removed by posterity are invited to download a static .zip archive of the 2011 game website from <http://remotedevice.net/docs/reality2011.zip>.

mediates the game constitutes a far more complete exegesis of the project than could be included here--indeed, it is the primary vehicle for the documentation of this project. This document is intended to fill in the gaps between the manifestations of play and participation visible on the game website and the lived experience of playing the game itself. This experience is in many ways akin to a theatrical experience, albeit one wherein there is something approximating an identity between the performers and the audience. Such ephemeral performative elements find explication in these pages, and are integrated into the discussion of the theory and design of *Reality Ends Here*. Further, readers who examine the website and other game materials such as the complete card deck, the game identity system, and the ruleset for *Reality Ends Here* will surface different meanings contingent on their theoretical and practical perspectives.⁵ With luck, these discoveries will complement the concepts discussed in this document and will help to inform future work in the domain of environmental game design, education, and impact game design. Readers are invited to share their reflections at <http://remotedevice.net/dissertation>.

The final component of this dissertation is my personal portfolio and “research lifelog” viewable at <http://remotedevice.net>. This website aggregates bibliographic citations, blog posts, tweets, quotes, media sources, project documentation, and other artifacts gathered and produced during the course of my research. As a searchable and metadata-rich archive, remotedevice.net is designed to enable the visitor to enter into the matrix of ideas and practice that find sequence in this document and expression in *Reality Ends Here*.

⁵ The ruleset and an extensive discussion of the game’s identity system are included in Chapter 3 below. The 2011 deck of cards is available through the USC Library, attached to this text. The cards can be browsed virtually at <http://reality.usc.edu/cards>.

1.2 Background

Reality ends here.

- motto of the USC School of Cinematic Arts

Of all the affairs we participate in, with or without interest, the groping quest for a new way of life is the only thing that remains really exciting.

- Guy Debord, "Critique of Urban Geography"

The USC School of Cinematic Arts (SCA) was founded in 1929 at the initiative of Douglas Fairbanks, Sr., a movie star of extraordinary fame, wealth, and influence. At the time, Fairbanks was the president of the fledgling Academy of Motion Picture Arts and Sciences, which in 1927 had begun bestowing the awards later known as the "Oscars" (Wiley 3). Eager to make the Academy as central as possible to the burgeoning film industry, Fairbanks conceived of the organization as having an educational mission to support its role as liaison between labor and the studio system. With a "training school at its core," Fairbanks and other members of the Academy envisioned the organization as being the definitive "center of learning for future generations of motion picture professionals" (Goldman 14). After a series of consultations with existing institutions throughout the Los Angeles area, Fairbanks finally struck a deal with USC President and fellow fencing enthusiast Rufus B. von KleinSmid, who agreed to house, support, and partially fund what would be the nation's first film school. In 2009, a statue depicting Fairbanks holding a screenplay in one hand and a fencing foil in the other was erected in the main courtyard of the school to commemorate the 80th anniversary of this agreement.

No post-secondary institution is as directly linked to Hollywood spectacle as is the SCA. In addition to Fairbanks, the founding faculty of the SCA included directors such as D.W. Griffith and Ernst Lubitsch, and seminal industry players such as William C. DeMille, Irving Thalberg, and Darryl Zanuck, among many other luminaries. Since its inception, the SCA has functioned as a talent funnel for Hollywood, training students in the style, technique, business, and analysis of cinema, television, and, more recently, interactive media and transmedia. Today, alumni are so prevalent and influential within the entertainment industry that they are collectively referred to as the “USC Mafia.” In 2009, the public relations machinery of the SCA proclaimed that seventeen of the top twenty grossing films of all time were written, directed, or produced by graduates of the school.⁶ In a speech delivered at the school’s 80th anniversary celebrations, Steven Spielberg quipped, “if every SCA graduate working in the industry didn’t show up to work on Monday morning . . . [this] town would grind to a halt” (Cowan).

Simply put, the SCA is more than just a place for the study of the theory and practice of spectacle: it *is* a spectacle. Its state-of-the-art facilities, many of which bear the names of famous alumni (“The Lucas Building,” “The Ron Howard Screening Hall,” “The Zemeckis Center,” and so on), and whose halls are lined with autographed posters cataloguing the extended canon of cinematic history, project onto the mind of the visitor a powerful and idealized image of Hollywood. It is a place where students, as SCA Dean

⁶ This statistic is somewhat dubious, as it includes the work of Steven Spielberg, who is only an “honorary” alumnus. See Cowan, “Cinematic Arts Celebrates 80th Anniversary With All New Campus.”

Elizabeth Daley states, come to “make their dreams a reality” (Goldman 8), but it is also a dream unto itself.

The SCA has long been aware of its status as a dreamland. This awareness is captured in its unofficial motto, “Reality Ends Here.” According to alumnus David L. Wolper, sometime in the 1940s, the phrase first appeared as graffiti on a campus wall (Goldman 11). Twenty years later, the graffiti appeared again, this time on the wall of the “Bullpen,” a heavily-trafficked student hangout and workspace. In the 1970s, a student scrawled the phrase above the entrance to the “Stables,” at the time a main building for the film school. When George Lucas donated his first set of buildings to the University in 1984, the phrase was roughly carved into the wet pavement of the walkway to the complex. In 2008, when Lucas’ second set of buildings were being constructed, the motto was adapted into latin (“*Limes Regiones Rerum*”)⁷ and engraved in stone above the archway at the back of the main courtyard. And in 2011, it made its most recent appearance, in the full name of “the Game”: *Reality Ends Here*.

⁷ Google Translate renders this as “regions of the boundary.”

Figure 1: “Reality Ends Here” graffiti, unofficial and official.



Every dream has its own peculiar logic. In a dream of stillness, I cannot move. In a dream of flight, I can do the impossible. And on those rare occasions where I recognize that I am dreaming, I can do whatever I choose. What is the dream of a place? Who are its dreamers? Is it a dream of stillness or of flight?

Ours is a society of overlapping and nested dreams, and it's turtles all the way down. We construct these dreams, and are constructed by them. This is our reality, and this is how we change it. Perhaps there was some point in the distant past when this was not the case, where we were well and truly “awake.” Or perhaps this fanciful paradise of the real lies

in the far future as the omega point of science, a utopia wherein all politics and culture proceed without error or delusion from a basis in the complete understanding of the fundamental interactions between matter, energy, and subjectivity. But such a future is almost certainly impossible, and dubiously desirable; and we can never return to Eden. Reality ends here, in the ever-present Now wherein the dream makes the dreamer and the dreamer makes the dream.

Reality Ends Here is an intervention into the dream logic of the SCA. It did not emerge by accident. It was designed in order to change the terms of the dream into which students entered when they began their careers at the SCA. It aimed to reveal this dream as a dream, and to empower its dreamers to construct it themselves. Over the course of the project's 120-day run, collectible cards, rumors, secret websites, and a mysterious black flag drew students into an intense underground social game involving collaboration, strategy, and artistic experimentation. By connecting students to one another in unpredictable and serendipitous ways, and by providing a framework for meaningful play and performance, the game superimposed a productively chaotic and interdisciplinary community of practice onto a collection of heavily siloed academic divisions.

1.3 Research Trajectory

I am a storyteller. My path as an artist and designer began in writing short fiction, plays, and screenplays, and in making films. This practice gradually transformed into the kind

of work I am doing now, namely, environmental game design. I will define exactly what I mean by environmental game design in the pages below. But first, I would like to briefly outline my trajectory into the space of designing games and participatory systems. This trajectory is presented in order to help the reader understand the relationship between game design, participation, and storytelling which underwrites *Reality Ends Here*.

For me, this project begins at the turn of the century. At that time, I was working as the membership coordinator at the Liaison of Independent Filmmakers of Toronto (LIFT), an urban film co-op with somewhere around 1000 members. My responsibilities at LIFT included teaching screenwriting, organizing classes on topics such as hand-processing 16mm film, and putting together festivals of artisanal works of cinema. But despite being ensconced in this nostalgic temple of filmmaking, I was feeling restless about continuing as a filmmaker. With the Web having ushered in a whole new range of affordances and mentalities about how media can be produced, distributed, and discovered--along with changing notions of what an author can be and what constitutes an audience--my mind had begun to wander. The language of the cinema--*the shot, the cut, the sequence*--and the process of production and distribution at the time--*find some financing, get into festivals, cross your fingers and hope for a distributor*--seemed overly restrictive. With the Web came so many new possibilities. It was an undiscovered country for storytelling, and I was unable to resist the urge to explore.

What initially excited me was the idea of telling stories that went beyond the confines of a single text and unfolded not just across multiple texts, but across multiple platforms. I wanted to produce radically nonlinear work. Such work would go beyond the “database cinema” of the 1990s, which merely presented new ways to contingently produce linear sequences of images and other kinds of content. I wanted to dispense with the cinematic frame entirely and tell stories in the ether. I wanted to take Kaprow’s notion of the Happening and expand it to include the realm of the digital. In the words of kindred spirit Jeff Hull, I wanted to “infuse variability and play into the workaday world by re-engineering the way that people navigate and experience the space and the population around them.”

This idea of breaking free of the boundaries of a single medium quickly put me on a slippery slope. I found myself wanting to escape from all of the protocols that traditionally define our engagement with story. I ultimately began to wonder what the effect would be if I dropped the whole pretense of a story being a story at all. I began to look for ways to blur the boundaries between what was real and what was fiction--and the web with its capacity for anonymity made that tantalizingly possible.

In 2001, armed with a Canada Council for the Arts media arts grant, I began piecing together a project (ultimately known as *The Black Sea Tapes*) comprised of fake websites, a cycle of “lost” films by a dead filmmaker from the Caucasus named Janucz Hartl (loosely, “split heart”), and a series of real-world events including screenings staged by

Hartl's daughter, Krjstina. I planned to present these artifacts, events, and characters to the world as if they were completely real. I even went so far as to make my collaborators in the production swear oaths to never reveal the true provenance of the work we were creating.

Figure 2: Screenshots from *The Black Sea Tapes*.



I thought of what we were doing as a kind of archaeological fiction. My task as creator was to plant bits of story here and there and let my audience find them for themselves. The footage we shot would be planted in public places on VHS tapes accompanied by cryptic notes which would indirectly lead to the website run by the fictional artistic collective to which Janucz Hartl belonged prior to his death. On this website, beneath layers of other fictions, Hartl's friends and family would lament his tragic suicide. They

would discuss the possibility that some of his work might have survived despite his own terminal efforts to destroy every existing print of his films. As the tapes were discovered in reality, these characters would communicate with the audience, and work with them to reconstruct and interpret Hartl's final mysterious film. Through this process, characters and story worlds with uncertain ontologies would be revealed.

Of course, I wasn't the only person thinking about this kind of storytelling at the turn of the century. While I was working on *The Black Sea Tapes*, movie studios and game companies were in the midst of unleashing the first wave of what would soon become known as alternate reality games (ARGs). Like my little art project, these games distributed mysterious narratives across the web and in physical space, blending them into everyday content channels, all the while playfully maintaining the fiction that it was all real. Early ARGs such as *The Beast* (2001) and *I Love Bees* (2004) engaged the energies of sometimes quite large audiences in collective acts of narrative archaeology. These projects were ultimately very complicated advertising experiments, designed to "drive eyeballs" toward mass media products; but the outcomes they produced were fascinating.

As I studied these first wave ARGs and toyed with further indie efforts of my own, I came to an important realization. What was most interesting to me about this emerging art form was not the way it allowed authors to cleverly deploy story materials, puzzles, and "missions" under the winking guise of "this is not a game." Rather, what struck me

(and others who have converged upon this space, such as McGonigal, Jenkins, and Dena) as having the richest vein of artistic--and, ultimately, practical--potential was the way that ARGs could transform audiences into engaged and creative communities.

The main thing I became interested in was the role the participants of ARGs played in the creation of the experience itself. I wanted to go beyond relegating participation to the ghetto of “user generated content.” I wanted participants to have more than just an impact on the various elements of the story presented by the game: I wanted their participation to *be* the story of the game. I wondered if the story of the players themselves and the communities they formed could be the *focus* rather than a side-effect of the experience.

In the end, I realized that the design approach of the ARG was simply incapable of producing the kind of system I wanted to create. Uncovering what such a system might look like was the primary objective of the research into play, performance, and public space which I embarked upon as I commenced my studies at IMAP in 2008. The following section is a critique of the design practices associated with the vast majority of experiences classified as ARGs. This critique is an essential precursor to the design thinking underlying *Reality Ends Here*, and serves as a point of departure for the theoretical discussions found in subsequent sections.

1.4 Critique of Alternate Reality Games

In contrast to more capacious terms such as “environmental game” or “pervasive game,” the term, “alternate reality game,” (ARG) refers to a very specific and well-defined form of interactive transmedia storytelling that “[takes] the substance of everyday life and [weaves] it into narratives that layer additional meaning, depth, and interaction upon the real world” (IGDA ARG SIG). In this section, I will critique this kind of experience design, focusing on its emphasis on “top-down” transmedia storytelling, and the effects this emphasis has on limiting replayability, accessibility, and sustainability. Such limits are not always a concern to designers. Indeed, for those interested in telling stories, these limits can in fact be strengths. But *Reality Ends Here* and games like it are not about telling stories from the top down; rather, they are about empowering participants to tell their own stories and construct their own environments from the “bottom up.” From this perspective, the limitations the ARG imposes on replayability, accessibility, and sustainability are critical. This section will explore these limits in depth, and will propose a more systems-centric (or “high process intensity”) “story facilitation” approach.

To be clear, some experiences colloquially classified as ARGs minimize or eschew top-down storytelling in favor of more deeply participatory and procedural modes of player engagement and narration. As I will discuss in the section titled, “Introduction to Environmental Game Design,” it is important to distinguish these kinds of systems from ARGs on the basis of the fundamentally different approaches they take to participation and the generation of narrative. In the context of the present discussion, the primary

distinction to make in this regard is the curious fact that the majority of the most prominent and widely-discussed Alternate Reality Games are not in fact games at all.

1.4.1 ARGs ≠ Games

To understand this position, consider a few of the canonical definitions of games. Katie Salen and Eric Zimmerman define games as “[systems] in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome” (96). Roger Caillois defines games as free activities “governed by rules [and] make-believe” (10-11). Avedon and Sutton-Smith define games as “an exercise of voluntary control systems in which there is an opposition between forces, confined by a procedure and rules in order to produce a disequibrial outcome” (7). Despite the variations in nuance between these definitions, all emphasize the central role of rules in governing the flow of the experience. Simply put, the experience of playing a game is an emergent expression of the interaction between players, game resources, and rules.

The experience of an ARG is not governed by rules and procedures in the manner of a “true” game, but rather by the strategic and responsive curation of narrative materials by producers (or “puppet masters”). In an ARG, players discover narrative figures through an encounter with one or more access points embedded in real world contexts. These access points, known in the parlance of ARGs as “rabbit holes,” lead players into a dynamic matrix of story components distributed across various kinds of digital and physical media. By exploring these components, players discover discrete and linked

puzzles and challenges that serve both as impetus to connect with other players, and as time- and context-sensitive content bottlenecks.

In order to advance the narrative of an ARG, players typically find it necessary to work together, first by assembling into affinity groups via both official (i.e., game-sanctioned) and unofficial (i.e., player-created) social media structures; then by tackling puzzles and challenges collectively, leveraging the range of competencies, geographies, and biographies present in the player population. As puzzles are solved, the ARG's puppet masters release successive cycles of story and interactivity, tweaking their approach along the way based on the observed behaviors and emerging collective intelligence capabilities of the players.⁸ This process repeats itself until the narrative concludes, typically with the launch of a product or service. At this point, official support for the player community is usually terminated, primary online game assets are deleted or otherwise rendered inactive, and the ARG ends.

1.4.2 Promise and Potential

Early participants and producers of ARGs compared their emergence to watershed moments in pop music (Phillips, "Taking risks") and cinema, with some going so far as to suggest that the ARG was the defining narrative mode of the turn of the century (The Cloudmakers). Indeed, especially in the context of the early 2000s, ARGs represented a uniquely transmedial mode of interactive storytelling. When playing an ARG,

⁸ See McGonigal, "This is Not a Game," and Phillips, "Taking risks."

participants consume story in a variety of modes, via a range of devices, channels, settings, and practices. This nonlinear and fragmentary or distributed consumption-participation pattern was seen as a logical outcome of millennial shifts in media habits, and was used by some futurists as a model for how stories would be created and consumed in the coming era of ubiquitous computing and social media.

Other observers, invested in visions of participatory and collaborative storytelling, noted that, unlike typical consumers of cinema, television and other few-to-many media forms, the players of ARGs are necessary and constitutive elements of the work. That is, in an ARG, audience participation is ideally an essential and formative component of the text. To practitioners and theorists with a stake in participatory culture, the notion of an interactive storytelling form conceived from the ground up as a means of facilitating the collaborative production of media artifacts provided a “perfect illustration of all of the principles . . . shaping the media landscape at the present time” (Jenkins).

Further, ARGs were viewed as fitting into a long tradition of spatially- and temporally-distributed narrative forms, and for some, their emergence indicated the arrival into the mainstream of practices that had hitherto been relegated to fan subcultures and marginal art movements. Like the critical interventions of Situationism, which sought to reconfigure public space as a “new arena for creation” wherein “unforeseen games will become possible through the inventive use of material conditions” (Nieuwenhuys), the ambiguously-bounded play of ARGs has the ability to produce dramatic shifts in

subjectivity that “[sensitize] participants to affordances, real or imagined,” “[make] all data seem connected, or at least plausibly connected,” and “make surfaces less convincing” (McGonigal, “This is Not a Game” 43-44). Similarly, ARGs promised to do to mainstream storytelling what “distributed narratives”--experimental narratives spread out across “time, space, and the network” (Walker 1)--had done to avant garde and electronic literature:

Distributed narratives break down the aesthetics of unity we have followed for millennia. They take this disunity a step further than the bricolage of postmodernism, by collapsing the unity of form as well as that of content and concept. Yet perhaps they also point to a new kind of unity: a unity where the time and space of the narrative are in sync with the time and space of the reader. (11)

Finally, by bringing together once disparate practices such as puzzle design, performance art, and cinematic narrative, ARGs were seen as being on the cutting edge of interdisciplinary new media thinking. Great things were forecast, including the use of ARGs in establishing and leveraging collective intelligences in order to solve real-world problems.⁹

1.4.3 Shortfalls

While ARGs have proven that they have the potential to mobilize elite groups of “lead users” who can co-create content and evangelize for a brand or cause¹⁰--and that they can quickly generate alarmingly efficient collective intelligences¹¹--they have, perhaps

⁹ See McGonigal, “This is Not a Game,” and Jenkins, “Chasing Bees.”

¹⁰ See McGonigal, “Why I Love Bees,” IGDA ARG SIG, and Dena, “ARG Stats.”

¹¹ See DARPA.

understandably, failed to live up to some of the high expectations set out for them at the turn of the century. ARGs have not seen the kinds of growth in popularity that other forms of interactive media have seen over the past decade;¹² they have not proven to be a particularly effective way of building lasting communities or collaborative practices, especially when compared to more systems-oriented approaches to organizing and maintaining collective action;¹³ and they have failed to maintain the same kind of relevance to contemporary media habits and technologies that they arguably held in the early 2000s, ceding this territory to other kinds of asynchronous interactivity such as that found in mobile and social media games, casual games, and collaborative production games.¹⁴

1.4.4 Limits on Accessibility, Replayability, and Sustainability

This failure of the ARG to live up to the high expectations that attended its emergence can be attributed to three interrelated design practices, namely: 1) that ARGs are constructed as linear event-driven experiences; 2) that ARGs treat their core audiences as monadic “collective detectives” rather than groups of diversely-motivated living and breathing individuals; and, 3) that despite the decidedly playful and improvisatory character of the relationship between puppet masters and players, ARGs are ultimately not deeply generative textual systems, but rather vehicles for delivering curated story materials.

¹² See Dena, “ARG Stats,” and Schell.

¹³ See Shirky.

¹⁴ See Montola, et al.

Many of the problems associated with ARGs can be traced back to their status as temporally-bounded and linearly-unfolding experiences. As Jim Stewartson of Fourth Wall Studios puts it, “[ARGs have historically been] essentially rock concerts. Very large, real-time, elaborate experiences that were really cool and really fun for the people who were involved with them” (Morris *et al.*). This event-like design clearly eliminates much of the potential for replayability, and it exacts almost equally dire consequences on accessibility and sustainability.

The preponderance of the accessibility limitations of the ARG are related to its temporal structure. In a typical ARG, players who don't have the time *at the right time* to participate can find their experience “spoiled” by those who do. Even players with high levels of interest in the activity and a strong desire to participate in the ARG's challenges can be reduced to lurking on message boards or merely following along with puppet master- or player-created story summaries if they don't have the time required to keep up with the more hard-core players. Consequently, the vast majority of the players of traditional ARGs aren't “players” at all, but are rather more like spectators, albeit very multi-modal ones:

Of the millions of people who ‘experience’ an ARG only tens of thousands actually play them, the rest read the texts created by players. Now, as I have stated many times before, this is a very interesting model of audience tiering and shows a preference for player-created narratives above producer-created ones (indeed, the desire for a linear narrative above a fragmented one)...but the large numbers often claimed . . . are not indicative of the people who actually play these forms. They are hardcore games that only a (relatively) small amount of players can actually play directly (due to skill, time and access obstacles). I don't see how a

form with such accessibility issues is the ultimate form. (Dena, “Discover Manoa!”)

Marcus Montola *et al.* points out that this “pyramid of participation” enables transmedial designs wherein “different play modes contribute to each other and support an experience that is larger than its parts” (121). In such an arrangement, spectators co-exist with variously-engaged players, with the hard-core participants effectively acting as “stars” of the ARG’s narrative; puppet masters and serious players document the actions of the hard-core in real- or near-real-time; and the rest of the player base consumes this documentation serially. This kind of structure has been experimented with to varying degrees of success. However, since this and other kinds of “tiering” (Dena, “Emerging Participatory Culture Practices”) demand the production and management of numerous additional layers of content, any benefits in terms of accessibility are outweighed in terms of additional limitations on sustainability. For example, in order to achieve a tiered design, a puppet master might create very difficult puzzles and extremely obtuse narrative content for hard-core players, somewhat easier puzzles and relatively comprehensible narrative content for casual players, and easy-to-solve puzzles with highly legible narrative content for neophyte and incidental players. The result is that the more that the designers shift an ARG toward a tiered design, the more work they have to do to initiate and support the overall system. As will be discussed below, this problem can be mitigated by moving away from the “curated content” design mentality of the ARG and toward the kinds of generativity offered by genuine game mechanics.

Additional sustainability and accessibility problems emerge from of the manner in which ARG designers traditionally address their players. As Sean Stewart notes in an interview with members of The Cloudmakers, “[the] premise from Day One was that the entire Internet should be considered as a single player; that we could put an ad in a newspaper in Osaka in the morning and have some kid in Iowa using that information by supper time” (The Cloudmakers). That is, while individual players in an ARG are putatively free to privately interact with characters or artifacts from the game, puzzles and challenges are designed with such complexity that any information gathered from these interactions often needs to be shared with and processed by a collective in order to be properly contextualized and rendered sensible in a timely fashion. While this design has the effect of encouraging the formation of collective intelligences—and clearly satisfies Levy’s notion of collective intelligence as being “the mutual recognition and enrichment of individuals” (13), at least in terms of how individual players can contribute according to uniquely held competencies—in the context of a time-based, event-driven, relatively closed information system such as an ARG, it also results in an increasing diminishment of the degree to which new players can easily access and enter into the activity. That is, once a functioning “collective detective” (The Cloudmakers) has been established, it will tackle the challenges presented by puppet masters with a self-refining efficiency that will largely discount the need for new members. Knowledge production structures populated by elite players with available time, an appropriate range of competencies, and relevant social and economic capital will gather, process, and analyze data faster and more thoroughly than a non-integrated outsider ever could. Further, as the ARG progresses,

prospective members without adequate reputation within the player community and in-depth knowledge of “the story so far” (Dena, “Emerging Participatory Culture Practices” 41) will naturally find it increasingly difficult to find a role within the collective.

To illustrate this problem, consider the 2009 DARPA Network Challenge crowdsourcing experiment. In this experiment, ten red weather balloons were placed in visible locations around the United States, and the public was challenged to find the balloons using any legal means whatsoever. Nine hours after the event commenced, all ten balloons had been found by a team from MIT. In this instance, the team, which had conscripted around 5,400 balloon spotters via social media and various public entreaties, served its purpose and was quickly dissolved. But what if the DARPA Network Challenge had been only the first of many challenges in a long-term experience--that is, if it was merely the first puzzle of a three month-long ARG? How would this emerging collective intelligence have evolved? Would it have become more broad-based like Wikipedia, exploring the diverse interests and passions of its user base, or would it have gravitated toward greater efficiencies, tighter working groups, task-oriented committees, and editorial sub-teams?

According to fieldwork conducted by McGonigal (“Why I Love Bees”), the latter is more likely: rather than becoming more inclusive or expansive, the group might in fact become increasingly specialized along particular “threads of investigation” tied to the core problems with which it was presented. The puzzles in ARGs are ultimately very specific: unlike Wikipedia, which is almost completely open-ended, the knowledge production

demanding by an ARG is focused on a particular story world and an associated set of puzzles with clearly-defined solutions--much like the narrow-but-complex balloon-finding task of the DARPA experiment. Further, since the puzzles in ARGs are often cumulative and informed by the solutions to earlier puzzles, those who were on board for the first discoveries--in the DARPA analogy, these individuals would be those who understood the MIT methodology by which the original 5,400 balloon spotters were coordinated and the information they provided was processed--would arguably be more valuable and acceptable assets to the team than newcomers unaware of those practices and procedures. Somewhat ironically, then, this kind of collective intelligence design, when applied to closed information systems such as ARGs, has steeply diminishing returns in terms of community building. Further, as soon as the producers of the ARG stop delivering fresh content, the increasingly tight-knit collective intelligence will no longer have anything to be “collectively intelligent” about, and as with the 2009 DARPA experiment, will rapidly dissolve.

1.4.5 Data Intensity and Process Intensity

What these problems have in common is an origin in the “non-gameness” of ARGs. As mentioned in the introduction to this section, ARGs, despite their name, are not, in fact, games; rather, they are ergodic (Aarseth) transmedia texts that, structurally speaking, are much more akin to scavenger hunts or group puzzle-solving activities like the annual MIT Mystery Hunt. Rarely in ARG design do we see the generativity, rulesets, and procedural constructions that characterize games. This is fine; not everything has to be a

game. But for activists, educators, independent artists, and other designers looking to effect a sustained activation of the participatory energies of specific populations, to not use game mechanics or other procedural approaches to generate and manage interactivity is to invite rapidly ballooning content-curation and community management problems. Such problems will quickly overwhelm all but the most well-funded of projects. Indeed, it is not happenstance that the ARG began as a big-budget Hollywood advertising technique; its very structure demands a high level of production capability, particularly when the design objective is sustained and intensive player engagement.

In this regard, much of ARG design is reminiscent of early experiments in electronic literature and interactive cinema. These experiments initially sought to create vast explorable narratives via branching story trees. However, artists who took that approach quickly discovered that to do so meant writing or shooting orders of magnitude more material (or “lexia”) than is required in the creation of a standard linear novel or film. To create even the faintest illusion of player agency, the creators of branching narratives needed to develop so much content that in some cases it exceeded the limits of the storage media they had at their disposal. For example, the interactive movie-game *Dragon’s Lair* (1983) needed a total of 27 minutes of animation stored on multiple laserdiscs to provide an interactive experience that lasted for a maximum of 6 minutes (Hunter)--and even then, the gameplay consisted of little more than making a handful of left-or-right decisions about which direction the protagonist should move. Games like *Dragon’s Lair* can be described as *high data intensity, low process intensity* games: they

shuffle around a lot of data (the animated video clips that the player triggers through making choices), but don't have very complex procedures of play or rulesets (the only "rules" involved are those that determine what video clips are played when the player moves the joystick).¹⁵

Compare this outcome to an even older video game, *Rogue* (1980), a procedurally-generated dungeon-crawler that remains popular to this day.¹⁶ *Rogue* is a "low data intensity, high process intensity" game. In *Rogue*, the virtual world is generated on the fly at runtime via an algorithm. Instead of devoting limited computational resources to storing and displaying pre-rendered content (as in *Dragon's Lair*), the programmers of *Rogue* used a compact ruleset to create their game world, producing an expansive and endlessly replayable world of fantasy adventure and tabletop RPG-style interactivity that would have been technically impossible to produce using pre-made dungeon scenarios given the limited storage resources of early 1980s home computers. Despite being made for free by hobbyist programmers, the parsimonious use of algorithms rather than branching content trees resulted in *Rogue* having much more interactivity and depth than was presented three years later by the spectacular but simplistic and deterministic left-or-right decision making interface of *Dragon's Lair*. This is the real power of games. Regardless of whether they are computationally mediated, games create dynamic interactive experiences through rules rather than archives of curated content. As we shall

¹⁵ See Bogost, "Persuasive Games: Process Intensity and Social Experimentation."

¹⁶ For example, *Diablo III*, a game in which players hack and slash their way through procedurally-generated dungeons--and one of the best selling games of 2012--is a direct descendent of *Rogue*.

see below, approaching environmental game design from this perspective opens a range of new possibilities for producers.

1.4.6 Beyond the ARG: “Story Facilitating” Instead of Storytelling

Because ARGs are so expensive and labor-intensive to maintain, media companies and institutions overwhelmingly abandon the communities they create once the putative purpose for their creation has been satisfied (McGonigal, “This is Not a Game,” and IGDA ARG SIG). While this instrumental view of community may have short-term benefits to institutions, brands, and artists, and while many media companies are likely comfortable with the risk of “blowback” from disaffected ARG fans (especially since said fans will have long since served their marketing purpose by the time their complaints come to the fore), in the long term, such a view effectively undermines one of alternate reality gaming’s most important potentials for generating value: the creation and transformation of communities.

[Studio] execs are mired in next-quarter earnings, and ARGs and other transmedia extensions require time to take root and build active, invested communities. It is decidedly a long-term investment, the fruits of which way not be fully realized until a significant period of time post-launch. As such, most studios aren't willing to make the investment needed to bake those components in from the beginning or allocate the funds/resource necessary to ensure their ongoing success.
(Snowfield)

For media companies, educators, and activists alike, one way around this problem of expense is to develop replayable games that engage participants in practices rather than the consumption of additional layers of pre-curated narrative. Unlike the labor-intensive PM-centric traditional ARG model, such solutions have the capacity to produce the

almost all of their content and interactivity--that is, the entire spectacle of the experience--through the emergent effects of a ruleset. These kinds of games may not be the future of storytelling; but perhaps they are the future of “story facilitating.”

In his seminal essay on Linux, *The Cathedral and the Bazaar*, Eric Raymond notes that “[it] may well turn out that one of the most important effects of open source's success will be to teach us that play is the most economically efficient mode of creative work.” By providing players with a sandbox within which they can meaningfully engage with the world of a cause or media franchise, game designers do more than just streamline the production process. They also win hearts and minds. As veteran ARG writer and player Andrea Phillips told me in a recent interview, “once you’ve given your audience official permission to collaborate with you in any meaningful sense, they’re yours forever, hook, line, and sinker” (“Taking risks”).

By moving away from the time-sensitive and event-driven structure of traditional ARGs, designers can create more open-ended games that work better as engines for participation and community building. Doing so ultimately means replacing a text-centric storytelling mentality with a systems-centric story facilitating approach. This kind of approach is not an abdication of authorship or aesthetic responsibility; rather, it is a shift from the domain of literal content creation to that of procedural content creation. Such a shift has the potential to break the designerly logjams that have afflicted ARGs since the early 2000s,

moving the form and its descendants toward more accessible, replayable, and sustainable designs.¹⁷

1.5 Introduction to Environmental Game Design

Environmental game design is the practice of designing games with and around the physical, social, digital, and emotional environment¹⁸ of players so as to manifest an impact on the way in which that environment is used. By this definition, ARGs cannot be considered environmental games, for the simple reason that they are not truly games. Further, it should be emphasized that “environmental game,” unlike ARG, is not a genre designation, but rather a category of design practice. An analogous terminological relationship would be between the cinema as a whole and a specific genre: *Slap Shot* is a work of cinema, belonging to the genres of the Sports Film and the Comedy. *Reality Ends Here* is an environmental game because it is a game designed with, around, and for a specific environment. In gameplay genre and platform terms, it is a collaborative production game and a web-mediated collectible card game.

In addition to its utility as a descriptor for a specific kind of design practice, I also choose the term, “environmental game” to describe *Reality Ends Here* in order to make a break from the conceptual baggage associated with terms like “alternate reality games” and “pervasive games,” among others. These terms entered into the design consciousness

¹⁷ It is important to note that, for some use cases, there is good reason to make ARGs less accessible and less replayable, especially when engaging “hard-core” players is the objective, or when creating scarcity is fundamental to the experience.

¹⁸ This multimodal conception of “environment” will be explored at length in the next section of this chapter.

during the first half of the first decade of the 21st century. In their initial formulations, they referred to relatively specific domains of design. However, as the decade wore on, the boundaries between these domains became increasingly fuzzy, resulting in terminology with ambiguous and contested meanings.

As discussed in the previous section of this document, the term “alternate reality game” refers to a very distinct kind of temporally-bounded puzzle- and event-driven interactive transmedia scavenger hunt. However, over the past several years, the term “ARG” has been used to describe numerous other kinds of practice, including some kinds of genuine game design. For example, collaborative production games such as *SFZero* (Sam Lavigne and Ian Kizu-Blair, 2006) and *Reality Ends Here* are routinely referred to as ARGs, even though they are primarily driven by game mechanics rather than content curation. In spite of their sensitivity to the interests and competencies of active audiences, classically-structured ARGs such as the advertising projects produced by 42 Entertainment (including *I Love Bees* (2004), *Year Zero* (2007), and *Flynn Lives* (2009), among others), and independent educational projects such as *Ghosts of a Chance* (Smithsonian Institute, 2008), *Find Chesia* (Carroll County Public Library, 2009), and *Skeleton Chase* (Indiana University, 2008), are effectively authored storytelling vehicles designed around a core activity of “collective detection.” Collaborative production games like *Reality Ends Here* work in a completely different way, largely eschewing top-down storytelling and instead producing diffuse and improvisatory “bottom-up” narratives through media participation structured by game mechanics. The simple fact that some ARGs are truly games, while

others are not, when considered in light of the growing interest in using real-world play to bring about change in *this* reality rather than an alternate one, is more than enough reason to reject “ARG” as a term.

Another term frequently used in this domain of practice is “pervasive game.” Marcus Montola defines a pervasive game as “a game that has one or more salient features that expand the contractual magic circle of play socially, spatially or temporally” (sec. 1). While this definition is sufficiently broad so as to include the range of interaction designs present in traditional ARGs, collaborative production games, location-based games, and more, the term itself is wanting. According to the Merriam-Webster online dictionary, a pervasive game would be a game that “[exists] in or [spreads] through *every part* of something.” While ARGs, collaborative production games, and location-based games all use everyday contexts as play spaces, it is hard to imagine any game meeting the high bar of actually being “pervasive.” Further, the term “environmental game” has a specificity that “pervasive game” lacks: as a designator of practice, “environmental game” refers both to the setting and the purpose of the game, whereas “pervasive game” only indicates a formal quality of the system (namely, its “pervasiveness”).

Other terminology is similarly either too specific or too vague. “Location-based games” require “a link between locations in the physical world and game-play” and the use of “location-aware technologies, often mobile phones, as a means of localization and/or communication” (Ejsing-Duun 114). Environmental games need not use *any* kind of

digital technology, nor are they necessarily linked to physical locations. The contemporary technosubject inhabits many kinds of environments, some physical, some virtual, and some hybrid, and environmental games can take place in any or all of these environments. Similarly, terms such as “big games” and “street games” evoke the urban play activities on view at festivals such as *Come Out and Play*, but fail to account for games that take place in other kinds of lived environments. “Situated gaming” is a term with substantial appeal in this context, but in usage can refer to the role of digital games in lived environments, which may cause confusion in light of various kinds non-digital environmental gameplay. “Ambient games” comes closer to being a satisfactory definition, but does not sufficiently evoke the active nature of play--an ambience is something that happens in the background, whereas a game requires agency. “Environmental interaction design” might have a slightly friendlier ring to those who are put off by the notion of games, but the fact remains that games and interaction are distinct from one another: an iPhone is an interactive device, but it is not a game.

“Environmental game design” describes a very specific use case for games. Like the other terms on offer, this one has its share of problems--not least of which is its evocation of environmentalism. Particularly in the North American context, the term “environment” has been conflated with the political struggle around the conservation of natural resources. However, just as “environmental design” in the context of urban planning and architecture must be distinguished from “eco-design” or “green design,” so must

“environmental game design” as a category of practice be distinguished from genre designations such as “eco-game design.”

The praxis of environmental game design will be explored in depth in the chapter titled, “Reality Ends Here Design Philosophy,” below. However, while environmental game design as a specific domain is defined here for the first time, it has deep roots in a variety of forms of theory and practice that revolve around ideas about the production and use of space. The following section explores these origins, beginning with an examination of the crucial feedback relationships that exist between lived environments and human agency.

1.6 Dramaturgy, Space, and the Construction of Reality

Each one of us constructs our own reality just as it constructs us. This process occurs as we experiment with and discover our world. From infancy, we construct a concept of what the world is, then test that concept by taking action. The consequences of this action then produce more insights into the limits and affordances of our slice of reality, guiding further experimentation and discovery. The view of reality we construct in this manner is inherently incomplete and noisy. As time goes on, this view becomes increasingly determinative of the range of actions we can take, experiences we can have, and conclusions we can draw. This positive feedback loop is observable in all intelligent beings and systems bounded by temporality. It is the foundation of identity, knowledge, and behavior.

But we are more than just wandering monads of perception and learning. We are social animals. Our most powerful constructions of reality are built intersubjectively, and these constructions have awesome power in our lives. They can elevate the human spirit -- or break it down. A crucial mission of the artist, educator, and activist is to actively participate in this process. To change the conditions of a social arrangement, we must change the way that that arrangement is imagined. But since the way that people imagine an environment is both determined by and determinative of the kinds of practices which take place within that environment, this intervention on the imaginary must necessarily also be an intervention on the real.

The feedback loop between the imaginary and the real is fundamental to the structure, function, and evolution of human environments. Consider a familiar environment such as a school, an airport, or a city. How do inhabitants know how to behave or “perform” in a given environment? How do these performances contribute to the identity of that environment? And how does that identity in turn shape and constrain future performance?

In *The Presentation of Self in Everyday Life*, sociologist Erving Goffman draws an analogy between social environments (or “establishments”) and the theatre, positing that every lived environment has overt and covert “dramaturgical” codes that determine what should and should not take place within its boundaries. These codes manifest themselves through the behavior (or “performance”) of the subjects who occupy and use the

environment--and this behavior in turn serves to replicate and reify the dramaturgical codes themselves.

This idea of an identity between the performative structure of an environment and the behaviors that occur within it is consistent with John Dewey's notions about the relationship between a learning environment and its learners. As Dewey notes in *Experience and Education*, behavior and environment are inextricably linked:

[The] general conclusion I would draw is that control of individual actions is effected by the whole situation in which individuals are involved, in which they share and of which they are co-operative or interacting parts.

For Dewey, the structure of the traditional educational environment radically limits the involvement students can have in the direction of their own learning.¹⁹ To put this idea into Goffman's terminology, the dramaturgical codes of traditional educational institutions establish fixed roles for students and teachers that at the very least dampen, and in the worst cases preclude, anything beyond the performance of the teacher as the source of knowledge and the student as the receptacle for this knowledge. In Dewey's view, these roles disconnected students both from each other as peer-to-peer learners and from the "ultimate moving springs of action"--their own desires and interests. A better role for the educator would be to facilitate the sharing of knowledge and experience among students, and to do so by identifying and channeling their existing desires and interests, rather than to attempt to impose new desires from above:

There is, I think, no point in the philosophy of progressive education which is sounder than its emphasis upon the importance of the participation of the learner

¹⁹ It is somewhat alarming to note that "traditional education" means much the same thing today as it did when Dewey was writing about it in 1938.

in the formation of the purposes which direct his activities in the learning process, just as there is no defect in traditional education greater than its failure to secure the active co-operation of the pupil in construction of the purposes involved in his studying.

For many decades, the fundamental structure of the educational environment, particularly in US public education, has largely remained static. Despite many efforts to change the dramaturgy of schools, the difficulty and expense associated with implementing “learner centered” educational systems has prevented a broad-based transformation from taking hold. To be sure, this is an enormous challenge, and there are many caveats that must be attached to these calls for radical change in the educational system. Dewey himself was careful to emphasize that the “progressive” vision for education was much more difficult to construct than the traditional industrial model. However, as I will now discuss, a wholesale “revolution” of education is not immediately necessary; rather, targeted interventions such as *Reality Ends Here* and other forms of environmental games can effect transformations in the environment while coexisting with traditional forms of post-secondary classroom instruction. These transformations can cascade through the performative system of the school as a whole, ultimately shifting the environment toward being more permeable to the direction and desire of its learners.

To understand how this can happen, and how interventions like *Reality Ends Here* are themselves deeply rooted in other traditions of intervening on lived environments, I will now turn to a broader discussion of the tangled relationships among space, authority, and individual desire. This discussion will begin by examining the way that physical spaces impact behavior and agency. Much like the static structures of traditional education, the

built environment articulates power relations and hierarchies that shape and constrain the behavior of inhabitants, thereby reifying those relations and hierarchies--and it is slow and difficult to change. While every place and time is different, examples of this relationship between power and the production of space can nevertheless be found throughout history. In the European context, we can look back at least as far as the *Servitudes*, a set of Roman laws pertaining to the division between public and private property, to witness the deep connection between the systemization of environments and the maintenance of economic and social boundaries (Roby 413). Indeed, one has only to scan the word itself to realize that terms like *servitude* and *service* derive not only from the same Latin root (a root which also underlies *servitūs*, or slave), but also from a conception of the *polis* that remains largely unchanged to this day (Smith 1030-1034).²⁰ Emerging out of centuries of bloody struggle over human and material resources, this legal framework was a codification of the core mechanisms by which the Roman Empire transmitted and replicated itself.

To be clear, this relationship between space and power is not uniquely European. As Foucault notes, the contestation of space, born of the struggle between hegemonies and their incipient successors, is “a constant of every human group.” Crucially, there is “no one absolutely universal form” of this contestation; rather, it emerges out of the particular arrangements of power and resistance present in a given space and time. However, in broad outline, the Romans provide us with a useful example of the inscription of power

²⁰ It should also be noted here that *polis* and *police* share the same root, albeit in Greek rather than Latin.

and control through the production of space. Their roads, walls, public buildings, sacred sites, monuments, and government installations constrained the behavior and world-view of their subjects and imprinted upon their territories not only the markers of power, but the pathways along which citizens and slaves were intended to move in the course of everyday life. These pathways in turn gave rise to a reproduction of the core social and economic practices necessary for the maintenance of the state--and, ironically, planted the seeds for its eventual destruction.

In the centuries that followed the decline of the Roman Empire, power, space, and resistance have continued to co-produce one another in a similar manner. William Penn and Thomas Holme's influential grid plan for the city of Philadelphia, Haussmann's "renovation" of Paris during the middle of the 19th century, and the planned "insta-cities" of present-day China are just a few examples of this practice: in each of these cases, by applying limits to urban space, state and economic hierarchs also apply limits to its use, thereby preserving or amplifying existing power structures by advancing the aims of their underwriting interests. This programmatic or procedural capacity of the urban is succinctly captured by Walter Benjamin. Writing about Haussmann's radical transformation of Paris, Benjamin describes the very real military and economic concerns behind the city's "beautification":

The real aim of Haussmann's works was the securing of the city against civil war. He wished to make the erection of barricades in Paris impossible for all time. With the same purpose, Louis Philippe had already introduced wooden paving. Nonetheless, the barricades played a role in the February Revolution. Engels gave some thought to the technique of barricade fighting. Haussmann intended to put a stop to it in two ways. The breadth

of the streets was to make the erection of barricades impossible, and new streets were to provide the shortest route between the barracks and the working-class areas. Contemporaries christened the undertaking: *'L'embellissement stratégique.'* (87)

Crucially, the state and other authorities are not the only participants in this rather massively multiplayer reality game. Revolutionaries, artists, conquerors, and terrorists have long known that to make a real difference, one must intervene in real space. As Henri Lefebvre puts it, any ideas regarding how we ought to change life or society “lose completely their meaning without producing an appropriate space” (69). Haussmann’s Paris lasted only about a decade before economic collapse and disastrous geopolitical maneuvering by the state brought about a violent urban revolution “wrought in part out of a nostalgia for the world that Haussmann had destroyed and the desire to take back the city on the part of those dispossessed by his works” (Harvey).

Of course, this revolutionary action (and others like it, such as the events of May 1968, or the more recent occupations in Egypt and on Wall Street) did not narrow Haussmann’s wide boulevards or otherwise significantly change the physical infrastructure of the city. But what they did change was the network of meanings associated with that infrastructure. In the words of one writer, they “[exposed] the appalling contrast between the potential constructions of life and the present poverty of life.” Situationist International Out of this laying-bare emerged a new network of meanings, a new set of dramaturgical codes--and a new city. Henri Lefebvre cites a more recent example of this process in *The Production of Space*:

An existing space may outlive its original purpose and the *raison d'être* which determines its forms, functions, and structures; it may thus in a sense become vacant, and susceptible of being diverted, reappropriated and put to a use quite different from its initial one. A recent and well-known case of this was the reappropriation of the Halles Centrales, Paris's former wholesale produce market, in 1969-71. For a brief period, the urban centre, designed to facilitate the distribution of food, was transformed into a gathering-place and a scene of permanent festival--in short, into a centre of play rather than of work--for the youth of Paris. (187)

This capacity of lived environments to be repurposed and to acquire new meanings is what makes environmental games possible--and, perhaps, necessary. None of us can hope to fundamentally reorganize the massive conglomerations of concrete, glass, rebar, and asphalt that constitute the urban environments of our time. Nor can we hope to reconfigure or "compete with" the satellite systems, information networks, mass media outlets, and computational agencies that are just as thoroughly integrated into our experience of life. The Web and the City are everywhere (*everyware*)²¹, and countless Haussmanns have come and gone and left their mark. The expansion of communications technologies (and their implicit urbanism) into every crease and corner of existence produces new social relations at a ferocious pace; and since these new relations--these new environments--are the product of a vast and interdependent technoindustrial apparatus, they naturally tend to serve the interests of various concentrations of power and authority.

²¹ See Greenfield.

A game can intervene on this arrangement without necessitating a wholesale change in the structure of the environment. At the very least, it can awaken participants to the idea that the environment they are in could be *just about anything except what it is*. Designer and *Games of Nonchalance* creator Jeff Hull remarks:

[Our work] is in part a reaction to the narrow confines of sanctioned activities in public space, which have been largely defined by commerce. We can legally: commute, shop, and drink a latte. Walk or run in a park between sun up and sun down. Otherwise you're somehow suspect. People feel isolated by that. I think we're all trying to loosen those reins . . . My name for it is Socio-Reengineering. That's Jejun Institute terminology, and in our story it has dubious connotations, but we're actually quite sincere about this aim. To infuse variability and play into the workaday world by re-engineering the way that people navigate and experience the space and the population around them.

This kind of practice has its roots in the project of the Situationist International, an alliance of artistic collectives that assembled in July of 1957 with the intention of bringing about a “liberating change of the society and life in which we find ourselves confined” (Debord, “Report on the Construction of Situations”). This artistic and political movement, composed of activist artist-intellectuals such as Guy Debord, Constant Nieuwenhuys, Raoul Vaneigem, and Asger Jorn, aimed to create disruptive “situations” in lived environments as a means of interfering with the performance of “functionalist” society. Through this disruption, the artists of the SI believed they could surface hitherto suppressed meanings and uses for public spaces, paving the way to a “city of the future”²²--and to a richer and more authentic kind of life.

Our central idea is the construction of situations, that is to say, the concrete construction of momentary ambiances of life and their transformation into a

²² See Nieuwenhuys.

superior passional quality.

For the SI, the “constructed situation” was a means of disrupting and contesting the performative feedback loop between “the material environment of life and the behaviors which that environment gives rise to and which radically transform it.” From Debord’s revolutionary perspective, the complex visual and environmental expressions of a society built around commodity exchange and fetishism constituted a “*Weltanschauung* [or ‘world view’] which has become actual, materially translated” (*Society of the Spectacle*). Debord called this manifestation of the world view of capitalism “the spectacle,” and argued that it served to render subjects “passive to societal manipulation” (Best and Kellner). Indeed, as Stephen Duncombe writes in *Dream: Re-imagining Progressive Politics in an Age of Fantasy*, “spectacle, by tradition, is antidemocratic”:

It is created by the few to be followed by the many, and while it can make the promise of inclusion . . . it actually reinforces the reality of hierarchy. The ‘participation’ it encourages is a tightly choreographed sham.²³ There are some who direct and others (most of us) who are directed. (133)

However, as Duncombe goes on to discuss at length, participation in the creation of the spectacle does not necessarily have to be a “sham.” We can insist on “popular participation in both the production and consumption of the spectacle,” and thereby “transform a political and aesthetic form used to control and channel popular desire into one that can express it.”

²³ Duncombe provides a particularly chilling example of “sham” participation by quoting Siegfried Kracauer’s comment regarding the Nazi rallies of the 1930s: “Although the masses give rise to the ornament [i.e., the rallies], they are not involved in thinking it through.” (127)

This use of the spectacle is the fundamental objective of *Reality Ends Here*, and is a key affordance of environmental game design. Because environmental games are played in public spaces, they produce publicly-visible effects. These effects are the “spectacle” of the game. And because environmental games are by definition designed around, with, and for specific lived environments--and therefore are built from the ground up to be as sensitive and permeable as possible to the motivations present in those environments--the spectacle they produce is an expression of the desires of their players. It is something players actively produce, rather than passively consume. Put differently, people only play environmental games because they want to. If they don’t play, no spectacle is produced. If they do, the spectacle belongs to them. The ideal participatory spectacle produced by environmental games is thus not exclusively an expression of external forces of domination and control, but rather of the aggregate of the intimate and personal relationships between players as mediated by the game system.²⁴

Environmental games can enable us to open new channels for individual agency in the creation and maintenance of the performative codes of a given environment, thereby realigning that environment with the needs and desires of its inhabitants. To a certain extent, the emergence of new media forms underwrites our ability to bring about this kind of transformation. As Douglas Kellner and Stephen Best note, “[the web] enables ordinary individuals to make their everyday life a spectacle.” But even without the web, such participation is possible. The key difference between a participatory spectacle and

²⁴ For a graphical representation of the kind of spectacle produced through the play of environmental games such as *Reality Ends Here*, see “Cycle of Play,” in Chapter 3.

the anesthetizing spectacle as critiqued by Debord and others is that the participatory spectacle is “collectivized.” This kind of spectacle, alluded to by Henry Giroux, “mediates among different stories, contexts, and relations that can address a public rather than a merely private sensibility” (41).

Participatory spectacle creates pathways through which audiences can exercise agency and control. The more integral the participant becomes to the spectacle, the more their individual agency is reflected across the system, and therefore the more relevant to their desire the spectacle becomes, reinforcing and expanding the motivations that brought them into participation in the first place. This feedback loop also sets the stage for contestation and intervention, continually destabilizing, diversifying, and reshaping the spectacle, and opening it to new intersubjectively-constructed meanings and modes of engagement. It transforms spectacle from a pseudo-interactive “world fabricated by others” to a genuinely interactive space where the meaning, purpose, and construction of the spectacle can be debated and changed.

Chapter 2: *Reality Ends Here* Design Philosophy and Selected Documentation

This chapter presents the design philosophy of *Reality Ends Here*, illustrated with selected documentation from the 2011 implementation of the game. Through this presentation, I will surface five interrelated “theses” of environmental game design.

These theses are:

1. Dramaturgy of the Local: The impact of an environmental game is directly proportional to the degree to which the game is sensitive to local conditions. The mandates and design strategies underlying any environmental game must thus be derived from a careful analysis of the target environment. While environmental games may or may not be “high tech,” they must always be “high touch.”
2. Action, not simulation: Environmental games are not only calls to action. Rather, they are substantially the action itself, articulated through the procedures of play as they are manifested in the lived environment.
3. Leverage motivation, optimize for agency: Environmental games activate player agency and create new social and learning motivations by providing channels for the expression of existing motivations. In this manner, environmental games link community engagement and learning to “the direct and vital appeal” (Dewey) of individual desire. This emphasis on agency results

in game designs that emphasize “high process intensity” over the delivery of pre-curated multimedia assets.

4. The social is the medium: Learning, community-building, and environmental transformation are inherently social operations. The primary “medium” of the environmental game is thus the network of social relations, both potential and real, that exists among its players. In many contemporary environments, this network exists in both physical and digital spaces.
5. Iterative and permeable: The design process of an environmental game is inherently iterative and must be as permeable as possible to the input of its players. This thesis is ultimately an extension of the first thesis: in order to be sensitive to the shifting constraints of a given environment, the design of an environmental game must be agile and adaptive.

Readers who would like to ground their reading of this chapter in a detailed understanding of the rules, mechanics, resources, and procedures of the *Reality Ends Here* game system may wish to skip ahead to Chapter 3, “Technical Description,” before reading this discussion of design philosophy. To provide a baseline of context for readers who would prefer to read this document in its present sequence, I have included the following thumbnail description of the game, excerpted from my paper, “Reality Ends Here Design Brief,” as presented at the 2012 Games, Learning, and Society Conference:

Reality Ends Here is an environmental game designed to accelerate serendipity, social discovery, and collaboration among students in the disparate divisions of the USC School of Cinematic Arts. It employs a wide range of technologies and practices, from a game system driven by digitally-connected collectible cards to a

web interface integrated with Facebook, Twitter, YouTube, and other social media platforms.

Gameplay in *Reality Ends Here* takes place [as players] collect, share, trade, and combine game cards in order to generate creative prompts which are then used to guide the making of unique media artifacts and the staging of real-world events. By sharing the resulting creative works through the social media platform at the center of the game, players connect with one another across disciplinary and institutional boundaries and unlock customized “trailheads” leading to intimate and offbeat encounters with SCA alumni, artists, and other industry professionals.

The 2011 implementation of *Reality Ends Here* produced a tangible positive impact on the culture of the SCA over its 120 day run, bridging the gaps between traditionally siloed disciplines, generating a rich archive of creative works and fresh assessment data for an entire cohort of freshmen, and creating an atmosphere of intellectual and artistic experimentation. The second iteration of the game is scheduled to launch in August of 2012.

Because a fundamental outcome of the play activity of *Reality Ends Here* is the generation of publicly-visible documentation, readers are invited to keep the website for the game open in a browser while reading this chapter. At the time of this writing, the website is located at <http://reality.usc.edu/> (a static archive is available at <http://remotedevice.net/docs/reality2011.zip>). The bulk of the site is open to the public; readers interested in full access can contact the author directly via remotedevice@gmail.com or on Twitter via <http://twitter.com/remotedevice> in order to receive the appropriate login credentials. While each thesis presented below will be illustrated with selected documentation from the 2011 implementation of the game, the website for the game itself provides far more extensive documentation than can be included in these pages.

2.1 Thesis I: Dramaturgy of the Local

Orson Welles' famous maxim, "the enemy of art is the absence of limitations,"²⁵ is one of the central rhetorical positions of *Reality Ends Here*. This position is expressed through the mechanics of gameplay, both in terms of how players construct creative prompts, and in terms of how they must learn to work within the limitations of DIY production processes and available social and economic capital. But this position is also central to the design philosophy of this project as a whole. Limitations don't just inspire creative solutions to problems: rather, they are necessary to them. Money and time are only two of the limitations a given project will come up against. It is the task of the designer become as familiar as possible with the totality of the limitations that are present in a given possibility space in order to clearly define the problem at hand. Only then can design begin.

As with all environmental design, the creation of an environmental game entails a design approach that is supremely sensitive to local conditions. This idea is the crux of the first thesis underlying the design *Reality Ends Here* and other environmental games, namely that such games must be designed for and around the specific and constrained situations and conditions that define the topology of the target environment. This thesis may initially seem self-evident; indeed, as Charles Eames has said, the task of the designer is always to take into account "the sum of all constraints" and act accordingly (Amic).

²⁵ See Jaglom.

However, designers do not always have the loudest voices in certain contexts, and this insight can sometimes be buried beneath other concerns. For example, funding bodies who turn to games for solutions to educational, social, and economic problems may be tempted to exclusively support designs that are immediately transferable to the state or national scale in the interest of maximizing the efficiency of their investment. This in fact can undermine efficiency and impact, producing games that, while widely distributable, are inattentive to the unique constraints and motivations of the local. In their effort to create an experience for everyone, such games in effect produce an experience for no one.

2.1.1 Mandate Development

Good design briefs begin with a clear and specific mandate. This mandate is best expressed as a set of constraints that defines a problem in terms of limitations and objectives. As the design process continues, this constraints-based mandate becomes increasingly granular. However, to begin any design process, a simple and easy-to-grasp “macro” mandate is essential. For example, the SpaceX Corporation began their development of orbital resupply systems by recognizing a need for private space transportation services in the wake of the decommissioning of NASA’s Space Shuttle program. This objective, combined with the fundamental limitations of capital and physics, began the design process which ultimately led to the 2012 docking of the Dragon spacecraft with the International Space Station. The original mandate of SpaceX did not encode all of the myriad decisions that were necessary to finance and implement the

Dragon spacecraft; but without this initial mandate, those decisions would never have been made, and Dragon would not exist.

The mandate for *Reality Ends Here* was generated through a multi-year investigation by the Envisioning the Future Group (EFG) at the SCA. This group of faculty and staff was tasked in 2009 by Dean Elizabeth Daley to imagine what the future of media arts education at the SCA should look like. Led by Professor Steve Anderson, the EFG developed a set of proposals which included the concept of a "gateway experience" for incoming students. These proposals received unanimous approval by the SCA faculty at the end of the Spring of 2010. Later that year, Professor Holly Willis assumed the role of Chair of the EFG and began the effort to operationalize these proposals, expanding the number of participating faculty from across the divisions of SCA and bringing the resources of the Institute for Multimedia Literacy to bear on the project.

Over the preceding two decades, the landscape of the media industries had undergone a series of radical transformations. Digital technology had opened up entirely new kinds of practice in entertainment and art making, and had fundamentally changed the development, production, distribution, and exhibition processes associated with older forms of practice. This rapidly unfolding change demanded an equally dynamic learning environment. To a certain extent, the SCA had already addressed this demand by aggressively embracing new technologies and founding programs such as the Interactive Media Division and the Interdivisional Media Arts and Practice Ph.D. program. However,

the convergence of once-distinct media forms and the growing importance of transmedia across the media industries was not as central to the curricular structure of the SCA as it was to the world beyond.

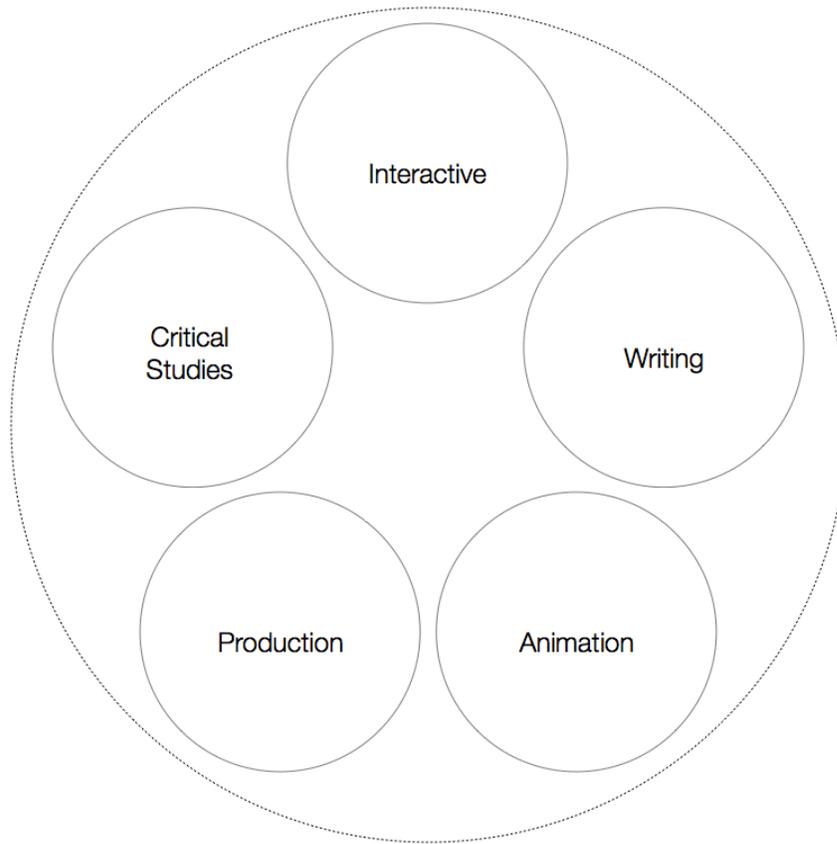
To fully embrace this change, the SCA needed to confront the “silos” that separated its five undergraduate disciplinary Divisions. These divisions--Animation, Critical Studies, Interactive Media, Production, and Writing--were each relatively disconnected from one another. Unlike media arts schools which offer a “foundation” year during which students can select their disciplinary focus,²⁶ the curriculum at the SCA is designed such that the majority of incoming students arrive having declared their concentration in advance.

Until 2011, there was no single “intake” class that all new SCA students took together. Further, the classes that students can take outside of their home Divisions are mostly electives designed to satisfy the breadth requirements of baccalaureate education.

Because these electives also include courses offered by other schools and departments at USC, many students can go through their entire undergraduate careers having only very incidental educational contact with SCA students from other Divisions. This problem is exacerbated by the fact that all but the most basic courses in each of the SCA’s five Divisions often have prerequisites and strict caps on class size -- indeed, many courses are simply “off limits” to students from outside their home Division.

²⁶ Examples of this kind of curriculum can be seen in institutions that subscribe to variants of the “Ulm Model” of design education, such as Parsons the New School for Design, which offers a year-long “Foundation Program” for incoming students.

Figure 3: The five undergraduate Divisions of the SCA. Dotted line circumscribing the Divisions indicates the aegis of *Reality Ends Here*.



Despite these and other limitations, this curricular design was also very effective in serving many of the fundamental learning objectives of the SCA. For decades, this approach has provided students with deep practical and theoretical literacies within the context of their individual specializations. This is considered a valuable outcome. It was thus important not to entirely do away with the existing system, but rather to exist alongside it.

Not all of the problems and objectives identified by the EFG related to the changes wrought upon the media industries by new and emerging technologies. Insofar as it limited the degree to which students could discover one another and form into functional collaborative groups, the school's rigorous Divisional structure had significant impacts on the community independent of the external technological regime. The aggregate effect of these impacts was a kind of generalized absence of discoverability in the environment of the SCA. As I worked with the EFG to crystallize a specific mandate for this project, we identified three interrelated dimensions to this discoverability problem, which we named *craft*, *literacy*, and *social*.

2.1.2 Craft, Literacy, and Social

The *craft* dimension identified gaps in the degree to which students--particularly freshman students -- could discover and experiment with media-making practices both within and beyond their Divisional specializations. Such discovery enables students to grow as artists, designers, collaborators, and thinkers through practice. The more students experience the various kinds of practice taking place at the SCA, the broader their understanding of the processes of media arts--and, crucially, their relationship to those processes--becomes. These kind of experiences can also provide students with an opportunity to transition or expand laterally across the school's Divisions, but only if they occur early enough in their progression through their degrees.

The *literacy* dimension addressed systemic limitations related to the discoverability of various kinds of knowledge, including such things as key ideas about media theory and history that “every media arts student should know”; awareness of and contact with the SCA’s faculty, resources, and alumni; understanding of the kinds of theory and practice that are taught in each of the five Divisions of the SCA; relevant lore about Los Angeles and Southern California; and the identification of interest and affinity groups within the student body, among many other concepts and awarenesses. Traditional methods for disseminating this knowledge, such as special seminars, email blasts about visiting speakers, student art shows, orientation materials, community web portals, and passes to screenings for films made by alumni were on offer, but did not seem to penetrate the consciousness of students as quickly or deeply as they otherwise could. In the most general sense, this lack of penetration was a result of this knowledge not being strongly connected to the individual purposes and objectives of the students in a strategic and integrated manner. As will be discussed in the section on motivation below, the degree to which a given piece of information can be retained and put to use is directly proportional to the degree to which that information is perceived as being personally meaningful and relevant. The *literacy* dimension of the discoverability problem thus related to a systemic failure to render the rich and varied kinds of knowledge and mentorship available through extracurricular programming at the SCA into terms that would expose the personal use value of this knowledge to individual students, particularly those in the freshman cohort.

The *social* dimension of the discoverability problem underwrites the issues present in the *craft* and *literacy* dimensions. Largely because of the Divisional silos, student-originated interdivisional knowledge production and transmission structures were slow to emerge. Such structures are ultimately the most powerful means for bringing about the kinds of theoretical comprehension, media making experiences, and environmental awarenesses that can enable students to get the most out of their formal education at the SCA. Examples of these kinds of structures would include student-run online knowledge bases and social networking platforms; interdivisional student associations; and self-directed media production teams composed of students from across the Divisions of the SCA, among other such structures.

The general position of the EFG was that the more that students can be directly connected to one another, the more they can get involved in practice-based learning, and the more that they can feel connected to the institution and its extended community of faculty and alumni, the faster individual processes of discovery--and therefore intellectual, personal, and artistic growth--can occur. Further, since career advancement in academia, industry, and art practice is in no small part dependent on being comfortable with and skilled in engagement with social activities, providing students with avenues for experimentation in this sphere was deemed essential.

Figure 4: Partial whiteboard capture, Envisioning the Future Group meeting, March 2011.



2.1.3 Mandates of *Reality Ends Here*

By April of 2011, a concise set of mandates had emerged out of this multi-dimensional analysis. These mandates would serve as the foundational objectives for the design of *Reality Ends Here*. Each of these objectives involves different aspects of helping students to become more engaged with the direction of their own learning and development as artists, designers, and researchers. The mandates in specific were:

1. Jump-start interdivisional peer discovery and collaboration;
2. Provide students with opportunities to experiment with media making across the domains of practice represented by the five undergraduate Divisions of the SCA;
3. Connect students to alumni, faculty, and the broader community of the SCA; and,
4. Provide students with an awareness of the history of the institution, reveal to them that they are writing the next chapter, and facilitate their telling of that story.

As discussed above, changing the entire curriculum at the SCA was not an option in the effort to fulfill these mandates, both because of the valuable outcomes produced by the existing curricular structure, and because of the bureaucratic complexity of implementing changes to the core curriculum at a nearly 100 year-old educational institution. Indeed, the EFG had relatively lean resources at their command to tackle these mandates. As constraints, these limitations were as important to the design process as were the objectives contained in the mandates. For example, after a lengthy proposal process spearheaded by Dr. Holly Willis, the administration made a single once-a-week “499”²⁷ class available for use as an experimental intake experience for freshmen students. This class, ultimately called, *Reality Starts Here*, and taught by Professor Tara McPherson,

²⁷ At the SCA, the “499” course identifier is used to designate a test-bed course that is not yet part of the official curriculum.

would provide students with a lively and social experience geared around the mandates listed above.

Figure 5: Flyer for *Reality Starts Here*. Imagery and graphic design reference assets from *Reality Ends Here* (see “Graphic Identity System”)



However, even prior to the development of these mandates and the origination of this class, the EFG had recognized that some kind of force-multiplier would be necessary to create the desired impact. A single course could have an effect on its own, but a broad-based systemic change would require more time and a more thorough integration of the above-mentioned mandates into the lives of students. This constraint demanded some

kind of informal or extra-curricular augmentation or complement to the class, and was a key reason why Dr. Willis proposed bringing me in to design an environmental game.

The core design challenge of *Reality Ends Here* was to work with and around these and other environmental constraints so as to engineer an informal learning system that could enable students to take charge of their own learning and build useful and personally-relevant social arrangements for experimentation and knowledge production.

Environmental games, like all forms of environmental design, serve wayfinding, interpretation, and placemaking purposes through the mediation of interactions with and within lived environments.²⁸ In the context of the SCA, these purposes can be directly mapped onto the problem and possibility space identified by the EFG. For example, “wayfinding” can be thought of in terms of both how an environmental game can assist individuals in navigating through the many kinds of media arts theories and practices that exist across the five undergraduate Divisions at the SCA, and how such a game can reveal the geography of personalities present within the student population; the “interpretation” function of an environmental game in the SCA context relates to its capacity to frame and narrate these practical and social experiences within both the broader context of the history of media theory and practice, and within the more local context of the history and current organization of the SCA itself; finally, the “placemaking” affordances of an environmental game as applied to the SCA relate to its

²⁸ See Calori.

ability to foster the creation of an environment conducive to peer discovery, creative experimentation, and exploration. The twin constraints of the mandates generated through the research activities of the EFG and the limitations on funding and available resources imposed by the administration thus made an environmental game the best candidate for this kind of intervention.

2.1.4 Physical Constraints

Mobile and social media technologies offer environmental game designers powerful new methods for constructing play situations. However, in environmental game design, it is important to resist the temptation to experiment with new technologies simply because such experimentation is possible. At every stage in the design process, the designer must ask: what am I trying to achieve, and what is the most parsimonious means of achieving that end? In many cases, new media technologies will indeed provide the optimal solutions to environmental game design problems. But these solutions must emerge out of an honest analysis of the target environment, rather than from a survey of emerging technology. Indeed, especially in games which are intended to bring about interaction in physical space, analog methods can often be more effective than digital methods in terms of bringing players into face-to-face contact and setting the stage for the construction of lasting social arrangements. In the contemporary US context, most environmental game designs will ultimately resolve into hybrid constructions that intelligently leverage both analog and digital assets and play mechanics. What must be emphasized is that these

constructions should always be rooted in the specific constraints and affordances of the target environment.

Consider the following example from the prototyping process for *Reality Ends Here*. The initial concept for *Reality Ends Here* envisioned a heavily-mediated experience that relied on a smartphone-enabled web application. This prototype was the first step in the design process that led to the 2011 iteration of the game. This early version was in many ways a “remix” of the seminal collaborative production game, *SFZero*,²⁹ tweaked to suit the population at SCA and to reflect the near ubiquity of smartphone devices.

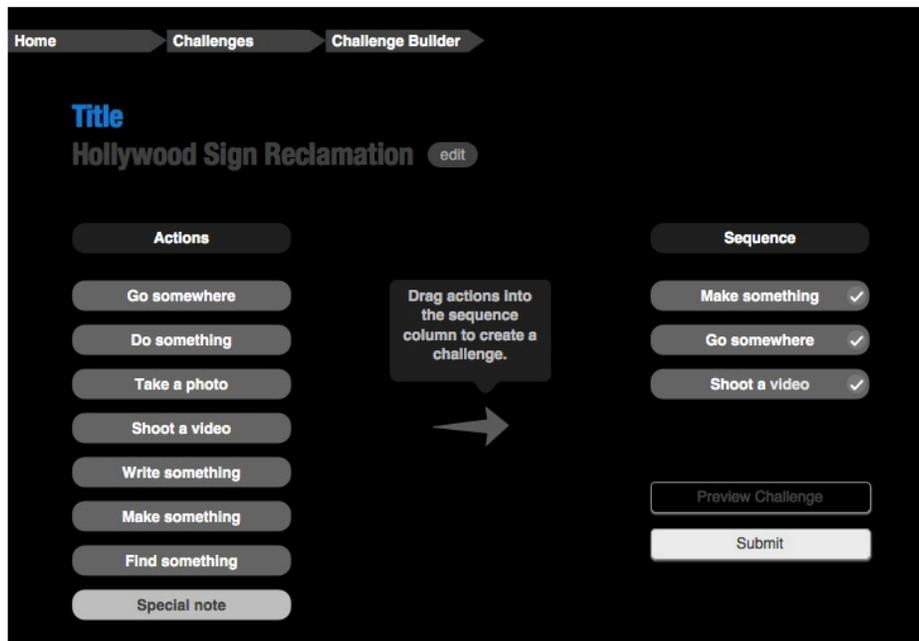
In *SFZero*, players earn points by producing media artifacts based on creative prompts submitted to the game system by other players. Players of *SFZero* can also earn points when any prompts they have created are used by other players in the production of media artifacts, or by having their projects rated by others. All of this activity is tracked and mediated by a website. By earning points, players of *SFZero* advance on various kinds of leaderboards, acquiring different markers of status within the game system. However, this points system is ultimately less important to players than is the experience of playful public performance and “culture jamming” that *SFZero* offers. Simply put, *SFZero* is a

²⁹ *SFZero* is a collaborative production game created by Sam Lavigne and Ian Kizu-Blair. In collaborative production games, participants engage in the co-creation of narrative content. This co-creation is structured and guided by a ruleset positioned within a loose narrative context. Players are given enough structure such that they know generally what they are supposed to do; and enough freedom such that they can approach gameplay in a manner that best suits their own interests and competencies. Unlike other approaches to “user-submitted content,” which simply offer players a chance to upload their own media artifacts as a kind of bonus activity or contest, in collaborative production games, players have no other option--collaborative production is the primary activity of the game. Content players submit to a collaborative production game is shared to the community via a website or other portal, thereby becoming incorporated into the evolving narrative. The producers of collaborative production games do not need to create enormous amounts of narrative content in order to generate a rich and dynamic experience; rather, their creative role is in the construction of rules and other conditions that lead to the emergence of narrative content from the ranks of the player population.

simple game structure through which DIY enthusiasts and other kinds of “makers” can socialize and stage disruptive pseudo-Situationist performances in urban space. *SFZero* began as a highly localized game, played primarily in San Francisco and Oakland, but has since expanded to include cities around the world.

Like *SFZero*, the initial prototype for *Reality Ends Here* planned to use a web portal as the primary structure through which the actions of creating and responding to media-making challenges would be mediated. But in contrast to *SFZero*, which leaves the challenge of structuring creative prompts more or less entirely up to its players, the game we envisioned would have a play mechanic that guided and constrained the process of prompt generation. In this conception of *Reality Ends Here*, players would use a drag-and-drop interface to assemble prompts on their mobile devices by combining actions and other elements into a sequence (see Figure 6).

Figure 6: Wireframe for drag-and-drop “challenge builder” interface. This digital interface was later reduced to serve primarily as a feedback system, with the prompt generation mechanic being transferred to an analog collectible card game.



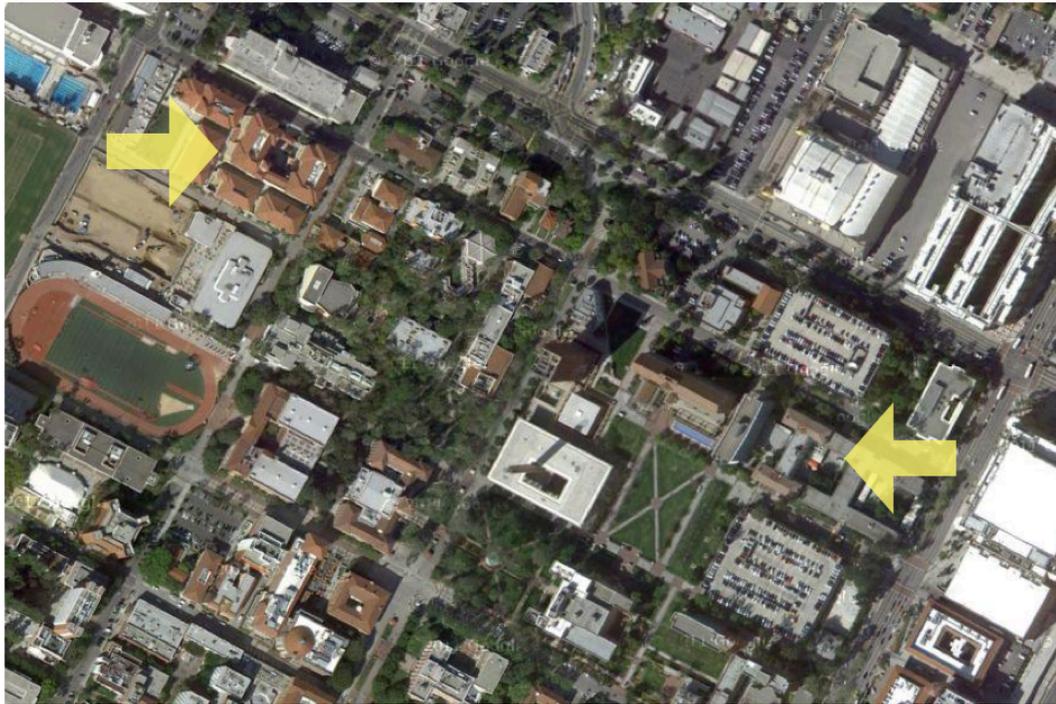
In this prototype, once players had come up with a prompt they were happy with, they would give it a name and submit it to the system. Players would then earn points whenever any prompt they created was tackled by another player, and they would also earn points for tackling prompts created by others. All of this would be trackable and manageable via a smartphone-enabled web application, which would augment media submissions with location and other contextual data. Snazzy features, such as the ability for the application to sense other nearby players, and deliver push notifications accordingly, were planned from the beginning.

This first pass at the game captured the spirit of what we wanted to do: a prompt-based media-making game, wherein the constituent challenges of the game were not created “from on high” but rather were generated by the players themselves. But it quickly

dawned on us that we weren't taking the totality of the constraints of our design problem into account. Techno-fetishism had blinded us. A game driven by virtual interactions on mobile devices might sound exciting--and, indeed, might be the kind of thing that one could use to attract funders keen to get on board with the Next Big Thing--but was it appropriate to this design challenge?

Unlike the players of a hypothetical location-based game that could be played anywhere and at any time, our player base was largely concentrated in an extremely small geographic region. For example, the majority of the incoming freshmen at SCA reside in on-campus dormitories. Most of these dormitories are less than three football fields (a popular unit of measurement at USC) away from the main SCA buildings, where almost all freshman students attend classes each and every day (see Figure 7). Since one of our key mandates for the game was to jump-start collaboration and peer discovery, it seemed absurd not to leverage these physical affordances toward those ends. With our potential players already crammed into extremely close proximity with one another, was an exclusively web-based game system the best way to accelerate their social interaction?

Figure 7: Geographical constraints. Arrow at left indicates the School of Cinematic Arts; arrow at right indicates dormitory complex housing the majority of freshman students.



For several years before tackling this project, I had been working on prototypes for a connectivity-based card game inspired in part by Steve Jackson’s wonderful 1981 conspiracy game, *Illuminati*. Beyond the hilarious narrative framework and compelling strategic play of Jackson’s game, I found the emergent arrangements of cards the game generated to be beautiful on their own. I had prototyped several abstract games based on linking cards together, drawing on *Illuminati* and other sources such as the Tarot and Dominos. Remnants of these prototypes were scattered on the floor of my apartment as it

became apparent to me--thanks in no small measure to the feedback of my design advisor, Tracy Fullerton--that I had stumbled into the trap of techno-fetishism.³⁰

Figure 8: Gameplay in a recent version of Steve Jackson's *Illuminati*.



The breakthrough came when we combined those card prototypes with the mechanics underlying our early smartphone app wireframes. Instead of using a drag-and-drop web interface to generate prompts, we began exploring ways to use physical playing cards to generate creative prompts.

³⁰ This is what differentiates the true media artist from the techno-fetishist: the former adopts whatever medium or combination of media that suits the needs of their project and maximizes impact. The latter always adopts the highest-tech solution, regardless of other options.

Figure 9: Prototyping card-based procedural creative prompting system. June, 2011. At left, co-conspirators Tracy Fullerton and Simon Wiscombe. Top right: playtest at PEG-LA meetup. Middle- and bottom-right: early card system prototypes.



In this version of the game, which would ultimately evolve into the “final” version played during the 2011 implementation, the web would still play an important role, but at the base of the interaction would be an analog game that *required* players to be in physical proximity to one another in order to play. This requirement alone would satisfy some of our key mandates about peer discovery and collaboration. Further, even if the cards weren’t used to actually play the game, their mere physical presence could serve as a conversational icebreaker, accelerating the process of social discovery for incoming students. For example, as early-adopting students would take up playing the game in

dorm rooms and hallways, their play would be noticeable by students who had yet to discover the experience, opening new vectors for player induction.³¹

Figure 10: *Reality Ends Here* card game play observed in SCA hallway.



A complete description of the mechanics of the collectible card game (CCG) component of *Reality Ends Here* can be found in Chapter 3 of this document. What is most important in the context of the present design philosophy thesis is that the decision to use a CCG as a primary component of gameplay is rooted in an overarching emphasis on designing for and around the specific constraints of the local environment. Indeed, the CCG is only one

³¹ For more on the role the CCG plays in the induction of new players, see the sections titled “First Contact Campaign” and “Player Induction” in Chapter 3.

example of many such locally-tuned elements present in the design of *Reality Ends Here*. In this and myriad other ways, *Reality Ends Here* is a “bespoke” project designed to address the specific constraints of the environment of the SCA. These constraints ultimately came to include the varied interests, tastes, habits, and competencies of the incoming students; the history, curriculum, and institutional structure of the SCA; the school’s buildings and outdoor environments; the social media spaces inhabited by the students and faculty; the range of housing situations among freshmen; the proximity of alumni to the campus; the near ubiquity of smartphone devices and/or laptop computers among students; the changing landscape of media arts production, and the new demands this places on media arts education; the city of Los Angeles; the nostalgia associated with collectible card games such as *Pokémon*; a very tight budget; a desire to experiment; and many other factors.

This sensitivity to local constraints and affordances underwrites each of the subsequent theses in the design philosophy of *Reality Ends Here* in specific and environmental games in general. Simply put, such sensitivity is the defining element of environmental game design. Just as a bridge must be constructed around the specific terrain it is intended to traverse, so must an environmental game be constructed around the unique topology of the environment it is intended to transform. The less sensitive an environmental game is to its environment, the more likely it is to collapse.

2.2 Thesis II: Action, Not Simulation

Environmental games by definition take place--and have their primary impact--not in simulated worlds, but in the real worlds of their players. Since any kind of transformation of the use of space inherently entails the production of changes in behavior, games intended to effect such transformations will have their greatest impact when they are designed to substantially enact these behaviors through *the play of the game itself*, rather than exclusively through second-order effects brought about by rhetorical arguments calling for the desired changes. Put differently, environmental games create new spaces of possibility within lived environments by opening pathways for players to directly engage in the construction of their own realities rather than an externally-authored or simulated reality. Such games go beyond merely calling for change by “producing an appropriate space” (Lefebvre 69) that can both embody and enable that change.

Figure 11: A sampling of student-organized events, productions, and online spaces produced as a result of playing *Reality Ends Here*. See also <http://reality.usc.edu>.



Two T's and One Elle

You are Attending · Share · Public Event

Time Wednesday, September 7 at 12:00pm - September 11 at

Location University of Southern California

This is not to say that environmental games do not make use of the “procedural rhetoric”³² found in other games in the manifestation of their impact. Indeed, as will be discussed below, all games make value statements about the world through the procedures of play. However, it is important to briefly consider the relationship between what I will call “simulation games” and impact in order to understand the other kinds of transformational potential offered by environmental games.³³

2.2.1 Contrast: Simulation Games and Impact

Games that model real-world systems in the form of simulations can persuade us to adopt certain points of view which in turn give rise to various actions and postures. When individuals engage with a simulation game, they can come away with a clearer sense of the systemic underpinnings of a problem space. A canonical example of this process is the *SimCity* series of games, which makes arguments about the relationships between governance, commercial and industrial growth, land use, public works, and education, among many other things. These arguments gradually become apparent to players as they experiment in the “sandbox” of the *SimCity* simulation: lower taxes mean more commercial growth; more commercial growth means more jobs; less unemployment means higher residential housing values; higher housing values means more tax revenue; and so on.

³² See Bogost, *Persuasive Games*.

³³ For the purposes of this discussion, I will be using the term, “simulation game” to denote any game that represents a real-world system through interactive models and other abstractions. In the domains of video game design and game studies, among others, “simulation games” are a very specific genre and are attended by various subgenres (sandbox games, sports sims, “god games,” and so forth). In this discussion, I am using the term to refer to a much broader range of representational game systems--both analog and digital--that are distinguished by their emphasis on the use of simulation and the procedures of play as a form of rhetoric.

Many game designers would prefer to call *SimCity* a “toy,” rather than a game, and others would argue that it was not consciously designed to agitate for any specific political position. Nevertheless, *SimCity* makes a series of decidedly neoliberal points about the proper and improper development of urban space through its rules and procedures. Insofar as games or toys like *SimCity* can inform the world view of their players, they can have value-charged impacts.

A somewhat less obvious example is *Unmanned*, a 2012 game by Molleindustria and No Media Kings which places players into the existentially absurd and sometimes tormented life of a US drone pilot. In *Unmanned*, players experience the strange contrast between the pilot’s mundane daily activities (shaving, playing video games, driving) and the disembodied ultraviolence (tracking and blowing up “terrorists” with remote-controlled UAVs) that characterizes his work life. *Unmanned* is a beautiful work of art and worthy of the reader’s attention. It provides players with dark and often uncomfortable insights into the nature of contemporary warfare and its imbrication in our alienated consumer culture. These insights can have real-world impact: for example, having experienced an abstract representational simulation of the physical and psychological effects of UAV warfare “up close,” players of *Unmanned* may be less likely to support political candidates and other actors that support such tactics, or may seek involvement with veteran groups or foreign aid agencies. Further, many simulation-based impact games, such as Susana Ruiz’s seminal political action game, *Darfur is Dying* (Take Action

Games, 2006), provide their players with clear routes through which to take action: websites to visit, organizations to support, concrete steps to take in everyday life, and so on.

In this sense, simulation games stimulate change in their players and their environments in a manner analogous to other rhetorical media forms like books, films, or television. Players play the game, are affected, and if they are affected powerfully enough, change the way they look at and engage with the world accordingly. *SimCity* endorses a particular view of urban planning, and provides an experience of “the management of complex systems based on ‘intelligent scanning’ of streams of constantly changing information.” (Starr 10). *Unmanned* shows its players the inhumanity of warfare, and gives them contact with the sublime. These are powerful calls to action, but the actual *taking* of action is a kind of consequence or side-effect of playing the game, something that happens outside of the "magic circle" of play.

Further, because the rules and procedures of simulation games such as *SimCity* and *Unmanned* are executed computationally, they are typically not visible to (or deeply modifiable by) players. How are we to know the algorithms of *SimCity* are rooted in sound principles of urban planning and economics? Since any simulation is inevitably an approximation, how far can we trust *SimCity*'s accuracy as a model of the world? The rhetorical position taken by *Unmanned* is something we can all get behind, but how would we feel about an equally compelling and beautiful simulation espousing a cause

we despise? Viewed in this light, simulation games can be recognized as a form of spectacle. That is, they are a means of “[concentrating] all gazing” (Debord, *Society of the Spectacle* Thesis 3) upon a world (or system) created by others rather than a channel through which players can remake the worlds (or systems) in which they live. While digital technology clearly offers the promise of democratizing spectacle, simulation games on their own do not achieve this end. Douglas Kellner and Stephen Best describe such systems as “pseudo-interactive”:

We would distinguish therefore between a genuine interactive spectacle and pseudo-interaction. Using Debord's conception of the construction of situations, we would suggest that a creatively interactive spectacle is one that the individual herself has created, whether it be one's website, computer-mediated space such as chat room, or discussion group. In these self or group-constructed environments, individuals themselves create both form and content, using the site and technology to advance their own interests and projects, to express their own views and to interact in the ways that they themselves decide. In [pseudo-interactive spectacle], by contrast, one is limited by the structures and power of the [forces] that themselves construct the spectacle in which one is merely a part.

Put differently, while simulation games are much lauded for their “do” capacity, they ultimately resolve into a “show” medium. Both *SimCity* and *Unmanned* are single-player games wherein the player makes choices and experiences consequences based on “black-box” code. In playing the game, the player is neither modifying the real world nor the game itself; rather, she is playing in the system. Through this play, she both consciously and unconsciously receives the various value statements and philosophical positions encoded (again both consciously and unconsciously) in the system by its authors. These statements and positions can be remixed, repurposed, and reinterpreted by the player in myriad and often highly social ways--and herein lies what is arguably their greatest

interest to the educator and activist. However, this again is a second-order exercising of agency, and such activity is all too often no more central a part of a simulation game's design than the remixing of *Star Trek* episodes was of Gene Roddenberry's original project. While simulation games taken in isolation may have the appearance of being agency-rich activities--and, to be sure, they are a much more "active" kind of spectacle than older media forms such as film or television--they are ultimately closed systems "imposed from above."

To imposition from above is opposed expression and cultivation of individuality; to external discipline is opposed free activity; to learning from texts and teachers, learning through experience; to acquisition of isolated skills and techniques by drill, is opposed acquisition of them as means of attaining ends which make direct vital appeal; to preparation for a more or less remote future is opposed making the most of the opportunities of present life; to static aims and materials is opposed acquaintance with a changing world. (Dewey)

Simulation games are prepared abstractions. Like novels or films, they are connected to the lives of players and the dynamics of their lived environments through intertextuality and the operations of apprehension and interpretation. In learning contexts, such artifacts have obvious utility; but ultimately they function more like textbooks than like the truly experiential learning systems imagined by Dewey and others. This can be a difficult argument to make, especially in light of the many game designers and educators invested in the design and application of simulation games. I do not wish to suggest that simulation games are without merit, nor that they are monolithic: indeed, what is at issue here is ultimately a spectrum rather than a dichotomy. Rather, I am trying to establish a baseline for what experiential learning really is, and what kinds of roles games can play in that kind of learning.

If we are to say that simulations provide their players with “real experiences” and therefore represent an approach to experiential learning, then I would suggest that the entire category of experiential learning collapses. As I have attempted to indicate in this section, simulation games are a form of interactive rhetoric that, broadly speaking, operate on subjectivity in a similar manner as other forms of rhetoric such as lectures, textbooks, and films. While it is true that players actively “have an experience” when they play a simulation game, the same can be said for the readers of books, the attendees of lectures, or the viewers of films. Indeed, many filmgoers refer to favorite films as “amazing experiences.” If this definition of experience is to be the basis for our conception of experiential learning systems, then all learning systems are experiential learning systems.

As Dewey notes, the determinative factor is not whether an experience is being had, but rather what the “quality” of a particular experience is. “[People] in traditional schools do have experiences,” he writes. “The trouble is not the absence of experiences, but their defective and wrong character--wrong and defective from the standpoint of connection with further experience.” The central challenge in developing an experiential learning system is thus to find ways “to select the kind of present experiences that live fruitfully and creatively in subsequent experiences” (Dewey).

2.2.2 Actualization

In environmental games, the experience of play centers not on simulation but on *actualization*. Such games are played within specific lived environments, and real people, places, and actions are their constituent elements. When a player takes an action in an environmental game, the consequences of that action are felt in real life. Since these actions are taken within a system that is directly connected to an environment, they *de facto* engage with and alter what Erving Goffman would call the “dramaturgy” of the environment. In this sense, games like *Reality Ends Here* constitute pathways through which players effect real change in their everyday lives. Such games directly convert the energy of play into tangible situations in lived environments. To use an engineering analogy, environmental games like *Reality Ends Here* are much more efficient in terms of throughput than simulation games. Rather than behavioral impact in the real world being a second-order consequence of play, impact is inseparable from play. The game is not only a call to action: it also meaningfully *is* the action.

Consider the following thought experiment. What if, instead of an environmental game, *Reality Ends Here* was a video game? Instead of being played in the real world, this virtual version of *Reality Ends Here* would provide players with a simulation of a fictional student at a fictional media arts school. In this game, the relative success or failure of the fictional student controlled by the player would be determined by the degree to which she did (or failed to do) the kinds of things set forth in the mandates of the EFG. For example, the simulation could be programmed to reward the player with points,

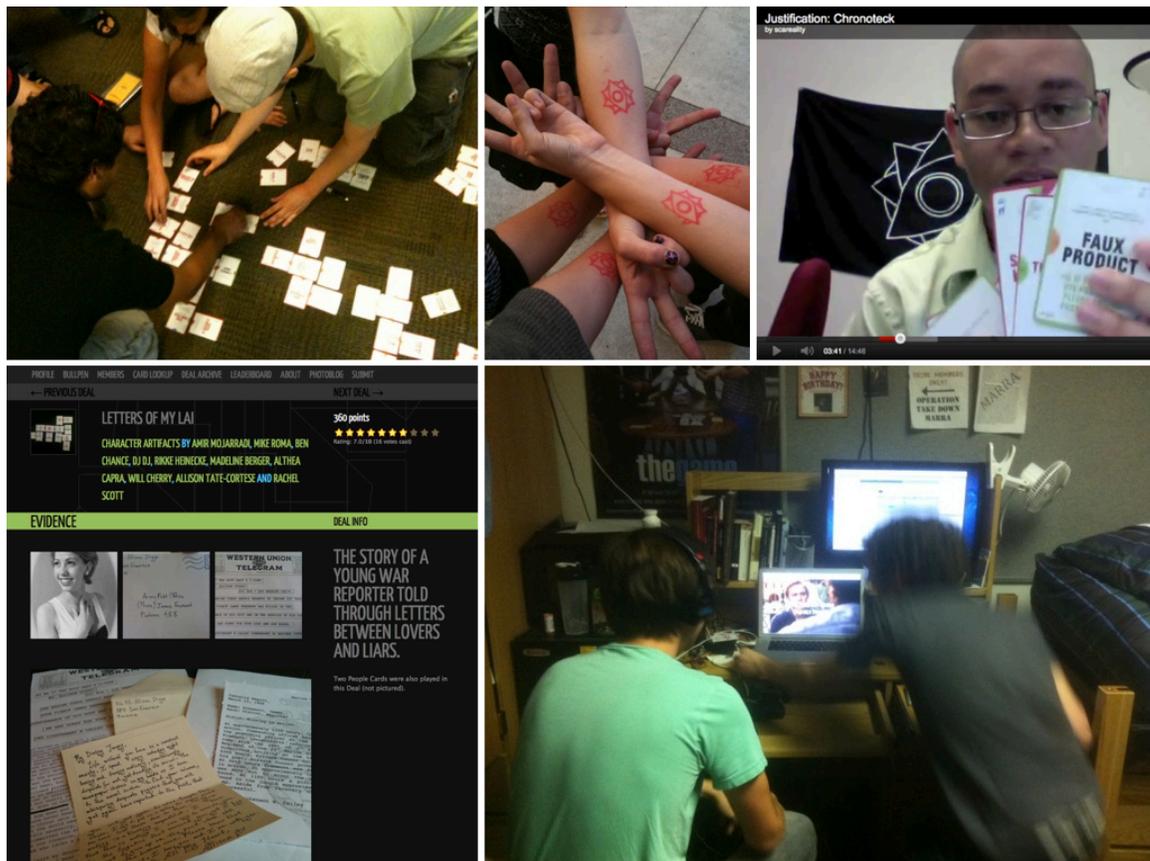
badges, and “level-ups” if the fictional student they controlled collaborated with other fictional students, experimented with fictional media making in a variety of fictional disciplines, and expanded her horizons through meetings with fictional alumni. In the best-case outcome, players would draw an analogy between their own real lives as students and the life of the fictional student they controlled in the game. Based on this analogy, they would then begin to do the kinds of things their fictional student did in the game in their real lives.

To be sure, this is something of a caricature of simulation games, and does not address the role such games can play in the sparking of real-world discussions and interactions revolving around the rhetoric they contain. But the criticism here is a serious one: if it is possible to design a game that brings about change directly through play, why would we design a game for impact that works as indirectly as the simulation described above?³⁴ In *Reality Ends Here*, players aren’t just “shown” the value of peer discovery and collaboration: they *live* it. In order to play the game at all, they must at the very least pay close enough attention to their peers and their surroundings to notice that it exists. To score points in the game, they must get involved in social activity, either by participating in the online discussion or by collaborating and making media. Further, to score more than a few points, players *must* get involved in media making. Since players only receive a limited number of cards at the outset of the game, and since the cards they receive

³⁴ In some cases, the use of a simulation may be the only available option. For example, video games like *America’s Army* or military exercises such as the massive *Valiant Shield* US Navy war game provide players with an experience of combat environments without necessitating violence. However, it should be emphasized that the experience gained through such simulations is qualitatively different from the experience gained through actual combat. One cannot become “battle-hardened” in the absence of the real existential and moral threats presented by warfare.

degrade in value with each use,³⁵ they must either collaborate with other players or engage in trade and barter in order to continue playing. The rewards players receive through play of the game are not points or badges enclosed in a simulation, but rather are real-world rewards such as mentorship encounters, usable portfolio items, and potentially life-long friendships. Simply put, there is no way to play *Reality Ends Here* that does not in one way or another enact the very outcomes the game is designed to produce.

Figure 12: *Reality Ends Here*, various play contexts.



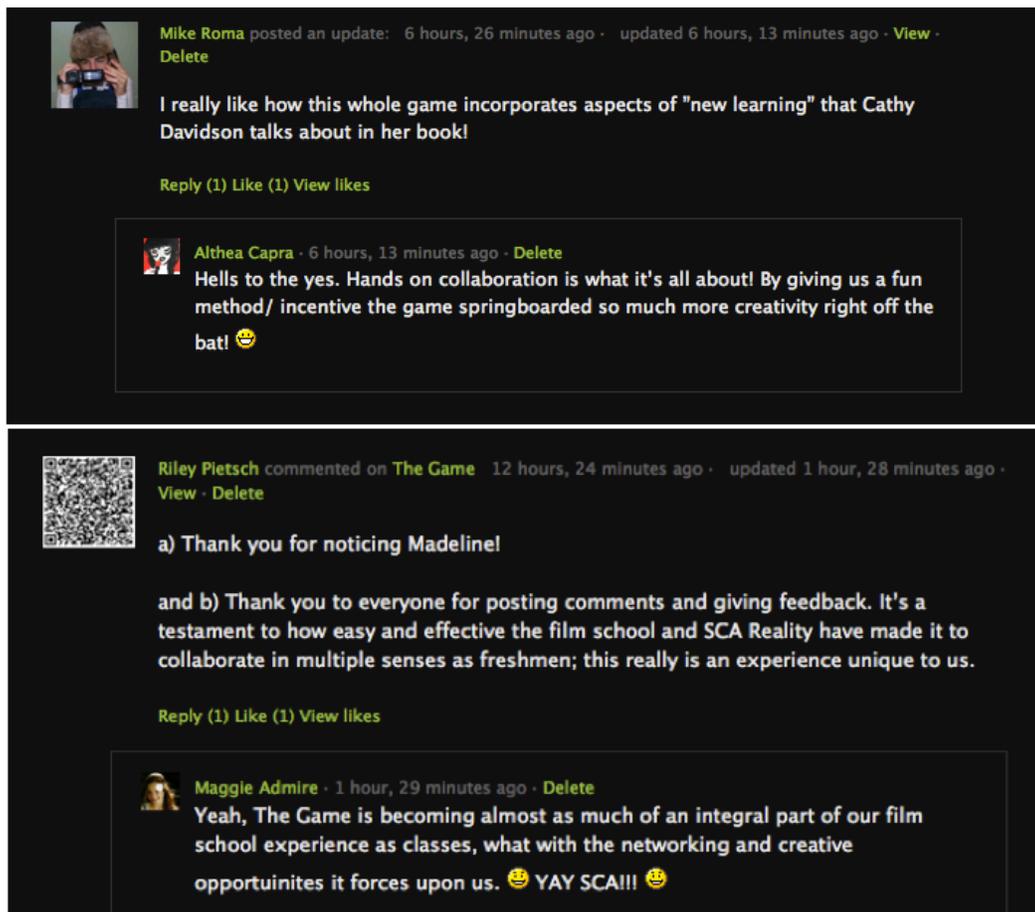
³⁵ This is a crucial rule in the CCG system. To encourage players to interact with other players, each card can only be used three times before it loses its value in the game's point system. This necessitates the acquisition of "fresh" cards, which can only be achieved through deeper interaction with the game and with other players. This rule, and additional notes regarding its role in the game system at large, is detailed in the section titled, "Collectible Card Game," in Chapter 3.

Crucially, this emphasis on “direct action” through game play does not eliminate the rhetorical capacity of environmental games like *Reality Ends Here*. As a designer, whether you intend to or not, you are always saying things about the world when you make a game. The way your players play your game enacts those value statements. In the case of *Reality Ends Here*, the mandates of the project are underwritten by very specific values regarding collaboration, community, and initiative. As we iterated through play mechanics that focused on these core values, we quickly realized that our system was inevitably going to encode a multitude of other statements about things like professionalism vs. amateurism, competition, cooperation, authority, authorship, and inclusivity.

Take the issue of whether the *Reality Ends Here* should be mandatory. What would we be saying to the students if we had made this experience something they “had to do” versus something that they discovered and engaged in “of their own accord?” A big piece of developing collaboration skills and learning about the value of community is realizing that you have to take initiative in order to build relationships and expand your social and professional horizons. Especially in the media industries, these things won't just be handed to you on a platter. They take work and involve risk. Any game about collaboration and community ought to communicate those basic facts, and if we had made the game a mandatory part of the curriculum, we would have been compromising some of that message. We would have been saying, “this is a part of your classwork. Do this or your grades will suffer.” Regardless of whatever game we might have built atop

that foundation, the base value would have always been the same: something like, “do as you're told.” By making the game optional, we were able to say, “this is an opportunity. It's up to you if you want to take it. Make of it what you will.” Associating the game with the values of exploration, socialization, initiative, experimentation, and discovery seemed much more in line with our overall mandates than was associating it with the inward-facing and passive values of doing as one is told. In this manner, every design decision made in the creation of *Reality Ends Here* asked a crucial value question, and in order to answer each one, we needed to think about the value-rich real-world actions and social arrangements the play of the game would inevitably create.

Figure 13: Bullpen posts regarding core game mandates.



Mike Roma posted an update: 6 hours, 26 minutes ago · updated 6 hours, 13 minutes ago · [View](#) · [Delete](#)

I really like how this whole game incorporates aspects of "new learning" that Cathy Davidson talks about in her book!

[Reply \(1\)](#) [Like \(1\)](#) [View likes](#)

Althea Capra · 6 hours, 13 minutes ago · [Delete](#)

Hells to the yes. Hands on collaboration is what it's all about! By giving us a fun method/ incentive the game springboarded so much more creativity right off the bat! 😊

Riley Pietsch commented on **The Game** 12 hours, 24 minutes ago · updated 1 hour, 28 minutes ago · [View](#) · [Delete](#)

a) Thank you for noticing Madeline!

and b) Thank you to everyone for posting comments and giving feedback. It's a testament to how easy and effective the film school and SCA Reality have made it to collaborate in multiple senses as freshmen; this really is an experience unique to us.

[Reply \(1\)](#) [Like \(1\)](#) [View likes](#)

Maggie Admire · 1 hour, 29 minutes ago · [Delete](#)

Yeah, The Game is becoming almost as much of an integral part of our film school experience as classes, what with the networking and creative opportuinites it forces upon us. 😊 YAY SCA!!! 😊

As illustrated in Figure 13, as the game went on, the rhetorical positions underlying these design decisions became increasingly apparent to the players. Their reflections on these positions gradually became an important impact of the game. Indeed, many of the projects submitted to the game were about the game itself. Beginning in the mid-game and continuing through to the end of the experience, several groups of players created elaborate projects interrogating the structure and purpose of *Reality Ends Here*. Deals such as *The Game* (<http://reality.usc.edu/deals/the-game/>), *The Game: A Forbidden Deal* (<http://reality.usc.edu/deals/the-game-a-forbidden-deal/>), *The Game: The Series* (<http://reality.usc.edu/deals/the-game-the-series/>), *Epilogue* (<http://reality.usc.edu/deals/epilogue/>), *The Bullpen* (<http://reality.usc.edu/deals/the-bullpen/>), and *The Justification* (<http://reality.usc.edu/deals/the-justification/>) all ask questions about the meaning and impact of the game, and its role within the emerging community of the freshman cohort.

Figure 14: Poster for *The Game*. This poster was created by players to promote their short film, *The Game*, and was the first of several projects submitted to *Reality Ends Here* that was “about” *Reality Ends Here*.



2.3 Thesis III: The Social is the Medium

As Seymour Papert notes in his discussion of his groundbreaking work on LOGO, the optimal role a simulation can play in learning is not only in providing an interactive representation or model of a given concept, but in mediating the way that learners can connect with one another, share ideas, and have genuine social experiences linked to intellectual and personal development. For Papert, LOGO, a simple programming language for children, was only one piece of the puzzle. The real trick was in creating an educational environment that would break LOGO free from being a private activity and make the practice of programming into a social activity that had real relevance and resonance in the social lives of the learners. This would create personally-meaningful experiences, embodied and embedded in the social environment. Personal meaning of this sort is the “vital appeal” Dewey speaks of. It is the wellspring of real agency -- and agency in this sense is the most powerful mnemonic there is when it comes to acquiring and retaining knowledge.

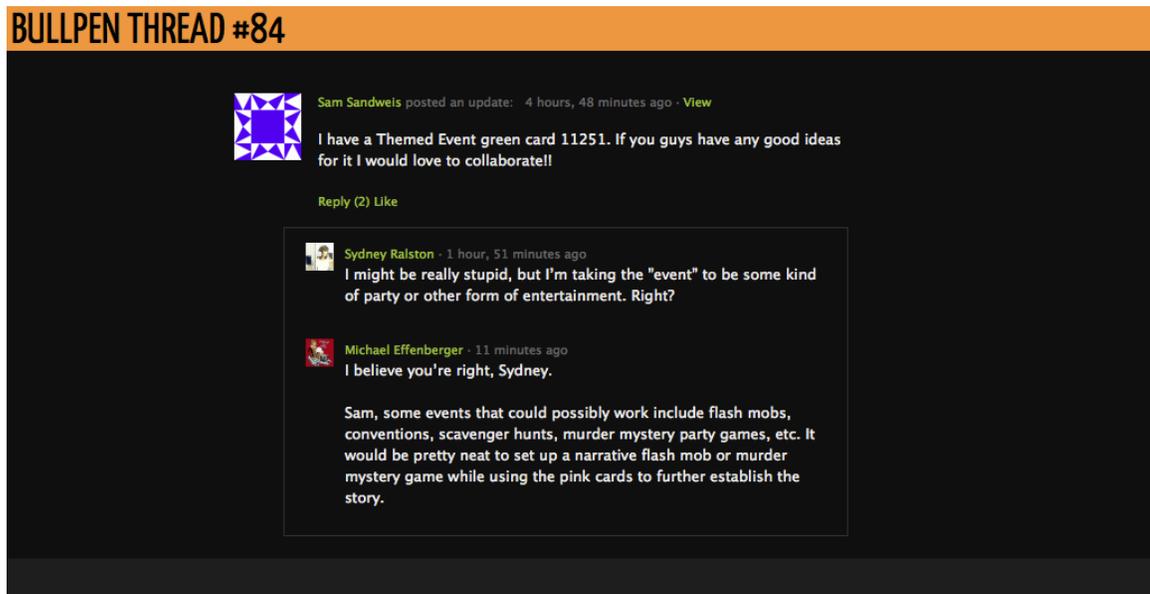
[This] environment is designed to foster richer and deeper interactions than are commonly seen in schools today in connection with anything mathematical. Children create programs that produce pleasing graphics, funny pictures, sound effects, music, and computer jokes. They start interacting mathematically because the product of their mathematical work belongs to them and belongs to real life. Part of the fun is sharing, posting graphics on the walls, modifying and experimenting with each other’s work, and bringing the “new” products back to the original inventors. Although the work at the computer is usually private it increases the children’s desire for interaction. These children want to get together with others engaged in similar activities because they have a lot to talk about.

In *Reality Ends Here*, the core media-making game serves as a means of bringing about these kinds of personally-relevant social interactions. While the many wonderful creative projects produced by the students constitute an impressive outcome on their own, the most important objective and most lasting outcome of *Reality Ends Here* can be described in terms of the way that the game provides a channel through which players can connect with one another and generate social arrangements centered on the discussion and practice of media-making. Because the game is played in the lived environment of its players, and because its constituent procedures involve taking real actions that necessarily have impacts on the social environment independent of the game, these arrangements emerge not as second-order “side-effects” of game play, but rather as fundamental components of the activity.

The range of social impacts created by the 2011 implementation of *Reality Ends Here* can be broken down into a spectrum spanning three categories: *ludic*, *para-ludic*, and *extra-ludic*.

Ludic social impacts refer to the way the game’s constituent systems directly mediates interpersonal relationships, community-oriented reflection, and knowledge sharing. For example, once players sign up for the game, they begin to use the in-game website to seek out collaborators, share knowledge, and perform various kinds of group and sub-group affinities. This activity takes place on the “Bullpen”--a Facebook-like status updating system on the game website--as seen in Figure 15:

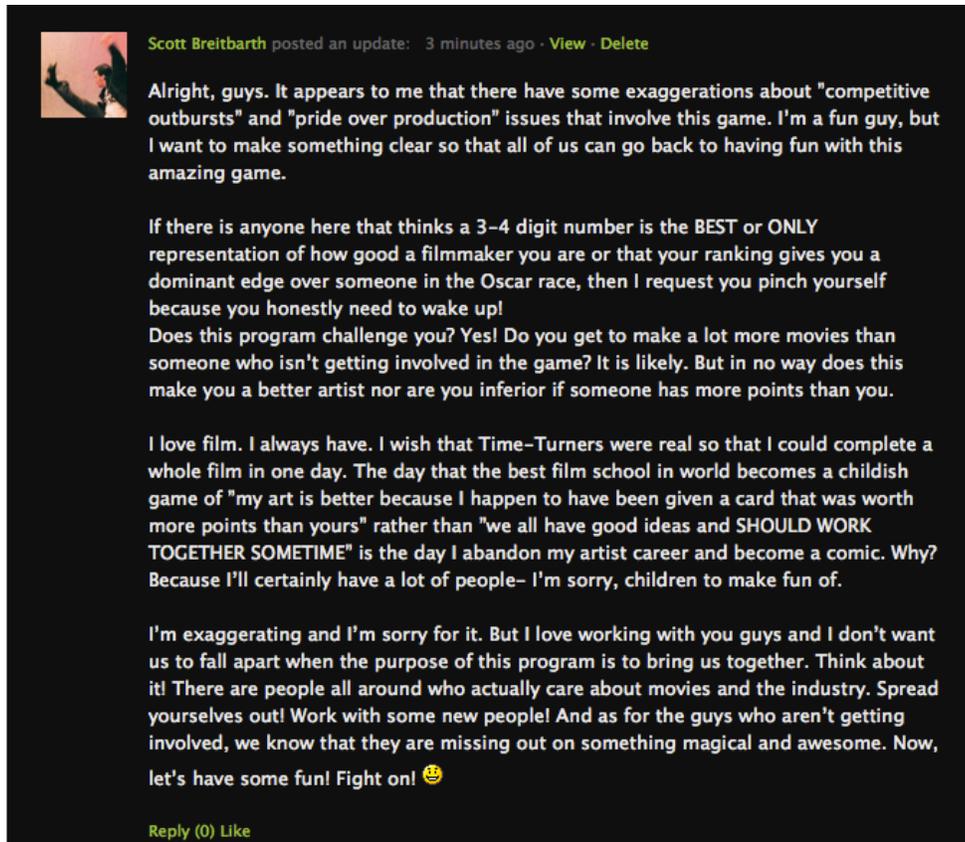
Figure 15: Bullpen post regarding search for collaborative partnerships.



During the 2011 implementation, 4762 status updates were submitted to the Bullpen. Not all Bullpen updates were as directly focused on the collaborative activities of the game as those seen in Figure 15. Many updates discussed the game from a broader perspective. For example, in the early stages of the game, there was a great deal of discussion about the purpose of the game and its role in the community. Debates emerged between students who concentrated on making “high quality” projects (i.e., those who took “pride in production”) and those who produced putatively “lower quality” projects in higher volume so as to maximize the number of points they would earn in the game system. These debates continued through the mid game, revealing a range of interesting analogies to the media industry at large: one cannot “win” in the media business without producing “high value” work, but at the same time, one does not want to sacrifice one’s artistic

integrity. This self-reflection illustrates the degree to which the game mediates discussion among students regarding the direction of their educational experience--and its role in their development as artists:

Figure 16: Bullpen post regarding “art vs. commerce” debate.



Not all ludic social impacts are manifested online. For example, the top 4 or 5 players who earn the most points in the game during a given week are connected with alumni of the SCA for special “mentorship encounters.” Further, open-to-all “serendipitous encounters” can pop up at any time, promoted via enigmatic tweets and secret messages appearing on the game website. Shrouded in mystery, these “once-in-a-lifetime”

encounters consist of face-to-face meetings--often in unusual places, such as the Museum of Natural History, or the home of an Academy Award-winning filmmaker--with alumni who are working in various aspects of the media industry. In the 2011 version of the game, mentorship encounters included meetings with veteran cinematographer Dante Spinotti, *Mad Men* writer Erin Levy, game designers Jenova Chen and Kellee Santiago, director John Singleton, screenwriter John August, and legendary filmmaker Robert Zemeckis, among many others. These encounters connected students with the rich history of the SCA, broadened individual social networks, and provided unique insights into the careers of successful alums.

Figure 17: Player-submitted photographs of mentorship encounters.



Para-ludic impacts included offline “icebreaker” discussions around the content included on collectible playing cards, and online activities regarding the planning and strategizing of game activities on platforms such as Facebook and Twitter. *Extra-ludic* social impacts included the generalized licensing of DIY production at an institution that is traditionally aligned with highly professionalized production techniques; the persistence beyond the termination of the game of production groups formed during gameplay; and the transition of students across Divisions or into the SCA as a result of their activities within the game.

Figure 18: CCG play in student dormitory.



Intellectual and emotional growth is inherently social. Indeed, there are few kinds of motivation or agency that are not focused on social objectives in one way or another. Environmental games exist within this matrix of social energies. In order to be accessible to new players, they must be designed so as to permit a certain degree of solitary play-- but they only succeed when genuine social arrangements are created. These arrangements constitute an intervention on the performative dramaturgy of the environment, opening new pathways for social discovery, collaboration, and serendipity. As Papert writes, “[powerful] new social forms must have their roots in the culture, not be the creatures of bureaucrats.”

2.4 Thesis IV: Leverage Motivation, Optimize for Agency

The fourth thesis of environmental game design is that environmental games best effect transformations in communities and individuals alike only when they leverage existing motivations in their player populations. This does not equal designing for the path of least resistance. Many motivations can in fact place heavy demands on their subjects. What is important is to conceive of the design of environmental games in terms of their ability to channel, focus, and clarify the motivations of their players. Human intellectual and emotional growth occurs when we reach out into the world in the pursuit of a self-defined purpose and experience the consequences of that action. From this experience we clarify our original purposes and form new ones--along with new ideas about how to chase after them. This is the fundamental operation of human agency.

This thesis can be understood by looking at the design of environmental games from two perspectives: first, through the way such games invite players to play; and second, through the way they create narrative figures via the interaction of players and rulesets, rather than through the “top down” deployment of curated multimedia assets and/or “missions.”

2.4.1 Agency and the Invitation to Play

Reality Ends Here is not mandatory for SCA students, nor is it openly publicized at the school. In fact, we went to lengths to keep it under the radar. The game is meant to belong to the players, not the other way around. Players discover it on their own, either through word of mouth or by picking up on clues left around the campus--clues hidden in old cameras, left near our mysterious flag which intermittently hangs off the third floor balcony, or hanging from LED throwies we've stuck to the underside of staircases. One by one or in groups, they come to the Game Office, undergo the initiation rites, receive their game cards and website logins, and start playing.

Why did we go to these lengths? After all, we have more or less complete control over our player population. They are students. We could tell them to do something and they would have to do it. That is how they expect their education to work. So why don't we just say to them: go learn about the other divisions of the school, form into interdisciplinary teams, and then make x number of creative projects? We have the power

to give assignments and set deadlines. We could enforce our demands with grades. Why did we make all this extra work for ourselves?

Outside of an educational institution, we would not have the ability to “conscript” our player population. In the open market, the best we could hope for would be to capture a decent percentage of our potential players through savvy communications design and the creation of a genuinely engaging product. In this competitive context, the notion that one could simply compel all of a given target demographic to sign up and play is something that almost any design team would find difficult to resist. But in the end, the wise designer wouldn’t give in to that hypothetical temptation--and for the very same reason that we didn’t simply turn the game into an assignment. And that reason can be found in understanding what it is we mean when we say the word, *play*.

Here is a classic definition of play from Johann Huizinga’s *Homo Ludens*:

Summing up the formal characteristic of play, we might call it a free activity standing quite consciously outside 'ordinary' life as being 'not serious' but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings that tend to surround themselves with secrecy and to stress the difference from the common world by disguise or other means. (13)

One can take issue with much of Huizinga’s definition. For example, the very nature of *Reality Ends Here* is that it is an environmental game, and does not proceed within the “proper boundaries” associated with familiar games such as board games or video games.

Further, proponents of art games and impact games would doubtless bristle at Huizinga

describing play as being “not serious.” But despite these definitional shortcomings, there is one thing in Huizinga’s definition that is fundamental to any notion of what play is, and that is that it is a *free activity*.³⁶

Consider the enormous amounts of energy people invest into genuine play activities. A ready example is that of the young *Pokémon* player, who will, entirely without supervision or deadlines or course readers, master massive volumes of information about the *Pokémon* universe, the rules of the game, and the kinds of strategy and tactics required to win. They will do this because the game is personal to them. It means something in their world. It has a social value on the playground and in the lunch room. It is a structured space within which they can explore different kinds of identity, mastery, and leadership. It belongs to them. They have chosen it. They have “opted in.”

When players opt in to a play experience, they bring with them the awesome power of their own agency. In the case of a game like *Pokémon*, players will yield up hundreds upon hundreds of hours of precious childhood playtime to master the game. That’s the power of agency, and that’s what engaging people in true play experiences can do.

Interaction designers know that they need to protect player agency at all costs. Within a given game system, this means thoughtfully designing play mechanics such that player action visibly and meaningfully shapes the evolving state of the game. If the game

³⁶ To be sure, games may not always involve voluntary participation, as illustrated by the grisly scene of coerced “Russian Roulette” depicted in *The Deer Hunter*. But in such instances, the participants are obviously not truly “playing.”

becomes random or deterministic, if it ends up feeling like everything is “on rails,” or if the relationship between the players’ choices in the game and the effects those choices have on the system is not apparent, players will cease to feel in command of the experience and will invest less of themselves into the game. And once a certain threshold is crossed, players will opt out entirely.

Crucially, player agency must be protected in the context of the invitation to play the game in the first place. In most game design situations, this is something designers don’t have to worry about, since games are typically conceived of from the start as something that players will only play if they feel like doing so. But in the realm of impact games, this isn’t always the case. In education, for example, students are often “told” to play games in lieu of traditional assignments. Telling players to play in this manner is a sure-fire way to compromise their personal investment and sense of agency. It transforms genuine play into a simulacrum of play, stripping it of its essential nature as a “free activity.” Further, the ability to coerce players to play can become a design crutch. That is, designers who can simply command their players to play can end up making games that are not engaging enough to attract players in the absence of such coercion, further diminishing the extent to which the true power of play can be leveraged toward the production of learning outcomes. Real play is supposed to be *fun*, after all. Being forced to play a non-fun game is not that different from being forced to memorize times tables or state capitals.

Reality Ends Here takes the opposite approach: rather than telling players to play, we “lured” them in by activating their curiosity.³⁷ This strategy ensured that the entire experience was rooted in the individual agency of players. It was a discovery, not an assignment. It was something that belonged to the students, rather than something that was forced upon them. Taking this approach forced us to make a *good game*, full stop--for if we didn’t, no one would have played at all. While this strategy meant that we did not engage the totality of the student population,³⁸ those who we did engage did so with the kind of fervor that is only possible when people are truly *playing*.³⁹

2.4.2 Process Intensity

This emphasis on agency has significant implications regarding the kinds of systems design that can be employed in environmental games, leading toward an increase in proceduralism or “process intensity.” A game that is designed to tell a story through the delivery of curated media artifacts typically has a *low process intensity* and a *high data intensity*--that is, it generates play experiences and narrative figures less through the emergent properties of players interacting with a ruleset than through the pseudo-interactive presentation of pre-made elements (or “data”). Insofar as the overarching

³⁷ A detailed examination of how we “lured” or “pulled” players into the *Reality Ends Here* experience is contained in the section titled, “First Contact Campaign,” in Chapter Three.

³⁸ The game was targeted at the 140 incoming freshmen at the SCA. In the 2011 implementation, 109 of these students registered for the game, along with several dozen students from other cohorts.

³⁹ Of course, in many ways we had the ideal player population: young people eager to make and study media. Few groups are more open to this kind of play than SCA freshmen. However, a different environment would by necessity require a different design, and a different kind of play. Further, environmental games are not appropriate for all situations. For example, it would be difficult (although perhaps not impossible) to design an environmental game to address systemic problems at a maximum security prison.

objective of any environmental game is to enable and empower the inhabitants of a given environment to tell their own story (that is, to direct and define the dramaturgy or spectacle that shapes and constrains the use and identity of the environment), designs that involve the deployment of curated multimedia assets must be rejected in favor of designs that exhibit high process intensity. High process intensity designs maximize the degree to which players, rather than designers (or “puppet masters”) are in charge of the emergence of narrative.

In the context of long-term environmental games in particular, high process intensity designs are more accessible, sustainable, and replayable than low process intensity games. They are more *accessible* primarily because they do not depend on sequences of narrative which players who arrive to the game after it has begun need to “catch up” with in order to engage with the experience; they are more *sustainable* because designers do not need to constantly create new content to keep players engaged--rather, the design process consists of creating a ruleset that will generate experience “on the fly” through the procedures of play; and they are more *replayable* because they cannot be “spoiled”--the stories they tell are manifestations of the players’ actions, and are different every time, depending on who is playing and what strategies and tactics they adopt.

An easy way to understand these concepts is to consider the differences between an alternate reality game and a sport. Curiously, *Reality Ends Here* is much more like a sport than it is like an alternate reality game. An alternate reality game deploys a story through

a series of puzzles and challenges which unlock multimedia assets.⁴⁰ These assets constitute a sequential narrative. Players who arrive to an ARG after it has begun have effectively missed the beginning of the story. The amount of effort required to get involved with the experience thus increases in direct proportion to the time that has elapsed since the game began. Further, since every stage of the game is effectively another “turn” in a pre-curated narrative, designers must create huge archives of material in order to keep the game moving. As soon as this flow of fresh material stops, so too does the experience of the game.

In a sport such as ice hockey, it does not matter that the game has effectively been played for over 100 years. New players can play without needing to know who won the 1919 Stanley Cup.⁴¹ The primary work of the “designers” of hockey is to periodically tweak the rules of the game in order to improve it from various perspectives such as safety, speed, and scoring. Each year, at the General Managers’ Retreat, the NHL considers these new rules and experiments with them. However, the designers of hockey do not create the “story” of hockey. That is done by the players. The story of every hockey game, season, and series, whether played professionally or in a Saskatoon backyard, is told through the interaction of players, referees, and scorekeepers with the rules and resources (i.e., the ice, skates, sticks, and pucks required for play) of the game. No “top down” storytelling is required. This is much more sustainable (and scalable) than an alternate reality game,

⁴⁰ A more in-depth discussion of ARGs and process intensity can be found in Chapter 1.

⁴¹ No one did: it was the only year the Cup was contested for but not awarded.

wherein most of the “official” story of the game is created by the designers.⁴² Hockey is also infinitely replayable, at least so long as ice, steel, sticks, and vulcanized rubber are available to potential players. While the design of the game has remained relatively static since the 1920s, the stories it has produced have been different every year. As a recent advertisement for the Stanley Cup Playoffs notes, one can read the story of the Quest for the Cup a thousand times but will still never know how it will end.

As illustrated by the example of ice hockey, having a high process intensity does not mean that a game must involve large amounts of computation: rather, it simply means that the narrative figures which emerge through gameplay must be determined as much as possible by the generative text of the rules of the game. The procedures of this text can be executed computationally, but may also be executed in whole or in part by the players themselves in the manner of “analog” games or sports. Further, additional procedures will emerge through the interface between gameplay and social reality. Ian Bogost calls games which use compact computationally-executed procedures to give rise to more expansive socially-executed procedures, “games of social experimentation” (“Persuasive Games: Process Intensity and Social Experimentation”). To illustrate this kind of gameplay, Bogost points to hybrid digital/analog multiplayer party games such as *Johann Sebastian Joust* (Douglas Wilson, 2011), which use lightweight computational systems to both mediate and “inspire” complex social and physical gameplay instantiations. Designer Douglas Wilson describes *Joust* as a “no-graphics, digitally-enabled folk game”:

⁴² Of course, the players of ARGs also create their own elements of the story--just as the fans of a film or television property create narratives of their fandoms--but the progress of the experience as a whole is mediated and directed by the active curation of content by puppet masters.

[The game is] for 2 to 7 players, designed for motion controllers (such as the PlayStation Move). The goal is to be the last player remaining. When the music--selections from J.S. Bach's "Brandenburg Concertos"--plays in slow-motion, the controllers are extremely sensitive to movement. When the music speeds up, this threshold becomes less strict, giving the players a small window to dash at their opponents. If your controller is ever moved beyond the allowable threshold, you're out! Channel the power of J.S. Bach, and try to jostle your opponents' controllers while protecting your own.

As with games like *Joust*, in *Reality Ends Here*, computation primarily plays a mediating role, while the bulk of the rules of the game, both those created by the designers (which Salen and Zimmerman call the “explicit” rules) and those invented or interpolated by the players (or the “implicit” rules), are articulated socially in both analog contexts and in extra-ludic digital contexts, such as on Facebook or other social media environments inhabited by players. In terms of the official game system, the website for *Reality Ends Here* tracks player scores and provides a means for the sharing of media artifacts produced through gameplay, while the main rules of the game are encoded in the procedures related to the collectible card game (CCG).⁴³ In this sense, the computational components of the system have a low process intensity *and* a relatively low data intensity, while the game system as a whole is nevertheless high in process intensity. That is, the myriad narrative figures that emerge from “official” gameplay are almost wholly determined by the rules of the card-based “procedural creative prompting system” which players use to seed their creative collaborations, rather than by the code underlying the website, which functions primarily as a feedback system.

⁴³ Both website and the CCG are detailed below, in Chapter 3.

On the other hand, the social codes which emerge as players compete, collaborate, and perform gradually come to constitute an additional “unofficial” layer of procedurality that is almost entirely authored by the players themselves. One striking example of this emergent process intensity is the “group system” and its attendant phenomena of “card banking.” These dynamics emerged during the 2011 implementation of *Reality Ends Here*. In the early phases of the game, a group of approximately 8 particularly engaged players, primarily composed of Production and Writing students, formed into a tight association akin to a kind of production company. This group, known as “MARRA” (an acronym for the names of its five founding members), pooled their game cards together and signed an “exclusivity contract” which prohibited group members from working with any other players in the game.

Figure 19: Team MARRA, striking a variety of mock-serious poses. Screenshot from *The Game: A Forbidden Deal*, a project about the game, submitted to the game.



MARRA quickly shot to the top of the Leaderboard as they used their tight team arrangement and relatively large pool of cards to plan and execute a series of high-scoring projects. That is, the new “rules” they invented for themselves initially served to ensure their collective advancement in the game system. However, as the game went on, this strategy partially backfired, at least in terms of MARRA exhausting their supply of CCG cards: as is detailed in Chapter 3, each time a card is used in a creative prompt, it decreases in value. Once it has been used three times, it is no longer worth any points

whatsoever. This fact ultimately led MARRA to seek out methods for acquiring new cards.

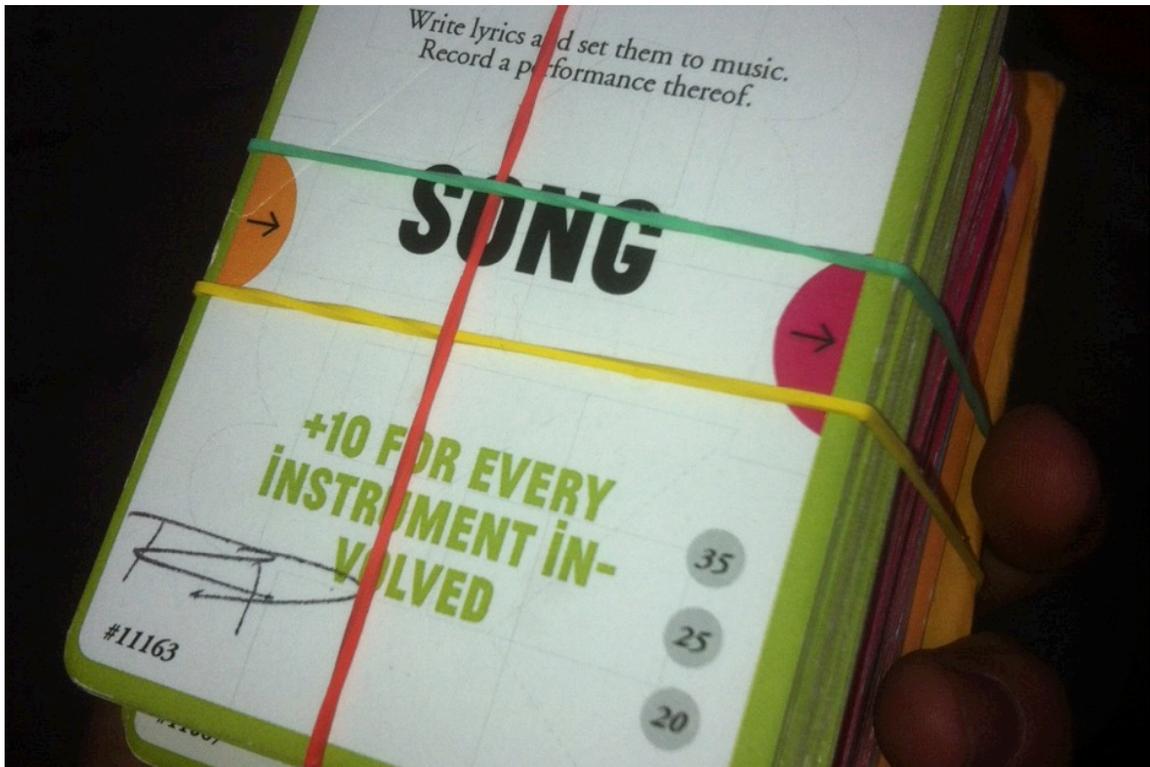
Additionally, in part in response to the early dominance of MARRA, new groups began to form, several of which engaged in various kinds of what became known as “card banking.” In card banking, players pool cards in the manner of a credit union. The most successful example of card banking in the 2011 implementation was manifested by the large player group known as the “The Tribe,” which assembled a card bank numbering hundreds of cards.

Figure 20: Members of The Tribe, posing in a tree. Screenshot from *The Game: A Forbidden Deal*.



The central “rule” of The Tribe’s card bank was that all players who are members of the card bank receive credit on all projects produced by other members of the card bank, so long as they share all their cards with the bank. This and other “card economy” protocols established additional layers of procedures for a subset of players.

Figure 21: Card bank for the Tribe. Each card in the bank is signed by the player to whom it belongs. All members of the card bank may use any of its cards in the construction of a creative prompt (or “Deal”). These rules and procedures were invented by the players themselves, and came as a (pleasant) surprise to the designers.



By designing the core (or “official”) game system around procedures, rather than curated content, designers of environmental games lay the groundwork for players to further iterate and repurpose the game according to their own desires. This high degree of “social process intensity” is a key mechanism through which player agency is emphasized at every stage of gameplay.

2.4.3 Additional Remarks Regarding Agency

Of course, personal investment and sense of agency are not always of prime importance in applied game design. The point here is not that educational games or other kinds of impact-oriented games should always be agency-rich opt-in experiences. Every design brief is different. In many instances, games can be effectively used purely as simulation tools, or as methods for constructing complex arguments or presentations that would be difficult or impossible to execute using other media forms. Students can be asked to interact with a simulation, and can genuinely learn something about the system that the simulation models, even if it's not something they would normally interact with of their own accord.

But our mandates are about action, not simulation. They are about what the players are doing, not what we are showing them. The objective of *Reality Ends Here* is to transform the environment at the SCA, not merely deliver information. We needed to create a play experience that would bring about the kinds of social and creative situations that the school had identified as being missing or under-represented. These situations couldn't just be one-offs. This was about effecting lasting change. It was about enlivening--and, in some senses, creating--a community. To make that happen, we would have to inspire sustained and deeply personal involvement in the game. That kind of passion isn't something you can tell people to have. They have to find it on their own. Students discover and engage with *Reality Ends Here* the same way they discover and engage with

things like college radio stations. They hear about it, and if they like the sounds of it, they show up and pour their hearts into it.

2.5 Thesis V: Iterative and Permeable

Finally, all of these hypotheses are contained under the umbrella idea that the design of environmental games is inherently an iterative process. This process requires both the boldness to try new approaches, and the flexibility to learn from the outcomes they produce. In many senses, iterating the design of an environmental game is an inseparable part of being “supremely sensitive to the situations and conditions within the target environment.” As the game transforms the environment, the game itself must change, adapting to the new limitations and affordances that the play of the game surfaces. Further, and perhaps most importantly, this process must be permeable to the constructive energies of the players of the game. Games do not exist without their players, and the more designers can do to close the gap between the official design team and the creative energies of the player population, the more relevant and impactful the resulting design will become.

The 2011 implementation of *Reality Ends Here* established the basic framework for the game, but by no means is it the “final” version. Indeed, the long-term goal of the project is to put its continued iteration into the hands of the players themselves, and to manage the ongoing development of the game in a manner similar to a school newspaper or radio

station. This is more than just an ideological design position. Rather, it is a matter of survival. As soon as an environmental game ceases to be “in touch” with the environment it targets, it will cease to function. By keeping the game in “perpetual beta,” and by foregrounding the involvement of the players themselves in its evolution, designers can ensure that an environmental game remains relevant and engaging to the population it seeks to empower.

In the future, perhaps there will be a role at all institutions for “resident environmental game designers” and other kinds of facilitators who do not teach in traditional classroom facilities, but rather act as a kind of “ombudsperson of play,” connecting students and faculty and other members of the community with each other through observation and ludic intervention. In this regard, I am reminded of Seymour Papert’s lament about physics education:

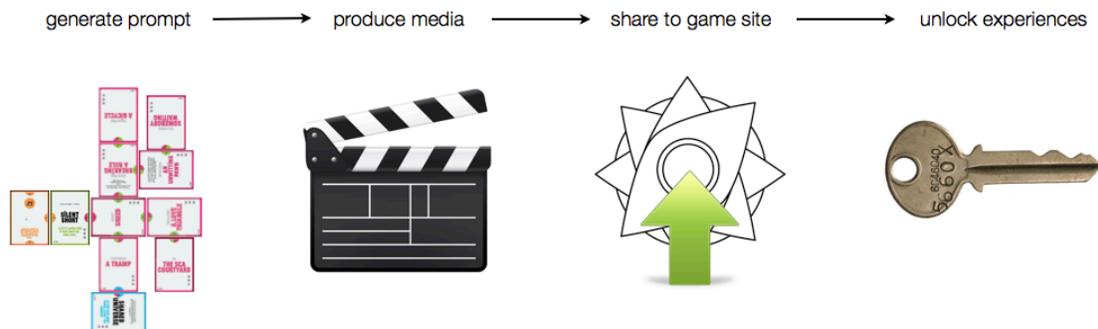
This problem goes deeper than a mere short supply of such people. The fact that in the past there was no role for such people has been cast into social and institutional concrete; now there is a role but there is no place for them. In current professional definitions physicists think about how to do physics, educators think about how to teach it. There is no recognized place for people whose research is really physics, but physics oriented in directions that will be educationally meaningful. Such people are not particularly welcome in a physics department; their education goals serve to trivalize their work in the eyes of other physicists. Nor are they welcome in the education school—there, their highly technical language is not understood and their research criteria are out of step.

Chapter 3: Technical Description

3.1 Overview

Reality Ends Here is an environmental game in which players cooperate and compete to create and share media artifacts. The experience is driven by a collectible card game (CCG). Through the play of the CCG, players generate creative prompts. Using these prompts as inspiration, players then work alone or in self-assembled teams to create media artifacts and submit them to the game's website--along with a "Justification" webcam video explaining how the work they created fits the conditions of the prompt it is based on. A submitted project is known as a "Deal." Submitting and Justifying a Deal scores players points according to the number, types, and states of CCG cards that were used in the creation of the project's prompt. All players who worked on a given Deal receive the full point value of the Deal. Players may work with as many other players as they like, and may submit as many media artifacts as they can make. Additional points can be earned by commenting on the work of other players, posting status updates, and sharing photos. By scoring points, players advance on a weekly and overall leaderboard and can earn access to special experiences and mentorship encounters.

Figure 22: Gameplay overview. Players generate creative prompts via the CCG, produce media artifacts (or “Deals”) based on their prompts, share these artifacts to the game website, and unlock mentorship experiences by earning points on a weekly leaderboard.



All media artifacts produced in the game are shared on the game’s website and through social media, producing a legacy of portfolio items for players, and extending the narrative of the player community. The beta implementation of *Reality Ends Here* ran for 122 days from August to December of 2011 at the USC School of Cinematic Arts. 109 of 140 freshman students participated in the game. Students from outside of the freshman cohort, and from outside of USC itself, also participated in the game. A total of 183 players registered for the game. A total of 122 Deals were submitted during the course of play.

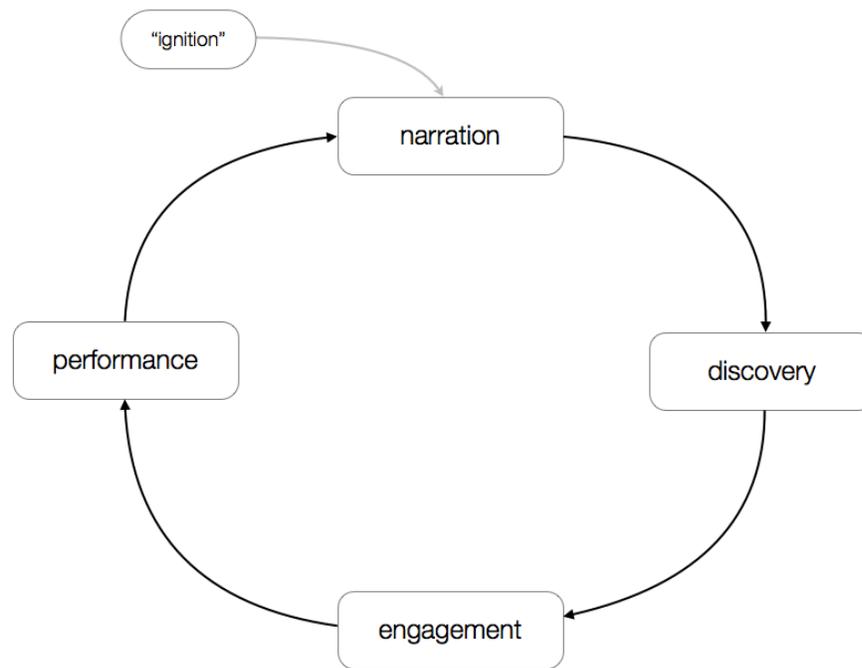
3.2 Cycle of Play

The main flow of the experience constitutes a positive feedback loop. In broad outline, the core processes of this feedback loop are inherent to any lived environment, as discussed in Chapter One. *Reality Ends Here* is a system designed to accelerate and guide

these processes. As a machine for (re)making environments through network effects, the system can be described as a “environmental play dynamo.” This dynamo consists of four processes which fire in sequence from the perspective of the individual player, and both in sequence and asynchronously from the perspective of the system as a whole.⁴⁴ These processes are: *narration*, *discovery*, *engagement*, and *performance* (see Figure 23). The firing of each of these processes is governed by the procedures of the CCG and its attendant social arrangements. At any stage in the sequence, Game Runners may intervene to stabilize the system. An additional stage, *ignition*, is required to initiate or “prime” the loop. A termination stage is introduced at the end of the experience to conclude official game play.

⁴⁴ See “Temporal Structure” and “Interaction Patterns” below for further elaboration on the relationship between synchronous and asynchronous processes within this game system.

Figure 23: Environmental Play Dynamo. Simplified view.

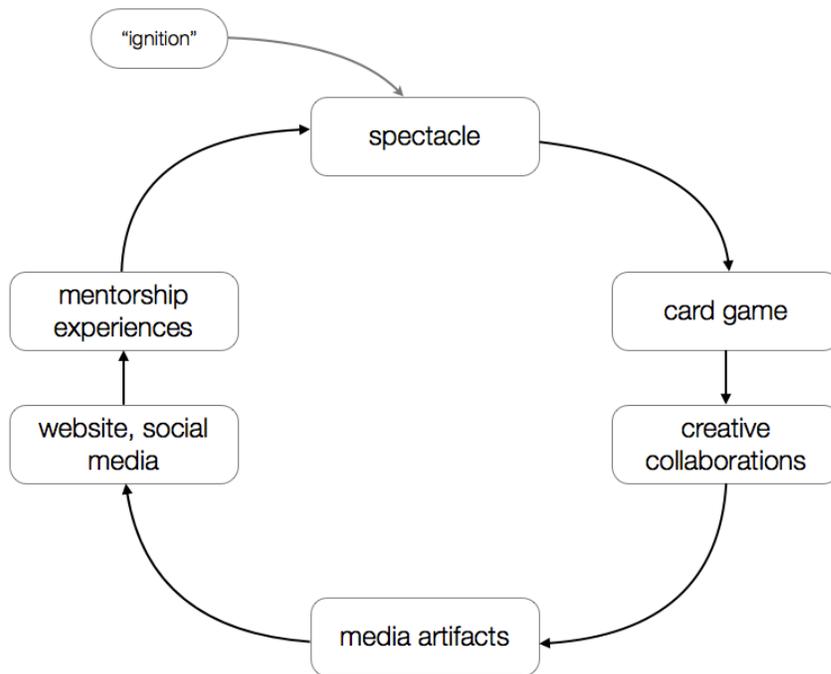


In the *ignition* phase, potential players are provided with limited amounts of ambiguous information designed to spark interest in the activity. The precise nature of this information is detailed below in the section titled, “First Contact Campaign.” This information seeds the initial narrative of the experience (*narration*), leading potential players into the *discovery* of the game. Players who find the game worthy of their time then proceed to the *engagement* phase of play, participating in the CCG and related social activities. This participation, insofar as it consists of both changes in everyday social activity (e.g. the trading and arranging of game cards, debate over the nature of the game, secrecy and other behaviors related to possession of knowledge of the game, friendships and rivalries formed through play, and so on) and the submission of media artifacts to the

publicly-viewable game website and its mirrors on social media platforms, constitutes a *performance*. This performance evolves, expands, and amplifies the overall narrative of the experience. Since this narrative is directly linked to the overarching narrative of the SCA (and, more specifically, to the emerging narrative of the freshman cohort), it effects changes in the dramaturgical structure of the environment. This transformation makes the game increasingly discoverable, thereby opening induction pathways for new players. As new players enter the loop, they discover not only the game, but other players as well.

To understand this cycle more clearly, consider Figure 24, which expands the four stages of the environmental play dynamo into a more granular sequence of operations and processes:

Figure 24: Environmental play dynamo. Detailed view.



In this view, the ignition phase primes player engagement with the *spectacle* of the game, which is initially constituted by a combination of the narrative content deployed by designers through the First Contact Campaign and the existing narratives of the SCA itself, as received by incoming students. As players first enter the system, the spectacle thus serves a wayfinding purpose, directing them to the Game Office where they are inducted into the *card game*. Players who choose to participate in the card game engage in *creative collaborations* and the generation of *media artifacts*. These artifacts (or “Deals”) are shared to the *website* and various *social media* platforms. The most highly-engaged players are rewarded with *mentorship experiences*, which are also documented on the website and through social media. The aggregate effect of the documentation of

gameplay and game-related mentorship experiences, and of the word-of-mouth reporting of ludic and para-ludic activities, feeds back into the overall spectacle of the game and of the SCA as a whole. This then draws in more players, producing more experiences, more documentation, and more word-of-mouth narration. As the game goes along, its spectacle is increasingly defined by the players themselves, reducing the need for active intervention or ignition activities by Game Runners.

3.3 Players

Although technically playable by any USC student, Reality Ends Here is specifically designed as an optional activity for the approximately 140 incoming freshmen at the School of Cinematic Arts (SCA). Most of these students arrive at the SCA having already chosen a field of specialization represented by the school's five Divisions: Animation, Critical Studies, Film and Television Production, Interactive Media, and Writing for Film and Television. An additional Division, the Peter Stark Producing program, is available only to graduate students. Competition to enter any of the Divisions at the SCA is extremely tight. Students hail from across North America and around the world.

In part because of this diversity of backgrounds and specializations, players will approach the game with a range of interest levels, play styles, expectations, and intensities. As such, the game is designed to accommodate varying degrees of ludic and social engagement, from "casual" to "hard core," and from "shy" to "gregarious." Casual engagement options include browsing and commenting on content created by other

players, collecting cards, and brainstorming ideas for projects. Hard core engagement options include producing projects, trading and bartering for cards, and implementing strategies for placing in the top four players at the end of a given week (“Winning a Week”). Both casual and hard core players may also engage with special puzzles and other ancillary components of the experience, such as the pop-up “serendipitous encounters” with visiting speakers that players can attend if they discover clues hidden in the environment. Less-gregarious players can engage with the game by lurking on the game website, exploring the content contained on the obverse side of CCG cards, or by creating prompts and projects by themselves. Since these players can be among the hardest to reach from the perspective of the Game Runners, future iterations of the system will look for methods to increase the ways in which these kinds of players can get involved. However, success in the game--as in the broader world of media arts--requires collaboration, cooperation, and initiative. Indeed, this is a central rhetorical point of the project.

As it is potentially of interest to all Cinematic Arts students, the test implementation is designed to support a maximum player population equal to the total undergraduate student population of the SCA--that is, about 800 players. Beyond this upper limit, additional staffing, mentor availability, and card production capabilities would be necessitated. In 2011, the game attracted 183 registered players, 109 of whom were in the target population of 140 incoming freshmen. Possible future iterations of the system could increase or eliminate the cap on player population through the automation of

“Game Office” functions, enabling the game (or a derivation thereof) to scale. Many online components of the test implementation, including the player profile system, Bullpen, Deal Archive, Card Archive and submission tool, can already scale to accommodate kiloplayer and megaplayer populations, with server bandwidth being the primary limitation.

3.4 Temporal Structure

The experience commences several weeks prior to the beginning of the school year. During this early phase, a variety of intentionally-ambiguous promotional materials are “leaked” to students, either directly through orientation packets or indirectly through social media and/or word of mouth, in order to seed interest in the game. Actual gameplay begins once players arrive on campus, discover the Game Office, and acquire the cards and website login required for play. From that point forward, the game unfolds largely asynchronously based on the play styles and schedules of individual players and/or self-assembled player groups. Card play, media production, and online engagement may occur at any time. Special events, hours of operation for the Game Office, and Leaderboard resets provide temporal choke points.

Once underway, the game proceeds in weekly cycles, beginning on Sunday evenings. At the start of each week, the Weekly Leaderboard is reset. The top four players who earn the most points during a given week are declared the “Weekly Winners.” Weekly Winners receive special mentorship experiences and access to industry events, which typically

take place during the following week. This weekly points competition enables new players to join in and compete on a level playing field regardless of how long the game has been running for prior to their induction. In the absence of weekly point resets, early adopters of the game would gain an unfair points advantage over players who join in later phases, resulting in a sharp drop off in player induction in the mid-game and beyond. In the 2011 version of the game, many of the students who did not get involved in the game, or who were only minimally involved, reported not knowing about these weekly points resets. As a result, these students felt like it was “too late” to get involved in the game after it had begun. In future iterations of the game, communications will be designed to ensure that potential players understand that they can drop in and drop out of the game at any time.

Weekly cycles also establish a narrative rhythm for the game. Player activity naturally ramps up to a climax as the end of each week approaches. Narrative emerges out of these climax moments, as players or player groups may “come out of nowhere” to win a week, or “fall to the wayside” as other groups rise to prominence--among many other possible outcomes.

Since the game is designed as a persistent activity, the experience does not inherently move toward a conclusion. In the test implementation, a conclusion was imposed on the experience by the Game Runners. The test implementation was played for 122 days, from

August to December of 2011. In early October of 2011, players were notified via word-of-mouth that the experience would conclude on or around December 10, 2011.

This assignation of an endpoint serves two purposes. First, it applies a limit to the labor and material expenses required to run the game. This limit is necessary because of the funding model of the test implementation, which, as mentioned elsewhere, is paid for with tuition dollars and foundation monies. Future iterations of the game system targeted at broader audiences may decouple from institutional education altogether and monetize through licensing, the sale of CCG cards, and advertising, making the game profitable and therefore capable of running for significantly longer periods.

A second reason for the assignation of an endpoint is that doing so produces a narrative arc for the overall experience, funneling competitive and performative gameplay activities into a climactic moment.

Looking beyond the financial feasibility and narrative-building utility afforded by a fixed endpoint, it is possible to imagine a version of the game that can persist indefinitely.

There are two reasons to consider this possibility. First, the core procedures of the game are not temporally bounded. Like a persistent asynchronous online game such as *Words With Friends* or *Draw Something*, players of *Reality Ends Here* can play at any time, drop out of the game at any time, and return to it at any time. Asynchronous games attract legions of devoted players because of their temporal flexibility and persistence.

Second, in part due to its capacity for persistence, the workload associated with the management of the game system diminishes over time. In the early game, Game Runners must seed interest and engagement in the activity through the deployment of puzzles, special events, and other rabbit holes. But in the mid- to late-game and beyond, the play of the game itself increasingly does this work, as the interaction patterns that constitute it yield interpersonal relationships, sharable and spreadable media artifacts, and other social and environmental phenomena that serve as player-induction pathways.

3.5 Space

Game space in *Reality Ends Here* is defined by its hybridity. Play takes place across multiple contexts and involves multiple modes. Consequently, the game has extremely blurry spatial boundaries. The game space is defined as the aggregate of all the spaces that players inhabit during play, from the physical Game Office, to the in-game website, to social media spaces, to the ad hoc play spaces of the CCG, to the city streets, campus grounds, dorm hallways, classrooms, and parking garages where players strategize, plan and create projects, and share knowledge and opinions related to--or inspired by--the game.

3.6 Interaction Patterns

During gameplay, players shift between several kinds of interaction with one another and with the constituent interfaces of the game system. At any point in the game, a given player may be engaged in multiple modes of interaction simultaneously.

CCG play and website interaction constitute the first level of interaction. Here, players earn points as individuals and advance on the game's Leaderboard either by producing media artifacts or by posting status updates and other content to the game website. This action involves cooperation with self-selected collaborative partners and multilateral competition against the rest of the player population for weekly leader positions. It is important to note that CCG play in particular is not limited to competition, but rather consists of multiple overlapping modes of interactivity. For example, acquiring additional cards through trade, barter, or subterfuge involves varying degrees of competition and cooperation depending on the kinds of strategies players invent in response to the resource system. Further, using the cards to produce prompts and create media artifacts typically involves cooperation or team play among subsets of the overall player population. An exception can be found in the case of the "lone wolf" player, although the resource system precludes this as a winning strategy insofar as the solitary player will quickly exhaust their supply of cards.

A second level of interactivity emerges around the acquisition and management of information about the game itself--including knowledge of game-related special events,

“easter eggs”, exploits, and bonuses. On this level, players alternate between competition and cooperation as they decide whether and how to share these information resources or capitalize on their scarcity. The degree to which these interaction patterns occur largely depends on individual play styles and is not enforced by the rules of the game. However, since the pace, mode, and tone of the initial dissemination of this information is under the control of the Game Runners, it is possible to correct for undesirable interaction patterns, or to stimulate the emergence of desirable ones.

A third level of interactivity emerges as a consequence of the game’s imbrication in social media and the other spaces which constitute the lived environment of its players. Here, players cooperate and compete to develop various forms of social capital. Such cooperation and competition is inherent to any assemblage of human beings. However, the game serves as a guide and accelerant to this process, as its core procedures present the player population with previously unavailable vectors for peer discovery, creative and intellectual exploration, and identity construction.

3.7 First Contact Campaign

First contact with players is initiated via a “stealth marketing” campaign (the “First Contact Campaign”) deployed in the months and weeks preceding the beginning of the experience. As students arrive on campus, digital assets are distributed online, and physical assets are deployed on school grounds, to guide early adopter players toward induction at the Game Office. As the game proceeds, player activity itself becomes a

means of transmitting knowledge about the existence of the game, gradually eliminating much of the need for marketing actions. In this sense, the First Contact Campaign is a method for setting the stage for network effects to occur in the player population (see “Cycle of Play”). As induction rates level out, non-participating students are identified by cross-referencing game registration tables and student rolls. Efforts are then made to present the game to these potential players within the tonal constraints of the game identity system.

In the test implementation, the initial stealth marketing campaign consisted of materials inserted into orientation packets, a website, “sock puppet” Facebook profiles, and a series of email communications. The objective of the campaign was to develop a degree of awareness and self-directed investigative activity among incoming freshmen regarding the presence of an anomaly or mystery within the broader context of the student careers into which they were about to enter. The game itself and its core procedures were not mentioned whatsoever. Further, the campaign was not designed to saturate the incoming student population. Rather, information was supplied in extremely limited quantities.

Underwriting this strategy is the notion that the values of certain kinds of information-- particularly information which regards the future--increase in direct proportion to scarcity. John Perry Barlow, speaking to the range of possible relationships between information and value in “The Economy of Ideas,” writes:

Exclusive possession of certain facts makes them more useful. If everyone knows about conditions which might drive a stock price up, the information is

valueless. . . [The] critical factor is usually time. It doesn't matter if this kind of information eventually becomes ubiquitous. What matters is being among the first who possess it and act on it. While potent secrets usually don't stay secret, they may remain so long enough to advance the cause of their original holders.

From the moment they accept admission, incoming freshmen at the SCA are showered with information about the school, their home Division, the broader USC community, and official USC/SCA extracurricular programs. Such information is almost always presented in a comprehensive and transparent manner, and in accordance with strict institutional branding guidelines. This mode of presentation has two consequences in terms of the incoming student information economy:

First, information presented in this manner carries with it the implication of ubiquity--an implication that is made explicit during orientation sessions, wherein attending freshmen can observe other members of their cohort hearing the same speeches and receiving identical information packets. While the perceived importance of individual information artifacts presented in this manner may vary based on degrees of interest present in the population (among other factors), the ubiquity of the information as a whole has a normalizing effect. Even in the case of information which is de-emphasized or otherwise occupies a relatively small proportion of the total information shared via orientation sessions and packets, a qualitatively different kind of scarcity remains absent--that is, the scarcity of a thing being completely unavailable, difficult to find, or only available to a few. First contact communications regarding the game synthesize these kinds of scarcity to confer special importance upon early-stage game-related information.

Second, insofar as conventional orientation materials are designed to clearly define available resources and opportunities such that students can conduct personal cost/benefit analyses in apportioning their time across a wide array of competing curricular and extra-curricular activities, they leave little to the imagination. While this practice undoubtedly serves a worthy purpose in terms of equitably distributing vital information to incoming students, it nevertheless has the effect of muting the degree to which the presented materials can activate the agencies of potential players. By virtue of its emphasis on comprehensibility and transparency--and its general adherence to the brand identity and other sanctioned fictions of the institution--traditional orientation material answers more questions than it asks. Put simply, it lacks in intrigue. To paraphrase Skeletor impersonator Donald Rumsfeld, a known quantity is a known quantity, and an unknown quantity is an unknown quantity. An unknown quantity is either zero or non-zero; that is, it could be nothing, or anything. It is the unknown that stimulates our imagination, and it is our imagination that drives our agency. The world that "could be" holds more promise than the world that "is." For these reasons, withholding information or providing ambiguous or incomplete information can often be an effective method for initiating participatory activity.

In sum, while traditional orientation materials have a clear use value, they are typically not designed to maximize their potential as objects of curiosity. In the test implementation, official orientation materials thus constitute a baseline for information

artifacts in the incoming student information economy. Early game-related communications seek to exceed this baseline through scarcity and ambiguity, thereby attracting the interest of early adopter players.

In June of 2011, postcards containing the phrase, “CARRY YOUR CARDS WITH YOU AT ALL TIMES,” were inserted at random into a third of the orientation packets distributed to students. At the bottom of each postcard was a URL leading to a website consisting exclusively of a black background and a countdown timer widget. The countdown end date was the first day of the Fall 2011 semester at USC. On the obverse of each postcard were photographs of varying vintage: a candid picture of Mary Pickford with her dog, probably from the early 1930s; a deserted suburban street from the 1970s, the colors faded; a strange editorial montage of empty classrooms from the 1940s; and so on. This was the full extent of the contents of the postcards.

Figure 25: First contact campaign postcards.



**CARRY YOUR
CARDS WITH
YOU AT ALL
TIMES.**

EXPOSURE.USC.EDU

This ambiguous and sparsely-distributed information would be worthless from the point of view of incoming freshmen were it not for its referencing of a specific date (August 22nd, 2011 [check]), a URL pointing to a usc.edu subdomain, and an associated protocol (“CARRY YOUR CARDS WITH YOU AT ALL TIMES”). This content communicates four important points: first, that the postcard refers to something that will occur in the future; second, that this future event is somehow affiliated with the University of Southern California (albeit in an ambiguous and anomalous way); third, that cards of some sort are involved in this event, and that carrying them at “all times” is somehow important--an unusual requirement in any context, and perhaps more so in the world of post-secondary education; and fourth, that the exact details of this event, including the

consequences for not observing the exhortation regarding carrying cards, are being intentionally concealed.

For the roughly one-third of incoming students who receive these postcards, their relationship with the game thus begins with a question. Without further investigation, it is impossible for them to know exactly what benefit is on offer and by which methods that benefit--if it indeed exists--may be gained. In this sense, the postcards present actionable information regarding the future.

The practice of offering potential players limited access to ambiguous information that requires agency to render sensible (and which, once rendered sensible, yields new and even more ambiguous information requiring agency to interpret, and so on--) runs through the entirety of the experience. However, it is important to note that the primary objective of this communications posture is to draw players toward induction into the game proper. This process entails the kinds of transmedia storytelling and puzzle crafting described here in order to mediate the entry of early-adopter players into the world of the game. But, as is discussed elsewhere in this document, as the game becomes more populated, this storytelling becomes increasingly less necessary. Through the play of the CCG, players meet one another, share ideas, collaborate (or don't), and produce media artifacts across a multitude of platforms and contexts. These interactions constitute the ultimate "story" or spectacle of the game, and serve to draw in the bulk of the player population.

Many early implementations of alternate reality games in commercial and social impact contexts rely exclusively on transmedia storytelling and puzzles. These games can create tight-knit communities of players and collective intelligence outcomes, but require enormous resources to sustain, and are often focused more on the creativity of the designers than the players. Such implementations suffer from numerous problems related to player induction, synchronous participation, community persistence, and sustainability. A detailed discussion of these issues can be found in Chapter One of this document.

In the 2011 test implementation, stealth marketing was adopted as a strategy in part because it was possible to maintain total secrecy about the nature of the experience in advance of students arriving on campus. For future iterations of the game, played either at USC or elsewhere, this will not always be possible, as press coverage about the game and documents such as this one may be easily discovered by potential players. However, the existence of foreknowledge of the game does not negate the praxis of stealth marketing, particularly as it regards the induction of early adopters. For these players, the existence of a curated intrigue of any sort is the fundamental draw. Their engagement in parsing that intrigue--and their subsequent engagement in the game proper--is what is most important, as they will lead the way for other students in discovering and engaging with the experience.

Figure 26: Clue card and player-submitted response. In the early phases of the game, clues were hidden in Super-8 cameras on campus. The first group of players to decode these clues (L) answered in kind by emailing a response (R) to one of the in-game email addresses using the same cryptographic technique.

C	P	O	A	M	S	E
S	T	W	O	O	P	R
L	D	A	I	Y	S	S
H	C	A	A	R	2	R
0	Y	1	H	T	A	E
U	N	S	T	E	O	N
F	X	O	X	U	X	R
X	M	X	-	X	F	X

S	S	O	I	U	N	N
C	D	E	S	R	G	E
O	L	O	Y	D	,	,
C	S	H	E	R	E	I
Y	S	O	V	U	.	S
A	O	N	O	D	N	R
.	I	X	L	X	E	X
Y	X	P	X	.	X	X

3.8 Induction

Induction begins once a potential player has found out about the game and attends the Game Office. Upon arriving at the Game Office, potential players are presented with a series of choices which result in the receipt of a customized packet of CCG cards. This process is administered by Game Runners. Before leaving the Game Office, new players must provide their email address to the Game Runners. Game Runners then use this email address to create a player accounts on the game website. Upon account creation, login information is automatically emailed to the new players. On first login, players must agree to an “Oath” of creative fearlessness, experimentation--and safety. Once logged in,

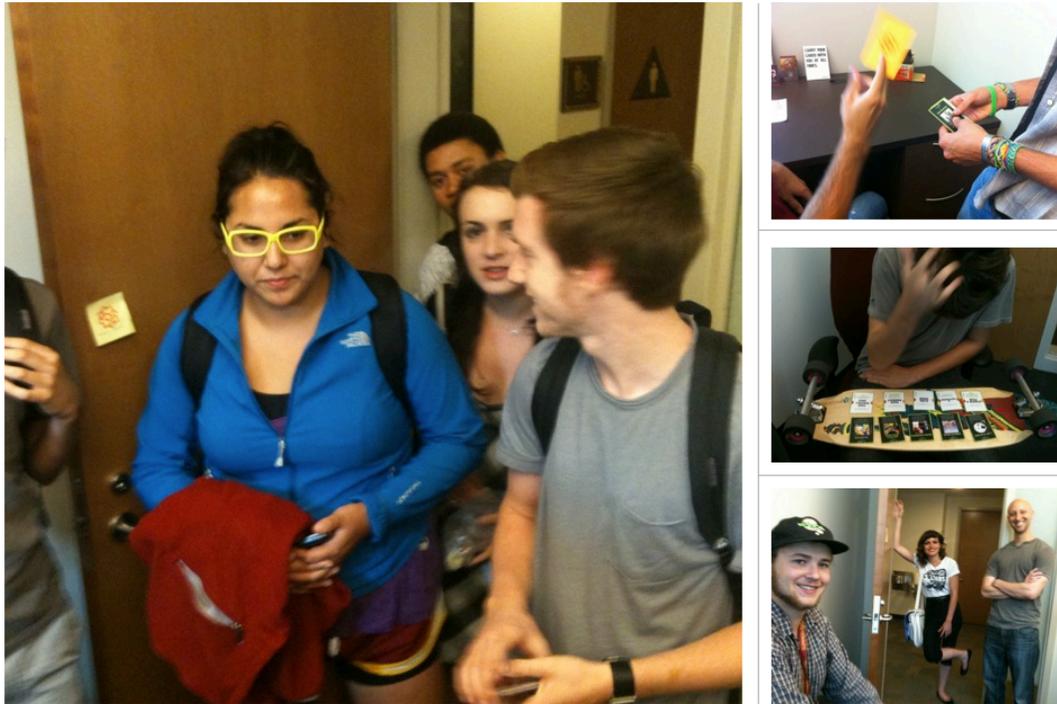
may participate in Bullpen discussions, comment on the work of other players, share photos, and submit projects.

In the test implementation, the Game Office is located on the second floor of the Spielberg Building at the SCA. The office is marked with a simple sign reading “Game Office.” During normal operating hours, the door to the office is kept closed. A small post-it note bearing the words, “Knock, Knock,” and the game logo is placed near the handle. During the early phases of the experience, the Game Office is open Monday to Friday from 10am until 5pm in order to facilitate induction. As the game proceeds, office hours scale back to three days a week (Monday, Wednesday, and Friday).

The location of the Game Office was partly determined by the limited availability of office space at the SCA. In 2013, the Interactive Media Division (IMD), Institute for Multimedia Literacy (IML), and Interdivisional Media Arts and Practice PhD program (IMAP) will relocate to a new building. However, during the 2011 test implementation, these units of the SCA were located in separate buildings. The IMD occupied half of the second floor of the Spielberg building, while IMAP and the IML were located at a six block remove from the main USC campus. Because these three units were those which were most closely associated with the execution of the game, the logistical challenge of securing a space for the Game Office fell to them. Since all incoming freshmen at the SCA regularly attend classes at the Spielberg building, the IMD was asked to provide a

vacant office. This office, SCA 201, was graciously vacated by Professor Andreas Kratky to make room for the game.

Figure 27: Students arriving for induction at the Game Office, August, 2011.



The interior of the game office contains a desk for Game Runners, a small seating area, a staging area for laying out cards, and a “Justification Booth” consisting of a simple lighting system and a webcam. The space is decorated with artifacts borrowed from Professor Steve Anderson, Professor Jed Dannenbaum, Professor Perry Hoberman, and the Hugh M. Hefner Moving Picture Archive. These artifacts, which include vintage film production and editing equipment, board games, vinyl records, color blindness charts, cans of 16mm and 35mm film, and an assortment of posters, link the space to the history

of media arts. In the first week of the 2011 test implementation, a password was required to gain entry to the Game Office. This password (“Harryhausen,” a reference to legendary animator and SCA alumnus Ray Harryhausen) was a component of the First Contact campaign designed to attract early adopter players (see “First Contact”). As the experience proceeded and knowledge of the game approached universality, the requirement of a password was rescinded.

Once inside the Game Office, new players meet the Game Runners, who introduce themselves as “employees of the Reality Committee” in accordance with the game’s narrative framework. Although the Game Runners in the 2011 implementation were primarily constituted by the design team, efforts were made to make it appear to players that they were merely graduate students who had been tasked with staffing the Game Office. This tactic helped to reinforce the overarching narrative framework of the game, which posited the existence of a secret SCA organization that was pulling the strings from behind the scenes (see “Narrative Framework”).

Following these brief introductions, the Game Runners then lay out a 5x2 matrix of green, or “Maker,” CCG cards. Half of these cards are laid out face-down, and the other half are laid out face-up. New players are then instructed to select two cards from the matrix, one from the face-down row, and one from the face-up row. If they inquire, new players are simply told that the cards they pick will impact their initial set of options in the game. However, a brief examination of these Maker cards usually reveals to players

their basic function in the game--that is, to state particular forms of media-making activities.

After selecting two Maker cards, new players receive a small kraft envelope containing eight semi-randomly selected pink "Property" cards an instruction card. Some packets will also contain a blue "Special" card. The precise contents and ratios of these cards and card packets is detailed in the section entitled, "Collectible Card Game." Many players will want to know how the cards work right away. Depending on available time and how busy the Game Office is, Game Runners may choose to briefly explain the game, or may refer players to the website.

Figure 28: Card packet (#3 Coin Envelope containing CCG cards and instructions).



New players conclude their first visit to the Game Office by giving their names and email addresses to the Game Runners. They are then informed that they can expect to receive an email from the system containing website login information within the next few minutes. An ink stamp on the obverse of the card packet contains the URL of the website, as well as the phrase, “CARRY YOUR CARDS WITH YOU AT ALL TIMES.” Finally, before players depart, Game Runners indicate to them that participation in the game will lead to “strange and unusual experiences.” Depending on the stage of the game and the character of the interaction between individual Game Runners and new players, additional hints about “meeting interesting people” or “doing interesting things” may be provided. However, as with the First Contact campaign, and for much the same rationale, the information provided is intentionally ambiguous.

After leaving the Game Office, players receive login information enabling them to connect to the game website. For the test implementation, the system was configured to detect if a given user was logging in for the first time, and if so, to prevent them from viewing the website until they agreed to the following “Oath”:

In the course of making projects, I will not do anything that involves guns, fire, rooftops, high windows, moving cars, the ocean, trespassing, live animals, or anything else that reasonable people could construe as stupid, dangerous, or illegal; I will not draw negative attention to myself or my team, especially if I find myself in a public place; and I will always err on the side of caution when it comes to safety and legality while playing the game or participating in any of its events, encounters, evenings out, screenings, or adventures.

That said, I will shake things up. I will jump in with both feet. I will not be afraid to make risky creative choices. I will prefer the interesting failure to the polished imitation, the slapped-together discovery to the perfectly-executed retreat. I will not take myself or this game too seriously, but I will recognize that everything we do here is important. (Watson, *Reality Ends Here*)

This Oath served two purposes. First, agreeing to the Oath provided the SCA with a degree of inoculation against liability. In the official SCA curriculum, safety training for incoming production students takes place through a series of seminars spread out over the first two semesters of the freshmen year. For the test implementation, crucial elements of this training needed to occur prior to the arrival of students on campus. In concert with the “60 Seconds to Safety” video released during the First Contact campaign, the Oath ensured that players were aware of critical safety issues involved with DIY media making. By making it impossible for players to sign on without agreeing to the Oath, a paper trail was created, providing a modicum of legal cover for the University should an incident occur.

The necessity of creating this paper trail presents an opportunity to further mediate the initial interactions players have with the game. In the Oath, players are asked not only to swear to avoid making projects that involve guns, heights, and “anything else that reasonable people could construe as stupid, dangerous, or illegal,” but also to push themselves creatively and as individuals. This exhortation, delivered in the polemical revolutionary tone of the Reality Committee, frames the game not only as a competition, but as an opportunity to experiment, discover, and productively fail. In contrast to the progressively professionalized modes of production that many incoming students will engage in as their careers at the SCA continue, the Oath presents the game a space for rapid prototyping, sketching, and boundary-pushing.

Finally, the Oath alludes to “events, encounters, evenings out, screenings, [and] adventures.” For many players, this is the first indication of specific rewards associated with engagement (beyond the intrinsic rewards suggested by the Oath’s appeal to creative experimentation). Discovering precisely what is meant by this allusion thus becomes an additional motivation for early engagement, jump-starting the core play cycle of the game.

3.9 Collectible Card Game (CCG)

CCG play unfolds asynchronously as players acquire cards, combine cards to generate creative prompts, produce media artifacts based on those prompts, submit the artifacts to

the game website, and score points. In addition to this connectivity mechanic, the obverse (or “collectible side”) of each card contains a collectible item related to the history and theory of media making.

Figure 29: A selection of CCG cards from *Reality Ends Here*.

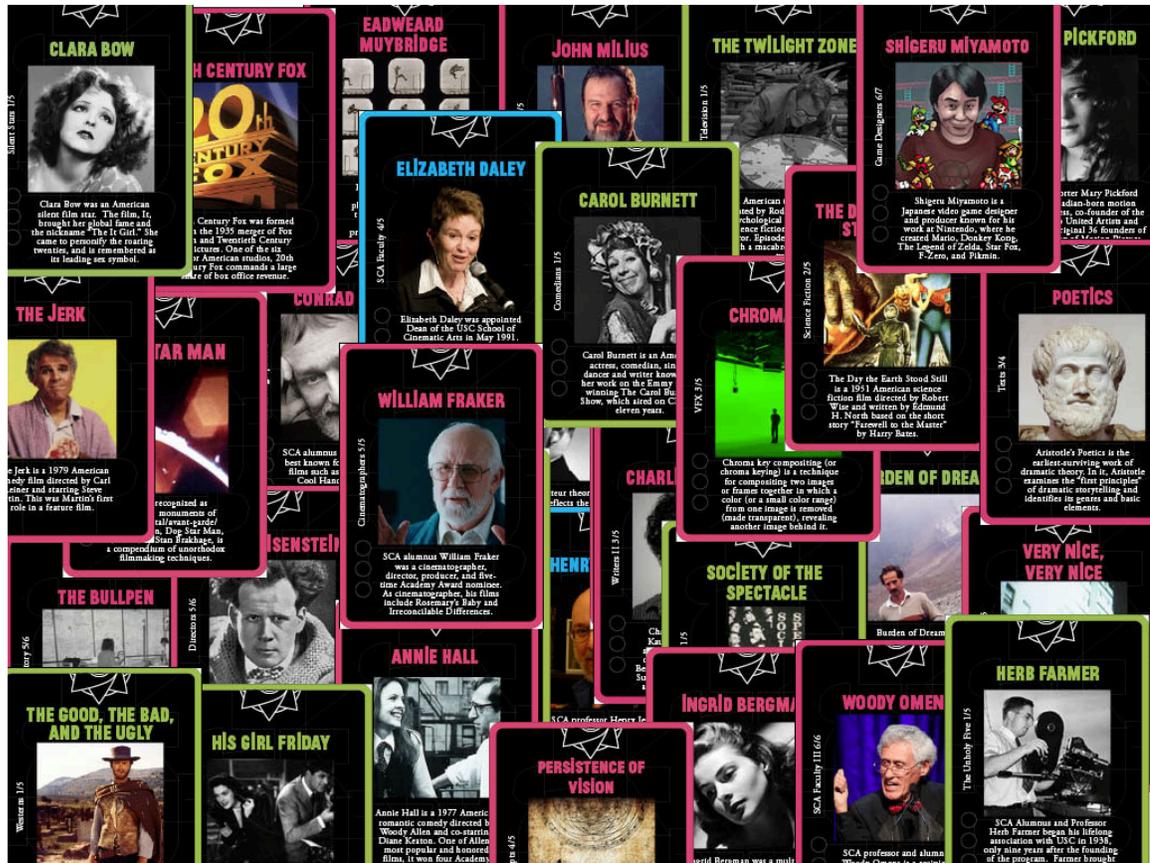


Figure 30: Sample CCG card. At left: obverse (or “collectible”) card face; at right, “playable” card face.



3.9.1 Objective

The objective of the CCG is to acquire and combine cards in order to a) generate creative prompts, and b) create media artifacts based on those prompts. By submitting completed media artifacts (or “Deals”) to the game website, players earn points which can unlock mentorship experiences.

3.9.2 Acquiring Cards

Upon signing up for the game (see “Induction”), all players receive a “Starter Pack” containing 10 semi-randomly-selected cards. Each pack includes at least one of each type of card, including 2 Maker Cards, 6 Property Cards, 1 People Card, and 1 Instructions Card. Some packs may also include 1 Special Card. Further discussion of the process by which these cards are selected, and rationale underlying the ratios of cards included in the Starter Pack, can be found in the section titled, “Card Packet Ratios.”

Additional cards can be acquired through trade or barter, by discovering hidden caches of cards left by Game Runners at various sites across the campus, through encounters with visiting mentors and faculty, or by crossing a series of points thresholds in the game.

3.9.3 Combining Cards

By combining cards, players generate creative prompts known as “Deals.” A connectivity mechanic constrains the ways in which Deals may be assembled. Generally speaking, the more cards a player or player group can connect into a given Deal, the more that Deal will be worth in points.

Each card in the system contains at least one connection point. These connection points have two graphic elements which describe how they may be used to connect one card to another. The first element is color. For a connection to be valid, at least one of the colors on each side of the connection must match. The second element is arrow direction. For a connection to be valid, the direction of the arrows must be the same on either side of the connection, establishing “inbound” and “outbound” connection points. By matching color and arrow direction across connection points, cards may be connected together.

Figure 31: A minimally-valid card combination. Note matching color and arrow direction at connection point. This combination yields the prompt, “Make a Silent Short in the SCA Courtyard.”



At minimum, a Deal must have 1 green Maker card and at least 1 pink Property card in order to be valid. Maker cards specify the kind of media artifact players must create, and Property cards specify themes and other elements that must be present in the finished project. No Deal may have more than 1 Maker card. An example of a minimally-valid Deal can be seen in Figure 31. Here, a “Silent Short” Maker card is combined with an “In the SCA Courtyard” Property card, yielding the prompt, “Make a Silent Short in the SCA Courtyard.” An example of a Deal that employs more than 1 property card can be seen in Figure 32.

Figure 32: Deal containing two Property cards. This combination yields the prompt, “Make a Silent Short about Greed in the SCA Courtyard.”



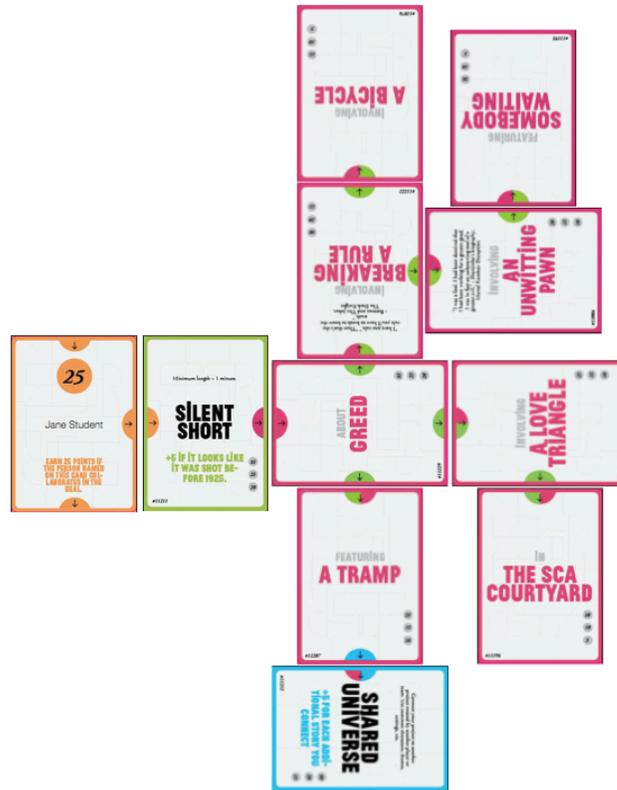
Players can make increasingly complex and high-scoring prompts by connecting additional Property cards to a Deal, depending on the availability of open connection points. This procedure is constrained by the variable number of connection points present on Property cards. For example, in Figure 32, a “Silent Short” Maker card is combined with two Property cards, yielding the prompt, “Make a Silent Short about Greed in the SCA Courtyard.”

Two other kinds of cards can also be integrated into a Deal: blue Special cards, and orange People cards. Special cards describe global constraints that affect prompts in a

variety of unusual ways. For example, the “Indivisible” Special card indicates that players must collaborate on the Deal with other players from at least four of the Divisions of the SCA. Another Special card, the “Mirror World” card, indicates that players must invert or reverse the meanings of all the other cards contained in the Deal. Special cards are not only rare in number in the deck, but are also difficult to integrate into a Deal because they require an available blue connector point.

In the test implementation, People cards contain the names of freshman students. These cards were generated using a complete list of the incoming freshman cohort, resulting in each student in the cohort having a unique People card in the CCG. By incorporating a People card into a Deal, players earn bonus points if and only if they work with the person specified on the card to complete the project. The color, arrow direction, and positioning of connection points on People cards allows them connect exclusively to the left side of Maker cards, or to each other. In addition to preventing People cards from being used to increase the number of available connections in the prompt matrix, this connectivity also allows an unlimited number of People cards to be added to a Deal--so long as the resulting project involves the participation of all those who are named on the cards.

Figure 33: Card-based procedural prompting system. In this example, all available connection points are used. The prompt this Deal yields approximates to: “Make a Silent Short about Greed involving Breaking a Rule, a Bicycle, Somebody Waiting, An Unwitting Pawn, and a Love Triangle; featuring a Tramp; taking place in The SCA Courtyard; constituting a part of a Shared Universe; and in partnership with Jane Student.”



3.9.4 Connectivity Schema

The degree of connectivity present on a given Property card is loosely mapped to the conceptual complexity of the element described on the card. For example, the “Love” property card contains 3 outbound connection points, while the “Involving a Bicycle” card contains none. There are two reasons for this mapping. First, the more outbound connection points a given card has, the more utility it has in a Deal, since the size of a Deal is limited by the number of available connection points it contains. The more cards a player has with outbound connection points, the more options they have in creating

Deals. Consequently, the more outbound connection points a given card has, the more inherently valuable it becomes in the play of the CCG. This value is the “game mechanical value” of the card.

Cards also have “instrumental value”--that is, a value related to their effect on the creative prompt generated by a given Deal. While any creative media-making endeavor is ultimately resistant to formula, in general, a theme or point of view typically has a greater impact on the whole than a single detail. Since the game mechanical value of a card increases with the number of outbound connectors the card possesses, the instrumental value of the card within the context of the creative prompt should also increase.

3.9.5 Point System

Players generate Deals through a connectivity-based card mechanic. The point value of a Deal is determined by the total of the highest point values indicated on the cards used in the Deal. For example, the cards in Figure 32 have maximum values of 35 (Silent Short) and 10 (in the SCA Courtyard). The total value of this Deal is thus 45. Cards degrade in value each time they are used. This degradation is enforced by the punching of holes in the cards. Holes are punched at the Game Office when the Deal is submitted for Justification. The highest point value hole is punched first. Once a card has been fully “punched out,” it can still be used in a Deal, but is not worth any points.

3.9.6 Card Packet Ratios

To ensure balance within the resource system, starter packs contain precise ratios of cards, as follows:

- 2 Maker cards - During induction, 2 Maker cards are selected by new players from a set of 10 randomly-drawn Maker cards. This selection process is intended to increase the probability that new players begin the game with cards that harmonize with their existing media-making interests and competencies. For example, an Animation student may feel more comfortable taking their initial steps into the game by producing a Flip Book or Animated Short instead of a Video Game. At first glance, providing students with this choice may seem counter to the interdisciplinary collaboration mandates of the project; however, once players engage with the game, they will quickly exhaust the value of the cards in their starter pack (see “Points System”), necessitating trading and/or partnering with other players. Further, as the game proceeds, the range of Maker cards available for trade will shift based on each card’s relative popularity, making it increasingly difficult to find specific cards. As a result, players will find it necessary to explore new mediums and practices in order to advance in the game.
- 1 3-out Property card Since “3-out” Property cards are the most “powerful” in the connectivity system (i.e., they enable the maximum expansion of the size of a Deal), players only begin with one such card.
- 2 2-out Property cards

- 3 1-out Property cards
- 1 People card Efforts are made to ensure that players do not receive their own People card; however, as People cards are placed into packets at random, occasionally players will receive their own card. In this situation, players find themselves at an advantage, and become sought-after members for collaborations with other players, as they will always bring with them a 25 point bonus.
- 1 Instruction card

3.10 Game Identity System

During setup, special attention is paid to maintaining a unified tone and design aesthetic across all components of the experience. To this end, developing an identity system is among the first steps to take in preparing the game for launch. This identity system is constituted by graphic identity materials, a loose narrative framework, and game-specific nomenclature. Developing each of these elements is a nonlinear iterative process: rather than producing graphic identity, narrative, and nomenclature in sequence, they are developed together as an interdependent system. Further, this process has no terminal point: as the game proceeds, player activity and other outcomes feed back into the game identity system and shape its ongoing evolution.

The game identity system inflects the production of all material and digital assets for the game, and also informs the actions of Game Runners and other human agents associated

with the experience. Further, and perhaps most importantly, it sets the tone for player participation.

3.10.1 Graphic Identity System

Credit sequences are a relatively under-discussed component of cinematic storytelling. Nevertheless, they have long had an important role in framing the reception of filmic narratives. As Will Straw notes in his 2010 paper, “Letters of Introduction: Film Credits and Cityscapes,” credit sequences function as “liminal zones within the filmic text . . . performing a necessary mediatory function, organizing the spectator’s passage from an extratextual to a textual world” (159).

Environmental games rarely have credit sequences. In some cases, ARG designers will produce online “teaser” trailers intended to serve a somewhat similar purpose. However, once the game is underway, the passage of players from extratextuality to textuality must be continually mediated as they move in and out of the experience, particularly in games with durations in excess of a single day. In environmental games, as in all games, the graphic design of user interfaces, in-game communications, and other game-related media artifacts serves a purpose similar to that of the design of typography and graphics in cinematic credit sequences. The crucial difference is one of time and space. Graphic design and typography in games permeate the experience as a whole, and therefore bear significantly more mediatory responsibility than cinematic credit sequences. These elements do not constitute a sequence, but rather a system: a “graphic identity system.”

The graphic identity system in the test implementation is used to confer unity and distinctiveness to all game-related visual communications and to situate the experience in a network of historical, political, and aesthetic references. This system includes fonts, color schemes, layout guidelines, stylesheets, templates for each kind of card in the CCG, and a game logo. For the test implementation, the graphic identity system was developed in partnership with Matt Manos of A Very Nice Design Studio. Manos was given extensive information regarding the purpose and nature of the game, and was provided with a list of logistical constraints, design touchstones, and references. From these materials, a set of prototypes was derived.

The broadest objective of the graphic identity system is to ensure that all digital and physical materials associated with the game conform to a unified visual standard. A cohesive graphic identity system is essential to this process because the production of game materials often involves multiple designers working independently. For example, Texas-based media artist Haley Moore was contracted to produce reward and “swag” items such as medals for overall winners, wristbands for all players, and a set of flags. To ensure that these objects matched the website, cards, and other game assets, Moore was provided with a copy of the graphic identity system. Despite being produced with minimal supervision and at a significant geographic remove from the main design team, the assets produced by Moore harmonized with the overall look and feel of the project.

In designing the graphic identity system, emphasis is placed on finding ways to ensure that game communications and materials appear visually distinct from the “background noise” of the SCA media environment. Since the game functions as an opt-in experience--that is, something that students must discover and enter into on their own--it is essential that it present itself as an object of curiosity. Toward this end, the visual palette of the game eschews all USC- and SCA-specific branding. Also excised from the visual palette of the game are ancillary associative design aesthetics that echo or reify traditional USC messaging--such as the “Hollywood” font, which indirectly references the SCA’s status as training ground for the US film industry. By maximizing the amount of contrast between game communications and those of the University and its partners, the graphic identity system helps to position the game as an anomaly, increasing the likelihood that potential players will seek out more information.

In addition to providing contrast and generating curiosity, the graphic identity system also serves to frame the game experience in visual references to milieus that evoke or are otherwise associated with core game mandates. For example, two of the central impact goals of *Reality Ends Here* are to accelerate peer discovery and to inspire creative experimentation among students at the SCA. To find ways to visually reference these goals, images and iconography from the history of the SCA were collected from the Hugh M. Hefner archives in the early phases of game development. Images depicting community, teamwork, and creative experimentation were isolated. To maintain the appropriate degree of contrast with official SCA branding, photographs from the

contemporary era were removed. From the resulting subset of photographs, the period of 1965-1980 was singled out. During this period, the SCA--then known as the USC School of Cinema-Television--was primarily housed in a building known as "The Stables." At the center of The Stables was a communal space which students and faculty referred to as "The Bullpen." In the images we found, both Stables and Bullpen appeared as wild and unruly spaces. Notes accompanying images of the Stables tell stories of students climbing into the building through the roof during closed nighttime hours in order to meet in the Bullpen and work on film projects. In one picture, a wrecked Cessna 182 light aircraft can be seen positioned nose-down in the center of the courtyard, installed there by students as a stunt to promote their thesis film project.

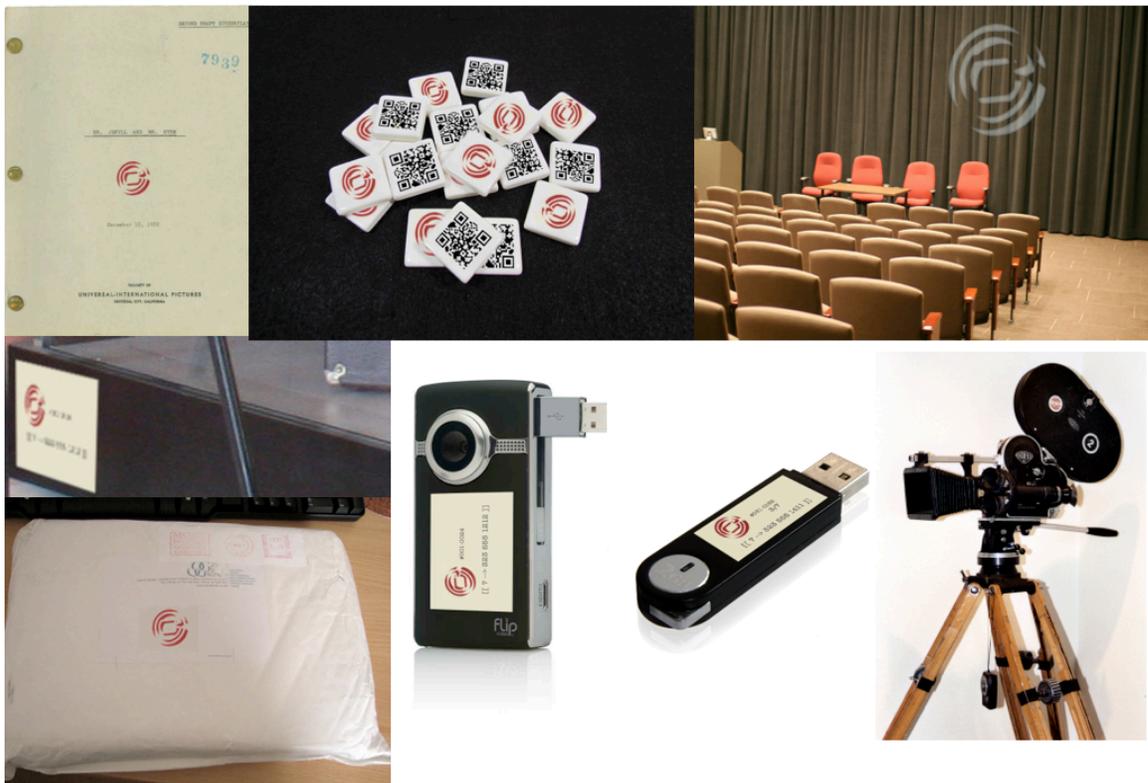
These photographs became central touchstones in the design process underlying the development of the graphic identity system, and also substantially informed the narrative framework and nomenclature of the game as a whole. For example, the game website, as detailed elsewhere in this document, displays randomly selected images drawn from this period at the top of all index pages, and a key social feature of the website is named in honor of the Bullpen. However, following the lead of these images also entailed connecting with and referencing the broader media culture. To avoid semantic confusion, any use of or reference to the photographs we had isolated--and the school culture that they evoked--would have to be grounded in visual references legible to our players, all of whom were born over twenty years after the demolition of the Stables. It was thus necessary to develop a set of media associations that could access the kinds of meanings

we wished to surface from the photographs without relying on deep contextual knowledge of the history of the SCA.

To identify these media associations, we proceeded laterally from the Stables-era SCA into a set of cinematic and critical movements characteristic of the period, rejecting any references that might conflict with our overall game mandates or graphic identity design objectives. This process initially involved an examination of the global cinematic context of the Stables-era SCA, beginning with the “post-classical” or “New Hollywood” American cinema of the 1970s. This fertile period of American narrative cinema was deeply informed by the filmmaking revolutions that swept Europe during the 1950s and 1960s. Many significant exponents of New Hollywood would emerge out of the USC School of Cinema-Television. In order to reference this relationship while maintaining contrast between the graphic identity of the game and the Hollywood-centric graphic identity of the SCA as a whole, we looked to the bold typographical elements present in the credit sequences of films of the French New Wave, particularly those of Jean-Luc Godard. The layout strategies on view in the credit sequences of films like *Pierrot le fou*, *Alphaville*, and *Weekend* entered into the culture of their time as signals of Godard’s (self-consciously self-aggrandizing) willingness to buck tradition and explore new territory for cinematic storytelling. While these signifiers certainly have altered meanings today, they nonetheless retain compressed versions of their original disruptive meanings in their design heritage.

This approach of identifying media associations between relevant cultural touchstones and the Stables-era SCA continued through several iterations, yielding an archive of images and notes. Additionally, a series of prototypes was generated to illustrate how a hypothetical graphic identity system could be expressed in environments across the campus. These prototypes centered on the deployment of a single recognizable game logo that would stand in as a visual reference for the “Reality Committee” -- the secretive and semi-fictional organization behind the game itself.

Figure 34: Logo implementation prototypes. These prototypes were used to communicate to graphic design partners the kind of ambient visual experience *Reality Ends Here* was intended to create.



These prototypes, along with the archive of images and notes regarding SCA history and relevant media associations were provided to graphic designer Matt Manos. Manos then

produced a series of prototypes which were presented as PDFs to the game design team. These prototypes were evaluated in terms of their ability to meet the overarching objectives of the game identity system. After a series of consultations, the final version of the graphic identity system was delivered as Adobe Illustrator and InDesign files, along with a font suitcase.

3.11 Website

The website for *Reality Ends Here* provides players with a means for uploading, sharing, and discussing Deals, socializing, posting blog entries, and keeping track of their scores. This website is a custom WordPress install employing multiple original and third-party plugins. Core plugins include a highly “remixed” version of BuddyPress, which enables social networking and player profile features; Gravity Forms, which enables content uploading; a modified version of CubePoints, which enables the tracking of points and display of leaderboards; and GD Star Rating, which enables the rating of individual Deals. Additional functionality was added using custom PHP and JavaScript scripts. The templates and stylesheets for the site were built using the Blueprint CSS Framework. Readers who would like to gain access to the software package developed for *Reality Ends Here* are invited to contact the author directly.

Figure 35: Player profile. Each player's profile displays their points total, a list of all the Deals they have submitted, a data visualization representing the kinds of projects they have created, a collection of "award" badges earned by crossing certain point thresholds, and a user-submitted avatar image. Each profile also has a special messaging system for direct player-to-player communications.

PROFILE BULLPEN MEMBERS CARD LOOKUP DEAL ARCHIVE LEADERBOARD ABOUT PHOTOBLOG SUBMIT screality Log Out

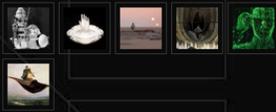


SAM SANDWEISS
17782 points Rank - Ringleader

"The quiet before the storm." - View

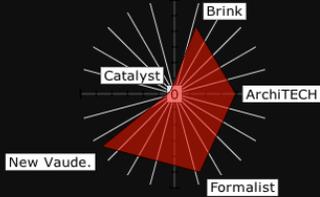
Sam Sandweiss's Bullpen activity
[Send Private Message](#)

Awards



DEMOGRAFIK

Name	Sam Sandweiss
Llama or Alpaca?	Alpaca
Bond or Indy?	Indy
Emergency response	Pause to take a photo



COMPLETED DEALS

AUDIO COMMENTARY: AFTERLIFE: IN A HALLWAY



380 points

Mike Effenberger and Sam Sandweiss explore the intricate web of social and philosophical commentary in Terence Digan's masterpiece.

Sam Sandweiss, Michael Effenberger, Will Merrick, Terence Digan, EPIC PARRA, Brianna DaSilveira, Michael Nader

[Radio Play](#)

COLLABORATORS

- 

Jeff Watson - Point-earning is now officially deactivated. The Bullpen remains yours to [...] - [View](#)
active 19 minutes ago
- 

Miranda Due - So many freshman ask me about "The Game" already. It's [...] - [View](#)
active 3 days, 19 hours ago
- 

Michael Effenberger
active 5 days, 1 hour ago
- 

Michael Nader
active 1 week, 1 day ago

RILEY THE PARKOUR MASTER

Figure 36: The Bullpen. The Bullpen allows users to post status updates and participate in threaded discussions. The sidebar displays the most recently-submitted Deals. This image from the Bullpen was captured in June of 2012.

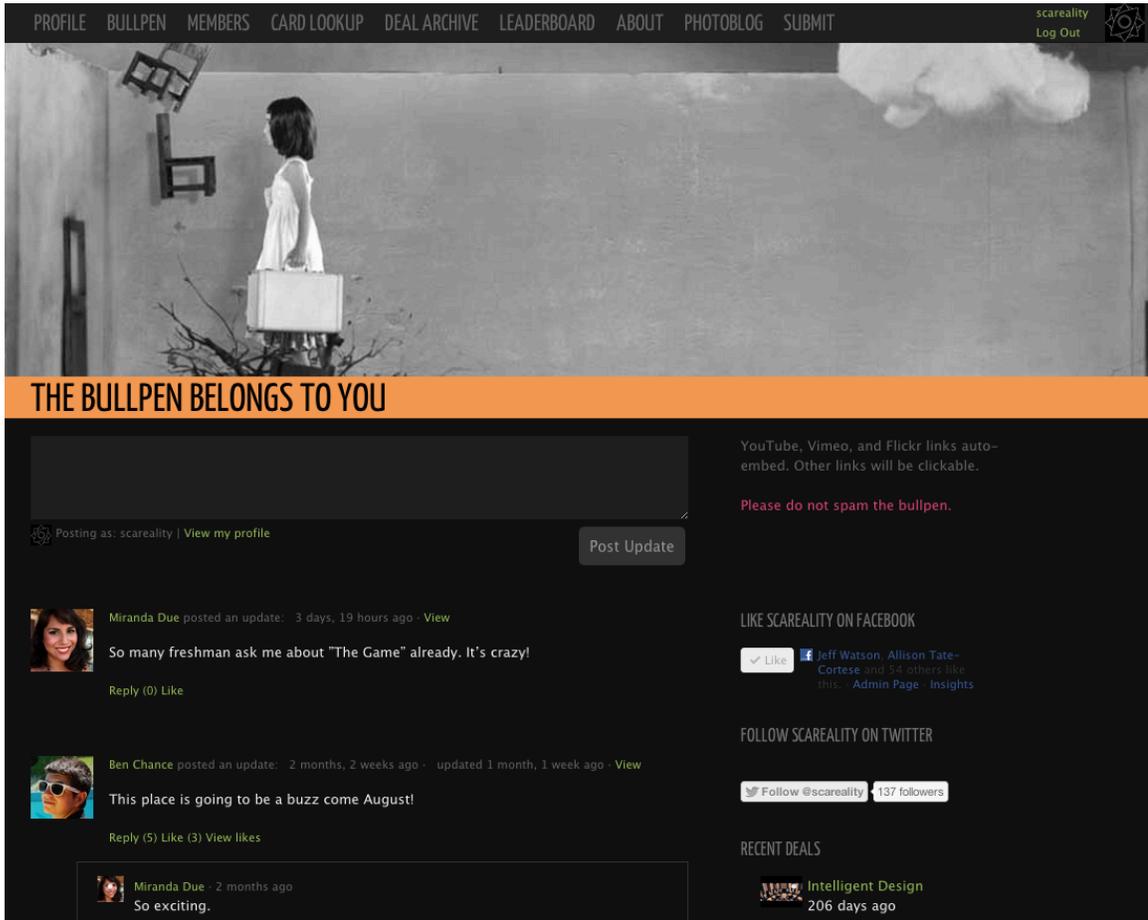


Figure 37: Members directory. The members directory allows players to search for other players by name or keyword. The page defaults to display the 10 most recently logged-in players. This image was captured in June of 2012.

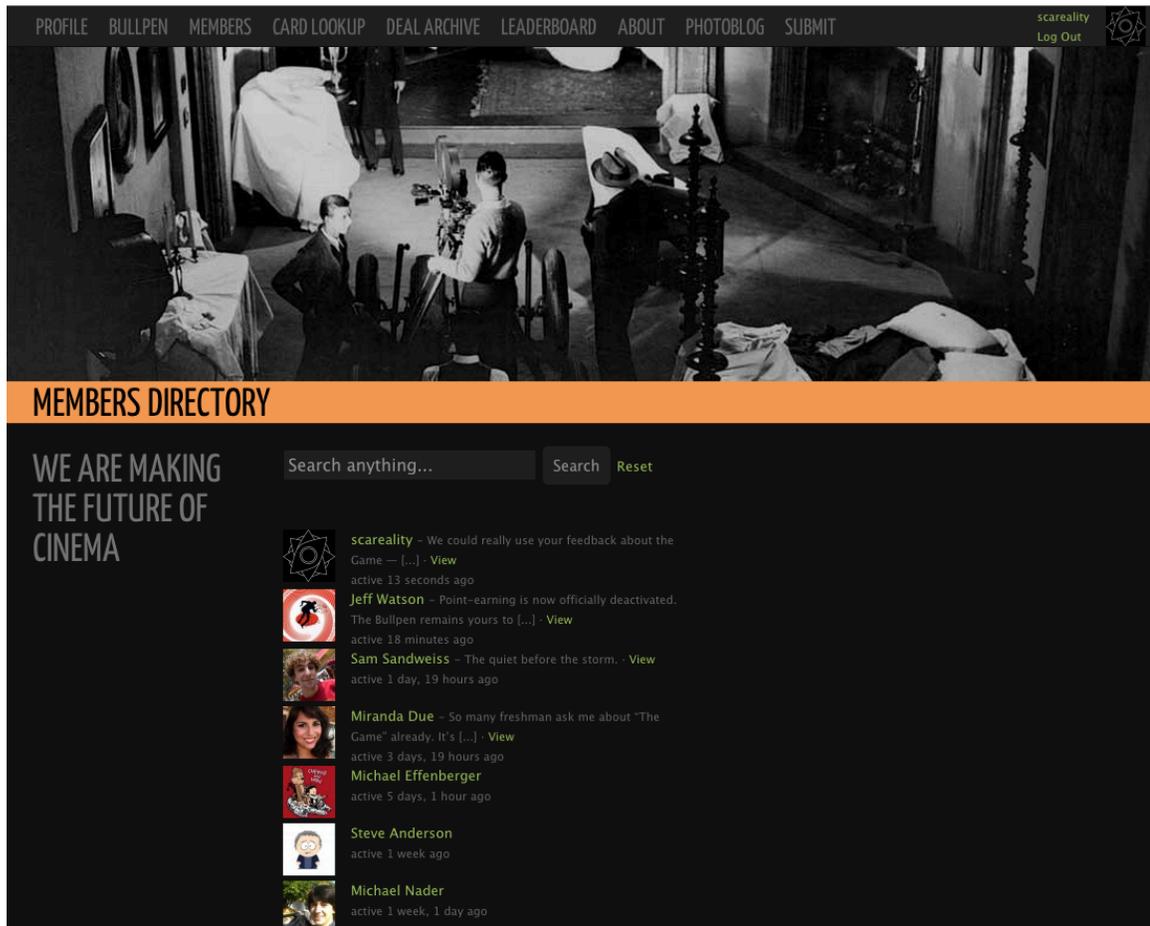


Figure 38: Deal archive. The Deal archive lists all Deals which have been submitted and Justified, displaying the most recent Deals first. Metadata for each Deal is also included in the list. The sidebar displays the most recent comments made on Deals.

scareality
Log Out

[PROFILE](#) [BULLPEN](#) [MEMBERS](#) [CARD LOOKUP](#) [DEAL ARCHIVE](#) [LEADERBOARD](#) [ABOUT](#) [PHOTOBLOG](#) [SUBMIT](#)

COMPLETED DEALS

INTELLIGENT DESIGN

1670 points

More than a man

Jack Begert, DJ DJ,
Patrick Moynihan, Nick
Kosturos, Amir
Mojarradi, Gus
Bendinelli, Will Cherry

Trailer

Search Deals...

Search

RECENT COMMENTS

- Michael Effenberger { ^Yes. } - Jan 27, 12:28 AM
- Will Merrick { Never commented, but this is really cool! } - Jan 26, 12:33 AM
- Will Merrick { Meant to say, lovely choice in music, and thank you for dubbing some of the dialogue! And really sweet glidecam work, Gus. } - Dec 26, 8:19 AM
- Kayla Carlisle { Thanks, Ben! They're really just the blueprints for an animation but maybe this coming semester I'll be able to collaborate inter-departmentally on some fully-developed animation... } - Dec 11, 8:39 PM

BUBBLE-WRAP CALENDAR

220 points

Experience the wonders of the classic packaging material every single day!

Kayla Carlisle, Will Merrick, Jabril Mack, EPIC PARRA

Faux Product

Figure 39: Deal page, part 1. The top half of the page for each Deal contains a photograph of the cards used to generate the prompt for the project, a list of the players involved, a rating tool, and the media artifact(s) themselves.

The screenshot shows a web interface for a 'Deal' page. At the top, a navigation bar includes links for PROFILE, BULLPEN, MEMBERS, CARD LOOKUP, DEAL ARCHIVE, LEADERBOARD, ABOUT, PHOTOBLOG, and SUBMIT. On the right side of the navigation bar, there is a 'scareality' logo and a 'Log Out' button. Below the navigation bar, there are two buttons: '← PREVIOUS DEAL' and 'NEXT DEAL →'. The main content area is divided into two columns. The left column features a small image of a deck of cards, the title 'SPACE BOUND', and a list of names: 'MUSIC VIDEO BY AMIR MOJARRADI, BRIANNA DASILVEIRA, BEN CHANCE, RIKKE HEINECKE, ALLISON TATE-CORTESE, RACHEL SCOTT, VETUSOUL, MADELINE BERGER, ALTHEA CAPRA, WILL CHERRY, MIKE ROMA AND DJ DJ'. The right column displays '530 points', a star rating of 7.2/10 (28 votes cast), and a 'DEAL INFO' tab. Below the main content area, there is a green bar with 'EVIDENCE' and 'DEAL INFO' tabs. The 'EVIDENCE' tab is active, showing a video player with a play button and a poster image. The poster image features a person in a red shirt and black pants standing in a dark, smoky environment, with the text 'YOU DON'T KNOW WHAT YOU'VE GOT UNTIL IT'S GONE.' overlaid. The video player controls show a progress bar at 0:00 and a 'YouTube' logo.

Figure 40: Deal page, part 2. The bottom half of the page for each Deal contains social media sharing buttons, a video Justification of the project, a clickable matrix of cards used, a comment area, and links to other Deals.

PROFILE BULLPEN MEMBERS CARD LOOKUP DEAL ARCHIVE LEADERBOARD ABOUT PHOTOBLOG SUBMIT Samantha Lafontaine Log Out

Like Be the first of your friends to like this. 0 0 Tweet 3

JUSTIFICATION

Justification: Space Bound



0:00 / 5:06

CARDS USED

A TOY ANIMAL	A TOWER	REJECTION	LOVE
AN IDEOGRAM	HISTORY	DECEIT	EMOTIONAL DISCONNECT
TRANSMEDIA FRANCHISE	THE PHOENIX	SHARED UNIVERSE	A DEBATE
IN-DIVISIBLE	GLANCE	MUSIC VIDEO	TRANSFORMATION
POSTERIZE	A JOURNEY	A SEARCH FOR FREEDOM	

COMMENTS

20 Responses to *Space Bound*

Mike Roma says:
I've only watched this about four dozen times in the past week, but it looks so legit on the site! Yay MARRA we did it!

Tracy Fullerton says:

MORE DEALS



Figure 41: Submission tool. Each Maker card in the system has its own submission page, accessed via the Card Lookup feature. To submit a Deal, players enter the title, a log line, the documentation of the project, a list of collaborators, and a list of cards used. Once submitted, the Deal is ready for publication; however, players must come to the Game Office to Justify the Deal before it goes live.

PROFILE BULLPEN MEMBERS CARD LOOKUP DEAL ARCHIVE LEADERBOARD ABOUT PHOTOBLOG SUBMIT

Samantha Lafontaine
Log Out

DEAL SUBMISSION FORM #11030

This submission form is for Deals based on Maker Card #

11030



Maximum file size for uploads is 20mb. Please be patient when uploading files.

If you want to make changes to a submission after you have submitted it, please resubmit: we will use the most recent version.

Create any space through which the person viewing or interacting can navigate. It can be any media: video, virtual world, physical construction, etc.

1 Title 2 Log Line 3 Documentation 4 Collaborators 5 Cards & Notes

Title *

THE TITLE OF THE PROJECT.

Next

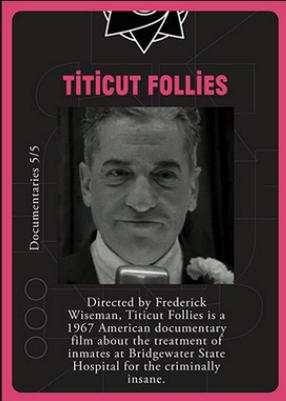
If there are additional materials that you feel you need to submit, mention them in the "Notes" before submitting your Deal.

Some types of challenges will require you to submit a .zip archive. Creating a .zip is super easy. Click for tips on doing it on a [Mac](#) or a [PC](#).

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Figure 42: Card page. Each card has its own page which displays a picture of the front and back of the card. Each card page also has a list of all the Deals that the card has been used in, and a comments area where players can discuss the content on the card.

PROFILE BULLPEN MEMBERS CARD LOOKUP DEAL ARCHIVE LEADERBOARD ABOUT PHOTOBLOG SUBMIT Samantha Lafontaine
Log Out 





Card #11083

Titticut Follies / Madness

DISCUSS THIS CARD

11 Responses to 11083

 **KJ says:**
If anyone has this card and needs a script...it looks like it'd be a lot of fun and you can do a lot with this.

 **Sydney Ralston says:**
I have this.

 **KJ says:**
Oh haha. Well you're plenty capable of writing something brilliant for this, but if you ever need help (cough cough)

 **Will Merrick says:**
Let's meet up! 6:00 p.m. this Tues. anyone? If you're in the Tuesday 190

USED IN

 Occ-U-pi (Will Merrick, Brianna DaSilveira and EPIC PARRA)

 August Danger Luhrs (Jack Begert, DJ DJ and Amir Mojarradi)

 Cloud 6 (Amir Mojarradi, Jack Begert and DJ DJ)

 The Justification (Will Merrick, Maggie Admire, Michael Effenberger, Trevor Taylor, Michael Nader, Miranda Due, Sarah Huck, Sean Roth, Dylan Visvikis, Kayla Carlisle, Cody Lawrence, Sara Monje and Ari

Figure 43: Photoblog. Players can submit photos and brief blog posts to the site through the Photoblog. New photos appear inline in the Bullpen as they are submitted. The sidebar of the Photoblog displays additional information, including the avatars of recently-active members.

PROFILE BULLPEN MEMBERS CARD LOOKUP DEAL ARCHIVE LEADERBOARD ABOUT PHOTOBLOG SUBMIT Samantha Lafontaine
Log Out 

PHOTOBLOG

Info for Players

- [About](#)
- [Game Office](#)
- [How to play](#)
- [Safety Video](#)
- [What can I upload?](#)
- [F.A.Q.](#)

RECENTLY ACTIVE MEMBER AVATARS



Share a photo

RECENT DEALS

-  [Intelligent Design](#)
206 days ago
-  [Bubble-Wrap Calendar](#)
206 days ago
-  [Occ-U-pi](#)
206 days ago
-  [August Danger Luhrs](#)
206 days ago
-  [Audio Commentary: Afterlife: In A Hallway](#)
206 days ago
-  [The game](#)
206 days ago
-  [Cloud 6](#)
206 days ago
-  [IndieCade 2011: Live-Action Minesweeper](#)
206 days ago
-  [Justification](#)
206 days ago
-  [Riley The Parkour Master](#)
206 days ago



On the Madmen lot, clueless as to what to do...

Posted by [Will Merrick](#)
November 6, 2011
3 Comments



...and preparing for a close-up shot when I took this photo of Ian and Will going over lines.

Posted by [Gus Bendinelli](#)
November 4, 2011
6 Comments



The project this was done for is a zombie, like me in this picture.

Posted by [Maggie Admire](#)
November 4, 2011
2 Comments



Bruce Rosenblum, President of Warner Bros TV, followed up breakfast by mailing us DVD's of our favorite WB shows.

Posted by [Maggie Admire](#)
November 4, 2011
2 Comments

Chapter 4: Reflections

4.1 Impact Analysis

In terms of raw numbers, *Reality Ends Here* largely exceeded our expectations. 109 of the 140 students in the freshman cohort (77%) registered for the game, along with 73 players from other cohorts or from beyond the SCA. A total of 122 Deals were submitted (although only 119 were "Justified"), encompassing 48 of the 57 available kinds of media artifacts specified on "Maker cards." An average of 8 Deals were submitted and Justified per week, with the median group for each Deal consisting of 8 collaborators. Almost all Deals represented some kind of collaboration: only 1 Deal was submitted that had a solitary creator. 75 players earned at least 1000 points in the game system through online participation and Deal submission; 51 earned more than 2500 points; and 27 earned more than 10000 points.⁴⁵ Online activity produced by the player population included 4762 posts on the Bullpen, 1426 comments on card and Deal pages, 300 Photoblog posts, over 800 tweets, and numerous independently-organized Facebook groups.

⁴⁵ Our initial projections were that few if any players would earn more than 2000 points; indeed, we only created point-related ranks for players up to the 2000 point level. As the game went on, we needed to invent new rankings to keep up with the frantic energy of the players.

Figure 44: Divisional participation chart. Statistical analysis prepared by Benjamin Stokes.

<i>Disciplinary Focus (declared major)</i>	% of sample with known department	<i>% of freshman class by roster</i>	Difference	Average Points- per-Person (group average = 5.3 k)
Animation/Digital Arts	8%	13%	-5%	4.1 k (-1.2 k)
Critical Studies	12%	20%	-8%	3.9 k (-1.4 k)
Production for Film and TV	35%	32%	+3%	7.6 k (+2.3 k)
Interactive Media	17%	12%	+5%	5.0 k (-0.3 k)
Writing for Screen and TV	29%	23%	+6%	5.9 k (+.06 k)

A quantitative analysis of *Reality Ends Here*, conducted by Benjamin Stokes in an unpublished paper entitled “Gaming to Cross Disciplines,” reveals more nuance. In terms of engagement across the five undergraduate Divisions of the SCA, Stokes' analysis shows that while participation was closely mapped to the relative size of each Division, Animation and Critical Studies students were underrepresented by 5 and 8 percent respectively (while Writing, Production, and Interactive Media students were overrepresented by 6, 3, and 5 percent). In the case of Critical Studies, this underrepresentation reflects the bias in game mechanics toward "maker" activities. Such activities may be too far outside of the comfort zones of some incoming Critical Studies students; in future iterations of the game, efforts will be made to streamline entry into the practice of making for students such as these, as discussed below. The case of Animation students is somewhat more complex. In contrast to students in the other Divisions, Animation students take practice-oriented courses in their first semester. While several

Animation students realized that projects created as coursework could be submitted to the game and did so, this option was not expressed clearly enough in induction communications. That is, many students did not know until the mid-game or beyond that work created for a class could be submitted to the game if it was based on a prompt created by the collectible card game. Further, due to the relatively labor-intensive nature of animation, there was less incentive in the points system to create animated projects -- they simply took too long to produce to compete with the more rapid turnaround possible in live-action filmmaking or even game design. By improving communications and making animated projects worth more points in the game system, future iterations may be able to draw in additional students from the Animation Division.

The question of "who gets to play?" is especially important in the design of environmental games. Because these kinds of games can create disruptive spectacles in lived environments, designers need to be as attentive as possible to who gets to be a part of the spectacle, and who doesn't. As Mary Flanagan notes in *Critical Play*, this is a question that needs to be asked of many kinds of performance-oriented games played in public space:

[Questions] that applied to Situationist efforts must also be asked of locative games: Who has time to engage in "alternate playgrounds?" Who has the freedom to explore those urban spaces in which designers should "create new sandboxes in the metropolis" and promote playful encounters? Some artists and designers certainly have answered the call to create such works . . . but objectively speaking, their efforts may need to better address real-world disparities. (200)

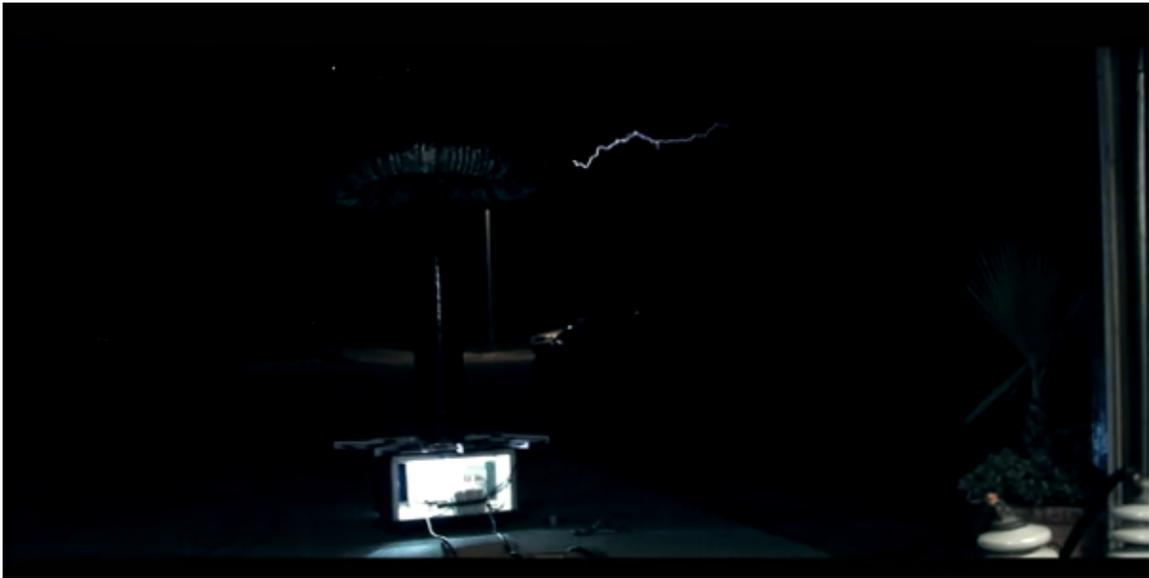
One perspective to consider these kinds of questions from is that of gender. According to Stokes' analysis, 67% of the players of *Reality Ends Here* were male. The actual gender balance of the SCA is 60/40 male/female, meaning that the game skewed toward male participation. Further, men were slightly more likely to collaborate with other men than they were to collaborate with women. Upending the masculine spectacle of the SCA is certainly a difficult challenge given the existing imbalance, but additional work can be done to make the game mirror or exceed the existing male/female ratio in terms of the participation of women. One solution is to put more energy into directly reaching out to female potential players during the induction phase of the game. As was observed throughout the player population in the 2011 implementation, participation in the game was often linked to dormitory roommates: that is, if one roommate played the game, the other was likely to play as well. By targeting female potential players with direct communications, we can increase the likelihood that they will spread the practice of the game through their (same-sex) dormitory relationships.

Despite this statistical gender imbalance, it should be noted that women played a central role in the spectacle of the 2011 implementation of *Reality Ends Here*. Indeed, in many respects, the women who participated in the game were among the most active and aggressive of all players. The most productive and winningest group in the early phase of the game (team "MARRA") was largely constituted by women. 3 of the top 4 players who earned the most points through online activities (posting to the Bullpen, commenting on Deals, and so on) were female. Other prominent women included the third place

overall winner (who participated in a whopping 42 Deal submissions), the most active interdivisional social convener among the player population, and the widely-agreed-upon "best cinematographer" in the game.

While there is a degree of economic uniformity among the incoming undergraduates at the SCA, it should be noted that not all players have the same pools of resources from which to draw. For example, several players lived off-campus, either in apartments or with their families. These players were at a distinct disadvantage when compared to players who lived in dormitories, as they would have to commute to campus--or have others commute to their location--in order to participate in collaborative actions. To a certain extent, these players were able to participate through the game's website, but insofar as much of the creative collaboration which took place in the game occurred in the evenings at and around on-campus dormitories, players who did not live on campus were at least partially cut out of the experience. Further, many of the most active players had sophisticated and expensive computer and camera equipment. One student even had access to a smoke machine and a fully-functional Tesla coil, both of which were used to spectacular effect in the creation of Deals.

Figure 45: A student's Tesla coil in action. From the Deal, *Intelligent Design*.



Although it is difficult to imagine a way of completely erasing these kinds of economic and geographic imbalances, more needs to be done to mitigate their effects. One solution to the question of economic imbalance involves the introduction of special Maker cards which restrict players from using anything but near-ubiquitous technologies such as cell phone cameras. Such cards can help level the playing field for students who do not have high-end DSLRs or other expensive pieces of technology. A possible solution to the geography problem is to introduce more methods of meaningful remote participation beyond the posting of comments or photos to the game website. For the 2012 iteration of the game, a system is being developed to allow players to score points by issuing a special kind of creative prompt that exists only on the website. Players will earn points based on the number of other players who choose to tackle these prompts, as well as for posting the prompts.

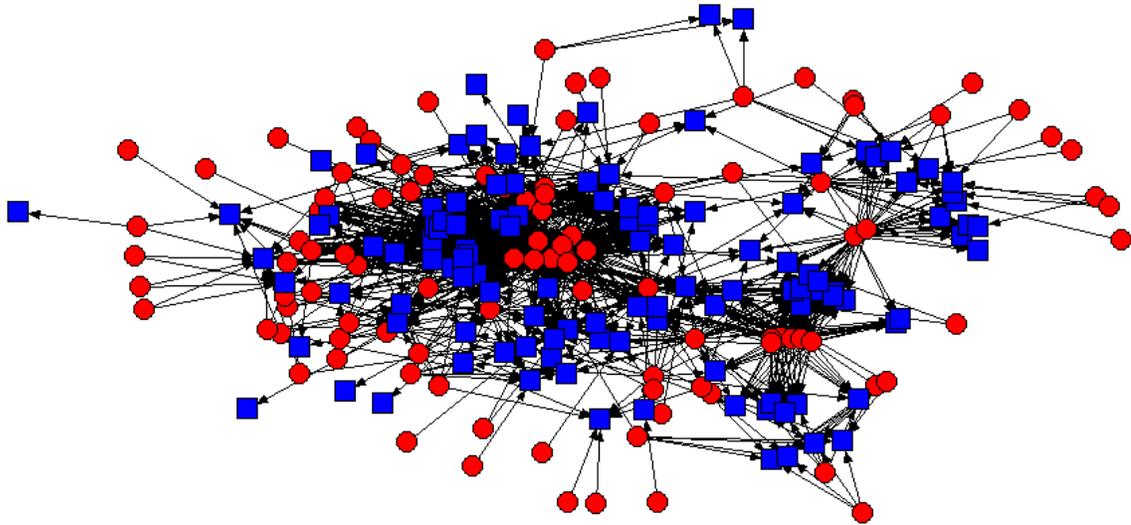
The more accessible an environmental game becomes, the less likely it is to amplify pre-existing divisions and hierarchies in its target population. However, optimizing only for accessibility can sometimes undermine the fun of a game. For example, the mystery and confusion surrounding the initial appearance of the game, and the relative difficulty of the challenge it presented to players, were key drivers of interest for many participants.

Making a game too easy to access or too easy to play can detract from the pleasures of discovery and mastery that it can offer. It is thus necessary to strike a kind of balance: on the one hand, the game needs to be widely discoverable and accessible so as to produce a maximally democratic (as opposed to "oligarchic") kind of spectacle. On the other hand, the game needs to offer a real challenge, both in terms of how it is discovered, and how it is played.

Among students that did not fully engage with the game a common complaint was that it was difficult to find collaborative partners after the initial wave of players had joined.

While some active players collaborated freely with a wide range of other players--the top collaborator, for example, worked with a total of 77 other players over the course of the game--there were also players that chose to only work within relatively tight subset of the overall population.

Figure 46: Data visualization of player clusters. Red circles represent players. Blue squares represent completed Deals. The hyperconnected concentrations of players are the two dominant groups from the 2011 iteration of the game (MARRA and The Tribe). Visualization courtesy Benjamin Stokes.



Further, while it is impressive to note that 60 players worked with more than 30 collaborators each over the course of the game, these numbers are not always reflective of true practice-based collaboration. Many players listed as collaborators on individual Deals did not in fact participate in the making of the Deal, but rather simply provided their cards as a kind of "investment" in return for being credited. While this indicates that a social interaction took place, it does not always map to an actual practical media-making experience.

Additionally, in many cases, the players who created a given Deal constituted a tight group of 8 or less students. These groups often stayed together from Deal to Deal and took on unique branded identities in the manner of professional production companies. Some of these groups even produced elaborate logo and graphic identity systems to brand

their work. As the game went on, these kinds of group arrangements made it increasingly difficult for new players to find collaborative partners who were not already a part of a working group. What was missing was a "free agent" tool that would allow non-affiliated or outsider players to be connected with other non-affiliated or outsider players so as to facilitate the formation of new collaborative groups. This tool is being developed for the 2012 iteration of the game.

Figure 47: Group logos: MARRA and The Tribe.



Accessibility issues also relate to questions of learning style. Critical Studies students in particular may tend to adopt a more reflective mode in their informal learning habits; such modes are not extensively represented in the game. Further, while the website provides many opportunities for discussion, it has yet to be optimized to function as a space for the generation of easily retrievable and expandable critical reflections.

Discussion in the Bullpen and on the comments threads for individual Deals and cards affords a certain amount of space for criticality, but with a few notable exceptions (such as the art/commerce debate discussed above), the kinds of communications we observed in these contexts were much more about socializing, discussing the merits of different projects, engaging in casual debates about popular media, and sharing technique, than

they were about deep reflection. To be sure, this activity was a valuable component of the peer-to-peer learning the game inspired, insofar as it served to license more open discussion about media-making and activate vectors for students to discover and perform expertise. Further, the website and its extensions in social media did not capture any reflections inspired by the game that may have taken place in face-to-face encounters between students. However, the lower participation rates observed in Critical Studies students suggests that more can be done within the official game system to provide them with ways of participating relevant to their learning styles.

To this end, new cards that exist apart from the combinatorial system of the main collectible card game are proposed for future iterations of the game. These special cards will invite players to write in-depth reflections on a variety of subjects, providing a venue for reviewing or critiquing films, games, and other forms of media, among other possibilities. Another proposed way of addressing this issue is to increase the capacity of the website to function as a retrievable and amendable knowledge archive. In the 2011 implementation, the website worked much more like Facebook than a wiki. While it facilitated many kinds of knowledge transmission, performance, and social discovery, its use of Facebook-style status update threads meant that discussions were ultimately ephemeral exchanges which would be "buried" by the emergence of fresher discussions. This problem was exacerbated by our decision to keep the full archive of cards a secret from the players. This secrecy was intended to keep our players guessing as to what kinds of cards they might be able to get their hands on over the course of the game. Much as the

designers of commercial collectible card games release “expansion packs” of special cards, we wanted to delay the release of many of the more unusual or “powerful” cards in order to create various kinds of scarcity in the card-trading economy. Consequently, we removed the master index and search tools for the online card archive. This had the effect of making it difficult for players to easily browse the often rich discussions that took place on the pages for individual cards. In future iterations, we will try to solve this problem by restoring the master index and search functionality to the card archive, and by keeping our “expansion” card pages offline until the release their physical counterparts to the players.

It is important to emphasize that providing an opportunity for all students, including those in Critical Studies, to have hands-on experience of the actual practice of collaborative media-making is a core objective of *Reality Ends Here*. While providing players with the option to engage with the game through critical reflection can be an important way of inducting students with less practice-oriented learning styles into the system, the ultimate aim should be to draw all players into the maker activities at the core of the game.

The way these maker activities are structured is of crucial importance. By mapping point values to the number, kind, and state of collectible cards used in a given Deal, the content of a completed project can be said to be inseparable from the mechanics of the game.

This intrinsic relationship between collectible card game play and creative expression can raise alarm bells when it comes to notions of individual artistic agency. Put differently,

are the creative works generated by the players ultimately determined by the mechanics of the game more than the players themselves?

In practice, several factors indicate the while the game provided both the motivation to create and the building blocks for the generation of ideas, it did not overdetermine the creative output of its players. On one level, this is an issue of mathematics. The potential combinations of cards number in the tens of millions. Students created Deals using as few as 2 cards and as many as 70. Further, the content specified on the cards ("About Betrayal," "Involving a Bicycle," "Featuring a Trickster", and so on) is much less specific than the content that emerges in a completed Deal. For example, the evocative Deal, *Letters of My Lai*, uses carefully-crafted "character artifacts" to tell a Vietnam-era love story about a journalist, his lover, and a massacre the Army would rather keep a secret. The cards used for this deal do not mention any of these elements in specific. Of course, not all Deals were as sophisticated as *Letters of My Lai*. But even in the case of a Deal with a very literal mapping of content to cards, it is still up to players to render the nonlinear prompt they created for the Deal into a coherent whole. Further, as the game went on, many players began to "reverse engineer" their Deals. That is, players would go out and create a media project, then find cards (often through a player-run "card bank") to match in order to submit the project to the game.

4.1 Contrast: Gamification

Reality Ends Here emerged in a moment of great enthusiasm regarding the transformative potential of games and game-like systems. In this moment, numerous educators, policy-makers, activists, and corporations were exploring a variety of ways of using games to bring about real-world impacts. While much of this exploration engaged with the forms of simulation and environmental game play discussed elsewhere in this document, a somewhat disproportionate amount of the interest in this domain in 2011 and early 2012 centered on the practice of “gamification.”

Proponents of gamification loosely define it as a practice which “involves applying game design thinking to non-game applications to make them more fun and engaging” (“Gamification”). Gamification typically involves using badges, “achievements,” points, and other tracking and visualization methods to provide users with various kinds of feedback related to real-world activities. Because such feedback systems are often present in games, their deployment in a real-world context is thus said to “gamify” that context. Early examples of gamification include the loyalty programs of airline frequent-flyer cards, geolocate check-in systems such as Foursquare, and the “karma” points and “level-ups” present in many kinds of online discussion forums. These and other kinds of gamification present a highly-truncated kind of game: a tracking system divorced from a play system, with real-world activities, goals, and obstacles standing in for the artificially-imposed activities, goals, and obstacles that are normally present in games.

Player profiling systems, points, badges, ranks, level-ups, and unlocks can be important parts of game designs, but only insofar as they can serve a feedback function in relation to instantiations of play. One could argue--as the proponents of gamification will--that by layering such tracking systems over real life, one transforms life itself into a kind of game. However, even if this claim is technically true (if only to a limited extent), one must ask what ends such an operation serves. Does gamification really make life more playful, opening the doors to new forms of perception and action? Or does it ironically make life *less* playful and more regimented? Does it release the imagination, or imprison it? Independent of the formal distinctions that game developers rightly make between the hard work of “real” game design and the “just add points” (Bogost, “Gamification is Bullshit”) mentality of gamification, answering these ethical questions is of prime importance, especially in light of the rush among policy makers to deploy such methods in educational and civic engagement contexts.

Consider a product like Nike’s *FuelBand* exercise bracelet, which uses an accelerometer and near-field communications to track the physical activities of its users. The “self-tracking”⁴⁶ data collected by this appliance is used to generate a variety of visualizations and milestones intended to provide the user with persistent feedback about their general physical activity levels and the number of calories they are burning. Over time, as the

⁴⁶ In 2010, an online affiliation known as The Quantified Self (<http://quantifiedself.com/>) began publishing how-to blog posts and organizing meetups to discuss the subject of “self knowledge through numbers.” Members of the Quantified Self seek to track biometric data, location data, social media and web usage, and other metrics in order to reveal the patterns hidden in the practice of their everyday lives. It is unclear if this tracking is meant to increase or decrease the level of regimentation in the lives of these individuals.

user becomes more aware of their activity levels, and as they observe themselves in relation to friends and others who use the product, they can modulate their behavior toward better physical fitness outcomes. Users set fitness goals and chase after them, guided by the *FuelBand* and its visualizations. To use the *FuelBand* properly is to conform to its regime of physical fitness. In terms of health outcomes, the *FuelBand* is undoubtedly a worthy tool. It is, after all, a kind of trainer.

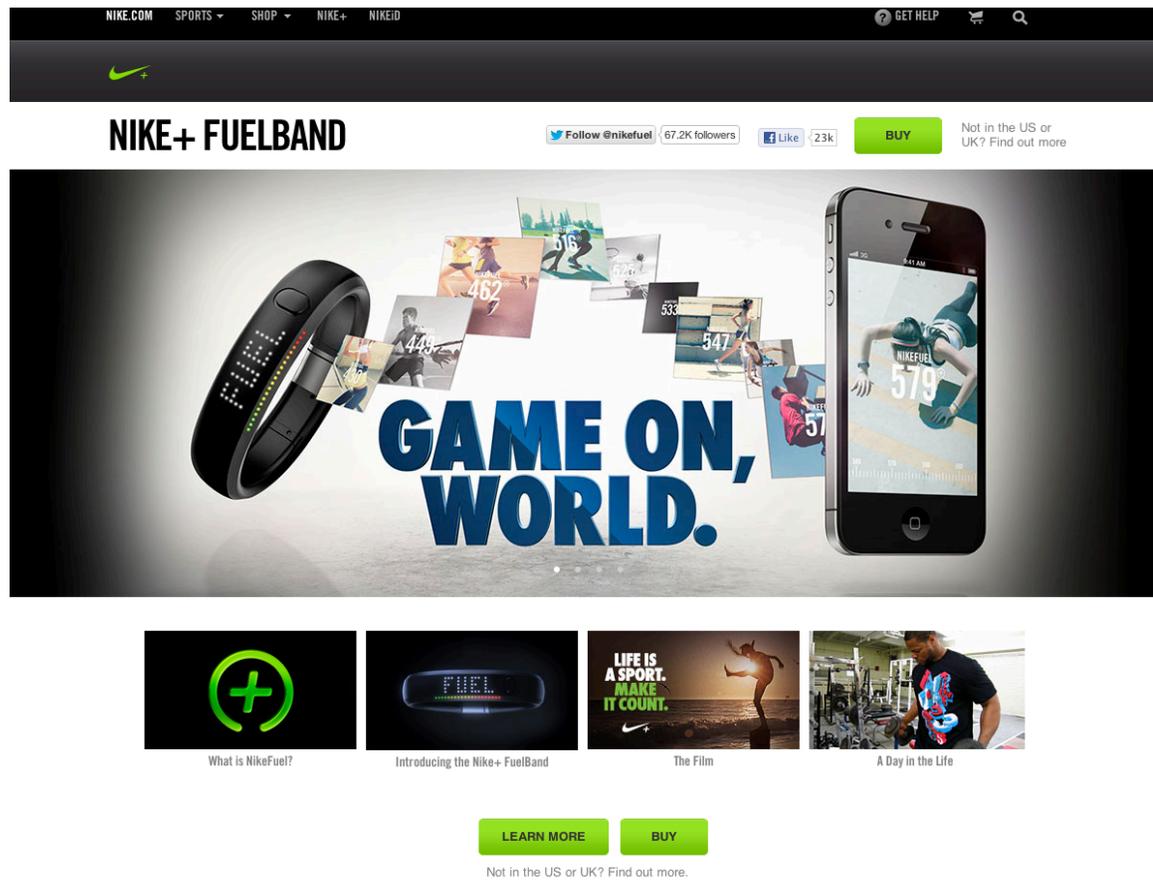
In this sense, the *FuelBand* is representative of the manner in which “gamified” systems add regimentation to the lives of their users. Especially in the case of systems which are linked to social networking platforms, this regimentation articulates itself through a kind of “data spectacle,” as the actions of users are reflected back upon them through visualizations and other representations. These representations in turn can have concrete impacts on behavior.

It is an open question whether the regimentation produced by data spectacle is as closely aligned to the stultifying optimization of commodity exchange associated with the spectacle as described by Debord. Indeed, as the *FuelBand* illustrates, this kind of regimentation can in certain contexts have an empowering effect on its users. Simply put, if training is the objective, gamification can be an appropriate design approach. Well-crafted products like the *FuelBand* provide examples of how such systems can be productively aligned with the purposes of individual subjects.

Of course, the *FuelBand* is not free. There is an exchange at play in the use of such devices, and not only the immediate exchange of purchase. Nike profits from the *FuelBand* in myriad ways beyond its hefty sale price. From one perspective, it is possible to see the entire *FuelBand* enterprise as an elaborate marketing endeavor: by associating itself with health and other notions of “corporate social responsibility,”⁴⁷ and by leveraging social media throughout the *FuelBand* system, Nike communicates a rich promotional message across multiple and often highly personal channels. Further, because this message begins its spread through social networks with affluent early tech adopters, it rapidly reaches broad and deep penetration in its target demographic--all the while generating increasingly granular intelligence for Nike regarding market dynamics. None of this exists without the active engagement of “players.” It is brilliant dark corporate propaganda.

⁴⁷ A strategy first embodied in Nike’s seminal “Just Do It” campaign--and now in its gamified version: “Life is a sport. Make it count.”

Figure 49: Nike FuelBand Homepage. “Game on, world.” Retrieved 30 June 2012.



Coincident to the development of *Reality Ends Here*, a team of researchers and designers funded by Microsoft and based at the Rochester Institute of Technology developed a “student achievement system” for undergraduates at RIT’s School of Interactive Games and Media. The project they developed, *Just Press Play* took a little over a year to develop, and launched several months after *Reality Ends Here*. *Just Press Play* is described on its home page as an “achievement-based game system [that] can encourage students to think of the ‘necessary obstacles’ in their path as part of a coherent narrative of their learning and professional development” (“About *Just Press Play*”). Some of these achievements are earned by engaging in specific real-world interactions with faculty,

peers, and school facilities. One example of these interactions presented at the 2011 Digital Media and Learning Conference involved students receiving an achievement in exchange for finding a specific professor and making her laugh. In exchange for this action, the professor would hand the students a card containing a QR code which, when scanned, would unlock the achievement. Other more wholly automated interactions are described as taking place online:

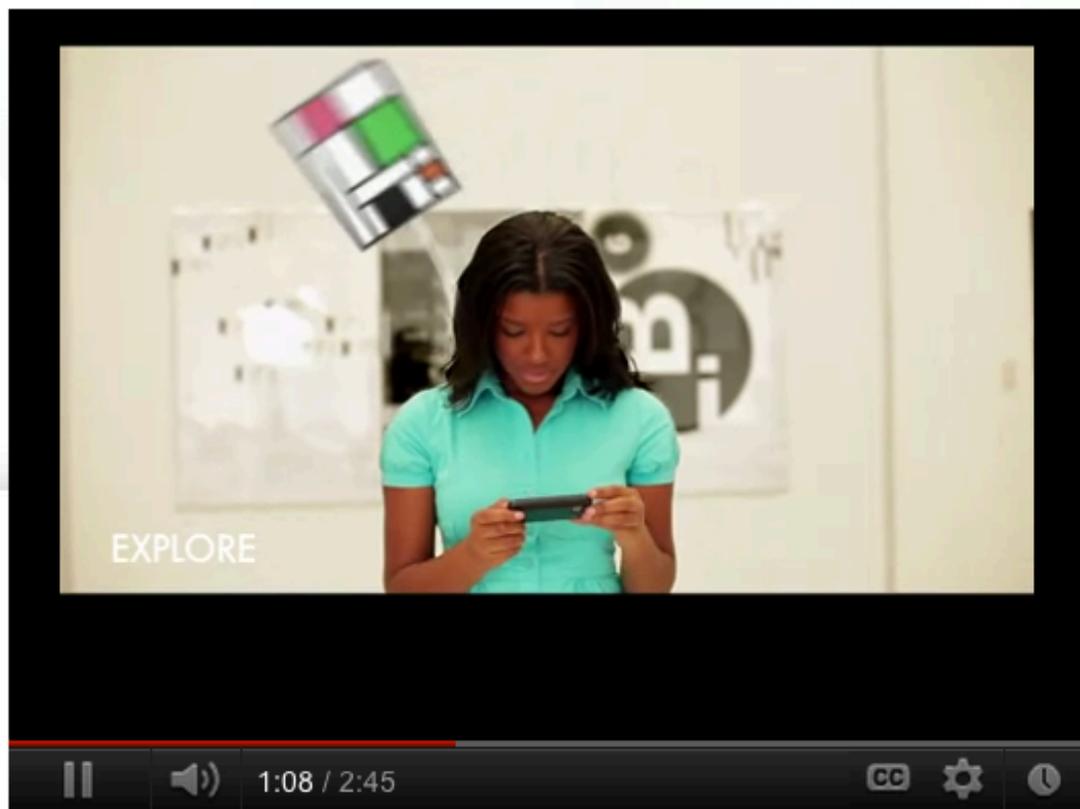
We will embed game content in a variety of RIT systems, providing students with the opportunity to launch game-related activities in RIT's courseware system, library databases, our co-op system site, and others. Students who have opted into the game will be able to see "hidden" content on these pages, and will have the option to activate that content to complete quests and earn achievements.

According to the project website, the game consists of students earning experience points and "leveling up" by completing quests distributed across the freshman experience. For its initial launch, these quests were curated entirely by the game designers (future versions are envisioned in which students "will play a role in creating the content"), who describe the experience of the game from the perspective of the individual player as being "about recognizing and reflecting on your achievements, both social and technical."

A thumbnail impression of the game can be garnered from the highly polished teaser trailer on its public-facing home page. This trailer frames the arrival of students at RIT in a narrative about the "delicate balance" between the "warring factions" that came together over 100 years ago to form the institution. The trailer goes on to depict students engaging in various activities, from snapping smartphone photos of certain paintings in the art gallery and exploring obscure parts of the school, to playing video games and

ascending climbing walls. Each time a student “completes” one of these activities, a badge pops up behind their heads and they smile or cheer. Each activity is preceded by a title: “Explore... Uncover secrets... Push your limits... Have fun... Seek out your balance...”

Figure 50: *Just Press Play* promotional video. A Mondrian-style badge appears behind an RIT student as she earns an achievement for taking a picture of a painting with her mobile device.



Just Press Play presents an intriguing model for *FuelBand*-style systems in educational settings. Instead of measuring various kinds of exercise and physical activity, *Just Press Play* measures progress through a variety of dimensions of the post-secondary educational environment at RIT. As with the *FuelBand*, these measurements are reflected

back upon the player in the form of badges, achievements, points, and unlocks. Where the overtly intended outcomes for the *FuelBand* are to improve its users' physical fitness, give them a way to monitor their progress toward health and activity goals, and provide them a platform for sharing their achievements with others, the stated outcome objectives for *Just Press Play* are similarly to "improve [students'] ability to manage the college experience, help prepare them for careers in game development and new media, give them a sense of accomplishment and progress along the path to their goal of graduation, and provide them with a way to meaningfully demonstrate and record the variety of skills they have mastered" ("A Vision of Play"). And like the *FuelBand*, *Just Press Play* yields intelligence dividends for both the designers and the players of the game:

A GPA tells us little about a student's competencies, but a multi-faceted set of achievements and completed "quests" has the potential to express far more about the student's areas of interest and accomplishment.

Systems like *Just Press Play* will almost certainly have a role in many kinds of educational settings. Indeed, recent large-scale projects such as the Open Badges system underwritten by the MacArthur Foundation and Mozilla envision a future wherein "learners can...collect badges from different sources and display them across the web" in order to "show a more complete picture of your skills and achievements to the world"("Open Badges"):

[It's] often difficult to get recognition for skills and achievements gained outside of school. Mozilla's Open Badges project is working to solve that problem, making it easy to issue, earn and display badges across the web. The result: recognizing 21st century skills, unlocking career and educational opportunities, and helping learners everywhere level up in their life and work.

Figure 51: OpenBadges Project. MozillaWiki. <https://wiki.mozilla.org/Badges/About> 30 June 2012.

OpenBadges

Making it easy to issue, display and manage badges across the web

Learning today happens everywhere

But it's often difficult to get recognition for skills and achievements gained outside of school. **Mozilla's Open Badges project** is working to solve that problem, making it easy to issue, earn and display badges across the web. **The result:** recognizing 21st century skills, unlocking career and educational opportunities, and helping learners everywhere level up in their life and work.

Get recognition for new skills and achievements

The web and other new learning spaces provide exciting ways to gain skills and experience -- from online courses, learning networks and mentorship to peer learning, volunteering and after-school programs. Badges provide a way for learners to get recognition for these skills, and display them to potential employers, schools, colleagues and their community.

Through a simple framework that's open to all

Using Mozilla's Open Badges infrastructure, any organization or community can issue badges backed by their own seal of approval. Learners can then collect badges from different sources and display them across the web -- on their resume, web site, social networking profiles, job sites or just about anywhere.

Unlocking new career and learning opportunities

By displaying skills and achievements that traditional degrees and transcripts often leave out, badges can lead to jobs, community recognition, and new learning opportunities. To learn more or get started, visit www.openbadges.org

1 Earn badges. Get credit for learning outside of school, on the web, or from work and life experience.

2 Collect and display your badges on your resume, web site, social networking profiles and job sites.

3 Unlock new career and learning opportunities. Show a more complete picture of your skills and achievements to the world.

"Badges" can provide visual representations of 21st century skills and achievements.

Mozilla's "Badge Backpack" (above) will make it easy for learners to collect badges earned from multiple sources and display them across the web.

What can be difficult to reconcile about projects such as Open Badges and *Just Press Play* is the tension between the claims they make about the values of play and informal learning on the one hand, and the inherent formality and structure of their underlying systems on the other. Indeed, there is something of a paradox in the way that these systems attempt to honor and license informal learning by effectively expanding the scope of the formal. Viewed in this light, quest-based badge systems seem to reinforce

the kinds of teacher-student, master-apprentice, senior-junior, and adult-child relationships that have characterized education for the past two centuries. In such systems, teachers and other authorities create achievements and experience point awards based on activities that they consider worthy from various learning and professional development perspectives. While the use of digital badges and other markers that refer to game culture may add a patina of novelty to these systems, at bottom this arrangement is effectively another iteration of the standard educational practice of awarding subject-based letter grades. Its utility to students--and, perhaps to a greater extent, to institutions--is located in its capacity to render more granular and expansive forms of credentialing, feedback, and activity tracking than those offered by the crude approximations of letter grades. Insofar as such systems can afford both students with a means of gaining an understanding of the obstacles and “choke points” present in the educational system and the broader ecology of career development, and educators with a means of monitoring progress, they can serve useful navigational and assessment purposes. But in the context of the present discussion, they must also be recognized as bearing distinct resemblance to what Dewey would call the “traditional scheme” of education, an “imposition from above and outside” which “imposes adult standards, subject-matter, and methods upon those who are only growing slowly toward maturity.”

Systems such as *Just Press Play* and the Open Badges project can be appealing to funding bodies because of their putative scalability and leveraging of computational automation. Open Badges promises to “[make] it easy to issue, display, and manage

badges across the web.” Similarly, the title of *Just Press Play* evokes a kind of “plug-and-play” or “set it and forget it” mentality that may be attractive to institutions looking to implement new programs within the constraints of lean budgets and limited personnel. As I have discussed in Chapter 2 of this document, designing for massive scale is unlikely to be the most cost-effective approach to any kind of environmental design, as it results in flattened experiences that lack the fine-grain and high-touch attentiveness to the local often required to sustain engagement. However, of greater concern are the implications raised by the emphasis on automation and surveillance that these and other such systems can exhibit.

The degree to which participation can be rendered machine-readable is directly proportional to the degree to which that participation can be controlled and exploited. This principle is fundamental to the business models of companies like Facebook. By capturing our “likes,” social relationships, group activities, affiliations, media habits, interests, and locations in a granular and parseable format, Facebook can provide its clients with detailed and highly-targeted market intelligence and direct access to relevant consumers. Similarly, *Just Press Play* envisions a trade-off between the utility conferred upon learners and “far-reaching applications” with the “publishers and producers of curricular materials, and software and hardware vendors invested in the educational market” (“A Vision of Play”). Of course, the mere association with the mechanisms of capital is not necessarily a bad thing. Identifying and opening new revenue streams for educational institutions is a worthy objective. On the other hand, the increased

involvement of corporations and other private interests in the educational system carries with it numerous risks, especially in light of the already highly exploitative, co-dependent, and manipulative relationships between capital and governance.

Crucially, however, what is at stake here goes beyond exploitation. Even in a utopian outcome wherein such systems can be completely disconnected from corporate influence, the fact remains that they ultimately resolve into panoptic surveillance mechanisms. Put differently, they become an apparatus for administering discipline, rather than for prompting learners to discover discipline on their own. Imagine a future wherein the Open Badges project or something like it approaches ubiquity at educational institutions and gains recognition among a substantial set of employers. In addition to managing traditional educational outcomes such as grade point averages, learners living in this future must also be attentive to their “badge collections” in order to position themselves for entry into, or advancement within, a given career path. That is, those who have been more extensively credentialed across a variety of sanctioned (or “badgeable”) categories will be more likely to succeed, while those with anemic or inappropriate badge collections will find themselves at a disadvantage. While projects like Open Badges insist that “anyone” will be able to create a badge in the future, this does little to prevent hierarchies of value from emerging within the system. For example, an employer may find an “I Volunteered at the Museum” badge issued by the Smithsonian to be a positive sign in a prospective employee, while they may not be likely to look kindly on an “I Dropped Acid” badge issued by local stoners. Further, it must be asked who will have the

time and capital to earn appropriate badges, and how this will map onto matters such as race and class. Learners in remote areas or cultural deserts, or who lack the available free time or web access to engage in badge-earning practices will suffer, exacerbating inequities in an already wildly unbalanced socio-economic landscape.

Regardless of socio-economic status, learners in such a system find themselves in a position where they must direct their energies toward acquiring high-value badge credentials in order to thrive. Does this create the kind of independence of mind called for since the first half of the 20th century by thinkers such as Dewey or Piaget? Or does it create a new and more insidious brand of conformity? If I am a determined learner in this kind of future, am I going to spend my time experimenting with “unbadgeable” activities, or am I going to succumb to the pressure of satisfying the increasingly granular requirements of an achievements-based educational and career economy? If I choose to “buck the system,” what impacts will that choice have on my future? If I choose to conform, what kinds of experiences will I have when my exploration of the world becomes defined by unlocks, level-ups, and the acquisition of credentials? What will happen to my imagination?⁴⁸

⁴⁸ Is this Debord’s dystopia wherein “spectacle is mixed into all reality and irradiates it”? There are surely numerous science fiction novels that cover this territory. If not, there should be.

4.2 Surveillance and Control: @EndReality

Of course, *Reality Ends Here* is not immune to producing its own kinds of dystopia and harm. As open-ended as its play activities may be, its rules nevertheless constitute a system “created by others” around a specific set of mandates. While it is designed to harmonize with the existing motivations of its players, it should not be forgotten that it is nevertheless funded and implemented by a self-interested institution with its own set of motivations. This fact will become increasingly important to keep in mind as the game moves beyond its experimental phase and toward more official incorporation into the curricular system of the SCA. Nevertheless, in terms of the present iteration of the experience, concerns over exploitation and the interference of commerce are somewhat less pressing than those regarding the game’s capacity to “instrumentalize” the participatory energies of its players.

From one perspective, each week of gameplay in *Reality Ends Here* can be seen as a kind of miniature media arts festival or conference, providing players with opportunities not only for playful experimentation and performance, but also for exposure and advancement in both social and institutional hierarchies. Winning a week can catch the attention of faculty or alumni just as it can create different kinds of status and reputation in the student body. In the 2011 implementation, the more successful the game became in terms of attracting players and making waves in the SCA freshman cohort, the more playing it became a kind of signal of differentiation in various social and academic hierarchies. There was thus an equation drawn relating participation in the game with

social and professional advancement. Was the game creating its own kind of conformists by offering students social and career advancement in exchange for their creative engagement?

We felt it was important to confront these questions head-on. Making the game optional was a necessary component of this confrontation, but was not sufficient. We wanted to acknowledge that any game such as this--that is, any game deployed by an institution for play by its membership -- can function as a control and surveillance system. To represent this “dark side” of the game, we created the conceit of the “Reality Committee,” the faceless organization that presides over gameplay. Its logo--which was also the logo of the game itself--was designed to resemble an eye combined with an aperture. Its communications were cryptic and had airs of both authoritarianism and revolutionary agit-prop. And whenever it was referred to by Game Runners or faculty, it was playfully implied to constitute a kind of vast and unknowable Oz-like power nexus. This representation of the mechanisms of surveillance, power, and control was intended to foreground the fact that any game of this sort inherently contains a capacity for exploitation and indoctrination.

Figure 52: Flag advisory. This advisory was one of the first in-game communications released to players.



The Reality Committee was thus ambiguously positioned within the narrative framework of the game. On the one hand, it was the benevolent organizing force behind the fun of the game and a source of networking and career advancement opportunities for players. On the other, it was an elusive and shadowy organization with uncertain motives of its own. It played this dual role not by arbitrating the work created by the players, but rather by serving as a kind of abstract overseer and liaison. Players would receive direct communications from the Reality Committee only upon winning a week. These communications would lead to mentorship experiences. Beyond this interaction, the

Committee largely stayed in the background after the early stages of the game, and at no point was its membership identified -- although most students would eventually intuit that it in fact did not exist at all.

The fiction of the Reality Committee was intended to help us earn the trust of our players. We believed that by acknowledging the dark potentials latent in a game such as this, we could license the kinds of skepticism and resistance that would prevent it from devolving into a behavioral control system. To a certain extent this strategy paid off. The fact that the Reality Committee was anonymous and distinct from the rest of the SCA curriculum, and that it had an overtly (indeed, somewhat parodic) fictional identity, made it easier for players to talk about and critique. Had the game been linked to the official curriculum or to a particular faculty member or group, students may have felt less comfortable pushing back against it or otherwise taking control of the situation. As discussed in Chapter 2, numerous Deals were made about the game, affectionately poking fun at it and interrogating its structure. There was also much discussion on the website and Facebook about the kind of values the game articulated. However, the ambiguous fictional conceit of the Reality Committee also framed the game in terms that were confusing to some students, and off-putting to others.

Some students initially actively resisted the game. For example, in the second week of gameplay, an anonymous student undertook a stealth “gamejacking” of *Reality Ends Here* that reacted against both the game’s mock authoritarian tone and the kinds of effects the

student perceived it as having produced in the freshman community. By this point in the semester, word about the game had spread to less than a quarter of the freshman students. However, many players were already beginning to take their play very seriously. The first “power group,” MARRA, had formed and was busy making four separate film productions to submit the subsequent week, all the while taking precautions to keep their activities secret from other students in an attempt to keep out the competition. Others who knew about the game were equally possessive of their knowledge, and various camps had formed. These secretive and cliquish behaviors would later dissipate; but at the time of the gamejacking, they were in full swing. Further, because the Game Runners were continuing efforts to induct new players through the deployment of miscellaneous rabbit holes throughout campus and online, even those students who did not know about the game could sense something was afoot. Strange signs were everywhere. This was a situation ripe for intervention.

The gamejacking took place on the 2nd of September. It began as an intervention on the Twitter stream for a session of the *Reality Starts Here* symposium class taught by Tara McPherson. Using the #heyhenry hashtag, which Professor McPherson (@tmcphers) had asked students to use for the class backchannel (the guest speaker that day was Henry Jenkins), a Twitter account named @EndReality began issuing declarative commandments that parodied the kinds of enigmatic pseudo-authoritarian communications of the Reality Committee. Because these tweets referenced activities

happening in real time in the class, it was clear that whoever was producing them was in the lecture hall where the symposium was being held.

Figure 53: Twitter: @endreality.



This intervention also consisted of a Facebook page for EndReality, which provided a clearer sense of the perspective of its creator:

Welcome to a test that transcends all forms of media. We are not trying to teach you or recruit you. We do not need you to learn anything and we do not need you among us. You are here for a different reason, a reason some will discover while others fall by the wayside. During this test you will be required to comply and cooperate, not only with us but with your fellow subjects. The sidewalk has

already ended, along with the world and your independence. All that is left to end is Reality.

For us, this “attack” on the game was both encouraging and frightening. On the one hand, we were excited to see students critically engaging with the narrative framework of the game and its potential for abuse as a surveillance and control system. We also appreciated the sense of humor and wit of the author. To a certain extent, this kind of engagement was precisely what we had hoped for. On the other hand, we worried that the unidentified gamejacker could derail the entire experience. For example, many students later reported not knowing whether the @EndReality account was affiliated with the actual game. For students in the symposium class who had not yet discovered the game, the menacing tone of @EndReality may have served as a deterrent to their participation. But most troubling was the notion that @EndReality could signal the beginning of a backlash against the game that would lead to its collapse. Would the students “End Reality” before it had really begun?

Just as quickly as @EndReality appeared, it disappeared. Its final communications, issued later in the day on September 2nd, referenced an upcoming fraternity party. As the tweets stopped appearing, the design team breathed a sigh of relief, with some concluding that the whole operation was just a way of riding the coattails of the game in order to pump up the weekend’s “Greek” festivities. But I do not believe that @EndReality was entirely about promoting an underage booze-up. This was a very real critique of the game that called it out as a behavioral control system. I believe that this critique became a touchstone for student discussions that took place beyond the purview of the Game

Runners, and that these discussions helped to put the game in its proper place. Indeed, in the week following the appearance of @EndReality, participation in the game spiked, with dozens of new players signing up and the number of Deal submissions jumping to 11 from the previous week's total of 3. While it was anxiety-provoking for the design team at the time, it is my hope that we experience similar gamejackings in subsequent iterations of the game. @EndReality was an important moment of reflection which further licensed the interrogation of the game's impact by its players.

Addressing issues of control and surveillance is an essential part of the design process of any impact game. After all, such games are by definition intended to “have an impact” or “change the world” by modifying how players think and act. Designers must deeply interrogate the kinds of mechanics they employ to bring about such transformations. Do the changes in behavior brought about by a given design emerge organically in players, as a process of discovery akin to that described in the *Meno*? Or are they imposed from above in one way or another? Perhaps at the end of the day the best we can do is a kind of triage. In any designed participatory system, there will always be a mixture of the organic and the synthetic.⁴⁹ Games can provide methods for generating agency-rich versions of this mixture insofar as they can bring about highly organic play and discovery situations

⁴⁹ In this regard, one might contrast the spectacle produced by an environmental game such as *Reality Ends Here*, which has its origins in a central authority (in this case, the research and design team working in concert with the SCA administration and faculty), with the spectacle produced by much more distributed and organic interventions into lived environments, such as the Occupy movement or the recent tuition hike protests in Montréal. Viewed in this light, perhaps the best way of looking at impact games in general and environmental games in specific is to see them as temporary catalysts for action. Such games truly succeed only when their players go on to invent new forms of action external to the game system. Especially in the case of *Reality Ends Here*, if the students did not continue to collaborate, experiment, share, and otherwise engage with the direction of their intellectual and artistic growth in the absence of the game, the game would be considered a failure. Indeed, one of the worst possible outcomes for such games is that players become dependent on them.

using relatively compact and transparent rulesets. Nevertheless, because games designed for impact are just that--that is, *designed for impact*--it is impossible to completely eliminate their potential to function as systems of domination.

Bibliography

Aarseth, Espen J. *Cybertext: Perspectives on Ergodic Literature*. Baltimore: The Johns Hopkins University Press, 1997. Print.

“About *Just Press Play*.” *Just Press Play*. RIT, n.d. Web. 20 June 2012.

“A Vision of Play.” *Just Press Play*. RIT, n.d. Web. 20 June 2012.

Amic, L. “Design Q&A With Charles Eames.” *remotedevice.net*. n.p. 4 April 2012. Web. 31 May 2012.

Avedon, E.M., and Sutton Smith, Brian. *The Study of Games*. New York: John Wiley & Sons, Inc., 1981.

Barlow, John Perry. “The Economy of Ideas.” *Wired.com*. Wired, March 1994. Web. 1 June 2012.

Benjamin, Walter. “Paris, Capital of the 19th Century.” *New Left Review*. 48. (1968). Web. 12 June 2012.

Best, Steve and Douglas Kellner. “Debord, Cybersituations, and the Interactive Spectacle.” *Illuminations*. University of Texas at Arlington, n.d. Web. 12 June 2012.

Bogost, Ian. “Gamification is Bullshit.” *Theatlantic.com*. The Atlantic, 9 Aug. 2001. Web. 15 June 2012.

---. *Persuasive Games*. Boston: The MIT Press, 2007. Print.

---. “Persuasive Games: Process Intensity and Social Experimentation.” *Gamasutra*. UBM TechWeb, 23 May 2012. Web. 1 June 2012.

Caillois, Roger. *Man, Play, and Games*. New York: The Free Press, 1958. Print.

Calori, Chris. *Signage and Wayfinding Design: A Complete Guide to Creating Environmental Graphic Design Systems*. New Jersey: Wiley, 2007. Kindle Edition.

Cowan, Mel. “Cinematic Arts Celebrates 80th Anniversary With All New Campus.” *School of Cinematic Arts News*. USC Cinematic Arts, 31 Mar. 2009. Web. 18 May 2012.

Crawford, Chris. “Process Intensity.” *Erasmatazz*. n.p. 5 Dec. 1987. Web. 1 May 2012.

Debord, Guy. "Report on the Construction of Situations and on the International Situationist Tendency's Conditions of Organization and Action." *Bureau of Public Secrets*. Bureau of Public Secrets, n.d. Web. 18 May 2012.

---. *Society of the Spectacle*. *Marxists.org*. Marxists Internet Archive, n.d. Web. 22 May 2012.

DARPA (Defense Advanced Research Projects Agency). "Network Challenge Project Report." *DARPA*. DARPA, 16 February 2010. Web. 12 May 2012.

Dena, Christy. "ARG Stats." *Christy's Corner of the Universe*. n.p. 8 Dec. 2008. Web. 9 May 2010.

---. "Discover Manoa!: Second Life RPG & the problem with ARGs." *Christy's Corner of the Universe*. n.p. Apr. 2007. Web. 8 May 2010.

---. "Emerging Participatory Culture Practices: Player-Created Tiers in Alternate Reality Games." *Convergence Journal: International Journal of Research into New Media Technologies*. 14. (2008): 41-57. Print.

Dewey, John. *Experience and Education*. New York: Simon and Schuster, 1997. Kindle Edition.

Duncombe, Stephen. *Dream: Re-imagining Progressive Politics in an Age of Fantasy*. New York: The New Press, 2007. Print.

Ejsing-Duun, Stine. "Location-Based Games: From Screen to Street." Diss. The Danish School of Education, Aarhus University. *pervasivegames.blogspot.ca*. n.p. 15 Dec. 2011. Web. 31 May 2012.

"EndReality" *Facebook*. n.p., 2 Feb. 2011. Web. 12 May 2012.

Flanagan, Mary. *Critical Play*. Boston: The MIT Press, 2009. 200.

Foucault, Michel. "Of Other Spaces." Trans. Jay Miscoweic. *Architecture/Mouvement/Continuité*. 1984. *Foucault-info*. n.p. Web. 15 June 2012.

"Gamification." *Gamification Wiki*. Gamify Network, n.d. Web. 12 June 2012.

Giroux, Henry. "Beyond the Spectacle of Terrorism: Global Uncertainty and the Challenge of the New Media (The Radical Imagination)." 2006. *Open Journal Systems*. n.p. Web. 12 May 2012.

Goffman, Erving. *The Presentation of Self in Everyday Life*. New York: Doubleday Anchor, 1959. Print.

Goldman, Michael. *Reality Ends Here: 80 Years of USC Cinematic Arts*. Los Angeles: University of Southern California Press, 2009. Print.

Greenfield, Adam. *Everyware: The Dawning Age of Ubiquitous Computing*. Indianapolis: New Riders Publishing, 2004. Print.

Harvey, David. "The Right to the City." *New Left Review*. 53. (2008). Web. 12 June 2012.

Huizinga, Johan. *Homo Ludens: A Study of the Play-Element in Culture*. Boston: Beacon Press, 1971.

Hull, Jeff. "Trap doors and hatches all around: Jeff Hull on infusing variability and play into the workaday world." Interview with Jeff Watson. *remotedevice.net*. n.p. 10 Mar. 2010. Web. 1 June 2012.

Hunter, William. "Coin-op Video Game History." *The Dot Eaters*. n.p. 2007. Web. 10 May 2010

IGDA ARG SIG (International Game Developers Association Alternate Reality Game Special Interest Group) "Alternate Reality Games." *IGDA Wiki*. IGDA ARG SIG, 2006. Web. 21 February 2010.

Jaglom, Henry. "The Enemy of Art is the Absence of Limitations." Interview by Anthony Kaufman. *Indiewire*. SnagFilms Co, 24 Apr. 1998. Web. 30 May 2012.

Jenkins, Henry. "Chasing Bees, Without the Hive Mind." *Technology Review*. MIT, 3 Dec. 2004. Web. 8 May 2010.

---. *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press, 2006. Print.

---. "Henry Jenkins on the Responsibility of games." Interview by Game Set Watch. *Game Set Watch*. UBM TechWeb, 4 June 2006. Web. 29 July 2009.

Lefebvre, Henry. *The Production of Space*. Oxford: Wiley-Blackwell, 1992. Print.

Levy, Pierre. *Collective Intelligence*. New York: Basic Books, 1997. Print.

McGonigal, Jane. “‘This is Not a Game’: Immersive Aesthetics and Collective Play.” Digital Arts and Culture Conference. Melbourne, 2003. Address. *Beyond the Fourth Wall*. n.d. Web. 12 May 2012.

---. “Why I Love Bees: A Case Study in Collective Intelligence Gaming.” *The Ecology of Games: Connecting Youth, Games, and Learning*. MIT Press Journals, 3 Dec. 2007. Web. 12 May 2012.

Mocarski, David. “Environmental Design.” *Art Center College of Design*. n.d. Web. 31 May 2012.

Montola, Marcus. “Exploring the Edge of the Magic Circle: Defining Pervasive Games.” *remotedevice.net*. n.d. Web. 31 May 2012.

---. Jaakko Stenros, and Annika Waern. *Pervasive Games: Theory and Design*. San Francisco: Morgan Kaufmann, 2009. Print.

Morris, Chris, Sean Stewart, Elan Lee, and Jim Stewartson. “Events, not ARGs: Interview with the founders of 4th Wall.” *Variety.com*. Variety, 4 May 2009. Web. 21 February 2010.

Nieuwenhuys, Constant. “Another City for Another Life.” *Internationale Situationniste*. 2. (1958). *Not Bored*. n.p. Web. 20 May 2012.

“Open Badges.” *MozillaWiki*. Mozilla, 2 Apr. 2012. Web. 20 June 2012.

Papert, Seymour. *Mindstorms: Children, Computers and Powerful Ideas*. New York: Basic Books, 1993. Kindle Edition.

Phillips, Andrea. “ARGs and Women: Moving Beyond the Hot Brunette.” South by Southwest Interactive Festival. Austin, 2010. Address. *slideshare.net*. n.p. Web. 10 May 2010.

---. “Taking risks and dancing with audiences: Andrea Phillips on writing for transmedia and ARGs.” Interview by Jeff Watson. *remotedevice.net*. n.p. 2010. Web. 1 June 2012.

Plato. *Meno*. *The Internet Classics Archive*. MIT, n.d. Web. 29 May 2012.

Raymond, Eric Steven. *The Cathedral and the Bazaar*. n.d. Web. 8 May 2010.

Roby, Henry John. *Roman Private Law in the Times of Cicero and of the Antonines*. Cambridge: Cambridge University Press, 1902. Print.

- Salen, Katie, and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. Cambridge, MA: MIT Press, 1998. Print.
- Schell, Jesse. "DICE 2010: Design Outside the Box." Presentation. 18 Feb. 2010. Web. 22 Apr. 2010.
- Shirky, Clay. *Here Comes Everybody: The Power of Organizing Without Organizations*. New York: Penguin Press, 2008. Print.
- Situationist International. "Instructions for an Insurrection." *Internationale Situationniste*. 6. (August 1961). Tranks. Ken Knabb. *Bureau of Public Secrets*. Bureau of Public Secrets, n.d. Web. 12 May 2012.
- Smith, William. *A Dictionary of Greek and Roman Antiquities*. John Murray Press, 1875.
- Squire, Kurt. "From Content to Context: Videogames as Designed Experience." *Educational Researcher*. 35. 8. (Fall 2006): 19-29. Print.
- Stewart, Sean. "Alternate Reality Games." *The Fourth Wall*. n.d. Web. 21 February 2010.
- Starr, Paul. "Seductions of Sim: Policy as Simulation Game." *The American Prospect*. 5. 17 (Spring 1994): 19-29. Print.
- Straw, Will. *Letters of Introduction: Film Credits and Cityscapes*. Montreal: McGill University Press, 2010. Print.
- The Cloudmakers. "Puppetmaster FAQ." Interview by Sean Stewart. *cloudmakers.org*. n.d. Web. 8 May 2010.
- Walker, Jill. "Distributed Narrative: Telling Stories Across Networks." Association of Internet Researchers 5.0. Brighton, 2004. Address. *jilltxt.net*. n.p. Web. 13 June 2012.
- Watson, Jeff. *Reality Ends Here*. University of Southern California, 2011. Web. 12 May 2012.
- Wiley, Mason, and Bona, Damien. *Inside Oscar*. New York: Ballantine Books, 1986. Print.
- Wilson, Douglas. "Johann Sebastian Joust." *Die Gute Fabrik*. Die Gute Fabrik, n.d. Web.

Appendix A: Additional Documentation and Player Interviews

The best source for additional documentation of this project is the game website itself, located at <http://reality.usc.edu>. As of this writing, the majority of the website, including player profiles, the archive of completed Deals, the Card Archive, the Photoblog, and the About pages, is open to the public. Readers who would like to access the player-only features of the site are invited to contact the author directly for login credentials.

Further documentation, including interviews with players (conducted by the players themselves) from the 2011 implementation of the game, will be published online at <http://remotedevice.net/dissertation> in the Fall of 2012. This documentation will also include reflections on the second “season” of *Reality Ends Here*.

Appendix B: Interview with Nathan Maton

The following interview was conducted as a part of the research for an article published in *Wired* on December 30, 2011. It is included here to provide readers with a gloss of the core elements of *Reality Ends Here*. In this interview, game journalist Nathan Maton asks me a series of questions about the design and implementation of the game.

First, for those who haven't read about the game on Henry's blog, can you explain how it works briefly?

Basically this is a secret game at the USC School of Cinematic Arts. As a student, you find out about it organically -- through word of mouth or by piecing together clues left around the school or on the Web. If you're persistent, you'll eventually discover the hidden Game Office, where you will be inducted into the game, signed up for the website, asked to swear an Oath of creative fearlessness to the "Reality Committee", and given a packet of 10 assorted game cards. These cards can be combined with each other or with other players' cards to create a "Deal" -- a unique creative prompt (there are over 50 million potential combinations) that can be used to seed the production of some kind of actual media artifact such as a short film or a game or a "happening" or a website. By actually producing these media artifacts and submitting them to the game's website (working alone or in self-assembled teams), players earn points on a range of weekly leaderboards. Crossing certain point thresholds unlocks time-sensitive trailheads leading

to special experiences and encounters, usually involving meeting interesting alumni and industry professionals in offbeat or exclusive locations. All the projects created through the play of the game are shared with the world via the game's website, which also serves as a hub for player-to-player communications, player-driven rating and ranking of projects, and interactions with game runners. The whole experience is framed in a simple narrative conceit concerning the mysterious "Reality Committee" -- which is in fact a real committee of faculty and alumni, and is genuinely mysterious.

To put it in game designer-speak, this is a pervasive collaborative production game driven by a card-based procedural creative prompting system. Its purpose is to increase peer discovery, deepen students' understanding of and experience with transmedia, and open new channels for experimentation and interdisciplinary collaboration.

Give us one example of a recent collaborative project that came out of the use of the cards to illustrate the game's functionality.

The players have come up with so many amazing projects that it's hard for me to single one out. The best way to get a sense of what can come out of this is to go browse the website at <http://reality.usc.edu>.

A fun representative project would be the excellent comedy short, "Incompetent" (<http://reality.usc.edu/deals/incompetent/>) by production and critical studies students Harry

Hunter, Aaron Izek, Zach Siegel, Jason Smith and Mitchell Winkie (AKA "Pentapog").

This Deal consists of 14 Property cards and one orange People card built around a "Comedy Sketch" Maker Card. The Property cards used in the Deal include prompts such as "About Justice," "Someone Named Laszlo Kovacs," and "Involving a Locked Box" (to see the full combination of cards, visit the project's web page). The resulting video is a hilarious send-up of a police procedural:

Every Deal in the game generates at least this amount of content. It's amazing to wake up each morning and see what the players have come up with. I am constantly humbled by their talent.

Who did you pull into the room when you knew this would be a project you wanted to work on? Why?

The list of people who worked on this project is long, so I'll focus on the core design team only. The first thing I did after getting the green light was to conscript a co-designer. I don't like working alone on complex dynamic systems like games, especially in the early concept stages. A good design partner gives you quality assurance, a sounding board, and a multiplier for the rate at which new ideas can be injected into your development process. The partner I chose was Simon Wiscombe, a brilliant interaction designer in the MFA program in Interactive Media here at SCA (he's also an aeronautical engineer and an actor, so if you need a game, plane, or performance, give him a call).

This project wouldn't have taken the shape it did without Simon. Not only did he bring some heavyweight conceptual chops to the table, but he also has the range of transmedia skills that are necessary to do the rapid prototyping of cards, website wireframes, and other materials that a project like this requires. Multiple-threat designer/makers like Simon are pretty rare, so if you ever find one, hang on to them!

Not all projects can have a Yoda, but ours did. And by Yoda, I mean Tracy Fullerton.

Tracy has been a crucial advisor to me throughout my time at USC, and her passion for/belief in this project has been unbelievable (if you're not familiar with Tracy's work, familiarize yourself now -- she's one of the sharpest game design minds in the world).

Tracy (who is also part of the faculty committee that commissioned this project) served as a mentor and guide for the game. I can't even begin to list the number of pitfalls and mistakes she saved us from. Intense high-speed design processes can be exhausting. Tired designers can make lazy decisions or chicken out on bold moves. An advisor like Tracy can save you from those fates.

Can you give me an example of a few pitfalls?

As we got closer to launch, I had this irrational fear that no one was going to play. And since we had the cooperation and involvement of the SCA Faculty, it was entirely possible that I could have given in to this fear and made the game an official curriculum element. As I discuss elsewhere in these answers, I knew that doing that would really

undermine a lot -- or even all -- of the real power of this experience. But still -- I was scared to death that our plan would backfire and the students just wouldn't engage. I was afraid that my whole dissertation would fall apart. There was a temptation, however brief, to rope in a guaranteed player population through some degree of mandatory play.

Talking to Tracy during this time bucked up my spirits and kept me from chickening out on my original impulses. A good number of the other faculty involved in this project wanted me to make this mandatory. At the end of the day, this is a pretty radical approach to post-secondary education. There was pressure from within and without. Tracy helped me to keep the faith.

Finally, it's impossible to imagine this project happening without Holly Willis, the director of USC's Institute for Multimedia Literacy. In her capacity as chair of the Future Committee, Holly invited me to develop a game for the students at SCA. Her leadership truly got the ball rolling on this. Tara McPherson, the awesome chair of my dissertation committee and the instructor of the freshman intake class that is loosely associated with this game, has also played a crucial role in helping me to think through the many interesting questions around this kind of initiative. There are so many other people that needed to come together to make this happen. You can see a list of most of them on the game's credits page here: <http://reality.usc.edu/credits/>.

How did you choose on a deck of cards?

Our initial design didn't have cards at all. It was much more like something like *SFZero* -- a collaborative production game played through a web portal, full stop. This is one of those instances where the daunting task of executing this project -- we only had a few months to get everything designed, tested, and implemented -- made me just want to run with the initial idea and leave it at that. Thankfully, Tracy pushed me to work harder. She reminded me that we weren't making a game meant to be played by people distributed across a wide area like a city or the whole world. Our players would be coming into the same building pretty much every day. Most of them live on campus in the same dorms. We would be crazy not to make use of that. Physical artifacts would provide a social lubricant and mnemonic that would speed up the spread of the game while also producing all sorts of ancillary moments of discussion and interaction. And since the whole mandate of the game was to increase peer discovery and collaboration, the more we could get people interacting in real space, the better.

For years I'd been wanting to do a game based on an interlocking card system. I had these abstract prototypes lying around on my desk -- basically just index cards with "in" and "out" arrows on them. I started to think about how these cards could be used to drive a collaborative production game. I realized that this could be how our game could generate the creative prompts that players would respond to. Rather than curating the prompts ourselves, we could generate them procedurally through card play. It was kind of like transmedia Tarot -- by combining the cards based on an interlocking connectivity schema, players could make a kind of physical "random log line generator" for media projects.

Further, since the cards could be shared and traded, this meant that players could gain more control and granularity over their prompts by engaging in social activity. The idea had an elegance to it that we ran with immediately.

How did you come up with those individual cards?

This was a long and tedious process. Based on the capabilities of our printer and the limitations of our budget, we settled on a 300-card master deck. The tricky part was breaking down that deck into the right ratios of the different kinds of cards. We knew we needed to keep certain kinds of cards scarce in order to drive the players into trading and collaborating.

What kinds of cards?

There are four basic card types in the game: green Maker cards, which determine the kind of media artifact that a project is going to become; pink Property cards, which describe ideas, places, props, or other elements that need to be included in the project; blue Special cards, which provide various kinds of power-ups, bonuses, and extra-difficult prompt elements; and orange People cards, each of which contains the name of one of the players in the game.

In general terms, we knew the most plentiful type of card needed to be the pink Property cards. Any given Deal can only have one Maker card, but can have anywhere from 1 to more than 30 property cards. Special cards were conceived as being just that -- special -- so they needed to be the rarest of all. And there needed to be enough orange cards printed in total such that each player could have their own (which would be given to another player at random, encouraging another vector of peer discovery).

Other cards would have to be plentiful enough to guarantee that players could conceivably start playing right away as soon as they found the secret Game Office and received their starter pack of 10 (semi-)randomly selected cards. Figuring out the exact ratios took a lot of number-crunching and pie charts.

How did you approach that process?

One factor in all this was that we wanted our players to all be able to start the game with fairly different cards, such that they would be able to discover, trade, and share new cards by talking to other players. If everyone had the same 10 cards in their starter pack, players wouldn't be curious about what other players had in their packs. So we looked at the approximate size of what we expected would be our start-up player base -- we designed for around 200 players -- and then did the math from there.

A second factor was the range of media artifacts that we wanted players to be able to create. Obviously, since this is a cinema school, we would need Maker cards for things like "5 minute short" and "Long Take" and "Suspense Sequence" and "Documentary Short" and so on. But this is a transmedia game, and today's SCA student does more than just think about and make movies. So we needed cards for games -- the Interactive Media Division is a hugely important part of the SCA -- like "Serious Game" and "Board Game" and "Live Action Video Game." We needed writing cards, like "Series Bible" and "Scene", and critical studies cards, like "Salon" and "Screen a Film," and animation cards, like "Flip Book" and "Animated Short", and on, and on, and on. We brainstormed an initial list of around 90 that our pie charts said we needed to cut down to 54. We feel like our final collection of Maker cards accurately reflects the spectrum of media making and theory that goes on in the undergraduate program at SCA.

In terms of the content of the Property cards, this was largely based on the connectivity mechanic. The more connections a given card has, the more powerful it is in the system. A card that can only link to one other card in a Deal constitutes a kind of "dead end", whereas a card with two or more connections enables the Deal to grow, increasing its point value and creative specificity. Since hyper-connected cards would be so powerful, we thought it made sense to make them the most conceptually-rich ideas -- big-picture stuff like "Memory" or "Obsession". Our general rule was that the fewer connections a card has, the more specific it should be: and so the cards with the least connectivity ended

up being very concrete things like "A horse" or "The beach" or "The Statue of Douglas Fairbanks."

Finally, we designed the backs of each card to contain a piece of media-making history or theory or technique. This was part of the tiered design approach to the game: even if you didn't engage in the actual card mechanic, you could still collect bits and pieces of media history. In this regard, each card was a part of a set such as "War Films" or "Game Consoles." Coming up with all this trivia was fun, but it took forever to make a list that covered all the different kinds of media making and analysis that goes on at SCA -- not to mention to gather all the images, write all the text, and lay everything out in InDesign for the full set of 300.

You mentioned not promoting the game at all and keeping it secretive, how did you get play testers to see what aspects of it worked?

As it happens we did very little play testing. The only thing we were really able to thoroughly test in advance was the card game mechanic. To conduct those tests, we got together a few members of PEG -- LA's pervasive gaming meet up group -- and gave them some prototypes of the cards. They grokked it immediately and we knew we had something that in its broad outline was going to work. But we really didn't have the time to test everything else. We were manufacturing the cards, making the website, and setting up the Game Office right up until the minute we launched. In the end, we told ourselves,

"this is the play test. The whole game is a test." And that turned out to be a pretty liberating attitude.

How did you get to know your target audience? Was there a process you used? When did you know you knew enough to begin making the game?

There's a temptation in designing games for institutional interventions that says you should make your game maximally scalable such that other institutions can easily port it into their programs. The general idea with that is that doing things that way is going to save you time and money, because scalable universal systems can be turned around and monetized more easily than bespoke systems. We felt like there was something really important missing in that argument. In my experience, designing for scale from the start depersonalizes and flattens games. Our mandate was to make something that would intrigue, galvanize, and mobilize our players, and we felt that the best way to do this was to create a genuinely tailor-made experience, something that couldn't happen anywhere else and that was precisely tuned to this particular player population. That was our priority. We left aside scale and designed everything around these students and this place. Ironically (and perhaps instructively for others looking into doing something like this), the outcome of that process was a number of things that turned out to be quite scalable and generalizable: the card mechanic and the way it links to a web-based collaborative production game, for example. But we got there by asking very specific questions about our players and their context.

Any examples of specific questions?

Here are just a few:

What are our players doing before they come here? What sorts of media are they interested in? How do they communicate with each other? What kinds of social behavior do the existing digital and physical infrastructures of the SCA promote? What gets hidden or suppressed? How do students traditionally get to know students outside their division or cohort? What has been tried to break down the silos between divisions, and why hasn't that worked?

In terms of process, there were basically three stages. In the first stage, we held several meetings where faculty from each division of the school shared their thoughts on the students. Since many of these faculty have been teaching here for a long time, this gave us a good sense of the bigger trends. We also set up a wiki and some discussion boards around this time, so that faculty and other collaborators could share ideas as they came up. Next, we did a whole thwack of historical research, digging into the archives and talking with alumni to get a sense of what students here were like in the past. This was basically a process of scoping out the USC image/zeitgeist, and since that's a big part of why students end up choosing to go here, we ended up using this material -- particularly the rebellious, wild stuff from the 1960s and 1970s, when the school was an unruly den

of creative energy -- extensively in developing the tone and design aesthetic of the game. Finally, we did some very direct observation of the students by creating sock puppet accounts and lurking/lightly participating on student- and school-run Facebook pages and discussion forums. This last piece confirmed the original instinct to make a collaborative production game, since we observed students both sharing creative works and informally issuing media-making challenges to one another -- exactly the behaviors that are at the center of our game design.

What other initial processes did you use to ensure its success? Were any of them particularly applicable for other educational ARG designers that you'd like to share?

I never thought of this as an educational game. I think that's the best advice I can give. If educators want to truly leverage the power of games, they need to make good games. If it's not a good game, students won't play unless you force them to -- and if you force them to play, it's not really a game anymore: it's just a simulacrum of a game, a "trojan horse for learning" that students will see right through. A lot of educators have trouble getting their heads around that. The fact is, much of the transformative power of games comes from the fact that players invite them into their lives. This motivation and agency ("I am curious; I want to mess around with this; I want to see how this works") makes play personal and meaningful. And once an activity becomes personal and meaningful, players will learn and discover and collaborate and problem-solve in all sorts of amazing

and self-directed ways. Put differently, ARGs are "pull" experiences. If you find yourself "pushing" at any point, you're doing it wrong.

Real play is a pull experience. It's about action, not consumption. If you have a serious aim in mind with your game, the optimal outcome is that you authenticate that aim through action, not exposition. Now, of course, I **am** being extreme in saying that you're "doing it wrong" any time you find yourself pushing in a game. But to me, that's the ideal to aim at. If you have a thesis to prove and you want to prove it with a game, *prove it with a game*. Don't set up a game that frames some moment where you prove the idea with prose.

Of course, I'm being intentionally provocative here. At the end of the day, it's always about what works. But here's an analogy that may or may not clear things up: Imagine you're making a movie about some serious subject. And you get to a point where you realize that through cinematic storytelling alone you haven't been able to prove your thesis. Do you include a five-minute stretch of text printed on the screen in order to clear things up? Probably not; instead, you go back to the drawing board and figure out a way to use the affordances of the cinema -- as opposed to the prose essay, say -- to get your idea across. Similarly, if you are making a game about some serious subject and you get to a point where you realize that the play of your game alone hasn't got the point across, don't just give up and send your players a link to some video they need to watch to really understand what you're saying. Or if you're doing it at a school, don't use your power as

an educator to force your players to do something that they wouldn't do if they were "really" playing a game. Solve the problem with good game design instead.

What's the process through which you now determine what components of the game are working best?

We've been doing a lot of on-the-fly assessment, and are also compiling statistics and interviews for review once the game is over. We know from raw numbers that the core parts of the game are working.

The website through which the game is played tracks a lot of stuff on the back end: who's collaborating with who, how much and in what way each player is engaging, the kinds of cards and Deals that players are creating, and so on. There's been a wide adoption of the game among students, and those who are involved generally participate a lot, both on the website (through comments, photoblog posts, and status updates) and in the creation of Deals. We've been seeing a lot of inter-divisional collaboration, and the effect on the general spirit of the students is something that faculty and students say is really positive.

In addition to the formal data tracking, we're also watching how players play the game and search for exploits. There have been a lot of interesting surprises. For example, players have tended to form into very large working groups so as to have as many cards as possible at their disposal for the creation of Deals. We didn't expect this -- we thought

teams would be very ad hoc and in the 3-6 player range. As it happens, team size has been closer to 15 or 20, and in many cases teams have stuck together since shortly after the game launched. Some groups even keep "card banks" which all their players can use as a kind of credit union for making Deals. This isn't technically an exploit, but it gives us ideas about what to expect next year. It's also been encouraging to see the whole thing move from a very dog-eat-dog capitalist arrangement at the beginning (in the early weeks, some teams even drew up "exclusivity contracts" to prevent their members from working with other players) to something a lot more collective-minded by the mid- and late-game.

One of the most exciting design aspects to me was that this ARG was easily replayable, not heavily narrative driven and the core mechanic met the exact needs of your target population, media creators. Can you tell me when you first realized this product/audience fit?

In a lot of ways, this project was a way for me to demonstrate some of the things I was thinking about when I wrote a paper called "ARG 2.0" in 2010. Many people who come to the world of ARGs come from a storytelling background (myself included), and as such they bring with them a lot of tendencies that maybe aren't so appropriate for the kinds of interactions and experiences that are possible in pervasive gaming in specific and transmedia in general. The mantra, "it's all about the story" is one example of this

mentality. I actually think this is a very counter-productive idea, even though there is now a super-cool conference that's dedicated to its propagation.

Here's my view on this in a nutshell: story-heavy ARGs are difficult for even the most well-financed operations to maintain (primarily because of the ballooning content requirements of nonlinear storytelling -- as anyone who has worked on a story-driven game of any sort or read a choose-your-own-adventure would surely understand), and even when they do pull it off, from a player perspective you run into a lot of problems with people losing the thread of the narrative, new players not being able to figure things out/catch up with the story, non-hardcore players not being admitted into the inner circles of players who are at the cutting edge of story material releases, declining engagement, the abandonment of player groups after the experience has concluded, and so on.

One solution is to design your ARG experiences so that they function procedurally -- that is, create an actual game that drives participation and play among your audience such that the play itself generates the experience. In our case, we had a lot of eager young media-makers to work with, and so we were able to leverage their creative and performative motivations in order to generate the overall experience. This strategy was a particularly good fit for SCA because we wanted to place the emphasis on the players' creativity, not ours. Our job was to frame their engagement with the right narrative/design cues in order to bring out the real story -- the unique story of our players themselves, told in their own images, words, and works.

*Will there be any attempts to monetize this game process and turn it into a product/
platform?*

We're looking into ways to do that. A lot of people who aren't students at USC are clamoring to play, so we feel like there's probably a market. But before we do anything in that regard, we want to iterate some more on the USC-only design, and experiment with some other elements we didn't have time to implement for this "season" of the game.

We'll be back next year, so stay tuned!

Appendix C: Interview with Henry Jenkins

The three of you have been co-conspirators in the development of an alternate reality game which has captured the passions and interests of the incoming students at the USC School of Cinematic Arts this fall. Can you give us some background on the project? What got it started?

Tracy Fullerton: The project actually came out of a committee established by the dean of the School of Cinematic Arts (SCA) in 2009 after a full faculty retreat. The charge for that committee was to envision the future of the SCA, and one of the key initiatives was to establish a "gateway experience" for incoming students that introduced them to the changing media landscape, the history and future of the school, the possibilities that can emerge from the SCA network of current and past students, and the importance of bridging the divisions of the school while they are here, both socially and academically.

The gateway course was envisioned as introducing a new kind of social networking for SCA students, both on and offline, that would become critical to their involvement in courses and with each other. As the class developed, it became clear that a game layer would be a perfect way to achieve all of the goals set out by the committee without falling victim to the general survey or lecture class tradition we wanted to move beyond. So, while the curriculum for the gateway class and the game aren't "officially" linked, they are intertwined in vision and purpose and serve to bring students from all divisions

together in multiple ways that will purposefully drive the social dynamics and the cross-media collaboration.

From its inception, the gateway class was envisioned as having a companion social network, which linked to a digital library of information about media history and theory and SCA's past and future. The design of the card game, with its "high touch" in-person mechanics, is just the beginning of implementing that vision. On each card, history and theory are linked to practice with a piece of knowledge on one side and a prompt to creative practice on the other. This bridge between theory and practice, like the ones we hope to forge between divisions here, is a critical statement at the heart of the game.

Jeff Watson: As an iMAP PhD student, finding ways to bring together theory and practice is central to my doctoral research. Over the past couple of years, I had been looking for a dissertation project that would enable me to put into practice my research into transmedia interaction design and alternate reality games. I wanted this project to be something that played out in the real world and had a tangible and measurable impact. I didn't want it to be a demo or a proof of concept. I wanted to play with real stakes, real players, and real outcomes. I wanted the project to be able to fail if it wasn't designed properly. So when Holly Willis, the chair of the Future Committee, came to me with the mandates that Tracy just outlined and asked if I would be able to come up with a pitch for an ARG that could be played by all the incoming students of the SCA, I jumped at the

chance. This was a real design challenge that touched on all the corners of my research, from participatory culture to social and mobile media to interventionist art practice.

What were the core learning goals for the design and deployment of this game?

Tracy Fullerton: The core learning goals for the game are all around fostering the kind of complex skills that are sometimes called 21st century skills. Of course, these skills, such as team-building, collaboration, creativity, critical thinking, problem solving and innovation, are not unique to the 21st century and they have been at the heart of the curriculum here at SCA for a very long time. The difference here is activating students right from the start of their SCA experience with the knowledge that these skills are critical building blocks to their success as media makers, and also that the development and improvement of these skills is something they need to take responsibility for themselves from day one.

The game wraps these learning goals into a kind of induction into the SCA culture of networking and support which is something students certainly leave USC with, but we wanted to use the game to start surfacing these ideas for them earlier in their development.

Jeff Watson: When we first met to brainstorm what we wanted students to be able to discover through this game, we filled up a 16 foot whiteboard and still felt like we hadn't

scratched the surface. On top of the kinds of building block skills Tracy just mentioned, faculty members from each division of the SCA had very granular lists of the kinds of things that they felt Cinematic Arts students should be aware of as they commence their tenure as undergraduates. Writing professors wanted the game to encourage the exploration of character and story; production faculty wanted to make sure all students acquired basic knowledge about cameras, editing, and safety; critical studies pushed for more opportunities for analysis, historical contextualization, and reflection; animation wanted to make sure their students would have more ways to connect with students from other divisions; and interactive media pushed for a deeper integration of notions of iterative design and systems thinking. At the end of the meeting, I took a picture of the whiteboard with my iPhone. It was a crazy tangled bird's nest of inspiration.

To make sense of it all, we took the mass of ideas generated during that whiteboard session and started looking for connective tissue. We noticed that all the learning goals we had brainstormed fell into one of three broad categories, which we ended up calling Literacy, Craft, and Social. Literacy goals were those that pertained to knowledge of all kinds: from highly local lore about the school and its resources, to basic understandings about the history and theory of media-making. Craft goals were those that had anything to do with the act of making -- from writing prose to shooting video to designing board games. Finally, Social goals were all those that related to the discovery of and connection with peers, alumni, faculty, and the broader community. Since the "content" of each of these categories of learning was agnostic with respect to the various divisions of the SCA, the first challenge of breaking down divisional/disciplinary boundaries had been

met. The question became how to make a game that would motivate players to traverse the networks of Literacy, Craft, and Social goals that we had identified for inclusion. This became the starting point for our prototyping.

Can you describe some of the basic mechanics of the game?

Simon Wiscombe: The game is, at its core, a project creation game. When players elect to join, they're given a pack of cards containing green "maker" cards (e.g. "30 second short," "Board Game," etc.), pink "property" cards (e.g. "About love", "In the SCA Courtyard", etc.), and one orange "people" card (which contains the name of one first year undergrad in the USC film school). These cards can be combined together or with other players' cards to make a "Deal," the simplest of which is composed of one maker card and one property card -- although an almost unlimited number of property cards can be attached so long as there are enough connectors. After laying out a Deal, players go out and actually create it (i.e. "A 30 second short about love in the SCA courtyard"). They then submit it to the site, and justify it in the game office -- at which point it's uploaded, they get points for the Deal, and everyone in the game can see it.

Jeff Watson: This whole process is outlined with pictures and video on the game website. Since it's such a highly visual interactive experience, readers who want to get a good sense of how it feels to play should head over there and check out the intro materials.

Simon Wiscombe: Yes, visit the website -- it explains everything and also showcases the amazing work the players have created so far.

What relationship does this game have with other alternate reality games which have been used for entertainment or training purposes in the past?

Jeff Watson: The "meat" of this game is structured creative improvisation. As Simon has described, the core interaction here involves players trading, sharing, and combining collectible playing cards in order to generate creative prompts known as "Deals".

Responding to these prompts by submitting completed artifacts results in advancement on the game's various leaderboards, unlocking special game content. This special content constitutes what might be called the "sauce" on the meat of the game.

This "sauce" is the closest we get to "traditional" alternate reality game content. For example, toward the end of the second week of gameplay, we sent clues to several players who were leading in key Deal-making categories. The clues provided the players with a time and a location and nothing else. Bravely enough, the students showed up. Once there, they were greeted by a formally-attired Oud player. Accompanied by the Oudist, the players were transported without explanation to the Museum of Jurassic Technology. Once in the museum, the players encountered two alums of the SCA, Jenova Chen and Kellee Santiago (designers of critically-acclaimed games such as Flow, Flower, and Journey), who were wandering around in the darkness wearing sequined masquerade

masks. Upon discovering them, the players were presented with a special game power which enabled them to score additional points on subsequent Deals, and were then treated to 90 minutes of informal discussion about game design, art, and media making.

In short, our approach uses a rule-based play system (the card game) to drive the bulk of the experience, and employs more traditional ARG techniques around the edges, as rewards and tonal elements. This approach is in many ways a practical implementation of the ideas and critiques I presented last year on your blog in my essay, "ARG 2.0". In most "traditional" ARGs, our "sauce" is the full meal. The player experience in such games unfolds around a kind of scavenger hunt activity wherein game runners moderate and manage player communities as they plow through a sequence of puzzles, curated action prompts, and side-quests.

While this logistically-complex structure is appropriate for certain team-building and talent sourcing applications, we wanted to make something that would have the capacity to perpetuate itself without relying on the constant generation of puzzle and narrative content by game runners. More importantly, we wanted our game to emphasize an active engagement with media-making: while scavenger hunts might help to build social bonds and search/analysis skills, we felt that they are inherently about solving puzzles or responding to prompts created by someone else -- and as such are a kind of consumption-oriented form of play. We wanted to make this game about the players' creativity, not ours.

A key concern of the Cinema School recently has been to encourage greater integration across the different tracks (production, screenwriting, animation, critical studies, interactive). How has this game helped to support this goal?

Tracy Fullerton: This was part of the mandate given to the committee that initiated the project. The school is making an integrated effort, of which this game is only one part, to bridge divisional barriers and encourage thinking, working and team-building across the school. One way the game does this is simply by eliminating divisional identifiers on the site. We give students an area to talk about their skills so they can find each other to work with, but we don't identify them as coming from any particular part of the school. Also, more directly, we have cards in the deck that reward them for working interdivisionally, and even across other universities.

In the first few weeks of play, we had a writing student who had never done any programming pick up GameMaker on the advice of other students, teach himself some simple coding, and make a simple video game. We have a group that has created a transmedia ARG, and interactive students who have tried their hand at creating an animation flip book. The game rewards groups equally for either trying something new or adding a person with know how to the team, so it is up to players how to approach and solve a problem.

One thing that stands out to me about this project is that it isn't mandatory. Students don't get graded on their work, and they don't have to participate if they don't want to. How has this worked in practice, and what was the thinking behind making engagement optional?

Tracy Fullerton: Yes, this is a voluntary experience. We were very clear about this from the outset of the design. In fact, when we first showed the game concept to some of the staff, the reaction was "great, we can use this to make students do things we want them to do, like fill out these forms or go to this office, etc." But we very nicely pushed back on those ideas because we wanted the game to have an energy that could only come out of students' passion for making media together. It was important that it not feel in any way like an assignment or an extension of the orientation process. We felt that the tone and the sensibility had to recognize personal expression as being intrinsically motivated. Incoming SCA students have already self-selected as creative individuals, so for that kind of student, the idea of taking away that intrinsic motivation could actually be potentially harmful to their development as creative professionals.

Jeff Watson: We actually went to some pretty extreme lengths to keep the game a secret around the time that we were launching it. This was a bit nerve-wracking at first, because only a handful of students even noticed that the game existed at all. But in the end, this strategy paid off. It made the game a "pull" experience, drawing students in of their own accord. Players gradually began to appear at the Game Office, and they did so because

they were curious and they wanted to be involved. As more and more students came in, the game acquired more and more evangelists, since each new player was personally invested. This approach is well-trod territory for marketers and ARG designers, but is something new in education, and we're excited to be breaking that ground.

How do you deal with students who aren't willing or able to get involved in creative production? Are there ways to engage that don't require large investments of time or social capital?

Simon Wiscombe: We figured that the level of engagement would vary from person to person, so this came up during our design sessions constantly, and we created four tiers of engagement. The top tier is for those who engage in all the ARG elements along with making creative projects--these are our "hardcore" players who seem to be able to solve all of our puzzles in a fifth the time we estimated they would. The second tier is for those who engage in the projects and enjoy creating, but aren't necessarily interested in scouring SCA or the website for the hidden ARG clues. To tackle the last two tiers, i.e. those who wouldn't engage as much as the others but still wanted to feel a part of the community, we drew from some inspiration we took from old photographs of the SCA in the 1960s and 70s. Jeff was particularly interested in one photograph of a space known as "the Bullpen."

Jeff Watson: The Bullpen was the central workspace of the Stables, the building which used to house the cinema school back in the day. It was a wild, unruly place, covered in graffiti, littered with junk, and full of creative energy. We felt like that kind of space was missing from the SCA of today, and so we decided to re-create it -- virtually, as a kind of social networking system on the game's website.

Simon Wiscombe: In the Bullpen, players can comment on both deals and cards, participate in impromptu discussions, and upload pictures. Some of this is publicly visible through the site's "Photoblog" feature, but much of this discussion is kept in a walled garden, both to create a safe space for venting, and to extend the "exclusive" and "mysterious" narrative that envelops the game. Finally, there's a whole slew of other forms of engagement, much of which we can't track (but we know is going on), such as collecting sets of cards, lurking on the website, participating in deals without registering for the game, and so on.

Essentially we wanted to foster an awesome interconnected community of already amazingly talented people, and it seems to be working for players at a variety of engagement levels.

What roles do faculty and staff play in this process? How might the kinds of playful interaction the game is encouraging shift the relations between students and faculty? How have faculty integrated aspects of the game into their own curriculum?

Tracy Fullerton: When we designed the cards for the game, we purposefully included some prominent faculty, past and present, in the deck -- as you know, since you've given your own card out to students as part of our "Hey, Henry convergence" meet-up. It's a nice opportunity for us to involve faculty from all over the school in the game. We've found that the faculty have a tremendous curiosity and interest in what's going on in the game. Some are participating on the site, commenting on deals or cards, joining in the general discussion. Some are coming to the class to hear speakers, and some have helped with deals. It's an interesting opportunity because in this situation there are no predefined power structures. The game is presented by the mysterious "Reality Committee" which may or may not be comprised of faculty, it is very unclear. So the faculty are free to participate at any level they feel comfortable.

What aspects of this game could be ported to other educational contexts, and how does a game like this scale?

Simon Wiscombe: This type of game can be modified, with very simple tweaks, for any creative endeavor. We've had discussions about how we could specify it to any of the film school's departments (interactive media, film, animation), or how we could port it to art, music, dance, or theater schools. At its core, it's a game that relies on fostering and promoting the creativity of its participants through prompts that eventually lead to projects. What form those projects take could be anything. And in regards to scale, while

this game was designed specifically with 130 or so players in mind, it could easily be for smaller or larger groups, although one would likely have to rethink its purpose. For smaller groups, I've found it's great as a brainstorming or creative sprint tool, and larger groups might embrace the idea of maximizing collaborators. This game is fairly simple in its construct, so I'm sure there are methods of applicability we haven't even dreamed of yet.

I have to ask: Early on in the game, you asked me to meet some students at a "secret location" on campus and give them some "Shared Universe" game cards -- which also happened to have my picture on one side. What did they end up using those cards for?

Jeff Watson: Well, so far, your card has been used in 5 different Deals. Each of these Deals spins the notion of "Shared Universe" in a different way. For example, in the justification for the stunningly-photographed music video, "Space Bound," the players explain that the characters and story elements in their music video cross over with characters and story elements from a "Character Artifacts" project they previously created in the game. Other projects, such as the 10-part transmedia extravaganza, "Chronoteck", use the "Shared Universe" card to link together multiple projects across many platforms, connecting artifacts such as the fake Facebook group, "Stop Chronoteck!" to other story-rich artifacts such as the fake promotional video for the "Chronoteck Tach C," a new brand of cell phone that "receives messages from the future." It's a daily thrill for us to see amazing transmedia projects like these emerge out of our game.