Gaming the Humanities

Digital Humanities, New Media, and Practice-Based Research

What does it mean to include new media—let alone digital games—in a discussion about the digital humanities? Alan Liu has observed that, at least in its present form, the area of the digital humanities remains distinct from new media studies. Within the category of the digital humanities, Liu includes activities such as “digitizing, text encoding, publishing, or archiving” and “processing and analyzing already built digital repositories” (411). The heading of new media studies, on the other hand, turns to such areas as “design, visual, and media arts; Continental theory; cultural criticism; and the avant-garde new” (409). Combining these areas, Liu observes, might make the emerging digital humanities, especially in this developing moment, seem too “formless or aspirational” (420). There are already subfields in which these areas overlap generatively, including history of the book and science and technology studies. It is true, however, that despite an overlapping interest in digital technologies and media, scholars in these separate fields do not regularly share research methods, questions, or objects of study.
Even if the provisional connections, between new media and the digital humanities never take a programmatic form, it is worth exploring how such intersections manifest in specific projects and how they might influence the changing humanities. There are advantages, for the humanities, to approaching digital matters in a transdisciplinary fashion that negotiates among a broad range of approaches—a goal that may perhaps continue to be “aspirational” for some time without necessarily being “formless.” We see this possibility in what scholars such as N. Katherine Hayles and Jessica Pressman have called the broad rubric of comparative media studies. Such a wide-ranging category has already encouraged conversations among scholars working in areas that include the materiality of print and digital productions (John Cayley, Matthew Kirschenbaum, and Jerome McGann); topic modeling and text mining (Franco Moretti, Andrew Piper, and Ted Underwood); critical code studies (Wendy Chun, Matthew Fuller, and Lev Manovich); platform studies (Ian Bogost and Nick Montfort); social technologies (Jodi Dean and Geert Lovink); information networks (Tiziana Terranova and Eugene Thacker); electronic literature and digital art forms (Katherine Hayles, Henry Jenkins, Mark Marino, and Stephanie Strickland); philosophies of media (Alexander Galloway, Richard Grusin, Mark Hansen, Friedrich Kittler, and McKenzie Wark); cultural dimensions of new technologies (Tara McPherson, Lisa Nakamura, and Rita Raley); and digital media and learning (Cathy Davidson, Nichole Pinkard, and Katie Salen).

One imperative shared by many of the subfields and scholars on this partial list is an investment in practice-based research. Stephen Ramsay, for example, has described the key intervention of the digital humanities as “moving from reading and critiquing to building and making.” As the writers of the collaboratively composed Digital_Humanities volume have noted, “[S]tudents and faculty alike are making things as they study and perform research, generating not just texts (in the form of analysis, commentary, narration, critique) but also images, interactions, cross-media corpora, software, and platforms” (Burdick, Drucker, Lunenfeld, Presner, and Schnapp 10). Building, for these scholars, is not an alternative to critique or an activity that is either distinct from or subordinate to thinking. Making is instead a hermeneutic that enables processes and a mode of world-making that makes possible the process of developing, testing, and transforming concepts. As Hayles observes, drawing from the example of the sciences, which have long embraced practice-based research, “The work of making—producing something that requires long hours, intense thought, and considerable technical skill—has significant implications that go beyond the crafting
of words. Involved are embodied interactions with digital technologies, frequent testing of code and other functionalities that results in reworking and correcting, and dynamic, ongoing discussions with collaborators to get it right” (19). The “crafting of words” can, of course, play an essential role in understanding a piece of software, for instance, but analysis involves a different material experience than iterative design that unfolds through an involved collaboration.

Practice-based research as it becomes available through digital game design is, for me, a critical part of a capiously understood digital humanities and comparative media studies. Rather than just one example, digital games serve as a critical test case that might help us think through the challenges and possibilities of the digital for research, scholarship, and learning. Before turning to the importance of games in our historical moment, it is first worth asking: what does it mean to discuss digital games in a contribution to a special issue about “the shadows of the digital humanities”? My interpretation of this generative prompt—as well as Richard Grusin’s formulation of the “dark side of the digital humanities”—does not take it to refer only to the negative or dystopian dimensions of the humanities in a digital moment but also to their hidden aspects—those qualities that remain messy, murky, or uncertain. Digital technologies, in both their narrow academic and broad cultural impacts, are a key part of the historical present. As Lauren Berlant has described it, the historical present involves a sense of an ongoing now or an emerging situation that is “a state of things in which something that will perhaps matter is unfolding amidst the usual activity of life” (“Thinking” 5). In an encounter with digital games, we enter precisely a situation, one that serves as an instructive microcosm, if not quite the paradigmatic case, for the larger digital media situation. Especially in the developed world, digital games resist critical distance and complex understanding through both their historical embeddedness in the present and their growing worldwide availability. As discussions about videogame violence, addiction, and escapism suggest, the form introduces various anxieties and unknowns. Through their mechanics, procedural capacities, navigable worlds, and multimedia interactions, games call for new literacies that are distinct from traditional reading and writing skills. Digital games, as I will argue, demand new ways of perceiving and working. They seem to matter to the unfolding of the twenty-first-century everyday, even if we don’t yet always recognize precisely how they matter.

As a reflection on the “shadowy” or “dark” side that is the historical present, this essay approaches games and gamification not primarily as a
problem for but as a major problematic of the still emerging digital humanities. Following an introduction to the cultural significance of digital games in the early twenty-first century, I turn to one of my major digital projects, the Game Changer Chicago Design Lab that I cofounded with University of Chicago doctor and health researcher Melissa Gilliam. In our Lab, I have been experimenting with forms that the overlap between the digital humanities and new media studies might take, even if those forms are admittedly emergent and aspirational. The aspects of the Lab’s work that I foreground relate to questions likely to be important to the humanities in regard to the role of social justice in digitally oriented research, the value of design as a research method, the benefits of large team collaborations, and the possibility of generative intersections between the humanities and the sciences. Rather than working toward another definition of the digital humanities that seeks to contain a complex conversation, this essay operates more like the opening screen of a videogame that offers an invitation to play and, if engaged, opens up into an interactive world.

**Games and Gamification**

The cultural proliferation of games in recent years is especially visible in the growth of video, computer, and mobile games. Games have experienced an accelerated transformation from a minority hacking practice of university labs in the 1960s and the arcades of the 1970s to a global multi-billion dollar industry with the successes of home consoles and computer games since the 1980s. Some estimates suggest that the videogame industry, in 2013, was worth $70.4 billion, with more than 1.2 billion players worldwide (“Newzoo”). Rockstar Games’s *Grand Theft Auto V*, released in September 2013, grossed $1 billion in three days, making it the fastest selling work of entertainment in history (Forbes). Revenues for mobile gaming, a more recent category than console or computer games, rose from $462 million in 2007 to $1.2 billion in 2012 (Ankeny). Even with some stagnation in the United States in 2012, U.S. sales increased in 2013 with the planned release of two next-generation consoles: PlayStation 4 and Xbox One. While Asia, North America, and Europe remain the largest markets, other markets in places such as Latin America and Russia are expanding. Players spend considerable money but also substantial time with contemporary games. In early January 2011, for instance, Activision announced that players of its hit game *Call of Duty: Black Ops* logged 600 million hours of gameplay collectively (the equivalent to 68,000 years) in the first 45 days after release (Orland). While
some games may lead to bursts of activity after much-anticipated releases, other games attract millions of monthly subscribers who inhabit a world over months or even years. For example, the massively multiplayer online roleplaying game *World of Warcraft* has existed since 2004 and still attracts players who inhabit its space for an average of twenty to thirty hours a week.²

In recent years, games have touched practically every aspect of contemporary life. Though the figures I cite are suggestive of the cultural impact of digital games as entertainment media, it is important to stress that the centrality of this form has also exceeded the realm of “gamers” through a phenomenon called *gamification*. *Gamification*, a term that derives from behavioral economics, refers to the use of game mechanics in traditionally nongame activities. This buzzword emerged only in the twenty-first century but has already found its way into writing on business, marketing, psychology, and design. We have seen the structure and logic of games creep into social media applications, consumerism, crowdsourcing, and social media applications. For example, the *Chore Wars* website, whose celebratory tagline claims that “finally, you can claim experience points for housework,” converts undesirable chores into a game complete with attractive avatars, superheroic roleplaying, and points that spur competition among housemates. In 2012, the Spanish bank **BBVA** released the **BBVA Game** that allows users to earn loyalty points for watching videos about finance and to acquire badges for referrals of new customers that can be shared on Facebook. In a similar fashion, the smart phone app **Fleetly** transforms tedious workouts into daily contests that are augmented by activity charts, statistics trackers, and competitive leaderboards. All of these sites and apps (of which there are many others) suggest that life in our historical moment is becoming permeated by games. Especially throughout the developed world in which digital media, smart phones, and high-speed Internet access have achieved a ubiquitous status for many people, games of competition and chance have become an exemplary cultural form that serves as a prominent metaphor of success (see Jagoda).

Adopters of gamification across fields have proclaimed it to be an innovative technique. One leading proponent, Jane McGonigal, suggests that with all of the environmental, social, and political problems facing the world in the twenty-first century, “reality is broken” and can only be saved through games that turn “a real problem into a voluntary obstacle” and activate “genuine interest, curiosity, motivation, effort, and optimism” for resolving these challenges (311). Alongside beaming support for gamification as a cutting-edge panacea, however, there has been some resistance to this
concept and its widespread application. Gamification has been condemned, for instance by some game designers, for adopting only the least artistic aspects of contemporary digital games—namely, their repetitive grinding and achievement-oriented operant conditioning. In a brief, polemical position paper published in *The Atlantic*, Ian Bogost contends that, above all, gamification is, in a philosophical sense, “bullshit” that is meant to coerce. Gamification, for Bogost, engages in obfuscation insofar as it “takes games—a mysterious, magical, powerful medium that has captured the attention of millions of people—and makes them accessible in the context of contemporary business.” Condemning the rhetorical deceptiveness of the term, Bogost suggests the alternative term “exploitationware,” which decouples “gamification” from “games” (“Gamification”).

Gamification is increasingly becoming a key problematic of—that is, in different ways, a problem and possibility for—the digital humanities. This development is especially noticeable in the realm of education. Over the last two years, there have been numerous instances of game-based learning, including how-to guides (*Education Gamification Survival Kit*) and charter schools with gameplay curricula (Katie Salen’s Quest to Learn and ChicagoQuest schools). Another ongoing initiative that has received a great deal of attention is the John D. and Catherine T. MacArthur Foundation’s Badges for Lifelong Learning that began as the Digital Media and Learning competition. As an extension of this program in 2013, over 100 Chicago organizations participated in the Chicago Summer of Learning (csol) and awarded badges to youth who developed technology skills, completed new media projects, or took part in educational citywide programs. Badges have already come to take different forms, including a gamified version in which they serve as motivation for continued learning and a certification version in which they serve as visual portfolios or competency documentation for participating youth.

Researchers, teachers, and university administrators are bound to see many more instances of gamification, as well as myriad learning experiments with games, in the coming years. Additionally, digital games are likely to develop into and remain a major topic for the digital humanities, affecting existing research trajectories in art history, literature, visual and media studies, philosophy, and education, as well as producing new types of research through transdisciplinary fields such as game studies. In recent years, digital games have been building cultural legitimacy, especially through the growth of “indie” and “art” games, the proliferation of game-oriented art exhibits (e.g., the Smithsonian’s *Art of Video Games* exhibit
and moma’s Video Games Collection exhibits, both in 2012), and the rise of a “serious games” movement dedicated to socially transformative games (e.g., the Games for Change organization) (Parker; Westecott). New grants have also made game design and research more academically viable, with directed support being offered in the United States through organizations including the National Endowment for the Arts, the MacArthur Foundation, and the Entertainment Software Association Foundation.

As this brief overview suggests, in their cultural, social, and institutional impacts, digital games represent, in Berlant’s sense, a situation. The recent spread of games, in part through mobile and social media, to areas beyond entertainment such as marketing and education shows them to be a key form within the economic and social realities of the historical present. It is in this sense that digital games might be said to take on a “shadowy” dimension in the digital humanities. In an academic context, games raise fraught questions about the fundamental nature of the humanities. When facing the present of digital games, many scholars find themselves in an uncertain space between the critical and cultural theory of the preceding period and the digital imperatives of the present. As Hayles observes, commenting more broadly on contemporary shifts in the humanities, “In post-structuralist critique, a hermeneutic of suspicion reigns toward capitalism and corporations, while in the Digital Humanities, a willingness prevails to reach out to funders (sometimes including commercial interests)” (41). Liu makes a similar point when he notes, “In both their promise and their threat, the digital humanities serve as a shadow play for a future form of the humanities that wishes to include what contemporary society values about the digital without losing its soul to other domains of knowledge work that have gone digital to stake their claim to that society” (410). In the specific case of digital games, we might ask, does an engagement with these ludic forms by the humanities compromise this disciplinary configuration’s fundamental exploration of meaning making, aesthetic value, and historical knowledge through increased complicity with the dominant forms of the digital economy, corporate values, and presentism? Moreover, does it make sense to use games to transform structures, such as a struggling educational system, that are founded on inequalities and already use games of competition and chance as dominant metaphors? To put these points more succinctly, is it possible to “game” systems that are already steeped in games?

As a scholar trained in critical theory and literary criticism who now writes about new media and designs games, I find myself within this emerging present and affected intensely by its tensions. On a regular basis, I
oscillate between a hermeneutic of skepticism and a strong conviction in the promise of practice-based research. It is true that many forms of gamification motivate users exclusively through extrinsic goals and virtual prizes. One well-known smart phone app, Foursquare, for example, essentially uses surface-level components of games—scoring, badges, and leveling up—to condition and encourage consumer behavior. The app allows users to “check in” at various retail venues that enable progress toward the status of “mayor,” a designation that earns its bearer various discounts. Other games use a “serious” or educational veneer to serve advertising and business interests. For example, in IBM’s CityOne (2010), the player works through various crisis scenarios in a simulated city by turning to smart technologies, including cloud computing and supply-chain-management software. Unsurprisingly, these technologies are also the very products and services being sold by IBM. In a number of ways, such games promote technologies, methods, and assumptions valued by major corporations. Despite the many benefits of games, certain forms of gamification show how foolish it would be to forget the frequently hard-won lessons of twentieth-century critical theory and cultural studies and to give ourselves over fully to the early twenty-first-century techno-utopianism that often accompanies digital game cultures. It is important, then, for the humanities to think critically about a game-oriented landscape that stretches, especially in the United States, from Cold War “victory culture” to contemporary gamification (Engelhardt).

At the same time, my research, design, and educational work lead me to seek more constructive, though no less conceptually rich, engagements with games. Here, the importance of Bogost’s distinction between gamification and games becomes especially important. Games are not simply ideological or capitalist tools. They have been shown, in a number of contexts, to activate a wide range of thought styles, promote prosocial behavior, foster both cognitive and emotional empathy, model alternative modes of action, and enable players to frame problems differently through procedural interaction. For these reasons, Eric Zimmerman has proposed the concept of gaming literacy to describe a critical body of knowledge that departs from both traditional literacy (the ability to read and write) and media literacy (the ability to analyze and create images, music, film, television, advertising, and other media). Zimmerman contends that gaming literacy is especially important in a world that values games and relies heavily on computers and communication networks. Learning to play, analyze, and design games helps people make sense of processes that constitute complex systems, emergent forms of play that both recognize and transcend rules,
and play processes that create dynamic social contexts from which group play can emerge (23–28). As a result, a wide variety of games—competitive, cooperative, simulative, and roleplaying—have found their way into digital humanities work in recent years.4

Digital games represent a unique form around which to organize transdisciplinary thought, with its host of pitfalls, challenges, and possibilities. The promise of this form is especially, though not exclusively, evident in critical, learning-oriented, and art games. The process of designing, playing, analyzing, and evaluating games requires modes of intellectual flexibility that have been a foundational feature of the humanities and its broad range of disciplines, but also large-scale collaborations that, historically, have been more common in the sciences. At the development end, games often require teams of people who write, design, program, test, disseminate, and evaluate them. At the level of play, games—including many games created primarily for entertainment purposes—offer interactive contexts for thinking through and experimenting with complex problems in a hands-on fashion. Digital games in particular enable multiple learning styles and engage players at several levels simultaneously, through not only linear text but also graphics, animation, audio, algorithms, and haptic feedback. They often rely on mixed media and multiple platforms. They spur decision-making, enable roleplaying, teach procedural knowledge, and enable users to inhabit complex systems. Game design teams can rarely restrict themselves to a single discipline and draw on skills that have been traditionally aligned with the humanities, the arts, the sciences, and engineering. In creating games, they must draw from myriad forms, such as visual artworks, theatrical performances, and literary texts.

This assessment of the positive possibilities of game design and play does not imply that game-based education or research will resolve a learning crisis that is palpable at practically every level of the U.S. educational system. We must be wary, as Wendy Chun has suggested, of “the larger project of rewriting political and pedagogical problems into technological ones, into problems that technology can fix.” She adds, “This rewriting ranges from the idea that MOOCs [Massive Open Online Courses], rather than a serious public commitment to education, can solve the problem of the spiraling cost of education [. . .] to the blind embrace of technical skills.” The introduction of new technologies or skills is not sufficient to transform learning and teach new literacies in a deep and balanced fashion. I take seriously Caroline Pelletier’s suggestion that digital games, in educational contexts, might best be considered not as a “substance” or technology that
can be “imported into a domain of activity” but instead as a “relation” among people, institutions, and ways of thinking (85). In the digital humanities, games help us reflect about the relations between a number of terms: the digital and the humanities, theory and practice, the humanities and the sciences, and individual and collaborative work.

To explore these relations, I now turn to a concrete case study from my own collaborative work: the Game Changer Chicago Design Lab and one of our alternate reality games called *The Source*. By focusing on one of my own projects, I do not mean to imply that it is a prime example of resolving the tensions and complications suggested by digital games. It is simply an endeavor with which I am intimately acquainted and one that might suggest some ways of inhabiting and working through the dark side of the digital humanities—a darkness that can be, at different moments, both terrifying and thrilling.

**The Game Changer Chicago Design Lab and The Source**

In 2011, I began work on a series of digital media projects and an organization that would become the Game Changer Chicago (gcc) Design Lab. I cofounded this organization not with another scholar in English or even in the wider humanities, but with Melissa Gilliam, a Professor of Obstetrics, Gynecology, and Pediatrics and Chief of Family Planning at the University of Chicago Medical School. The gcc Design Lab uses digital storytelling, games, and emerging new media forms to explore social and emotional health issues, social justice, and civic responsibility with youth on the South Side of Chicago. Our projects are all collaborative. They bring together university faculty and game designers hired to work in the Lab, as well as graduate and undergraduate students, local high-school youth, visiting artists and designers, and community organizations. Scholars from the sciences, social sciences, humanities, and the arts regularly join our work. Participants at many educational levels, and with different disciplinary training, take part in the group’s digital media design, development, play testing, dissemination, research studies, evaluation, and grant writing. Through the Lab’s demographic diversity, we seek to put pressure on the white, male monoculture that has historically characterized both digital game design and play. The Lab’s projects, all created in collaboration with youth, have included a hypertext fiction about teen pregnancy (*Cache*), a transmedia game about economic disparities and inequitable access to medical services (*Stork*), a Web-based interactive narrative about teen
In the summer of 2013, the gcc Design Lab undertook its most ambitious project to date when Gilliam and I directed a narrative-driven alternate reality game called *The Source*, which was played by approximately 140 Chicago-area high-school youth for five weeks in summer 2013.

Credit: Game Changer Chicago, Anthony Sixto, 2015 (http://gamechanger.uchicago.edu).

relationships and sexual violence (*Lucidity*), and a multiplayer roleplaying card game about sexually transmitted infections (*inFection Four*).
Chicago-area high-school youth for five weeks in both online and offline spaces (see fig. 1). The story, which followed a seventeen-year-old protagonist named Adia, was conveyed through transmedia means, including webisodes, tweets, Facebook posts, text messages, and voicemails coming from the protagonist and other characters. The narrative led players to a series of board games, cryptographic puzzles, scavenger hunts, and creative digital media tasks. The game was played in teams of ten players that were overseen by undergraduate and graduate student mentors. While players completed some challenges alone, the majority of the tasks required cooperation among players on each team. The game explored issues such as sustainability, health policy, bullying, immigration, and homophobia while helping youth develop skills in science, technology, engineering, art, and math (STEAM). *The Source* included, for example, a competitive game we called “Power Play” that was played on what we called the “Hexacago” board, which represented a fictional version of Chicago. With each move in this game, players had to make decisions about building coal, gas, nuclear, solar, wind, or hydroelectric plants as they balanced between pollution and profits (see fig. 2). In a different game, “Caduceus Quest,” players had to work cooperatively across teams as they took on the roles of health care professionals (sexual rights activists, community epidemiologists, doctors, politicians, and public health advocates) and pitched proposals in order to
earn grants from a panel of judges. In yet another challenge, which took place online, players had to solve a series of linguistic codes (e.g., acrostics and anagrams) and mathematical ciphers (e.g., Caesar shifts and Vigenère ciphers) in order to earn points for their respective teams and to discover passwords necessary to progress to the next stage of the game (fig. 3).

Both the gcc Design Lab and *The Source* engage the digital humanities by exploring new artistic forms, experimenting with transmedia narrative, using collaborative design to work through social problems, and incorporating quantitative methods in evaluating a form of participatory storytelling. This work does not contribute directly to what Hayles calls an “assimilation” strategy of digital humanities that extends “existing scholarship into the digital realm,” but turns instead to a “distinction” approach that highlights “new methodologies, new kinds of research questions, and the emergence of entirely new fields” such as game studies (46). From the start, the gcc Design Lab has used combinatory approaches such as *multi disciplinarity* (which juxtaposes discipline-specific methods, assumptions, and theories to work through a shared problem) and *interdisciplinarity* (which integrates frameworks from multiple disciplines). For instance, in order to foster intersections among different disciplines as they currently exist, the Lab includes faculty, staff, and student fellows working in English, medicine, public health, theater and performance studies, creative writing, comparative literature, media studies, game design, business, education, and public policy.

Moving beyond these approaches, however, the Lab has addressed complex social issues that call for a *transdisciplinarity* that is not of and, by necessity, exceeds existing disciplines and divisions of knowledge (Meeth).
The fascinating, though often difficult, transdisciplinary moments that we encounter might also be described, along with W. J. T. Mitchell, as moments of “indiscipline” in which we encounter the “turbulence or incoherence at the inner and outer boundaries of disciplines.” For example, in working on the *inFection Four* card game, we experienced breakdowns of narrative theory and health education conventions when attempting to create a game that might teach youth about sexually transmitted infections while exceeding the quiz-like and information-oriented structure of “educational games.” This process has involved careful balancing between narrative and nonnarrative mechanics; between ludic possibilities and medical facts; and between the emerging procedural rhetoric of game processes and core educational literacies. We also encountered the incoherence of certain disciplinary protocols when proposing, to the Institutional Review Board (IRB), a study of the multiplayer, transmedia game *Stork*. This game blurred distinctions between designers and players who engaged in an improvisational interplay that was facilitated by social media and that, once initiated, could not always be controlled by the designers. Moreover, this game’s opening “rabbit holes,” which invited players into the game without announcing it explicitly as a game, complicated a controlled research space and conventional practices for acquiring “informed consent.” Recently, we experienced, in Mitchell’s terms, the indisciplinary “chaos or wonder” of the citywide game, *The Source* (541). This game complicated many assumptions of our core research team of faculty in public policy, economics, medicine, and English, and of our advisory board members working in science education evaluation, social service administration, and computing. Instead of a one-dimensional evaluation of STEM skills or content-specific knowledge gains, we eventually decided on a series of qualitative and quantitative methods for studying the intrapersonal (e.g., intellectual openness) and interpersonal (e.g., communication and collaboration) competencies that our games promoted and for assessing how these influenced a commitment to learning.

For the remainder of this essay, I consider some of the ways that the gcc Design Lab’s transdisciplinary game project *The Source* relates to and intervenes in the contemporary situation of the digital humanities. In particular, I focus on the ways that the design, execution, and ongoing evaluation of *The Source* offer insight into four areas: 1) the relationship between the digital humanities and social justice; 2) the affordances of transmedia design as a research method in the humanities; 3) the importance of collaboration as a key organizational technique for the humanities; and 4) the relationship between the humanities and sciences in a digital moment.
Rather than offering a close reading of *The Source* game itself, I offer a sketch of the ways that game design, play, and research offer a platform for doing transdisciplinary work within the digital humanities. Though my engagement in the project has been strongly informed by humanities-oriented interests in areas such as narrative form, transmedia aesthetics, material design, and relationships between culture and technology, the project has also allowed me to ask questions and develop methods that exceed the traditional parameters of humanities knowledge.

1. Digital Humanities and Social Justice

One major impetus for *The Source* had to do with creating a digital media intervention to address educational and health disparities in the city of Chicago and suggest alternative learning models that might carry beyond that city. Among the many critiques of early digital humanities practice that we take seriously is what Liu calls its “differentiating trait” of “limited engagement with identity and social-justice issues” (410). In many cases, digital humanities practitioners have bracketed or ignored issues related to race, class, gender, and sexuality in favor of working through computational methods or programmatic frameworks (Gold xii). This cordoning off or containment of social justice has not been an incidental operation of the fledgling field. As Tara McPherson has convincingly argued, “[T]he difficulties we encounter in knitting together our discussions of race (or other modes of difference) with our technological productions within the digital humanities (or in our studies of code) are actually an effect of the very designs of our technological systems, designs that emerged in post–World War II computational culture” (140). In both the computational structures and racial ideologies of the 1960s, McPherson reads strategies of separation and containment. Modularity becomes a logic for both organizing data and perpetuating urban segregation. Moreover, McPherson marks the logic of modularity in yet another context: the traditional disciplinary organization of American higher education. “Thus we see modularity take hold not only in computation but also in the increasingly niched and regimented production of knowledge in the university after World War II” (149). Despite the ubiquity for several decades of *interdisciplinarity* as a buzzword, there continues to be a divide between, for instance, technologists and race theorists.

We designed *The Source* to engage a diverse range of youth in media literacy and STEAM learning by tapping into interests in digital media, games, and the connective capacities of social networking. Specifically, we
allocated most of our recruitment resources to players attending Chicago public schools, in which approximately 87 percent come from low-income families (Chicago Public Schools). We also focused on schools on the South Side of Chicago—home to many of the poorest communities in the city and high numbers of African American and Latino youth. Ethnic, racial, and socioeconomic factors have long been correlated with disparities in education and health outcomes (American Psychological Association and Gilliam, Neustadt, and Gordon). *The Source* sought to leverage interest in digital media and games to promote out-of-school learning among youth who are being consistently underserved by formal learning environments. Building on this interest, *The Source* provided youth with online tutorials and face-to-face drop-in sessions through which they could learn blogging, podcasting, social networking, video production, and Web design skills that helped them succeed in the game.

Digital games, as I argued earlier, provide young people with twenty-first-century literacies and hands-on opportunities. We privileged these skills in *The Source* through board games about the spread of diseases, online puzzles that taught hacking skills, and social media challenges that explored the challenges of immigration. As we observed in creating the game, a critical feature that makes games particularly suited for learning is their formally social and interpersonal character. At both the design and play phase of the game, we brought a diverse group of youth together with faculty, mentors, and professionals in a number of collaborative situations. At the level of practice, we approached the digital humanities, as Matthew Kirschenbaum has described it, as “a social undertaking,” and one that does not need to be limited to any particular group of practitioners (5).

For all of their potential benefits, digital games are no panacea for resolving educational disparities in the United States or addressing the exclusion of social justice issues from the broader digital humanities. Though digital game audiences have grown more diverse in recent years, the production of this cultural form has, since the early 1960s, been dominated by a monoculture of white, male designers, programmers, and engineers. More recently, the sexist slurs and misogynistic assumptions that are far too common in gamer culture have led transgender DIY (do-it-yourself) game designer Anna Anthropy to ask, “How is a woman, a trans person, or any rational individual expected to feel safe enough to participate in such a community?” (16). The lack of difference in the game industry and mainstream representational practices in videogames, which include a great deal of racism and sexism, were a concern for the GCC Design Lab when designing *The Source*. 
Through our recruitment practices, we tried to address these problems. We also did so at the level of narrative and characters through a story focused on Adia, a seventeen-year-old African American girl living on the South Side of Chicago, who crowdsources a game that her absent father created for her. In the end, for all of the shortcomings of digital games in contemporary American culture, we found the form to be a unique attractor of diverse individuals and groups. Nevertheless, we remained critical and avoided treating digital games as cure-alls. As Chun has observed, “the vapid embrace of the digital,” including digital games, represents a form of what Berlant calls “cruel optimism.” Chun further contends that an uncritical attitude toward the digital produces a false belief that “a lack of technical savvy” is to blame for social ills rather than “an economic system that undermines the future of our students.” It is that broader system on which we focused in the narrative, gameplay, and specific learning interventions.

2. Design as Research

A second way that The Source sought to make an intervention into the digital humanities was by exploring design as a viable research method. The authors of the collaboratively written volume Digital_Humanities have advocated that digital humanists move “design—information design, graphics, typography, formal and rhetorical patterning—to the center of the research questions” (Burdick, Drucker, Lunenfeld, Presner, and Schnapp vii). They treat design not as mere decoration or craft technique, but as an intellectual “method of thinking-through-practice” (13). Design is one key way the digital humanities draw from both the formalism of literary and cultural studies and an experimental mode more historically common in the sciences. With game design, in particular, processes of play testing and iterating become critical to seeing how a game works in practice, through rule execution and social interaction. Games deploy what Bogost calls “procedural rhetoric” through their mechanics, play processes, and navigable systems. Rather than simply communicating concepts at a linguistic level, they simulate them in the form of interactive worlds with particular rules and parameters. Games often allow players to test ideas or alter models through active engagement (Persuasive 2–3). In game design, the relationship between parts (a mechanic, a particular rule, or a specific challenge) and the whole (the entire game system) is rarely made sensible until it plays out, numerous times, in different contexts. Creating an alternate reality game such as The Source, in particular, made the designers conscious of
the individual forms (e.g., websites, social media networks, videos, and interactive games) that make up the contemporary digital media system.

Though many of the core GCC Design Lab members who worked on *The Source* came from humanities departments in which they focused on theoretically oriented scholarship, our shared method privileged design and making as a way of working through concepts such as improvisation, apophenia, realism, games, and play. In grappling with these concepts, designers of *The Source* engaged in a range of form-giving activities led by different team members. These included platform construction (Amanda Dittami), social networking and transmedia asset creation (Ashlyn Sparrow, Seed Lynn, and Leslie Gailloud), challenge and user experience design (Ashlyn Sparrow, Amanda Dittami, Peter McDonald, Chris Russell, Megan Macklin, James Taylor, and Philip Ehrenberg), and graphic design (Angie Hauch and Anthony Sixto). Lab members and high school youth tested initial assets before they entered the final game. Even so, the most robust tests happened during the five weeks of gameplay, with 140 players (a larger number than we could have amassed for any earlier trial) interacting in a play ecology that was only partially controllable.

The creation of *The Source* was motivated by a number of questions and hypotheses that our team formed. Instead of relying entirely on speculative reflection or cultural analysis, the GCC Design Lab decided to think about these issues through a design process. Design, as we understood it, did not only precede the launch of the game. Drawing on the affordances of the alternate reality game form, including its real time unfolding in both online and offline spaces, the experience design continued through the interplay and adjustment with players over the five weeks of the game (Hayles, Jagoda, and LeMieux). For example, in preparing a detailed timeline for Adia’s lost father, the designers never predicted that players might Google the character’s name and discover an actual engineer who shared some qualities with this character. Similarly, they did not imagine that players might attempt to contact this real-life doppelganger. In order to respond to this emergent play, designers had to discuss the unique form of realism afforded by alternate reality games and improvise a narrative explanation organized around an identity theft that the character had perpetrated in the past.

Through a series of design failures, successes, and adaptations, as well as ongoing research (in the form of collected documents, qualitative observations, and quantitative data), we have started to address numerous questions. What, for instance, is the difference between play that takes place in school and out of school? How does a serial narrative framework affect
youth experience of science and math challenges? How does a transmedia platform—a toggling between Facebook, Twitter, narrative webisodes, websites, online and offline challenges—affect youth engagement in social justice issues? How does the perceived realism of an alternate reality game motivate participation? How does team-based gameplay affect the STEM-oriented interest of youth, especially minority groups and young women who have been historically marginalized in these subjects and professions? To grapple with all of these questions, the Lab continues to break down strict distinctions between the creative and the critical, transmedia design and conceptual thought.

3. Collaboration as Method

A third way that The Source game experimented with the digital humanities was by making collaboration one of our key methods. Liu marks collaboration as a key problem for the humanities (not just the digital humanities) in the future: “Just as meaning is both a metavalue and a metaproblem, so is collaboration as it bears on such urgent issues in the digital humanities as coauthorship, collective project building, multigraph books, open peer review, social media, crowdsourcing, and the hiring and promotion implications of all these” (412). The digital humanities have promoted collaborative work as both a practical necessity and an ethic. Data mining work, for instance, often requires teams of participants who bring knowledge from such fields as literary history, statistics, and computation. Aside from the necessity of teams that share labor and contribute different skills to complete projects, the digital humanities have taken collaboration up as an ideal model for building community and sharing knowledge. The recent form of the humanities lab, for instance, such as the Stanford Literary Lab or the Duke University Haiti Lab, has undertaken group experiments that involve faculty and students in ongoing conversations and coauthored projects.

Game design and research have proven an especially fecund area of collaboration at the GCC Design Lab. While some contemporary independent games are attributed to auteur-style star game designers (e.g., Jason Rohrer, Jonathan Blow, and Phil Fish), most digital games take a multimedia and systems-oriented form that requires a broad range of skill sets rarely possessed by a single creator. The Source was not a traditional computer or video game, but it still incorporated online challenges and transmedia storytelling components. Our team included people responsible for the many
different types of work necessary to complete the game and its evaluation. The process included humanists and artists who worked on gameplay and puzzle design, visual design, scriptwriting and storytelling (for webisodes and transmedia story components), acting, video production and editing, and sound design; scientists, mathematicians, and engineers responsible for working through STEAM-based educational content; technologists responsible for platform construction and programming; and multidisciplinary researchers responsible for producing and executing an evaluation plan.

Though Gilliam and I directed the project and its research, we did not establish a strict hierarchy or a compartmentalized workflow within this group. For many months, faculty, senior researchers, game designers, graduate and undergraduate students, and even high school youth worked side by side. Through this process, elements such as the game design, narrative, and the research plan would constantly transform one another. Faculty had the opportunity to mentor students and workshop their contributions, and students were able to play a role in a larger project for which they received both production credit and financial compensation. Though different contributors had different personal goals for taking part in *The Source*, many of those motivations intersected as we grappled with mutual problems. At the level of gameplay, high school youth were also able to interact with university-affiliated mentors and field-specific professionals in making their way through various challenges.

For all of its benefits, collaboration cannot be treated as a wholly utopian concept. Sharing responsibilities and credit can be a difficult process, filled with negotiations, frustrations, and the loss of the kind of control that is more commonly available in single-author projects. This process calls for patience and generosity, especially at moments when a game is unfolding, and requires troubleshooting, in real time. In a sense, collaboration is always an ongoing experiment with different forms of intimacy. As Berlant poetically observes, working with other people on a shared project entails occupying a zone in which “the utopian optimism-sustaining versions of intimacy meet the normative practices, fantasies, institutions, and ideologies that organize people’s worlds” (*Intimacy* 2). In our work on *The Source*, we often experienced an oscillation between energy-infused moments of cooperative design, charged navigation among conflicting creative visions, and ordinary moments of repetitive labor and logistical organization necessary for the game to run smoothly. The scale and complexity of the resultant game is a testament to the overall generative (if not utopian) nature of collaboration. The process of a lab in which designers and researchers worked for
several months side by side produced novel possibilities for posing questions, reforming concepts, undertaking local experiments, and sharing work en route to a final game.

4. The Humanities and the Sciences

The fourth and final way that The Source complicated the digital humanities was to put the humanities into thick conversation with the sciences, bridging a division of knowledge that is rarely disrupted, except for work in subfields such as the history of science. Though there is a value to disciplinary divisions, both institutionally and intellectually, overly strict boundaries can curb the flow of conversation among scholars who might productively think through shared issues. The latter half of the nineteenth century gave rise to the modern humanities and led to the gradual development of what C. P. Snow famously described in 1959 as “the two cultures” of the sciences and the humanities. Beginning in the late twentieth century, this division began to grow increasingly complicated. Work in the digital humanities “challenges many of these separations, promoting dialogue not only across established disciplinary lines but also across the pure/applied, qualitative/quantitative, and theoretical/practical divides” (Burdick, Drucker, Lunenfeld, Presner, and Schnapp 7). Indeed, in our digital moment, coalitions between the sciences and humanities have become not only possible but, given the systemic and multiscale nature of contemporary problems, increasingly necessary. As Chun explains, the “dark side” of the digital humanities “entails taking on our fears and biases to create deeper collaborations with the sciences and engineering. It entails forging joint (frictional and sometimes fractious) coalitions to take on problems such as education, global change, etc. It means realizing that the humanities don’t have a lock on creative or critical thinking and realizing that research in the sciences can be as useless as research in the humanities—and that this is a good thing.”

The Source attempted to bring humanities-oriented interests in critical thinking and narrative design to bear on topics in science and engineering. We hear repeatedly, especially from humanists, that cultural theory and historical thought are being marginalized in favor of steam-driven agendas, but this sidelining need not be the case. Certainly a considerably greater quantity of grant funding is available, and perhaps required, for steam than for humanities projects. But such projects do not need to remain separate as often as they do. The gcc Design Lab’s projects, which
give an equal emphasis to game design, storytelling, STEAM content, and social justice, offer one transdisciplinary model. We do not simply put the humanities in service of the sciences (as humanists sometimes reductively imagine putting designers or technologists in service of their critical ideas). For us, the contribution and role of the humanities is equally important. As Gary Hall makes this point, “Just as interesting as what computer science has to offer the humanities, however, is the question of what the humanities—in both their digital and traditional guises [. . .]—have to offer computer science. Beyond that, what can the humanities themselves bring to the understanding of computing and the shaping of the digital.” In this very sense, digital games are a fascinating object that foregrounds bidirectional influences between, for instance, the humanities and computer science. A digital game, after all, is a computational product that depends on a creative process. Through their algorithmic play and system-oriented modeling, digital games can help players understand narrative and computational processes alike. Games, then, are ideal objects to help us think through the future of the humanities and its intersection with scientific fields, especially through practice-based research.

Conclusion: Experimental Flickers, Shifting Shadows, and Thresholds of Potential

This essay has approached digital games as an object of practice-based research that enables the exploration of the role of social justice, transmedia design, collaboration, and transdisciplinary coalitions within the changing humanities. The Source game offers a case study that foregrounds both the opportunities and the challenges involved in emerging work in the digital humanities and comparative media studies, broadly conceived. Certainly, at the moment that I complete this essay, we have not yet collected and analyzed all of the data from the game. The unknowns of gamification that I discussed earlier in the essay, for example, remain open questions for us. Though our game sought to privilege engaging games, a multilayered narrative, meaningful social justice issues, youth mentorship, and the social dimensions of team play, we also included skills-based badges and points as a way of motivating youth to complete different challenges. More research remains to be done about the effects of such approaches, and we hope to contribute to that work with our study. The “dark side” of gamification raises many questions for us: Do the benefits of gamified badges, even when they succeed in forming a habit, outweigh their potential to operate
as a reductive form of behaviorism? Can teachers incorporate badges productively into school pedagogy in a way that supplements intrinsic forms of motivation? Can badges serve as a foundation for learning alternatives that exceed or supplement the public school system, especially if they serve as certifications or markers of skill rather than attempts at short-term behavioral modification?

In engaging with such unknowns, I have found instructive the maker ethic of the digital humanities. Instead of additional polemics against the ills of the digital, I believe we need critical and creative experiments that complicate long-held assumptions that may limit our ability to think and thrive. When I draw on the sometimes overused word *experiment*, I do not mean the word merely in the scientific sense of a trial that tests a hypothesis and yields a measured result. An experiment can also describe a mode of reality testing and ethical engagement. It can convey a way of inhabiting the historical present or an emerging situation. Brian Massumi describes an experimental relation to the present as follows:

*The way all the elements interrelate is so complex that it isn’t necessarily comprehensible in one go. There’s always a sort of vagueness surrounding the situation, an uncertainty about where you might be able to go, and what you might be able to do once you exit that particular context. This uncertainty can actually be empowering—once you realise that it gives you a margin of manoeuvrability and you focus on that, rather than on projecting success or failure. It gives you the feeling that there is always an opening to experiment, to try and see. This brings a sense of potential to the situation. The present’s “boundary condition,” to borrow a phrase from science, is never a closed door. It is an open threshold—a threshold of potential.* (211–12)

Humanists might learn ways to better maneuver the space of the digital “situation,” with its myriad ambivalences, tensions, messy intersections, and potentials. Of course, not all grant opportunities or collaborations with the sciences or corporate entities will yield meaningful knowledge. Such connections should be interrogated, critically, and met with the reasonable skepticism that cultural theory proposed in earlier decades. At the same time, the possibilities of such entanglements should not be rejected up front. Given the large-scale challenges we will surely face in coming decades, related not only to the shortcomings of the U.S. educational system but also to climate change, limited resources, rapid technological change, and
transnational cultural clashes, transdisciplinary knowledge will only grow more valuable. And the humanities need to play a central part. As McPherson has argued, as we work through the digital revolution, “We need hybrid practitioners: artist-theorists, programming humanists, activist-scholars; theoretical archivists, critical race coders. We need new forms of graduate and undergraduate education that hone both critical and digital literacies” (154). As I have observed repeatedly in this essay, games are no panacea for the digital humanities or the future of education, but they are a key cultural form of our time and a critical site of negotiation in which humanists, artists, designers, technologists, scientists, and educators might experiment together with new ways of being in and changing our world.

I would like to thank Melissa Gilliam, Lisa Ruddick, Ellen Rooney, Mollie McFee, and all of the members of the gcc Design Lab for comments and conversations without which this essay would not appear in its present form. This piece emerged from a panel called “The Dark Side of the Digital Humanities” that took place at the 2013 Modern Language Association annual conference. I am grateful for the discussions that took place there, especially with my copanelists Wendy Chun, Richard Grusin, and Rita Raley.

Patrick Jagoda is Assistant Professor of English at the University of Chicago. His publications appear in such journals as Critical Inquiry, American Literature, boundary 2, Social Text, Post45, and Neo-Victorian Studies, as well as edited volumes such as The American Novel 1870–1940 and Cyberspace and National Security. He is also a coeditor of Critical Inquiry. Jagoda’s research concerns network aesthetics, new media theory, and game studies. His art practice focuses on transmedia game design and digital storytelling in a number of contexts, including the Game Changer Chicago Design Lab cofounded with Melissa Gilliam (http://gamechanger.uchicago.edu).

Notes

1. I am using the umbrella term digital games to include computer, video, mobile, and alternate reality games. I discuss these games in greater detail in the next section.

2. The data about usage time differs across surveys and studies but falls in the range of twenty to thirty hours a week. The top player of the expansion WoW: Cataclysm reportedly played 149 hours in the first week of its release in 2010.

3. For scholarship about the learning, emotional, and social benefits of games, see Holland, Jenkins, and Squire; and Gee. Regarding the capacities of games to foster empathy, Jonathan Belman and Mary Flanagan argue, “Games are particularly well-suited to supporting educational or activist programs in which the fostering of empathy is a key method or goal. This is because they allow players to inhabit the roles and perspectives of other people or groups in a uniquely immersive way” (5). Games can promote both cognitive and emotional empathy by inducing and reinforcing it through play mechanics. For more on the capacity of games, particularly networked and socially oriented games, to promote prosocial behaviors, see Gentile et al.

4. As Burdick, Drucker, Lunenfeld, Presner, and Schnapp put
it, “Digital Humanities gaming has begun to successfully engage with historical simulation, virtuous cycles of competition, and the virtual construction of learning environments” (51). One example they mention is *Virtual Peace*, an online simulation developed at Duke University that uses role-play to engage groups of players in a disaster resolution scenario as they respond to the international emergency of Hurricane Mitch.

5 A discussion of the numerous compatibilities between what we call “form” and “design” exceeds the capacities of the present essay. Neither of these terms needs to be treated as apolitical. As Ellen Rooney argues, “To recover the category and the work of form in literary and cultural studies is thus not to transcend the New Historicism, poststructuralism, cultural materialism, feminism, semiotics, postcolonialism, or any of the other critical interventions marking literary studies in the late twentieth century. Rather, the renewal of form as an operation intrinsic to reading enables literary and cultural studies fully to take the pressure of those interventions” (18). One way to recover *form* as a key term and to imbue it with the critical interventions of earlier decades might be to engage it through hands-on design that encourages mindful encounters with both form and media.

**Works Cited**


Jagoda, Patrick. “Gamification and Other Forms of Play.” *boundary 2* 40.2 (Summer 2013): 113–44.

Kirschenbaum, Matthew. “What Is Digital Humanities and What’s It Doing in English Departments?” Gold 5–11.


