

Bridging the methodological divide in game research

Dmitri Williams

University of Illinois at Urbana–Champaign

The study of video game effects has been marked by two very different approaches. The first approach is represented by social scientists, who, with some exceptions, seek to understand the effects of games on users. The second approach is favored by humanists, who seek to understand the meaning and context of games. To date, these two groups have largely talked past one another due to their different goals and their different methodologies. Yet, for the advancement of science and understanding, both sets of scholarship are important and relevant. Each has contributions to make. However, unless these two groups come to possess at least a cursory understanding of the other's methodology, there will be little synthesis. This is a missed opportunity for scholars of every stripe, and ways are suggested to bridge these gaps.

KEYWORDS: Approaches; ethnography; humanities; experiment; methodology; qualitative; quantitative; social science; survey; video games

Unless we take stock of the directions in which we are variously headed, the modern study of video games is poised to repeat the mistakes of past academic inquiry. Despite the relative youth of our research, we have already neatly divided ourselves along the typically divisive lines demarcated as “social science” and “humanities” and “qualitative” and “quantitative.” Many scholars have begun to find or entrench themselves in comfortable home bases that exclude and often denigrate the other camp. To continue to do so will limit our ability to learn the truths about this new and exciting medium. Fortunately, our field is still young enough that we are not bound to follow these traditional paths. Through journals, conferences, and listserv discussions, we have the rare opportunity to define our field in terms of what we can do collectively rather than why we are better off atomized. This change must occur sooner than later. The two major sites for communication-oriented game scholarship, DiGRA and the International Communication Association's (ICA) Annual Conference, already show significant stratification. A random sample of 68 DiGRA papers from the 2005 conference yielded 15 clearly quantitative papers (22%), 38 clearly qualitative (56%), with 15 papers on pure theory (22%).¹ At ICA's 2005 meeting, 22 of the 29 papers (those ICA papers with “game” in the title covering electronic games) were clearly quantita-

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tive (76%), three clearly qualitative (10%) with four papers on pure theory (14%). This is evidence that the field is already beginning to separate on methodological lines, with ICA becoming the site for the bulk of the quantitative social science research and DiGRA the site for the humanistic work.

This article outlines the problem inherent in this separation and offers both critiques and solutions. It begins by giving brief backgrounds and findings of each “camp.” Understanding the history and pathways of another group is crucial to understanding where they are going and why their guiding principles might differ from one’s own. Next, the article identifies the strengths and weaknesses of each side.² No approach is privileged, and none are found to be sufficient to answer all of the important questions. Instead, it will become quickly apparent that the two groups stand to make contributions in a complementary rather than substituting fashion.

Readers should note that two assumptions guide this article. The first is that “communication” studies as a broad umbrella is well suited to understanding the roles, uses, implications, and effects of new media technologies such as video games. As a broad category embracing rhetoric, cultural studies, social psychology, and political communication, and even sociological and anthropological approaches, “communication” has a history of interdisciplinary inclusion that is appropriate for games. Communication journals include mainstream titles such as the *Journal of Communication* and the *Journal of Broadcasting and Electronic Media*, quantitatively oriented titles such as *Human Communication Research*, qualitatively oriented titles such as *Critical Studies in Media Communication* and the *Quarterly Journal of Speech*, and new media journals such as *New Media & Society* and the *Journal of Computer-Mediated Communication*. The second assumption is that *positivism* and *antipositivism* are terms that divide us rather than guide good scholarship. If our goals are to answer important questions rather than use some particular toolset, we should not begin by limiting the discussion to whose methods are better. Ultimately, the ends matter more than the means. Those dedicated to the particular toolset of their training to the exclusion of all else will find this article frustrating. The discussion herein is less about whether we should or should not be borrowing methods from the natural sciences and more about the strength of empirical work of all types. Data collection—whether in the form of ethnographic field notes or participant observation, or in the form of statistical content analyses, experiments and surveys—is worthwhile. Skeptics might continue reading guardedly, but they should continue nonetheless.

What follows is the standard “textbook” account of communication scholarship on media effects, and its twin roots in quantitative and qualitative methods. This account is necessarily brief, and is meant to outline the origins for those unfamiliar with the broader picture. More thorough versions can be found in several existing articles (Bryant & Miron, 2004; Delia, 1987) and books (Brantlinger, 1990; Czitrom, 1982; Jensen & Jankowski, 1991; Lowery & DeFluer, 1995; McQuail, 1994; Rogers, 1994).

**Understanding the other:
Brief backgrounds of social scientific and
humanistic communication research on media effects**

The social scientists

Communication research in the United States has been a largely social-scientific exercise from the start (Delia, 1987), and it has focused on mass, rather than individual-level communication. For better or worse, social science work frames, drives, and mirrors American public thought and news coverage. Its roots extend as far back as the propaganda effort leading up to WWI. The success of this effort led many to believe that mass audiences were malleable. The perception that gullible audiences overacted to the famous “War of the Worlds” broadcast is symbolic of the thinking at the time (Czitrom, 1982). The theoretical gap was filled with the adaptation of models from information theory and Darwinism, and crystallized with the importation of one-way information flows from mathematics (Shannon, 1949). Similarly, scientists borrowed Darwin’s thinking about behavior following natural patterns to conclude that humans could be relatively easily influenced and predicted. This mode of thinking coalesced into a theory of direct communication effects that has been variously known as the “magic bullet” or the “hypodermic needle” theory. This approach has long since been discarded (Lowery & DeFluer, 1995), but it framed future work by establishing the causal arrow as the goal of mass communication research (i.e., what medium causes what change in what audience—what are the effects?).

As the field began to take shape in the 1940s and 1950s, communication scholars continued to search for patterns reflecting cause and effect between messages and audiences; discovering what led to persuasion and when was a major undercurrent. These studies became more and more sophisticated over time as key moderating and intervening variables were discovered and added to the models. Most famously, the “People’s Choice” study revealed that social networks moderated political influence (Berelson et al., 1954). Later studies uncovered the two-step flow of personal influence (Katz & Lazarsfeld, 1955) and the agenda-setting function of mass media (McCombs & Shaw, 1972). These functions and variables have collectively come to be known as the “limited effects” paradigm: Mass media are still seen to cause effects, but these effects are relatively small and are moderated by a host of social and psychological variables. Modern social science communication scholars continue to operate within this paradigm. The single most influential modern extension of this theory lies in Bandura’s (1994) observational modeling theory. Bandura, observing the behavior of children watching television shows, found that children imitated the actions they saw, including aggressive ones. A massive body of work on children, violence, and television ensued, with a wide range of tests and scholars agreeing that violent television does indeed cause aggressive behavior in adolescents—however small that influence may be. Another active area of research has been content analysis, the systematic measuring of content for particular elements, often violence.

The sheer output of this work is telling in that it reveals that concerns about children and antisocial behaviors associated with media use drive much of modern research. There is an inescapable ideological component to such work. Fears about children's media use have always dominated US communication research, dating back to the Payne Fund studies of the 1920s (Lowery & DeFluer, 1995). These fears follow predictable, systematic cycles in media coverage and in research (Wartella & Reeves, 1983, 1985), and the same has been found to be true with video games (D. Williams, 2003). Such work has a conservative cultural component. It asks "What are the media doing to our children?" and leads to policy debates that quickly enter the arena of government control, free speech, and artistic expression. If media can be shown to be harmful, they can be regulated and the content controlled by dominant groups. But although these questions about media effects often serve to hide deeper social issues (Glassner, 1999), this does not mean that they are unworthy of testing. Many dismiss the questions out of hand as fear mongering, yet parents have long had an uneasy relationship with new media and such issues over access to information are unlikely to go away. As long as parents want to know the effects of new media on their children, the demand for such research will persist. This is a source of frustration for critical and cultural theorists, who see this research as unnecessarily all-consuming and blocking other crucial questions from the public eye. Nevertheless, games have proven to be no exception, as outlined below, and the research is inevitable. Surveys, experiments, and content analyses will continue to measure the amount and effects of violent content in all media, especially for adolescents.

Critical-cultural theorists

Cultural studies has arisen out of crises and contradictions in the social sciences and humanities. It has no central theory or methodology but is often characterized by Marxism, feminism, deconstruction, psychoanalysis, and ethnography (Brantlinger, 1990). In contrast to U.S. social science, cultural approaches to communication have a broader set of concerns. Chief among these is power. R. Williams (1966) described the goal as understanding our shared everyday experiences through the forces that create difference, division, and alienation. The agreement among the many branches of cultural studies is that the texts' content matters. What is said, by whom and for what purpose is crucial. In particular, critical Neo-Marxist approaches include a call for action rather than simply analysis. Whereas social science usually seeks to influence policy formation through existing power structures, Neo-Marxist approaches are usually more populist. The first volleys of such analysis were fired by German émigrés fleeing from the growing Nazi menace in the 1930s (Bryant & Miron, 2004). These scholars recoiled from what they saw as a degraded American system of cultural mass production in favor of an elite class (Horkheimer & Adorno, 1972). Horkheimer and Adorno's (1972) pessimistic vision of mass media adapted Marx's theory of false consciousness (i.e., media messages make the masses work toward reinforcing a system that suppresses political opposition and working-class opportunity without realizing

it, creating a sense of passive unawareness among the working class). Other major scholars such as Althusser and Benjamin followed with analyses of modern media culture that reflected on control, but also on how new forms of art might lose their elitist sheen and be used for social change. As an alternative paradigm to the social science approach, the critical-cultural camp rejects a simple transmission model of media, sometimes preferring political-economic explanations, and is concerned with the resulting degrees of inequality in society (McQuail, 1984).

Not surprisingly, although the social scientists have a conservative set of questions to answer (despite often being individually liberal), critical-cultural scholars embrace a left-leaning approach. Critics of the work often dismiss such theorizing as angry and irrational. The chief discrepancy between the practitioners and challengers of the work is the degree to which each perceives systematic inequality in society. For those who see only freedom and opportunity, the critical scholar is an elitist who does not see the irony of proclaiming that there is total ideological control while he is magically kept outside through the power of his own superior intellect. For those who see structural barriers and pervasive inequities, those challengers are boorish power brokers or pawns who refuse to acknowledge horrific social injustices being foisted upon an unknowing mass audience.

Challenging the paradigm of the passive audience

Skeptics of both groups will fairly ask at this point, Where is the individual in all of this? Do consumers of media have no ability to discern fact from fiction, fantasy from reality, propaganda from truth? Are they programmable automatons ready to commit savage acts of violence if they watch the wrong thing (or play the wrong game)? It might surprise partisans of each camp to learn that they have these questions in common. Small groups of scholars within each camp began to challenge the paradigm of media causation and a mass audience of inert dupes, although at different times and in different ways. For the social scientists, this was a charge led by “uses and gratifications” research, whereas for humanist communication scholars, the charge was led (arguably with more success) by a group of British cultural theorists.

In 1959, Katz argued that “less attention should be paid to what the media do to people and more to what people do with the media . . . people selectively fashion what they see and hear to [their] interests” (McQuail, 1984, p. 180). Katz attempted, unsuccessfully, to bridge the gap between social science and cultural studies with this joint call to arms. The idea that audiences might be playing a more active role in media consumption has taken some root in the social sciences. One branch of scholarship has sought to allow for both the impact on individuals as well as a degree of their own choices and personalities. This “uses and effects” paradigm (Ruggiero, 2000) enjoys limited success. There is even some social science work on gaming that attends to this “uses” approach rather than a purely effects-driven one (e.g., S. Jones, 2003; Sherry & Lucas, 2003; Yee, 2005).

Far more impactful, cultural studies experienced a minor revolution when scholars from the Birmingham Centre for Contemporary Cultural Studies (BCCCS) began to study texts and consumers of popular culture. Rejecting the elitist pessimism of the Frankfurt School, scholars such as Hall, Williams, and Thompson began to study how consumers read against the intended meanings in media texts. This new sense of an active audience with “agency” has led to a wellspring of study on how individuals in particular contexts make meanings of their own from texts. The multiple interpretations of a text, known as “polysemy,” allow for less ideological control of a mass audience. Early related work on tabletop role-playing games dovetailed with this trend (Fine, 1983). Two emblematic modern texts are Fiske (1997) and Jenkins (1992). At its best, this analysis finds nuanced resistance to dominant hegemonic ideologies; at its worst it sees boundless opposition everywhere. The proportion of such readings and meanings-making versus passive consumption is, however, not clear due to the small case-study level approach that typifies modern cultural communication scholarship.

Old wine, new media

Now, moving this dual set of approaches to the modern medium of video games, we see that the same differences and similarities are being reproduced. Social scientists, with a few exceptions, are asking “What do games do to people?” while humanists seek to find out what meanings are made through game use and what power relationships are reinforced through play. To be sure, there are game studies works being done that transcend the atomized history of communication research. Taking the DiGRA sample, there were two papers that stood out as truly interdisciplinary and crossed the qualitative and/or quantitative divide in encouraging ways (Fullerton, 2005; Ito, 2005). Whether these are the exceptions that prove the rule remains to be seen. For now it is safe to say that the two camps of video game scholarship are increasingly marked by both different key questions and by different methodologies. Nevertheless, these very distinctions between the approaches are the basis for demonstrating strengths and weaknesses, which are the necessary ingredients for complementarity. For background, let us briefly review the findings to date, starting first with the social science work.

Social scientists have suspected that Bandura’s (1994) observational modeling theory should apply to games, and even more so than for television because of the more active role of game players (Carnagey & Anderson, 2004); taking part in the medium should promote more learning than passive viewing. However, some studies have found connections between game violence and aggression (Ballard & Weist, 1996; Bushman & Anderson, 2002; Irwin & Gross, 1995; Schutte, Malouff, Post-Gordon, & Rodasta, 1988), but others have not (Cooper & Mackie, 1986; Graybill, Kirsch, & Esselman, 1985; Scott, 1995). A recent series of literature reviews and meta-analyses have made note of the ambiguity in the findings. Sherry’s (2001) meta-analysis suggests a small effect, likely smaller than television’s. Anderson and Bushman (2002) also concluded that there are indeed causal links. Dill and Dill (1998) and Griffiths

(1999) reached opposite conclusions about the strength of the findings to date. All of the reviews have noted the paucity of research, and in particular have decried the lack of long-term studies on individuals. The typical study consists of a lab-based test of a particular game with a pre- and post-test difference that the researchers extrapolate into long-term effects. Only one controlled study (D. Williams & Skoric, 2005) has tested for longer-term effects and found none.

In keeping with the limited-effects paradigm, there has been investigation into the moderating variables of age, gender, and prior experience (Gibb, Bailey, Lambirth, & Wilson, 1983; Kestenbaum & Weinstein, 1985; Lin & Leper, 1987; McClure & Mears, 1986). But as Funk (1992) has noted, attempts to describe frequent game players' profiles have been inconclusive. Despite the lack of strong causal evidence, the medical community has already drawn the conclusion that game playing is a significant health risk. The American Association of Pediatrics has concluded that "Playing violent video games is to an adolescent's violent behavior what smoking tobacco is to lung cancer."³

In stark contrast to the effects research, humanistic research has found a universe of active and resistant game players, combined with a broad range of social and political ideologies embedded in the games themselves. Jenkins—likely the best-known proponent of active-player theory—has found that video games move adolescent youth conflict out of school yards and onto screens, offering a literally less bloody environment in which boys can let out their existing aggressive feelings (Jenkins, 2001). This cathartic finding is at odds with most social science work on television, which rejected cathartism arguments as inconsistent with the research data decades ago. This conflict over methods came to a head during testimony before the U.S. Senate, when social science scholars squared off with Jenkins (*Testimony of Henry Jenkins*, 1999; *Violent videos and violent video games: Why do they cause violence and why do they sell?*, 1999). In that session, the contrast between the methods and the sense of mutual disagreement was readily apparent and followed the unit of analysis argument presented below.

In the spirit of Hall's (2000) "encoding/decoding," Jenkins has also made note of the ways in which game audiences have appropriated content and twisted its meaning to suit their own life positions, acting as "textual poachers" (Jenkins, 1992). Girl gamers, for example, are one of his more celebrated groups in that they take sexist imagery and use it to exercise their own sense of dominance over male players in a realm that is meritocratic for all genders. Jenkins' series of case studies uncovers numerous individuals and groups making meanings from games that have little to do with violence or the original ideologies encoded within them. Similarly, Jones (2002) interviewed children and teens and concluded that game violence is actually an empowering element in their lives. Children, he argues, are kept powerless in society, and game playing is one of the few outlets they have to express their own power and autonomy.

By "reading" video game "texts," others have noted the potential for gaming ideologies to reconstitute and reify stifling cultural norms. Nakamura (2001), for example, has noted the way in which Asian identity is fashioned in game spaces to perpetuate

stereotypes and make “identity tourism” possible for non-Asians pretending at being a geisha or samurai. Such representations trivialize the range of Asian cultures. Consalvo (2003) has found that game spaces have become an arena for sexual role experimentation, but often become a place to reinforce gendered heterosexual male fantasies. Lahti (2003) makes the case that game space has become a new place for players to experience with a range of corporeal and discorporeal pleasures. And Wright, Boria, and Breidenbach (2002) find a busy and contested youth subculture within seemingly mindless first-person shooter games such as COUNTER-STRIKE (Sierra, 2000). Far from being passive users, COUNTER-STRIKE players construct not only their own language but even take part in constructing the very fabric of the game they play.

Bridging the gaps

So, do games cause “effects,” leading players to become aggressive, or do they represent a vibrant and contested space over meaning? Let us explore the reasons for the two outcomes for a moment in more methodological depth. The two sets of findings differ for several reasons. In turn, they are a discrepancy over the unit of analysis, generalizability, and context. Considering each of these elements reveals that each approach has significant flaws when used without the other.

At the heart of the difference between the two approaches is a discrepancy over what social scientists call the unit of analysis. The unit of analysis is a way of conceptualizing research to focus on some level of actors within some system. For example, when studying some behavior within an organization, the unit of analysis could be the entire organization, particular branches, a smaller management team or an individual. Each level of analysis calls for a different approach. For example, personal interviews are not possible with an organization, but are with individuals. Surveys make little sense in understanding the behavior of a particular person, but are good for identifying broad patterns. Now let us return to the domain of video games and their effects on society. What is the appropriate level of analysis? Is the important question whether “people” in the mass audience sense are affected, or whether certain kinds of individuals are affected? This is the usual source of division and tension.

Here is how the argument plays out:⁴ A social scientist collects a batch of statistical data from an experiment and in the conclusion section states that “this game causes \times effect in the population.” It is at this point that qualitative scholars raise their hands and take exception. How can any artificial laboratory-based work be used to make predictions about what a particular person will do? A host of factors must be taken into consideration. Following the cultural studies approach, the issues of resistance, context, coding, and meaning must all be considered. Are the individuals programmable dupes, or do they take the media product and fashion it to their own ends? This is precisely the point of missed opportunity for the two groups. The social scientist is not concerned about these issues—not because they are not worthwhile but because they are not the unit of analysis in question. Surveyors and experimentalists are typically

not seeking to predict individual meanings-makings and behaviors. When they do, they are in error. Instead, their goal is to find broader patterns in surveys and to simply establish the existence of a phenomenon in experiments. Thus, although cultural critics decry the work as ignoring the individual, they often do not realize that—when done responsibly—they are simply addressing a different level of analysis in the first place. For example, the Jenkins work on catharsis mentioned above focuses on individuals rather than broad patterns.

The opposite case shows the same pattern in reverse, this time with the humanist collecting the data. A humanist interviews a group of game players and concludes “players are creatively resisting the intended message within the game and are instead doing x.” This is the signal for the social scientist to raise their hands and object: How do you know what the message is? Did you systematically measure it? And what exactly does “players” mean? All players or a subset of them? Young ones, outgoing ones, ethnic ones, which ones? Following the training of social science, the issues of sampling, generalizability, and inference must all be addressed. The social scientist wants to know *proportion*. How well do the data points collected reflect the broader group of interest? Yet, here again is the missed opportunity. The conscientious humanist is not trying to draw a broad conclusion about society, but simply identify the existence of a phenomenon, much like the pure experimentalists, if with less concern with control and external validity. Those humanists who do draw broad conclusions without justifying them do so in error. The fact that the phenomenon exists and how it works socioculturally is the key rather than how prevalent it is.

There is a caveat to the discussion above. Some scholars on each side are truly opposed to their counterparts’ base assumptions. To many humanists, the quantification of human experience is valueless because that essential quality of experience cannot be represented with a number (Jensen, 1991). The act of quantification breaks facts away from values (Peters, 1988), and the act of collecting data must not detract from the overall goal of understanding human creativity and meaning (Christians & Carey, 1989). For example, there is no statistical significance for “love” or “regret,” yet, humans are able to recognize and empathize with deep experiences. Yet, critiques of the basic “sender-message-receiver” model derived from Shannon and Weaver (Peters, 1986) sometimes overlook the fact that social science has moved on to a far more nuanced and complex set of models that allow for human agency and values (Gonzales, 1988). On the other side, qualitative research has been said to be frequently unreliable, biased, unrigorous, and of often too small scale to be of any real value (Wimmer & Dominick, 1997). These two points of view represent the unsalvageable and may be imported into game studies. Humanists may assume that all social scientists view game effects as merely another site to locate the “hypodermic needle” theory, with a monomaniacal drive to attach negative aspects to a neutral medium. And social scientists may assume that textual reads and ethnographies of gaming will serve as little more than anecdotal vagaries.

For those most partisan scholars, this will be the inevitable extension of old divisions and may well be a lost cause. But for those who have merely been trained in one set of methods, the tensions identified here are preventable in game studies. They

occur most often when practitioners of each type are imprecise with their language and intrude on the strengths of the other group. The problems come down to the twin issues of generalizability and context, each of which is ignored largely by one camp but should never be. Yet, each group regularly commits a set of semantic sins that makes the misunderstandings worse. By using loose language or ignoring an issue altogether, each group attempts to imply that its conclusions should be the be-all end-all of any research stream. Social scientists often draw conclusions about “effects,” without stating the proviso that any one individual’s experience will vary due to a host of situational, emotional, social, and contextual factors. Typically, the factors mentioned are limited to school achievement, intelligence, and introversion (e.g., Anderson & Dill, 2000; McClure & Mears, 1986). As a result, readers do not know if they can use social science results to make predictions about an individual (say, their child). On the other side, humanists often make claims about phenomena without talking about how frequently those phenomena actually occur. For example, Carey (1989) claims that communication research is “a process of making large claims from small matters: studying particular rituals, poems, plays, conversations, songs, dances, theories and myths and gingerly reaching out to the full relations within a culture or a total way of life” (p. 64). But how can one make a large claim about a “total way of life” when it is unclear if the small matter is representative or not? For example, Crogan’s (2003) otherwise insightful participant observation study of one game implies generalizability with the phrase “computer games such as COMBAT FLIGHT SIMULATOR 2 (Microsoft, 2000) crystalize a key tendency of the wider audiovisual culture” (p. 266). Yet, how can the reader know whether this crystallization is indeed a tendency of a larger group without knowing the game’s representativeness, or its popularity as given by typical hours played or sales figures, and so on? This is not to dispute the depth or nuance of the case study or ethnography—these are the very things that give it richness—but it is an example of why researchers should not claim breadth when what they have really measured is depth. As a result of this practice, readers do not know if they can use humanistic results and conclude that they occur rarely or all the time.

There is a solution: *social science needs context, and humanists need generalizability*. Each is possible with a little bit of extra effort, or better still, with an interdisciplinary team. Modern scholarship is filled with calls for interdisciplinary work, with moderate success. Often scholars prefer to remain within their methodological comfort zones and do not engage with challenging, alien approaches. In addition, some departments may discourage boundary-crossing by lending tenure weight to publications in narrowly defined journals particular to their preferred method. These are genuine problems, and many of them will only be surmountable by tenured faculty. Nevertheless, as a new field, we need to do better than lip service or we risk reinventing a wheel that has not served the academy particularly well. We are scholars of a new medium and we need to think differently. We need to cross those institutional boundaries, and soon. Such collaborations are not wildly difficult to attempt. Following are two hypothetical examples drawn from the author’s imagination. Readers will no doubt construct better ones, but these are at least a starting point. Each is meant to

suggest that the process is iterative and ongoing—the dialogue between the two realms of expertise should lead to ever further refinements of an overall project.

Hypothetical example #1

A humanist scholar is concerned with the potential for a game featuring nubile and intellectually inept women to promote sexist stereotypes. He wonders whether such content would promote sexist attitudes, but he also wonders whether both boys and girls will resist the sexism or even reinterpret it to suit their own life situations. The humanist's social science colleague suggests adding two more questions to the mix. One, how typical is this game of other games, and two, how much sexist imagery is actually present? This set of questions calls for a mix of methodologies to answer. Working together, the two researchers engage in a combined study that involves a statistical content analysis along with a series of interviews and participant observation work. The content analysis component measures the actual frequency of the imagery in question and compares it to the frequency of that imagery in other titles within the same genre, focusing on the top 10 titles that year. It concludes that although the game in question featured 20% of the imagery, the other titles that sold well that year featured an average of 25%. Thus any conclusions they make can be seen as understating the true totals, enabling the reader to judge their work as conservative and likely generalizable. Meanwhile, the ethnographic interview work yields rich contextual data about how certain players interpret the imagery. From the relatively small pool of interviewees, the researcher finds that more men than women notice the imagery, and that teens appear to be more susceptible to the promotion of sexist stereotypes than preteens or adults. In particular, one unexpected game character causes the most reactions. The research team makes note of the pros and cons of their home approaches: This interesting finding would not have come out via a survey, but the results are from a sample that is too small to draw any large conclusions. Thus, the team decides to embark on a follow-up study that focuses on teens and their views of that game character through surveys and more in-depth interviews.

Hypothetical example #2

A social scientist is concerned with the potential for aggression effects within a new multiplayer first-person shooter set in inner-city neighborhoods. She knows that the research on television using Bandura's (1994) social learning approach has yielded consistent results, but feels that games might be qualitatively different in a way she cannot quite put her finger on. Working with a humanist colleague, the new team realizes that Bandura's approach needs to be adapted for this new medium and new play context. The humanist begins taking field notes of college students playing the game around television sets in dorm rooms. He quickly discovers that the key source of learning and thinking seems not to be the game characters but the peer group members in the dorm room. Their reactions appear to follow different patterns when the game is set to cooperative versus competitive play. In discussing the social context of game

play, the two conclude that observational modeling is more complicated with games than it is with television. The modeling may well come from three sources: the player's character, the onscreen computer-controlled character, and the peer-group members present, both playing and watching (D. Williams & Skoric, 2005). They then decide to proceed with an experiment that they set in dorms and in which they vary the social contexts. One study cell features students playing solo, another with peers. Another matching set of cells varies the game to be cooperative or competitive. This design adapts Bandura's (1994) approach, but integrates real-world play styles and social contexts that the social scientist was unlikely to have considered. The ethnographic work therefore leads to greater external validity for the experimental phase. Working with the debriefing team, the humanist helps check the statistical results against the participants' impressions to make sure the data are reliable, improving internal validity.

New directions

Games research is not about a method. Like the domain of communication studies, it is a topic. No one approach is the best one and no one approach will answer the grand questions on its own. According to leading scholars of both quantitative (Wimmer & Dominick, 1997) and qualitative (Fortner & Christians, 1989) approaches, multi-method, multitheoretical approaches are the best way to advance understanding. This is pure triangulation: The strengths and weaknesses of any one approach are usually complemented and smoothed out by combining it with others. This call to arms is of course a difficult one, so perhaps we should start with baby steps. Few humanists are going to learn statistics and few social scientists are going to suddenly try ethnography. Realistically, the initial steps simply need to be open-mindedness and connections. With receptiveness, interdisciplinary teams will follow.

Social scientists and critical-cultural theorists alike do a broad range of work and some of it is reported better than others. Social science work that ignores game content or—worse yet—gives it lip service that leaves the reader in the dark, is frustrating. Several major studies have drawn a black box around the content or the context of games, presumably implying that these are either always the same or are unimportant in the test at hand (e.g., Anderson & Bushman, 2001; Anderson & Dill, 2000; Dominick, 1984). This practice gives the reader the fear that the game is being tested in a way that never actually occurs in real-life play; rigor and context are missing. Ironically, generalizability is also often an issue in the social science work—does the game represent all games? All games of that genre? Without description, the reader is left in the dark (yet sales data is provided in, Anderson and Dill, 2000). Likewise, loose ethnographic studies wherein an author says only that they “played the game” for X hours tells the reader little about how they took notes, how they played, how they interacted, and whether the phenomenon occurs elsewhere, and so on, and are not much help either; rigor and generalizability are missing. They give the reader the sense that the work might verge into fandom. Ethnographers would do well to follow the advice

of Morley and Silverstone (1991), who ask that scholars be aware of their partiality in the analysis. More to the point, ethnography should be a rigorous and systematic exercise and not the overused buzzword that substitutes for haphazard participant observation (Fortner & Christians, 1989; Lull, 1988). The particulars of the ethnographic method need to be reported in the manuscript. Of course, scholars on each side can pick the poor studies out of the pile (and it is easy in both cases) as evidence that their counterparts are doing banal work, but it would be unfortunate to throw out the baby with the bathwater.

This leads to a point that should be obvious but is not—especially to established social scientists. Researchers of games should play games. Based on the papers presented at DIGRA and ICA in 2005, it is clear that humanist researchers are the more likely of the two groups to actually play, but they rarely address the generalizability question. Each one should ask: This particular game I am looking at, who uses it and how popular is it? How representative of other games is it? Knowing the answers will give the scholar a better ability to say whether their study's conclusions apply to small or wide groups of players. If a game is culturally significant but is played by a tiny subset of people, the study becomes subject to the "so what?" question. Social scientists, in turn, should not make claims about content that they have not experienced. On a phenomenological level, this is a check to make sure that the variables are appropriately contextualized. Playing a game is a necessary condition for this step. Playing the game how the study's subjects play it will add further insight. If the game is a single-player title for PCs, then that is how the researcher should play it. If the game is a massively multiplayer title, then the researcher needs to get online and get her hands dirty interacting with 733t d00ds forthwith. Knowing how a game is used is a necessary step before undertaking any research design and will add crucial context to potential survey questions. If, for example, a researcher wants to know how gamers interact in MMOs, the researcher will need to at the very least be able to correctly label and localize the lingo for guilds, clans, and so on, or risk asking questions that do not fit players' actual experiences. Otherwise, the researcher may be testing for outcomes that do not actually occur outside of a lab, reviving the "so what?" question for that camp. Play also insulates researchers from face validity challenges. One well-known study (Anderson & Dill, 2000) used *Castle Wolfenstein 3D* (Apogee, 1992) and *Myst* (Cyan, 1995) as treatment and control group stimuli, concluding in a pretest that the two games were alike enough on excitement to justify the choice. Readers who have played these two titles will know that they are plainly not equivalent in "excitement." Had the researchers tried the two titles extensively, they would likely have chosen another game for their control variable and their results would be less contested.

Conclusion

As the field grows, we are starting to see the formation of institutional structures, both within and outside campuses. On campuses, game studies centers and even some majors are beginning to form (notable efforts are underway at USC, Carnegie Mellon,

and Indiana, among others). Off campus, listservs, conferences, and new organizations are rallying disparate scholars. Yet, even here, the divides will appear without some conscious intervention. Already the DiGRA group consisting of more humanist scholars and the ICA group with more social scientists show how the two groups might continue down separate paths. We need to be talking to and attending the sessions of those scholars who come from different training than our own. DiGRA should be reaching out to social scientists while ICA should be reaching out to humanists. The worst possible outcome for our nascent field would be a silo-like structure in which different methodologists attend only their own conferences, or sessions within larger conferences, and read only their own journals. Like politicians who only keep like-minded advisors around, we are faced with the choice between difficult, creative, and rewarding diversity or comfortable sameness.

Some of this inertia is generational baggage. Many senior social scientists do not acknowledge the contribution of humanistic research. Likewise, some senior humanists have written off American social science's gaming efforts, calling the entire continent a "poisoned well" (Aarseth & Jenkins, 2005). One of the most depressing—and yet hopeful—realizations in public opinion theory is that attitude change is static within cohorts (Jennings & Niemi, 1981). Generations do not budge much in their assessment of political and social norms and even in their opinions about technologies. Baby Boomer scholars are simply less likely to accept new paradigms of research, whatever their home training. Yet, as a new crop of junior scholars begins to graduate and fill tenure-track positions, game studies has this formative moment at hand. Without question, more and more PhD candidates are doing work in the area and are more agnostic about whether the medium is particularly good or bad. They exist in communication, educational psychology, cultural studies, sociology, anthropology, English and a host of other domains. Our best hope as a field is to harness their creative energy and to get these new scholars to cross institutional boundaries at the outset. With new water flowing all the time, the well is never truly poisoned.

Notes

1. A paper was determined to be quantitative if it contained a survey, experiment, content analysis or factor analysis and used tests of statistical significance. A total of 10 papers were excluded from the DiGRA count: 2 papers were explicitly interdisciplinary and could have been in either the qualitative or quantitative totals; 8 other papers were technical in nature and were not counted.

2. The trends and traditions of the two camps presented here are necessarily broad. Exceptions certainly exist.

3. From a press release at www.aap.org dated 14 February 2005.

4. The embodiment of this conflict can be seen in the U.S. Senate testimony referenced earlier in which Huesmann and Jenkins offered two radically different accounts of video game "effects."

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Dmitri Williams is an assistant professor in the Department of Speech Communication at the University of Illinois at Urbana-Champaign. His research is online social interactions, social capital, uses and effects, with a focus on games.

ADDRESSES: Department of Speech Communication, University of Illinois at Urbana-Champaign, Urbana, IL 61801 USA; telephone: +1 (217) 333-3617; Fax: +1 (217) 244-1598; e-mail: dcwill@uiuc.edu.