# Exploring the "Inner Game" of Video-Game Enthusiasts

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**Abstract:** *According to recent estimates, human beings across the planet currently devote some three billion hours a week to playing what have been collectively termed "video games." Commercially, there can be little doubt that the manufacture and sale of these games has enjoyed phenomenal success; even in a fragile macro-economic environment, the video-gaming industry has become a huge growth stock, sustained by rapidly expanding cohorts of young consumers in every corner of the world ready and willing to shell out the sixty-plus dollars for the latest game or the hundreds for the latest game-playing hardware. Accompanying the vast expansion in the scale of the video-games industry and the youthful customer base that supports it, not surprisingly, is a host of commentary— much, but not all, of it skeptical—about the pro-social or potentially educational effects of protracted involvement with the vast array of variations within the video-gaming universe. Given the dearth of research exploring the meaning to gamers themselves of their gaming experiences, much of the literature on gaming as a whole has taken on a "dialogue of the deaf" cast, with pro-gaming advocates, convinced of the positive derivatives of gaming, advance enthusiastic claims while the critics worry about the massive opportunity costs incurred by a generation less interested in reading or drawn to the self-enhancing forms of play that call upon and are catalyzed by one's own imagination. In this research, we sample from the often-polemical concourse on video gaming and its personal and social effects and discover four distinct versions of the "inner game" of gaming as experienced by college students who designate themselves as "serious gamers." All four factors demonstrate consonance with play theory as outlined by Huizinga and amended by Stephenson. A concluding discussion is aimed in part at accounting for the relative paucity of empirical research on subjective play.*

*The fact that so many people of all ages, all over the world, are choosing to spend so much time in game worlds is a sign of something important, a truth that we urgently need to recognize.*

Jane McGonigal (2011)

*It is games that give us something to do when there is nothing to do. We thus call games "pastimes" and regard them as trifling fillers of the interstices of our lives. But they are much more important than that. And their serious cultivation now is perhaps our only salvation.*

Bernard Suits (2005)

*Video gaming is pervasive in the lives of American teens . . . .When asked, half of all teens reported playing a video game "yesterday." Those who play daily typically play for an hour or more. Fully 97% of teens aged 12–17 play computer, web, portable or console (Xbox, PlayStation, or Wii) games.*

Pew Research Center (2008)

## Introduction

More than four decades have now elapsed since William Stephenson's *The Play Theory of Mass Communication* (1967) first appeared. While Stephenson's volume was, in substantive respects, focused on a much-neglected manner or mode of a particular audience segment's media consumption, it was far more than that. In this respect, it was very much like the volume to which it owed its greatest intellectual debt. That volume, by the Dutch scholar Johan Huizinga, was published in Holland originally in 1938, but its principal contents are said to have been compiled a decade earlier, thus preceding by another four decades Stephenson's adoption of several of its key ideas in his own outline of a novel ludenic theory of newsreading. In Professor Huizinga's case, the ambitious scope of his argument is hinted at by the species-defining character of the title, *Homo Ludens.* And if the initial impression left by the Latin version of "man-as-player" was of a narrowly focused treatise on human beings in their "down time" or at "leisure," the subtitle would supply the necessary corrective: Huizinga's intent was to present nothing less than "a study of the play-element in culture."

The scope of the Stephenson volume was no less ambitious. At a theoretical level, Huizinga's notion of play was amended slightly so as to emphasize, simultaneously, what a casual reading would likely construe as a pair of paradoxical properties of play. First, Stephenson argued that ludenic behavior embodied distinctive subjectivity. In so doing, however, he was careful to avoid getting caught in the Cartesian quicksand—where mind (subjectivity) and body (observable behavior) were counterpoised in customary, dualistic fashion. Instead, Stephenson saw subjectivity itself as behavior. Anchored in self-reference and communicability, subjectivity was simply a person's point of view on any

matter of interest; and, so long as words—or photos or songs or even scents—were available with which to give expression to that point of view, *subjective communicability* was stripped of any essentialist properties that would threaten to take on a conceptual life of their own as analytical reifications situated well outside the pale of science. Contrary to conventional wisdom, Stephenson argued that subjective communicability was amenable to scientific scrutiny. The means to this end was of course supplied by Q methodology, and it is this contribution that constitutes the second major amendment to Huizinga's notion of play introduced in the pages of *The Play Theory.*

It is perhaps both ironic and instructive that while both volumes would eventually gain recognition by selected reviewers as path-breaking, and each would undergo reprint and reissuance in academic markets long after its initial appearance, neither was fully able to escape mixed reviews (Brown, 2002; 2003). Such, of course, is not an uncommon fate for wholesale challenges to prevailing scholarly wisdom, but in this instance the reservations may well reflect wider or deeper cultural resistance to the idea of play itself. For many otherwise thoughtful individuals, it seems implausible that play could be anything more than a "time out" from productive enterprise or, alternatively, an immature allegiance to values that contravene genuine "grown-up" conscientiousness. In other words, the idea that play may well embody profound and mostly positive (if rarely acknowledged) influences on the human condition across a host of institutional and historical contexts is a tough sell when sensibilities—or "social controls"—have succeeded in socializing the self-designated responsible elements among us to regard play and playfulness as childish deviations from cardinal precepts of our cultural creed. We return to this matter at the close of this paper where we argue that the irrational antipathy to play-based elements in human endeavor has come at a high price—too high a price, in our view—in terms of scholarly understanding no less than in ordinary, everyday life. In the meantime, however, our chief concern here is to borrow from play theory as a means of illuminating much that has transpired in the realm of "commercialized technology play"—that is, video games—over the more than four decades since *The Play Theory* first appeared. Suffice it to say at the outset that our substantive application of play-theoretical ideas is to products and preoccupations that neither Huizinga nor Stephenson could ever likely have anticipated.

In that interim, the technology of communication has undergone revolutionary transformation. Stephenson's ludenic theory of newsreading could scarcely have imagined the disappearance of the local newspaper as the focal object of the ritualized daily routine of relaxing with the sports page, or comics, crossword puzzle, classified ads, or one's favorite columnist over the morning coffee and breakfast.

But the disappearance of newsprint hardly meant the end of the news-hungry or the play-seeking consumer looking for an enjoyable "escape" from the daily grind, afforded by attractive advertising copy or the heroic storyline embedded in the box score from last night's game on the West Coast. Indeed, who could have imagined twenty years ago the proliferation of online news sources, all manner of chat rooms, cyber-shopping centers, a something-for-everyone political blogosphere, and a website for virtually every commercial, governmental, and non-profit entity on the planet—all, literally, as accessible as the nearest keyboard connected to the internet?

Over the same period, video games have undergone comparable transformation and, if anything, the pace of innovation has only accelerated of late. In the past quarter century, video arcades have witnessed a virtual explosion in product-development from the early days of PacMan and Super Mario Brothers to ever-more sophisticated computer-graphics software widely available to a hungry market impatient to upload such products onto personal computers or to the plethora of specialized consoles—PlayStation, Xbox, and Wii—serving as platforms for some of the more exotic graphic-arts gameware. That sales in this industry have been lucrative is an understatement of the first order. As the epigrammatic excerpt from the Pew Center cited at the outset of this paper indicates, fully 97% of American teens report regular—virtually daily—video-gaming sessions. Moreover, it is not uncommon for these immersions to exceed weekly averages of ten hours for American teens. The aggregate statistics are staggering: McGonigal's (2011) volume, excerpted epigrammatically at the outset as well, estimates the total amount of time devoted to video-gaming annually across the globe at a whopping three billion hours! Within the United States, according to McGonigal, members of the regular gaming community devote, on average, thirteen hours a week to video games. Other estimates, based on more selective definitions of the "gaming community," put the time devoted by committed gamers at twice these levels (Taylor, 2009; Wark, 2007) and, in some cases, even higher (Bissell, 2011; Lenhart & Jones, 2008).

The proliferation in numbers—participants, hours consumed, dollars spent—is grounds alone for an examination of what all of this means to those who qualify for membership in the so-called "gaming community." Our own interest in this matter stems in large part from the fact that a large portion of the students we teach at our respective colleges are committed gamers and, to the degree that their investments of time and energy in video games is in the vicinity of the aforementioned data drawn from large sample surveys, the possibility exists that these involvements entail a substantial "opportunity cost" in the form of time and energies that might otherwise have been spent studying materials

for our classes. From a more scholarly standpoint, our curiosity in the so-called "inner game" of video gamers is stimulated by a series of competing accounts of what might be motivating young people to invest scarce resources in time, money, and energy to video gaming, particularly when other demands on the same resources in a college environment are often pronounced.

One school among these accounts is unequivocally pro-gaming. This perspective is epitomized by Jane McGonigal's (2011) recent volume, *Reality is Broken: Why Games Make us Better and How They Can Change the World*. McGonigal holds a Ph.D. and is herself a designer of computer games. In this volume, she energetically argues that gaming is, on balance, a net asset in virtually every major respect. It promotes problem-solving capacities, enhances cognitive complexity and creativity, fosters in-group collaborative skills, and provides players with a profound sense of joy that is rarely attained in the so-called "real world." While McGonigal's claims might be discounted on grounds of a conflict of interest, since she stands to gain materially and directly from game sales, she is familiar with corroborative research data—at least when it supports her advocacy—and she is conversant with major concepts and key figures in the recent ascension of "positive psychology." She cites the work of Csikszentmihalyi (1998), for example, on the optimized ego-state known as "flow," and she makes a credible case that this is a common subjective state experienced by gamers when engaged in a well-designed, challenging video game.

Other accounts, popular among gamers, are unabashedly autobiographical in their efforts to describe and better understand the draw that gaming—well-designed, engaging and high-selling games, in particular—holds for the truly committed (Bissell, 2011; Gee, 2011; Taylor, 2009). These volumes contain only passing reference to Huizinga's work and no mention at all of Stephenson, and despite their first-person narratives, they frame their accounts as if they were authoritative, final words on the appeals and turn-offs of the best and worst products in the video-game industry. For those familiar with Stephenson's ideas, it is nothing short of amazing that these largely autobiographical (and hence subjective) accounts should be so utterly void of recognition of, let alone appreciation for, the principle of self-reference. Because they are written by and for gamers familiar with the games that entire chapters are devoted to, and because their authors concede their engagement with games is undeniably "addictive," they provide scant basis for elevating the non-gamer audience's understanding of the gaming phenomenon and its phenomenology. For more academic (and non-gaming) onlookers, Wark's (2007) *Gamer Theory*, published by Harvard University Press, approaches video games as an "emerging art form," and therefore amenable to treatment

by aesthetic standards and from the standpoint of literary criticism. The result, judging from readers' reviews on the Amazon website, is a theoretical patchwork featuring the various scholarly camps within contemporary literary criticism. While the word "theory" in Wark's title would have been more accurately replaced by its plural form, it is noteworthy that the self-identified gamers gave the book an icy reception—too detached from "the real world of gaming"—despite its generally sympathetic (though not unabashedly so) account of the gaming phenomenon. With the partial exception of the Wark volume, the works we cite constitute what can be termed the most "enthusiastic" contributions to the rapidly-growing literature on gaming. It bears underscoring that these are fairly substantial volumes. They are generally pro-gaming (or at least not aggressively critical or dismissive), and they have been in print, in most cases, no longer than three years.

At the other end of the spectrum, sympathy-wise, from the aforementioned volumes is Nicholas Carr's (2011) critically acclaimed volume *The Shallows: What the Internet is Doing to Our Brains*, which was a finalist for a Pulitzer Prize in the year of its publication. To be sure, Carr's critique is not aimed solely at video games. He first came to prominence after his cover story in *The Atlantic Monthly*, "Is Google Making Us Stupid?" appeared in the summer of 2008. For Carr and other critics of online culture (Turkle, 2011), gaming is hardly the pro-social, engaging, and educational encounter portrayed by those in the McGonigal camp cited earlier.

Carr's (2011) reservations with online media generally and games in particular grow out of his personal experience and the observations of others that call into question the breadth and especially the depth of the cognitive benefits of gaming. Indeed, Carr sees little evidence that video gaming produces the benefits widely acclaimed by its advocates in areas such as enhanced cognitive complexity, creativity, or problem-solving ability. At the same time, the critics note, evidence from careful research is accumulating, which points to a series of non-benign effects on the cost side of the ledger. Gaming behavior carries with it the risk of a psychological dependence on technology that, according to Turkle (2011), has addictive properties and undermines interpersonal skills and sociability. Essentially the same concerns were voiced earlier by Sunstein (2009) and Putnam (2001). These authors frame their criticisms of online life in more general terms than simply video gaming, but it will be recalled that Robert Putnam's top nominee for the atrophy of social capital in contemporary America was identified as "the increasing privatization of leisure." And as a root of the "bowling alone" phenomenon, the major technological culprit in Putnam's diagnosis was television; the personal computer, the internet, and the attendant growth of cyber-culture lifestyles only hastened the demise of

civil society that was already under way. Yet, as Sunstein (2009) and Turkle (2011) have more recently argued, the deterioration of social capital and collective endeavors more generally can be considered, at least in part, as yet another cost of increased attachment to online pursuits, particularly gaming. And here the subtle ambivalence that Wark (2007) conveys carries a sobering warning of the projected growth of "gamespace"—defined as a distinctive attitude toward life— among ever-younger cohorts drawn to gaming by the design of play worlds built deliberately on the insurance of a perfect match between engagement and outcome, a correspondence seldom encountered, let alone guaranteed, in real life. Thus, despite the fact that Wark himself is an avid gamer, he sees gaming as evolving into an inevitable pastime and, at best, as very much a mixed blessing. For one thing it will, in Wark's view, eventually and thoroughly destroy reading culture. For another, it will breed widespread and deep-seated disenchantment on the part of those drawn to games by virtue of their "perfect" design in rewarding virtuous performance when purposive human endeavors— or "games"—in the real world continuously fall short in this respect.

And if these indictments fail to raise concerns about the ultimate cost-benefit balance for the millions of hours humans collectively devote daily to video games, consider the cumulative record of findings from the most-frequently examined question pertaining to gaming by academics: Does protracted exposure to violent games promote violent behaviors on the part of gamers outside of the laboratory? Anecdotal evidence supplied by sensational cases is of course strongly influenced by the "availability heuristic" (Tversky & Kahneman, 1973), and is therefore of dubious evidential value even as it suggests a robust correlation. Among the first pieces of biographical data to gain public circulation about Eric Harris and Dylan Klebold, the perpetrators in the 1999 Columbine case, the worst school-shooting event in U.S. history, is that both were avid players of "Doom." Likewise, in the initial press accounts of Anders Bering Breivik, the 32-year-old self-described "Christian conservative" arrested for the brutal rampage that killed 77 of his fellow Norwegians in July of 2011, mention was made of the few facts that would have identified him as a threat—namely, he had a vast personal collection of guns and was known to be an enthusiastic video gamer with a special fondness for "Worlds of Warcraft." More systematically, when the hundreds of studies exploring the link between violent video gaming and aggression are subjected to meta-analyses, the safest summary of the scientific evidence appears to be that violent video games are indeed "a causal risk factor" in accounting for real-world aggression (Anderson, et al., 2010). Despite the fact that this meta-analysis covers some 130 studies of both American and Japanese respondents, its conclusions have not gone unchallenged (Ferguson &

Kilburn, 2010). Interestingly, however, among the studies reporting robust effects, a frequent discovery is that the "gaming leads to aggression" connection is mediated by the impact of measures of participants' empathy, such that frequency of exposure to violent video games is found to be inversely related to empathy (Anderson et al., 2010).

## Study Design: Concourse, Context, and Q Sample

What we are left with, then, is a substantial set of unresolved issues on the question of what science can tell us about the experience and effects of prolonged participation in video-game activities. From another vantage point, however, the unresolved condition of research on the psychological and cultural effects of gaming, when coupled with the extravagant claims and counter-claims about these effects by advocates and critics of gaming, points to the presence of a robust *concourse*—or perhaps several concourses—on the what the experience of gaming actually means to the gamer himself or herself. Accordingly, as a suitable starting point for bringing Q methodology to bear on an investigation of this matter, we consulted McGonigal's *Reality is Broken* and the dozens of customer reviews of the volume available at the amazon.com website for the same and discovered a veritable treasure trove of subjective communicability on the video-gaming experience. Due to our interest in the "inner game" (subjective play state) of the committed video-game player, we confined our compilation of statements to those claims that one would reasonably expect from a video-game enthusiast such as McGonigal herself (and her sympathetic reviewers). As a result, the subjective truth-claims of gaming critics like Carr (2011) were deliberately omitted from our concourse and Q sample.

The final 45-statement Q sample for this research is not theoretically structured. However, in the selection of statements care was taken to ensure comprehensive coverage of the personal attractions of gaming to participants, focusing simultaneously on the alleged *extrinsic–instrumental* benefits of the gaming experience, as emphasized by McGonigal, balanced out by expressions of *intrinsic* enjoyment bearing the hallmarks of play as outlined in the final chapter of Huizinga's *Homo Ludens*. Ludenic behavior, by this account, was indicated by the following eight elements: that play (1) was based on a *voluntary activity*; (2) involved *temporarily stepping out of "real life"*; (3) was *absorbing*, (4) was *secluded and confined to its own boundaries;* (5) *engaged no extrinsic or material interest;* (6) promoted *social groupings*; (7) had a *repetitive, ritualized quality*; and (8) proceeded in *an orderly fashion*, deviations from which were seen as spoiling the game (Huizinga, 1950, p. 207). Finally, following Stephenson (1967) a ninth element was added to the list:  because play was considered as behavior undertaken outside the

auspices of *social controls* (under conditions of *convergent selectivity*), it was experienced as *self-enhancing.* These nine elements do not amount to a coherent *theoretical* structure for the Q sample, principally because the concourse of committed gamers and gaming advocates contains a substantial portion of self-referent statements that are thoroughly *instrumental* in character (e.g., "gaming sharpens my capacity to see things in a big, systemic picture"). Suffice it to say that in composing the Q sample, equal attention was given to play and non-play considerations, and to ensuring the inclusion of some of the more salient stereotypes of video games and gaming widely acknowledged as part of the reputation, deserved or not, of chronic video-game players.

The P set for this research was comprised of 37 male college students, 20 of whom attended a private liberal-arts college in Pennsylvania, and 17 of whom attended a similar college in Iowa. Recruitment to participate was by word-of-mouth, and participants in Iowa were given the option of keeping their Q sorts confidential (not appending their name), an invitation that most respondents declined. The median number of hours per week devoted to playing video games by members of the P set was between eight and nine. The maximum number of continuous hours devoted to a single session of video gaming ranged from a low of six to a high of 24. Game preferences of the participants included both multiple-team and single-player formats, with games featuring either major sports-simulations or militaristic battlefield scenarios (including both team and "single-shooter" varieties) cited as the two most popular genres.

## Results: The Factors and Their Interpretation

Q sorts from the 37 participants were initially analyzed all together. Using PQMethod software (Schmolck & Atkinson, 2002), four principal components factors were extracted and rotated using varimax criteria to a position approximating simple structure. Inspection of the rotated factor matrix (using automatic flagging) revealed two highly correlated factors (r=0.44), with one of the factors defined principally by participants from Iowa, the other by Pennsylvanians. We then proceeded to analyze the data from each site separately based on the possibility that locale-specific cultural or linguistic particularities were responsible for the highly-correlated factors. Using the factor scores from the locale-specific factors as composite sorts for a second-order analysis, we determined that our suspicions regarding the effects of cultural specificities in the discovery of the inter-correlated factors were confirmed. The second-order factor analysis produced a four-factor solution. The final matrix is shown in Table 1. As can be seen, two of the factors appeared at both sites, while the other pair consisted of an Iowa-specific and a Pennsylvania-specific factor. The second-order factors

were clearly orthogonal: no two factors correlated with one another beyond r=0.20. The four-factor solution was deemed quite satisfactory in that only two of the respondents produced Q sorts which failed to load significantly on at least one of the factors.

**Table 1: Second-Order Factor Matrix for Video Games Study**

| QSORT | A | B | C | D |
|-------|-----|-----|------|------|
| *Wartburg 1* | **.93** | .18 | −.02 | −.02 |
| *Wartburg 2* | .18 | **.60** | .41 | −.38 |
| *Wartburg 3* | .17 | .12 | .09 | **.88** |
| *Westminster 1* | .10 | .02 | **.94** | .10 |
| *Westminster 2* | **.81** | .02 | .28 | .36 |
| *Westminster 3* | .09 | **.87** | −.07 | .26 |

**Factor A: Games—Over-Hyped Stress Relief**

This might also be termed the "anti-McGonigal factor" since it rejects virtually all of the claims and extrapolations from *Reality is Broken.* Virtually every one of the statements with strong negative scores are McGonigal assertions: reality is trivial; the world is changing, and games help prepare us for the changes to come, they foster cooperation, give an aid to education, encourage participants to keep one foot in the future, and stimulate deep engagement. None of this is so per Factor A. Nor is there support for the reputation that games have in some circles as providing catalysts for real-world violence as was true in the post-Columbine context. Instead, gaming offers a source of relief from the stresses of college life. Games make people feel better, at least temporarily. But they don't address any deep emotional need. And they are expensive, so they are by no means the sole or most effective route to stress relief. This reflects no deep or wide extrapolations that the McGonigal volume would lead one to expect. In fact, the following four statements—all taken from McGonigal's book—receive strongly negative scores in the Factor A array:

16. Compared with games, reality is trivial. Games make us a part of something bigger and give epic meaning to our actions. [−5 −3 −1 −5]

37. It's no surprise to me that studies show, on average, many [game] players are physically healthier, work harder, make better grades, earn higher salaries, and are more socially connected than those who play less or not at all. [−5 −3 −1 −1]

45. The world is changing. It is going to change faster and faster over the next two decades for sure. The "games" we play today often provide the training ground for real world behavior in the future. [−4  0  0  0]

6. Community-oriented games foster friendships and they develop problem-solving skills that have huge potential for solving real-world problems. [−4 1 3 3]

Although Factor A does not share in McGonigal's enthusiastic anticipation that video gaming, in its cumulative effects, may be of vital importance in helping humanity to meet the daunting challenges facing the modern world, this is a viewpoint that does recognize a utilitarian pay-off from playing these games and investing time in them. For Factor A, gaming is a stress reliever *par excellence.* And, as such, Factor A bears strong affinity to an important facet of play as outlined by Stephenson (1967): "Playing is *pretending*, a stepping outside the world of duty and responsibility. Play is an interlude in the day. It is not ordinary or real. It is in some sense *disinterested,* providing a temporary satisfaction. Though attended to with seriousness, it is not really important" (p. 46). Echoing this theme are the three following statements, all of which earned strong agreement by this factor.

11. The big draw for the college-student gaming crowd is not complicated: it's stress relief, pure and simple! [5 2 3 0]

21. Games can help to pass some time, and make you feel better. But they can also keep you from getting important things done. [5 3 5 2]

34. Some call it addiction; some call it mindless escapism; some see it as harmful, even though it's purely virtual. None of these comes close to capturing the nature of the subjective experience of gaming. It's not all that complicated; it's plain FUN! [3 −1 1 −1]

On the flip-side of the coin, Factor A takes exception with those critics of gaming who are convinced of a causal link between exposure to video games, on the one hand, and acceptance of and involvement in real-world violence, on the other:

31. Granted, America is a violent country: we lead the world in handgun homicides; we deploy our military in every corner of the world; we incarcerate more criminals per capita than any other country. But the US is not the only place where games, including violent ones, are popular among the younger generation. Blaming gaming for our national violence is not just simply scape-goating. It's dumb! [4 −1 −3 1]

Finally, Factor A is mindful of the expenses that gamers incur; as a result, the sense of play expressed in this factor is not exactly indifferent to the material consequences of their virtual indulgences. At the same time, Factor A also gives voice to the belief that there is a need among humankind for "more than reality":

9. Granted, the whole gaming thing does have a strong commercial aspect to it. Games are plentiful, but they're not cheap. It takes a hefty investment to keep stocked up with the latest and best products. [**4** 1  2  4]

20. Humans have a need for something more than reality, whether it be games or stories, since after all, religion is just the passing of stories across generations, stories that people want to believe as true, because they feel an emotional need for more than reality [**3**  5  0  –5]

In sum, gamers associated with Factor A see video gaming as primarily a diversionary activity, but with the purpose of helping them to relax and deal with the stresses of college life, perhaps as earlier generations of college students may have viewed playing cards or board games in their dorms. They disagree strongly with many of the more ambitious claims advanced by McGonigal's volume. In other words, these individuals do not see video gaming as holding great societal promise. These are gamers drawn to video games by the simple opportunity they afford for taking a time-out from daily demands and stresses. Against the high-stakes and widespread significance that McGonigal ascribes to video gaming, Factor A is frankly nonplussed. It sees neither the benefits imagined by the enthusiastic advocates nor the harm that more vocal critics of video games often cite.

## Factor B: Serious Gamers: Ludenic Dividends and Addictive Perils

Our second factor represents the closest empirical approximation of the idealized advocate–practitioner of video gaming depicted in McGonigal's volume. The nine individuals whose Q sorts are significantly loaded on Factor B average between five and six hours on gaming per week, with one person spending no more than three hours at the lower end while the two leading defining variates from Iowa, both international students, admit to devoting 16–20 hours per week to gaming activities. One of these individuals, in fact, is a Graphic Arts major planning to pursue a career in the design and development of video games. It should probably come as no surprise, then, that this factor embodies the strongest defense of the instrumental dividends of gaming while also expressing a clear sense of (virtually aesthetic) appreciation for what it takes to produce an engaging, high-quality game. The practical potential of games as the source of societal problems is not without limit, as the –5 score assigned to statement 15 below indicates. At the same time, the commercial, educational, and critical, problem-solving capacities contained within the gaming industry should not be underestimated. Games thus hold enormous potential for societal and institutional progress even though it would be unrealistic to expect them to serve as keys to solving the most intractable of humanity's current ills. They can

improve educational institutions, but they cannot supplant the rigors of a classical higher education. They can foster systemic thinking, enhancing the abilities of gamers to see things in a broader, "big picture" sense; however, they are not likely to transform the typical workplace of the future.

23. There are millions to be made by the game designers who will one day build geography or foreign language into games that the best school districts will buy just as they did the first generation desktops for their lucky students. [1 **5** 0 0]

3. Games are systems, and systems are everywhere. Think of systems that make energy, systems that make food, systems that make laws. From gaming, you start to see these systems differently: you start to wonder how we can change them, improve them, supplement them, and yes, game them. [–2 **4** 1 0]

5. Education should be a game. [–3 **3** –1 –1]

15. Humanity currently has a crippling inability to face our most urgent problems—polarizing powers, climate crises, limited resources. We feel powerless, insignificant, divided, and directionless—everything a good game would fix. [–2 **–5** –3 –4]

29. If the point of a liberal-arts education is to develop critical thinkers and problem-solvers with a can-do attitude for addressing our social ills, I'd have to say that gaming at least rivals the capacity of formal class work in producing these outcomes. Unfortunately, though, gaming can't grant the Almighty Degree! [–2 **–4** –2 –2]

Gaming's benefits are not entirely instrumental in the sense of producing in players practical, reality-based skills that will enhance human problem-solving. Games also provide participants with opportunities to meet deeper social and emotional needs. Indeed, for Factor B, they are more useful as vehicles for social interaction than the so-called social networks, Twitter and Facebook, favored by so many young people these days. More importantly, games challenge the serious player with genuine opportunities to "engage" or concentrate—at a deeper level—than is typically realistic in everyday endeavors, and in so doing to utilize what amounts to a fuller measure of one's "mettle" (brains, perseverance, motivation) than had ever been the case heretofore. As put in the post-sort interview by the highest loader on Factor B, coming to the end of a good, difficult game is experienced with "joy and sadness—joy for the sense of accomplishment, sadness because the experience is ending."

20. Humans have a need for something more than reality, whether it be games or stories, since after all, religion is just the passing of stories across generations, stories that people want to

believe as true, because they feel an emotional need for more than reality. [3 **5** 0 –5]

18.  One could easily make the argument that video games are a far more effective medium for socially interacting and networking with others than, say, spending all day stalking people on Facebook or reading some celebrity's random comments on Twitter. [0 **4** –2 2]

14. It's often said that we use only a slim portion of our total brains over the course of life. While engaged in a good game session, however, I'm pretty sure I'm close to "maxing out" on my motor skills and brain power at the same time. [–3 **2** 1 –2]

Interestingly, this sense of "seriously playful" engagement does *not* involve feelings of competitiveness. Whether this is due to the presence of non-American individuals on this factor, coupled with the ethnocentric way in which statement 30 is phrased, is impossible to determine with certainty at this point. It bears noting that American citizens load on this factor as well. Therefore—as a provisional matter, though—we are inclined to see the factor as reflecting a kind of subjectivity that, at its core, is close to what Csikszentmihalyi (1998) calls "flow"—that is, where players are able to experience the trance-like state of "being in the zone" in which their access to skills and capacities summoned by an extraordinary challenge is itself, naturally, extraordinary. But being in the zone is not, for these individuals, felt as a product of competition with other players.

30. A simple, yet overlooked, plus of video games is that they foster the good old-fashioned American virtue of competitiveness. Maybe one reason people like Bill Gates and Mark Zuckerberg dropped out of college was that they weren't challenged, even by Harvard, in a way that brought out their competitive best the way good games do. [0 **–4** 4 1]

Finally, Factor B is alone among our factors in its admission, shown in the –5 given to statement 13, that it has *not* reached a point in its affinity for video games where it can safely say that the threat of addiction posed by gaming has been effectively put behind it. On the contrary, gaming is not unlike alcohol or psychotropic drugs to Factor B. And thus the flip-side of the most fiercely dedicated of our viewpoints is the frank recognition of the most worrisome "reality" about reality-escaping games: they are, in fact, addicting. Their biggest liability, then, is that they make it difficult—indeed, they defy one's current ability—to budget time and energies in the most sensible manner.

13. I've learned to discipline myself and manage my time so that my gaming doesn't come at the expense of my grades. But there's no way I'm going to drop gaming from my "free time." I just make

sure not to waste free time on things that don't really interest me—television, news, hanging out with no agenda, etc. [2 **–5** 0 –2]

## Factor C: The Competitors

Factor C is made up of sorters only at Westminster College, and its subjective distinctiveness is not difficult to discern. Factor C puts a prime emphasis on the competitive nature of gaming. For these gamers, you play to win. They seem to derive satisfaction from what Taylor (2009) refers to as "mastery and status" (p. 102), the idea that gaming is a skill-based, competitive endeavor in which victory is its obvious reward. The benefits to gamers are thus personal, not social or cooperative. And since gaming is, in essence, a zero-sum form of competition, it is an endeavor where losers need not apply.

8. The way gaming is put down by older (and younger) critics as an escapist, useless haven for those who have tuned out of their educational responsibilities is laughable. Some of the best, smartest students I know are committed gamers. [1 1 **5** 4]

30. A simple, yet overlooked, plus of video games is that they foster the good old-fashioned American virtue of competitiveness. Maybe one reason people like Bill Gates and Mark Zuckerberg dropped out of college was that they weren't challenged, even by Harvard, in a way that brought out their competitive best the way good games do. [0 –4 **4** 1]

22. I usually don't care if I win. I play because I enjoy the company as much as the competition of other players.[–1 –2 **–5** –1]

They see gaming as a vehicle to satisfy competitive needs, and make no apologies for this competitive spirit, comparing it to the American ethos. While Factor-C types see gaming in personal terms, they do see the potential for the skills developed and the confidence gained in gaming as having the benefit of helping society as these gamers put those same skills to use in other endeavors.

6. Community-oriented games foster friendships, and they develop problem-solving skills that have huge potential for solving real-world problems. [–4 1 **3** 3]

7. Think of gaming in comparison with other activities that are allegedly more useful. Take the self-help industry, for example. It isolates the individual, turns people inwards, and does not foster community and mutual aid. [–1 –2 **3** –3]

However, they do not buy the McGonigal argument that these games themselves can help to fix our most intractable problems:

43. Games—particularly alternate *reality* games—inspire large groups of people to pool their knowledge and skills to overcome

obstacles, and this is precisely what's needed to tackle global social issues, such as poverty, hunger, disease and climate change. [–1 –1 **–5** –1]

42. Being a gamer means always having one foot in the future and that's why I love gaming.

[–3 –1 **–4** –1]

Factor C respondents also embrace the notion that video games serve the necessary function of stress relief for college students, but (as goal-oriented people) fear they may keep you from "more important things."

21. Games can help to pass some time, and make you feel better. But they can also keep you from getting important things done. [5 3 **5** 2]

11. The big draw for the college-student gaming crowd is not complicated: it's stress relief, pure and simple! [5 2 **3** 0]

Overall, Factor C types express a pronounced competitive edge through their video-gaming experiences. For them, the rewards are personal and concrete. They do not see video gaming as a potential source of dealing with society's problems, but do believe that the competition in these games will foster the skills necessary for individuals to make contributions to society in the future. This is not dissimilar to what our society has believed for generations about youthful participation in sports: that it would "build character," while developing leadership skills and the like.

## Factor D: Avid Anti-Extrapolators/Opaque Guardians of Gamespace

The fourth factor is defined by seven significantly loaded Q sorts, three of which were from Pennsylvania and four from Iowa. (In the second-order factor analysis, however, the weight of the Iowa sorts was such that it emerged as a second-order factor defined by the third factor from the original analysis of Iowa data alone.) On average, Factor-D respondents devote between six and eight hours to gaming per week, and the highest-loading individual reports having participated regularly in marathon gaming sessions lasting twenty or more continuous hours. Looking at salient factor scores that distinguish this from the first three factors, one is struck by fact that this viewpoint is defined principally by what it opposes, and this is demonstrated at both ends of the Factor-D composite Q sort. The positively ranked statements are truth claims about the reputation of gamers or about non-gaming reality that are distinctively framed as criticisms of what might pass in some quarters as prevailing wisdom. Not only are pejorative stereotypes of gamers as time-wasting addicts way off the mark, so too are many of the dominant features of prevailing institutional life created by the critics themselves deserving of criticism, e.g., education under No Child Left Behind.

28. Stereotypes of gamers that portray them as a bunch of "waste-oids" are a farce. There is no such thing as a "Gamer Type." They are good students and not-so-good students, liberals and conservatives, jocks and geeks; in short, they're just as diverse as their generation as a whole.

[2  2  –1  **5**]

33. If the chatting classes in our society want to blame poor test scores on the popularity of video games, maybe they'd better take a look at the effects of No Child Left Behind on turning education into one big, boring standardized-test prep class! [0  –1  –1  **5**]

While the truth for Factor D is that many of the most committed gamers are from society's "best and brightest," their ranks are not subject to easy generalization. Indeed, virtually any statement within the entire Q sample that ascribes general motives or distinctive characteristics to gamers or gaming is sharply rejected. Factor D is clearly reluctant to extrapolate from its gaming experiences: about humans generally, and especially about the nature of the subjective satisfaction derived from gaming not readily available elsewhere. Indeed, Factor D reads like an itemized refutation of the most widely circulated explanations for video games' popularity. Contrary to Wark (2007), Factor D denies that games are attractive because they rest on the promise of a definitive conclusion typically missing in real-world endeavors (item 24). And in direct contrast the other factors, especially Factor A, games are not fundamentally about stress relief for anxious college students (item 11). Nor can one surmise that games provide players with healthier down-time investments of time and energy than other, potentially self-destructive or addictive behaviors (item 2). Finally, games do not draw gamers because they offer a harmless, cathartic opportunity to indulge one's more primitive impulses (item 26). That every one of these statements speaks to a different form of subjective play ostensibly satisfied by gaming and is, without exception, rejected by Factor D explains our decision to label this fourth viewpoint, in part, as "Avid Anti-Extrapolators."

20. Humans have a need for something more than reality, whether it be games or stories, since after all, religion is just the passing of stories across generations, stories that people want to believe as true, because they feel an emotional need for more than reality. [3  5  0  **–5**]

16. Compared with games, reality is trivial. Games make us a part of something bigger and give epic meaning to our actions. [–5  –3  1  **–5**]

24. When you are playing a game, you know that there is a definitive conclusion that can be reached because the game

designers would have incorporated it from the beginning. There is no such guarantee in the real world. [2  0 –2 **–4**]

2. Some people play games to escape, to avoid doing the things they're supposed to do, like studying; I play games to keep myself from doing things that are bad for me—worse than gaming by a long shot. [–1  1  1 **–3**]

26. Video games are as popular as they are because most people are freed of the feeling of responsibility to social niceties within them. [1  0  2 **–2**]

11. A big draw for college students is stress relief pure and simple. [5 2  3 **0**]

The critical, generalization-averse tenor of Factor D does not prevent it from taking aim at gaming itself. After all, video games constitute a commercial enterprise whose products are quite expensive, and many of the more best-selling ones border on mindless "entertainment" and the cheap thrills afforded by "blowing stuff up." Nor is the assessment of reality by Factor D such that games offer a promise unavailable by other means of addressing persistent public problems. Finding fun and gaining necessary relief from stress are not outcomes peculiar to video games. More broadly, again, this factor resists much in the way of general extrapolations about video gaming of any sort contained in the Q sample. This is particularly so in Factor D's resistance to subjective assertions pertaining to the roots of gaming's appeal. Pursuing this matter in a follow-up interview with a Factor-D respondent, the point was made that "unless you were an experienced gamer, you would not understand the roots of gaming's appeal. It's pretty much beyond words." Based on this expressed sense of exclusivity and other comments about the value and popularity of games as an emergent art form, we elected to adopt the second element in our label for these individuals: "Opaque Guardians of Gamespace." It may well be that this is a viewpoint that takes as its mission the need to challenge prevailing stereotypes and "explanations" of gamer behavior as universally off the mark, with that predisposition itself a reflecting an important facet of the self-styled "identity" of these gamers as playfully enacting the role of inscrutable contrarians.

16. Compared with games, reality is trivial. Games make us a part of something bigger and give epic meaning to our actions. [–5  –3  1 **–5**]

25. It's a worrisome possibility that videogames won't evolve beyond mere junk food for the brain. Books and movies have been trading commercial success for quality now for a long time . . . so if games are to be taken seriously as art, they have to be about more than blowing stuff up. [1 –2  0 **3**]

9. Granted, the whole gaming thing does have a strong commercial aspect to it. Games are plentiful, but they're not cheap. It takes a hefty investment to keep stocked up with the latest and best products. [4  1  2  **4**]

## Concluding Discussion

Before turning to the significance and implications of these four versions of the "inner game" of gaming, a brief word is in order on issues of consensus across the four configurations of subjective communicability presented above. Two issues in particular stand out in this regard. The first is shown in the negative scores ascribed by all factors to statements 15 and 43, encompassing two of the more extravagant, enthusiastic conjectures about the broader practical promise of gaming advanced by the McGonigal volume. Statement 29, the third item below, also galvanizes consensual opposition across the factors, and while in part it speaks to the same issue of practical limits found in the previous pair of items, it differs in the relative emphasis attached to a liberal-arts college education. This is noteworthy because all our participants were enrollees in liberal-arts colleges when our data were collected, and alongside the cognitive dissonance that would be tapped if gaming were seen to rival their common and expensive investment in this college setting, the matter is framed in terms of what Stephenson (1967) designates under the rubric of *social control*—i.e., domains of endeavor under the influence of ego, work, tradition, and heavily reinforced socialization—as opposed to conditions of *convergent selectivity*, in which fads, fashions, entertainment, and play are more likely as the weight of cultural custom gives way to personal choice. The fact that the common domain of the liberal-arts learning environment is treated as above criticism among our factors is in line with Stephenson's theorizing about the limits of ludenic behavior, including playful subjectivity, within contexts governed by social control.

15. Humanity currently has a crippling inability to face our most urgent problems—polarizing powers, climate crises, limited resources. We feel powerless, insignificant, divided, and directionless—everything a good game would fix. [–2 –5 –3 –4]

43. Games—particularly alternate *reality* games—inspire large groups of people to pool their knowledge and skills to overcome obstacles, and this is precisely what's needed to tackle global issues, such as poverty, hunger, disease, and climate change. [–1 – 1 –5 –1]

29. If the point of a liberal-arts education is to develop critical thinkers and problem-solvers with a can-do attitude for addressing our social ills, I'd have to say that gaming at least rivals the capacity of formal class work in producing these

outcomes. Unfortunately, though, gaming can't grant the Almighty Degree! [–2 –4 –2 –2]

For all of these gamers—even those drawn principally by the promise of simple stress relief on Factor A—gaming is more than a mere diversion; however, its intrinsic value and extrinsic potential are not without limits. Even the best of games cannot be expected to point the way out of humanity's more vexing challenges, whether they fall within the realm of the planet's most intractable policy problems (such as poverty, disease, or climate change) or in the distressing deterioration in morale that so often accompanies these conditions on the subjective side of the ledger. A common feature of these factors is that they fall short of the excessively enthusiastic advocacy of gaming's practical pay-offs put forward by proponents such as McGonigal.

The second-most intriguing point of consensus among our factors is similar to the first in that it retreats from an unqualified endorsement of video gaming as an endeavor the cost–benefit ratio for which is entirely one-sided in favor of benefits. This particular "sense of limits" is more consumer-based than the aforementioned caution on excessive expectations, and it expresses itself, in turn, in two related yet specific ways in the rankings assigned Q statements pertaining to (a) the potential threat posed by large opportunity costs paid by hardcore gamers expressed in statement 21 and (b) the literal costs to customers of the latest video-game products coming off the assembly line is far from inconsequential.

21. Games can help to pass some time, and make you feel better. But they can also keep you from getting important things done. [5 3 3 2]

9. Granted, the whole gaming thing does have a strong commercial aspect to it. Games are plentiful, but they're not cheap. It takes a hefty investment to keep stocked up with the latest and best products. [4 1 2 4]

At the same time, it bears noting that statement 21 has two parts, and in the first sentence one finds a direct (and also universally endorsed) exemplar of the element added by Stephenson (1967) to Huizinga's distinguishing elements of play: its *self-enhancing* character. The qualifier, following the word "but" in the second sentence, is a generic caution that could apply on the cost side to virtually *any* voluntary investment of human energy and time. Furthermore, the fundamental fact that we have unearthed here four distinct versions of "communication pleasure" about video gaming by a P set comprised entirely of committed gamers stands as empirical corroboration for the principle of *convergent selectivity* on which Stephenson anchored his amendments to Huizinga's cultural theory of play. Stephenson's intent,

of course, was to make play theory more fully compatible with communication theory and, along with his additional principles—subjective communicability, self, subjective play, etc.—to erect an altogether novel way of understanding (and studying) the uses and gratifications that drive audience attractions to mass media.

That our findings document no fewer than four varieties of "subjective play" on the part of more than three dozen experienced gamers, when coupled with the salient characteristics that typically accompany ludenic behavior noted above (absorbing, stepping outside of reality, absence of material gain, adhering to orderly rituals, secluded, promoting social groupings, and the like), leaves scarcely a doubt that what we have here is genuinely playful. Indeed, minus the Q study itself, these gamers display a behavioral profile that is visibly consistent with the easily observable properties specified above. That we have been able to facilitate the operant expression of *playful subjectivity* is less obvious perhaps, but even though Factor D goes to great lengths to underscore the serious nature of its role as a guardian of gamespace, there does not appear much of a case to be made that the core self-expressions distinguishing these viewpoints are anything but playful. The stress-relief of Factor A, the deeper engagement bordering on "flow" of Factor B, and the competitive animus of Factor C all converge, in selective ways, on a portrait of their subjective experience of gaming that is unabashedly playful.

Factor D, however, at first blush seems to be another story. Close scrutiny of the distinguishing statements and comments from follow-up interviews do not disclose much in the way of a ludenic attraction to gaming. Rather than remaining an impenetrable mystery, this circumstance presents us with an opportunity to return to our earlier promise regarding the paucity of play theory-inspired research in the more than forty years since the *Play Theory* appeared (Logan, 2008). What does Factor D tells us in that regard? For one thing, it calls attention to the difficulties often encountered in putting into satisfactory language—subjective communicability—the most precise yet authentic means of conveying a deeply internal, rewarding event. The same difficulty, oddly, does not inhere in describing deeply disappointing subjective experiences. Consider, example, the millions of copies of Timothy Gallwey's (1997; 1998; 2001) series of brief volumes on performance-based behavior—tennis, golf, work, and music—collectively known by the common terms "the inner game" found in each title. In essence, Gallwey's formulation of the so-called inner game is to help readers who find themselves condemned to repeated underperformance relative to their abilities in endeavors ranging from athletics to aesthetics due to the persistence of a "self-sabotaging inner voice." Gallwey is here referring to an internal critic, nay-sayer, or

doubter whose voice is audible only within the mind of a golfer standing over a three-foot putt at a crucial point in the round. Absent the voice, the three-footer is easily holed as a virtually automatic routine. Often, however, the task is anything but routine, as the voice of doubt intervenes to put the golfer doing the putting in a negative, distracted mind-set unable to quiet the voice and instead to visualize the putt going in without succumbing to the nagging nabob of negativism within. Gallwey's remedy is to help the golfer "get out of his own way" by preoccupying Self 1, the body, with ritualized routines that distract the inner voice of doubt, designated as Self 2. The best of golfers, tennis players, musicians, and perhaps video gamers as well simply allow Self 1 (the body) to let go; Self 2 is in effect cut from the team. But if this is the sum-total of the "inner game," what becomes of the capacity of an inner voice to give words, in subjective communicability, to what might be termed "Self 3" —the heretofore ludenic self, able to access genuine, intrapersonal *communication pleasure* in all its self-enhancing, self-affirming glory?

For Stephenson, a British émigré to the United States, the problem was embedded in the culture and in the nature of behavioral science as he found it in mid-twentieth-century America. Puzzled by the refusal of researchers to consider mass communications as a possible agent of entertainment, Stephenson (1967) came to believe that "the reason in part is to be found in the *heavy load of conscience* carried by these earlier theorists who were bent on doing good in terms of their own values instead of being good scientists in universal terms" (pp. 2–3; emphasis added). The same point is made by Brown (2003), who points to the failure in this country to grasp Stephenson's play-theoretical contributions because "our culture has been overly influenced by the work ethic blind spot insofar as the pervasiveness of play is concern [*sic*], or [as in some cases] to its downplay as of childhood and juvenile concern only—as a preparation for adulthood."

Stephenson identifies a second impediment to the "heavy load of conscience," his cryptic way of referring to the influence of *social controls* (as opposed to freely chosen behaviors and attitudes under the guise of *convergent selectivity*.) This additional impediment is found in a passage of *The Play Theory* devoted to a discussion of the meanings of "pleasure." Since the latter is synonymous with "subjective play" when framed as *communication–pleasure,* it is possible to substitute play in the communicable subjectivity sense for the word pleasure in the following quote:

> Paralleling the two meanings distinguished for self-involvement above, there are two for the word "pleasure." The one concerns our moods of elation, joy, sorrow, and the like; the other is retrospective, as when we say we were so absorbed in an activity,

so engrossed in it, that we "enjoyed" it. In the latter case the person may not have been experiencing any particular feelings—on the contrary, he may have been so absorbed that he lost all sense of himself in the process. Thus . . . when people say they enjoy reading a newspaper, sheer absorption may be involved and not feelings at all. (Stephenson, 1967, p. 54)

In our view, Factor D stands as an illustration of what is at issue here. Because genuine play is so frequently experienced in the present as a "trance-like" state of self-absorption in the task at hand, it can only be reported in retrospective terms. When a world-class athlete is "in the zone," so to speak, he or she can be seen as having a glassy-eyed look of intense concentration—as if they were "somewhere else" —while in fact they are so engrossed in the challenge of the moment that self-referent statements about their mental state as one of "flow," "feeling it," or "in the zone" would be impossible lest the intensity of concentration be lost. It will be recalled that Stephenson's aforementioned paper on "the immediacy of movies" cautioned critics concerned with the subjective experience of a movie to the viewer to not lose sight of the fact that the actual experience of viewing a movie is not the same thing as writing, in retrospect, a critical review of what the director was intending to signify, etc. The same dilemma is encountered in examining subjective play in any venue.

In this light, the relative dearth of research aimed at extending play theory becomes more understandable. Not only is academic culture encumbered by the broader, diffuse influence of the "Protestant ethic," which functionally denigrates play as somehow beneath our better angels; the actual experience of deeply engrossing, self-absorbing play is itself of such intensity that it can be spoken of—in its subjectively pleasurable character—only in retrospect. Taken separately or in conjunction, these impediments to progress in the illumination, understanding, and deliberate cultivation of play are not insuperable. If nothing else, the foregoing effort to investigate the play element engaged in virtual gaming might well serve not just to vindicate this promise, but point to a direction for reinvigorating systematic investigation of the often-overlooked ludenic portions of our lives.

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## Appendix: Factor Scores for Video Games Study

| No. | Statement | Factor | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 1 | The idea of "video game addiction" sounds sinister and twisted. Instead of falling for such nonsense, today's schools, businesses and the greater community can and SHOULD learn that the gaming community has much to contribute to improve the quality of life for everyone in society. | −1 | −1 | 1 | 0 |
| 2 | Some people play games to escape, to avoid doing the things they're supposed to do, like studying; I play games to keep myself from doing things that are bad for me—worse than gaming by a long shot. | −1 | 1 | 1 | −3 |
| 3 | Games are systems, and systems are everywhere. Think of systems that make energy, systems that make food, systems that make laws. From gaming, you start to see these systems differently: you start to wonder how we can change them, improve them, supplement them, and yes, game them. | −2 | 4 | 1 | 0 |
| 4 | Yes, of course, games provide their participants with well-simulated Alternate Reality. And of course they allow players to escape so-called real reality. And in case you haven't noticed lately, so-called real reality ain't all that great! | −1 | −2 | 4 | −2 |
| 5 | Education should be a game. | −3 | 3 | −1 | −1 |
| 6 | Community-oriented games foster friendships, and they develop problem-solving skills that have huge potential for solving real-world problems. | −4 | 1 | 3 | 3 |

| No. | Statement | Factor | | | |
|-----|-----------|:---:|:---:|:---:|:---:|
|     |           | 1 | 2 | 3 | 4 |
| 7 | Think of gaming in comparison with other activities that are allegedly more useful. Take the self-help industry, for example. It isolates the individual, turns people inwards, and does not foster community and mutual aid. | −1 | −2 | 3 | −3 |
| 8 | The way gaming is put down by its older (and younger) critics as an escapist, useless haven for those who have tuned out of their educational responsibilities is laughable: Some of the best, smartest students I know are committed gamers. | 1 | 1 | 5 | 4 |
| 9 | Granted, the whole gaming thing does have a strong commercial aspect to it.  Games are plentiful, but they're not cheap. It takes a hefty investment to keep stocked up with the latest and best products. | 4 | 1 | 2 | 4 |
| 10 | Gaming generates an internal sense of satisfaction that spills over into other parts of your life. As a result, some of your better gamers can gain a sense of self-confidence that helps them in real life. | 0 | 1 | 2 | 1 |
| 11 | The big draw for the college-student gaming crowd is not complicated: it's stress relief, pure and simple! | 5 | 2 | 3 | 0 |
| 12 | Unlike most classes in school, games provide direct "hands-on" learning opportunities where a host of skills (supported by strengthened neural networks in the problem-solving portions of the brain) are built from concentrated action and instantaneous feedback. | −1 | 1 | 2 | −1 |
| 13 | I've learned to discipline myself and manage my time so that my gaming doesn't come at the expense of my grades. But there's no way I'm going to drop gaming from my "free time." I just make sure not to waste free time on things that don't really interest me—television, news, hanging out with no agenda, etc. | 2 | −5 | 0 | −2 |
| 14 | It's often said that we use only a slim portion of our total brains over the course of life. While engaged in a good game session, however, I'm pretty sure I'm close to "maxing out" on my motor skills and brain power at the same time. | −3 | 2 | 1 | −2 |

| No. | Statement | Factor | | | |
|-----|-----------|:------:|:-:|:-:|:-:|
|     |           | **1** | **2** | **3** | **4** |
| 15 | Humanity currently has a crippling inability to face our most urgent problems—polarizing powers, climate crises, limited resources. We feel powerless, insignificant, divided, and directionless—everything a good game would fix. | −2 | −5 | −3 | −4 |
| 16 | Compared with games, reality is trivial. Games make us a part of something bigger and give epic meaning to our actions. | −5 | −3 | 1 | −5 |
| 17 | In a game, we know there are always ways to achieve those goals and to emerge a clear winner—a courtesy that real life does not always extend. | 1 | 2 | −3 | −3 |
| 18 | One could easily make the argument that video games are a far more effective medium for socially interacting and networking with others than, say, spending all day stalking people on Facebook or reading some celebrity's random comments on Twitter. | 0 | 4 | −2 | 2 |
| 19 | Games aren't just fun because we can win them. There are all these other emotions that are part of it, that are necessary to stick with the challenge and to imagine that epic win. | 1 | 1 | 1 | 2 |
| 20 | Humans have a need for something more than reality, whether it be games or stories, since after all, religion is just the passing of stories across generations, stories that people want to believe as true, because they feel an emotional need for more than reality. | 3 | 5 | 0 | −5 |
| 21 | Games can help to pass some time, and make you feel better. But they can also keep you from getting important things done. | 5 | 3 | 3 | 2 |
| 22 | I usually don't care if I win. I play because I enjoy the company as much as the competition of other players. | −1 | −2 | −5 | −1 |
| 23 | There are millions to be made by the game designers who will one day build geography or foreign language into games that the best school districts will buy just as they did the first generation desktops for their lucky students. | 1 | 5 | 0 | 0 |

| No. | Statement | Factor | | | |
|---|---|---|---|---|---|
| | | **1** | **2** | **3** | **4** |
| 24 | When you are playing a game, you know that there is a definitive conclusion that can be reached because the game designers would have incorporated it from the beginning. There is no such guarantee in the real world | 2 | 0 | -2 | -4 |
| 25 | It's a worrisome possibility that video games won't evolve beyond mere junk food for the brain. Books and movies have been trading commercial success for quality now for a long time . . . so if games are to be taken seriously as art, they have to be about more than blowing stuff up. | 1 | -2 | 0 | 3 |
| 26 | Video games are as popular as they are because most people are freed of the feeling of responsibility to social niceties within them. | 1 | 0 | 2 | -2 |
| 27 | The shootings at Columbine gave gaming an undeserved bad name. Granted, shooters Harris and Klebold often played *Dungeons and Dragons.* But they also refused to take meds for their depressive diagnoses. It's an easy scapegoat to blame their pathological violence on the effects of video games. | 3 | 2 | 0 | 2 |
| 28 | Stereotypes of gamers that portray them as a bunch of "waste-oids" are a farce. There is no such thing as a "Gamer Type." They are good students and not-so-good students, liberals and conservatives, jocks and geeks; in short, they're just as diverse as their generation as a whole. | 2 | 2 | -1 | 5 |
| 29 | If the point of a liberal-arts education is to develop critical thinkers and problem-solvers with a can-do attitude for addressing our social ills, I'd have to say that gaming at least rivals the capacity of formal class work in producing these outcomes. Unfortunately, though, gaming can't grant the Almighty Degree! | -2 | -4 | -2 | -2 |
| 30 | A simple, yet overlooked, plus of video games is that they foster the good old-fashioned American virtue of competitiveness. Maybe one reason people like Bill Gates and Mark Zuckerberg dropped out of college was that they weren't challenged, even by Harvard, in a way that brought out their competitive best the way good games do. | 0 | -4 | 4 | 1 |

| No. | Statement | Factor | | | |
|-----|-----------|:---:|:---:|:---:|:---:|
| | | **1** | **2** | **3** | **4** |
| 31 | Granted, America is a violent country: we lead the world in handgun homicides; we deploy our military in every corner of the world; we incarcerate more criminals per capita than any other country. But the US is not the only place where games, including violent ones, are popular among the younger generation. Blaming gaming for our national violence is not just simply scape-goating. It's dumb! | 4 | −1 | −3 | 1 |
| 32 | It may sound weird, but the mental state of "being in the game" is kind of like meditation: a re-energizing break from the tiring, often boring reality of everyday life. | 2 | 0 | 2 | −1 |
| 33 | If the chatting classes in our society want to blame poor test scores on the popularity of video games, maybe they'd better take a closer look at the effects of No Child Left Behind on turning education into one big, boring standardized-test prep class! | 0 | −1 | −1 | 5 |
| 34 | Some call it addiction; some call it mindless escapism; some see it as harmful, even though it's purely virtual. None of these comes close to capturing the nature of the subjective experience of gaming. It's not all that complicated; it's plain FUN! | 3 | −1 | 1 | −1 |
| 35 | Eventually, the forward-thinking corporate executives will see that games will transform work, from repetitive call-center jobs to high-level teams who must collaborate with members dispersed around the globe. | −2 | −3 | −1 | 0 |
| 36 | The best games have several features that set them apart from their competitors: an epic story line (we're saving the galaxy from the Crumlons); clear paths to advancement, with transparency about the skills and performance you need to accomplish major tasks; the ability to try, fail and try again rapidly, learning quickly; and the option to try on leadership roles. | 2 | 0 | 0 | 2 |
| 37 | It's no surprise to me that studies show, on average, many [game] players are physically healthier, work harder, make better grades, earn higher salaries, and are more socially connected than those who play less or not at all. | −5 | −3 | −1 | −1 |

| No. | Statement | Factor | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 38 | If I'm anxious about an upcoming test or bummed out from a bad day with family or friends, a good game is a great diversion. It's not physically or psychically addictive or anti-social like drinking and drugs, and it's more effective in putting things back into perspective anyway. | 1 | 0 | 2 | 0 |
| 39 | Educators have long known that "hands-on" learning is superior to the passive "sit-in-your-seat" drill of lectures and PowerPoints. If educators want to fix what's broken with our schooling systems, they'd profit from a look at what happens in the minds of totally focused game players. | 0 | 0 | –2 | –1 |
| 40 | I don't think most of the criticisms of the gaming community are deserved. You don't hear the same complaints about those addicted to "Jersey Shore" or to smoking dope. Nor do you hear many complaints about the sizeable portion of students nowadays who spend ten to fifteen hours a week on Facebook! | 0 | 2 | –4 | 1 |
| 41 | My best buddies are fellow gamers. It's a community those on the outside just don't get. | 0 | –3 | –1 | 1 |
| 42 | Being a gamer means always having one foot in the future and that's why I love gaming. | –3 | –1 | –4 | –1 |
| 43 | Games—particularly alternate *reality* games—inspire large groups of people to pool their knowledge and skills to overcome obstacles, and this is precisely what's needed to tackle global social issues, such as poverty, hunger, disease and climate change. | –1 | –1 | –5 | –1 |
| 44 | Humans spend three billion hours a week playing games because they provide positive emotions, perfect productivity, social connection, and ambitious meaning—everything we need for a flourishing, satisfying life. | –2 | –1 | –1 | 3 |
| 45 | The world is changing. It is going to change faster and faster over the next two decades for sure. The "games" we play today often provide the training ground for real-world behavior in the future. | –4 | 0 | 0 | 0 |