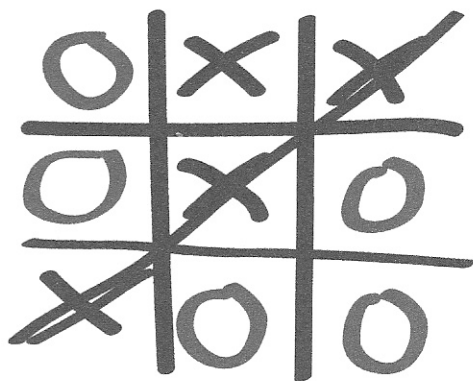# 3 What Is a Game?

General Models for Understanding Games

The Issue of Genre

Tic-tac-toe illustrates the concept of a game at its simplest level

Are poker and *Assassin's Creed* examples of the same phenomenon? The playing situation could hardly be more different. Poker is inherently multiplayer and is governed by abstract rules not justified by any fictive world—a full house beats two pairs, aces are higher than jacks. Meanwhile, *Assassin's Creed* is a single-player, stealth-based fighting game that takes place in colorful historical settings, the rules of which mimic those of the physical world (see Figure 3.1). These two games are so different that it might be hard to see how they both belong to the same category.

Nevertheless, there are similarities. For instance, in both games the player faces opposition—albeit from wildly different "foes"—and has his or her choices evaluated by the rules of the game.

In this chapter, we dig beneath the surface to examine what games are made of. We will introduce influential theoretical approaches, and their respective models. By discussing the (admittedly rare) "classics" of game studies, we aim to show the different ways in which games have been theorized. We will be returning to these perspectives throughout the book. We also introduce a genre system that we shall use to distinguish between different types of games.
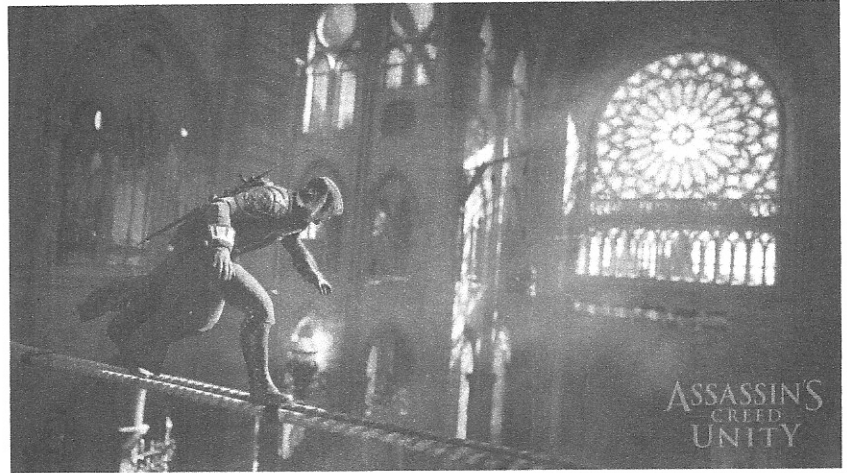
Figure 3.1 *Assassin's Creed: Unity* (2014). One of the most successful new franchises in the later years.

GENERAL MODELS FOR UNDERSTANDING GAMES

In daily life, we tend to define games informally; the general public, and even most serious gamers, don't require formal criteria in order to enjoy their games. For students of games, however, definitions are essential. Understanding the way games work and how they differ from other types of entertainment helps us choose the appropriate methods to analyze video games. If we are not specific, we run the risk of using terminology and models inappropriate to our discussion, or we risk blindness to the bias of our perspective. For instance, if we consider games to be stories, we will focus on rather different things than if we consider games to be drama, or systems, or types of play. The challenge here is not so much to find the correct perspective but rather to be aware of and explicit about the assumptions we make.

Our criteria for what makes a game can have another serious consequence. Defining anything is a highly political project. Define games as "narrative" and the research grants are likely to end up with departments devoted to film or literature studies. Define games as a subcultural teenage phenomenon and studies of games are less likely to be funded by ministries of culture, to reach the pages of the "serious" press, or to be available in public or research libraries. In other words, definitions are tremendously important, and not just for academic reasons (see also the discussion of genre systems in the next section).

Ludwig Wittgenstein and the Problem of Games

German philosopher Ludwig Wittgenstein (1889–1951) could not think of a common definition that would include all "games." Wittgenstein, in his *Philosophical Investigations*, famously argued that there was no common

feature of the objects that we call games, and that we could hope for nothing more than "family resemblances." Wittgenstein looked at a number of activities traditionally referred to as games, including chess, tic-tac-toe (otherwise known as noughts and crosses), tennis, and ring-around-the-rosy. While some of these have elements of luck while others require skill, he notes that "we see a complicated network of

Figure 3.2 Family resemblances. Illustrates the fragmented nature of what we commonly refer to as games.

similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail."[1] According to Wittgenstein's definition of family resemblances, while Game A shares features with Game B and Game B shares features with Game C, Game A and Game C need not share any features, as illustrated in Figure 3.2.
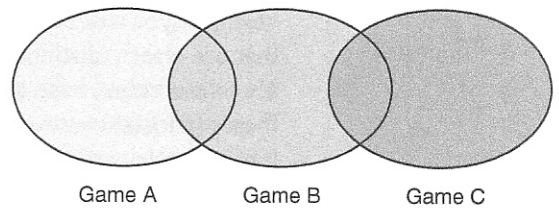
We must realize that Wittgenstein was not really interested in games per se but used his analysis as an element of the larger project presented in his *Philosophical Investigations*. Nevertheless, in our context, there are two problems with Wittgenstein's analysis. First, he does not really try to find the common feature that he claims does not exist. He merely offers a few examples and notes how they do not share certain (more or less random) features. Second, Wittgenstein's analysis rests on a peculiarity of language. German, like English, does not distinguish between formal games and the informal games that children play; ring-around-the-rosy and chess are both "ein Spiel" (a game) in German. But this is not the case in Scandinavian languages, for instance. In Danish the word "spil" refers to formal games (including video games), while the noun "leg" refers to informal playful activity like playing house. Thus, Wittgenstein's argument may be quite language specific, and we should not be led by his analysis to believe that games necessarily escape sensible definition.

Johan Huizinga and the Magic Circle

Historically, games have been severely undertheorized. However, in the mid-twentieth century a few writers did look more closely at games than others (including Wittgenstein) had done. In 1938 Johan Huizinga, a Dutch scholar whose PhD dissertation focused on the clown figure in Sanskrit drama, published a homage to play entitled *Homo Ludens*,[2] which underscored the importance of play in culture. This study, whose title translates roughly as "Man the Player," re-evaluates the status of play in cultures that have historically treated it as inferior to work and other "serious" activities. Despite his approach, Huizinga has little to say on defining or understanding games. He does, however, make the important and much-cited observation that games construct a "magic circle" which separates the game from the outside world.[3] Playing a game, in this view, means setting oneself apart from the outside world, and surrendering to a system that has no effect on anything that lies beyond the circle. When you begin a game of chess, for

example, you are submitting to a formally defined experience with rules that are clearly distinct from those we follow outside this special activity. The chess rules make sense in themselves and are only important within their particular context. Thus, arguably, the chess players construct (or enter into) a magic circle to engage in an activity cut off from the outside world.

Huizinga's vision of games has merit but also clear problems. First of all, it is perhaps too closely tied to an ideological agenda. Huizinga's intention was to praise the act of play, and in his effort to protect play—from what he saw as the destructive influence of the Protestant work ethic and a Western culture that prized seriousness over fun—he may well have overstated his case. Games are special contexts where particular rules apply, but we can apply this definition to a wide array of utterly different activities: work, family life, university classes, weddings, the nightlife of a big city. All of these situations are governed by special rules and norms that do not always—indeed, could not always—apply in other contexts. Games, then, are not entirely different from the remainder of our lives, and should not necessarily be treated as an aberration.

As we criticize Huizinga's philosophy, we must acknowledge that the modern game researcher's agenda may in fact be ideological too. For instance, economist and **virtual world** theorist Edward Castronova has echoed Huizinga's point:

Virtual world:
Multiplayer (or multiuser) system presented as having a large-scale geography. May be divided into game worlds and social worlds, the latter having no objectives or goals.

> As meaning seeps into these play spaces, their status as play spaces will erode. As their status as play spaces erodes, the laws and expectations and norms of contemporary Earth society will increasingly dominate the atmosphere. When Earth's cultures dominate, the game will be over; the fantasy will be punctured; the illusion will be ended for good.[4]

Castronova acknowledges that no bulletproof philosophical argument can be made to support the idea of games as a completely separate sphere of human existence. He is arguing instead that all of us, as gamers and as societies, should attempt to erect or uphold such barriers if we want game worlds to retain their unique appeal.

Apart from the ideological dimension of Huizinga's argument, we should consider whether it is really true that games do not extend into other spheres of life. Although the conflicts within a game—between you and that stubborn enemy nation, for example—do not usually extend directly into other parts of your life, games do have real-world consequences. We can easily name a small number:

- *Games require time*: Games affect our lives by substituting for other possible activities, from watching television to reading a book to sleeping.
- *Games affect our moods*: Games can make us feel satisfied, or enraged, or thrilled. These and a plethora of other emotions can easily carry into other activities.
- *Games are communication media*: Games may communicate ideas and values. For instance, a strategy game may teach us how complex systems

like cities or warring nation states work. Or advertising in a game may brand a certain product in our minds.

- *Games affect our behavior*: Games may make us do things that we would not otherwise have done. For instance, the American military have used the game *America's Army* as an (allegedly efficient) recruitment tool.[5]
- *Games may directly affect the outside world*: Activities that occur in a game may have concrete effects in "real" life. For instance, objects acquired in game worlds are sold for real money on trading websites like eBay, blurring the boundary between the two domains.

All of these aspects of gaming belie the myth that the magic circle truly separates games from the outside world. Thus in game studies today, magic circle arguments are often treated with suspicion or seen as primarily applicable on a strictly formalist level of analysis—as when one brackets other aspects of a game to study its design closely (so speaking as if a game could be separated entirely from the outside world).

The notion remains crucial and widely used, as we can see in the influential writings of Chris Crawford,[6] and Katie Salen and Eric Zimmerman.[7] More recently, however, controversy has arisen over this issue, as a few researchers have rejected the validity of the magic circle model and the usefulness of its application to game studies. In her 2009 article, revealingly named "There Is No Magic Circle,"[8] Mia Consalvo claims that we cannot understand games from a purely formalist point of view, one that sees them as mainly rule-based activities. The idea of the magic circle "emphasizes form at the cost of function, without attention to the context of actual gameplay." She points to her own work, and that of researchers like T. L. Taylor, Thomas Malaby, and Constance Steinkuehler, as an example of giving attention to the context in which games are played. This reveals underlying tensions and social contexts that we wouldn't see just by thinking of the rules of gameplay, therefore:

> we cannot say that games are magic circles, where the ordinary rules of life do not apply. Of course they apply, but in addition to, in competition with, other rules and in relation to multiple contexts, across varying cultures, and into different groups, legal situations, and homes.[9]

In the same vein, Thomas Malaby also refuses to see games as only objects: "Every game is an ongoing process. As it is played, it always contains the potential for generating new practices and new meanings, possibly refiguring the game itself."[10]

On the other side of the table, one of the identified formalists, Jesper Juul, insists that the process/contingency researchers have misunderstood the magic circle idea. He admits that the metaphor might be confusing, but it is not exclusive of other approaches. He proposes that we look at games as existing within three frames: the inner layer as goal orientation, the second layer as experience, and the third as a social context. Paying attention to

the inner layer (the rules) doesn't mean that we reject the others. He puts it like this:

> every game action can therefore be evaluated according to three different considerations, with the desire to win being only one of three considerations. We cannot generalize about the relative weight of these considerations as players have individual understandings of how important it is to win vs. how important it is to keep the game interesting vs. how important it is to manage the social situation. Some players believe that friends should help friends in a game, and some players believe otherwise. Does this disprove the existence of a magic circle? No, but it shows us what the magic circle is.[11]

Roger Caillois and the Sociology of Play

French philosopher Roger Caillois has articulated a more specific vision of the nature of games than Huizinga's magic circle. In his 1958 work *Man, Play, and Games*, Caillois stressed four essential qualities of play: that it must be performed voluntarily, is uncertain, is unproductive, and consists of make-believe. He also famously divided games into four categories, according to their dominant features. The categories are: *agôn* (competition), *alea* (chance), *mimicry* (imitation), and *ilinx* (vertigo). Additionally, he argued that all games exist on a continuum between *paidia* (playfulness) and *ludus* (formal, rule-based game behavior).

Adventure games: Games focusing on puzzle-solving within a narrative framework. These games typically demand strict, logical thought.

- *Agôn* (competition): In play of this type, competition is central, and skill determines whether the player is successful or not. This includes hide-and-seek, chess, physical sports, and most video games within the action genre.
- *Alea* (chance): Here, chance is the most important parameter for the play experience. Chance decides who wins a lottery or a dice game. Most video games have an element of chance and randomness, although some classic **adventure games** are entirely linear and lack this quality.
- *Mimicry* (imitation): Here the important play experience centers on being someone else, the ability to take on the role of a vampire, sibling, clown, or pilot. Winning is not usually an important part of this play form, which is often found in traditional role-playing games and adventure video games.
- *Ilinx* (vertigo): This play form offers the chance to experience a pleasurable sensation, often through physical activities like riding a roller coaster or carousel. In video games, it is found most vividly in racing games like *Stunt Car Racer* and *Super Monkey Ball*.

When describing a particular game, these features can be combined to form complex play forms such as *mimicry-agôn-ilinx*. *Super Monkey Ball*, for example, is a video game where the player controls a monkey (*mimicry*), who competes against other players (*agôn*), and who drives fast around various tracks, and sometimes over the side and into the abyss (*ilinx*). These

	Agôn (Competition)	Alea (Chance)	Mimicry (Imitation)	Ilinx (Vertigo)
Paidia Tumult Agitation Immoderate laughter	Racing ⎫ Wrestling ⎬ not etc. ⎭ regulated Athletics	Counting-out rhymes Heads or tails	Children's imitations Games of illusion Tag, Arms Masks, Disguises	Children "whirling" Horseback riding Swinging Waltzing
Kite-flying Solitaire Patience Crossword puzzles Ludus	Boxing, Billiards Fencing, Checkers Football, Chess Contests, Sports in general	Betting Roulette Simple, complex, and continuing lotteries	Theater, Spectacles in general	Volador Traveling carnivals Skiing Mountain climbing Tightrope walking

Figure 3.3 Caillois's classification of games. The figure shows Caillois's classification of games that is quite contested, as it seems hard to fit any game into one of the genres[12]

different categories of play can be further analyzed on the spectrum between *paidia* and *ludus*. Figure 3.3 illustrates the relation between *paidia/ludus* and the four play categories.

In a *paidia* activity, one is not bound by rigid rules. *Ludus*, by contrast, refers to systems with formalized rules like chess, soccer, or backgammon. Although winning or losing is not anathema to *paidia*, these goals are not always present; who wins is much more a matter of negotiation between the players than something decided by specific rules. In *ludus* play forms, there are rules that must be adhered to, and winning is a result of meeting these specific conditions. In the new field of video game studies, Caillois's categories have been widely cited, but his formulation has its critics. Game scholar Jesper Juul, for one, does not find Caillois's categories very useful in describing video games:

> Although it is commonly used, we find Caillois' categorization to be extraordinarily problematic. The individual categories can in many cases be useful, but their selection and the distinction between them are very hard to justify: while the distinction between paidia and ludus is more or less correct on a formal level, the idea that they would be opposite ends of a spectrum on an experiential level stems from the misunderstanding that rules are strictly limitations, and that the player can do nothing more complex than what the rules explicitly specify.[13]

While perhaps immediately appealing, these four game types seem somewhat arbitrary and don't always help distinguish between individual games. Take, for instance, the soccer game *FIFA 12*. The game is competitive, has elements of chance (at least from the players' perspective), and simulates a sport, thus placing it in three of Caillois's four categories. His claim that "sports in general" belong solely to *agôn* does not seem enlightening in relation to video games.[14]

In addition, you may have noticed that the distinction between *paidia* and *ludus* is somewhat similar to the common distinction between *play* (as in

"children in play") and *game* (as in "they sat down to play a game"). While a very useful distinction, it is usually best not to think of them as entirely separate. Play—even in the loose-knit form of *paidia*—will always have *ludus* elements, since even free-form play has some rules. When children play in the sandbox, they still have to—as their parents insist—"play by the rules." These rules may be implicit, or may even be flexible, but they function as guidelines nevertheless. Sandbox activity will often be "about" building the biggest, tallest, or prettiest sand creation. Most children will also be aware of the social rules that one should not take sand from the other children's sandcastles, step on them, or steal others' designs and claim to be the inventor. These rules, although unspoken, shape the entire experience of being in the sandbox with others.

Forms of play with stronger *ludus* elements, in contrast, have precise rules and a quantifiable outcome. However, even *ludus* experiences contain room for interpretation, alteration of the rules, and some actions that are not covered by the rules. In chess, a standard rule states that once you have moved a piece the move is binding; an even stricter variant states that you must move a piece even if you have only touched it. But in casual play, the strictness with which this rule is enforced varies greatly. This may seem like a minor detail, but chess is arguably the strictest *ludus* game and an oft-cited archetype of this more severe end of the gaming spectrum.

We should note that video games differ from traditional games in the sense that their rules are enforced by the computer—rather than a gullible younger sibling or a tender-hearted older relative—and thus not open to the same type of negotiation possible in traditional board games like chess. Nevertheless, the overlap between *ludus* and *paidia* is also found in video games. One must consider video games both as rule systems and as more open-ended universes. In a game like *Microsoft Flight Simulator*, for example, the player is engaged in *paidia* when just flying around, but when he chooses to go on a mission, the experience takes on a greater element of *ludus*. Modern video games in particular often let the player choose between trying to achieve the goals and simply roaming the game world.

And while it is true that we cannot negotiate with our computers, we are often not competing solely against a program. Gamers don't hesitate to discuss, often fiercely, the rules of a video game, and a fundamental element of playing a video game is discovering the rules about how it is played. Both before and during play, as anyone who has ever played a video game with a friend knows, it is common to try and figure out "which rules apply." It has been suggested that over time rules inevitably become less ambiguous, and that this makes games suitable for a computer platform, where, in order to work, the computer requires that rules be unambiguous.[15] This theory, of course, hinges on our perception of rules. In multiplayer games, the negotiation of rules is often part of play, and players and developers may continuously add new rules (on various levels) to the game universe.[16] For instance, players of the **real-time strategy game** *Age of Empires II* would often spend time trying collectively to define legitimate strategies before starting a battle on Valve's online gaming system Steam.

Real-time strategy game: Strategy game in which the action is played out continuously, without breaks (as opposed to **turn-based strategy games**).

	Agôn (competition)	Alea (Chance)	Mimicry (imitation)	Ilinx (vertigo)
Paidia (loose)	StarCraft		Minecraft	Johann Sebastian Joust
	DOTA2		Goat Simulator	B.U.T.T.O.N
Ludus (rules)	Forza Motorsport	Slotomania	The Sims	Dance Dance Revolution
	Tekken	Big Fish Casino	Nintendogs	Wii Sports

Figure 3.4 Video game examples put into Caillois's classification of games. Finding examples for each genre turns out to be quite difficult

More specifically, a certain video game type tends to encourage free-form play over strict adherence to rules and single-minded attempts to fulfill game goals. In this book, we call such games "process oriented" (and deal with them in detail later in this chapter). An example is *SimCity*, in which the player indirectly controls the development of a city without any clear end goal.

If we try to play along with Caillois's classification (see Figure 3.4), it becomes clear that it is difficult to constrain almost any video game to one of the categories. It seems that the classification only to quite a limited extent captures the important elements that we intuitively use to categorize games as similar or dissimilar. In general it seems that the *paidia* types of games for many years lived a quiet life in the video games industry but have now come into fashion, all the way from the omnipresent indie hit *Minecraft* to the massive AAA game *Grand Theft Auto* and the more obscure surprise hit *Goat Simulator*. We also see that the category *ilinx*, which most gamers would have written off just five years ago, is now coming into play with new interfaces that extend the game experience beyond the screen. Experimental games like *Johann Sebastian Joust*, where you play by attuning your body to a piece of Bach music, is much more physical and sensorial then past games, although we have seen something similar in the past with the original Japanese smash hit *Dance Dance Revolution*.

Marshall McLuhan and Games as Cultural Reflections

Both Huizinga and Caillois agree that games are entirely separate from the outside world. Others, however, see games as reflections of culture, and claim that a culture's most popular games can even reveal its core values. One major proponent of this position is Canadian media theorist Marshall McLuhan, referred to by some of his 1960s contemporaries as "the oracle of the electronic age." In a brief chapter of his book *Understanding Media*, McLuhan loosely defines games:

Games are popular art, collective, social *reactions* to the main drive or action of any culture. Games, like institutions, are extensions of social man

and of the body politic, as technologies are extensions of the animal organism. Both games and technologies are counter-irritants or ways of adjusting to the stress that occur in any social group. Games are dramatic models of our psychological lives providing release of particular tensions.[17]

Here, McLuhan makes two claims: the first is that game forms are tied to the culture in which they exist, and thus reveal its nature; the second is that games release tension. An example of the first claim, from McLuhan's own discussion, is that American football is gaining in popularity at the expense of baseball because football is "nonpositional." Any player can take any position during play. Baseball, where players fulfill specific positions, represents industrial society, while football agrees "very well with the new needs of decentralized team play in the electric age."[18] He also claims that the reason why Russians, surprisingly, like "individualist" games like ice hockey and soccer (clearly representing a problem for his theory) is that these games have an "exotic and Utopian quality" for people still considered "tribal." Although there may be some general truth to McLuhan's claim, he undermines himself somewhat by explaining away problems in such an offhand manner.

McLuhan's second argument, that games release tension, is also not entirely obvious. Games, and in particular multiplayer games, can obviously provoke both anger and frustration. Beyond this, the general idea of "catharsis" (Greek for cleansing) through games is not backed up by much empirical data. The same is true of McLuhan's claim that "we enjoy those games most that mimic other situations in our work and social lives." If we look hard enough we can find similarities between most things, but we are equally likely to find examples from our list of favorite games that make this claim sound hollow.

More generally, the idea of games as reflections of cultural themes remains an interesting but underexplored idea.

Gregory Bateson and Play as Communication

In games, we are perfectly willing to accept the presence of orcs even if we would strenuously deny their real-world existence. We may even hold a series of assumptions regarding game orcs who have not even been encountered; they are likely to be evil, not to appreciate beauty, and generally to be bad company.

The British anthropologist Gregory Bateson's theory on meta-communication helps us understand why we accept such fictions as meaningful. Meta-communication means communication about communication, and refers to the wealth of cues we transmit and receive about how statements or actions should be interpreted. In conversation, for instance, we use body language and tone of voice to tell the other party how seriously a statement should be taken. In play, we also communicate (through numerous, often subconscious, means) that what we are doing is not to be taken at face value: we are not fighting but playing at fighting. We, as animals with higher cognitive

functions, are able to appreciate that an action has different meanings within different contexts, and we come to learn this through play. As we mature, we expand the ability to meta-communicate into other areas of life and are perfectly capable of interpreting fiction (adequately meta-communicated to be fiction) in a different light than we would shine on reality.

Some recent games, known as **alternate reality games**, have challenged our ability to know and maintain the frame of play even more than traditional games. In *Majestic*, for example, part of the game consists of using real websites, fax numbers, and email addresses in order to uncover a conspiracy; the player becomes an investigator collaborating with other "real-life" players, all chasing increasingly complex clues. As play progresses, the line between what is within the video game and what is outside blurs. Huizinga would say that the magic circle is challenged, and Bateson might see increasingly subtle forms of meta-communication.

It is worth noting that alternative reality games have not achieved widespread popularity, perhaps indicating that most players are not particularly interested in playing with the very boundaries of what constitutes a game.

> **Alternate reality games:** A game genre that mixes the game world with reality, so the boundaries become blurred—for example, using real websites as part of the game.

Brian Sutton-Smith and Games as Play

Since the 1970s, educationist Brian Sutton-Smith has been a significant force in establishing games and play as a legitimate area of research through papers, anthologies, and conferences. Sutton-Smith never fails to stress the multifaceted nature of games, noting that "a game is what we decide it should be; that our definition will have an arbitrary character depending on our purpose."[19] According to Sutton-Smith, the variety and widespread presence of games in many cultures should not be interpreted as proof that games are inevitably a part of every culture. Rather, games emerge as societies mature and develop more advanced political and social organizations. Games reflect the evolution of a society: the more complex a social system, the more advanced its games.

Sutton-Smith sees a game as finite, fixed, and goal-oriented. He defines games as "an exercise of voluntary control systems in which there is an opposition between forces, confined by a procedure and rules in order to produce a disequilibrial outcome."[20] This definition is quite broad but necessarily so, given the multifaceted nature of games. Games come in very different forms, ranging from social games, to solitary games, physical games, and theoretical games. *Monopoly* is a system with rules and procedures for working out a final state—one victorious player. Each individual player tries to establish dominance by making the right moves. In soccer, players interact with each other within teams to score a greater number of goals than the opposing team.

Although Sutton-Smith has refused to give a one-line definition of play, the complexity of the challenge has not prevented others from trying, as we will see in the following sections. In fact, it seems that almost every well-known philosopher has theorized on play. For example, German philosopher Friedrich Nietzsche said that "two different things wanteth the true man: danger and

diversion. Therefore wanteth he woman, as the most dangerous plaything."[21] Psychoanalyst C. G. Jung refers to the creative aspect of play: "The creation of something new is not accomplished by the intellect but by the play instinct acting from inner necessity. The creative mind plays with the objects it loves."[22]

George Herbert Mead and Role Training

Social psychologist George Herbert Mead considered play to be an important ingredient in what he called the process of the genesis of the self. According to Mead, who wrote his influential work, *Mind, Self, and Society* in 1934, a self arises through a learning process in which children understand and eventually come to master normal human social activity. Social activity is all about communication, where humans use a shared system of symbols to exchange ideas with each other. Play and games, also being symbolic, are for Mead a clear precursor to adult communication.

His definition of play is mainly what others have called "make-believe," in which children pretend to be one thing or another and play a role: a mother, a policeman, or an adventurer, for example. This is different from the way animals play, in that children deliberately take on another role and build a temporary self by using the symbols that indicate that role. This kind of play is usually limited to one role at a time, even though children can change from one role to another very quickly. The essential difference between this kind of play and organized games is that in games, the player has to "take the attitude of everyone else involved in that game, and that these different roles must have a definite relationship to each other."[23] This means that the player needs to be conscious about the other players' roles at all times, something that is facilitated by the rules of the game. Rules are "the set of responses which a particular attitude calls out."[24] So to go from play to game requires the individual to integrate himself into a higher level of group organization.

For Mead, an individual can only obtain his unity of self when he has internalized this "generalized other," that is, the attitude of the whole community. Games are excellent mirrors of the way that people organize themselves, where all actions are related to each other in an organic way that can be understood by learning the rules. Children experiment with many different kinds of social organizations as they grow up. The exercise of learning to belong, of learning different roles and rules, allows their personality to develop.

Henry Jenkins and the Art of the Game

An influential cultural view of the nature of video games has been presented by a professor of comparative media studies, Henry Jenkins.[25] Jenkins argues that video games are a new form of popular art, and game designers the artists of our century. His work is inspired by cultural critic Gilbert Seldes, who in his book *The Seven Lively Arts*[26] argued that the most important American contributions to the world of art were to be found in popular culture formats like the comic strip and jazz music. Although some of these cultural

forms have today acquired a certain cultural respectability, Seldes's focus on popular aesthetics instead of on the "great arts" was rather revolutionary in the mid-twentieth century.

For Seldes, the "lively arts" are mainly kinetic—that is, they seek to move people emotionally rather than to appeal to the intellect as the classical arts do. Popular artists, Jenkins explains, explore new directions and new media:

> Cinema and other popular arts were to be celebrated, Seldes insisted, because they were so deeply embedded in everyday life, because they were democratic arts embraced by average citizens. Through streamlined styling and syncopated rhythms, they captured the vitality of contemporary urban experience.[27]

For Jenkins, video games are the worthy heirs of this trend:

> Games represent a new lively art, one as appropriate for the digital age as those earlier media were for the machine age. They open up new aesthetic experiences and transform the computer screen into a realm of experimentation and innovation that is broadly accessible.[28]

Jenkins reminds us that a lot of the social prejudice leveled against video games today has clear parallels with the reactions against the cinema in Seldes's time, for example, the vitriol leveled against the depiction of violence and sex.

He nevertheless acknowledges that many games are "banal, formulaic and predictable," following well-known recipes instead of innovating. Economic constraints are not a valid explanation for their aesthetic conservatism, as this doesn't prevent artists in other media, such as film, from delivering good products. (However, we must not forget that video game technology changes so dramatically every few months that designers spend a lot of time catching up instead of exploring the medium aesthetically.) Jenkins argues that games are an art form still in its infancy, but some games with advanced **aesthetics** already suggest that the form can provoke strong emotions. Video games have also already given us such memorable characters as Sonic the Hedgehog and *Super Mario Bros.*'s Mario and Luigi.

In order to understand how key developmental moments come about in video games, we need to understand them as a medium. For Jenkins, games are about player control, and the best experiences arise when players perceive that their intervention has a spectacular influence on the game, such as when a *Civilization V* player understands that her carefully planned strategy ensured her narrow but crucial victory over a warring neighbor nation.

The games Jenkins admires are those that offer players the opportunity to do things that were not possible before. For example, in *Black & White* players are gods whose every decision has moral consequences and affects the balance of good and evil in the game world.

Jenkins talks of play as a performance, where a person's interaction with a game facilitates a kind of immersion unknown in other media. In order to

Aesthetics (of a video game): All aspects of a video game that are experienced by the player, whether directly (such as audio and graphics) or indirectly (such as rules). (Note that **aesthetics** is an ambiguous term used in many ways across disciplines.)

facilitate the player's sense of extreme control over the game he is in—vital to Jenkins's vision of a successful game—the design and aesthetics of the game are crucial. Even more than cinema, games make use of "expressive amplification," a process in which the impact of specific actions is exaggerated so that the player feels increased pleasure at executing these actions. In Jenkins's view, the artistic potential of video games will be met when designers concentrate on exploring the aesthetics of action instead of trying to imitate other media.

Formal Definitions

Thinkers like Huizinga and McLuhan, as well as many others, have used games primarily in the pursuit of other questions, and are not solely concerned with creating a "formal" definition of a game. Others, however, have tried to define games in their own right. Game historian David Parlett, for instance, suggests that a game—in the sense used in this book—has two defining components: *ends* and *means*.[29] *Ends* refers to the notion that a game is a contest, with a goal that only one player or team can achieve. Thus, to Parlett, a game always has a winner. *Means* refers to the game equipment and rules. Parlett's definition is obviously both strict and broad. Many of the phenomena that we label here as games in fact do not qualify according to Parlett's concept of a game as something that can be won, and by only one player or team.

Parlett writes mostly on nonelectronic games and this focus shows. Process-oriented single-player video games, for example, cannot be won in the sense that poker can be won. The 1983 classic *Elite* is a game where the player explores deep space; part of the game's brilliance, which has been copied by more recent games, is that it has no fixed endpoint, no single goal. But as a result it would be excluded by Parlett's strict definition. The same goes for persistent (i.e. those that are always available and never reset to the initial state) multiplayer games like *World of Warcraft* (a fantasy role-playing universe in which players can complete **quests** alone or collaborate with characters controlled by other players); these games do not end, and in principle all players can reach the highest level. At the same time, Parlett's definition is usefully broad, since it includes activities that we would not normally consider games—auctions, for instance, and certain types of democratic elections.

Quest: A mission in a game, structuring action for the player.

A more elaborate definition is proposed by philosopher Bernard Suits in his book *Grasshopper: Games, Life, and Utopia*. He writes:

> To play a game is to engage in activity directed towards bringing about a specific state of affairs, using only means permitted by rules, and where the rules prohibit more efficient in favour of less efficient means, and where such rules are accepted just because they make possible such activity.[30]

Importantly, Suits stresses that game rules are inhibiting, and favor "less efficient means." It is a highly compelling, though counterintuitive, model: that to enjoy ourselves we in fact seek out rigid and restrictive structures.

Like most one-sentence truths, however, it has limitations. Think of the board game *Monopoly*. The most efficient way of moving around the board would be to just move your car as you please, without bothering about dice, cards, and other formalities. But of course *Monopoly* isn't really about driving at all. The game is about amassing wealth and ruining opponents. One very efficient way to do this would be just to roll the dice and hand out play money according to the rolls. A simple roll of the dice would decide the winner and the loser. Clearly, this would be a less than thrilling experience; we appreciate the difficulty of making money in the game, and our appreciation is evidence in favor of Suits's definition.

However, we should also stress that *Monopoly* could be far more difficult than it is. "Less efficient" certainly should not be interpreted as "least efficient," since it would appear that what makes *Monopoly* fun is not so much extreme difficulty but rather its appealing goal—which is really quite simple—and the set of well-balanced rules we follow to try and achieve that goal. The *Monopoly* rules create excitement not just by being more difficult than our minimalist one-dice-decides-all version. The game system introduces an element of skill and encourages us to use strategy while still maintaining the importance of chance, thus keeping alive, if only barely, the hope of recovery from unfortunate situations. What is crucial—at least for our *Monopoly* example—is a particular combination of rules and chance; the rules-as-limitations concept is powerful but is not without its problems.

While Suits and Parlett are not specifically interested in video games, others have put forth definitions that clearly take into account the rise of electronic entertainment. The first writer to seriously and systematically address such issues was game designer Chris Crawford. In 1982—several years ahead of the crowd—Crawford published *The Art of Computer Game Design*, an exploration of how to understand games and their relation to players. Crawford's book boldly attempts to "address the fundamental aspects of video games to achieve a conclusion that will withstand the ravages of time and change."[31] Crawford does not offer any one-line definition but rather names four features that are common to all video games: representation, interaction, conflict, and safety.

1. *Representation* refers to games being about something else; or as he writes, a game "subjectively represents a subset of reality."[32] Games model external situations—a baseball game, for example—but they are not actually part of these situations. Crawford stresses that most games, in fact, do not attempt to be truly faithful simulations; hence their representation is "subjective."
2. *Interaction*, according to Crawford, is crucial to games' appeal. The player must be able to influence the world of the game and get meaningful responses to his actions, so that he feels engaged with the game.
3. *Conflict* is the idea that a game has a goal that is blocked by obstacles, whether human or electronic. Conflict can be "direct or indirect, violent or nonviolent, but it is always present in every game."[33]

4. *Safety* refers to the fact that the conflicts in a game do not carry the same consequences as those same conflicts in the real world. For instance, losing a war game may be humiliating, infuriating, and even costly, but it does not mean that your actual home is destroyed. Thus, although games can have consequences, Crawford considers them safe ways of experiencing real situations.

Of these characteristics, representation and safety stand out as the most debatable. Crawford ties the former to the idea that games are systems, but in this regard, *representation* is an odd term to use. We can have a system that is not a representation in any ordinary sense of the word. Many games do not represent real-life situations: the gold-coin-filled worlds of *Super Mario Bros.*, for example, or the endless array of puzzle games like *Tetris*. Crawford argues that while these games do not represent any objective phenomenon, they nevertheless represent something to the player: "the player does perceive the game to represent something from his private fantasy world."[34] Thus, the player can perceive the game action as meaningful even though it makes no reference to the outside world.

As for safety, it implies that games operate inside the "magic circle" discussed previously in this chapter—that game events are without direct real-world consequences. Crawford's position, however, is more nuanced than that of Huizinga and Caillois (he agrees that there are consequences; they just aren't direct), and so he doesn't invite the criticism leveled at "strong" magic circle thinking.

More than 20 years after Crawford's pioneering book, game scholars have recently picked up the challenge of defining games. Their work is notable for its commitment to engage seriously with what has come before. Of the resulting definitions, two are particularly useful.

The first was suggested in 2003 by game theorists Katie Salen and Eric Zimmerman, in their book *Rules of Play*: A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.[35] The second definition comes from theorist Jesper Juul:

> A game is a rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable.[36]

These definitions look quite similar, and they are both very thoughtful. They both stress that games are systems and have quantifiable outcomes. The most obvious difference, perhaps, is that Salen and Zimmerman's description of "an artificial conflict" returns us to the idea of the magic circle, whereas Juul is concerned less with the nature of the conflict and more with describing the player. Salen and Zimmerman's definition is brief and elegant, but it is not exclusive to games. Depending on how we read "artificial conflict" it might,

for instance, include university exams. Here, the student is engaged in a conflict (to outdo her fellow students, to prove wrong her skeptical teacher, or to overcome the "challenge" of the situation), this conflict is defined by rules (the university's laws and regulations), and it results in a quantifiable outcome (her grade). The conflict is artificial in the sense that the exam situation takes place within a magic circle, with a variety of rules that do not really apply outside. (We should note that the conflict is not, however, artificial in Crawford's sense; it is not a representation of a real-life situation.)

Juul's definition, on the other hand, gets around this particular objection by stipulating that the consequences be optional and negotiable. His definition is interesting for its inclusion of the player in the equation; a game in Juul's terms depends on the player's attitude toward the activity. Of course, this may invite objections. Inevitably, for example, there will be players who neither exert much effort in their games nor feel particularly attached to the outcome; but we would not want to exclude such a person's game of poker—much less *the game of poker*—from the "game" category.

Juul's definition is an attempt to tease out the criteria that we intuitively use to differentiate games from nongames. To this end, he offers a model that shows our often implicit reasons for calling something a game (see Figure 3.5).
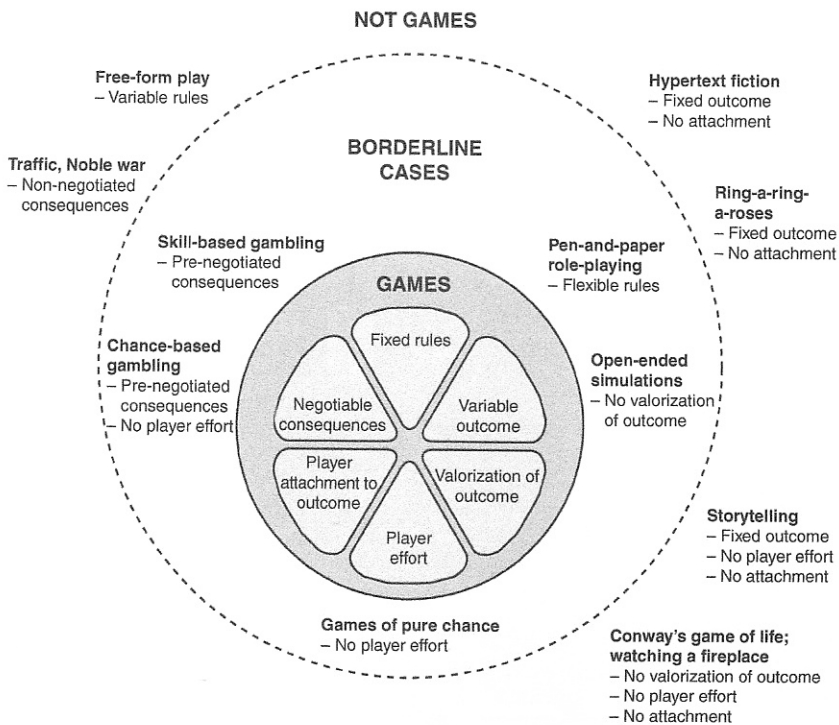

Figure 3.5 Jesper Juul's model of how standard game definitions work. The model captures the fragmented and double nature of games by offering a more flexible classification. (Source: Juul, 2003a, p. 11)

Juul refers to this as the "classic game model," based on his observation that certain modern video games in fact do not comply with the criteria that have traditionally been part of game definitions. The six inner slices in the model represent the classic criteria. The level labeled "borderline cases" includes phenomena that only marginally qualify as games in terms of the classic model. For instance, pen-and-paper role-playing games do not always have fixed rules. The third level holds activities that plainly fall outside the classical model—"storytelling," for example, which has a fixed outcome, requires no effort by the player (in this case the listener) and that, according to Juul, requires no attachment. By contrast, a video game like *Lemmings*, in which the player is faced with unambiguous goals, where the rules are fixed, and the outcome is not prescribed, falls squarely within the "classic" model of games.

For every game like *Lemmings*, as Juul insists, we could probably find another example of a video game that proves Juul's observation about video games not fitting the "classic" criteria. In massively multiplayer **online role-playing games** like *World of Warcraft*, for example, players can set their own goals and there is no one way to win. The criteria also don't apply to wide-open gamespaces like that of *Grand Theft Auto: Vice City*, where players can be so distracted from their missions by the vibrant city simulation that they may not ever complete the game's plot. Even certain older video games do not fit into the classic model. In *Little Computer People*, released in 1985, the player interacts with a character that performs various tasks—based on the player's treatment—as a sort of virtual pet. The program, which was of course marketed as a game, does not meet the

Online role-playing games: Game type in which players (typically several thousand of them) act simultaneously in the same server-based world. Users normally pay a monthly fee and connect through their Internet account. An online role-playing game is a graphically illustrated MUD. This type of game is often termed a MMORPG (massively multiplayer online role-playing game).

Figure 3.6 Little Computer People (1985): One of the famous early examples of a borderline game that has later become so popular with games like *Grand Theft Auto*

"valorization of outcome" criterion of Juul's model, and would therefore be classified as a borderline case.

At a glance, perhaps, the attempts to provide formal definitions discussed above may appear to be relatively abstract exercises with few real-world implications. But they are important, since they help us refine our thinking on what constitutes a game and thereby address subconscious biases, and since they help us clarify whether the conclusions we reach are unique to games or perhaps apply to other media as well. If, for instance, we study the effects of games on learning we would do well to reflect on whether a measured effect is due to audiovisual representation (an aspect shared by other media) or to the fact that players interact with a rule system and thus "experience" its **dynamics** (which is not the case with books, movies, or television, for instance).

> **Dynamics:** The processes and events in a game that are generated by the relationships between rules, game world physics, player input, etc.

Our point here is that it is more important to acknowledge and specify one's own definition than it is to try to decide on the "correct" one. However, based on this discussion we see that there is a good deal of overlap between the definitions proposed.

First, they are focused on games as rule systems and are unconcerned with matters of representation. In other words, audiovisual feedback is not a requirement, and the definitions say nothing about digital computation and thus are definitions of *games* and not merely video games. One of the shared requirements that is most useful in distinguishing games from other activities is the notion that events or actions should be evaluated, for instance, by the game assigning points to the player. Essentially, this means that a game has goals somehow specified by the game design. It is not enough that a person has a goal (say, finding a specific street address) for something to be a game; the experience must be designed. But nor is it enough that an experience is designed. Virtual worlds like *Second Life*, for instance, are designed but have no specific goals and thus would fall outside most of the definitions discussed. Of course, designed experiences with goals does not work as a definition either (since, again, it would include university exams). It is the additional characteristic, like feedback or goals, that an activity must display to be a game, which in fact seems to cause disagreement and which is therefore all the more worthwhile to consider in one's efforts to understand games.

Having discussed formal definitions, which are the results of attempts to understand games, we turn now to definitions that—quite intentionally—are less rigorous but that also serve a different purpose, as tools for actual game design.

Pragmatic Definitions

The "formal" definitions discussed above aim to be as consistent and precise as possible. They are not tools for the creation of new games. Rather they can be compared to philosophies of language; they may be truly insightful without ever making anyone a better communicator.

Another type of definition, labeled here as "pragmatic," has the opposite characteristics—it is meant as a tool for action and not as a philosophically bulletproof concept.

Perhaps the most famous recent game definition, famous enough to make it into most design books and onto the T-shirt of many a gamer, is that of game designer Sid Meier: "A game is a series of interesting choices."[37] In contrast to formal definitions, Meier's is less rigorous, much more casual, and perhaps intentionally simplistic. Probably we actually need to amend it slightly if it is to make sense. Surely something does not cease to be a game if the choices are uninteresting? That merely makes it a bad game. So Sid Meier should be read as saying "a good game is a series of interesting choices." By stressing that choices must be interesting, Meier is pointing out (or claiming) that cases where one option is clearly better than others or where one's choice does not affect how the game plays out are not particularly engaging to the player.

For example, in *Civilization V* (designed by Meier himself) the player must constantly choose whether to spend resources on research, diplomatic standing, or armament. At any given time, the player has clues about which choice is likely to be most sensible, but there is no single correct choice. The element of chance is ever present, and the player's choices invariably depend on what she thinks the enemy is doing.

Action games: Games focusing on speed and physical drama that make high demands on the player's reflexes and coordination skills.

From a critical perspective, Meier's statement is very useful for thinking about strategy games but less appropriate for **action games**. In *Super Mario Bros.* (Figure 3.7), you have no choice but to jump to a certain platform, or down a particular pipe. The choice is not interesting in itself; the activity, however, may still increase your heart rate, since the outcome depends completely on your skill. Improving your abilities and finding the correct solution to Mario's problems make the game interesting, but there is no interesting choice as such.[38] In classic adventure games like *Blade Runner*, there may be only one correct choice and there may not even be any physical skill involved, but the investigation process can still feel exciting. Meier's definition is thus helpful, and wonderfully pithy but not really sufficient.

A simple, yet highly useful, pragmatic way of modeling games emerged out of several workshops held at the Game Developers Conference in California between 2001 and 2004. The "MDA model," developed by Robin Hunicke, Marc LeBlanc, and Robert
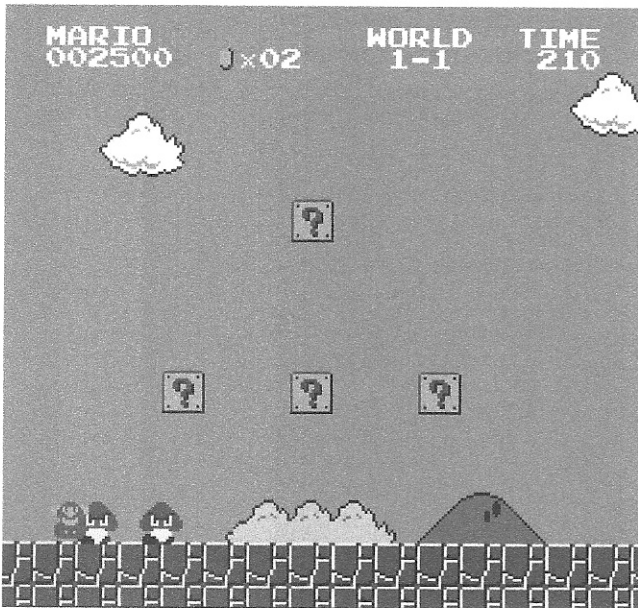

Figure 3.7 *Super Mario Bros.* (1985) doesn't really fit with the idea of interesting choices as a core element in videos games

Zubek, seeks to divide games into three separate dimensions: mechanics, dynamics, and aesthetics.[39]

Mechanics are the rules and basic code of a game. It is not what we see or hear while we play a game. Rather, "mechanics" refers to the vast amount of information that goes into constructing the world of the game—the series of algorithms, for example, that determines the reaction pattern of a computer-controlled character.

Dynamics is the way the game actually plays based on the mechanics. It is the events that actually occur, or can occur, during the course of the game as experienced by the player. For instance, the game mechanics may contain complicated algorithms by which the behavior patterns of an enemy soldier are determined in a probabilistic fashion, while the player is merely presented with a dangerous foe hiding behind a tree and opening fire. Dynamics are functions of the mechanics, but they may also be surprising, as complex processes interact in ways that cannot always be predicted. For instance, certain mechanics of the narrative-based shooter *Deus Ex* were flexible enough that a player could complete missions in ways not predicted by the game's designers (as we describe further in Chapter 5, under the heading of "**Emergence**").

Aesthetics covers the favorable emotional responses evoked in the player as he or she interacts with the game. Hunicke, LeBlanc, and Zubek list the elements that attract us to games:

1. Sensation (game as sense-pleasure)
2. Fantasy (game as make-believe)
3. Narrative (game as drama)
4. Challenge (game as obstacle course)
5. Fellowship (game as social framework)
6. Discovery (game as uncharted territory)
7. Expression (game as self-discovery)
8. Submission (game as pastime)

Emergence: (1) The phenomenon whereby a complex, interesting, high-level function is produced as a result of combining simple, low-level mechanisms in simple ways. (2) The phenomenon whereby a system is designed according to certain principles, but interesting properties arise that are not included in the goals of the designer.

A game will usually offer some of these pleasures but not all of them. *Tetris*, for instance, emphasizes challenge, submission, and perhaps sensation but does not offer narrative or expression. *Grand Theft Auto: Vice City*, on the other hand, affords most of the pleasures with the exception of fellowship. The categories should not be seen as "objective" as they depend on interpretation and the context in which the game is played. For instance, we can interpret both *Tetris* and *Grand Theft Auto* as providing a social framework, and we can imagine a player expressing herself through *Tetris* by modifying the game[40] and designing new background images.

The MDA model is a very useful tool for understanding—and discussing—the way games work. Although admittedly simplistic, it offers a decent distinction between the various elements of a game, and highlights the ways in which games are systems rather than linear,

pre-determined structures like novels, movies, or television programs. However, MDA has limitations. It is more of a designer's tool than a satisfying account of how gameplay actually works. Powerful parts of the gaming experience—everything from the context in which we play a game, to the culture that frames the game, to its intended or unintended links to other games, or movies, or texts—fall outside the model's ambit. For instance, a teenager playing *Grand Theft Auto: Vice City* might enjoy the game's anti-establishment attitude, and might relish participating in the violent acts that have caused such media uproar. This pleasure does not strictly emerge from the game mechanics, though there is a clear connection. Further, the model is centered on the rules of a game, and except for the aesthetic category of "sensation"—which alludes to the pleasure brought about by a game's audiovisuals—MDA all but ignores the expressive side of the game.

Though their definitions are not perfect, Sid Meier and the developers of the MDA model offer two of the most prominent pragmatic definitions of a video game, thus providing useful "tools for thought," helpful in inspiring game design work.

THE ISSUE OF GENRE

In both popular and academic literature on games the concept of genre tends to play a role. Observations may pertain only to certain game types and thus many game scholars and journalists find it hugely useful to establish systems for categorizing games.

Existing genre systems are based on a variety of criteria. Rigorous attempts to define mutually exclusive genres are rare but can be found in Mark J. P. Wolf's *The Medium of the Video Game*[41] and in work by Espen Aarseth aimed at producing multidimensional genre systems.[42]

Wolf, a media theorist, discusses the relevance of various approaches to defining genre in other media. These approaches generally focus on representational, surface phenomena—what we actually see on the screen—but according to Wolf, **interactivity** is more important in video games as it "is an essential part of every game's structure and a more appropriate way of examining and defining video game genres."[43] Wolf's notion of interactivity is closely linked to a game's goals:

> In a video game, there is almost always a definite objective that the player strives to complete . . . and in doing so very specific interactions are used. Thus the intention—of the player-character at least—is often clear, and can be analyzed as a part of the game.[44]

However, Wolf then goes on to outline 43 distinct genres, many of which are only vaguely linked to his own interactivity criterion—from abstract to board games, and from educational games to sports. Thus, despite Wolf's

Interactivity: A term used in many fields but typically as a measure of user influence. The higher the degree of interactivity, the more influence the user has on the form and course of a media product.

reasonable discussion, we end up with a list of genres based on no discernible system of categorization.

Game theorist Espen Aarseth considers it unproductive to define a genre based on one variable (such as theme), as this is likely to have major overlaps (e.g. games that are about shooting and flying) or tell us nothing very interesting. Instead, he suggests that video games should be evaluated based on a series of variables. From this perspective we could decide on a game's genre by rating it in relation to each of the variables selected. This approach has the advantage of categorizing every possible game that could be conceived. The drawback of this system is that it is of limited practical use.

Less formally, popular magazines and websites often have their own—more or less idiosyncratic—way of dealing with genres. Gamespot.com, a major games website, divides games into more than 30 genres of varying specificity (one genre is "action," another is "baseball"). While useful for the purposes of the website, these genres are obviously not derived from any standard principle. For instance, "driving" implies a game's theme while "action" implies a more fundamental characteristic.

Philosophically speaking, the large number of genre systems exists because there is no objective way to measure the differences between two things. An example: two books will share many characteristics (e.g. they have pages and they can be carried) but also have many differences (e.g. the covers look different, they have different titles, they don't weigh the same, and they don't have the same content). But there is no objective way of determining which similarities or differences are the most important.

The same goes for people. How different are human beings from one another? The answer is all in your perspective. Anthropologists and other students of culture may tend toward "very different," while biologists might lean toward "very similar." Neither group is right or wrong. Similarly, no one can prove that it is better to focus on differences rather than similarities, or vice versa.

Genres, then, are arbitrary. They are analytical constructs imposed on a group of objects in order to discuss the complexity of their individual differences in a meaningful way. But are genres just categories with no bearing on reality? No—the conventions of each genre create expectations. Take movies. When you watch a romantic comedy, you expect the movie to follow certain conventions and ignore others—you expect the man and woman to kiss and make up, and you are confident that a crazed murderer will not jump out from the bushes and kill them. When watching a slasher movie, you might have the opposite expectations. Perhaps more importantly, producers make movies that conform to established genres. Box office receipts may indicate that war epics do well financially, and this may influence a producer's decision to approve the next World War II movie instead of a teen comedy.

How exactly one chooses to split the cake and divide up games may be a largely arbitrary decision, but some methods are more consistent than

others. One way to ensure consistency is to use genre labels based on the same criterion. An example of the reverse is revealing: an inconsistent genre system might consist of girl games, home-computer games, racing games, and sports games. This system is not useful, as a particular title could easily fall into all four categories.

In this book, we propose a genre system based on a game's criteria for success. We ask: "What does it take to succeed in the game?" To explore this concept, let's look at two games that are quite different: the ever-popular *Tetris*, and *Myst* (a narrative adventure where the player has to explore a mysterious world and investigate the disappearance of certain characters). To succeed in *Tetris* you need fast reflexes and decent hand-eye coordination. To succeed in *Myst* you need puzzle-solving skills and deductive logic. These criteria for success are quite different. So rather than focus on criteria like theme or narrative, the system we're proposing focuses directly on a feature important to games: goals, and how to achieve them.

Another example that further illustrates this distinction is a comparison of the two soccer-themed games, *FIFA 12* and *Championship Manager 2011*. In *FIFA 12*, the players must wiggle their **joystick**s in order to outscore each other. In *Championship Manager 2011*, the player takes on the role of soccer coach, and concentrates on high-level strategy rather than playing in the matches. Thus, while both are "about" soccer, we do not consider them to be in the same genre.

Joystick: A type of **controller**. The player chooses "direction" by manipulating a stick (as in a fighter airplane).

Two types of game pose a challenge to our system: single-player and multiplayer role-playing games. The first problem is that these two types of role-playing games are, in fact, quite different from each other. Single-player games such as *Dragon Age: Origins* (a fantasy-themed game where the

Figure 3.8 In *FIFA 12* (2011), you play soccer by using a joystick to score goals
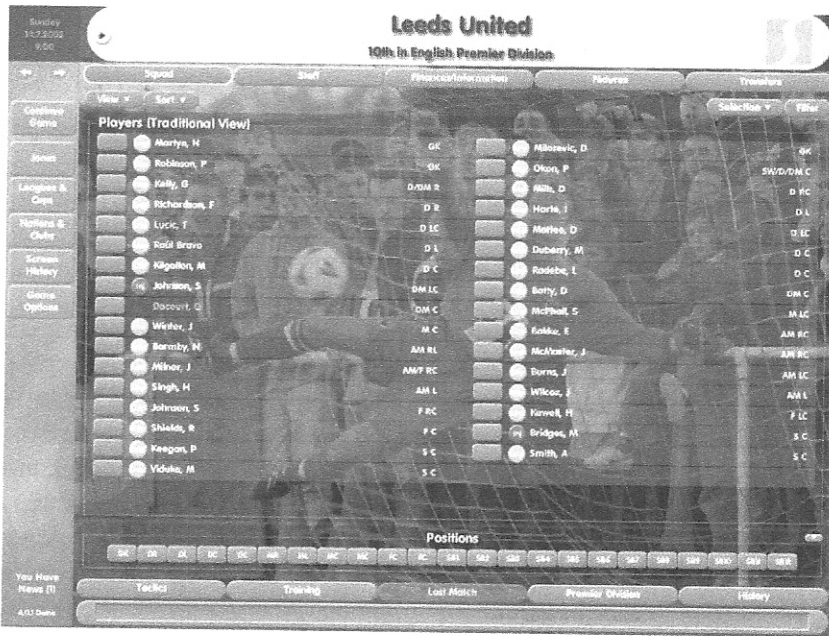
Figure 3.9 In *Championship Manager 4* (2003), you play soccer by setting the right strategy

player controls multiple characters) demand strategic skills and include puzzle solving, while online multiplayer games such as *World of Warcraft* (where thousands of players can act in the same fantasy-themed world simultaneously) do not have very explicit goals and do not generally contain puzzles, but do require social skills for dealing and collaborating with the other players. The second challenge to our system is that certain games (e.g. *World of Warcraft*) cannot be so readily categorized based on criteria for success because they are not obviously goal-oriented (or at least they invite players to set their own goals to a large degree). We recognize these problems as weaknesses of our genre system, and choose to group single-player role-playing games with strategy games, and to place games with vague goals (or no goals) in the special category of "process-oriented games." We describe the four genres in our system below.

Action Games

To some, the action game is the archetypical video game. Action games are often intense and usually involve fighting or some kind of physical drama. *Pac-Man* is an action game, as is the shooter *Red Dead Redemption* and the racing game *MotorStorm: Apocalypse*. What ties these games together is that their criterion for success is motor skill and hand-eye coordination. In classical **arcade** action games, the player mostly had to coordinate the movement of the on-screen character and did not have to worry about what the correct choice might be (one simply and obviously had to jump an

Arcade: Public gaming facility offering computer games (arcade games). Arcades were highly popular in the early 1980s. A game would typically begin when the player inserted the equivalent of a US quarter. Action games were especially well suited to arcades.

approaching barrel at the right time, for instance). In more complex titles like the 2003 platform game *Prince of Persia: The Sands of Time*, the player must still perform challenging feats of coordination but must also put effort into figuring out how to solve the game's spatial puzzles (each challenge must be analyzed to arrive at a solution and subsequently solved in practice by a sequence of jumps, climbs, etc.).

Adventure Games

Adventure games are characterized by requiring deep thinking and great patience. These skills are employed to participate in, or uncover, narratives that are often based on detective story templates. Typically, the player is represented by an individual character involved in a plot of mystery or exploration, and faces puzzles of various kinds. Quite often, adventure games are entirely devoid of fighting and of action sequences; sometimes they even lack the risk of the main character dying. To succeed the player must exhibit skills of logic and deduction. Examples of the genre, in its pure form, include *Adventure* (from 1976), *Maniac Mansion* (from 1987), and *Dreamfall: The Longest Journey* (from 2006). We also include single-player role-playing games under this heading, although we acknowledge that they have strong strategy elements. Examples of this subgenre include *Ultima*, *Wizardry*, and *Baldur's Gate*.

Strategy Games

Occupying a space somewhere between action and adventure games, we find the strategy genre. The most common form is perhaps a game of war, but rather than the player being on the battlefield (typical of the action genre), she takes on the distant role of general. Variations on the general role can include anything from mayor to deity. The conflict is often represented on a map that resembles classic board games, and which illustrates anything from a whole continent to an urban street.

Two important subgenres exist: real-time strategy and turn-based strategy. Real-time strategy games do not pause between turns but rather play out in real time or, perhaps more appropriately, continuous time (since a single game session may span thousands of years in the game world's internal chronology). As a result, they resemble action games, in that the player's score is dependent on fast reactions and skillful manipulation of mouse and keyboard. To win, the player must carefully balance large numbers of interdependent variables, paying careful attention to signals of other players' choices and strategies. Despite their action component, these games are strategic, since understanding the ways in which priorities and perceptions interplay over time is ultimately more important than speed with the mouse. Examples of real-time strategy games include *Dune II*, *Warcraft*, and *Warhammer 40,000: Dawn of War*. In the other subgenre, turn-based strategy, the action stops while players make their choices, following classic

board games such as chess or *Risk*. Examples include *Balance of Power*, *Civilization*, and *Warlords*.

Process-Oriented Games

Though winning seems an essential element of games, a (growing) breed of software exists at the edges of this definition of a game. Instead of giving the player one or more goals, process-oriented games provide the player with a system to play with. These products receive the "game" label not so much for staging conflict or competition but because they are made for entertainment purposes; they could fit the definition of a toy rather than of an actual game. Think of populating and watching an aquarium as opposed to playing chess.

There are two main approaches to the design of process-oriented games. In one type the player is a character exploring and manipulating a dynamic and ever-changing world. Another type puts the player in charge of more fundamental variables, such as taxation levels or elements influencing an ecosystem.

Process-oriented games lack any standard or consistent criterion for success, although each game encourages certain types of play: most players will want to build a large city in *SimCity*, or try to reach higher levels in *World of Warcraft*. A few other examples include *Elite*, *The Sims*, and *Zoo Tycoon*.

A subgroup of process-oriented games try their best to mimic concrete, real-world experiences, such as driving a car or flying an airplane. These are often referred to as **simulation games**.

While many action games do flout ever-greater levels of realism, simulation games go further than action games, and reproduce minor details even at the expense of immediate gratification. The obstacle in these games need not be any external enemy; it is often the challenge of mastering the complexities of the interface. The challenge of a flight simulator, for example, is learning the details of getting a passenger plane off the ground. By this definition, games such as *SimCity* or *SimEarth* are not simulation games, since they do not try to simulate a concrete experience or strive to replicate minute details. Examples of simulation games include *Flight Simulator 2002*, *Microsoft Train Simulator*, and *Sub Battle Simulator*.

The four game genres are summarized in Table 3.1. We will be referring to them throughout the remainder of this book.

Simulation games: Games focusing on realism. Typically they make heavy demands on the player's ability to understand and remember complex principles and relations.

Table 3.1 The characteristics of the four genres. The table shows a genre classification based on the key actions and success criteria to win the game.

	Action games	Adventure games	Strategy games	Process-oriented games
Typical action	Battle	Mystery solving	Build nation in competition with others	(Varies)
Criterion of success	Fast reflexes	Logic ability	Analyzing interdependent variables	Ambiguous

DISCUSSION QUESTIONS

- Consider Marshall McLuhan's idea of games as cultural reflections, and discuss how well it applies to sports or other games that are popular in your area.

- Game and media critic Henry Jenkins has argued that game designers should "concentrate on exploring the aesthetics of action instead of trying to imitate other media." Do you agree with this statement? Why, or why not? Consider several recent video games and discuss their design in terms of this issue.

- Using data available online, find out what the current best-selling games are. Discuss to what extent these titles borrow from movies, whether in terms of form or content. Could any of these titles function as movies or do they only really function as games?

- Take a look at the different genre classifications systems, and try to categorize ten random best-selling games into each of the systems. Do you think the classification systems are appropriate? Consider whether genres are useful at all, and if so why? Can you use each classification system for different things?

RECOMMENDED GAMES

Myst—The game that for many defined the modern adventure game with its magical and engaging world.

FIFA 2012—One of the strongest sports brands in the game industry that shows the core of an action game.

Age of Empires—Demonstrates the real-time strategy game that is among the most popular genres on the PC platform.

Civilization II—Has become the archetype for turn-based strategy that despite its smaller appeal is still a strong niche genre.

The Sims—Redefined what a game could be and what target groups could be reached through something that was barely a game.

SimCity—Probably the first game to truly show the potential of sandbox gameplay.

Microsoft Flight Simulator—If you talk simulation games, this is it. With its absurd realism, it has been claimed to be capable of teaching you to fly a real plane.

FURTHER READINGS

Hunicke, R., LeBlanc, M., & Zubek, R. (2004). *MDA: A formal approach to game design and game research*.

(Estimated reading time: 15 minutes)

Apperley, T. (2006). Genre and game studies: Toward a critical approach to video game genres. *Simulation & Gaming, 37*(1), pp. 6–23.

(Estimated reading time: 38 minutes)

NOTES

1. Wittgenstein, 1967, §67.
2. Huizinga, 2000.
3. Huizinga in fact merely uses the concept as an example of how a game can be delimited in relation to the outside world. Within game studies, however, the term has come to refer to the more general idea that games take place within special spaces set aside from the outside world.
4. Castronova, 2004, p. 7.
5. Singer, 2009.
6. Crawford, 1982.
7. Salen and Zimmerman, 2004.
8. Consalvo, 2009.
9. Consalvo, 2009, p. 411.
10. Malaby, 2007, p. 102.
11. Juul, 2008, p. 61.
12. See also Caillois, 2011; Juul, 2003a, p. 11.
13. Juul, 2003a, p. 11.
14. See also Juul, 2003a.
15. Juul, 2003a.
16. Newman, 2004.
17. McLuhan, 1964, pp. 208–209.
18. McLuhan, 1964, p. 212.
19. Avedon and Sutton-Smith, 1971, p. 7.
20. Avedon and Sutton-Smith, 1971, p. 7.
21. Nietzsche, 2005, p. 80.
22. Jung, 1928, p. 107.
23. Mead, 1967, p. 152.
24. Mead, 1967, p. 152.
25. Jenkins, 2005.
26. Seldes, 1957.
27. Jenkins, 2005, p. 177.
28. Jenkins, 2005, p. 177.
29. Parlett, 1999.
30. Suits, 1978, p. 34.
31. Crawford, 1982, p. 1.
32. Crawford, 1982, p. 7.
33. Crawford, 1982, p. 14.
34. Crawford, 1982, p. 8.
35. Salen and Zimmerman, 2004, p. 80.
36. Juul, 2003b, p. 35.
37. See also Rollings and Morris, 2000, p. 61.
38. Smith, 2006b, pp. 65–66.
39. Hunicke, LeBlanc, and Zubek, 2004.
40. Wolf, 2001.
41. Wolf, 2001.
42. Aarseth, 1997; Aarseth, Sunnanå, and Smedstad, 2003.
43. Wolf, 2001, p. 114.
44. Wolf, 2001, p. 115.