

VIDEOGAMES

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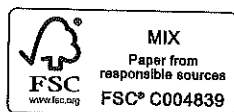
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DEFINITIONS

Defining the object of study

We have noted already that there is a surprising lack of consensus among consumers, producers and scholars over the contours of the term 'videogame'. Part of the problem doubtless arises from the enormous variety of genres, experiences and platforms that umbrella terms such as 'videogame', 'computer game' and 'interactive entertainment' encompass. Prima facie, it is difficult to spot immediate similarities between a game with no graphics, no sound and text-only input played on a home computer and a flight combat game like Sega's *R360* in which the player is strapped into a mock-up fighter plane cockpit, clutches a force feedback joystick, and is literally thrown around as the entire game cabinet turns side-to-side and upside-down in correspondence with the action in the gameworld. The dissimilarities between a 'bemani' ('beatmania') game in which the player is required to physically input dance steps on a pressure-sensitive playmat/dancefloor and a word puzzle game played by multiple players each accessing a shared gameboard via a mobile phone seem far more obvious than the similarities. In making the point, Espen Aarseth (2001a) famously asked: 'is Furby a computer game?' It is certainly computer-controlled, and we play with it just like the Sony AIBO. And with its audio-visual display and button-based interface, is a Tamagotchi a videogame? And if not, why? Doubtless, were we to ask that question today we would want to draw attention to titles such as *Farmville*, *Mafia Wars* and *Minecraft*.

A decade on from Aarseth's question, the field of game studies continues to debate the definition and demarcation of its own object of study. This is not a failing of the discipline but rather a practical reality of enquiry into an inherently unstable and rapidly changing medium. However, it does highlight an important issue at the centre of game and digital culture studies that means it is perfectly possible to conduct a thorough discussion of computer and videogames with no consensus as to precisely what forms, experiences, or technologies are under examination. Should we see videogames as

continuations of other media such as film or television? Are they continuations of other, non-computer, games? Are they hybrids of both? Should we define them with reference to their uniqueness and dissimilarity from other entertainments, media or games, or as a consequence of their similarity? As we will learn throughout this book, the answers to these and other questions will be at least partly shaped by the experience and biography of the theorists, critics and players attempting to arrive at the definitions.

In 2001, at the first academic videogames conference in the UK, Henry Jenkins conceived the problem in terms of a number of blind people attempting to describe an elephant. For one, the elephant is all about the trunk, while for the others, it is the tail, or the ears ... For scholars of film theory, it is perhaps natural to view videogames as forms of 'interactive narrative', for example, while for scholars of play and games or of simulations and computer systems, they will be understood very differently. At this still comparatively early stage in the evolution of videogame studies, whether we privilege the configurative performances of play, interactions with simulation models, or the systems of representation, narrative and structure, it is clear that no single group of theorists can claim to be able to accurately describe the elephant. Even allowing for more than a decade of work since Aarseth (2001b) proclaimed 2001 'year one of the discipline', it is evident that there is much foundational work still to do and that game studies will inevitably always exist in a state of flux that requires its practitioners to be agile in responding to often significant changes in the objects of their critical attention.

Given that the industry cannot even agree on a name for its products and scholars see different characteristics as important perhaps depending on their academic background or the games they study, just how does one start to home in on what a videogame is? The remainder of this chapter explores some of the more common ways in which critics, academics, players and industry practitioners have sought to define the videogame. Geoff Howland (1998) breaks down the videogame into five distinct, yet interconnected elements (see Table 2.1).

TABLE 2.1 The elements of a videogame

Graphics	Any images that are displayed and any effects performed on them. This includes 3D objects, 2D tiles, 2D full-screen shots, Full Motion Video (FMV), statistics, informational overlays and anything else the player will see.
Sound	Any music or sound effects played during the game. This includes starting music, CD music, MIDI, MOD tracks, Foley effects, environmental sound.
Interface	The interface is anything that the player has to use or have direct contact with in order to play the game ... it goes beyond simply the mouse/keyboard/joystick [and] includes graphics that the player must click on, menu systems that the player must navigate through and game control systems such as how to steer or control pieces in the game.
Gameplay	Gameplay is a fuzzy term. It encompasses how fun a game is, how immersive it is and the length of playability.
Story	The game's story includes any background before the game starts, all information the player gains during the story or when they win and any information they learn about characters in the game.

(Source: adapted from Howland 1998)

While such distinctions are useful, they are too broad to capture the array of videogame experiences. The inclusion of 'graphics' might satisfy our everyday assumptions about videogames by implying the centrality of screens of rich visual material (they are *videogames* after all?) but it precludes the consideration of AIBO and Furby as well as also text-only adventures which were the mainstay of early gaming and remain popular especially online, while potentially encompassing more instinctively problematic Tamagotchi or the more recent PS3 *EyePet* or Xbox 360/iOS *Kinectimals* (see also Livingstone 2002 on videogames as 'screen based entertainment media'). Furthermore, if Howland's categories fail to help distinguish videogames from other media forms, they are of even less use in distinguishing different videogames from one another. We will temporarily leave aside this first issue of differentiating videogames from other media, or other games, and turn our attentions to attempts to delineate different types of videogame.

Classifying videogames

The seemingly bewildering variety of game types renders it almost inevitable that game theorists, journalists and marketers have attempted to find ways of classifying and making more manageable the object of their attentions. By far the most frequently used tool has been genre. The generic classification of videogames is so widely employed that it is often easy to overlook it altogether or merely consider it natural. References to 'shoot-'em-ups', 'driving games', 'platform games', 'role-playing games' and 'first-person shooters' abound in videogame review magazines, while academic research projects frequently orient their analyses around similar classifications (see Voorhees *et al.* 2012a and b for example). The terminology of 'shoot-'em-up' and 'beat-'em-up' appears to have originated in the mid- to late 1980s in the pages of early games magazines such as Newsfield's *Crash* and *Zzap!64*, and has now passed into industry parlance. In their review of the best games for 2002's gaming platforms, Berens and Howard (2001: 25–26) demonstrate the continued relevance of industry-derived genres. 'They are useful pointers and reflect the industry's current view of how they operate (it's also how you may well find them organized in the bigger retailers)'. Conflating some similar categories, Berens and Howard present seven game types:

- 1 Action and Adventure
- 2 Driving and Racing
- 3 First-Person Shooter
- 4 Platform and Puzzle
- 5 Role-playing
- 6 Strategy and Simulation
- 7 Sports and Beat-'em-ups

However, the deployment of these genres in scholarly study may be problematic for a number of reasons. First, the categories are extremely nebulous and do not represent the fixities that the commentators that utilize them imply. Second, their use perhaps

implies not only an overly text-centred approach to understanding videogame play but one in which the text is considered a hermetic, closed system (cf. Bakhtin 1981). Studies that seek to evaluate the effect or consequence of one game type in comparison with another necessarily divert attention from the location of play and players within specific socio-cultural, historical, and even interactional or 'ludic' contexts. In doing so, they perhaps unwittingly betray a desire to decry the videogame as formulaic and the player as unsophisticated dupe. Following Fish's (1980) work on interpretive communities, Bennett's 'reading formations' (1990, 1987) and the subsequent shift away from unveiling fixed, 'in-the-text' meanings that has accompanied the wealth of investigations into literary, film and television audiences (see Ang 1996, 1985; Hermes 1995; Morley 1986, 1980; Radway 1984, for example), it is possible to understand these genres in terms of the ways they cue or represent expectations harboured by the audience (see Copley 2001b). Furthermore, more recent work on socially situated practices of play (e.g. Newman 2008; Consalvo 2007), which draws on the work of Jenkins (1992) and Lewis (1992), among others, points to the participatory nature of media consumption and the mutability of the text.

It is worth noting also that the marketing and criticism of games has seen the (re)emergence of something akin to auteurism. In the 1980s, some publishers, most notably Activision, credited game designers such as David Crane on boxart (Fleming 2007), while the names of developers such as Jeff Minter, for instance, would be well known to groups of UK Commodore 64 and Atari gamers. However, throughout the 1990s, as development processes became more complex and teams grew larger, the visibility of individuals declined. More recently, within the pages of magazines, on fan websites and discussion boards, and even in scholarly research articles, the names of (a subset of) videogame designers and producers have become the focus of discussion as certain developers are propelled into the foreground at launch events, conferences and via social media. Perhaps most well-known and lauded is Shigeru Miyamoto, creator of some of Nintendo's most famous series, including *Super Mario Bros.* and *The Legend of Zelda*, for example. Similarly, Hideo Kojima (*Metal Gear Solid*), Yuji Naka (*Sonic the Hedgehog*), Will Wright (*The Sims*, *Spore*), David Cage (*Fahrenheit*, *Heavy Rain*), Cliff Bleszinski (*Gears of War*) are discussed in terms of their unique inventiveness. Miyamoto is routinely positioned centrestage at the (re)launch of games like *The Legend of Zelda: Ocarina of Time 3D* or even new hardware systems such as the Wii (see Iwata 2011) while each title in the *Metal Gear Solid* series is described in advertising and in-game as 'A Hideo Kojima game'. It is by no means clear whether the influence of these celebrity designers is felt aesthetically, formally or through the resultant 'feel' of the game, or whether the allusion to film is stylistic or indicative of a further attempt to gain credibility by association with 'respectable' media by mimicking the 'above the title' directorial status. Nevertheless, the esteem in which these apparently gifted designers are held provides considerable evidence that critics and players privilege both the innovative and challenging alongside the familiar and conventional. Taking a somewhat dimmer view, we might argue that the economies of the contemporary videogame industry give rise to series of derivative, barely distinguishable sequels and it is perhaps for this reason that the 'celebrity

designer' has been pushed to the fore. Whether there is something truly identifiable about a Miyamoto or Kojima creation is perhaps of secondary importance to the more general, and perhaps illusory, sense in which these designers are afforded a creative freedom to operate without constraint. Discussing *Pokémon*, Miyamoto locates himself and the game's creator as artists, with commercial success an almost inevitable side-effect of the perfection of the artwork:

the biggest reason it has become that popular is Mr Tajiri, the main developer and creator of *Pokémon*, didn't start this project with a business sense ...

Somehow, what he wanted to create for himself was appreciated by others in this country and is shared by people in other countries ... And that's the point: not to make something sell, something very popular, but to love something, and make something that we creators can love.

(cited in Rouse 2001: 1)

Ludic context

An underused means of differentiating types of videogames and, more importantly, types of experience, structure and engagement, centres on the location of play. The overwhelming majority of studies of videogames concentrate, often exclusively, on home consoles or PCs with little, if any, consideration of arcade systems (though note Newman 2008; Saxe 1994 on the social play in arcades) or handheld and mobile games. These distinctions are important for a number of reasons. Coin-op systems are required to fulfil very different functions from home console titles. At least one function of the machine is to earn money, which it generally does through repeat plays, meaning that throughput is an important consideration. Among other things, including the physical design of the cabinet to ensure ease and speed of access, this pressure affects the nature of the experience to be delivered. Where a home console title may boast many tens of hours of gameplay (e.g. *Final Fantasy* series), requiring many consecutive play sessions, an encounter with an arcade title typically lasts just a few minutes. Even where an arcade game offers 'continues' (allowing players to resume their game from the point they exited rather than from the start), to continue demands depositing another coin, and each individual play session remains short. Consequently, the arcade experience is frequently characterized as one of sensory bombardment with intense, high volume and velocity play. Although videogame arcades may be in decline in comparison with their heyday in the 1980s, coin-op game design shares some similarities with that of many mobile and handheld games that are intended to facilitate 'opportunistic' play. The desire to deliver gameplay in short bursts that can be slotted into the often unpredictable spaces in the day (waiting for the bus, for instance) has seen a resurgence in the coin-op style of game design (e.g. *Angry Birds* and *Doodle Jump*) and even a new market for coin-op game conversions that naturally fit this pattern of play. Of course, not all contemporary mobile or handheld games fit this pattern with long-form, 'console' titles from the *Final Fantasy* and *Chrono Trigger* series gracing Apple's iOS platform.

That videogames designed for home consoles may include an 'arcade' mode speaks of the variety of ways in which videogames are played and used. The *Gran Turismo* series, for example, distinguishes itself from many other car racing games by the complexity and thoroughness of its options and the degree of personalization and customization it offers the player. Cars can be tuned, traded and upgraded with a multitude of extras, yet the 'Quick Arcade' mode presents none of this intricacy and simply allows players to race around tracks in souped-up cars that would usually have to be painstakingly earned through a series of championships and the accumulation of credits. Clearly, the various modes of play serve different purposes. Engagement with the intricate 'Gran Turismo' requires a significant investment of time whereas 'Quick Arcade' mode not only satisfies the player with less time to dedicate to the game but also facilitates social play as players can alternate three-lap sessions or challenge each other on the same screen via the 'Quick Arcade' mode's two-player simultaneous, split-screen options. In 'Quick Arcade' mode the pleasure of *Gran Turismo* is found in the honing of technique and the mastery of tracks and vehicles.

Another important area distinguishing arcade systems from home consoles, PCs, handheld and mobile devices is in the use of custom cabinets and interface technologies. *Virtua Cop*, for example, is particularly notable in employing a 'light gun' rather than standard joystick/button arrangement. The mediating technology in this case is perhaps a more significant differentiating characteristic than the content of the game itself. Even though light guns, steering wheels and even dance mats are available (though typically poorly supported) for use in the home, interfaces such as that found in *Alpine Skier*, *Final Furlong*, etc. clearly add a level of physicality to the gaming experience that is not easily recreated in conversions of the titles to console formats. Consider, too, Sega's *Daytona USA* in its coin-op and console conversion incarnations. Both are driving games – in fact, both games are superficially identical – yet in the home you drive with your joypad, seated in your armchair, while in the arcade you sit in a mock-up car chassis, grasping a force-feedback steering wheel with pedals under your feet. This is certainly not intended to imply that home console games/conversions cannot create exciting and captivating experiences that engage the player physically. However, it should be clear to even the least experienced scholar of computer and videogames that, if we compare pressing buttons on a standard, generic joypad with riding a virtual horse, the processes of engagement and interaction are likely to be different. Even where contemporary consoles sport a great complexity of interfaces that move beyond pads and sticks to include motion controls and touchscreens, these remain generic rather than being bespoke for specific games.

Quite apart from these differences, the actual location plays a role. While the home console game is likely to be played if not alone then among a group of family or friends known to the player, coin-op play is likely to take on at least an element of public performance as observers crowd around the machine. This crowding does not merely signal vicarious pleasure, but is one of the ways in which techniques and tactics are learned (Livingstone 2002). Moreover, as coin-op machines require money per play it makes sense to learn from somebody else's mistakes, at their expense. Online play complicates the matter yet further by potentially placing the player in a

web of a few or many thousands of previously known or unknown co-players depending on the system and game in question. The provision of pre-recorded video playback or even live streaming footage of gaming competitions brings the process 'learning by looking over the shoulder' into the digital age albeit in a rather more voyeuristic manner. While 'home' and 'coin-op', 'mobile' and 'console' are still too broad, the differentiation according to type and location of experience is a useful and important departure from content-derived genre classifications and hints at ways we might later approach the study of games and gameplay.

What a videogame isn't

As the variety of experiences and technologies makes it hard to define a videogame in positive terms, it is useful to momentarily tackle the problem in reverse. In order to challenge a number of preconceptions that underpin our everyday definitions of a videogame, Rollings and Morris turn their attentions to what a videogame is not so as to identify those features and qualities above and beyond that help mark out the distinctiveness of the form:

a game is not:

- A bunch of cool features
- A lot of fancy graphics
- A series of challenging puzzles
- An intriguing setting and story

(Rollings and Morris 2000: 19–20, original formatting)

It is important to note that videogames do not preclude these characteristics. Rather, for Rollings and Morris, these qualities do not, in themselves, make a videogame or help us describe the uniqueness of the form. As we have seen already, graphics are clearly important for many if not all games and gamers, and we will learn in later chapters that the (audio-)visual composition of the gameworld has an enormous impact on players, non-players and purchasers of games alike. However, even the most aesthetically and technically advanced gameworlds can fail as videogames. *Dragon's Lair* is a good example, though *Myst* has been claimed by many to fall into the same category in offering lavish visuals with minimal opportunities for interaction (see Juul 1999). The concern here appears to centre around that most touted but elusive concept of 'gameplay'. The opportunity for interaction alludes to the necessity that the player be able to perform in the world and not simply derive pleasure from being in it. As such, this implicitly draws focus away from the 'video' and to the 'game'. This seems pretty incontestable and might be an important way in which we could distinguish the videogame from the architectural walkthrough or other immersive but not obviously playable environment or experience. However, even here, things are not so straightforward. If we turn our attentions to titles such as thechineseroom's *Dear Esther* or Ian Bogost's *Cow Clicker*, we find deliberate attempts to explore and even satirize

the limits and limitations of videogame interaction and the relationship to environment and the pleasures of being in the world rather than performing as a gamer. Conversely, *Tetris*, *Pac-Man*, *Vib Ribbon* all offer engaging, absorbing gaming experiences with minimal audio-visual flair while the GameBoy attained a dominant status in the handheld marketplace despite its comparatively primitive, even for its time, audio-visual capabilities.

Combining finely scripted narratives with cunningly ingenious puzzles does not necessarily make for the most rewarding gaming experiences (see Rollings and Morris 2000: 22–23 for a discussion of *Baldur's Gate* and *Grim Fandango*, for example). Throughout this book, we will discuss each of these issues, particularly regarding the importance (or otherwise) of narrative, characters and aesthetics. For now, however, it is sufficient to conclude that, with satirical and critically investigative projects aside, wrapping fancy graphics around a narrative with intermittent impasses requiring input from the player does not in general make for a videogame irrespective of the number of features that might never before have been seen.

Why do players play? What do videogames want?

Perhaps another lateral way of approaching the definitional issue is to consider what qualities of videogames players seek, what lack they sate through play that perhaps cannot be sated by other means or media. Developer and critic Richard Rouse (2001: 2–19) identifies a range of player motivations and expectations. Among them, three are particularly notable: challenge; immersion; players expect to do, not to watch.

Livingstone presents similar findings:

In interviews with children regarding their experience of screen entertainment culture, what is most notable when children talk about *computer games*, the words that appear over and over are 'control', 'challenge', 'freedom'.

(Livingstone 2002: 231)

As we noted above, each of these points signals the importance of *player activity*. A videogame must provide novel or exciting situations to experience, stimulating puzzles to engage with, and interesting environments to explore. Moreover, it must offer the player not merely suitable or appropriate capabilities, but capabilities that can be earned, honed and perfected even if that involves playing with or subverting the rules as Newman (2008) and Consalvo (2007) note. Whether or not players resort to cheating (however this might be defined), it is clear that seeking out and responding to challenge, often over a period of time as responses, tactics and strategies are developed, are key motivators for videogame play (see Sherry *et al.*'s 2001 study of videogame uses and gratifications).

It is essential to note that players want to work for their rewards even if that work involves breaking or undermining the integrity of the game's rule systems. Gratification is not simply or effortlessly meted out and players are expected to, just as they expect to, perform. Videogame play, then, is somewhat akin to a contract in which the

player commits to performing in exchange for receiving further opportunities to perform and rewards for success. For Sue Morris (2003), it is this reciprocity that leads her to define the videogame as 'co-created'. That is, it is made only in the coming together of players breathing life through play into the materials and scenarios created by developers. However, as Rouse notes, this is not a simple matter of endless gratification. Players expect to fail. As we noted above in relation to *Gran Turismo*, at least part of the pleasure of videogame play is derived from the refinement of performance through replay and practice. Consequently, it is essential that obstacles, irrespective of the form they take, must be 'real' in that they must require non-trivial effort to conquer them.

According to Rouse (2001), it is the primacy afforded to doing and performing that renders 'non-interactive cut-scenes' so putatively unappealing to gamers. Cut-scenes are sequences in which the player is offered no direct control through the game's interface. Commonly referred to as 'intermissions' or more problematically as 'movie sequences', they typically introduce or frame 'gameplay' sequences or episodes in which direct control or 'interactivity' is offered (see Chapters 5 and 6 for more on the (in)significance of cut-scenes). Rouse makes the interesting observation that, while players demand participation and seem, according to his research, to tire quickly of 'non-participative' elements, they want all of this presented in a manner that does not feel contrived – in fact, in a manner that often does not feel like a game at all:

Once a player is into a game, she is in a level, she has a good understanding of the game's controls, she is excited, and she is role-playing a fantasy; she does not want to be snapped out of her experience ... the player does not want to think about the game's GUI [graphical user interface]. If the GUI is not designed to be transparent and to fit in with the rest of the gameworld art, it will stick out and ruin her immersion ... If the player comes to a puzzle, figures out a perfectly reasonable solution to it, and that solution does not work, the player will again be reminded that she is 'only' playing a computer game.

(Rouse 2001: 12–13)

Here, the videogame player is positioned at the heart of the action – they effectively enter the gameworld. Importantly, this does not presuppose a first-person viewpoint, and as Newman (2002b) has noted, players may report first-hand experience of gameworlds that are presented in second-person view, as in *Gran Turismo*, third-person, as in *Sonic the Hedgehog*, or even via dynamically shifting viewpoints as in *Super Mario 64* or *Metal Gear Solid* series (see Chapter 8 for more on viewpoint and player engagement, and cf. Bates 2001). For this reason, videogames may be characterized by a sense of presence – of 'being there' – rather than controlling, manipulating or perhaps even 'playing a game'. As Peter Main of Nintendo notes of *Super Mario World* (third-person viewpoint), 'Make no mistake, when these kids are playing Mario it's them up there on the screen' (Uden Associates 1993). For many videogame designers, it is important to ensure that there is no explicit detachment and distance from the contents of the game and it is this desire that drives the creation of ergonomic

hardware and software interfaces, for example. The centrality of participation and the sense of 'being there' chimes with the stance of game theorists. 'Players concentrate wholly on the game – on the dice or the puck or the pawn; good gameplay ... makes you forget yourself and the passage of time, not operating consciously but going with the flow' (Farley 2000). Moreover, this theme has been seized upon by proponents of interactive narratives who posit videogames as stories to be performed (see Murray 1997; Buse 1996; Laurel 1991; see also Chapter 6). Attempting to rationalize the fact that videogame play is typically understood as a first-hand experience oriented around doing and performing while games typically present fragmented structures that offer irregular opportunities for such interaction on account of the prevalence of interstitial sequences and framing and expository narratives, has much exercised game studies scholars. As we shall see throughout this book, this has given rise to distinctive ways of understanding what games are and how they might best be studied.

Rules, winning and losing: videogames as games

The emergence of videogames as a legitimate object of study in media and cultural studies, in combination with the closer alliances between the videogames industry, Hollywood and the music industry, has had the perhaps inevitable consequence of underemphasizing their status as games to be played in favour of media texts to be read or consumed. Indeed, the appropriateness of approaches to the study of videogames remains a matter of considerable discussion and debate in the field. However, as Aarseth (1997) and Frasca (2001a and b) have noted, there is much to be gained by situating videogames within the broader critical context of game and play, even though, as Frasca notes, 'ludology', the study of games and play, is comparatively poorly developed. While for some commentators the characteristics of games, just like videogames, are so diverse as to render any singular definition problematic (see Sutton-Smith 1997 on the variety and ambiguity of play activity), a body of literature has developed.

Huizinga (1950) provides a useful point of entry. The game is a voluntary activity, engagement with which represents an end in itself rather than operating as a means to an end; game play is its own reward and is clearly distinguished from ordinary life. Farley (2000) has critiqued this dislocation of gaming by pointing to the memorability of play either 'involuntarily' through physical injuries, or perhaps through the disgruntled recollection of a beaten player keen to improve or seek revenge. Central to Huizinga's conceptualization of the game and key to demarcating it as an experiential entity are the rules that bind, constrain and structure the activity. Certainly, rules appear to be critical to most definitions of games (e.g. Caillois 2001) and Huizinga's position is mirrored in the common sense distinction between 'play' and 'game'. Where play is considered free and unfettered, the game is characterized by the constraints of rule systems that formally organize what can and cannot be permitted. In attempting to chart a path through the enormous variety of 'game' activity both Piaget (1951) and Caillois (2001) seize on the variegated complexity of these rules. Caillois distinguishes between '*paidea*' and '*ludus*' referring to games with simple and complex rules respectively. As such, skipping a

rope (*paidea*) can be distinguished from more complex games such as bridge or football (*ludus*). Piaget's distinctions are similar in pointing to the comparative complexity of rules; however, his analysis differs in suggesting that certain types of game are, in fact, entirely free from rules. Importantly, according to Piaget, the shift from unbounded to rule-based gaming can be equated with childhood development. From birth to two years, children engage in kinaesthetic games of exercise in which they reach out and explore their surroundings; from two to seven, game play is characterized by symbolic role-play. Both types of game are, according to Piaget, free from rules and are distinguished from the games of children over the age of seven. For Piaget, these games with rules, such as football, are considered more 'adult' activities because they demand socialization. In common sense terms, we can broadly equate Piaget's games with and without rules with 'play' and 'game' respectively.

Whilst Piaget's definitions are appealingly neat, Frasca encourages us to question the validity of the claim that games or even play is unbounded by rules. As Daniel Vidart (1995) has noted, even apparently unfettered play does, in fact, operate within strict rulesets. He gives the example of a child pretending to fly a plane by running around, arms outstretched. Following Piaget's classification, this might seem like unregulated, pre-socialized freedom, yet Vidart suggests that rules are at work here. The most obvious rule is that the child has decided to behave like a pilot or at least a plane, and not a car driver or car. For Frasca, while the rule is proposed and accepted by the player, and can be dropped at any moment, during play it is accepted like any other game rule. On the basis that all games operate within rulesets albeit with different levels of complexity, Frasca suggests that playful activity, or play and games, might be better differentiated according to their outcome. Examining the work of André Lalande (1928), Frasca suggests that, unlike play in which there is no winner or loser, the result of games is victory or success. The distinction is also highlighted by Piaget who, after asking a group of children at play 'who won?', was greeted with mystified looks. The children did not understand the question. There is no winner or loser in play. In this way, the goal of the activity rather than the presence or complexity of the structures or constraints imposed upon players is key to defining the game.

Accepting Vidart's claim that rules are inherent in games and play, Frasca proposes a modification of Caillois's (2001) terminology of '*paidea*' and '*ludus*' to describe this goal-oriented distinction. *Paidea* can be described as 'physical or mental activity which has no immediate useful objective, nor defined objective, and whose only reason to be is based in the pleasure experienced by the player' while *ludus* describes 'activity organized under a system of rules that defines a victory or a defeat, a gain or a loss' (Frasca 1999). *Ludus*, therefore, requires reference to an external suite of rules where *paidea* is understood and delimited by the player.

***Paidea* and *ludus* in videogames: playing with rules**

It is tempting to think that videogames must be archetypal examples of *ludus*, however, Frasca suggests that both *ludus* and *paidea* can be observed. *SimCity* is an example of a *paidea* videogame. While the player can attempt to create an aesthetically beautiful

city, or an efficient city, and while a session ends when resources are exhausted, it is not possible to win or lose. In his discussion of 'abdicating authorship', Doug Church (2000) has similarly noted that there is no winning or losing in videogames like *The Sims* beyond what the player understands those terms to mean. That is, the players impose their own *ludus* rules upon the playground that *The Sims* offers. Moreover, Frasca suggests that *ludus* and *paidea* can be combined in specific games, and that the player themselves is able to switch between the two activities at will. When piloting an aircraft in *ProFlight Simulator* or Nintendo's *Pilotwings Resort* without a specific goal, the player is engaged in *paidea*. However, they can easily impose a *ludus* rule, such as to perform a particular manoeuvre without crashing. Thus, the notion of winning and losing is imposed. As Frasca notes, many videogames are specifically designed as environments for *paidea* and *ludus*:

many flight simulators include different missions (particular goal-oriented activities where the player has to accomplish a certain task, such as bombing a city or landing under bad weather conditions). These *ludus* are hard-coded within the program: the program includes a *ludus* rule and it will tell the player if she has succeeded or not at the end of the session. However, the same mission-based simulator could also be used for *paidea*: the player could simply not follow the rule and would just play around with the airplane ... It is the player and not the designer who decides how to use a toy, a game, or a videogame. The designer might suggest a set of rules, but the player always has the final decision.

(Frasca 2001a: 13–14)

Thus, while videogames might appear (especially to the non-cognoscenti) to be restrictive experiences with many complicated, often impenetrable rules channelling the player into certain prescribed behaviours and responses, Frasca encourages us to consider videogames as worlds, or rather 'playgrounds' in which many different activities can be performed. Importantly, these playgrounds need not be restrictive but may be open and flexible and, while designers might suggest possibilities, it is ultimately players that decide which activities will be performed. For example, many games place the player in an initial situation from which they have to escape by traversing a landscape, environment, or in the case of *Luigi's Mansion*, a haunted house. However, the games do not tell the player how to conquer the game space, nor do they initially present any more than the barest of parameters for play. It is the job of the player to deduce (or even impose) rules through exploration, invention and imagination – reaching out into the world to test, evaluate and execute different approaches. Thus, while there may be one, and only one, way to capture each of the ghosts in *Luigi's Mansion*, it is left to the player to ascertain the appropriate approach through the kind of iterative, deductive play and failure that we noted above. Importantly, even here, enacting the solution leaves considerable latitude for individual technique. Similarly, it is clear to the seasoned player that the majority of the various denizens populating Dinosaur Island, the setting for *Super Mario World*, follow memorizable patterns of behaviour. However, neither this fact, nor the specific behaviours, are revealed to the

player through printed instructions or on-screen tutorials. Rather, the player has to explore the gameworld, noting similarity and difference, identifying and matching patterns, making assumptions based on previous experience of this game (or others) and, sometimes, by using trial and error. For example, some of *Super Mario World's* Koopas will chase the player while others will resolutely patrol a limited patch of land. At the end of each level or sequence, a tougher opponent, often termed a Boss, displays its own unique set of qualities, attacks, defences and vulnerabilities that need to be explored and exploited often requiring a composite demonstration of newly acquired techniques from the player.

Of course, the exploitation of rules may involve identifying tactics never intended by the game's designers. Perhaps the most infamous example is the *Asteroids* 'lurking' strategy. Rather than destroy all of the asteroids in the playfield and move on to the next level, experienced players learned that by leaving one floating through space, the level could be effectively suspended and they could wait for the arrival of the alien spaceships that earn far more points on destruction than mere rocks. For some, such techniques constitute cheating while for others they are unproblematically legitimate in being facilitated by the game's enforcement system. Often these techniques involve the use of counterintuitive play such as *Doom's* 'rocket jumping'. Although they sustained some damage in the process, players soon realized that they could propel their character higher than normally possible with standard jumping if they fired their rocket launchers into the ground by their feet. For many in the development and player communities, this kind of practice that pushes at the boundaries of what is intended and what is possible has become known as 'emergent gameplay' though this sometimes reads as a post-rationalization on the part of developers whose games have been exploited by self-conscious investigative players.

That the rules of videogames are not clearly or unambiguously presented at the outset of play is a key feature of the form and comes to represent a fundamental part of the long-term challenge and pleasure of play. In observing children playing *Transport Tycoon*, Carsten Jessen (1995) has noted that working out the rules of a videogame constitutes a large part of the fascination and challenge and is a principal motivation for play. In fact, once the rules have been deduced and overcome, videogames may lose their appeal and new challenges may be sought, either through (purchasing) new games or the imposition of new *ludus* rules. Videogame play is principally concerned with exploration, testing out ideas and strategies. The demands made by videogames on the player's creativity and imagination are frequently overlooked in accounts of play that position games as stifling (see Grossman 2001; Dill and Dill 1998, though see Newman 2008 and Consalvo 2007).

Deducing, collating, and working within or around a game's rulesets represent a large part of the pleasure of videogame play and further highlights the active, participatory role of the player. In much the same way as scholars such as James Paul Gee (2003, 2007) and Marc Prensky (2006, 2007) have championed the rich educational benefits of gameplay, Livingstone has noted that the skills developed through their use of videogames during leisure time must be recognized as potentially crucial for ICT literacies. 'Far from representing an irrelevant or even problematic alternative to

"serious" uses of computers, it might be argued that playing electronic games generates the kinds of skills and competencies that matter most for ICT use' (2002: 229). Livingstone continues to cite Johnson-Eilola's (1998) experience of his daughter's explanation of videogame play:

To someone raised in an historical worldview – one valuing linearity, genealogies, tradition, *rules* – Carolyn's explanations of the game sound haphazard, unplanned and immature. But to someone familiar with global information spaces such as the World Wide Web, games such as these provide environments for learning postmodernist approaches to communication and knowledge: navigation, constructive problem-solving, dynamic goal-construction.

(Johnson-Eilola 1998: 188)

Types of game: the pleasures of play

In addition to discussing the importance and complexity of rules, Caillois (2001) usefully identifies a variety of different types of game. Heavily influenced by Huizinga, Caillois proposes four distinct forms: *Agon*, in which competition is dominant; *Alea*, where chance and randomness are key; *Ilinx*, in which pleasure is derived from movement; and *Mimicry*, in which games are oriented around simulation, make-believe and role-play. Importantly, these characteristics are not mutually exclusive and so poker, for example, can be seen to combine elements of *Agon* and *Alea*. A consideration of even the most apparently simplistic videogames reveals the applicability and interplay of these various characteristics. In *Tetris*, for example, both competition (*Agon*) and chance (*Alea*) are evident. The randomness and unpredictability of the sequence of falling blocks ensures that *Tetris* cannot be simply 'learned' while competition can be between two (or more) players or between player and CPU (central processing unit – essentially, a competition between the player and the game's 'simulation'). It may be also that the element of competition is imposed by the player through their own *ludus* rules, for example, trying to maximize the number of four-line 'Tetris' scores. Farley (2000) has argued that all games are essentially agonistic and even those that require teamwork and cooperation do so only so that one team may vanquish another. Reconsidering Sega's coin-op *R360*, we note that in addition to *Agon*, the game clearly comprises *Mimicry* as the player adopts the role of fighter pilot and is spun around inside the motorized cockpit. Here, just as with 'bemani' dancing games, there is a quite literal kinaesthetic pleasure to play. Importantly, there is little randomness in these games with attacking fighter planes and dance steps following fixed patterns and the pleasures of both *R360* and 'bemani' are to be found in the combination of movement, competition and role-play. These characteristics in combination with the modified, outcome-oriented *ludus* and *paidea* offer a means of differentiating (video) games from one another depending upon the relative balance of the elements. However, at the risk of singling out one characteristic above others, it is useful to further consider the nature of competition (*Agon*). Specifically, it is important to consider precisely with whom, or perhaps even what, the player is in competition. While we

have alluded to multiplayer competition and even collaboration, it is valuable to consider the videogame as a puzzle.

Puzzles in videogames present something of a problem as the term is slippery. Within industry and player parlance, puzzles usually refer to particular staged, set-piece episodes. As such, a puzzle may refer to the need to deduce the sequence in which a series of doors must be unlocked, or may require the use of a variety of collected items in a particular combination, at a particular time or even in a particular location. An over-reliance on puzzles is often cited as a criticism of games such as *Myst* or *The Seventh Guest* (see Juul 1999, 1998, for example, and recall Rollings and Morris's 2000 criticism above).

Perhaps part of the reason is to be found in the disruptive effect of puzzles. As Farley (2000) has noted, for Huizinga (1950) part of the pleasure of the game is to be found in the presentation of an ordered world. This is in contrast with what Berger has called 'the casual and confused reign of everyday existence' (cited in Holquist 1968: 122). Indeed, for Turkle (1984), it is the seduction of this perfectible and manageable world of computers that should present cause for concern. According to Danesi (2002), part of the appeal of the puzzle arises from the disruption of this order, or more precisely, from the knowledge that order may be restored. Thus, the self-contained ordered world created within what Huizinga terms the 'magic circle' of the gameworld is disturbed (see also Jensen and Scott 1980 on the appropriateness of the physical setting or 'play landscape'). However, the reinstating of the equilibrium state may be seen to represent part of the challenge that Rouse (2001) and Crawford (1984) identify as central motivations for play. In this regard, we can observe that the structure of the videogame as puzzle appears quite similar to Todorov's (1977) narrative structure in which an initial equilibrium state is disrupted, recognized, tackled and ultimately resolved (see also Vogler 1998 and Chapter 6). The aim of many videogame designers, however, is the puzzle with single victory state – a 'solution' (see Bates 2001, for example). To solve such a puzzle is to attain this state, and only this state. Examples of such single solution state puzzles include crosswords and jigsaws, for example, though the designation of videogames such as *Tetris* as 'puzzle games' is unsustainable given the absence of a solution (see Chapter 5 on the classic arcade game structure).

While Crawford (1995) is quick to dismiss the puzzle as defunct upon solution, Maroney (2001) notes that even puzzles with a single victory state may offer rich replay potential by introducing randomness into the initial state by shuffling a deck of cards, for example. In criticizing *The Seventh Guest* and *Myst*, what is condemned is the minimal scope for invention, experimentation or individuality. If what is denounced as 'puzzle-solving' is to be differentiated from 'gameplay' then it is perhaps in terms of the facilitation of strategy and tactical development and the operation of non-linearity. The issue that critics such as Rollings and Morris (2000) highlight is the orientation of the game around narrow, tightly defined puzzles that offer little latitude for creativity and limit the scope for individual solutions based around playing preferences, style or technique. Coupled with linear progression structures that demand the completion of one puzzle before the next can be attempted, the game

can be seen as a series of episodes that require little more than the repetition or revelation of pre-ordained sequences of inputs or the marshalling of specific sequences of events. However, many videogames do not present such a structure and offer a variety of potential 'solutions'. Moreover, through the imposition of *ludus* rules, players can, themselves, decide to define the victory state. This may be related to the standard, external rules of the game (completing a section without firing, for example), or may be wholly unrelated (performing as many 'doughnuts' along the backstraight as possible). Indeed, players may choose to override the concept of victory states and indulge solely in *paidea*. Jensen and Scott (1980: 305–7) point to the absence of competition in the Hareskin Indians' 'keep-away' ball game and circle dance, and the Inuit modification of baseball into 'total community participation' with no winners or losers. In this way, players may modify games ostensibly designed with *Alea* in mind and remove the competitive element.

While it is usual to treat certain discrete sequences, episodes or elements within a videogame as puzzles (the location of a key or the placement of an object on a pressure pad to open a doorway), it is possible to view the videogame, as a whole, as a type of puzzle. Following Ted Friedman (1995), the act of playing a videogame can be conceived as an engagement with the apparatus of the simulation 'beneath' or 'behind' the game. The simulation that brings the gameworld and all its contents into being. The articulation of this dialogue varies between games. In some instances, the parameters of the simulation will be known to players at the outset of play, as, for example, in *Tetris*, where the extent and scope of the action is contained within a comparatively limited and inflexible, but explicit, ruleset. In such instances, the dialogue between the player and the simulation sees the evolution and origination of strategy and technique rather than the deduction, inference or exploration of rules. Here, the player contends with the element of *Alea* as they tackle the relentlessly descending blocks. However, as we have seen in other games, the exploration of not only the operation but also the boundaries of the simulation can be absolutely key.

To take to the track in *Gran Turismo* or square up to an opponent in *Tekken* is to explore the possibilities and potentialities offered. To play these games is to explore the limits of what is allowable within the context of the simulation. Friedman's (2002) analysis of the *Civilization* series is enlightening in this regard. For Friedman, the engagement with the videogame simulation as a puzzle demands that the player 'thinks like a computer'. While this phrase is potentially misleading as it conjures the imagery of 'cyberpunk' discourse (see Featherstone and Burrows 1995; Stone 1991; and Chapter 8) in its apparent technological determinism and anthropomorphism, it is nonetheless useful in capturing the sense in which the player is encouraged to consider the 'heart' of the game, looking beyond or behind the audio-visual presentation of the gameworld. It is useful also in stressing the exploratory, investigative nature of videogame play. As we shall explore throughout this book, the precise nature, balance and diversity of the investigation varies from game to game and may demand exploration and revelation of the various spaces generated by the simulation and that comprise and constitute the gameworld or scrutiny of the artificial intelligence (AI) of that gameworld's inhabitants in order to develop strategies for success.

The consequences of a consideration centred on this engagement with 'the game' are far-reaching and we will learn in later chapters that there are implications for the ways in which we tackle not only the issue of the audience but also the representational system of the gameworld. However, any discussion of the videogame must be sensitive to the contexts in which the form is used and consumed. As such, even the definition of the videogame as oriented around the act of play and 'the player' is potentially problematic as we have already noted that videogames are not solely the preserve of the lone player and are often encountered socially with 'players' and 'nonplayers' sharing the experience and discussing and re-processing it through talk or reference to discussion boards and walkthroughs. Just as the act of play as encountering and deciphering the parameters of a simulation may present challenges to approaches to the study of videogames that offer primacy to the visual (see Newman 2001, for example), so too an understanding of the contexts of videogame use and the composition of the audience potentially problematizes the centrality of the player in analyses.

Videogames and interactivity

We have seen that the childish associations of 'game' and 'play' have led the videogames industry to seek a more respectable description of its activity. Its power as a contemporary marketing buzzword makes 'interactivity' an almost natural choice. Where novels, newspapers and cinema 'create' readers, the interactive audience is immediately empowered and placed at the centre of these new media experiences. However, the uncritical use of the term in a variety of contexts as qualitatively and experientially diverse as videogames and DVD scene access menus or, indeed, voting in such TV events as 'X-Factor' or 'American Idol' has rendered it a fluid designation. For many theorists, 'interactivity' is such a nebulous and ideologically charged term that replacements are sought. Aarseth (1997), for example, borrowing jargon from physics, prefers discussion of the 'ergodicity', or 'nontrivial' activity, that defines the cybertext. However, for Juul (1999: 21), interactivity need not be discarded: 'Computer games are interactive because the actions of the player play a part in determining the events in the game.' For some commentators (e.g. Frasca 2001a and b; Murray 1997), it is this facility of the player through some manipulation exacted during their performance of play, such as the imposition or implementation of a rule, for example, to affect a transformation on the game or 'text' that defines the interactivity of forms such as the videogame. For Crawford (1984), it is the interactivity of the game that differentiates it from the static puzzle. The game, or rather the simulation, responds to the effort and activity of the player. In this way, it is possible to differentiate videogame 'interactivity' from that offered by DVD menus wherein the ordering of material may be placed under the control of the viewer, but in which no transformative potential is afforded. Selecting one option over another allows the DVD viewer to re-sequence, timeshift or zip through the material (Ang 1996; Cubitt 1991) but not to alter the substantive content of sequences (note Livingstone 2002 on linearity and hypertextuality and Landow 1991 on the *lexia* and path structure, after Barthes 1974, of hypertexts).

The material revealed through menu selection is fixed, unlike that in the videogame, which, being oriented around a transformable, and importantly, responsive simulation, may dynamically adapt to the performance of the player (Ryan 2001; Murray 1997; Laurel 1991). However, the discussion of whether videogames are 'interactive' or even 'ergodic' potentially overlooks an even more fundamental point. Videogames are highly complex, segmented arrangements of elements. Some of these elements may be seen to be highly 'interactive', requiring considerable player participation and responding to player action, while others, most obviously inter-level movie cut-scenes, appear to demand little or no direct player input or control, nor do they respond to attempts to exert influence. Yet this is not to say that the player is not actively interrogating the material, exploring it for clues to aid forthcoming play or reading a presented narrative in order to make sense of past events or predict those yet to come. Videogame experience is, in fact, the product of a complex interplay of elements each demanding and facilitating different degrees and types of participation and activity.

So, what exactly is a videogame?

Throughout this book, we will follow Frasca in using the term videogame in its broadest possible sense. That is, it will be used to describe:

any forms of computer-based entertainment software, either textual or image-based, using any electronic platform such as personal computers or consoles and involving one or multiple players in a physical or networked environment.

(Frasca 2001a: 4)

It should be noted that the majority of this book's analysis centres on console, handheld and mobile systems though much will be applicable to genres of PC games also. However, because they represent a particular case with specific modes of engagement, structures and, to some extent, distinctive pleasures which may be based as much around real-time chat and social interaction as with gameplay in its more traditional sense, our attentions will not explicitly fall on massively multiplayer online (role-playing) games (MMOGs/MMORPGs) such as *World of Warcraft* or game-like virtual environments such as *Second Life*. For thorough investigations of massively multiplayer genres, see Taylor (2006), Castranova (2005) and Yee (2006).

If a defining quality of the videogame is that it fosters the sense of first-hand participation in a gameworld generated by the computer, then we may be able to distinguish it from devices such as AIBO or Furby. In this way, videogame play may be understood as a form of 'embodied experience' (see Newman 2002b). However, while this participation is a defining feature of videogames, it is important to note that videogames do not offer a uniform experience of 'interactivity' and comprise sequences of high and low participation and differing modes of engagement. Following Cailliois (2001), videogames offer combinations of chance, competition, role-play and kinaesthetic pleasures. Moreover, videogames can offer both *paidea* and *ludus* rules, thereby allowing players to engage in goal-oriented or 'free play' activity. In this way,

videogames are not merely to be viewed as restrictive rule systems, and recognition is given to the necessity of exploration and deduction as well as the player's ability to ignore or even subvert a designer's intention. A player can develop tactics and strategy, perhaps exploiting weaknesses or flaws in the game, or they may even define their own games within the world made available, thus imposing their own *ludus* rules. Furthermore, the definition of videogames employed here recognizes that certain games – or certain sequences or modes within games – are designed as non-goal-orientated 'playgrounds'.

Videogame play can be understood as exploratory, open and free-roaming just as it can be puzzle-oriented and rule-based. Moreover, it is important to note also that the term 'player' is ambiguous as videogames are often experienced in groups with 'non-controlling' players, and are absorbed and understood within participatory cultures of talk both online and offline (Newman 2008; Brooker 2002; Jenkins 1992). As such, concentration on just those clutching joypads reveals only part of the story and discussion of videogames as embodied experience can only account for the use of a portion of the audience. Importantly, accepting the problematic nature of delineating the audience, this definition of videogames does not require a technological demarcation; the definition is not concerned with screens, or other interface systems and we can comfortably discuss gaming experiences delivered through home consoles, coin-op cabinets or mobile devices, using graphical or non-graphical interfaces (see Livingstone 2002).