a global market value regularly cited as exceeding 30 billion dollars annually. There is now also an entire generation of academics entering the faculty who grew up surrounded by arcade and home video game consoles and personal computers, and who have dedicated plenty of time both in their youth and adult life into playing games. Thus, the two key factors were there for a new wave of game studies to emerge: an important and challenging, and largely yet under-researched phenomena, plus a fair number of young researchers with the expertise and enthusiasm necessary for embarking upon study on this field.

A (very) short history of game studies

Game studies is faced with the double challenge of creating its own identity, while at the same time maintaining an active dialogue with the other disciplines. As long as there are only a few institutions dedicated solely to the study of games, the majority of game studies will continue to be practised by individuals who are nominally situated in some other field: in literary, film or media studies, or in departments of communication research, sociology, psychology, computer science, or in some other of the numerous fields where game studies is currently exercised. In a lucky case, they will find it easy to apply the traditions of their native fields into the study of games without compromising their real interests either in terms of games as their central subject of study or without conflicting with the core identity of their discipline. In many cases, the road is not so easy, and students focusing on games may find it hard to get the advice, support and understanding they need while engaging in the academic study of games. In career terms, specializing in game studies has been a difficult choice, as there have been very few job opportunities for games researchers in most universities (See Box 1.1).

Box 1.1 GAME STUDIES RESOURCES ONLINE

Digital Games Research Association – DiGRA: *www.digra.org*
DiGRA conferences: *www.gamesconference.org*
International Simulation & Gaming Association – ISAGA: *www.isaga.info*
Game Studies Journal: www.gamestudies.org
Games and Culture Journal: www.gamesandculture.com
Journal of Game Development: www.jogd.com
Digiplay Initiative: *www.digiplay.org.uk*
Game Research website: *www.game-research.com*

For more online sources, see the companion website *www.gamestudiesbook.net*

The situation is changing, and in the future the issue is likely to be put the opposite way – why should there *not* be game studies represented in a modern university? Failure to address games in academic education may also lead into research lagging behind more generally. The international academic community is directing their energies into understanding games not only because of their personal enthusiasm for them, but also in order to learn important lessons about the forms social life and creative practices are taking in late modern societies. After all, games are the most successful example of information and communication technologies becoming *domesticated*, which means that they evidence being integrated into the everyday life and practices of groups of people. Study of games and our near-universal fascination with them can also teach about the human nature and about our attraction to *interactivity*. Games are interactive by heart, to the degree that it is tautology to use the expression 'interactive games'. The makers of software and new technology in general can study games to learn about ways to make interactivity an enjoyable experience. To a certain degree this has already happened: there is a change in the ways technology is discussed by experts, and some have started to speak about *design of experiences* rather than features or applications. Games may even have important effects on the ways, particularly, the younger 'gamer generations' think and operate and to the direction our societies are developing. It is easy to come up with several answers for the question 'Why study games?'

Giving a clear-cut definition for game studies is much harder. On a general level it is simple: *game studies is a multidisciplinary field of study and learning with games and related phenomena as its subject matter*. It is only when one starts to organize this diversity into a collection of theories and methodologies or forms it into a single body of knowledge to be communicated in teaching and publication, that things get complicated. It is impossible to include all theories and approaches from every possible academic discipline even if they could *potentially* be useful also for a researcher of games; a 'science of everything' can just as easily lead into confusion and become a 'study of nothing'. Therefore we need to understand why and how game studies has emerged in a certain form and why some questions appear more central for the practitioners of the field than do others.

When we define something, we trace out the boundaries and state what is included and what excluded. Sociologists of science point out that disciplines are actually social formations, developing their own language, shared perceptions of the world and even ritualistic conventions. The identity of game studies is also a historical process, and it is evolving in time. There has been academic study of games actually for a rather long time already, particularly within such disciplines as history and ethnography. To point towards two of the classics of the field, ethnographer Stewart Culin's *Games of The North American Indians* was published in 1907, and a *History of Chess* by an Englishman, Harold James Ruthven Murray in 1913, both of them still useful and impressive works of

learning. Various games have also had an active role in the private and social lives of university students as well as academics, for a long history spanning several centuries. During these years, when professional and personal interests collided, research work sometimes sprang up, but there was no institutional support or discipline to encourage such activities.

Looking at the early disciplinary formations, it should be noted that games have a close relation to simulation (imitation of operations of a large system by other simplified system) and in this subfield the roots of the academic attention to games reach long into history. There exists a rich tradition of using various kinds of simulations for learning purposes – learning by playing may even be called the oldest learning method there is. After all, even animals learn by imitation, and play behaviour that is simulating hiding or fighting is familiar to anyone observing small kittens or puppies learning skills necessary for later life. History of research into the systematic design of games for learning purposes can be traced back to certain tactical and strategic writings from eighteenth-century Germany. Helwig, a master of pages at the court of the Duke of Brunswick, adapted chess into an early war game in 1780; he also wrote about his goal to design a game to create an 'agreeable recreation' for young pages, which would render 'sensible, not to say palpable, a few principles and rules of the military art'. (Avedon and Sutton-Smith, 1971: 272.) Later, different varieties of war games were developed and discussed, both in military and increasingly in leisure contexts. A group of American war gamers formed in the 1950s the East Coast War Games Council, an organization which arranged a series of symposia and also published proceedings, including presentations from these meetings in the 1960s. Following a later expansion, the name of the group was first changed to the National Gaming Council, but since the society was compared largely of educators interested in using particularly simulation games to enhance learning, a new name – the North American Simulation and Gaming Association (NASAGA) – was adopted. In other countries, similar developments were taking place, and the simulation and gaming research community expanded into an international network of national associations. An umbrella organization, International Simulation and Gaming Association (ISAGA), was established in 1970 and has organized over thirty annual conferences since then, bringing together researchers focusing on games and simulations and their use for various applied purposes. An academic journal, *Simulation & Gaming*, has been published since 1970, making it the oldest regular publication in the field. (Duke, 2003; Knuth, 1994.)

Another group of North American scholars gathered together in Minneapolis for the first time in 1973 and soon formed an association focused on the study of play in 1974. Changing its name to The Association for the Study of Play (TASP) in 1987, the group has been publishing proceedings of its annual meetings from early on. (The original name of the group was 'Cultural Anthropology of Play Reprint Society'.) A series of journals produced by the association has also been an important venue for developing and publishing

play research: *Play and Culture* (1988–1992), *Journal of Play Theory and Research* (1993–1997), and most recently, *Play and Culture Studies* (1998–) (Myers, 2006; TASP, n.d.). There probably exists other similar early groups around the world, within different disciplinary contexts.

There are several other routes for game studies as well, most importantly in the fields of play behaviour research, the offshoots of computer science studying graphics, simulations and artificial intelligence, and the humanities computing field. It was particularly from the last of these where the contemporary wave of game studies started to emerge. Many of the people working within this paradigm approached computers as a potential new medium. Early thinkers such as Vannevar Bush had already in the 1940s discussed their ideas concerning a tool or device that would operate in an associative manner like the human mind, rather than in a strict linear or category-based fashion. Theodore Nelson provided the name 'hypertext' for such a way of interconnecting written or pictorial material that 'could not be conveniently presented or represented in paper' (Nelson, 1965/2003: 144). The advances in human–computer interaction and the increasing availability of computers in public and private use played a role as artists and humanistic scholars embarked on examining the potentials and implications of these new technologies. For the literary scholars, digital media appeared, opening new interesting directions particularly in the experiments of hypertext fiction, and interactive fiction in general. In 1997, the Norwegian scholar Espen Aarseth published *Cybertext: Perspectives on Ergodic Literature*, suggesting that hypertexts, adventure games and MUDs (Multi-User Dungeons, see Chapter 7) provided a fresh perspective to a form of textuality that requires 'non-trivial effort' from their readers to traverse the text. The same year also saw the publication of *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*, by Janet Murray, an influential work discussing the future possibilities for interactive drama and narrative. Together, these two works also function as symbols for the two alternative approaches which collided in the first major debate animating the young game studies community a few years later.

Debates can be useful in making even slight differences of opinion stand out more clearly. That is also true of so-called 'ludology-narratology debate'. Ludology is a term suggested by the Uruguay-born games researcher Gonzalo Frasca in an article published originally in 1999; taking its model from narratology, which was a concept 'invented to unify the works that scholars from different disciplines were doing about narrative', Frasca proposed the term 'ludology' to refer to the 'yet non-existent "discipline that studies game and play activities"' (Frasca, 1999). However, 'ludology' appears to have already been in occasional use before this. Also in 1999, the young Danish scholar Jesper Juul completed his Masters Thesis 'A Clash Between Game and Narrative', which is one of the clearest statements of the 'ludologist' position in its early form. In contrast to some other researchers working in the field, who had set realizing interactive fiction as their goal, Juul considered

interactive fiction as a utopia (even if an interesting one), because of the fundamental conflicts between the player-controlled interactivity happening in present time, which is at the heart of games, and narrator-organized representation of events, at the heart of narratives. Juul not only claimed that 'you can have a computer game without any narrative elements', but he even concluded that 'it is then the *strength* of the computer game that it doesn't tell stories' (Juul, 1999/2001: 7, 86). Several researchers were nevertheless willing to continue pushing games exactly into that direction, developing the potentials of games for interactive drama and as a storytelling medium in general (see Box 1.2).

A student of this part of intellectual history of game studies should pay attention to the fact that many of the 'ludologists' are actually coming from the field of literary studies and narratological research, and perhaps precisely for this reason are particularly sensitive to the limitations of those approaches. Nevertheless, games are clearly different from any traditional narrative, and the counter-narratology reaction arising from the early literary studies–based ludology has helped to make those differences more distinguishable. Ludology as

Box 1.2 ON HYPERTEXT, CYBERTEXT, AND INTERACTIVE FICTION

Well, by 'hypertext' I mean *non-sequential writing* – text that branches and allows choices to the reader, best read at an interactive screen.

As popularly conceived, this is a series of text chunks connected by links which offer the reader different pathways. (Nelson, 1980/1990: 0/2.)

In ergodic literature, nontrivial effort is required to traverse the text. […] A cybertext is a machine for the production of variety of expression. […] Cybertext is a *perspective* on all forms of textuality, a way to expand the scope of literary studies to include phenomena that today are perceived as an outside of, or marginalised by, the field of literature – or even in opposition to it, for (as I make clear later) purely extraneous reasons. (Aarseth, 1997: 1, 3, 18.)

Not everyone will immediately agree with the assertion that a work with aspects of a game, and with a history so involved with the entertainment software market, should be thought of in literary terms. Isn't the pleasure of the text adventure purely a ludic pleasure or a pleasure related to mastery – one that comes from overcoming mental challenges formed as the verbal equivalent of jigsaw puzzles, with only one set of solution? There are in fact other aspects of interactive fiction that prevent an easy affirmative answer to this question.

For one thing, the puzzles in a work of interactive fiction function to control the revelation of the narrative; they are part of an interactive process that generates narrative. (Montfort, 2003: 2–3.)

a novel concept also helped to highlight how games, when considered in their own terms as forms of art and culture, were in some sense unique, and in need of their own theories and methodologies of research. This was an important realization, and at the turn of the millennium an energetic phase of theorization and research had started. An important venue for this was opened by the establishment of a new online, peer-reviewed journal, *Game Studies*, which was first published in 2001 and saluted as 'Computer Game Studies, Year One' by the Editor-in-Chief Espen Aarseth. The formation of the journal coincided with a series of mostly European games research conferences and then with the formation of the academic society to support the research community – Digital Games Research Association (DiGRA). The years 2003, 2005 and 2007 saw the first three world conferences organized by DiGRA, and a proliferation of research papers, reflecting intensive academic work, which soon also surfaced in book-length publications, as academic publishing houses started to provide room for the work of games scholars.

Despite the differences of approach, there are no real 'schools of game studies' in existence, not at least in any more substantial sense, and researchers are continuing discussions about the fundamental concepts and methodological issues across disciplinary boundaries. Even the 'ludology-narratology debate' has turned into discussion whether it ever really happened in the first place (see e.g. Frasca, 2003a; Pearce, 2005). No one actually seems to be willing to reduce games either into stories, or claim that they are only interaction, or gameplay, pure and simple, without any potential for storytelling. But the different emphases and foci for the study of games remain, and that is the single most valuable contribution of this debate for game studies: games can be several different things, depending on how one approaches them. Looking for narratives, one can find (or construct) them, and it is equally possible to search and find the essence of games in their interactive character – in their gameplay. Applying this lesson in practice, the different chapters in this book will each introduce concepts relevant for study of games and play through discussions of certain influential games. A rather general overall framework will be developed during these discussions, but no single 'master theory' will be provided to contain all conceptual aspects, since the reality of games and play does not fit in any narrow model. Games, players and their interactions are too complex and interesting in their diversity to allow for all-powerful simplifications.

Looking at the history of game studies from a geographical perspective, it is apparent that the international scope of this research has been broad from the start, but the majority of the internationally available academic activity has centred on Europe, North America, and Australia – an obvious effect of language barriers. However, broadening of the field and increasing interaction is taking place also in this respect; currently, particularly the East Asian countries, like Japan, South Korea and China are entering the research community, contributing research based on their rich native gaming cultures.

South America, India, Africa and other parts of the world will probably be following the lead at some point. There is no country or society where games would not be played and enjoyed.

Summary and conclusions

- Game studies is a new academic field and interdisciplinary field of learning, which focuses on games, playing and related phenomena. Its recent rise is linked with the emergence of digital games as a cultural force, but it is not restricted to any technology or medium.
- There are several disciplines and approaches which have contributed to the study of games, ranging from history and anthropology to psychology, sociology, educational sciences, computer sciences, and lately, particularly literary and art studies. It has been suggested that the study of games and play activities should form a scholarly approach of its own, called *ludology*.
- Recent years have meant growth for the international game research community, as research publications, books, seminars, conferences, journals and associations have been created in the field of game studies. The history of games research, however, extends far in several fields of learning.

Suggested further reading

Johan Huizinga, 'Nature and Significance of Play as a Cultural Phenomenon'. In: Katie Salen and Eric Zimmerman (eds), *The Game Design Reader*. Cambridge (MA): The MIT Press, 2006, pp. 96–120.

Orientation assignment: Personal game history

This is an introductory assignment, designed to start you off into the appreciation of games and play cultures; and as it has been said, the foundation of all true knowledge is self-understanding. It was already known as the first piece of advice provided by the Oracle of Delphi for those seeking wisdom: 'Know Thyself'. For a researcher of qualitative phenomena such as games and playing them, self-understanding has an important double role: on the one hand, understanding the tilt produced by one's personal history and background is paramount for any informed self-critique. Researchers or professional experts are rarely 'typical' or average representatives of wider demographics, and it is good to know where one stands, as compared with various other groups with different backgrounds. (This is something we will discuss later, in Chapter 8.)