

Proposal for Video Games Around the World

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When the history of video games is told, it most often centers around video games in the United States, with perhaps a bit of Japanese and European video game history thrown in. But this, of course, is only a part of the whole story, and *Video Games Around the World* is the first book to attempt truly global coverage of the topic, with essays on video games in 35 different countries and regions, from every inhabited continent, most of which are written by scholars native to the areas discussed. While the essays include the video game history for their particular region, each also discusses concerns important to their culture of origin and how video games are informed by them, collectively examining the different ways video games interact with culture as well as educational and governmental institutions. As no other book on video games has such a broad, international scope, *Video Games Around the World* fills a niche and has no competitors, while at the same time the book has the potential to reach a worldwide audience, in not only game studies but other areas of cultural studies and technology studies, with a tone and style appropriate for an undergraduate audience.

Although the content of the essays will vary considerably due to the variety of situations and contexts from one country to another, contributors have been asked to include such things as the history of video games in their country or region, the influence of national history on video games, the reception of foreign imports, domestic video game production and exports, indigenous video game culture, video game company profiles, video game content description, video game studies in the country or region, and the future of video games in the country or region. Essays will run between 4000 and 8000 words, with images included as the press desires. While this will result in a book around 220,000 words or so, the nature of the book, namely its international scope, requires a larger format, which hopefully the press will deem justified. (The length also insures a substantial book even if one or more contributors is unable to complete their essays due to unforeseen circumstances.) As an optional feature, if space permits and there are enough specific dates in the essays, I would compile dates from all the essays together into a timeline of international video game history.

To give a sense of the book's chapters and contributors, following this page are the book's Table of Contents, abstracts of the essays, and contributor biographies.

About the Editor

The book's editor, Dr. Mark J. P. Wolf, is a Professor in the Communication Department at Concordia University Wisconsin and his books include *Abstracting Reality: Art, Communication, and Cognition in the Digital Age* (2000), *The Medium of the Video Game* (2001), *Virtual Morality: Morals, Ethics, and New Media* (2003), *The Video Game Theory Reader* (2003, co-edited with Bernard Perron), *The World of the D'ni: Myst and Riven* (2006), *The Video Game Explosion: A History from PONG to PlayStation and Beyond* (2007), *The Video Game Theory Reader 2* (2008, co-edited with Bernard Perron), *Before the Crash: Early Video Game History* (forthcoming June, 2012), the two-volume *Encyclopedia of Video Games: The Culture, Technology, and Art of Gaming* (forthcoming August, 2012), *Building Imaginary Worlds: The Theory and History of Subcreation* (forthcoming from Routledge), and *The Routledge Companion to Video Game Studies* (forthcoming, co-edited with Bernard Perron). He is also the founder and co-editor of the Landmark Video Game book series from University of Michigan Press and the author of its inaugural volume, *Myst & Riven: The World of the D'ni* (2011, adapted from the 2006 book which appeared only in Italian).

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Video Games Around the World — Abstracts

Africa

Wesley Kirinya

Games in general have been an integral part of the African culture, just like any other culture in the world. Video games were first introduced via game consoles and computers in the late 1980s and started rising in popularity during the 1990s when more graphically appealing game consoles with more complicated control pads came into the market. Some of the most popular consoles in the early 1990s were the Sega Mega Drive, the Nintendo Entertainment System (NES), and the Super Nintendo Entertainment System (SNES), followed by the PlayStation in the late 1990s. The most popular games in the early 1990s were ports of *Mario Bros.* (1983), *Super Mario Bros.* (1985), *The Legend of Zelda* (1986), and *Sonic the Hedgehog* (1991).

In addition to looking at the history of video games in Africa, this essay will examine the demographic of video game players in the early 1990s, and video games' relationship with other media, as well as the personal computer and mobile devices. The essay will also examine the period of the mid-2000s when development studios emerged in South Africa, Ghana, and Kenya, small, ad-hoc studios started by gaming enthusiasts. Several of these companies and their games will also be profiled.

Examples will also be given of the sense of influence of national history and cultures (or lack thereof) in video games developed in Africa. *The Adventures of Nyangi* (2007), for example, has a Kenyan Maasai cultural background, with characters, props, and items in the game were inspired by the Maasai culture. Other games are not based on African or African-nationals culture; *Sword of Sygos* (2005), a video game developed in Ghana, was based on Greek mythology. A South African video game, *Minis*, developed by Luma Arcade, is based on racing cars of the Mini model. The political nature of most Africa countries makes it politically difficult to make a game based on their national history, for example the struggle for independence. It's not really an issue of whether the public will accept the game, but rather an issue of whether the political class will. Game developers don't have the muscle to push their games past the political wall or the complex and sensitive ways to present national history issues.

Foreign imports have been widely accepted and have played a key role in introducing video games to Africa. Social games such as the games on Facebook and more casual games such as the games in Yahoo have led to an increase of game players especially female players. From a developer's perspective, foreign games have provided steep competition. Foreign companies have larger budgets and more talented teams thus making the quality of games they produce much higher. However, foreign games have led to the development of tools that make it easier for African developers to create games, and it is easier to sell a local game to the local people than a foreign one. However, the local markets are still small. The trick is to have a concept that can appeal to a large enough local market. Thus, domestic video game production is growing slowly.

Video game culture in Africa is mainly centered around game-playing parties of five or more players. The culture of playing games in a large social setting extends from other entertainment events in African cultures. Anything fun needs to be shared. The more the people involved, the more interesting it is. The best way to share in the experience is to participate. This is partially why video games have been accepted in Africa. The future for video games looks bright in Africa. Social gaming has seen great growth especially with an increase in the number of Facebook users. Mobile games are also growing with the growth of mobile devices. These two platforms are the most promising in the future of games in Africa.

Arab World

Radwan Kasmiya

The Middle Eastern and Arabian market includes all Arab-speaking countries in Asia and North Africa (300 million people) and spreads out to reach Moslem communities over the world (1.5 billion people). It has always been looked at as a developing consumer-based market, and many international publishers have gained their experience in the region in a tough way, leading them to conclude that this market is evolving rapidly with an impressive growth rate, despite a near 90% rate of piracy. Yet, since the first wave of personal home computers, many local companies (mostly founded by dreamers and university students) have started to venture in this domain against all odds, dealing with piracy, the technology gap, and harsh censorship in tiny markets.

Backed by an eager audience and lack of local content, most video games that were developed in the region was considered as Docu-games or even propaganda for creating a new breed of serious games based on modern political conflicts like the Arab-Israeli wars and Palestinian conflict, games like *Under Ash*, *Under Siege*, and *Jenin*.

The most distinguished companies bloomed from Syria, Jordan, and Egypt. Their stories of success and failure are unique and interesting, and worth of knowing for any person or company who aims to understand not only the video game industry, but also the culture and society of this restless region.

Argentina

Graciela Alicia Esnaola

Argentina is getting into the video game industry, and in addition to the history of video games in Argentina (including key projects of the industry showing strategic factors in its growth), this essay will describe the industry by representing its actors and their synergistic relationships. It will also discuss the two major studies conducted in the area represented by an educational institution and a state entity. Further, it will examine the educational content and messages of the country's video games, as well as reflect on the specific demands of Argentinian culture and society.

After a description of the current Argentinian video game industry, the essay will define the roles and players involved in the different groups associated with the industry, based on the concrete pillars of Education, State, and Development, including a Synergy Strategic Game Map of the Industry in Argentina with a Schematic presentation of the database using cross variables in common projects. It will also include a presentation of conclusions of the reports (CEDEM and UNGS) and show the main findings of two surveys and based on industry research. Finally, the essay will conclude by examining the educational content and messages in the narrative of video games, and end with a reflection on the future in the Argentina game industry.

Austria

Konstantin Mitgutsch & Herbert Rosenstingl

If we look across the video game development landscape of Europe, Austria managed to attract attention in different fields such as game development, unconventional political interventions, and strong growing academic video game activities. In 2003, when Rockstar Vienna opened the biggest game development studio in Germany and Austria, with over a hundred employees, the future of the Austrian video games industry seemed bright. Games like *Max Payne 2* (2003, for Xbox), *Grand Theft Auto III* (2003, for Xbox), *Manhunt 2* (2006, for PS2, PSP, and Wii) were developed in Austria during that time. Together with other studios such as JoWood (1989), Pixlers Entertainment (1991), Greentube (1998), Sproing (2001), GamezArena (2002) and Xendex (2001), along with subunits of major publishers including Electronic Arts, Microsoft, Sony Computer Entertainment, Ubisoft, and Nintendo, Austria's location in the heart of Europe appeared promising. However, Austrian game development took an unexpected turnaround when Rockstar Vienna was closed in 2006 and all employees were laid off. As a result, a variety of independent game development studios were established and today companies as Ovov (2004), Team Vienna (2006), fatfoogoo (2006), ClockStone Software (2006), Platogo (2008), Socialspiel (2010), and Broken Rules (2010) create interesting video games, serious games and Facebook games. But the establishment of Rockstar Vienna in 2003 was not the only thing that changed the video game landscape of Austria; on a political level, Austria surprised the industry with an unorthodox handling of age regulations and censorship in the same year.

In contrast to other countries, Austrian youth policy makers decided to follow a path of positive assessment for computer and console games rather than rigid legislative regulations as in Germany. In 2003 the "Federal Office for the Positive Assessment of Computer and Console Games" (in short: BuPP) was established within the structures of the Austrian Federal Ministry for Youth on a governmental level. While the age ratings of PEGI (Pan European Game Information) and the German USK (Unterhaltungssoftware Selbstkontrolle) appear on game packaging, Austria had, until recently, assessed playability and age appropriate content through the recommendation of suitable games. The Austrian way of positive assessment on a governmental level is unique and offers an interesting alternative to censorship and youth protection.

When in 2006 the tragic school shooting Emsdetten (Germany) took place, a new initiative for censorship in Austria was claimed by political parties. Thus, as a result of the strong proactive way of handling video games, instead of censorship, the city of Vienna decided to host "Game City", a high-profile event bringing together representatives of the games industry, non-profit organizations, academia, and the general public for the discussion of the current state of computer games in 2007. In the last four years this exhibition attracted over hundred thousand visitors in all age groups. One key element of "Game City" is the Vienna Games Conference, which has the objective of serving as a public information platform as well as an international networking event for game researchers of various disciplines. In 2011 the Vienna Games Conference – one of the most successful annual Games Conferences in Europe – was held for the fifth time. The Conference brings together international scholars from all over the world and local researchers from the University of Vienna, the Technological University, the University of Salzburg and Innsbruck and the Donau University Krems.

This essay will outline the three most important parts of Austrian video game history in greater detail: Austrian game development, the positive assessment of games, and research activities in Austria. Furthermore, it will examine indigenous cultural initiatives, such as E-Sport, art and games, and games journalism, as well as central publications and educational and academic institutions that focus on computer and video games. Finally, the future of video games in Austria will be discussed.

Australia

Thomas A. Apperley

The chapter examines the history of the digital games industry in Australia focusing on how government policy has shaped the development of the sector. The key areas of policy for the digital games industry of Australia at the state and federal level are in the area of encouraging innovative industries — primarily for export— and the regulation of digital game content that is distributed in Australia.

At the state level, governments —particularly in Victoria and Queensland— have developed policies that aim to support the growth and development of the digital games industry. However, the impetus for this encouragement has recently intensified in the wake of the Federal government's Digital Economy policy that advocates widespread investment in the digital sector. This policy is part of a consolidation of Australia's digital industries that includes a 40 billion-dollar National Broadband Network and widespread reform of media regulation.

Also under consideration by the Federal government as a part of the process of reform are Australia's current rules for the rating of media content. The ratings system for digital games in Australia lacks the adult (R18+) rating found in many other jurisdictions. In the past this has caused the prohibition of otherwise globally distributed digital games from being distributed nationally —for example: *Marc Ecko's Getting Up: Contents Under Pressure* (The Collective, 2006) and *Mortal Kombat* (NetherRealm Studios, 2011). While the current review provides the opportunity for this prohibitive regulatory framework to be reformed, there is also concern that it may be expanded to cover smartphone gaming apps as well as digital games that are published in the traditional manner.

This highlights a key problem faced by the digital games industry created by Australia's regulatory framework, that mechanisms for controlling distribution of games are adversely impacting an otherwise supported industry. In the area of smartphone gaming apps Australia has recently been considerably successful globally, with companies like Melbourne-based Firemint and Brisbane-based Halfbrick garnering considerable critical acclaim and commercial success with products like *Flight Control* (Firemint, 2010) and *Fruit Ninjas* (Halfbrick, 2010). Entry into this market by other small to medium enterprises faces a considerable challenge if the regulation of gaming is extended to include apps.

This chapter negotiates the contradictory landscape of the Australian digital games industry with a particular concern for examining how local innovation in the digital gaming sector is shaped—and potentially constrained—by concerns stemming from the local impact of the global distribution of digital games.

Brazil

Lynn Alves

Electronic games are a cultural phenomenon that has been investigated under different points of view. This essay provides a map of the theoretical and methodological ways used by researchers to build the state-of-the-art of this field in Brazil to support new researches and practices. An examination of CAPES (the government's research regulation institute) website from 1994 to 2010 will be included which maps the state of game research in Brazil, identifying such aspects as: the knowledge of the field, periods, institutions, and theoretical categories that direct the discussions, as well as the methodologies predominant in these investigations. The preliminary results of this research indicate an exponential growth and consolidation of communication and education fields. This movement is also reflected in the main events of the academic community of Brazil involved in this unique subject which is finally advancing beyond the academic ostracism it initially received. This paper intends to present results of such an investigation, making the reader aware of video game's historical path in Brazil.

Canada

Dominic Arsenault & Louis-Martin Guay

This essay covers the video game industry in Canada, and is divided into three parts: the history of game development across the country, the roles played by governmental policies and education in establishing a strong games industry, and how video games are perceived by and interact with the larger cultural practices in Canada.

The history of the games industry in Canada will focus on its main development hubs, Vancouver and Montréal. From the foundation of the first video game developer in Vancouver after the Great Video Game Crash of 1983 to the latest rush of multinational studios opening subsidiaries in Montréal, a common thread that unifies the industry in Canada is the capability to do more work with less money. Cost-cutting strategies from major U.S. studios and publishers appear to be the main factor driving the development of a solid games industry in Canada, as companies go north of the border to lessen costs with minimal interference. This was the case with Electronic Arts's purchase of Distinctive Software in Vancouver in 1991, a move that would set in motion many spawns as an increasing number of employees left to fund their own start-ups. For instance, a

number of Vancouver game developers were recruited by the founders of BioWare in Edmonton, Alberta, the neighboring province.

Before the massive influx of U.S. studios seeking an economic advantage over operating in the United States, the roots of game development in Montréal can be traced to another line of ancestry: the industry of 3-D software and film animation, pioneered by Daniel Langlois and Softimage. The Québec-France partnerships in many cultural domains took a highly-visible and literal meaning in the context of video game development when Ubisoft established a studio in Montréal in 1987, working mainly on games destined to children, and with moderate success. When Ubisoft-Montréal developed *Tom Clancy's Splinter Cell* (2002) and *Prince of Persia: The Sands of Time* (2003), Montréal's attractiveness soared, bolstered by generous tax incentives from the Québec government. The last section of this part will cover the emerging, minor, and miscellaneous hubs of game development, such as Ottawa, Québec City, and Toronto.

The second part of the essay will explain the mechanisms of government that have played a heavy role in making game development in Canada economically advantageous. The tax subsidies of the government of Québec will occupy a central place in this part, as well as Silicon Knights's heavy funding from the government of Ontario. Telefilm Canada's involvement will also be covered, from its renting of a booth at the Electronic Entertainment Expo to share among all independent Canadian developers that are presenting products, to its yearly contest that funds the development of a game. The presence of games in education will also be addressed, with a survey of the major programs, degrees and schools involved in games education and research across the country, including Simon Fraser University, the University of Alberta, York University, Université de Montréal, and Concordia University.

The third and final part of the chapter will cover the relationship of video games across the cultural landscape. By and large, Canada follows the United States in the general kinds of practices, discursive stance, and legislation involving video games. There is no notably "Canadian" content in video games produced in the country; there is no single trend or trajectory that could be identified with the country, whether it be about specific game genres, favored platforms, or production models; in the image of the country's wide and diverse geography, the whole spectrum of possibilities remain open. The one thing that stands out in regard with the U.S. is the relationship with the French language. In this respect, a brief overview of the linguistic laws and unique challenges will be featured. In closing, the chapter will present the major events associated with video games, such as the Montreal International Game Summit.

China

Anthony Y. H. Fung & Sara Xueting Liao

The essay will start with a brief history of the development and problems of the video game industry in China and it will be followed by a discussion about the contemporary phenomenon of piracy of video games in China which is a consequence of the current embargo of foreign video games. The political, social, and economic implications of the piracy of video games will then be discussed.

Piracy in China—from faked iPhone, cloned watches, and illegal reprinted books to pirated software, movies and video games—seems a common phenomenon. As China enters into the WTO, it is true that the extent of piracy of foreign products has sharply reduced. However, compared to other cultural products, video games seem a very unique one in which piracy has gone so far that it never ceases. Its completely uncontrolled and uncharted expansion may be due to the fact that video games are almost the only cultural product that is still not allowed to be imported, which gives rise to cloning and illegal distribution of the fakes. This essay will discuss and examine the piracy of such video games in China.

The appearance of the fake in China thus illustrates various social tensions and contradictions on two levels. On a national level, it reflects the current ideology of the state that attempts to delay the influx of video games through various kinds of politico-economic control in order to protect their national industry. It also indirectly illustrates the tension between the state and global capitals that always attempt to push their video game products in China. On the level of the users, the popularity of pirated video games reflects the strong social desires and demand from the market. The suppression of video games which in turn leads to the mass internal production of pirated video games reflects the contradictions between the public and the state, with the latter failing to satisfy the desires of the former. In other words, the implicit endorsement of the production, circulation, and consumption of pirated video games in China could be regarded as a peculiar phenomenon of temporarily answering the market need at the expenses of the unhealthy bloom of the illegal market.

Czech and Slovak Republics

Patrik Vacek

Even while small geographically, the Czech and Slovak Republics (separated in 1993) have contributed significantly to global video game culture. The actual history of video games in those Central European states can be seen launching just after 1989 due to crucial political change. However, there were minor creative

efforts prior to this date, while Czech Republic was and tends to be more important game designer/exporter/market of the two.

There can be no doubt local social and cultural conditions have determined the course of domestic video game development and hardware products, not to mention the fact some of the local magazines draw their inspiration from highly-reputable Western European game journals, admittedly. Also, during the formative years of the Czech and Slovak game community in the first half of the 1990s, personal computers, rather than consoles, were the game platform of choice. Among a limited number of Czech and Slovak game developer teams, 2K Czech (previously known as Illusion Softworks) succeeded worldwide with critically and commercially acclaimed titles such as *Hidden and Dangerous* and *Mafia*. With the continuously growing impact of the video game industry in economic and social terms, there emerges a consequent attention to professional, cultural, and educational aspects of video games in the Czech and Slovak Republics (Czech and Slovak Game Industry Association, see for <http://www.herniasociace.cz> and <http://gamestudies.cz/> - yet to be established Masaryk University Game Research Group).

Finland

Frans Mäyrä

Finland, a sparsely populated Nordic country with 5.4 million inhabitants, has grown larger than its size in terms of its video game culture and industry. A historical turning point was the introduction of home computers, particularly the Commodore VIC-20 (1981), Amiga (1982), and Commodore 64 (1983) in the Finnish markets. The early computer hobbyist and hardware hacker cultures started evolving at that point into a programming and gaming-oriented computer subculture. Finland has a long history of highly-ranked education (as witnessed by the top positions in the international PISA studies), engineering, design, and the fine arts, and computer and video games appeared as an area where all these strong traditions could be exploited in creative, playful combinations.

Dominated initially by young boys and men, the Finnish home computer culture supported the evolution of dedicated publications like the general IT magazine *MikroBitti* (1984) and games magazine *C-lehti* (1987), which was later rebranded as *Pelit* (1992), both with the largest circulations of their kind in the Nordic area. The illegal copying, sharing, and cracking of copy protection from video games was an important element in the creation of community; the crack intros (computer-animated title screens) designed by the computer software cracker teams soon evolved into demos, non-interactive real-time presentations of computer art. The gatherings of this “demoscene” grew into important breeding grounds for Finnish video game developers. The most important event of this kind, Assembly, has been organized annually from 1992, and still brings together thousands of coders and gamers, requiring the use of largest available sports arenas.

The first Finnish video games were programmed in the early 1980s for the popular Commodore home computers. Publishing printed programming code in magazines like *MikroBitti* was an early form of game publishing. The pioneering commercial developers were solitary individuals like Stavros Fasoulas and Jukka Tapanimäki, who both got their Commodore 64 games into international distribution in the late 1980s. From early on, there was a broad range of genres that Finnish developers were exploiting. Copying or liberal borrowing from successful foreign games (such as *Tetris* or *Elite*) was in ample evidence, but so was also original creativity. The first Finnish game development companies, Terramarque and Bloodhouse, were established in 1993.

The great Finnish IT success story was Nokia, which established itself as the global leader in mobile phones during the 1990s. The public perception of Finnish game development also largely focused on games for mobile handsets. There were several mobile gaming companies founded during the early 2000s, but the sales and international visibility has actually been greatest in console games (like *Supreme Snowboarding* (1999) by Housemarque), and in PC games, where the range has extended from the teen virtual world *Habbo Hotel* (2000) by Sulake at one extreme, to the third-person shooter *Max Payne* (2001) by Remedy Entertainment at the other. The direct digital distribution and business models through venues like App Store for Apple iOS devices has again raised interest in the mobile gaming sector. In 2011, it was estimated that almost 40 percent of all Finnish game developers were designing games for mobile devices. At this point, there were about 70 game development companies in Finland, with an estimated turnover of €165 million.

During the last three decades video games and gaming have also been established in Finland as a mainstream activity. This essay will provide examples of gaming content developed in Finland, but also report findings from research that looks beyond the commercial bestseller lists, at the actual player behaviors in Finland. The essay will conclude with the observations and trends highlighted by our study into the future of Finnish games industry.

France

Alexis Blanchet

From the 1990s “French Touch” to Ubisoft international development, the video game in France has grown as a major sector of entertainment. During the late 1970s, arcade video systems and the first *PONG* home systems were selling in France introducing video game as an entertainment in cafés and domestic places. In the 1980s, electronic games, then personal computers, were the chosen platform of French gamers. The first computer and video game magazines, *Tilt* and *Virus Informatique*, were published in the 1980s. Progressively, during the 1990s, games companies raised their own subsidiaries to control their distribution on French market as a component of European market. French publishers such as Infogrames, Ubisoft, and Cryo began to develop their activities in an international market. In the 2000s, Nintendo, Sony, and Microsoft were sharing the French gaming market which became largely dominated by the Nintendo Wii system.

French creativity hit the world during the 1990s with what the international press named the “French touch”. Behind this label were game designers and game producers as Philippe Ulrich (*Captain Blood*, Mindscape), Eric Chahi (*Out of this World*, Delphine Software), Frédérick Raynal (*Alone in the Dark*, Infogrames), Michel Ancel (*Rayman*, Ubisoft), and David Cage (*The Nomad Soul*).

Germany

Michael Liebe

Germany is Europe’s biggest economy. Yet, in respect to an economy of video games, the country only is ranked in 3rd position today. It is stronger in consumption than development. Typical games made in Germany belong to the genres strategy and point-and-click-adventure. Internationally, Germany is famous for having the most strict youth protection program. During the past five years, the country’s video game industry undertook a dramatic shift. So called browser games – client-free MMOs played in a browser with an economy mostly based on item selling – dominate the development scene. Their international success has led to a new economical boom.

Hungary

Tamás Beregi

The success of the Rubik’s Cube overshadows another interesting aspect of the Hungarian gaming history: the computer game “industry” of the 1980s and early 1990s. With its relative openness and freedom, Hungary’s special status amongst the Eastern-European communist countries resulted in a peculiar mixture of Western- and East-European gaming culture.

The essay concentrates mainly on the “golden age” of computer gaming in Hungary. It examines the emergence of companies such as Andromeda and Novotrade, which employed freelance programmers and worked mostly for British companies, producing bestsellers such as *Scarabaeus*, *The Last Ninja* (probably the most famous C64 game), *Impossible Mission 2*, and *Ecco the Dolphin*. I link these games to the traditions of Hungarian mathematical education and three-dimensional spatial representation, but I also explore links with the Hungarian animation movie tradition.

The isolation of the country led on the other hand to the emergence of special subcultures that formed around gaming clubs in the mid-1980s. These clubs (dealing mostly with pirated material) gave rise to unusual forms of gaming journalism which were distinctive by virtue of their dry sense of Eastern-European humor and the way in which cultic status was given to the correspondence editor.

In the essay, I quote a number of well-known Hungarian game developers, journalists, and game experts. The concluding part of the work examines game development trends since the late 1990s (such as the emergence of the RTS genre), and looks at possible ways of renewing the Hungarian gaming industry.

Hong Kong

Benjamin Wai-ming Ng

This is a historical study of video games in Hong Kong from the 1970s to the present, outlining the perception and consumption of game consoles and game software, tracing the transformation in game consumption from Japanese games to non-Japanese games, handheld game consoles and family game consoles to on-line and mobile games, identifying important trends and characteristics in gaming in Hong Kong and discussing the impact of video games on Hong Kong culture and society. The interaction between Hong Kong game developers and their foreign counterparts in creating, modifying and marketing games will also be examined.

India

Souvik Mukherjee

India can be called one of the sleeping giants of the video game industry given its potential market and the rapid spread of information technologies. The popularity of video games has traditionally been an urban phenomenon and has been concentrated in the metropolises but the trend seems to be changing. There has also been a rapid shift towards console gaming in the last two years. However, practical problems such as power-cuts and bandwidth issues have had a negative impact on on-line gaming although international giants have started investing in the sector. Due to their portability, mobile games are extremely popular and have a high market share. Given the diverse patterns of development and player involvement, an in-depth study has been long overdue.

This essay aims to explore the potential and variety of the industry and gaming culture in India. It is an attempt to systematically map the largely uncharted arena of video games in India, basing its observations on reports published by the press, discussions of India's few but prominent gaming websites, and interviews with designers, players, and other stakeholders. It will also explore playing habits, the influence of the global market, piracy, competitive gaming, and the growing trend of basing games on indigenous themes like the Indian epics, history, and cultural practices. With the recent investment of video game multinationals in the Indian market, it will be worth investigating the potential role of India in the global arena.

Perceptions of video games have been quite slow to change in the country and this essay is aimed as an entry point to the study of game cultures and video games in general in an Indian context. It will also study the reasons why video games have not been focused on so far by Indian academics and what impact they have on the Indian cultural scenario. Finally, this essay will analyze current trends and indicate possible future developments.

Indonesia

Inaya Rahkmani & Hikmat Darmawan

Little, if not nothing, has been written on the history and development of video games in Indonesia. Although recent trends in academic literature prove that the interest to study video games and digital culture by local scholars are increasing, they do not come close to compensating for the fast changes within video game culture in the country. For that reason, this essay attempts to provide, for the first time, a description of the economic and cultural expansion of video games in the country since the 1980s until today.

The essay is divided into four large sections. The first section provides an overview of the video game industry in Indonesia that is predominantly separate from mainstream popular culture. The second section provides a description of the popular video game genres in Indonesia by interviewing the Editor in Chief of the most popular and longest standing magazine, *GameStation* (1998-the present). By analyzing the visual text of the popular genres, we explore the cultural identities of Indonesian gamers. The third section provides a deeper analysis by selecting two case studies related to the local practices of video games in Indonesia. The first case is to explore the rise of local video game developers by producing online games with nationalistic themes. The second case applies an ethnographically inspired approach in understanding the gambling culture surrounding on-line games of a community in South Jakarta. The last section presents the writers' take on the future of state policy in relation to the ongoing rise of the video game industry and how video game studies should respond towards this development in Indonesia.

The Video Game Industry: Like other countries, such as China (Cao and Downing, 2008), the development of video game culture in Indonesia was marked in the 1980s by the arrival of arcades and consoles, followed by PC games. The first section provides a general historical timeline, based on interviews with representatives of 'gaming communities', of popular types of video games in the past 30 years. The console industry, however, is predominantly underground (due to piracy). Based on interviews with figures of the country's largest gaming community, the spread of console games in Indonesia is best described using Barrie Gunter's (1998) 'grey market culture' in which legal products are distributed illegally. It is very difficult, if not impossible, to provide accurate data on the country's video game revenue. However, we provide an estimate, through interviews, of the popular spots of trade, map out the amount, interview the illegal shops and calculate a ballpark figure of how much the grey market industry is worth. As a consequence, the console game culture in Indonesia is largely separate from mainstream popular culture (for example, there is no television advertising).

The second industry surrounds on-line video games. On-line gaming culture in Indonesia was first intertwined with the proliferation of internet cafés (warung internet/warnet) (Lim, 2003) comparable to South Korea's PC Bang (Lee, O'Keefe and Yun, 2006; Choudrie and Lee, 2004; Stewart and Choi, 2010). Lately, the popularity of on-line games has gradually intensified with the increase of internet penetration and the rising popularity of Smartphones, which led to Nokia Indonesia investing in local game developer Agate Studios (Detiknet).

Popular Genres: The second section provides a content analysis of Indonesian game magazine *GameStation* to map out popular game genres. The part furthermore analyses more deeply why these genres came into popularity in comparison to previous studies related to video game genres (Wolf, 2002). We also explain the cultural context that is thought to be related to the rise of popularity of particular genres.

Local Practices Surrounding Video Game Culture: The third section focuses on two main cases, the first is the rise of local on-line games and the second an ethnographic study on the implications of video games on gambling culture. **Nationalism and On-line Games:** The first case studies how locally developed on-line games attempt to resist the dominance of foreign video games in Indonesia. We elaborate four phenomenon, namely Nusantara Online, Pedjoeang Kemerdekaan, Majapahit Online, and Lilocity.com. All four on-line games promote themselves as a 'nationalist' space, with various endorsements from the President to popular culture figures. The rise of nationalist on-line games is related to the discourse of Indonesia's national culture.

Gam(bl)ing Culture: The second part of the third section firstly explains the characteristics of warnet and PlayStation rental culture commonly practiced in Indonesia in general and Jakarta in particular. The section details on a community in Mampang, South Jakarta where many young people of Betawi ethnicity practice unique gaming culture. Although the amount of warnets in mid-2000s had decreased with the availability of cheaper Internet access, it increased again in 2008 due to the community's gambling behavior. The area is a developing 'city village' (distinct from slum area) that falls into the category of 'traditional Islam', which provides an interesting backdrop against its gambling culture.

Video Games: State Policy and Future Studies: The increasing attention given by the state towards on-line culture in general and video game culture in particular, with policies shaped by the Ministry of Creative Industries and Tourism and the current ratification of the Information and Electronic Transaction Law, has not been complemented with proper research. Little has been written on video game culture and industry in Indonesia. Research that has been conducted in the area is dominated by psychosocial approaches and video game effects that involve violence, academic motivation, and obesity (Moesono et.al, 1996; Kertamuda and Permanadi, 2009; Collins, Pakiz, and Rock, 2011); with virtually no attention towards the economic significance of the industry and/or content description.

Based on these findings, the authors suggest several possibilities of study that were found during data collection for the purpose of this essay. First would be tracing indigenous games and how it implicates modern video game culture. The second is the popularity of games such as Farmville and Mafia Wars that were brought about by Facebook and Smartphones.

Ireland

Deborah Mellamphy

Although there is a considerable lack of Irish video games other than Gaelic sports games including *Gaelic Games Football* (PS2, 2005-released only in Ireland), there is a healthy video game culture that relies on foreign exports, with *Call of Duty: Black Ops* being the top selling game of 2010 and *Call of Duty: Modern Warfare 2* the top selling game of 2009. Ireland has never produced a multi-platform top selling game (which, according to John Kennedy, is due to high production and promotional costs), but it does provide significant middleware services and technology. Irish companies include Demonware, a Dublin-based middleware company that was sold to Activision for an estimated \$15 million, and Havok, which has developed from a Trinity College start-up to an Intel-owned middleware company. Both of these companies offer support for top selling video games by providing physics engine technology for games including the *Assassin's Creed* series and several games in the *Fallout* and *Halo* series.

I will comment on the findings of a survey conducted in 2009 by Aphra Kerr (National University of Ireland, Maynooth) and Anthony Cawley (University of Limerick). The report explored the demographics and functions of games companies in Ireland and revealed that top companies including Blizzard are located in Ireland to avail of a skilled labour force, proximity to Europe and an English-speaking workforce. The report also revealed that the Irish video game production sector experienced a growth of over 400% in seven years, illustrating a promising future for Irish companies and employment.

Although few video games are set in Ireland (apart from *Tomb Raider 4*) and Irish characters are rarely featured (some examples include Irish in *Red Dead Redemption*, the McReary Family in *Grand Theft Auto IV* and Sean Devin in *The Saboteur*), Irish and Celtic mythology does influence aspects and characters in a range of multi-platform games. For example, *Final Fantasy XII* features a character named Cúchulainn and several games in the series contain a weapon called the Gáe Bulg, Cúchulainn's legendary spear. Selkie are monsters in the *Dungeons & Dragons* games, who have the ability to transform into humans, as in Celtic mythology. Video games studies in Ireland is in its infancy, with all video game academia focused on development. Throughout this chapter, I will argue that, in terms of video game content and within development, Ireland remains at the periphery.

Italy

Matteo Bittanti

Italy presents us with an interesting paradox. Although the popularity of video games as a form of entertainment is in on par with most European countries, the Belpaese's contribution to game development has been minimal, almost negligible: among advanced, technologically-savvy Western and Eastern countries, Italy has the most underdeveloped, immature digital game industry. According to a study conducted by Fondazione Rosselli, in 2009 the whole Italian video game industry was worth less than 10 million euros, which is the equivalent of the revenues of a single big-box retail store like MediaMarket - the European equivalent of Best Buy. These numbers are particularly striking considering that, according to the same study, there are approximately 60 software studios in Italy. However, with the possible exception of Milan-based Milestone, none have achieved any international recognition. Video games are to Italy what soccer is to the United States: everybody plays, but, as a whole, the National team has been incapable of producing something even remotely noteworthy. The reasons behind this permanent debacle —not to mention the sad state of affairs of American soccer— are multifaceted. The author will concentrate on the former phenomenon, arguing that Italy's video game epic fail is the result of social, cultural, technical, and economic reasons. The good news is that while the "official" game industry is in a dire condition, both the independent and game-inspired art scenes are blossoming. The critical accomplishments of Molleindustria, the emergence of small, indie studios, and the enduring creativity of artists that have produced video game-inspired artworks, such as Mauro Ceolin, Marco Cadioli, and Eva and Franco Mattes, just to name a few, suggest that one should look outside the Xbox (pardon me, the box), to make sense of that apparent oxymoron otherwise known as "Italian video games".

Japan

Bryan Hikari Hartzheim

My chapter will chart a history of video game development in Japan. This chapter will identify the salient features of Japanese video game production (examining some of the major studios), its connection to other media forms (the "media mix"), its influence at home and abroad, and some of its stylistic and thematic strengths and characteristics. I will also look at the vast cultures of reception in Japan for video games, focusing on the history of game centers, game trade/fan shows, and professional battle tournaments. Lastly, I will describe what types of scholarship have discussed Japanese video game history and theory in both Japanese and English languages.

Mexico

Frederick Luis Aldama

This essay on video games in Mexico will be threefold:

1. The making of video games in Mexico —a relatively incipient industry that is not platform-based but rather revolves mostly around game development for PC, Flash, 3G cellphone networks, and, Internet technologies. This section will focus also on Mexico as a place where Sony, Microsoft, and others use cheap, exploitable labor to manufacture the gaming consoles for sale around the globe, but with added import tariffs tacked on even when sold in Mexico.

2. This section will focus on the Mexican video game (PC, Flash, etc.) aesthetic: the elements that make them distinctively Mexican: the musical score, setting, theme, and characters.

3. This section will focus on issues of consumption, discussing, for instance, the dubbing (subtitling on occasion) and lack thereof in U.S. and Japanese-made video games into Spanish for Mexican players; it will also include mention of the burgeoning demand for recognizable Mexican actors to be the voices. This section will also discuss the packaging for a Mexican consumer —game packaging for PlayStation is not translated, whereas packaging for the Xbox and Wii is. This section will also discuss access to video games. The openly public gray market in Mexico City, for instance, allows for working-class and middle-class players to have access to games; I will also discuss the cottage industry in Mexico of software patching and code unlocking. The abundance of cybercafés allows for easy access to MMORPG playing. I will also discuss the games that appeal more to a Mexican player: athletic (especially *fútbol*) and FPS. The essay will also discuss the studies today on Mexican kids that link game-playing to the rise in obesity.

The Netherlands

Joost Raessens

The Netherlands is a real all-around game development region. The biggest thing in entertainment games is Guerilla Games's *Killzone*. The combined episodes of this Sony-exclusive title have sold millions of copies worldwide. Dutch gaming companies have a significant market share in the on-line casual entertainment market; think of Spil Games —the world's number one generator of on-line game traffic— and GameHouse,

one of the largest developers and publishers of casual games worldwide (such as *Zylom*). Next to that, Dutch companies such as Ranj, IJsfontein, Waag, Submarine, and Monkeybizniz, are very successful in the serious games market. The Netherlands has more than 170 game companies, ranging from AAA-entertainment, to casual and serious games.

In recent years, the video game industry has shown a growth of 20% per year, and 75% of the Dutch population of eight years and older play games, on average four hours a week. As a result of these developments, several high-profile and successful events emerged (Festival of Games, Game in the City, game conferences such as DiGRA) and specialized gaming magazines (*Power Unlimited*, *Control*), websites (tweakers.net, gamer.nl, bashers.nl), and television programs (*Gamekings*) became very popular. Furthermore, there are more than twenty Dutch universities and colleges (technology, design) that participate in high-level research projects and deliver fresh talent year after year.

Considered to be one of the so-called ‘top sectors’ of Dutch economy, the Dutch government is actively stimulating the industry, by supporting development centers such as the Dutch Game Garden and by co-funding several large-scale research projects, such as GATE. This essay will provide an overview of the (importance of) the Dutch gaming landscape as described above. It will especially focus on the Dutch serious gaming industry by addressing questions concerning serious games themselves (what are technological challenges and design issues? What do the next generation serious games look like?), concerning the different kinds and success rate of these kinds of games (what areas are dominant, educational, military, health, and/or advergaming? How effective are they?), and concerning their importance (what is their economical, cultural, and societal impact?).

New Zealand

Melanie Swalwell

This essay focuses on the history of video games in New Zealand, during the ‘long’ 1980s. Beginning in the late 1970s and extending well into the 1980s, New Zealand had a booming digital games industry, across the arcade, console, handheld, and computer spectrum. Supported by the existence of an import licensing regime, the Auckland-based Kitronix produced fully locally-made arcade games, such as *Malzak*, a *Scramble* ‘clone’. Some Kitronix machines are believed to have been exported to Australia. Meanwhile, other companies (Chastronics, Coin Cascade, and many more) imported, produced and operated arcade machines that—at least until the end of the licensing regime in the mid 1980s—had to include a percentage of locally-manufactured components. Game titles were sometimes licensed from well-known international game distributors; however, bootleg boards appear to have been reasonably common.

Some consoles and handhelds game systems were manufactured locally (early *PONG* clones, the Fountain, and others). Fully-imported systems, such as the Atari VCS 2600, were available, and ephemeral research shows that systems such as this one continued selling well after the infamous video game “crash” of 1983 in the United States. Grandstand was a significant player in the handheld (and later, the computer) market. Set up in Auckland by Grandstand UK’s émigré co-founder, Les Kenyon, the company went on to ship incredible numbers of portable games, which were assembled on a production line in Auckland, from imported and locally-made components. Global distribution anomalies appear to explain the fact that some widely available consoles, such as the Colecovision and the Vectrex, did not make it to New Zealand, while the Tunix console appears to have been the product of an early licensing deal (it is known in Canada, for instance, as the Leisure Vision).

The reception of (mostly foreign made) 8-bit microcomputers was strong and a vibrant local culture of game programming and production existed. Software was written both by professionals and hobbyists, and there was a strong culture of ‘having a go’, supported by indigenous and imported magazines, computer fairs, and local user groups.

During this era, New Zealand game culture was a complex meld of local and international influences. The difficult economic situation of the late 1980s brought trade barriers down very suddenly. This, coupled with the demise or takeover of several influential game companies in the stock market crash of 1987, changed the game production business from a predominantly local one, using some imported components, to a global one, with off shore production facilities producing fully-assembled items. Whilst some anomalies can be pointed to in the ensuing years (such as the Sega Mega System’s outstanding success in the early 1990s, well and truly outselling the Nintendo Entertainment System), these are noteworthy in terms of distribution only; the era of local hardware production was all but over.

Poland

P. Konrad Budziszewski

The history of the development of electronic gaming culture in Poland has been strongly tied to the particularities of the country’s changing political and economic situation. This essay traces this history from the

first known Polish digital game *Marienbad* (Witold Podgórski, circa 1962), developed for the second-generation Odra 1003 computer, to recent high-profile, internationally acclaimed releases: *Bulletstorm* (People Can Fly/Epic Games, 2011), *The Witcher 2: Assassin of Kings* (CD Projekt RED, 2011), and *Dead Island* (Techland, 2011).

Section 1 offers a close look at the early years of electronic gaming in the People's Republic of Poland: Podgórski's *Marienbad*, the Mera-Elwro TVG-10—the first and only Polish game console, an obscure *Pong*-clone released circa 1980, and, in particular, the computer boom of the mid-1980s. A distinguishing characteristic of Poland's game culture of the period was a nearly complete absence of programmable consoles. Accordingly, gaming was the exclusive domain of 8-bit home computers—the Atari XL/XE, Commodore 64, ZX Spectrum and compatibles (including the Polish-made Unipolbrit 2086 and Elwro 800 Junior), and, to a lesser extent, the Amstrad CPC. At the same time, the lack of copyright laws and official software distribution channels produced a thriving barter economy and grey market for the easily and inexpensively copied tape- and disk-based games.

Section 2 picks up in 1989—the year marking the fall of the Communist regime, the country's transition to free-market economy, and the beginning of large-scale commercial game development. While prior attempts at commercial distribution of original titles—beginning with Marcin Borkowski's 1986 text adventure *Puszka Pandory* (*Pandora's Box*)—had not been particularly fruitful, developers such as L. K. Avalon (*Robbo*), Computer Adventure Studio (*Mózgprocesor* [*Brainprocessor*]), and California Dreams (*Blockout*) managed to achieve relative success in the newly relaxed political and economic climate. Software piracy, however, proved to be a significant problem. The turn of the decade also saw the appearance of the first cartridge-based game consoles (Taiwanese clones of the Nintendo Entertainment System and the Atari 2600) and the rise in popularity of 16- and 16/32-bit computers (Atari ST, Commodore Amiga, and IBM PC compatibles).

Section 3 details changes following the signing of the 1994 Copyright Protection Bill, which laid out the foundations for legal software market. Publishers began official distribution of imported titles, initially with limited localization (typically only accompanying materials were translated into Polish). By that point, local development had shifted almost entirely to newer platforms (although a strong and productive 8-bit “scene” continues to operate in Poland to this day), especially the Amiga and IBM PC. Simultaneously, large development and publishing companies began to phase out the small studios of the previous era. A number of importers began sales of home consoles, such as the Sega Saturn, the Atari Jaguar, and the Sony PlayStation—of which only the latter managed to gain some following.

Section 4 examines the post-2000 situation—in particular, key developers' (People Can Fly, Citi Interactive, TopWare Interactive, Reality Pump, Techland, CD Projekt) transitions to large, big-budget projects, characterized by high production values, aggressive promotion, and international distribution. The section closes with a look at Good Old Games, CD Projekt's digital distribution platform for DRM-free classic PC games.

Portugal

Nelson Zagalo

The essay on Portugal will be presenting a synthesized analysis of the evolution of the game development in the country since the end of the 1970s. The research done will demonstrate the added value of this industry to the creative dimension of the Portuguese society.

Identity patterns of the game design will be identified and discussed taking into account Portuguese history, society, and media landscape. Some of the more relevant moments in terms of technology and arts of the Portuguese video games will be enlisted, compared, and discussed, serving the creation of an in-depth knowledge about the industry in the country.

Russia

Svetlana Dragayeva

Contemporary Russia likes playing with national stereotypes juxtaposing them to the Western Other. This old trick still works for a many Russian national products and hits the apotheosis in the ‘most important art of all arts’, that is, cinema. And so even in 2011, in a ‘New Year's comedy of the 2010s’, the rational West is juxtaposed to the unpredictable Russian soul. This essay explores how the global market of video games in Russia, which is traditionally and predominantly filled with the Western products, shapes its own local flavor to better suit the taste of the local consumers and whether the local consumers need local products at all in this particular industry. Furthermore, the question is: how, if at all, does the local flavor help the participant emotionally engage more intensely in the game?

Scandinavia

Lars Konzack

The purpose of this essay is to give an overview of the Scandinavian game scene from all over Scandinavia – mainly Iceland, Norway, Sweden, Finland and Denmark. It will look into Scandinavian games such as the Icelandic *Eve On-line*, Norwegian games from Funcom like *Dreamfall*, *Anarchy On-line*, and *Age of Conan*, Swedish games like the *Penumbra* series, *Battlefield 1943*, and the *Headhunter* series, Finnish games like *Triplane Turmoil*, *Max Payne*, and *Flat Out*, and Danish games like the *Hitman* series, *Hugo* series and the *Kane & Lynch* series. I will look into if and how there is a special Scandinavian game design style or if they are more focused on global trends. Furthermore I will look into the future trends of Scandinavian video games.

Singapore

Peichi Chung

This essay emphasizes the transformation process that Singapore changes from a country of game consumption to a country of game production in the global industry value chain. The essay first introduces the history of video games in Singapore from a market perspective, and describes the popularity of foreign games that prevail among Singapore gamers. Next, it examines the Singapore market by analyzing the popularity of games, be they western or Japanese, in the categories of console, PC, mobile, and on-line games. The essay also covers an evaluation of the influence of national history on the current scale of video game market in Singapore. Singapore's IT infrastructure, media regulatory environment, and particular political structure are also taken into consideration in the discussion on Singapore's stable business network in the sector of game distribution and publishing. The essay examines foreign game genres that dominate Singapore's game market and compare Singapore's market structure to other countries in Asia. In the evaluation of the game market, the essay concentrates on the particular global and local linkage that Singapore has to the global video game network.

In regard to game development, this essay also examines the transformation process that enables Singapore to leap forward barrier in entering global video game development. It evaluates game policy that influences the formulation of Singapore as a *regional hub* for global game companies in Southeast Asia. Review of the industry progress begins with the evaluation of government policy to form a creative industry for digital media in 2003. The introduction of the video game history of Singapore is based upon industry fieldworks that were conducted in Singapore since 2007. Analysis of the local gaming culture will be based upon a review of dynamics that are cultivated at both the state and market levels. The state level will focus on the R&D performance in enhancing game innovation, while the market level will cover the industry synergy that is collectively shaped by the video game companies in Singapore. The essay will provide a basic profile of video game companies and introduce popular video game contents developed and published by these companies. The last section of this essay emphasizes on future development of Singapore's video game industry and evaluates the industry mobility factor that Singapore will achieve if the country successfully achieves to be the leading regional node of game development and distribution in Southeast Asia. The essay concludes with a discussion of the future of regional game development and its connection to Singapore's rapid transformation into a creative hub of digital content in Asia.

South Korea

Peichi Chung

This essay will first trace the political and social factors that lead to birth of first on-line game industry in Asia. It will examine the history of video games in South Korea since 1990s. The essay will review the process of development and examine the types of video games that were developed in the early stages of the video game industry. A chronicle of foreign game imports will also be examined. The essay then analyzes the influencing factor of foreign games on the South Korean video game production style, and then reviews cultural exports contributed by the South Korean game industry from 2002 to 2011. Indigenous video game culture will be linked to the particular gamer socialization pattern in the South Korean society. The essay highlights a corporate-based popular culture, E-sports, which originated in South Korea, and provides a breakdown of the industry pyramid that shows the competitive nature of industry environment in South Korean video games. The essay focuses on MMOGs (massively multiplayer on-line games) as Korea's main industry niche in the global game industry value chain. By going through a wide variety of South Korean on-line games, the essay then evaluates characteristics that shape a unique indigenous video game culture. Company profiles with an emphasis on major large-scale game companies and some selected middle-scale innovative ones will be provided. The essay then introduces contents of representative games that achieved successful international sales, including *Lineages*, *Maple Story*, *Ragnarok*, *Sudden Attack*, and *Audition On-line*. The regional success of Korean on-line games will be included. The essay will analyze the regional distribution network that Korean games expand to other Asian countries such as Taiwan, China, Singapore, Malaysia, Philippines, Thailand, and Vietnam. The last section of this essay includes an introduction of game studies in Korea and concludes with a

discussion of the leadership of the Korean game industry to other game industries, markets, and gamers in the whole of Asia.

Spain

Manuel Garin and Victor Manuel Martinez

The essay will address the impact of video games, as a creative language and an emerging art, in the plural national context of Spain. We will study in which ways the influence of Spanish politics and economy affected the growing scene of video game creation in the 1980s, very much related with the first years of democratic freedom in the country after Franco's dictatorship, an emerging context that generated an artistic and creative outburst which led to "the golden age" of Spanish video games, a splendid period of domestic production between 1983 and 1989. The analysis of these historical movements will also involve the study of individual creators, names that have marked the canon of video game creation in Spain, such as the genuine and tragic case of Paco Menéndez, creator of the mythical title *La Abadía del Crimen* (1988) and widely considered as the best Spanish game creator in spite of his short and troubled career. The essay will also focus on how specific national companies dealt with the industrial structure and its possibilities in different historical moments, from the early success of studios like Opera Soft, Made In Spain, or Indescomp in the 1980s, to the decline and disintegration of most of the Spanish game companies after the mid-1990s, until the recent recovery and growth of part of the industry thanks to the international success of games like *Castlevania: Lord of Shadow* (2010). At the same time, the text will combine specific game and company profiles with certain content descriptions that allow the reader to understand the complexities and identity issues related to the Spanish indigenous game culture, addressing the impact of franchises like *PCFútbol* (1992-2001) that literally became national milestones, and analyzing how the reception of foreign imports also shaped the face of the gaming community. Finally, the essay will summarize the most representative trends of video game studies in Spain and the legitimization of game design as a fully creative art that engages millions of gamers and makes us look to the future with great expectations.

Thailand

Songsri Soranastaporn

Video games are popular and attract massive numbers of players around the world. Thai players engage in this kind of game, and many organizations and companies are involved in video games in Thailand. However, few studies are found on this subject.

No evidence of either a history of video games in Thailand or an influence of national history on video games has been found. Video games have been imported such as *Ragnarok On-line* and *Warcraft* which are very popular among Thai game players. A few Thai companies produce domestic video games such as *Kankluay* and *Sinsamut*, but many issues of indigenous video game culture and video game content description have not been documented. Most studies focus on (1) the behaviors, motivation, and addiction of video game players, and (2) the effects of playing video games. Thus, some research needs to be conducted.

According to video game company profiles, the number of video game companies has been increasing recently and the Thai government encourages and supports them. For example, *Asiasoft*, owned by Thais and located in Thailand, is a leading on-line game operator and has a dominant market share in Thailand, Singapore, Malaysia, and Vietnam. Many SMEs develop video games and some integrate Thai culture and tradition into their games. The Software Industry Promotion Agency (Public Organization) [SIPA], one type of Thai modern organization, was established in 2003 with three purposes: to promote and develop software and digital content developers and entrepreneurs, to promote and support marketing of software and digital content, and to develop organizations which promote software and digital content. Thus, the Thai Game Association was established to serve one of SIPA's missions. However, though many organizations play roles in video games, no study has been found.

Therefore, the contents of this essay will be researched, and its purposes are: (1) to describe video games in Thailand in terms of history, influence of national history on video games, reception of foreign imports, domestic video game production and exports, indigenous video game culture, video game company profiles, video game content description, video game studies, and the future of video games and (2) to explain behaviors of video game players, and effects of playing video games in Thailand. The population in this study includes four groups who are involved in video games such as e-Learning, animation and computer graphics, movie production companies, and software and digital contents: (1) chief of education programs, (2) presidents of various associations, (3) owners and managers of companies, and (4) game players. Interviews, questionnaires, and documents will be used as research tools. Data will be analyzed by categorizing and descriptive statistics. Comprehensive information of video games will be compiled and help us to understand video games in Thailand. This information will serve as guidelines for both government and private organizations to manage video game business and will be one resource of video games in Thailand. To

conclude, the results of this study will be useful for both government and private organizations, so studies need to be conducted to fill the gap of knowledge in this area.

Turkey

Erdal Yilmaz, Cetin Toker, & Kursat Cagiltay

Turkish video game development history starts in mid-1980s with amateur and personal attempts and until the first decade of the 2000s, development teams weren't able to produce professional or internationally successful titles. After 2005, some local teams developed their own technology, scenarios, designs, and production lines with the financial support of sponsors, successful marketing decisions and organization of technology centers in major universities. As a result, they have been publishing their titles with mentionable success both in national and international markets. It is also possible to say that the majority of the produced titles are mobile or social games on the Internet, probably because it is cheaper to produce these games by independent developers.

Although, national history, local stories, and local characters are the main resources for the scenarios of the great majority of the games which were developed in the early stages of the Turkish video game development history, as design and development teams become confident in their jobs, they have started developing scenarios based on international (nonlocal) stories and characters. Unfortunately, there still exist very limited video game development activities and academic studies compared to the possible potential but according to recent research studies, the number of game players and total game play time in Turkey show parallel figures to the world average.

In the last 5 years, with the help of university and industry, a pre-incubation center called ATOM (Animation Technologies and Game Development Center), mainly specializing in video game development, was established. In the near future, a Digital Game Federation will also be established. Also, in some major universities which are mainly focused on technology, academic programs focused on game technologies have been established. Due to these developments, we expect a rapid development in game design and development in Turkey in near future. Therefore, this essay aims to present the history, current situation of digital game activities, and future projections of gaming industry for Turkey.

United Kingdom

Barry Atkins

This chapter will explore the specificities of history, production, and consumption in the United Kingdom and consider the ways in which there is a particular identity to UK video game development expressed in its games and surrounding gamer culture. As the birthplace of franchises such as *Tomb Raider* and *Grand Theft Auto*, and the home of development houses such as Lionhead Studios and Rare, the United Kingdom has long punched above its weight in relation to other countries after the two giants of game development, the USA and Japan. The step change for UK games development came with the move from games delivered hard-wired into units sold for home use (such as *PONG* and its many imitators, imported or cloned from overseas) or free standing cabinets in the arcades (again sourced in the main from the U.S. and then Japan), to games sold for the emerging home computer market. Here it is possible to see divergent evolution, with the Sinclair ZX Spectrum and then the BBC Micro having a direct effect on the direction and nature of UK games. The Spectrum in particular was a machine that enabled game development (in BASIC) that saw users develop games as hobbyists that then fed a market that was unsupported at the time by large corporate companies, allowing the economic conditions for a specifically UK game development community to emerge. There is a history of what is often termed 'bedroom coding' for these early computers that saw cottage industry production, often by individuals in small teams (often of brothers), going on to grow into the companies that would remain major players in UK development (such as Blitz Games) or be taken over by overseas publishers and larger developers but remain based in the UK. Bedroom coding also saw some parallel in UK universities, with the first text MUDs (Multi User Domains/Dungeons) that would lay the foundations for contemporary MMORPGs emerging from UK Computer Science departments. In terms of policy and the relationship with government, game development in the UK has also had a mixed, if not contradictory, reception. On the one hand, it has seen sporadic support and encouragement by successive governments keen to capitalize on its market position. On the other, negative stories the UK tabloid press have led to successive government reports and interventions that have simultaneously supported the industrial potential of games while seeking to establish appropriate levels of censorship and state intervention. Games are now eligible for British academy of Film and Television Arts (BAFTA) awards, for example, while continuing to be subject to popular, and particularly parental, anxiety. With both Microsoft and Sony owning UK development studios, and Nintendo allowing UK developers to make games from their first party IP, and entrusting them with launch titles for successive console generations, it is clear that the UK remains a significant contributor to global games culture, but this essay will examine the case for whether or not this represent a recognizably different national game aesthetic.

United States of America

Mark J. P. Wolf

As the birthplace of video games, the United States of America is the location of much of video game history, and is usually the only country covered in detail when the history of video games is recounted. As this history is too extensive to cover adequately in a few thousand words and has already appeared a number of times (most book-length histories of video games center on the USA), this essay will be different from the others in the collection in that it will focus specifically on the way American history shaped and influenced video game history, beginning with the precursors and situations that gave rise to video games and the various forms they took, and continuing through each decade, examining how industry and culture affected the developing medium. The essay will also consider whether or not there is an American character to games produced in the USA, as well as look at the influence of the growing number of imports from other countries.

Uruguay

Gonzalo Frasca

Professional game development in Uruguay started in the late 1980s through the Iron Byte studio, which released several games for Spanish publisher Dinamic, including *Narco Police* (1989). A new wave of studios started in the early 2000s, focusing on on-line and casual games. Currently, Uruguay is a testbed for the One Laptop Per Child Project and a 100% of the country's school children are provided with a free laptop by the government. Because of this, educational game development is taking off.

Venezuela

Thomas A. Apperley

Contemporary discussions of digital games suggest that they have a crucial role in social inclusion through the way they support the development of digital literacy, encourage civic engagement, and are a crucial access point to global participatory culture. Previous studies of digital games have focused on the issue of social exclusion through limited or partial access, by examining the connection between digital gameplay and digital literacies in the elderly, minority groups, girls and women. This essay reframes the discussion by focusing on what is at stake in the social inclusion provided by the processes and contexts of digital gameplay in Venezuela, using an ethnographic case study of in an Internet café in Caracas.

The case study examines an Internet café —Cybercafé Avila— as a grassroots assemblage of commercial and community interests. At this café, social inclusion through digital games was underpinned by a reliance on an ‘unofficial’ digital economy through widespread software piracy. Through the pursuit of this illicit pleasure, shared knowledges and literacies emerged, both about *how* to play the games and, more importantly, about the techniques developed to be in the position where playing the games was a possibility.

In order to gain access to the beneficial aspects of digital gaming, otherwise socially-excluded groups in Venezuela generate new, dynamic literacies that the socially-included might otherwise take for granted. This essay argues that an orthodox understanding and application of digital piracy may cause social exclusion, and that the various techniques of digital piracy constituted a key knowledge that facilitated social inclusion through digital gaming. In this case, an expanded notion of digital literacy is required that includes the knowledge of how to circumvent copyright protection and other forms of digital rights management.

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