

1 A Quantitative Study of Historical Video Games (1981–2015)

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Introduction

Human history is often used as a narrative background in video games, whether game developers want to share their views on the past or need a context to host an assemblage of interactive elements and game mechanics. Some of these historical video games, ‘those digital games that make meaning out of the past’ (Chapman 2016a), are amongst the most popular video games ever created, e.g. *The Oregon Trail* (MECC, 1975), the *Civilization* series (MicroProse, Infogrames, 2K Games, 1991–2018), *Age of Empires I* and *II* (Microsoft, 1997, 1999), and the *Assassin’s Creed* franchise (Ubisoft, 2007–2018). In this chapter, I provide a survey of a large number of historical video games released between 1981 and 2015. For this purpose, I use as proxy a database composed of 1,690 video games released in that interval.¹ It was created—and is still maintained—by an online community called *HistoriaGames*.² I discuss in this chapter the potential biases of working with a database built externally. Eventually, I provide a descriptive analysis of this set of historical video games with a focus on the distribution of video games over release dates, platforms, genres, historical periods, and historical events.

A Crowdsourced Effort

Librarians, archivists, and scientists are preserving and documenting video game heritage, most of the time with limited means. To pursue this task, they have to face the commercial and technical obsolescence of video game hardware and software.³ Therefore, information on older video games is usually hard to find today in public archives and libraries, whether one is looking for issues of old magazines or willing to borrow a video game on its original cartridge in order to experience it in the technical conditions of the time. More often than not when studying video game heritage, scientists have to turn to the work of online communities, for example, to study a platform (Altice 2015; Ippolito 2016), to study the history of video games (e.g. the lists and categorisations of video games

on *Wikipedia*⁴ or thematic databases like the initiative of the *FEMICOM Museum*⁵), to study video games through paratexts (see e.g. the digitised versions of computer and video game magazines on the *Internet Archive*⁶ and on the *Abandonware Magazine* community website⁷), or to get an overview on the video game industry (e.g. *MobyGames*,⁸ a crowdsourced database referencing 121,923 video games as of 30 September 2018⁹). Amateur (game) historians started early to work on the preservation of video game heritage. We can expect in the future a collaboration with scientists on these resources. Nevertheless, today we strongly depend on such crowdsourced efforts. We have to take them into account when we study large sets of video games.

Data Gathering

Building a database requires identifying a category of objects—here, video games—and then recording information on these—that is to say, collecting metadata. Later in the process, requests are formulated in order to isolate subsets corresponding to given criteria. In the case of a database compiled for a given study, these requests must be thought of in advance so that they are relevant to confirm or contradict hypotheses. Hopefully, that process would happen before the gathering of data even begins. However, this was not possible in the context of this study. Therefore, I describe the origins of the database and how it is maintained.

Video game databases compiled by online communities often follow self-imposed rules, such as criteria (hopefully well-defined) that help the community decide which video games must be collected and how to organise metadata (what variables to collect, what levels to choose, and optionally how to build the data model). These *public* databases let both researchers and a general audience access their content easily via a web interface or an application programming interface (API). They usually invite the visitor to take part in the community and contribute.

In the present context, where the author of this research is not the originator of the database, we need first to understand how the database was compiled in order to determine a perimeter for the study, that is to say: what are the questions the database can (help to) answer, and what are its blind spots. The most important potential drawbacks in such a case are the lack of control on the criteria used to include a video game in the database and the choice of variables and levels. I discuss later the concepts of ‘video game genres’ and ‘historical periods’, especially how the levels (the values they can take) were determined by the owners of the database.¹⁰

Distant Playing

With a sufficiently large and dense database, we can (perhaps) provide answers to theoretical questions by analysing subsets of its elements. In

the case, for example, of a corpus of about a hundred games, it is hardly conceivable to play all of them. *Not playing* some or most of them is the most realistic option for the researcher here, thus reducing on one side the scope of an analysis conducted with respect to game content but increasing on the other side the range of results based on metadata. In the field of digital humanities, this situation has led to the *distant reading* approach (Moretti 2013; Ganascia 2015; Underwood 2017), where questions like ‘how are the genders of characters distributed over time’ (Underwood, Hamman, and Lee 2018) are answered based on corpora of sizes much larger than what a scholar is capable of reading during his or her whole life.

There are few works in game studies dealing with databases in order to examine large sets of video games. For a study that surveyed first-person shooter (FPS) games released between 1991 and 2009, Michael Hitchens (2011) compiled a database of 566 video games (of which ‘63 games were played in whole’). In his analysis, he reviewed the platforms on which these video games were released, the distribution of FPS games over time, and the gender distribution of the avatars. The database was compiled with the help of a variety of online resources. In a paper published recently, Jérémie Pelletier-Gagnon (2018) compiled ‘2053 JRPG reviews gathered from 10 different online journalistic outlets posted between 1992 and 2014’ in order to analyse the emergence and use of the *Japanese role-playing games* (JRPG) label. For this purpose, he used topic modelling methods. Eventually, in a study on video games representing the First World War, Adam Chapman isolated 58 video games (Chapman 2016b) to ‘[explore] the relation of WWI popular collective memory to historical video games’.

Whether it is a database of video games or a database of texts about video games, these initiatives pave the way to studies on video games allowing researchers to uncover and validate results at the scale of a whole genre or platform—that is to say *distant playing*.¹¹

A Database of Historical Video games

I use the *HistoriaGames* database as a proxy for the analysis of historical video games, with potential biases. Notice first that I will not attempt to define what a ‘historical video game’ is. Most aspects of this question have already been discussed with success by Adam Chapman (2016a), among others. Here, we rely on a database and a harvesting process that we must understand first. The *HistoriaGames* database was used in studies on historical video games in French language recently (Facchini 2016; Natale 2017; Maillard 2018; Marti 2018). The database is large, well-documented, and follows the trends in numbers of *MobyGames*, one of the largest databases of video games.¹² The proportion of historical video games to the number of video games released in total is constant over time, based on data from *MobyGames* and *HistoriaGames*.

However, there are at least two possible biases here. First, in recent years, *MobyGames* included video games for mobile platforms outside of mobile video game consoles, while *HistoriaGames* does not. Second, since *HistoriaGames* was built in part on data of *MobyGames*, it might have inherited its biases, that is to say: recent video games, video games on popular platforms, and video games developed or released in North America, Europe, and to some extent Japan, have a higher probability to be listed.

Among the criteria used to compile the database, the originators decided not to attempt to identify all video games released for smartphones and tablets, even if they met their criteria. Therefore, for the sake of consistency, I decided to exclude from the database all the versions of games available on iOS or Android. This is the case, for example, with *Assassin's Creed: Altair's Chronicles* (Ubisoft, 2008), which was released for Nintendo DS, iOS, and Android: only the Nintendo DS version was kept in this study.

The website *HistoriaGames* was displaying 1,783 titles at the very beginning of 2016, when a dump of the database for this research was obtained.¹³ A video game or a video game extension¹⁴ released on multiple platforms was considered as a single entry and the remake of a video game was considered as a video game in its own right (e.g. *Sid Meier's Pirates!*, released in 1987 by MicroProse and its remake released in 2004 by Atari). The oldest video games in the *HistoriaGames* database date from 1981.¹⁵ The most recent video games at the time of gathering data were video games announced for 2016 and video games already available in *early access*, with no planned release date. They were excluded from this study.

Based on these criteria, 1,452 video games and 238 video game extensions released between 1981 and 2015 were extracted from the *HistoriaGames* database. *Collector's edition* or *gold edition* reissues, considered too similar to the basic versions, are not included. However, *remakes* are included, since they often contain original work and revive the interest for the video game, thus reaching a new audience. Each release date in the database corresponds to the earliest release date among all the platforms on which a video game is available.

The video games compiled in this database were released on 66 different platforms. By including all releases, this equates to 2,466 different versions of video games and 312 different versions of video game extensions. Thus, on average, a video game comes out on 1.7 different supports, with a maximum of 9 different supports for *Wolfenstein 3D* (Apogee Software, 1992).¹⁶ Without surprise, the most frequent platform is the family of Windows operating systems (1,075 video games and 225 video game extensions released between 1989 and 2015), followed by the Mac operating systems¹⁷ (193 video games and 45 video game extensions released between 1985 and 2015) and the iterations of MS-DOS (140

video games and 7 video game extensions released between 1981 and 1998). The console with the most historical video games in the database is the Xbox 360 from Microsoft, with 117 video games and 12 video game extensions. Numbers for video games released on computers are difficult to compare with numbers on gaming consoles due to the dependency of these on locked hardware, and thus shorter operating cycles. Therefore, in this analysis, the platforms are organised in three classes: computer OSes ('computers'),¹⁸ home video game consoles ('home consoles'),¹⁹ and handheld video game consoles ('mobile consoles').²⁰ The distribution of platforms into these three classes can be consulted online.²¹ This sorting choice allows comparison of the various groups of platforms.

There are 341 publishers identified in the database. Among these, Matrix Games, a company specialised in war games, released 102 video games;²² followed by Ubisoft, developer and editor of the *Assassin's Creed* franchise with 100 video games, and Paradox Interactive, editors of the *Europa Universalis*, *Crusader Kings*, and *Hearts of Iron* series, with 99 video games. As for the development studios, Koei is the most prolific with 50 video games thanks to two long series, *Nobunaga no Yabō* (1983–2015)²³ and *Romance of the Three Kingdoms* (1986–2012),²⁴ ahead of The Creative Assembly—which developed the *Total War* series (2000–2015)²⁵—with 44 video games and John Tiller Software, a company specialised in war games, with 42 video games. However, it should be noticed that companies are sometimes divided into several teams. For example, Ubisoft Montréal, which developed episodes of the rebooted *Prince of Persia* franchise, and Ubisoft Romania, which developed episodes in the *Silent Hunter* series, are both subsidiary companies of Ubisoft but are listed separately.

In this database, video games are divided into seven *video game genres* corresponding to the categories of *Wikipedia*,²⁶ a choice inherited from the original database. The content on the busiest pages of the crowd-sourced encyclopaedia is the result of a consensus between contributors. In this case, they selected the following labels as genres: *action*, *action-adventure*, *adventure*, *role-playing*, *puzzles*, *simulation*, and *strategy*. The *HistoriaGames* community used an eighth category—*other genres*—composed of 18 unclassified video games with respect to the previous categories, like *Hearts of Iron—The Card Game* (Paradox Interactive, 2011) or *Papers, Please* (3909 LLC, 2013). Each video game was associated with one and only one genre. At this stage, I would like to mention that the notion of genre is a much-discussed question in the field of game studies that goes far beyond the categorisation proposed on *Wikipedia* (Letourneux 2005; Arsenault 2011; Perron 2018).

Eventually, the owners of the database divided the video games into five 'historical periods'—*Prehistory*, *Ancient History*, *Middle Ages*, *Early Modern period*, and *Late Modern period*²⁷—and two adjacent categories: *Ancient myth*²⁸ and *Modern myth*.²⁹ In some cases, the 'historical periods'

were then divided into ‘historical events’. This concerns mostly the *Late Modern period*, which is overrepresented among historical video games. It led to a list of 90 ‘historical events’, the most popular being the *Second World War* (515 video games and video game extensions), followed by the *Western Front* (227) and the *Eastern Front* (166), two subcategories of the previous one. A video game can be affiliated to several periods or events.³⁰ These categories were identified and chosen by the originators of the database according to the number of video games belonging to each ‘historical events’.

This database carries possible biases that will have to be taken into account when reading the conclusions of this study: (1) the criteria for a video game to enter the database and the choice of variables and levels were not defined by the author of this chapter; (2) video games are not weighted according to their sales (or any other criteria measuring their impact). The latter is a design choice that Michael Hitchens also had to do, where ‘obscure titles count for as much as million-plus sellers’ (Hitchens 2011).

A Descriptive Analysis

On the basis of the *HistoriaGames* database, I want to answer the following questions: (1) How are historical video games distributed over time between 1981 and 2015? (2) Are historical video game genres and platforms related? If it is the case, what genres are over or underrepresented on each platform? (3) Which historical periods are represented in these video games, and how are they related to video game genres and platforms?

Time

The distribution of historical video games over time is represented with a bar chart in figure 1.1a. We observe two periods of growth: the first from 1981 to 1997, the second from 1999 to 2007. There were four years with more than a hundred video games released, including video game extensions: 2007 (110 releases), 2010 (115), 2011 (114), and 2012 (101). Since 2012, we observe the beginning of a regression in the number of historical video games and extensions released.

This decline might coincide with the transfer of some players from computers and video game consoles to mobile platforms such as smartphones and tablets (mostly iOS and Android), since this effect is not observed in the *MobyGames* data, which *tries* to inventory games for smartphones and tablets. It might also be caused by the apparition of *smaller* video games: at a time of rising popularity for digital distribution and of opening of the industry toward independent studios, many of them have remained undetected. At this stage, we might also wonder

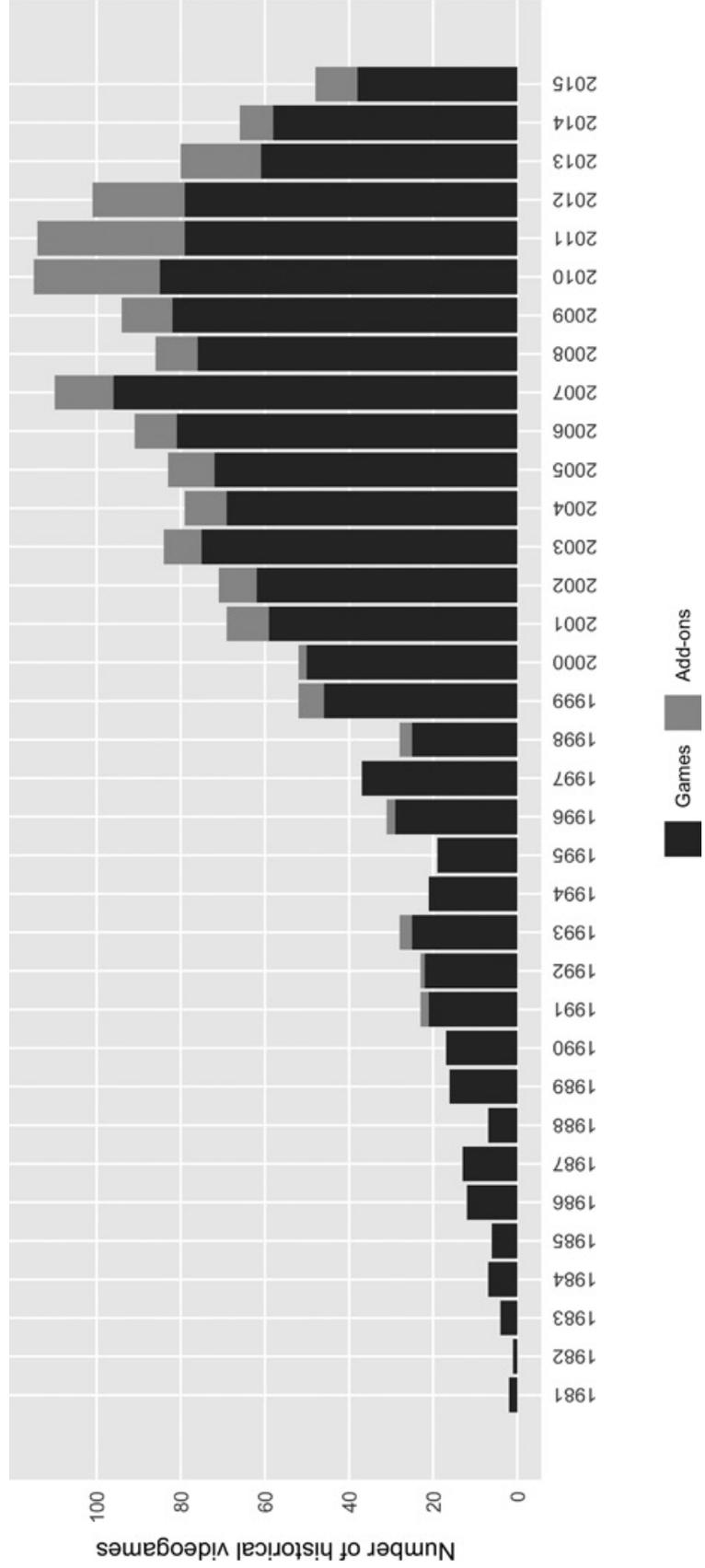


Figure 1.1a The Number of Historical Video Games (in Black) and Their Extensions (in Grey) Released per Year, 1981–2015. If a video game or video game extension was released on multiple platforms, the earlier release date was considered, and it is counted only once in the graph.

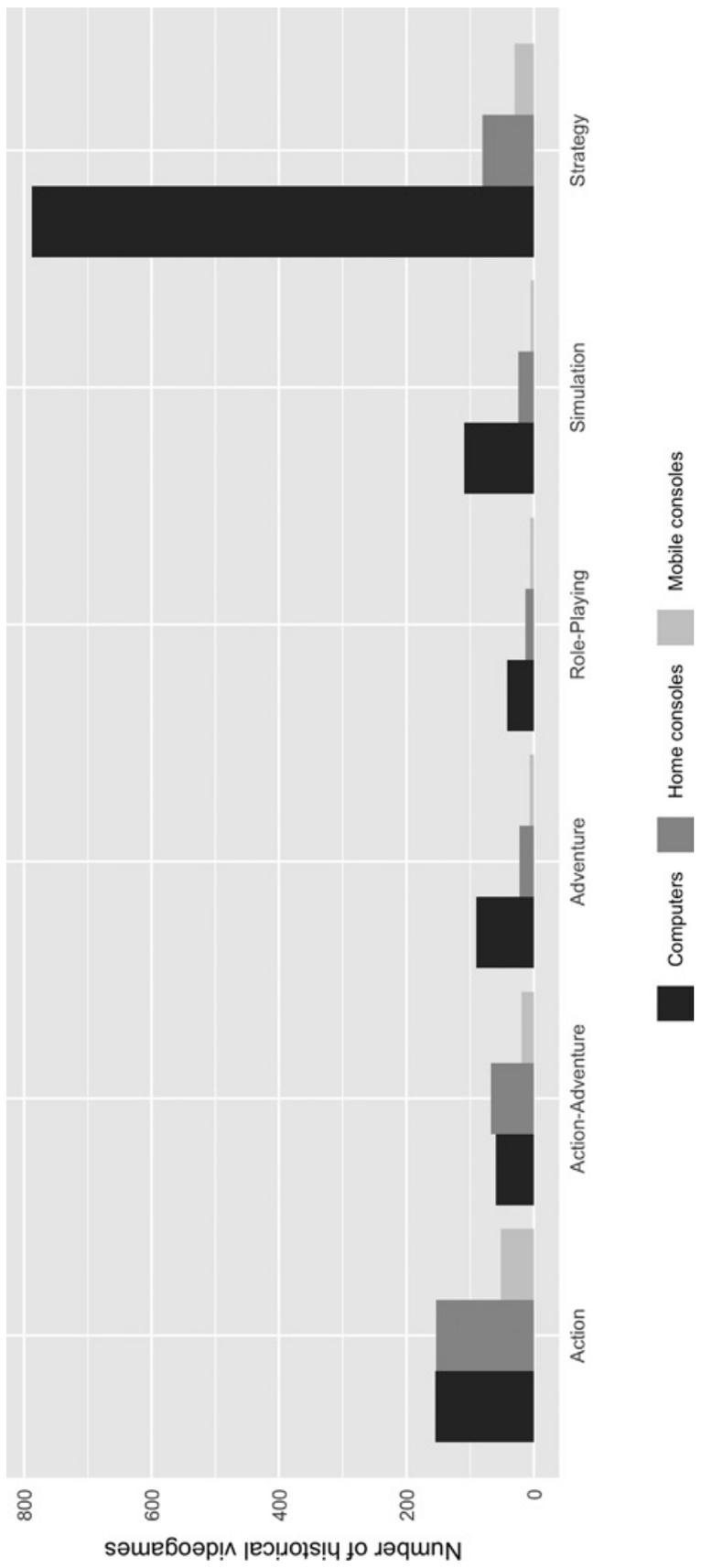


Figure 1.1b Distribution of Historical Video Games by Genre and Platform, All Dates Confounded.

Source: Y. Rochat.

if the ratio of historical video games available for iOS and Android is the same as the ratio of historical video games available for computers and consoles. If that were the case, it would be necessary to survey if a transfer of players interested in historical video games happened, implying that the choice of platform plays a minor role for some of the players.

Genres and Platforms

The distribution of historical video games over video game genres and platforms is shown in figure 1.1b.³¹ In this bar chart, a video game is counted at most once per class of platforms. For example, *Valiant Hearts: The Great War* (Ubisoft, 2014) was released on PC (Windows), Xbox 360, Xbox One, PlayStation 3, and PlayStation 4. It is counted twice in the chart of figure 1.1b: once as a computer game and once as a home console game.

Strategy video games³² available for personal computers exceed in large numbers all the other combinations of a genre and a class of platforms. The strategy genre includes turn-based video games such as the *Civilization* series and *real-time strategy* video games like *The Settlers* (Blue Byte Software, 1993) or *Age of Empires*; it also includes war games such as the *Battleground* series (TalonSoft, 1995–1999) and the *Panzer Campaigns* series (HPS Solutions, 1999–2012). Strategy video games offer to their audiences large overviews of historical events. They allow the broad staging of historical conflicts in a similar fashion as tabletop war games, which might help explain in part their overrepresentation within this dataset of historical video games. In addition, these are most often video games whose controls are difficult to map to the traditional game controllers of home consoles or to the buttons of handheld consoles, their interfaces being optimized for the use of a keyboard and a mouse. Nevertheless, there are strategy video games released on consoles in the database. For the most part, they are turn-based video games, such as the thirteen video games in the *Romance of the Three Kingdoms* series³³ or the seven video games in the *Nobunaga no Yabō* series. In particular, episodes of these two series make up for most of the strategy video games released on handheld consoles. Adventure, role-playing, and simulation video games follow the same trend as strategy video games, with a higher number of video games released for personal computers than for home consoles, then mobile consoles.

All categories combined, there are more historical video games released on personal computer operating systems. However, the quantities of action and action-adventure video games released on personal computers and home consoles are close. These video games are overrepresented on home consoles when we compare them to the other video game genres. Consoles might be better suited for these types of video games, which include FPS games such as the *Medal of Honor* (Electronic Arts, 1999)

and *Wolfenstein* series (Apogee Software, Activision, Bethesda Softworks, 1992–2015). The *Assassin's Creed* series also appears on home consoles and computers and represents a significant number of video games and video game extensions with historical contexts (23).

Historical Periods

In this section, a video game is counted more than once if it refers to several historical periods or if it has been released on more than one class of platforms.³⁴ In figure 1.2a, occurrences of historical periods in the database are represented with respect to gaming platforms.³⁵

By comparing the different periods, we notice a similar pattern between them: video games released on personal computers logically dominate each of the periods. In particular, we observe a clear overrepresentation in the Late Modern period. The Second World War alone is represented in 515 video games, which consists of about 30% of the total number of historical video games in the database.³⁶

Figure 1.2b displays the distribution of the historical periods listed in the database over the video game genres. A video game can be implicitly cited more than once in the chart if it includes more than one historical period among those identified. This figure allows us to better understand the distribution of strategy video games encountered in figure 1.1b: in this case, video games evoking mythologies and other myths are rarely strategy video games but rather action-adventure video games such as the *Tomb Raider* (Eidos Interactive, 1996–2015) and *Prince of Persia* (Broderbund Software, Ubisoft, 1989–2010) series or even action video games such as the *God of War* series (Sony Computer Entertainment, 2005–2013). On the other hand, among the other historical periods, strategy is the most frequent genre.

The presence of simulation video games in the *Late Modern period* can be explained by flight simulators set during the First World War or in one of the other conflicts that happened in the twentieth century. Eventually, action video games are very well represented in the *Late Modern period* thanks to FPS games such as the *Medal of Honor* (Electronic Arts, 1999–2010) and *Brothers in Arms* (Ubisoft, 2005–2008) series.

The combinations of video game genres and historical periods that came to exist and appear in the data have been discussed. However, before reaching the conclusion, the lack of video games set in *Prehistory*³⁷ needs to be highlighted, as well as the lack of historical role-playing video games in general. We can imagine that it is difficult for game developers to renew the interest of the player in a universe set in prehistoric times. Such a project will seem risky for a game producer. Meanwhile, creating a role-playing video game, at any historical period, sounds like a good opportunity to invite the player to discover an era from the point of view of one of its inhabitants, and get immersed in this parallel world. The

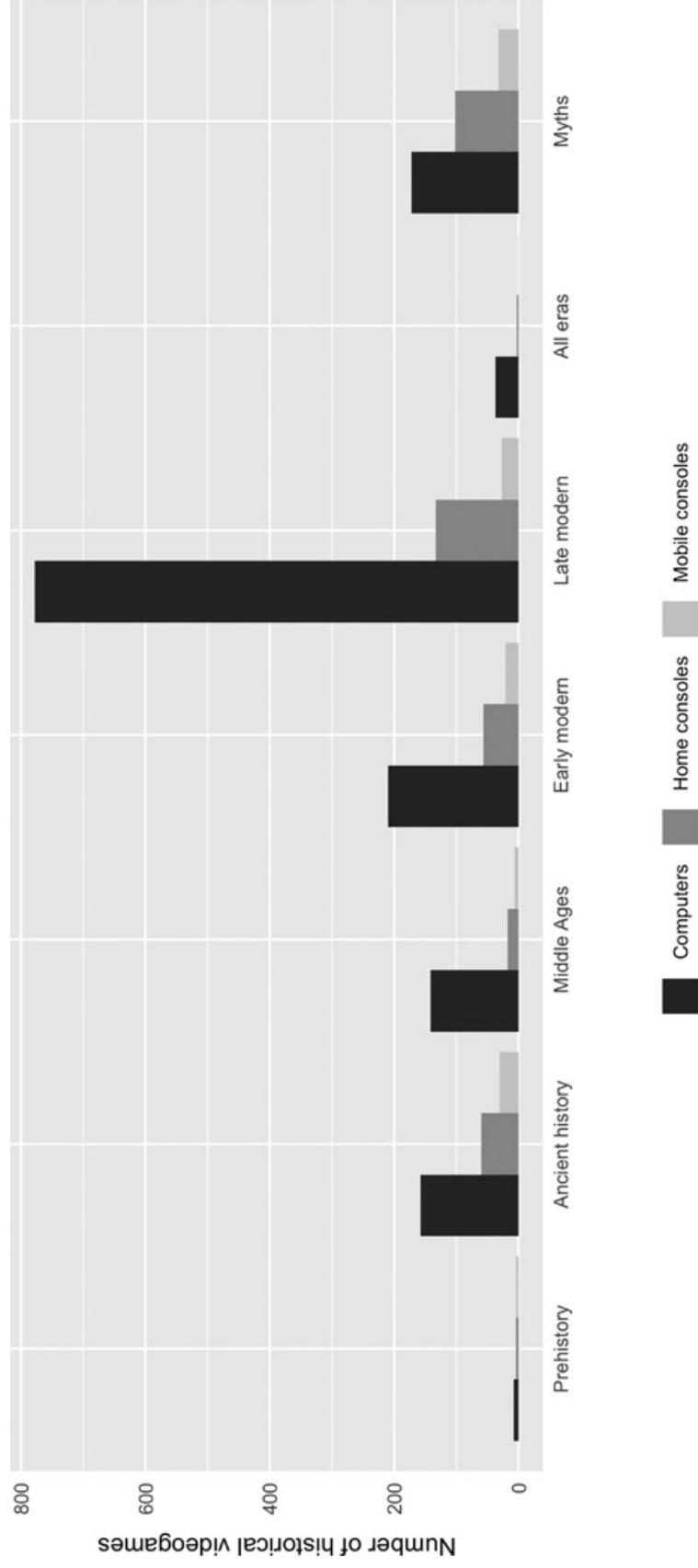


Figure 1.2.a Distribution of Historical Video Games over Historical Periods and Platforms.

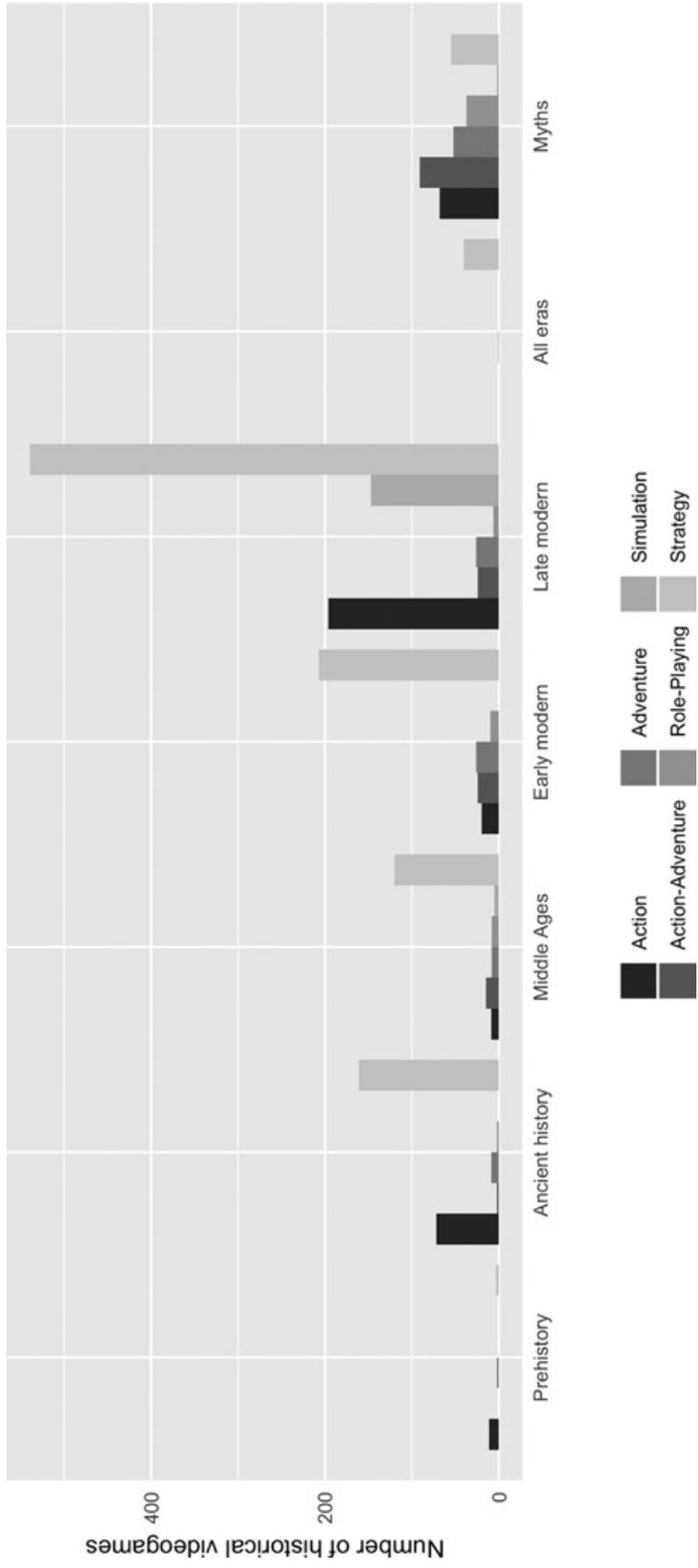


Figure 1.2b Distribution of Historical Video Games over Historical Periods and Genres.

Source: Y. Rochat.

absence of role-playing video games in the database, perhaps because of a competition with role-playing video games set in heroic-fantasy worlds, which heavily borrow features from the Middle Ages, might be a topic of interest.³⁸

Conclusion

There are two main contributions in this work. First, flaws and advantages of using crowdsourced data were discussed. Second, an inventory of historical video games released between 1981 and 2015 was used to survey the borrowing of historical contexts in the video game industry.

Ideally, this approach would have been more relevant with sufficient resources to compile an exhaustive database by myself and play all the video games in order to describe them as accurately as possible. However, this is not realistic, especially at this order of magnitude and considering the diversity of platforms. Another objective could have been to take into account market shares, or any other method to measure video game *popularity*, and assign a weight to every one of them. This is a very difficult task in the case of older video games, and for the more recent ones as well since these numbers are not often revealed to the public.

Our dataset showed that historical video games are more frequent on personal computers than on consoles. This effect is mainly explained by the high number of strategy video games available for personal computers, especially war games. On these systems, it is possible to switch between using a joystick or joypad and using the combination of a keyboard and a mouse. Although the latter combination is sometimes available for consoles, it is not widespread enough to be of interest for publishers and encourage them to port more strategy video games or develop new ones for gaming consoles. It is surprising to notice that consoles with interfaces appropriate for strategy video games—the most popular type of video game among historical video games—get very few strategy and historical video games. The Nintendo DS and 3DS handheld systems and the Wii U home console provide touchscreens that are suited for the selection of large groups of characters or for complex manipulations. According to the database, the Nintendo 3DS does not host any historical video game, while the Wii U has only one.³⁹ The Nintendo DS stands out with 16 historical video games,⁴⁰ far behind the nearly 800 video games available for personal computers. Strategy, turn-based, and war games exist on these consoles, like the *Advance Wars* (Nintendo, 1988–2008) and *Fire Emblem* (Nintendo, 1990–2017) series. However, they take place in totally imaginary universes, suggesting in this case that it is not the interface that matters but the audience, on average younger in the case of Nintendo consoles. This remark and the previous discussion on the lack of historical role-playing video games suggest in my opinion a sense of tradition in the way game developers deal with history in games.

At this stage, the existence of numerous and lengthy video game series does not contradict this hypothesis.

Notes

1. The data, scripts, and a notebook showcasing the results are available at <https://github.com/yrochat/hvgdb>.
2. *HistoriaGames* is a community composed of French-speaking persons. Their website, a ‘site on historical and mythological video games, online since September 2, 2011’, is at www.histogames.com/, accessed on 24 September 2018. My thanks go to them, who shared their data with me and took the time to answer my questions.
3. E.g. video games requiring digital rights management technologies that are not supported anymore, digital-only games which stopped being updated and thus got removed from online application stores, or ancient consoles and video games forgotten from history (Wolf 2012; Guins 2014; Newman 2017).
4. E.g. the ‘list of films based on video games’ is at https://en.wikipedia.org/wiki/List_of_films_based_on_video_games. The category of ‘video games based on films’ is at https://en.wikipedia.org/wiki/Category:Video_games_based_on_films. Both accessed 24 September 2018.
5. ‘FEMICOM Museum is a hybrid physical/digital museum and archive dedicated to the preservation and reimagination of femininity, girlhood, and the aesthetics of cute within twentieth-century video games, computing, and electronic toys’ at www.femicom.org/about/, accessed 24 September 2018.
6. <https://archive.org/details/videogamesmagazine>, accessed 24 September 2018.
7. www.abandonware-magazines.org/, accessed 24 September 2018.
8. www.mobygames.com/.
9. Source: https://github.com/yrochat/hvgdb/tree/master/mobygames_allgames, accessed 30 September 2018. The *Mobygames* database was composed of 53,671 games as of 3 February 2016 (games on more than one platform were counted only once), suggesting that the database is still evolving fast. See the graph at the top of this thread: www.mobygames.com/forums/dga,2/dgb,3/dgm,216776/, accessed 24 September 2018.
10. With sufficient (human) resources, a solution to avoid this sort of dependency would be to fork an existing database and recode it with criteria more suited for the ongoing study.
11. A term that I first heard from fellow researcher Selim Krichane. The work of Mathieu Triclot on rhythm analysis (Triclot 2017)—studying games on the basis of player inputs—is a good example of distant playing.
12. Data and chart are available at: https://github.com/yrochat/hvgdb/tree/master/mobygames_allgames.
13. On 2 January 2016.
14. A video game extension needs usually to be bought separately, e.g. on a CD-ROM or as downloadable content (DLC). In most cases, it needs the original game to run.
15. These are *The Battle of Shiloh* (Strategic Simulations, Inc., 1981), on Apple II, Atari 8-bit, and TRS-80, and *Castle Wolfenstein* (Muse Software, 1981), on Apple II. There were video games released earlier than 1981, like *The Oregon Trail*. The fact that such an important video game was not included in the database suggests the existence of gaps in the earlier years of the database at the very least.
16. These platforms are Windows, Mac, PlayStation 3, Xbox 360, Acorn 32-bit, DOS, Game Boy Advance, Super NES, and PC-98.

17. The Apple II and the Mac operating systems are considered here as different platforms. The same applies to MS-DOS and the Windows operating systems.
18. The ‘computers’ are Amstrad, Apple II, Atari 8-bit, Commodore 64, MSX, PC-88, PC-89, ZX Spectrum, Amiga, Mac, MS-DOS, Atari ST, Windows, Linux, web browsers, and mods.
19. The ‘home consoles’ are the remaining Atari platforms, NES, Super NES, GameCube, Wii and Wii U, Master System, Mega Drive, Mega-CD, Saturn, Dreamcast, 3DO, CD-I, PlayStation 1, 2, 3 and 4, Xbox, Xbox 360, and Xbox One.
20. The ‘mobile consoles’ are Game Boy, Game Boy Color, Game Boy Advance, Game Gear, Nintendo DS and 3DS, PlayStation Portable, and PlayStation Vita.
21. https://github.com/yrochat/hvgdb/blob/master/historia_ludens_chapter/platforms_def.csv.
22. A video game available on more than one platform is counted only once.
23. The last video game in the series, released in 2017, is thus not included in our database.
24. The last video game in the series, released in 2016, is thus not included in our database.
25. In this case, many video games have been released after 2015 (and are not included in our database).
26. https://en.wikipedia.org/wiki/List_of_video_game_genres, accessed 24 September 2018.
27. In French: ‘préhistoire’, ‘antiquité’, ‘moyen-âge’, ‘époque moderne’, and ‘époque contemporaine’. The last category, ‘époque contemporaine’, corresponds in English to the ‘*Late Modern*’ and ‘*Contemporary*’ periods.
28. This category includes, for example, Greek mythology and Arthurian literature. In this database, these ‘myths’ are most often fantastic stories set in universes that borrow historical elements from the real world, like architectural styles in *Prince of Persia*.
29. Including, for example, ‘piracy’ and ‘western’.
30. This is the case of the *Age of Empires* and *Civilization* series, for example.
31. Because they were not present in significant numbers in the database, I excluded *arcade* games (6 games) and *puzzle* games (2 games) as well as platforms with two historical video games or less. Eventually, I did not consider the 18 video games in the “other” category, which would necessitate some *close playing* in order to be included in this analysis.
32. According to the French page of *Wikipedia*, translated back to English: ‘Strategy video games are a type of video games that emphasizes the player’s ability to surpass the opponent, whether a computer or a human, through reflection and planning rather than reaction time or dexterity.’ https://fr.wikipedia.org/wiki/Jeu_vid%C3%A9o_de_strat%C3%A9gie, accessed 24 September 2018.
33. For example, the first video game in this series was available on the following platforms: Amiga, NES, Game Boy Color, MSX, MSX2, NES, PC-88, PC-98, Sharp X68000, and Super NES.
34. Here I keep the preceding categories: personal computers, home consoles, and portable consoles.
35. The category ‘*All periods*’ concerns in particular the *Civilization* series. The ‘*Myths*’ category gathers less realistic contexts like Egyptian and Greek mythologies, ‘*One Thousand and One Nights*’, ‘piracy’, etc.
36. The list is available at this address: www.histogames.com/HTML/inventaire/periodes-historiques/epoque-contemporaine/seconde-guerre-mondiale.php, accessed 2 February 2016.

37. *Far Cry Primal* (Ubisoft, 2016) was not considered in our corpus because of its release date. However, it does not seem to have generated (yet) a wave of video games set in *Prehistory*.
 38. See also von Lünen's chapter in this volume.
 39. *Romance of the Three Kingdoms XII* (Koei, 2012).
 40. *Age of Empires: Mythologies* (THQ, 2008), *Age of Empires: The Age of Kings* (Majesco Entertainment, 2006), *Anno: Créez votre Monde* (Ubisoft, 2009), *Anno 1701* (Disney Interactive, 2007), *Battles of Prince of Persia* (Ubisoft, 2005), *Civilization: Revolution* (2K Games, 2008), *Commander: Europe at War* (Slitherine Software, 2009), *Egypt Engineering an Empire* (Slitherine Software, 2011), *The History Channel: Great Empires: Rome* (Black Bean, 2009), *Nobunaga no Yabō DS* (Koei, 2006), *Nobunaga no Yabō DS 2* (Koei, 2008), *Panzer Tactics DS* (Conspiracy Entertainment, 2007), *Romance of the Three Kingdoms DS* (Koei, 2007), *Romance of the Three Kingdoms DS 2* (Koei, 2008), *Romance of the Three Kingdoms DS 3* (Koei, 2010), and *The Settlers II* (Ubisoft, 2007).
1. The survival game genre is credited to Sami Maaranen, a Finnish game developer who in the early 1990s developed, almost entirely on his own, a groundbreaking game that set the foundations of the genre. The game, named *Unreal World* (Maaranen, 1992), enabled players to take the role of a solitary Iron Age man in his attempt to survive the severe environment of ancient Finland. In basic terms, the survival genre puts the player in a threatening environment in which the ultimate goal is to survive for as long as possible. Subsistence depends on the decisions he or she takes, and how intimately the player gets to know his or her world. This type of game emphasises a player's freedom, setting to that effect large worlds open for exploration.
 2. At Bollington Cross Primary School, 14 October 2016; as part of my PhD project: *Gaming the Past: Designing and Using Digital Games as Historical Learning Contexts*.
 1. Medieval history is offered by UK examination boards, but with the exception of the Tudors the most popular topics for A level history are drawn from the eighteenth to the twentieth century. Efforts are being made to encourage more teachers to include medieval history at both GCSE and A level, spearheaded by the Historical Association (2018). This issue is also discussed by Elliott in this volume.
 2. Robert Houghton is currently undertaking research into the impact of modern media on undergraduate perceptions of history (see Houghton, n.d.).
 3. The module is available to students taking the BA in History and also those taking joint degrees in English and History, History and Politics and History and Film. Occasionally students from elsewhere in Europe attending Huddersfield as part of the Erasmus programme have also taken this module. It is a 20-credit module and encompasses 12 weeks of teaching.
 4. The Public Medievalist website is highlighted to students as important forum here. Its various blog posts introduce them to a range of conceptual approaches to modern representations and appropriations of the Middle Ages. Of particular importance are the recent special series on 'Race, Racism and the Middle Ages' and on 'Gender, Sexism and the Middle Ages.' www.publicmedievalist.com/, accessed 28 March 2019.
 5. The pitch element was inspired by the assessment strategy for a module created by my colleague Patricia Cullum on gender, community and identity in the Middle Ages, which requires the students to present a 10-minute pitch for a TV or radio documentary on a topic relevant to the module's subject.

call-of-duty-players-will-fight-as-germans-not-nazis-1.5447872, accessed 15 June 2018.

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