The Digital Gaming Handbook

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Retrogaming as a Form of Digital Preservation

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Chapter 20

Retrogaming as a Form of Digital Preservation

A Cultural and Technological Approach

Marco Accordi Rickards, Micaela Romanini and Guglielmo De Gregori

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When the notorious Italian art critic Philippe Daverio wrote about museums in his seminal book *Il museo immaginato* (*The Imaginary Museum*) (2011), he specifically talked about “the game of inventing an ideal museum, a place where the Muses can follow the hypothesis of an idea.” Video games are an idea, after all, and so are “old games” and “retro games.” Tracing back at the creation of the now seven years old core concept of VIGAMUS, Daverio’s statements and book come out as a powerhouse ripe with incredibly untapped potential. It must be of no surprise that we are opening our chapter of this book by quoting an anti-conformist, yet very fond of tradition, Italian art historian.

After all, when a cultural institution opens a museum in Rome, the very cradle of modern European culture, it is crucial to understand that everything you’re creating will be compared with historical and artistic landmarks the likes of the Colosseum and Fori Imperiali, and of course with actual museums like the Musei Vaticani, a collection of all the classical artifacts that hundreds of ecclesiastic figures commissioned to master painters and sculptors over the course of the years, only to celebrate Beauty and the Divine. Only to add more pressure to this already incredibly difficult task, when tasked with the inception of VIGAMUS, we were also adding the challenge of opening a video game museum that is only one kilometer away from the actual Vatican. Ironically, everything that could have been mistaken as a true obstacle and infinite source of pitfalls, turned around to be our biggest fortune, because we made a virtue out of necessity, understanding that the only way to escape being a niche odditorium made up by old electronic games, was to embrace the true identity of games as a vessel of human ingenuity.

20.1 THE PROBLEM WITH “RETROGAMING”: AVOIDING GHETTOIZATION

Although, while we’re embracing the concept of “retrogaming” as an incredibly important and fascinating subculture many people among amateurs and creators perceive as relatable to them (eventually identifying with it), we refuse the very notion of “retrogaming” as a crucial cultural tool that is inevitably involved in the task of opening a video game museum. Of course, it’s also entirely true that our museum about video games, VIGAMUS—The Video Game Museum of Rome, is also substantially based on the very elemental assumption that games from the past (or the so-called retro games) are interesting and meaningful. Meanwhile, adding the prefix “retro” to an established medium such as “games” and
creating an entirely new moniker, tends to be not too respectful of the importance of video games as a form of art; after all, no one would ever call “retromovie” a film directed by Ingmar Bergman, and it’s blatantly evident that the point of watching a movie directed by Ėjzenštejn is not about the exclusivity of watching a very old movie that is not available on Netflix, but to observe the magnificence of some of the greatest masterpieces in the history of filmmaking.

The problem with the term “retrogaming” is its tendency to incentivize the notion of games as a novelty, whereas playing the oldest and rarer game available in the collection is the point of the experience, while risking to dismiss the presence of a piece of art told through code as a simple collateral effect. Obviously, VIGAMUS is well connected to the retrogame and collector ecosystem, but they’re just one part of a bigger equation, although a very interesting one. Many collectors, as a matter of fact, will exclusively focus on the rarity of the item, its price on the market, the condition of the packaging; our side of the team, who are less involved in the gaming ecosystem, was baffled to apprehend that there is a minor fringe of video game collectors who do not even bother to pull the real game out of the original packaging, considering the mere act of playing them an insult to their mission of pursuing the perfect collection. Of course, we’re not stigmatizing this approach, which greatly serves its purpose in the struggle to achieve a greater common objective: to tell the history of video games. At the same time, the hardcore retrogamer approach was not really of use to us while opening a museum that should have catered to a wide and heterogeneous audience, being located in one of the most visited cities in the world. If we were to tell people the history of games, we had to ditch the most radical expressions of the collectors and the “fetishization” of packagings. We had to focus on the very essence of what was written inside the code, that is directly spawned by the vision in the mind of one or more authors. Becoming aware of this was one of the greatest breakthroughs in the inception of VIGAMUS, and this notion is so strong and well rooted in the Research Center of the museum that even the new expressions of the museum will strictly adhere to the philosophy of putting the content before the container, so that every future physical and digital expression of the vision at the core of VIGAMUS Foundation will be based on that very principle. Incidentally, VIGAMUS seems to have anticipated a trend that is going to be more relevant than ever, with the rise of digital delivery, games as a service, cloud gaming (i.e. Google Stadia), monetized games, etc., items completely eschew the necessity of being based on a physical
support, shifting entirely the weight of what’s written inside the code or the heart of the game.

While everything we’ve written so far may seem to dismiss the importance of retrogaming, at the end of the day, the experience of VIGAMUS made us even more aware of the power and importance at the core of the collector’s community. While many figures in our Research Center strongly endorse the idea that every game will eventually be put in the cloud, the physical goods ultimately abandoned in favor of digital goods, a museum is still a physical place in “a material world,” and we’re definitely “material scholars” when it comes to preserving old machines and making them available to our audience. While it’s interesting as a thought experiment to imagine a totally virtual museum located in a non-physical world, something that can possibly be experienced through an Oculus Rift (or visionary contraptions like Elon Musk’s NeuraLink), we need to be realistic and be aware that the most common visitor of our demography will be interested in substantially three things while entering VIGAMUS: to play games; to remember the games of his or her infancy; and to know something new that can be told to family members and friends. This is a rough estimate based on anecdotal experience collected while working inside VIGAMUS, of course, but those three needs are shared by many different audiences. When creating a place like a video game museum, the sheer complexity of the medium and its history will create confusion in the scholars, ultimately leading to conceptual chaos.

The history of games it is so wide that, just to make some examples, an entire museum could be centered upon the indie scene, the Japanese arcade tradition, the Brazilian bootlegs, the Swedish demoscene, etc. To condense all of this under the same museum is a herculean task, because it would require a vast physical space, a vast collection of items, but most importantly, the coherency and discipline to put the entire history of gaming in a building while not being entirely redundant and be, from an academic point of view, considered a very weird storage with weird items very few people really care about. This is very evident when traveling to Tokyo, Japan, and entering one of the cult retrogaming stores, such as Superpotato. Walking through a three-story building in Akihabara filled with spare Famicoms, forgotten collectibles, it is easy to associate the idea of very old stuff condensed in a place to a “museum” (as many non-technical visitors of the store mostly say), but that would mean to completely ignore the idea of the scientific focus of a museum.
When it comes to making a museum, and talking of museology as a whole, even after thorough studies accumulated during years of experience, it is completely clear that the only dogma to religiously observe when creating a museum, is merely telling a story. Or, to play the game of inventing an ideal museum. It’s so interesting and peculiar that Daverio uses the word “game” for describing something so rooted in high culture like a museum. At the same time, the sense of the book written by Daverio is not just collecting a series of photos of classical paintings while commenting on them with historical facts, but instead everything is about creating a pattern out of artistic artifacts and telling the history of our world through the visions of the artists who created them. It may sound weird to think that Daverio, a stereotypical art historian donning glasses and a papillon, gave a conceptual spark so strong in the Italian museum landscape that ultimately led to the creation of a museum in the heart of Rome where Shigeru Miyamoto was acclaimed as Giorgio Canova and an old and dusty E.T. cartridge coming out of the desert of New Mexico was regarded as precious as an old Egyptian artifact. That is the power of the idea, mind over matter, fact-checked storytelling intended to be enjoyed by a whole array of audiences, made up mainly by unsuspecting visitors, and catering to gamers in a way that will be always subject to the rule of not estranging the true audience of a museum: mankind. If we believe that video games are part of mankind’s heritage, we should also act by shaping our museum in a way that will make video games accessible to mankind.

What’s so interesting about Daverio’s vision, is that the point of museums as an institution is not just preserving and showcasing artifacts, but displaying the spirit behind them. The concept of refusing the intrinsic value of an item can be considered revolutionary when it comes to classical art, where everything is about the item, because the item itself is the witness of an ancient past. When the Louvre is displaying the Mona Lisa, the curators are actually conserving an almost mythical artifact that lived through generations, the very same item that was manipulated by Leonardo da Vinci himself. Obviously, the Mona Lisa is inserted inside the wider cultural framework of the Louvre as a museum, but there is no text panel nor storytelling that can really improve something that is by definition an attraction: the most iconic painting of Leonardo, so powerful that the Renaissance genius created the framework many centuries ago, starting himself the storytelling behind the painting that was reinforced through art critics and even entertainment (think of Dan Brown’s bestselling books). At the end of the day, for an item in the same tier as the
Mona Lisa, the organization behind the museum will probably be more concerned with taking care of all the necessary security measures, or disseminating knowledge about the object through publications and even, as of today standards, social media. But if, by absurd, we chose to adhere radically to Daverio’s vision, kill our fathers and be completely iconoclastic even towards one of the staples of European culture, i.e. the Louvre, even the conservation of Mona Lisa could be considered a little bit too shallow. On the opposite side, video games are a medium where the oldest artifact (or the old “retrogame”) can be traced back to 50 years ago, even being very generous while creating this hypothetical timeline. At this point, it’s very obvious that what we’re dealing with is not something that carries with it the weight of centuries of history. Even a very rare video game item today, can’t be considered nothing more than mere modern antique, a vintage curiosity. So, when conserving a “retrogame” inside a museum, we’re dealing with the issue of creating context and meaning around an item without intrinsic value and where the author must be necessarily be king.

When it comes to museology, even if this sentence may sound a little bit too daring, there are no written rules, but only standards to adhere to that can make the difference between achieving the result of assembling a little exhibition and creating a conservation hub that spreads knowledge of something in the entire world. Italy is known all over the world for its monuments and classical artifacts, from which the myth that our sole country possesses more precious items than all the rest of the world put together. This is probably a “propaganda” myth, but at the same time, it’s telling the profound truth of Italy as a place dense with culture where even obscure little towns conceal extremely rare and precious artifacts. So, for a little town with no funds for creating a proper museum, and no professional figures with the competences needed for building a framework around objects, even displaying old treasures from the past inside common display cases is an effort that must be truly respected, while at the same time is very far away from today’s standards of museology. Collecting old instruments in a little town museum in Sardinia, or spreading knowledge about minerals inside a university exhibition, is definitely a museological effort, but the very idea that under the umbrella term “museum” may reside little showcases and at the same time literally mammoths such as the Louvre, or amazing contraptions like the greatest science museum all over the world, is completely baffling. The point of all of this is that there is no established dogma in museology and a museum is an ideal place that is evolving through time, trying to keep pace with the self-exploration of
mankind’s own knowledge. The task of creating a taxonomy for a museum is enormous, because of the huge complexity caused by the many nuances involved in the task of preserving culture. Ironically, we can say the same about video games: in the book *Manuale di Critica Videoludica* (2018), Prof. Accordi Rickards theorized what is called the Asteroids’ Syndrome, or the inescapable complexity generated by the never ending evolution of games. At the end of the day, creating a video game museum, a place where “retrogaming” (and contemporary gaming as well) can be celebrated, is a task involving a double layer of complexity, or a double diagnosis of Asteroids’ Syndrome.

20.2 THE ASTEROIDS’ SYNDROME: A TAXONOMY FRAMEWORK FOR IDENTIFYING GAMES

The problem of a fitting denomination for video games is urgent and relevant, because many of the cultural issues regarding so-called electronic games arise from a deep misunderstanding: the notion that games are entertainment objects with no cultural value at all. This was particularly evident to us while facing the effort of creating a museum where “retrogames” were displayed; so, for some interlocutors, we were not just creating a museum out of “stuff that makes teenage kids waste time,” but to add injury to insult, for many this stuff was even dusty and totally not “hip” like FIFA or World of Warcraft.

To think that all video games are equal deprives the medium of its identity and leads to fatal errors, such as thinking that *Ico* (Ueda, 2001) is the same thing as a Las Vegas slot machine; this can sound ridiculous, but it is exactly what happens inside the governments of many countries in the world (Italy included). The difference of value in games is not solely based on their artistic value and the technological effort required to create them, but the scholar needs to transversely take into consideration the time and the context the item was born in and from what it has ultimately been shaped. Where we take out the element of time from “game studies,” we would be in a very awkward situation where everyone could just come up and say that *Pong* is a very crude game with no graphics of absolutely no importance, where as a generic triple A game with nice 3D graphics would be perceived as a more important product than *Pong*. This may sound obvious to everyone in an academic context, but at the same time a scholar can’t take anything for granted, especially while being tasked with the mission of creating a museum and studying games as a medium. Our mission for VIGAMUS was to speak to a general audience who were
legitimately asking us, Why is *Super Mario Bros.* (1985) more important than *Crash Bandicoot*? (1996), and baffled by the idea that an old 2D game is in fact superior to a 3D and more modern game. Our mission was, at the end of the day, to explain not just the game itself, but the historical context and of course the author behind it. In the case of *Super Mario Bros.*, we needed to explain the situation of the “post-*E.T.* crisis” gaming industry and its miraculous rebirth made possible by Nintendo and a genius of game design called Shigeru Miyamoto.

Many students try to avoid the problem of demonstrating the value of video games as a medium on the basis of their penetration in the social tissue. This is of course a valid approach, and certainly the ever-increasing numbers of the games industry can be of help in explaining the evolution and growth of the medium. Reducing to mere numbers the nature of the discussion, and of video games as a whole, however, is only simple palliative care. In fact, it is not possible to receive a true acknowledgment, if we don’t understand precisely what a video game is. This is a problem that was faced by already acknowledged media, such as movies; movies, however, were relatively easy to recognize, given their nature of moving images imprinted with a strong narrative subtext. Video games, on the other hand, offer a far more difficult challenge. They are moving images, and they offer a narrative subtext, but they are not movies. They are informed by a code, yet they can be far more than mere software. They convey themes and messages, but at the same time they can be purely ludic spaces, such as chess or go. A common misunderstanding is to confound the container with the content: many observers tend to think of video games as an electronic device, since they are, after all, a code-executing program; but this isn’t respectful of the fact that a video game can convey the vision of an author and provoke emotions and thoughts in the users. We can bring Microsoft Word as an example: we have a code-executing program, running on a computer machine; *Gone Home* (Gaynor, 2013), similarly, is a code-executing program, running on a computer machine. But no one would ever classify Microsoft Word as a work of art, while *Gone Home* is universally acknowledged as a deep and thought-provoking video game. So, it’s pretty obvious that game critics have a naming convention problem.

This situation led me to theorize in our Research Center on the so-called “The *Asteroids’ Syndrome.*” In *Asteroids*, the classic Atari video game, in order to accumulate a score, the player needed to destroy space debris, which subsequently were fragmented into smaller parts, navigating
the whole screen and increasing the difficulty of the game. This easily describes the extremely challenging task of classifying games, which year by year introduce new mechanics, dynamics and variables, and that's the reason why Pong and Mass Effect may roughly share the same category, but they are not by any means the same object, and not just from a narrative perspective. Pong and Mass Effect are both games, but the nature of the technology and of the interaction has so profoundly changed during the years between the two games that they can almost be considered two completely different objects. This is a whole different situation, if we take movies as an example; Arrival of a Train at La Ciotat (Lumière Brothers, 1896) is of course extremely less convoluted than a Christopher Nolan's movie, but, fundamentally, the vessel is the same: a moving image, projected on a screen. This leads to similar modalities of fruition, since like in 1896, we still regularly sit a in a movie theatre and watch moving images on a screen. While the contents largely evolved, the nature of interaction has changed very little, as we still interact with movies in the same way we did in 1896, even when taking into account the introduction of sound, and presumably this is not going to change for many decades to come. Games, on the other hand, are a completely different story: interacting with Pong (Atari, 1972) is not like interacting with Mass Effect (Hudson, 2007), since the user experience and the affordances changed accordingly to the technological evolution. We cannot say that they are not both video games, but at the same time, we cannot say that they are the same thing. This led to a crisis in the critical infrastructure corresponding to the concept of “interactive multimedia work” and made me realize that a new definition was needed to correctly frame video games as a phenomenon.

20.3 INTERACTIVE EXPERIENCE: A NEW FILTER TO INTERPRET VIDEO GAMES

This is the reason why I have introduced the concept of “interactive experience.” This formulation retains the “interactive” word, needed to express the possibility for the user to alter and modify the virtual world shaped by designers and programmers. “Experience,” on the other hands, allows us to not only consider video games with a cultural background, but even the ones that bear no artistic content at all. The term “experience” was used for video games by many journalists, for example, in the case of Journey (Chen, 2012), which notably offered an immersive context with a very minimal set of interaction rules, focusing on aesthetics and digital poetry. The term is interesting, since it allows us to describe the nature of
video games as a series of processes that unfold in time and space, implying an alteration of the physical and psychical status of the user. Such a definition can be used for many different purposes, and not only when it implies the presence of cultural and artistic contents. Every game produces a modification in the behavior and cognitive structure of the user, as it was observed by many studies in the field of psychiatry and neuroscience. The nature of this modification, however, can take many different shapes. This led me to develop a further classification, which takes into account the mutable nature of video games as a medium. It is notable that this classification is not to be intended as a definitive solution to the video games classification problem, but it can be an open source asset which could and should be freely modified in subsequent studies. This is crucial, since video games, as we have already seen, tend to hugely evolve, and with the introduction of new platforms, such as virtual, augmented and mixed reality, there is a high probability that we will be able to observe a strong shift in the interactive landscape. I will subsequently explain the different categories I have formulated and their peculiarities.

The first category is the so-called Video Game as Culture, or the new incarnation of the “interactive work.” This term is used for video games which convey a strong authorial vision, be it through gameplay or through narrative appendices (such as cutscenes). This is a category that is strongly influenced by the technological evolution of electronic games, and it implies many different nuances. Code too can be considered an authorial expression, for example, in games like Tetris, where the clarity and ingenuity of game design can become a form of art in itself. But the concept of Video Game as Culture can be more easily understood when it comes to story-driven games that borrow narrative devices from already acknowledged forms of art such as movies. It’s very easy to classify a game like Metal Gear Solid 2: Sons of Liberty (Kojima, 2001) as Culture, since it is very heavy on cinematographic cutscenes, dialogues and meta-narrative devices (that, conversely, is the very same reason why it attracted so much criticisms from hardcore gamers). Metal Gear Solid 2: Sons of Liberty is a particularly good example, because it is a game that was created by author Hideo Kojima at the apex of his success, free from the conditioning of the public and the publishers, that led to the possibility of the designer providing social commentary. This is a very rare situation, in an industry where many games are created according to the trends and the results of focus groups. Metal Gear Solid 2: Sons of Liberty also fits in the Video Games as Culture category because there is a strong synthesis between gameplay
and narrative, where the latter is empowered by the former. Generally, the strong presence of an author, be it a pure game designer or a narrator, is the main indicator of a Video Game as Culture. A game like *Super Mario Galaxy* (Koizumi, 2007) easily fits in the category given the quality and originality of its gameplay, even though its narrative is just a simple excuse for kickstarting the action. To see the matter from a different perspective, we can identify a Video Games as Culture even in the light of its impact on the public; games like *Pong* or *Space Invaders* (Nishikado, 1978) bear a strong cultural value, even though the experience is limited by technological constraints, and we can observe that in the resonances inside pop culture. Taito’s aliens or *Pong’s* rackets are an iconography immediately recognized by people, their background and age notwithstanding. Games like *Tomb Raider* have largely contributed to shape the identity of video games in the collective culture, while even advocating important values such as inclusivity and the correct depiction of women as strong leads inside video games. The presence of a message sent by the developers to the players, or the possibility to find a meaning during an experience, is what makes video games an expression of culture.

### 20.4 VIDEO GAME AS SPORTS

The second category is Video Game as Sports. This is the category that emerged during the “StarCraft crisis” that we mentioned at the beginning of the paper. A sport, by definition, isn’t a proper narrative device: while it can certainly produce meanings and stories, these stories are not defined at the beginning by the vision of an author. Of course, sports have been ideated by one or more “game designers,” and the rules of play evolved during the decades, but a match of soccer, for example, completely outlives the intention of the designers. In sports, the athlete takes over completely the intentions of the game designer, and contributes to creating new meanings, while rewriting the borders of the ludic space, introducing strategies and meta-games that were not intended by the original inventors of the game. In Video Games as Culture, conversely, moving outside the original borders is far more difficult, without the risk of compromising the whole experience, which would result in a deliberate act of hacking. It’s also notable that meaning in sports can be found by outside observers and translated into other forms of art; many important authors have written books or movies about sports, with notable examples like the novel *Infinite Jest* (Wallace, 2006); sports competitions are also a common trope in cinema, usually used as a metaphor for life struggles. In
Video Game as Sports the focus shifts from the author to the cyber athlete: playing an eSports game like *League of Legends* (Riot Games, 2009) or *PlayerUnknown's Battlegrounds* (Greene and Tae-seok, 2017) engages a whole different set of competences than a Video Game as Culture.

The athletic preparation that is required by such games is the same that is required by traditional sports, while of course it involves different areas of the body than a dynamic sport like basketball. In a Video Game as Sports, the action is completely deprived of textual meaning, and the rules of play are deeply connected to the competition. The presence of a human opponent is crucial to identify Video Games as Sports; it’s also notable that the presence of an opponent guided by an advanced artificial intelligence, with a defined personal agency, can also be considered as a signal of a Video Game as Sports. The human factor is the key to understand the nature of this particular kind of game; of course, there are also cultural games that emphasize the relation with other characters, like *Journey*. The decisive factor, however, is the competition and the total abstraction from the aesthetic and cosmetic context. Games like *Super Smash Bros.* (Sakurai, 2014) are often at the center of a discussion whether they’re eSports or not, due to the presence of highly recognizable characters involved in quirky mechanics and “funny moments”; that’s the reason why the game also offers the opportunity to be played by eliminating all of the “party game” and to be arcade modified, resulting in a highly technical version of itself. Again, games are like shapeshifters: they can attain different forms and identities, in regard to their use and the modifications from the players. This category also comprises games such as *FIFA 18* (Electronic Arts, 2017) or *NBA 2K18* (Visual Concepts, 2018), which recreate inside a digital structure the mechanisms of the corresponding sport; in rare cases, sports games also tell a story, which would make them fall under the category of Culture.

### 20.5 VIDEO GAME AS A PRODUCT

The third category is Video Game as a Product, which completely reduces a video game to a commercial object. In this case, it is crucial to identify the relationship between the experience and the use of money and gambling dynamics. The relationship between video game and money has a long history: classic coin-operated games, such as *Ghosts 'n Goblins* (Fujiwara, 1985), required the player to spend money in order to play. That’s the reason why the first waves of video games were so difficult, since they needed to accommodate the needs of game companies to make the player spend as
much money as possible. In a certain way, we can say that the design of the first video games was shaped by an economic factor (although this would ignore completely the deep structures of games of the yesteryear). This is probably the reason for the confusion between video games and gambling. More recently, money has played a much more radical role in the shapes of electronic games. MMORPGs (“massively multiplayer online role-playing games”), virtual worlds populated by thousands of players simultaneously, have a deep relationship with money, since in-game currency lets the users buy (or sell) items, generating a truly virtual economy. Such economic balance is commonly altered by the presence of malicious players, that use the so-called “bots.” Sometimes the “bots” that can be substituted by human players, which harvest resources in precarious conditions, like sweatshop workers. We wouldn't call World of Warcraft (Blizzard, 2004) a gambling game, but surely economics play a huge role in the shaping of this persistent world, demonstrating that the presence of money can alter the game design. This leads us to take into account games like Candy Crush Saga (King, 2012), where the design is entirely built around the economic factor. In these games, the player can buy items and modifiers through so-called microtransactions. Given that the reason of being for such a game is to engage the player and make him or her spend as much money as possible, it becomes obvious that their gameplay doesn’t follow the common rules of good game design. This is the basis of the majority of free-to-play games, games that are available for free on different marketplaces but make their business plan rely on microtransaction. It’s easy to see that if a game needs to induce the player to spend money, it should have different methods of communicating fun; fun, in this case, is more of a hook to make the player stay and spend more money. A good example of how a game design can be altered by economics, is the difference between Plants vs. Zombies (PopCap Games, 2009), and its sequel, Plants vs. Zombies 2 (PopCap Games, 2013). A difference so radical that the author of the first game distanced himself from the sequel. Plant vs. Zombies was the example of an extremely balanced game, that led the player by the hand with challenges of increasing difficulty, adhering to the famous line by Atari’s founder Nolan Bushnell: “Easy to learn, difficult to master.” This simple rule was completely overlooked in the sequel, where the gameplay was structured in order to make the player face incredibly hard challenges, making him or her more likely to spend money in power-ups and helpers. Usually this kind of game can also be played by skilled players that are able to master the game without resorting to buying items, but the difficulty is obviously
unfair and imbalanced. It is therefore very difficult to classify as a work of art a video game that forces players to spend money; the difference with a cultural video game lies in the intention of the designer. Incidentally, free-to-play games on smartphones tend to not present any kind of narrative, this led some people to compare the so-called F2P games to the first arcade titles. F2P games can also lead a video game to enter the territory of gambling, as a ludic space altered by economics. Actually, many F2P games reflect enormously the difference between a non-paying and paying user, and just like in gambling, the player with the highest amount of money available is also the player more likely to win or at least not lose too much money. This symptom can be observed in many F2P games, especially MMOs, where paying users are advantaged with better equipment and statistics; many imbalanced F2P games for smartphone and tablets are also dramatically unfair, their game design completely enslaved by the whims of paying users. Of course, under this category are actual gambling games, such as digital poker played over the Internet.

20.6 VIDEO GAME AS A UTILITY

The last kind of video game is the Video Game as a Utility. These are games that use the same languages and structures of other types of experiences, but that ultimately lead the user to gain an advantage in real life. The term comprises many different kinds of items, such as simulation, serious games, edutainment titles, digital gamified systems, and utilities. To understand the peculiarity of these objects it is crucial to understand the theory of the Asteroids’ Syndrome as a whole. Even in this case, we have software that runs on the same machines as regular games; a very fitting example is Personal Trainer: Cooking (indieszero, 2008), for the Nintendo 3DS: its interface resembles the one seen in many other games on the handheld platform, but its objective is to help the user in cooking through simple tutorials, whereas entertainment is a mere byproduct of the experience only in part sparked by the software itself. There are many liminal experiences, though: Wii Fit (Matsunaga, 2008) by Nintendo can be certainly classified as a utility, but at the same time it offers ludic experiences meant to be entertaining. It couldn’t be otherwise, since the game is meant to make exercising fun; however, at the same time, many features of Wii Fit, mainly the diet planning, have nothing in common with games: at the very best they can be defined gamified systems. The crucial difference lies in the intentions of the designers: if the final objective of the game creator is to offer an experience outside of simple escapism, that can be
easily classified as a utility. The adherence to reality can be also a feature of other kind of games, such as culture or sports; however, to distinguish the nature of an experience we must also take into account in this case the intentions of the designers. This is the reason why racing games often oscillate between adhering to reality and offering a fun experience, scaling the realism of the simulation, eventually embracing abstract solutions. The percental of simulation and game design-dictated variables, is what makes a game more or less a utility. The spectrum of experiences ranges from arcade racing games to simulators that are actually used by pilots for testing. Simulators can also be used by the military to train the soldiers to use war vehicles or to prepare pilots to venture into space; usually, a simulator makes use of an interface that entirely recreates reality, which is not meant to be fun but that must adhere as much as possible to the real thing in order to educate the user. Another example of utility are serious games, games that starting from their name evoke a didactic purpose. Serious games use the mechanics of commercial games, but for a whole different purpose, mainly in the field of education, therapy, and military; a simulation can be a serious game, but a serious game isn’t necessarily a simulation. The landscape of serious games is extremely diverse and fragmented, but what they all have in common is the objective of teaching something through a fun experience; this is the reason why serious games are usually offered in museum and cultural institutions. Under this category also fall immersive installations, usually offered through virtual reality, that let the player navigate through historical environments. Augmented reality games such as Ingress (Niantic Labs, 2012) and Pokémon Go (Nomura, 2016) may also fall under this category, even though their integration with real-world dynamics could lead to think of them as non-conventional video game experiences, if not non-games at all. Even if games like Pokémon Go offer a narrative context, they don’t convey any relevancy, and their mechanics are much too simple to be considered culture, incidentally, the effects of these experiences can be assimilated to serious fitness games. It’s also interesting to note that such games use real-life locations inside this gameplay, and this led to the preservation of otherwise overlooked cultural artifacts and monuments. We can conclude that Pokémon Go is an “involuntary serious game,” and at the same time a good example of Video Game as a Utility, while its nature is certainly a good subject of discussion. It’s widely been acknowledged today that games have the power to improve the life of an individual, not just by teaching new skills, but also working in conjunction with the findings of neuroscience and
improving cognitive-behavioral patterns of the users. A game can be used to make the user adopt particular behaviors that ultimately may lead to an improvement in health and lifestyle of the individual. A game can also be used to mask menial tasks to be performed by many different human users that ultimately lead to important discoveries; this is the case of Play to Cure: Genes in Space, which is nothing but a glorified interface that makes the player identify patterns in-game, a knowledge that will be applied to real-life data by scientists.

20.7 EXPERIENCE AND CHALLENGE: THE GENETIC CODE OF VIDEO GAMES

After having identified four potential categories, we can now delve further in the analysis of the identity of video games. As we’ve surpassed the concept of genre, and enunciated the hybrid nature of video games, it is necessary to understand which are the elements that inform an interactive experience. Our suggestion is that the nature of every game can be fundamentally traced back to two singular elements: experience and challenge. Experience is the possibility for the user to immerse himself or herself inside a ludic context, interpreting a character and living emotions through its very eyes. Games have the tendency to induce something similar to altered states in the player, something that can also happen while experiencing a movie. Games, however, can be much more powerful, and this is the reason walking simulators, such as What Remains of Edith Finch (Dallas, 2017), are so effective. Walking simulator is of course an ironic moniker given by some video game commentators, but it can be useful to explain that the mere act of walking inside a video game can produce meaning; in other words, it’s not necessary for an interaction to be complex in order to be meaningful. The principal example of a 100% experiential video game are French author David Cage’s titles, such as Heavy Rain (Cage, 2010), a template that was subsequently inherited and improved by Telltale Games, in particular with the widely acclaimed series The Walking Dead (Telltale Games, 2012), where the action is almost entirely made of Quick Time Events (QTEs). It is notable that in Heavy Rain, QTEs are far more difficult than in The Walking Dead, but it’s the illusion of mastery given to the player in Telltale Games that makes them so universal and likeable, even in the eyes of non-skilled players. Challenge, on the other hand, is the characteristic of a video game that pushes obstacles of various difficulty in front of the players, prompting them to overcome it using their mental or, more rarely, physical skills. The balance between these
two aspects is what contributes to shape the identity of a video game. The
repartition between experience and challenge is in many cases uneven,
and this is the key to understand the DNA of every different video game.
There are many cases where these two aspects are very well balanced, like
in *The Secret of Monkey Island* (Gilbert, 1990), where we can locate expe-
riential components, such as the brilliant dialogue written by Ron Gilbert
and his collaborators, and the challenge components, devised by the puz-
izzle designers. The dualism of experience vs. challenge is less subject to
change than the other categories that we have already explored; this dual-
ism, in fact, is meant to comprehend all kinds of video game phenomena,
also for the current state of the art of the medium. Experience vs. chal-
dge can actually explain the very first expression of interactive media,
and at the same time even its more recent incarnations, such as virtual
and augmented reality.

20.8 CONCLUSION: AN OPEN SOURCE ASSET

It is important to specify that our classification is not a closed box, and
it could not be otherwise, since the ever-changing nature of video games
dictates the necessity for organic tools of analysis. Our intention is not
just to provide a dogmatic scheme, but to create a mindset to better inter-
pret video games. The constant hybridization and changing of electronic
games may lead to the finding of new categories, and we will probably
see in the next few years a great rise in the number of possibilities given
by interactive experiences. We strongly believe in the power of words: to
define correctly what a video game is can only lead to a better understand-
ing of the object of our study, resulting eventually, we think, in the wide-
spread acknowledgement of video games as a form of expression of the
human ingenuity. This should be the ultimate goal of every video game
student: to avoid relativism and to correctly interpret the true nature of
electronic games.

20.9 VIGAMUS—THE VIDEO GAME MUSEUM: CASE
HISTORY, APPROACH, AND METHODOLOGY

VIGAMUS was opened in 2012, but it was the result of over ten years
of networking and development. Marco Accordi Rickards, VIGAMUS’s
director, started his career as a games journalist and worked on many
important outlets, such as *Game Pro*, the Italian edition of *Edge*. From this
cultural infrastructure, the basis for the Museum was born. VIGAMUS
was inspired by the need of spreading knowledge about the artistic
significance of video games, and it was conceived for being accessible to the broadest audience of visitors possibly. This means that we ditched the “manic retrogamer” approach, opting instead for focusing on the “pop culture” aspect of video games. Inside VIGAMUS, we celebrate the stories of the great video game creators, from Nolan Bushnell to Shigeru Miyamoto. The visitors are amazed by the passion and the curious stories of developers of the yesteryear and today, and of course they can play with video game history, with more than 60 interactive stations and hundreds of emulated titles.

Our greatest challenge in our mission was to make the institutions aware of games as a cultural artifact. It may sound silly, but the Italian government thought of video games as slot machines! And this was a problem… So, getting a physical seat was the hardest part, but we somehow managed to get a building inside the center of Rome.

Before opening VIGAMUS, we went to visit our friend Andreas Lange (the director of Computerspielemuseum) who owns the first video game museum ever opened. Even though we opted for a slightly different approach, Computerspielemuseum inspired our vision of a museum as a cultural hub, a place where knowledge is spread and disseminated, which can be visited not just by hardcore gamers, but by families and even people who just don’t play or played while in their infancy. To think that someone could display an Atari 2600 like the Mona Lisa probably sounded crazy many years ago, but luckily, Computerspielemuseum paved the way for our Museum and many other which opened later. The strong academic background of Computerspielemuseum inspired us, and made us realize that it was indeed possible to open a Museum about video games in a European capital. I think that was the biggest inspiration: to see a place full of people having fun while learning, such as in Computerspielemuseum, made us understand that we were heading in the right direction.

Of course, there is a strong research component inside our museum, which is incarnated in the Research Center, a place where video game experts and academics discussed about contents even before the inception of the museum. Marco’s journalism background played a big role in defining which contents would be fitting for the exhibition. We understood that games can’t be boring, we had to communicate the excitement and the wonder of electronic entertainment, an industry, yes, but an industry that is very peculiar in its very nature. I mean, Nolan Bushnell held Atari’s meetings inside a Jacuzzi…. At the same time, we knew that we had an important mission, to make people understand that games could
be serious and be able to deliver important messages. Think of games like *Metal Gear Solid*. So there is this balance inside the museum between showing the most iconic games and the most significant ones from an industry point of view. This philosophy is well reflected in the entire exhibition: there is the game that is going to make you say: “Oh, I played this game when I was a kid” and then more obscure games that played a pivotal role in the growth of video games as a medium. Again, “pop culture” was really crucial in shaping our exhibition.

Italy hasn’t a big history when it comes to video games, our industry is blooming right now, even though we had many glorious developers in the past and sometimes we do organize events about them. So, our museum lives on stories that happened in other countries, such as the United States or Japan. Even so, we pride on telling the most important examples of local history of the video games industry. In 2012, we opened the exhibition *E.T. The Fall*, the first in the world to display the famous *E.T. The Extra-Terrestrial* buried cartridges. We were in contact with the local community of Alamogordo, New Mexico, that provided us with these artifacts, that for a long time were considered the stuff of legends. It was truly an operation of video game archaeology. We also invited in our museum Joe Lewandowski (Vice President of Tularosa Basin Historical Society), which played a crucial role in the excavations that led to the finding of the buried cartridges. So, VIGAMUS played a huge part in making the public aware of the solution to one of the biggest mysteries of video games history.

Thanks to our connection to collectors, we offer many different kinds of items in display. Naturally there are a lot of consoles and home computers, from the most common ones (the ones that people used to have in their living room) to the most ancient and obscure ones. Games are displayed too, in particular the ones players have most fond memories of. Some of the choices reflect personal studies of the members of the Research Center. In all of our studies, we have a strong focus on storytelling and narrative, so one of the areas of the museum is entirely dedicated to the text adventures of Infocom, with all the original goodies (the so-called “feelies”). This can seem counterintuitive, but instead it reflects a very personal view of the Research Center of video games as interactive experiences that can transmit important messages and values. Many Infocom games were thematically and mechanically groundbreaking (think of Steve Meretzky’s *A Mind Forever Voyaging*), so every story-driven game of today needs to pay their respects to Infocom. Last, we have unique pieces, with an incredibly high symbolic value; one of our most precious pieces are *Doom’s Master*...
Disks, the first disks where the source code of seminal id Software’s was copied, and from which all the subsequent copies were printed. For us, it as important as the first copy of the Beatles’ *White Album* on vinyl would be for a museum about music. In the future, we hope to make a broader use of technology inside the exhibition itself, integrating augmented and mixed reality with the fruition of the artifacts.

It’s extremely important, you simply can’t make a museum about games without letting people experience them firsthand. Of course, it’s crucial to find a balance, because even if we let people play, we can’t act as an arcade and, as a Foundation, we have first and foremost a cultural mission. So, thanks to the constant work of the Research Center, we carefully select interactive experiences with a symbolic significance, paying attention to anniversaries and to the integration with what is written inside the panels. It’s like stealth learning: we’re letting people play, but they’re playing with important games, created by great designers. You come out of the museum with a deeper understanding of the artistic value of games, and with a clear idea of what a video game was, what it is and what it will be. The challenge in maintaining a playable exhibit is the obsolescence of the original hardware, that needs a regular manutention, and in some cases, this can be tricky (like in the case of the dreaded Vectrex...). Thankfully, we have a strong network of collectors able to help us, and many games are offered via legit emulation.

VIGAMUS was conceived as a house for video games and players, not only a museum. A place where people can meet, celebrate, and play together. This philosophy is expressed by the now put to rest VIGAMUS’ tagline: “Past, present and future of video games.” VIGAMUS was born to accommodate the first generation of gamers, today’s gamers, families, and people who want to discover more about this fascinating universe. VIGAMUS puts on display not only the history of video games, but also unique artifacts donated by video game companies and developers from all over the world; among these, the *Doom* Master Disks, donated by the world famous Texan developer id Software, and an original *Space Invaders* cabinet from 1978, donated by Taito Japan and available in free play.

We should mention also our recent exhibition *E.T. The Fall. Atari’s Buried Treasures*, which allows visitors to discover one of the most fascinating legends ever known in the history of video games (Atari’s cartridges and hardware found in the excavations of the desert of New Mexico, USA). VIGAMUS was the first museum in the world to display the symbols of the collapse of the video game industry in 1983, donated by the
City of Alamogordo and now considered a unique episode of “video game archaeology.” Inside Epson Multimedia Conference Center (100 seats), the museum hosts a huge variety of happenings regularly, divided between consumer events designed for the general public and others dedicated to the main video game sensations of the year; seminars about retrogaming and high profile academic roundtables to help families understand more about the medium. Our consumer events are usually organized jointly with Italian and international game companies: for example, through the years we’ve organized together with Ubisoft Italy many days dedicated to the Assassin’s Creed saga, inviting as special guest the Italian voice actors of the games, organizing activities such as trivia and art contests, cosplay challenges, and live performances. Consumer events, like AC Day, are the most successful and loved ones. We truly encourage the direct experimentation of video games: through over 55 interactive stations, VIGAMUS allows visitors to experience firsthand the titles that have made the history of video games and the most innovative technologies.

The interactive areas within the structure host not only different types of platforms and software, but also different gaming devices: from pinball, considered the ancestor of the interactive medium, to the coin-ops, symbols of the 1970/1980 arcade mania, to the console stations, up to the Oculus Room, where the audience is able to experience the Oculus Rift virtual reality device, seeing with their own eyes the future of electronic entertainment. The biggest challenges in the preservation of Game Culture are linked to the technology: we can understand clearly that historical cartridges and hardware need to be preserved for future generations, but we can’t forget that the console we can see today will get old faster, as we see new console generations released every four to five years.

Additionally, if the digital distribution allows more people to play and more developers to make their games available, it brings additional problems in terms of preserving our game culture. We truly want to encourage the direct experimentation of video games: through over 55 interactive stations, VIGAMUS allows visitors to experience firsthand the titles that have made videogame history and the most innovative technologies. Together with an international network—EFGAMP (European Federation of Video Game Archives, Museums and Preservation projects)—we seek to promote the need of preserving video games in all these incarnations to a broader audience. The federation has as its main purpose the preservation of digital games and other interactive experiences. Games are an important part of the digital media landscape that
The preservation of games presents us with significant challenges in various fields: legal, technological, conceptual, and financial. With the members of EFGAMP we aim to collaborate on these topics. For instance, EFGAMP will focus on ensuring that the overall European legal framework is compatible with the needs of digital preservation and will advance the accessibility of game heritage by establishing and implementing description standards and connecting existing collections. Creating and enabling a strong network among peers throughout Europe—creating a synergy of skills is crucial to obtain a permanent and convincing solution—is of paramount importance. What is at stake is the salvation of an important heritage, which should be kept accessible for the purpose of celebration, education, and innovation.

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REFERENCES


