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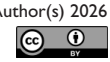

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From outcast to hero and back: The shifting portrayals of the hacker archetype

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Abstract

The "hacker" figure has ascended rapidly within the collective imagination, embodying technical wizardry and societal anxieties about the digital world. This article analyzes the shifting portrayals of the hacker archetype across seminal films, TV shows, and computer games from the 1980s to the present. Rather than a simple, straightforward evolution, we argue that media representations built a complex narrative arc by drawing from, and selectively amplify, a consistent repertoire of hacker tropes. By analyzing cinematic narratives alongside the interactive affordances of contemporaneous games, this transmedia analysis illustrates how specific historical moments, like Cold War paranoia and contemporary surveillance capitalism, caused certain tropes to be foregrounded while others recede in the background. The analysis ultimately leads to a complex and nuanced return to the origins, where the layered reactivation of the "outcast" trope, now fused with deep explorations of mental health and a systemic societal critique, reflects the deep anxieties of our hyper-connected age.

Keywords

Cyberpunk, digital culture, film and games, hacker tropes, ludology, media analysis

Introduction

The figure of the hacker has become one of the most compelling and multifaceted archetypes in contemporary popular culture, embodying a complex interplay of technical mastery, social alienation, and ethical ambiguity. From its early cinematic

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portrayals in the 1980s to its nuanced depictions in recent television series and video games, the hacker archetype has evolved in tandem with technological advancements and shifting cultural anxieties surrounding digital security, privacy, and identity. The hacker as a cultural figure has not gone unstudied: scholarly work has effectively traced the real-world origins and ethos of the hacker community (Levy, 1984; Thomas, 2002), detailed its political evolution into hacktivism (Coleman, 2012, 2017) and analyzed the potent effects of specific media representations, such as how WarGames catalyzed public panic and influenced cybersecurity legislation (Schulte, 2008). This existing body of work provides a crucial foundation, yet it often treats cinematic and ludic representations separately or subordinates them to a sociological analysis of actual hacker communities. This study, on the other hand, builds on that foundation to offer a transmedia analysis of the hacker's fictional portrayals by challenging a straightforward narrative of archetypal "evolution" and suggesting a model of tropic layering and selective amplification instead. Drawing on scholarship that emphasizes the plurality and contested nature of hacker cultures and their representations (Murillo and Kelty, 2017), this article proposes that a more accurate model is one of selective amplification and layering. A repertoire of core hacker tropes, for example, the brilliant but alienated Outcast, the stylish Cyberpunk Rebel, the morally ambiguous Mercenary, and the vulnerable Genius, has persisted across decades. It is important to stress how cinematic and ludic works do not evolve from one trope to the next in a clean succession, but they tend to foreground different tropes, or combinations thereof, in response to specific cultural and historical pressures. This approach offers a richer understanding of the archetype as a malleable symbolic construct within the collective imagination, one that is simultaneously shaped by and shapes cultural anxieties through both narrative and interactive experience: as films offer narrative and symbolic representations that shape public perception, games provide interactive affordances that allow players to embody the protagonist role, thus fostering a more immersive and affective engagement, as remarked in Juul (2005) and Sicart (2014), in this case related to the themes of control, secrecy, and rebellion. This dynamic interplay functions less as a simple linear feedback loop and more as a shared cultural ecosystem. Film and television narratives often crystallize and popularize specific tropes and visual languages of the hacker from the available repertoire. Game designers, operating within the same cultural moment, translate these emphasized tropes into interactive mechanics that allow players to embody the associated power and dilemmas. This parallel process in distinct media reinforces and naturalizes the foregrounded tropes for audiences, making them appear dominant or "natural" for that era, and feeds them back into the cultural reservoir for future re-combination.

To analyze these cinematic and televisual constructions, the article draws upon foundational concepts from film and media studies concerning character archetypes, narrative tropes, and genre evolution. While the interactive dimension of games requires specific ludological tools, like the AGE/6–11 Frameworks (Dillon, 2011, 2012), the analysis of film and television narratives is informed by scholarship examining how recurring character types function as cultural shorthand and how their traits are adapted across genres and historical periods (e.g. Mittell, 2015; Wright, 1975). This interdisciplinary approach allows us to treat both narrative representation (film/TV) and interactive

embodiment (games) with appropriate rigor, examining how they collectively manage the symbolic figure of the hacker.

Methodology

This study employs a qualitative, comparative media analysis to trace the shifting representation of the hacker archetype across film and computer games from the 1980s to the present day. The methodology integrates narrative analysis of selected films with gameplay and player experience analysis of representative hacker-themed games, using the AGE and 6-11 Frameworks as primary analytical tools where specific analyses have been obtained via auto-ethnographic firsthand playthrough. This dual-media approach enables a comprehensive examination of how the hacker figure is constructed narratively and experienced interactively, highlighting convergences in cultural representation and audience engagement. The analysis focuses on a curated corpus of seminal films and computer games that exemplify key moments in the shifting representation of the hacker figure.

In particular, the following creative works are discussed:

- **Films and TV Shows:**
  - War Games (1983)
  - Sneakers (1992)
  - Hackers (1995)
  - The Matrix (1999)
  - Swordfish (2001)
  - Black Hat (2015)
  - Mr. Robot (2015-2019)
- **Games:**
  - System 15000 (1984)
  - Hacker (1985)
  - System Shock (1994)
  - Uplink (2001)
  - Watch Dogs (2014) and Watch Dogs 2 (2016)
  - HackHub (2025)

The selection was guided by the following criteria:

- **Cultural Impact and Popularity**: Primary consideration was given to works that achieved significant mainstream success (e.g. high box-office returns, high viewership, strong commercial sales) or, conversely, those that attained a durable "cult" status within tech and hacker subcultures. For example, Swordfish and The Matrix were major blockbusters,[1] while WarGames and Mr. Robot quickly became a critical and cultural touchstone.[2]
- **Critical and Peer Recognition**: The list includes works that were critically acclaimed at release (e.g. award winners, "certified fresh" on aggregate sites). Movies that received low critics' scores upon release, such as Hackers,[3] but were

nonetheless recognized in scholarly or journalistic retrospectives as seminal to discuss or represent the hacker archetype or hacker communities, were also included.

- **Representativeness of Tropic Foregrounding:** Each selected item serves as a clear example of a period where a specific constellation of hacker tropes was narratively dominant within the proposed time frame. They effectively illustrate the prevailing themes, aesthetics, and characterizations of their respective eras.
- **Diversity of Medium and Origin:** The proposed selection ensures a balance between film and games under scrutiny, including high-budget games from major studios (AAA) as well as significant independent (indie) works. This is particularly important in later periods where the indie game scene became a hotbed for innovation, releasing more nuanced and focused hacker portrayals (e.g. Uplink, HackHub) while major productions like Ubisoft's Watch Dogs had a more glamorous perspective. The inclusion of the television series Mr. Robot to complement the previously selected movies is also significant, as the long-form, serialized nature of television provides narrative affordances for deep psychological character development that are often constrained by the runtime of a feature film (Porter et al., 2002) and that became increasingly important in recent times.

Naturally, this curated approach is not intended to provide an exhaustive list of significant texts but to provide a robust and illustrative sample of some of the most influential and characteristic portrayals that have shaped the hacker archetype in popular media.

It should also be noted that the proposed analysis is grounded in the premise that shifts in the hacker archetype are not arbitrary but are responsive to broader historical and cultural currents. The proposed transition from Outcast to Cyberpunk Revolutionary, for instance, correlates with the end of the Cold War's binary ideologies and the rise of a global, networked society that celebrated individual agency and subcultural identity. Similarly, the move into morally ambiguous figures typical of the 2000s directly mirrors the post-9/11 erosion of clear moral boundaries, the rise of global cybercrime, and public debates over security versus privacy. Finally, the "Return of the Outcast" in the contemporary era reflects a growing societal focus on mental health and a critical examination of the personal costs of hyper-connectivity and systemic alienation.

Therefore, this analysis does not chart a simple, linear progression where one archetype replaces another. Instead, it draws a more complex evolution by applying a model of tropic layering and selective amplification. Informed by Kelty's (2019) metaphor of "phases," that is, where different aspects of a phenomenon become more visible or "available to think with" under specific conditions, without requiring previous aspects to disappear entirely, we trace how the cultural visibility and narrative dominance of particular hacker tropes shifted across time. The "arc" from Outcast to Cyberpunk Hero to Gray Mercenary and back to a complex Outcast is not a story of straightforward succession, but one of changing emphasis within a stable repertoire. Each historical moment prompts filmmakers and game designers to foreground specific tropes from this repertoire, layering them with contemporary anxieties, while other tropes recede into the background, remaining available for later reactivation whenever needed.

The proposed analysis traces how these macro-level shifts are crystallized in the specific narrative and ludic constructions of the hacker figure. From a practical perspective, the film analysis here adopted employs close reading techniques to identify key narrative themes, characterizations, and visual motifs related to the hacker archetype. Particular attention is paid to:

- Representations of the hacker's social identity (e.g. outcast, rebel, hero);
- Ethical and psychological dimensions portrayed;
- Cultural and historical context influencing the narrative.

This qualitative approach draws on media studies methodologies to interpret how films shape and reflect societal attitudes toward hacking.

While films provide narrative and symbolic constructions of the hacker archetype, computer games offer interactive environments where players can actively embody hacking roles, engaging with the technical and ethical challenges of hacking firsthand, although in a much-simplified fashion. Understanding player experience in such games requires robust analytical frameworks that connect game mechanics to emotional engagement. For this purpose, the AGE Framework offers a structured approach to game analysis and design by decomposing games into three interconnected layers:

- Actions: Identification of core player inputs, in this context related to hacking activities (e.g. run network scans, type in commands).
- Gameplay: The emergent patterns and systems resulting from combining actions under specific game rules (e.g. gaining access to a Wi-Fi network, uncovering secrets).
- Experience: The emotional and psychological responses elicited in players during gameplay due to their effective engagement.

The AGE Framework links these layers through the game's rules and goals, providing a cohesive model to understand how player behavior translates into meaningful experiences. This is particularly relevant for hacker-themed games, where player actions related to system infiltration or manipulating code snippets, for example, are tightly bound to gameplay dynamics and emotional outcomes.

The 6–11 Framework, on the other hand, focuses on the emotional dimension by identifying 6 core emotions and 11 basic instincts that underlie player engagement. These emotions, rooted in psychological theories exemplified by Izard (1977), Plutchik (1980), and Ekman (1999), include the likes of anger, pride, or fear, among others. The framework posits that games are compelling because they tap into these fundamental emotional and instinctual responses, often culminating in strong affective states like joy, excitement, or even sadness. For hacking games, this framework helps explain how the tension of stealth, the thrill of discovery, or the satisfaction of overcoming complex systems contribute to player immersion and, ultimately, identification with the hacker role.

The purpose of such a comparative approach is to elucidate and make explicit the dynamic interplay between representation and experience in shaping the hacker's cultural significance in modern pop culture and the imaginary collective.

Analysis of the hacker archetype

The hacker archetype's cultural significance rests on its dual role as both a technical virtuoso and a social outsider. Early portrayals often depicted hackers as misunderstood geniuses operating on the fringes of society, a trope that resonated well with broader Cold War-era fears about technology and control, see (Levy, 1984) and (Thomas, 2002). As digital technology became more pervasive in the 1990s and 2000s, hackers were increasingly romanticized as rebellious antiheroes challenging corporate and governmental power structures, reflecting the rise of cyberpunk aesthetics and libertarian ideologies (O'Connell, 2022; Sterling, 1992). More recently, in Phillips (2016), the archetype has been re-contextualized to explore the psychological and ethical complexities of hacking, particularly in light of growing concerns about surveillance, mental health, and the social consequences of digital connectivity.

To exemplify this process of selective amplification, we shall analyze four key periods, each defined by the foregrounding of a particular constellation of hacker tropes, starting from the 1980s.

Foregrounding the outcasts (1980s–early 1990s)

The popular image of the hacker is often anchored in a foundational myth: that of a singular, cohesive subculture originating in the 1960s at MIT. As several scholars have argued, this narrative of a unified "hacker ethic" obscures a more complex reality of multiple, contested lineages and "moral genres" (Coleman and Golub, 2008; Murillo and Kelty, 2017). In truth, activities later grouped under "hacking," from phone phreaking to software cracking and hardware tinkering, emerged from diverse contexts. However, by the early 1980s, mainstream media began consolidating these threads into a recognizable, if simplified, fictional type. Films like WarGames (1983), Sneakers (1992), and even Tron (1982), where the figures of the hacker and game developer actually collide, were instrumental in this process, helping to crystallizing a specific set of tropes centered on the gifted but socially marginal outsider that would become a durable part of the repertoire. These early portrayals exemplified key shifts shaped by contemporary geopolitical contexts, depicting hackers as figures whose technical expertise often placed them outside conventional societal norms, yet positioned them as crucial actors in high-stakes political and technological dramas.

WarGames[4] introduces David Lightman, played by Matthew Broderick, a teenage hacker embedded in gaming arcades, early computers, and Bulletin Board System (BBS) culture, whose curiosity and technical skills lead him to inadvertently access a U.S. military supercomputer controlling nuclear war simulations. The film's narrative unfolds against the backdrop of Cold War tensions, reflecting widespread fears of nuclear annihilation and the opaque power of emerging digital technologies. David's character perfectly embodies the archetypal socially awkward but brilliant hacker of the time: a high school student who hacks into school computers to change his grades while exploring modem dialing to find hidden resources, like the latest computer games, and access restricted systems. His hacking is driven by playful mischief and curiosity rather than malice, positioning him as a relatable, if unconventional, protagonist. However, the film

also emphasizes the dangers of hacking without fully understanding the underlying risks, as David's actions nearly trigger a real nuclear crisis due to the military's inability to distinguish simulation from reality. Notably, David's technical expertise and moral compass ultimately save the day, reinforcing the hacker as an unlikely heroic figure of the modern times who can bridge generational and technological divides. Nonetheless, the ambivalence between hacker as innocent explorer and potential threat reflects early cultural anxieties about technology's double-edged nature: the film portrays hacking as a form of knowledge-seeking that challenges established power structures, yet warns of unintended consequences when such power is wielded irresponsibly. The film's ambivalence is validated by its historical reception: as discussed in (Schulte, 2008), *WarGames* was not just a simple reflection of cultural anxiety but became an active agent within it. The film was screened for U.S. Congressmen and directly cited in hearings that led to the Computer Fraud and Abuse Act, cementing the link between youthful hacking and national security threats in the legal and public psyche.

Nearly a decade later, Sneakers presented a more mature and ensemble-driven portrayal of hackers, led by Robert Redford's character Martin Bishop, who heads a group of "security specialists" (we would call them "pentesters" or "white hat" hackers today) who inadvertently got involved in an international intrigue showcasing early information warfare themes. The film emerges in the immediate post-Cold War era, when the official geopolitical binary division between the United States and the Soviet Union was dissolving fast while fears of political instability, espionage, and the commodification of powerful secrets persisted. Unlike the youthful David Lightman, Bishop and his team are portrayed both as skilled professionals and as outcasts, that is, highly skilled but socially unconventional individuals who operated outside traditional institutions. Their expertise in cryptography, computer security, and surveillance places them at the heart of a growing shadowy world where information is the ultimate currency and weapon. The plot's emphasis on a groundbreaking "black box" technology capable of breaking any encryption anticipates contemporary concerns about quantum computing and its potential to jeopardize cybersecurity, privacy, and the safety of critical infrastructure. In Sneakers, we have a clear shift from Cold War themes, with their easy-to-understand dynamics, to a more ambiguous landscape of political intrigue and technological power struggles where highly skilled terrorist hacker groups may be available to the highest bidder. The hackers are no longer accidental protagonists but deliberate actors navigating complex ethical terrain, balancing loyalty, secrecy, and the public good. Yet, like WarGames, the film maintains the archetype of hackers as outsiders: brilliant but eccentric figures who do not fit into mainstream society's norms or expectations. They are gifted but socially marginal heroes whose technical mastery grants them access to powerful systems and knowledge denied to most. However, their contexts shape the framing of their roles, and the stakes involved:

- In WarGames, the hacker is a youthful and somewhat naive figure, whose actions unintentionally expose the fragility of Cold War deterrence and the dangers of automated warfare. The film balances admiration for hacker ingenuity with cautionary messages about the risks of unchecked technological exploration.

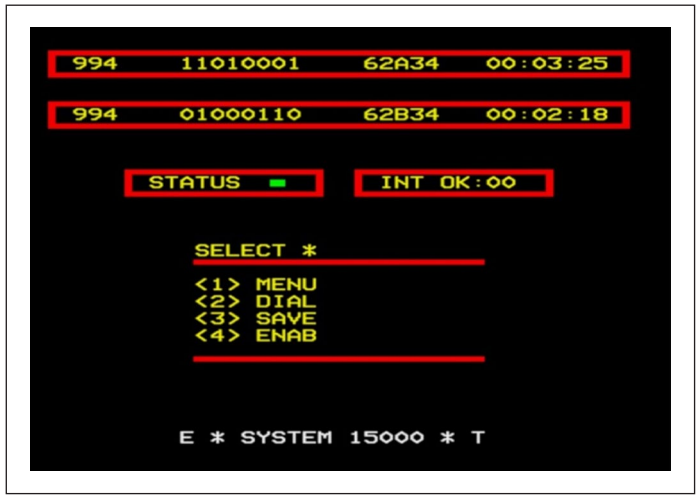

Figure 1. System 15000: all you see is your screen, literally!

- In Sneakers, hackers are instead seasoned professionals engaged in deliberate information warfare amid a post-Cold War environment characterized by political uncertainty and the commodification of secrets. The narrative foregrounds ethical complexity and the strategic importance of information control.

Despite these differences, both films underscore the hacker's outsider status, that is, characters who do not conform to "respectable" societal roles and yet whose skills and knowledge make them indispensable in navigating emergent technological realities. This archetype of the gifted but odd hero lays the groundwork for subsequent hacker portrayals as rebels, antiheroes, or complex psychological figures.

With Hollywood taking a closer look at the hacker figure, also the emerging digital entertainment industry of the time was bound to follow, with popular home computers like the Commodore 64 and the Sinclair ZX Spectrum showcasing movie tie-ins and hacking-themed games, as illustrated in Dillon (2015 [2014]) and Wilkins (2014).

"System 15000,"[5] designed by Lee Kristofferson and released by British publisher AVS in 1984, put the player in the shoes of a computer expert who received a dramatic letter from a friend asking for help to retrieve some stolen funds. The game is a beautiful example of design where "less is more" and the minimalist interface, while also due to the technical limitations of the 8-bit computers of the time, became its strongest asset. The game managed to recreate the feeling and atmosphere of a lonely hacker infiltrating systems by remotely connecting from his own workstation with a slow dial-up modem (Figure 1). Here, like a novel David Lightman in front of his terminal, the player only has a few basic actions available and operates via the computer's modem. Nonetheless, the gameplay is quite engaging, with several possible numbers to dial and servers to explore while taking care of not being tracked by the police. The one-to-one correspondence between simple actions and screen outputs, for example, dial a number, hear modem

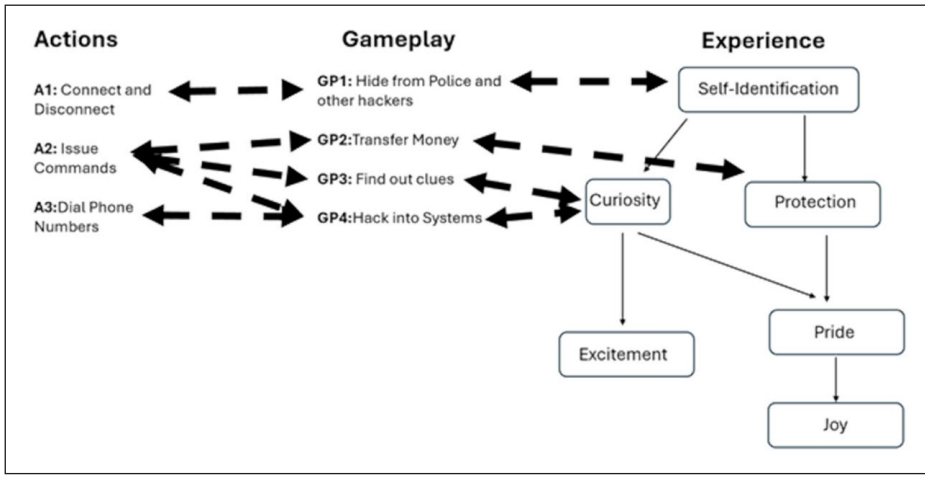

Figure 2. AGE and 6–11 framework analysis for SYSTEM 15000 (AVS, 1984).
Can the player get into the rogue company that stole his friend's money and get it back?

tones, get a simple text menu with possible options as a result of a successful connection, managed to build a realistic atmosphere. It was easy for the player to effectively identify as the hacker at the center of the story and embrace a truly engaging and rewarding experience, as exemplified in Figure 2 where actions and gameplay elements are identified as "Ax" and "GPx" respectively.

AVS was just a little-known developer, but the rising popularity of the hacker figure did not pass unnoticed at the big AAA studios of the time either. In fact, they also tried to capitalize on the hackers' rising popularity. In 1985 Activision released "Hacker,"[6] followed a year later by a very similar sequel titled "Hacker 2."

While this was essentially an adventure game where hacking was little more than an excuse to build a compelling atmosphere (Figure 3), the setting worked very well to make players curious and draw them into a dangerous world of spies and shady corporations. There were no useful instructions in the game's manual, and the opening simulated a log-on screen that provided access to a system owned by a mysterious corporation aiming at world domination. The ruse worked admirably well, and the game, designed by Steve Cartwright, built a spy-story that aligned with the upcoming themes explored in Sneakers a few years later, with hackers playing a central role in the upcoming era of cyber espionage.

As illustrated in the game analysis (Figure 4), the player had to remotely control a robot traveling underground across continents to meet with other spies and trade secret documents or other items of interest to ultimately recover some critical stolen file that could jeopardize world's safety. At the same time, the player also had to avoid an increasingly attentive surveillance from the secret corporation, that was getting suspicious of the player's activities within their ranks. Thanks to the simulated remote hacking, the mysterious atmosphere, with an international intrigue that unfolds only little by little, and the direct interaction with spies all over the world, the game was quite successful in bringing

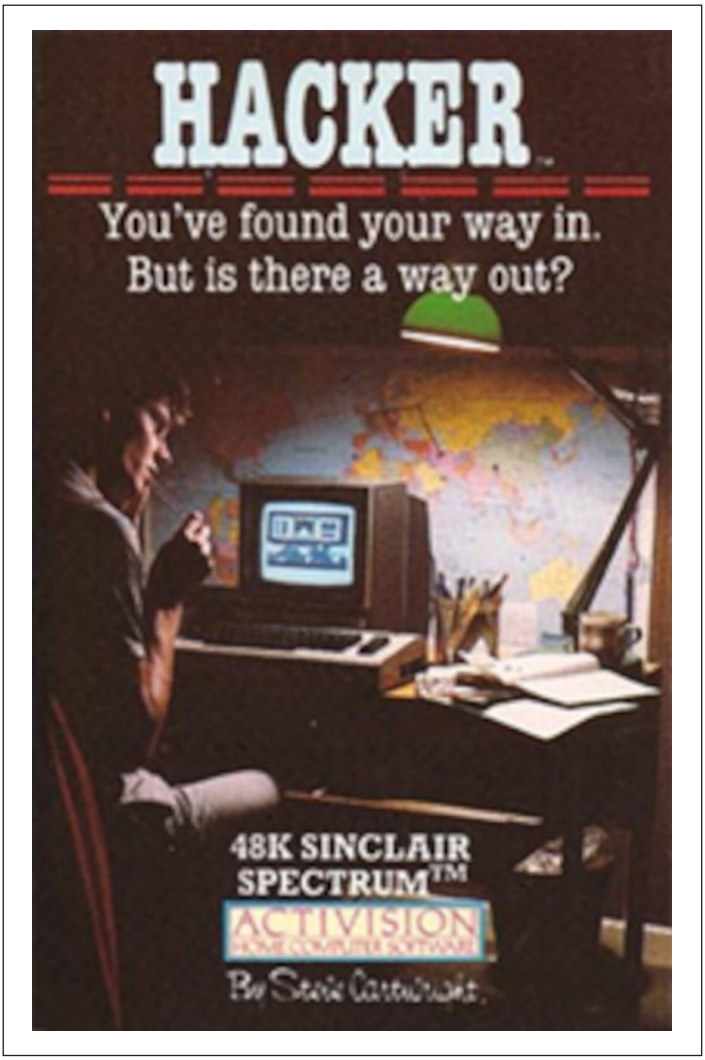

Figure 3. Hacker's box art (ZX spectrum version).
Notice how the hacker is a lonely guy operating from his own, poorly lit, room, once again implicitly reminding the player of the David Lightman character.

the player into its fictional world thanks to the player's curiosity to find out more about the secretive organization and uncover its nefarious plot.

Games like System 15000 and Hacker not only reinforced the original archetype that was emerging from popular movies such as WarGames and Sneakers, that is, the social outcast with uncommon technological skills, but also paved the way for scenarios where hackers, despite being young or apparently normal people living normal lives, could play

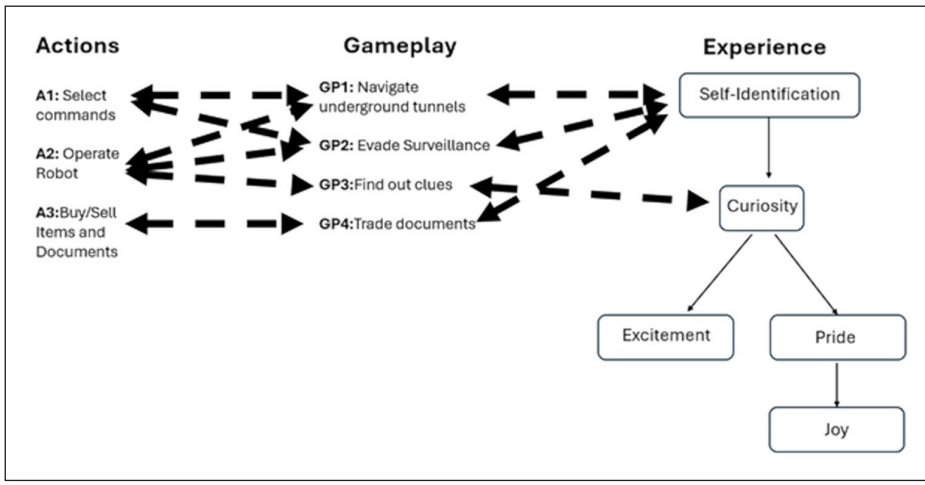

Figure 4. AGE and 6–11 framework analysis for hacker (Activision, 1985).
The entire game is directed at drawing the player into the story ("self-identification") and compel him to find out more about the secret corporation and its sinister plot ("curiosity").

a critical role on the big international stage of geopolitics. Soon, they were going to be unlikely heroes (or villains) and a force to be reckoned with.

Amplifying the cyberpunk rebel (1990s)

The mid-to-late 1990s saw a dramatic reimagining of the hacker archetype on screen, shifting from the anxious, outsider narratives of the previous decade to a vision of hackers as icons of a new, unconventional culture and, ultimately, as the vanguard of human freedom. Thanks to significant technological advancements, including a growing adoption of the Internet, the hacker portrayals in movies and games could finally start catching up with the literary depiction and corresponding tropes of hackers already established by seminal works of science fiction literature such as "Neuromancer" (Gibson, 1984) and "Islands in the Net" (Sterling, 1989 [1988]). William Gibson's novel famously envisioned cyberspace as a "consensual hallucination" and populated it with "console cowboys" like Case, an anti-hero and drug addict who embodied the fusion of technical subversion, urban alienation, and cool detachment, while Sterling's work explored the political dimensions of information control and hacktivism.

By drawing upon such materials, movies and games successfully translated cyberpunk's textual imagination into a visual and interactive vocabulary, adapting its themes of human-machine integration, corporate dominance, and existential rebellion for new audiences. It should also be pointed out that these cyberpunk-inflected tropes did not emerge from a vacuum but they grafted onto pre-existing character types in popular culture, most notably the "whiz kid" as a technical adaptation of the precocious genius, a figure long established since the days when Wolfgang Amadeus Mozart was

traveling the European courts to amaze audiences in the XVIII century. The hacker archetype, therefore, often also represents a modern, digital-age adaptation of this classic trope, where a young kid's uncommon skills are now infused with new layers of countercultural rebellion, mischief, technological dread, and, in subsequent decades, complex psychological traumas.

Hackers (1995) and The Matrix (1999) exemplify this early transformation, each embedding the hacker within the visual and thematic language of the cyberpunk subculture, but to very different narrative ends. Hackers[7] (1995) stands as a vibrant time capsule of 1990s youth and cyberculture, presenting its protagonists as a stylish, rebellious clique of teenage hackers. Unlike the nerdy, socially awkward figures of WarGames or the seasoned, world-weary outcasts of Sneakers, the young hackers here are depicted as trendsetters: cool, confident, and deeply embedded in the subcultural aesthetics of the era. The world they inhabit is one of rollerblades, neon-lit clubs, grunge fashion, and electronic music, blending upcoming Y2K anxieties with a sense of playful rebellion. The core group of protagonists, with handles like "Zero Cool," "Acid Burn," "Phantom Phreak," "Cereal Killer," and so on, are still some kind of outcasts, but not in the traditional sense of social isolation. They willingly form a chosen family, united by their technical prowess and their rejection of mainstream values. Their outsider status is less about awkwardness and more about defiance, marked by a punk-inspired embrace of individuality and a strong sense of community care. The film's costuming and soundtrack reinforce this, with latex-heavy, cyberpunk-inflected fashion and a pioneering electronic score that is still fondly remembered. In Hackers we also find new emerging themes like surveillance, corporate malfeasance, and the power of collective action. The group's battle against the villainous "Plague," a corrupt corporate hacker, serves as both a cautionary tale of good versus bad hackers, and a celebration of youthful ingenuity. From a technical perspective, though, contrary to WarGames, the depiction of hacking here is highly stylized, often fantastical and akin to some videogame-like magic with no link whatsoever to real hacking. Despite these glaring missteps, it still managed to capture the excitement and subversive potential of digital culture at a time when the Internet was still new to most audiences. Regardless of its technical liberties, though, its colorful, saturated visuals and energetic performances brought hackers to the next level of "coolness," giving a new generation of technically savvy rebels a sense of identity and purpose. Nevertheless, this glamorized portrayal stood in stark contrast to the nuanced ethical and political landscapes that were shaping up during those years within actual hacker communities. For example, Coleman (2012, 2017) details a world where commitment to free information, complex meritocracies, and a deep engagement with legal and ethical codes are paramount and all these aspects are missing here. While the film captures the aesthetic of rebellion and the joy of technical mastery, it largely sidesteps the profound philosophical and political commitments that scholars like Coleman identify as central to the hacker ethos. The movie's conflict is one of personal style and youthful triumph over a corrupt individual, simplifying the more complex, systemic critiques waged by real-world hacktivists.

A few years later, "The Matrix" (1999) marked a watershed moment in the cinematic representation of the hacker archetype, elevating the figure from subcultural rebel to mythic hero. The film's protagonist, Thomas Anderson, alias Neo, is introduced as a

gifted but disaffected hacker, leading a double life as a corporate drone by day and a cyber outlaw by night. This duality resonates with the postmodern idea of fragmented identity, where the online persona becomes the "truer" self, a theme deeply rooted in cyberpunk literature and philosophy and that will be brought to its extreme consequences decades later with Mr. Robot. The world of "The Matrix" is a dystopian cyberpunk future in which humanity is unknowingly enslaved within a simulated reality by intelligent machines. Hackers, in this context, are not digital pranksters or mere activists; they are the only ones capable of perceiving the truth behind the illusion. Neo's journey from hacker to messianic liberator embodies the ultimate cyberpunk fantasy: the ability to bend the rules of reality itself through mastery of code and consciousness. The film's visual language, emphasizing black leather, sunglasses, rain-soaked cityscapes, and more, became instantly iconic and crystallized the cyberpunk aesthetic for a new and global audience. Central to the movie is the idea of rebellion against oppressive systems, with hackers cast as the vanguard of resistance. Morpheus and his crew recruit Neo precisely because his mind was already primed for "transition," that is, the ability to break free from the Matrix's constraints and transcend the boundaries of the simulated world. The film's philosophical underpinnings, drawing on Plato's "Allegory of the Cave" and themes of self-realization, further elevate the hacker from subcultural oddity to a new universal hero and liberator.

Both Hackers and The Matrix reflect the growing influence of cyberpunk on mainstream culture and redefine the hackers' role and place in society, but they do so in fundamentally different ways:

- Hackers celebrates the "coolness" of the hacker as a youthful, fashionable outsider, blending rebellion with a sense of community and playful defiance. Its characters are trendsetters, not just misfits, and the film's style-over-substance approach helped popularize the cyberpunk look and ethos as a new way to frame hacker culture.
- The Matrix transforms the hacker into a mythic hero, central to humanity's survival and freedom. The film's cyberpunk world is darker and much more philosophical, with hackers portrayed as uniquely equipped to challenge and ultimately overthrow tyrannical systems of control.

In both films, hackers remain outsiders, gifted individuals who do not fit into the guidelines set and expected by "respectable" society, but the stakes and the scope of their actions have dramatically expanded. From the playful coolness of Hackers to the existential struggle of The Matrix, the hacker archetype evolved into a symbol of resistance, transformation, and hope at the dawn of the new millennium.

This change is also evident in the computer and video games of the time. Hackers were now mainstream characters and appealing heroes; so major companies released state-of-the-art titles targeting mainstream gamers. A characteristic example is "System Shock,"[8] a science fiction action-adventure developed by LookingGlass Technologies and released by Origin Systems in 1994. Here, like Activision did with "Hacker" a decade earlier, the game is not really about hacking per se, but hacking is used as a narrative tool to frame the story by putting the hacker-hero at the center of a sinister plot where the

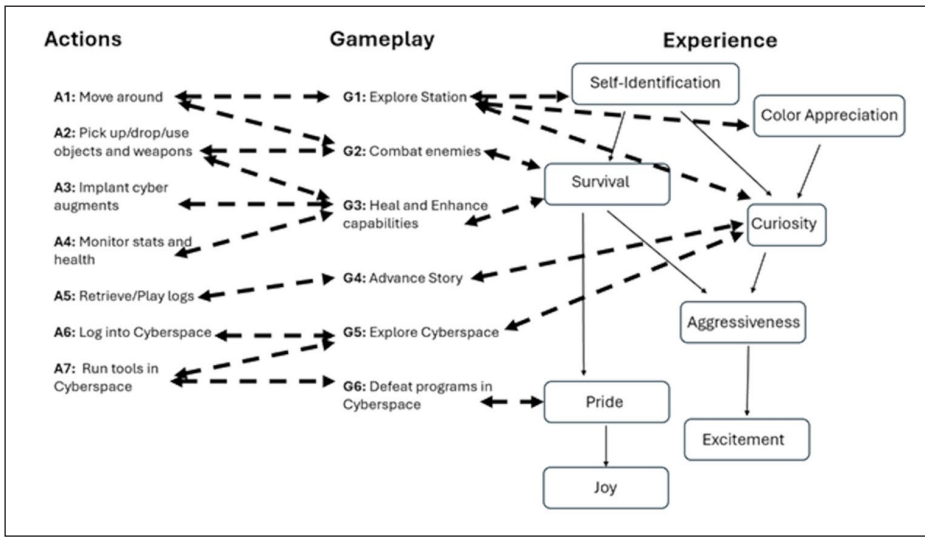

Figure 5. AGE and 6–11 framework analysis for system shock (Origin Systems, 1994).
Using the hacker as a protagonist in a mainstream AAA-quality action-adventure first-person game allowed for a more nuanced gameplay and emotional experience, from the appealing cyberpunk locales with saturated colors to effective combat to engage players, hackers were now involved in some "real" action.

player has to save the world by defeating Shodan, an AI system gone rogue, and regain control of the space station he is in. The game's visual and narrative style are deeply embedded in cyberpunk aesthetics, and the player can augment his skills and prowess by implanting different computer components into his own self in cyborg-like fashion. Exploration and combat are central to the game and very engaging, thanks to an effective first-person perspective that was not technically possible in computer games from earlier generations of hardware. Hacking-inspired scenes are included too via logical puzzles and by logging into computer terminals, allowing the player to enter a new "cyberspace" digital reality. Here, computer network traffic and programs are visualized as geometric shapes, and the player can move weightlessly around them to collect new pieces of information and software tools, interact with security systems, and fight Shodan's security programs by running (or, more precisely, "shooting") specific software tools against them to progress further into the game.

As exemplified by the AGE analysis in Figure 5, the game is heavily reliant on the self-identification, survival, and curiosity parts of the experience to engage players, while also relying on the aesthetics of the world to attract players (via the color-appreciation element).

Across the movies and games of the 1990s, we can appreciate a dramatic reframing to ultimately make hackers more suitable for mainstream media adoption and consumption. The hacker was recast into a hero-like rebel whose technical prowess was now given for granted, remaining somewhat mysterious and magical to the non-initiated, so that the characters could be involved in more complex stories exploring different themes and settings without the need to focus on the technical aspects of the craft anymore.

Complicating with moral ambiguity (2000-2015)

The early 21st century brought a significant transformation in the cinematic depiction of hackers, reflecting a world shaped by new fears and the rise of cybercrime as a major global threat. Both Swordfish[9] (2001) and Blackhat[10] (2015) exemplify this shift, presenting hackers not simply as heroes or rebels, but as figures operating across a broad moral spectrum, ranging from reluctant protagonists to morally ambiguous antiheroes or outright criminals. This shift in representation mirrors a post-9/11 landscape where geopolitical certainties were shattered and where digital expertise was both coveted and feared, with hackers having the potential of being either agents of chaos or the last line of defense against it.

Swordfish centers on Stanley Jobson (Hugh Jackman), a notorious hacker and ex-con recruited by the enigmatic Gabriel Shear (John Travolta) to execute a high-stakes cyberheist targeting a government slush fund. The film's world is one of espionage, terrorism, and clandestine government operations; hacking is portrayed as both a weapon and a commodity, available to the highest bidder. Stanley is also a new kind of hacker: he is as cool as we expect him to be but, most importantly, he is a reluctant antihero. He is talented but emotionally damaged and driven by personal motives (the desire to reunite with his daughter). He has no desire to be fighting for justice or for the greater good. Nonetheless, his skills are so valuable that he is forcibly drawn back into the world of hacking despite legal prohibitions. The film's style is overtly slick and sensationalized, taking the approach used a few years earlier in "Hackers" to the next level: hacking is now even more dramatized through multi-monitor setups, techno music, and highly unrealistic action sequences, emphasizing spectacle over technical accuracy. The perception of the hacker figure also changed significantly. He is now a figure of allure and danger, recruited for his genius and seduced by both money and the thrill of the challenge. Morally, Swordfish blurs the lines between heroism and criminality. Gabriel's plan, to steal billions to fund a shadowy anti-terrorist campaign, raises questions about ends and means, with Jobson caught in the ethical crossfire. The themes of terrorism, government surveillance, and pre-emptive violence reflect a world entangled in new fears, where hackers could be both potential saviors and existential threats. While the movie, despite its stellar cast, did not meet the favors of either critics or the hacker community, the ambiguity of Stanley's role, forced to choose between complicity in violence and protecting his family, perfectly embodied the "gray zone" that would come to define hacker portrayals in the 21st century.

Years later, Blackhat (2015) took some of the themes central to Swordfish and advanced the hacker narrative into the realm of global geopolitics and cyberwarfare. Nicholas Hathaway (Chris Hemsworth) is a brilliant hacker who is serving a prison sentence but is released to help US and Chinese authorities track down a cybercriminal responsible for a devastating attack on a Chinese nuclear plant. As expected, Hathaway is a complex character: highly skilled, physically imposing, and charismatic, yet haunted by his past and operating in a world where alliances are fluid and trust is scarce. The film was notable for its relatively realistic depiction of hacking techniques, including social engineering, command-line exploits, and the targeting of critical infrastructure. Like Jobson in Swordfish, Hathaway's expertise is top-notch and indispensable to the

mission, but his moral alignment is ambiguous: he is a convicted criminal, yet also the only one capable of stopping a greater evil. The narrative positions hackers as central actors in international intrigue, capable of destabilizing economies and threatening national security, a direct reflection of real-world anxieties about cyberattacks on critical infrastructure and the growing sophistication of cybercrime itself with a constant risk of technology getting out of hand. Blackhat has merit to explore, in simple yet effective terms, the hacker's role as both a possible threat and a protector. Hathaway's cooperation with law enforcement is driven by a mix of self-interest (his freedom) and a genuine desire to stop catastrophic attacks. The film's antagonists are equally skilled, but they are using their abilities for personal gain and political disruption, highlighting the dual-edged nature of hacking in the modern world even further.

Both Swordfish and Blackhat represent a departure from the earlier, more clear-cut portrayals of hackers as either misunderstood heroes or subcultural rebels. Instead, hackers are now depicted as much more complex figures:

- They are morally ambiguous: no longer simply "good" or "evil,"" hackers operate in a morally gray space, motivated by personal, political, or financial interests. Their actions can have global consequences, for better or worse.
- They are not just cool and trendy, but also dangerous: Hackers retain their "cool" vibe, that is, they are stylish, charismatic, and central to the action, but they are also depicted as unpredictable and potentially destabilizing.
- They are influential geopolitical actors: The stakes have shifted from personal, or an idealized subcultural rebellion, to international intrigue, terrorism, and cyber warfare. Hackers are now key players in global security, echoing the prescient warnings of Sneakers.
- They reflect novel forms of societal anxiety that became dominant in the early 2000s: terrorism, surveillance, and the fragility of digital infrastructure, casting hackers as both potential threats and necessary allies in a dangerous new world.

These films illustrate how, in the 21st century, the hacker archetype had become more complex, embodying the uncertainties and contradictions of a world increasingly defined by digital power and its inherent vulnerability.

The early 2000s were also a time of substantial changes in the game industry. With the cost of producing AAA titles skyrocketing, more original independent developers ("indies") started to emerge, creating smaller but more daring and original projects. Among these titles, "Uplink: Hacker Elite", released in 2001 by Introversion Software, stood out for its engaging storyline and sleek depiction of hacking. Like with System 15000, here "less is more" and the game was entirely played via a computer screen running an imaginary OS dedicated exclusively to hacking where having the right tools would open up new and increasingly effective hacking and defensive options. The player takes the role of a hacker employed by an underground organization and finds himself in the crossfire of an ongoing struggle between two hacking groups intent on controlling, or destroying, the Internet. By accepting new contracts, acquiring new software and hardware, executing hacks, and rising in the ranks of the organization, the player is free to take a side or just play for his own gain, essentially confirming the "grayish" nature of

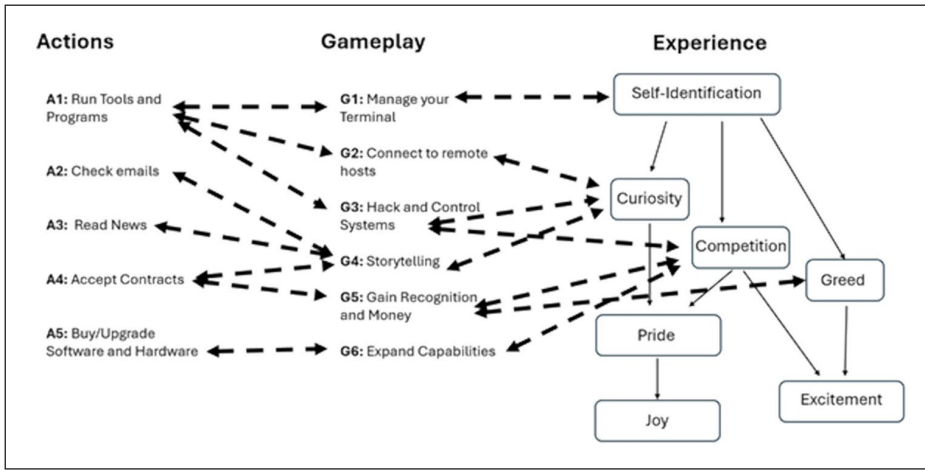

Figure 6. AGE/6–11 framework analysis for uplink.
Curiosity, Competition, and Greed are central to delivering a fun and engaging experience.

hackers while acknowledging them as a force to be reckoned with regardless of their moral alignment. The actual hacking simply required the player to use the right tool for the right job, letting it do its magic. Nonetheless, the right terminology and attack types are used, making the playing experience relatable to real hacking. As summarized in Figure 6, the game successfully engaged the player by relying on the curiosity instinct to find out more about what was going on in the main storyline and how to penetrate more challenging systems. This, together with the idea of getting richer by completing more and more contracts and the perception of rising in the ranks of the organization while beating other hackers at their own game, effectively gave players the feeling of being a "gray hat" hacker in action.

At the same time, AAA studios did continue on their path to spectacularize hacking. Ubisoft's "Watch Dogs" and its sequel are particularly significant in this regard. Here, Aiden Pearce and Marcus Holloway, the hacker protagonists of the first (released in 2014) and second (released in 2016) adventure respectively, are driven by different motivations: a solitary revenge path for Aiden and a more social path for Marcus as a member of an elite hacktivist group called DedSec. Regardless of their motives, though, both are unstoppable forces able to break havoc in a beautifully simulated "smart city," Chicago in the original title and San Francisco in the sequel. Their actions, while clearly over the top and exaggerated, do highlight the possible risks of having a completely interconnected infrastructure in an online space where a gifted hacker could potentially get in and control it at will. It is also important to notice that these games are not hacking simulators like Uplink but, like System Shock, they take hacking as a starting point to engage players in a complex action-adventure experience. In this case, we have an open world sandbox that offers full agency on where to go and what to do. Stealth, hand-to-hand combat, shooting, exploration via driving plenty of different vehicles and, finally, hacking (simplified to the form of having the right tool for the right job installed on the player's

device, whether it is for hacking traffic lights and cause a jam to evade chasing police cars or gaining access to surveillance cameras to plan our next move in a heist) all play an important role in solving the game by manipulating the city infrastructure, control devices remotely, accessing private data, and ultimately uncovering lots of hidden secrets. Like "Swordfish" and "Blackhat," both Watch Dogs games present hackers as figures operating in morally complex environments. Aiden Pearce's actions often blur lines between vigilante justice and unlawful intrusion, reflecting, once again, the dual potential of hacking as both protective and invasive. Marcus and DedSec explicitly position themselves as hacktivists challenging systemic abuses, echoing the ambiguous roles hackers play in geopolitical and social struggles depicted in the above-mentioned movies. Nonetheless, all these games embrace the "exaggeratedly cool hacker" trope, with Marcus and DedSec embodying youthful, tech-savvy rebels akin to the stylish protagonists of Hackers, while Aiden is closer to the powerful figure of Hathaway in BlackHat, but they are all ready to cross any moral, ethical, and legal line to get what they want and need. In Uplink, on the other hand, it is the player himself who can decide how to place his character starting from a clean state and decide whether to play more akin an anarchic rebel or as a savior of the Internet and, consequently, of the status quo. Yet, the hacker is still granted almost superhero powers thanks to his superior knowledge of technology.

Recombining the outcast: psychological depth and systemic critique (2015-2025)

With the arrival of Mr. Robot (2015-2019), popular media powerfully reactivated and recombined core hacker tropes, most notably foregrounding the figure of the socially alienated outcast but layering it with unprecedented psychological depth and contemporary anxieties enriched by decades of cultural, technological, and narrative evolution. The series, created by Sam Esmail, stands out not only for its technical authenticity and nuanced depiction of hacking, contrary to almost every other movie released in the previous 20 years, but also for its deep psychological portrait of its protagonist, Elliot Alderson, as well as of the ensemble of characters surrounding him. Portrayed by Rami Malek, Elliot is a cybersecurity engineer by day and vigilante hacker by night. Unlike the charismatic, physically imposing, or overtly stylish hackers with cyberpunk overtones depicted in Swordfish, Blackhat, or in games such as Watch Dogs, Elliot is an introverted, awkward young man who visibly struggles to connect with others. His genius-level technical skills are matched by profound personal and mental health challenges, including social anxiety, depression, substance abuse, and dissociative identity disorder. Elliot's hacking is not a means to personal glory, or even an act of abstract rebellion, but a coping mechanism, a way to impose order on a chaotic world, on his own inner turmoil and to seek concrete justice for those who are powerless. Even at a cursory glance, it is obvious this portrayal is a marked departure from the "cool hacker" version of the archetype that dominated the 1990s and early 2000s. Once again, Mr. Robot brings the hacker back to the sidelines, reminiscent of David Lightman in WarGames, but with a far more intricate and realistic psychological profile. Elliot's internal struggles are as central to the narrative as his external battles against corporate and governmental power. The show's

use of unreliable narration, direct address to the audience by constantly breaking the fourth wall, and visual metaphors for mental illness all serve to immerse viewers in Elliot's fractured perspective, making his alienation both palpable and relatable. Mr. Robot also effectively broadens the hacker archetype beyond Elliot himself. His hacking group, aptly named "fsociety" after an old game arcade ("Fun Society") that went out of business several years before the story takes place, is very diverse, including both male and female hackers from different walks of life and ethnic groups. This diversity is not just a ruse to please modern political sensibilities but effectively reflects the real-world international hacker community, challenging stereotypes and emphasizing that hacking is not limited to a single personality type or demographic. The show's antagonists, from the enigmatic Mr. Robot (a manifestation of Elliot's psyche) to the corporate overlords of E Corp and international cybercriminals, further complicate the moral landscape. Hackers in Mr. Robot are not clear-cut heroes or villains, but they all have their hidden reasons and motivations, strengths, and weaknesses. The world is not binary but very fuzzy: characters are agents, culprits, victims, and sometimes everything at once, navigating a morally ambiguous world where the lines between right and wrong become blurred and are often crossed in dramatic ways.

It is important to understand that Mr. Robot's emphasis on the outcast trope is a logical consequence of the series recognizing that the world has become more interconnected, surveilled, and psychologically taxing, hence pushing its characters to the fringe of society. The pressures faced by Elliot and his peers in the form of constant surveillance, the threat of state and corporate retaliation, the burden of ethical ambiguity, and so on mirror the anxieties of the digital age we live in. In this sense, Mr. Robot is a hacker story very representative of the contemporary world: one that acknowledges the brilliance and vulnerability of its protagonists, and the high personal cost of living on today's digital frontier.

The most notable tracts of this final narrative shift can be summarized in the following points:

- From Empowerment to Vulnerability: While earlier media empowered hackers as "superheroes" (e.g. The Matrix) or even as antiheroes (e.g. Swordfish, Blackhat), Mr. Robot foregrounds vulnerability, mental health, and the isolation that often accompanies genius.
- From Outcast to Complex Protagonist: The return to the outcast status is now paired with a level of psychological depth and realism that was unimaginable in earlier portrayals, reflecting the complexities of contemporary life.
- From Spectacle to Authenticity: The series eschews the flashy, unrealistic hacking of earlier films for authentic techniques and plausible scenarios, grounding its narrative in real-world stakes and consequences of cyber-activism.

In the end, Mr. Robot closes the circle of the hacker narrative by revisiting the outcast figure, but with a never-before-seen depth, sophistication, and empathy that resonates with modern audiences. Elliot Alderson is a new kind of (anti)hero for a new kind of world: he is brilliant but troubled and, in one word, profoundly human, redefining what it means to be a hacker in the 21st century.

Figure 7. While it looks like a real Linux distribution, this is not a real OS but the game interface itself.
Long gone are the days of System 15000 and its modem-like interface. The beginning of HackHub teaches the player how to get familiar with the BearOS Linux distro, which includes some simplified versions of common tools and programs we find in real modern operating systems like Kali Linux or ParrotOS.

Translating all this psychological complexity and drama into games, where the protagonist is the player, is by no means easy. In games, to facilitate self-identification, it is usually more straightforward to represent the character as an "avatar," that is, an empty shell for the player to fill with his or her own personality, than to give players a psychologically complex "actor" to play with. Nuances must then come from the underlying narration as the game progresses to let players experience any sort of ethical dilemma by themselves as they take their own choices and, possibly, sides. Uplink was an early attempt to put players in front of some meaningful moral choices, and more modern games tried to expand on this front, too. The idea of simulating a computer terminal, like System 15000 did back in the day, is an excellent design choice in this regard, and modern games reworked the original approach to offer a full-fledged simulation of a functional OS so that tech-savvy players could be drawn into the narrative in the most natural way possible. Several very well-crafted indie titles relied on this approach, so much so that today we have an entire sub-genre of games based on this very trait, including "Hacknet"[11] (2015), "Grey Hack"[12] (2017), "NITE Team 4"[13] (2019), Hacker Simulator[14] (2021), "Cyber Manhunt"[15] (2021), and "HackHub"[16] (2025), among others. The latter, for example, released by indie developer HotBunny Interactive, puts players in front of their own customized Linux hacking distribution (Figure 7), through which they first have to create their digital identity, and then engage in several different hacking jobs,

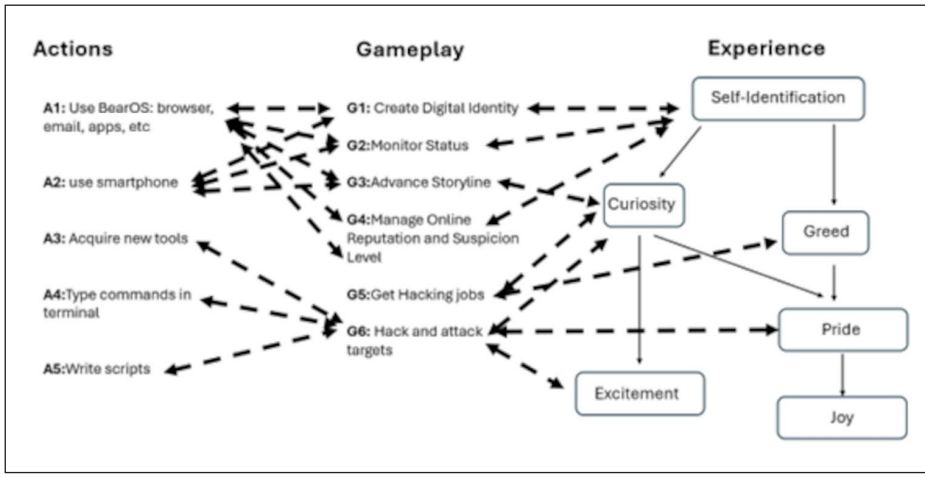

Figure 8. AGE/6–11 framework analysis for HackHub (2025).
Having a real-looking OS to work with pushes the game realism and consequent self-identification of the player into the protagonist's role to the next level. Notice the "Suspicion" level (G4), an additional element to penalize sloppy players hacking wrong targets or who are unable to follow instructions properly, which has to be managed to avoid being caught.

closely matching real hacks and requiring the use of proper techniques and typical tools, like nmap, or frameworks like Metasploit, to succeed in their missions and increase their fame and fortune (Figure 8).

Finally, we have a hacker who may still be an outcast, but who is also free to shape his own destiny and decide his moral alignment.

Conclusion

The ever-changing representation of the hacker archetype across film, television, and games over the past four decades reveals a dynamic interplay between cultural anxieties, technological change, and shifting notions of identity and power. From the early days of WarGames (1983), where the hacker was a socially awkward but brilliant outcast inadvertently caught in Cold War geopolitics, to the ensemble of skilled misfits in Sneakers (1992) navigating an early world of information warfare, the archetype began as a reflection of both the promises and perils of emerging digital technologies shaping high-stakes games of power. The mid-to-late 1990s, exemplified by Hackers (1995) and The Matrix (1999), saw the hacker recast into a symbol of youth, rebellion, and cyberpunk coolness. Hackers became trendsetters and, in the case of The Matrix, mythic heroes capable of liberating humanity from digital oppression. This period celebrated the empowerment and glamor of hacking, aligning it with broader cultural narratives of resistance and self-actualization. Entering the 21st century, with its unpredictable geopolitical landscape shifts, films like Swordfish (2001) and Blackhat (2015) complicated the archetype further. Hackers were no longer simply heroes or rebels but operated across a spectrum of

moral ambiguity, sometimes even crossing criminal boundaries. Nonetheless, they were now acknowledged as a driving force shaping global cyberwarfare and geopolitical intrigue. These portrayals mirrored a post-9/11 world in which digital expertise was both coveted and feared, and where the line between savior and threat was increasingly difficult to identify.

Mr. Robot (2015–2019) powerfully reactivated the hacker as an outcast trope, but with unprecedented psychological depth. Elliot Alderson and his peers are not only technical geniuses but also profoundly fragile, grappling with mental health, trauma, and the ethical weight of their actions. In an era of ubiquitous surveillance, corporate power, and digital alienation, Mr. Robot re-centers the hacker as a deeply flawed yet empathetic figure, a far cry from the stylized heroes of the previous decades and a reflection of the complex, fractured society of today. In parallel, hacking-themed computer games underwent a parallel representational shift: from the pioneering efforts of "System 15000" simulating modem connections and limited interactions within a fictional world, to the dystopian and brutal cyberpunk world of "System Shock," from the glittering cities of "Watch Dogs" back to the apparent simplicity of a hacker terminal that is nonetheless offering many hidden options and opportunities to explore rich and ethically complex storylines. All these games allowed players to actively inhabit the hacker role, allowing players to embody the dominant tropes of their era through interactive experiences, as exemplified by the central role of "self-identification" via the corresponding AGE and 6–11 Framework game analyses.

Across these media, the portrayal of the hacker is best understood not as a unique narrative arc but as a process of tropic layering. The marginalized outsider, the empowered hero, the gray mercenary, and the psychologically complex and troubled genius are enduring tropes that together shape the resulting archetype in different ways to reflect different historical periods and their respective anxieties. Their cultural dominance shifts: for example, the "outcast" trope, initially foregrounded in the 1980s, was layered with the "cool rebel" in the 1990s, then with "moral ambiguity" in the 2000s, before being powerfully reactivated and fused with "psychological vulnerability" in the 2010s.

It cannot be stressed enough how this process of tropic foregrounding is actively shaped by the historical context: the Outcast archetype of the 1980s was a direct response to Cold War paranoia and the fear of opaque, centralized technological control. The shift to the Cyberpunk Revolutionary in the 1990s was fueled by cyberpunk optimism and a belief in individual and subcultural agency within a newly globalized digital frontier. The morally ambiguous figures of the 2000–2015 period embody the post-9/11 uncertainty and the realization that digital power is a tool without an inherent moral compass. Finally, the contemporary outcast-reimagined archetype directly engages with today's anxieties about technology, identity, and the psychological toll taken by the awareness of living under constant surveillance.

Ultimately, across four decades, popular media has charted our culture's evolving relationship with technology and power where the hacker archetype serves as an ideal projective surface for societal hopes and fears. The trajectory traced here, that is, from the foregrounding of the Outcast trope in the 1980s, to the amplification of the Cyberpunk Hero in the 1990s, to the complication of the Gray Mercenary in the 2000s, and finally to the reactivation of the psychologically complex Outcast figure in the 2010s, is not a

story of collective psychological progress, but of a culture repeatedly reconfiguring a stable set of symbolic figures to grapple with its own changing anxieties: first fear of technology's alienating potential, then dreams of mastering it for liberation, followed by anxiety about its weaponization, and now a sober recognition of its human cost. By analyzing these shifting perspectives across both film/television and experiential games, this study demonstrates that the archetype's power and persistence derive from this dual-channel reinforcement: films tell us the story of the hacker, while games let us live it. This combined process doesn't just represent the hacker, but actively shapes the audience's and player's perception of technology, privacy, rebellion, and their own identity in a digital age, solidifying the hacker's role as one of the most significant and revealing cultural icons of our time.

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Data availability statement

Movies and Games discussed in the paper are publicly available. No other dataset was used.

Any other identifying information related to the authors and/or their institutions, funders, approval committees, etc., that might compromise anonymity

The submitted paper was anonymized as needed. Please note that the paper utilizes the AGE and 6–11 Frameworks for its analysis. While these are established frameworks in ludology studies, they are part of the author's own research corpora and references in the text were not redacted.

Notes

1. See https://www.boxofficemojo.com/title/tt0244244/ and www.boxofficemojo.com/title/tt0133093/, respectively.
2. See https://www.wired.com/2008/07/ff-wargames/ and https://www.goldenglobes.com/tv-show/mr-robot, respectively.
3. Hackers has a "Certified Fresh" score on RottenTomatoes of only 33% (see https://www.rottentomatoes.com/m/hackers), but this did not prevent it to become a "cult" movie https://www.dazeddigital.com/film-tv/article/68673/1/30years-of-hackers-director-iain-softley-cult-cyber-fairytale.

4. https://en.wikipedia.org/wiki/WarGames.
5. https://en.wikipedia.org/wiki/System_15000.
6. https://en.wikipedia.org/wiki/Hacker_(video_game).
7. https://en.wikipedia.org/wiki/Hackers_(film).
8. https://en.wikipedia.org/wiki/System_Shock.
9. https://en.wikipedia.org/wiki/Swordfish_(film).
10. https://en.wikipedia.org/wiki/Blackhat_(film).
11. https://en.wikipedia.org/wiki/Hacknet.
12. https://store.steampowered.com/app/605230/Grey_Hack/.
13. https://store.steampowered.com/app/544390/NITE_Team_4__Military_Hacking_Division/.
14. https://store.steampowered.com/app/1754840/Hacker_Simulator/.
15. https://store.steampowered.com/app/1216710/Cyber_Manhunt/.
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