

## Hidden Gems: Redemption and Unrealized Potential

8

This is a book about perception: how we think of platforms by considering our perceptions of them as well as what they help us perceive or—as in the case of the Virtual Boy and its stereoscopic displays—misperceive. Over the course of this book, we have looked at how the Virtual Boy is part of a tradition of visual entertainment devices that use optical tricks and illusions to immerse their audiences. This tradition predates video games and includes the peep box and similar devices. Specifically, we argued that the Virtual Boy is a digital peep box in two key aspects: (1) how it visually immerses its users and (2) its visual signature, the layered diorama. We also discussed how the Virtual Boy was developed with a particular vision: Gunpei Yokoi’s desire for a new kind of video game entertainment experience—one with “a totally dark viewing field” that “made it possible to represent an unlimited distance” (Yokoi and Makino 2010, 163, 164). Everything discussed previously relates to and addresses how the Virtual Boy directly affects our perception—what we perceive with our eyes and the feeling of immersion that results from using it.

We also looked at perception from a different perspective. We examined how Nintendo attempted, through its marketing efforts, to position the Virtual Boy in the eyes of its intended consumers: in other words, how Nintendo tried (and ultimately failed) to create a perception of its latest device as something exciting and desirable that opened new arenas and opportunities for video game play. The mid-1990s were a tumultuous time for the game industry, and people’s perceptions of what a gameplaying device could or should be were shifting and changing as technological

breakthroughs upended past platform categories (e.g., handheld, console, PC, and so on). We argued that consumers were confused as to what kind of device the Virtual Boy was, unsure of what to make of the device, and unconvinced by their hands-on experiences with it. By mid-1996, Gunpei Yokoi opined that “If Nintendo came out and advertised that the Virtual Boy was \*not\* for gamers, I think that could rekindle people’s interest”<sup>1</sup> (Eno 1996). The problem, in Yokoi’s eyes, was that it was poorly received by “hardcore gamers” whose complaints negatively influenced other gamers—while the kids and “regular people” who played “really enjoyed it” (Eno 1996). Years later, Shigeru Miyamoto also claimed that Nintendo made a mistake in how they presented the Virtual Boy. Had they presented it as a toy rather than a gaming platform, it would have been perceived differently by consumers and been considered a success by Nintendo (Iwata 2011). Customers were, in the end, not persuaded that the Virtual Boy allowed for novel and exciting video game experiences. It was not perceived as new, flashy, cutting edge, or technologically impressive. It was perceived as neither desirable nor convenient to use and play. If anything, it was perceived as disappointing and potentially dangerous as rumors and reports that it caused headaches took hold.

Perhaps the platform was simply perceived (or, as its fans might argue, misperceived) as a gimmick: designed around a novelty that seemed to offer something of value but was ultimately just a trick. We showed how the video game industry, like other creative industries (Balland, De Vaan, and Boschma 2013), has always valued the importance of novelty (with an interest in leveraging it for financial and commercial success). The “gimmick” in the game industry is not necessarily a bad thing and has been used successfully as a commercial and development strategy countless times. Nintendo itself had significant experience with gimmicks prior to (and some would argue also after) the development of the Virtual Boy. While we argue that the Virtual Boy’s reputation as a gimmick is unwarranted, holding this view puts us in a minority. However, we note that this reputation is not quite contemporaneous to the Virtual Boy’s release: we most often see it appear a few years after the Virtual Boy’s cancellation in the video game press. The perception of the Virtual Boy as a gimmick was created both to explain its commercial failure and as a cautionary tale for newer upcoming platform releases such as the two-screen Nintendo DS released in 2004. To this day, despite a resurgence in interest in virtual reality, we cannot fully escape the idea that stereoscopic gameplay, the Virtual Boy’s defining feature, is more about style than substance—especially when divorced from other functionality such as head tracking.

As we wrap up this book, we thought it would be important to briefly consider the present-day perceptions of those who consider themselves fans of the Virtual Boy. What is the source of their fandom and passion, and in what ways can we distinguish it from similar video game fandoms? In what ways does their perception of the platform differ?

## Nostalgia

We have never seen, or heard of, people wistfully staring at the horizon as they recall joyful moments they experienced playing on their Virtual Boys while growing up. While we are sure that such fans exist, they are probably few in number. Unlike other platforms, it is harder (but not impossible, of course) for those who currently cherish the Virtual Boy to explain their feelings toward the platform in terms that allude to nostalgia: an idealistic vision of past, full of generally youthful and potentially transformative play experiences. An apparent lack of nostalgia for the Virtual Boy might be surprising considering the increasing importance that nostalgia has in video games (Taylor and Whalen 2008). Video game nostalgia is, to an extent, generational—it largely began in the 1990s and looked back to games from twenty years prior: the 1970s (Esposito 2005). This nostalgia has since grown by leaps and bounds, slowly including more recent games and platforms: the 1980s, 1990s, and beyond. Video game nostalgia has also been commercialized and labeled as retrogaming. Nowadays, it is possible to easily play many older games via emulation, compilations adapted for current platforms, conversions, updates, remasters and more (Thomasson 2014). For those desiring to play from their original game cartridges, there are modern retro-consoles that emulate the original ones or recreate their functionality entirely by using field-programmable gate arrays (FPGAs) (e.g., Hyperkin's RetroN video game console series, and Analogue's Analogue Nt, Pocket).

The commercialization of video game nostalgia has largely ignored the Virtual Boy. Perhaps it is a simple numbers game. Due to its relatively low sales (that still numbered in the hundreds of thousands of units) and somewhat limited release, the Virtual Boy is too “rare.” Not enough people encountered it in their youth, and therefore there is not enough nostalgic demand for its games to be rereleased or ported to other platforms (e.g., Nintendo's auto-stereoscopic 3DS handheld).

That being said, there is a small but highly active and productive Virtual Boy fan community. As is common for other video game platforms, there are multiple Virtual Boy emulators, fan sites offering commentary and information, active homebrew development projects (including multiple

released titles, far more than were ever commercially published), hardware mods allowing connection to TV sets/monitors, add-ons (e.g., multi-game flashcards and handcrafted arcade joysticks<sup>2</sup>), and more.

The Virtual Boy fan community can be broadly characterized as coalescing around three practices: (1) collecting, playing, and enjoying the platform's commercially released games; (2) discovering and restoring unreleased games; and (3) developing new games and hardware for the platform (Mora-Cantalops and Bergillos 2018). Therefore, it would be unfair to characterize Virtual Boy fandom as rooted in, or driven by, nostalgia. If nostalgia is cherishing a past that was, or at least an idealized perception of that past, then Virtual Boy fandom is better characterized as driven by an interest in a future that could have been. In other words, a lot of the work done by the Virtual Boy fan community wrestles with the perception that the platform was never allowed to achieve anything near its full potential: it is the underdog that never got its chance to shine. What could the Virtual Boy have been like had its release not been rushed due Nintendo's desire to release it as a stopgap for its delayed Nintendo 64? What might have happened had it not been canceled so surprisingly swiftly? Could it have been a "slow burner" game platform that slowly but steadily accrued players as more titles were released? Was, perhaps, one of the several announced but ultimately unreleased games a "killer app" that could have convinced everyone that this strange and unusual platform was, well, "good"?

Most video game platform fandoms have the benefit of being based on a device that experienced what is described as a full product lifecycle: platform sales increasing over a few years before slowly declining as the technology is perceived as obsolete and consumers begin to anticipate the next "generation" platform (Marchand 2016). The game platform lifecycle also considers improvements in the games released. As developers gain experience and knowledge with the platform, including things that could have been done better in earlier titles, they are able to better take advantage of its affordances. The Virtual Boy had no such luxury, so we see fans engaging in projects and activities that, arguably, create a potential alternate past (and present) for the Virtual Boy. This alternate timeline "restores" what could or should have been milestones in the platform's lifecycle. We will show notable examples of fan-driven research and activities that illustrate this interest in an alternate past for the platform.

Nintendo's Virtual Boy development manual includes details on the device's "communication port [that] is used to communicate between Virtual Boy units" (Nintendo 1995e, 4-4-13). Communication between Virtual Boy units requires the use of a special cable, advertised as the "Virtual Boy Game-Link Cable" in the platform's US instruction booklet (Nintendo 1995f,

26). The cable was scheduled for release in early 1996 (*Electronic Gaming Monthly* 1995c) but ultimately never shipped.<sup>3</sup> In 2010, fifteen years after the Virtual Boy's release, *Planet Virtual Boy*<sup>4</sup> user DogP announced plans for creating a Virtual Boy GameLink cable and polled the community regarding their interest in such a project (DogP 2010). Over the next couple of years, DogP iterated on the design of the cable, posted updates on the prototyping process, discussed features and possibilities with community members, and uploaded pictures of the cable's work-in-progress. In mid-2017, Kevin Mellott (mellott124 on *Planet Virtual Boy*) announced that he had picked up the project (with a new design) and that prototype cables would be forthcoming to interested VB homebrew developers, and the first handful were shipped a few weeks later (Mellott 2017). As Virtual Boy user speedyink commented, "Finally, we can experience one of the key features Nintendo should have included at launch, 22 years later!" (speedyink 2017).

Curiously, homebrew support for the cable link predates the availability of a physical cable for fans to purchase. This support was implemented in some of the platform's emulators and utilized in a handful of homebrew games and projects. The most notable of these is *Hyper Fighting* (Mr. Anonymous 2013) released a few years after DogP's announced GameLink cable project. *Hyper Fighting* was intended as a homebrew version of *Street Fighter II Turbo: Hyper Fighting* (Capcom 1992) for the Super Nintendo Entertainment System (Stevens 2015). The game was well received in the Virtual Boy community and even saw a limited release on a custom cartridge with a cardboard box and printed game manual. Considering that the game was based on the SNES port of the original *Street Fighter II* arcade game, *Hyper Fighting* serves as a plausible example of what Capcom might have released for the Virtual Boy in 1995: a game that could have made a difference in the platform's success.

In 2017, some weeks before Mellott's GameLink cable announcement (2017), *Planet Virtual Boy* user M.K. announced that unused GameLink functionality had been found in a disassembled version of *Mario's Tennis* source code (M.K. 2017). Additionally, M.K. was able to restore two of the three disabled game modes (player vs. player mode and player+computer vs. player+computer) and provided a patch that could be applied to the game to restore the aforementioned functionality (M.K. 2017). Here, finally, was a version of *Mario's Tennis* that demonstrated what the game was presumably intended to have been like when it was released alongside the Virtual Boy.

These are two examples of the Virtual Boy fan community speculating on an alternative future for the platform. It is speculation that is based on the features of the hardware (i.e., a cable link port) and intentions (e.g., announced cable that was never released). The case of M.K.'s patch for

*Mario's Tennis* would not be possible without existing code in the game and provides an alternate past in which, presumably, Nintendo had allocated more time and resources to the Virtual Boy (thus allowing for the GameLink cable to be available at launch and for completion of the multiplayer features in *Mario's Tennis*). The *Hyper Fighting* example is slightly different since there is no knowledge that Capcom intended to release a game in the *Street Fighter* series for the Virtual Boy. It paints a plausible alternate past where Capcom signed up for, and was actually developing games for, the Virtual Boy.<sup>5</sup>

With thirty-four announced-and-then-canceled titles (*Planet Virtual Boy* n.d.), it is possible that the Virtual Boy is the only platform for which there are more known canceled than released games. Many of the Virtual Boy's canceled titles had only been announced, with little design or development work. However, there were several games that were ready, or almost ready, for release with rumors of collectors having possession of cartridges and prototypes. So far, two of these have been located and released: *Faceball* (aka Niko-Chan Battle), a game where you "move around and shoot bullets within a 3-D maze as a ball with a smiling face" (*Family Computer Magazine* 1995), and *Bound High!*, a top-down view platformer in development by Japan System Supply where players control a sphere that bounces down (away from the player's view) and "knocks enemies off when it bounces on them" and causes blocks to vanish or "reveal hidden puzzles, items or other objects" (*Nintendo Power* 1996a).

The stories behind the fan releases of both games are long and convoluted. What they share in common is lots of hard work undertaken by fans to get both games to playable states that hopefully reflect their creator's original vision and intention. *Faceball*, in development by Bullet-Proof Software, was first made available as an "80% complete prototype" (Kr155e 2013a). A few months later, *Planet Virtual Boy* user Thunderstruck released *Faceball: Remastered*, which expanded and improved on the prototype by adding a significant number of new levels, enabling features that were originally disabled, and fixing issues with the prototype (Kr155e 2013b). *Bound High!*, presumed to be complete and ready for manufacture (Griffiths 2016), was originally made available after fans obtained a copy of the game's original source code and used it to create a working ROM of the game (Kr155e 2010).<sup>6</sup> Both games also saw eventual limited releases as physical cartridges with custom printed boxes and labels.

Both *Faceball* and *Bound High!* are examples of fans completing the Virtual Boy's softography with titles that could have been "killer apps" for the platform. Both were canceled shortly before they were due for release and would have been part of a second wave of titles for the Virtual Boy. "Bound High contains multiple play modes, which would have made it one

of the most fully realized game packages ever produced for Virtual Boy had it shipped” (Parish 2021, 174). It was impressive enough, at the time, that “Nintendo picked it up for release as a first-party title” (Parish 2021, 174). *Faceball* provided a sought-after immersive gameplaying experience in what was then a hot and exciting new game genre: the first-person shooter. As Parish notes, “Faceball would have been the fast-paced FPS the platform truly demanded in the DOOM-obsessed 90s” (Parish 2021, 174). It is, of course, impossible to know if these titles would have, indeed, turned the tide of commercial success for the Virtual Boy. However, it is undeniable that they represent the next step in the platform’s alternate future lifecycle—they rounded out the platform’s initial set of games.

This is similarly the case for two other highly sought-after canceled games<sup>7</sup>: *Dragon Hopper* and *Zero Racers*. The former, in development by Intelligent Systems, would have been an action-adventure game played from an overhead view in which the player controlled a jumping dragon called Dorin “as he seeks the help of fairies” in rescuing his royal family and his love Diana from the clutches of the “King’s power hungry prime minister” (Nintendo 1996). The game’s view would “provid[e] a dramatic effect when jumping between multiple levels” as “Dorin is able to leap amazingly high to reach platforms suspended in mid-air, or drop down to hidden areas of stages that appear through holes or at the ends of paths” (Nintendo 1996). *Dragon Hopper*’s place in the platform’s softography was akin to a *Zelda*-like action-adventure game. *Zero Racers*, on the other hand, was to be the platform’s first racing game—a fast and futuristic racer that was to be a sequel of sorts to *F-Zero* released on the Super Nintendo. Unlike other games in the series, *Zero Racers*’s racing took place in three dimensions with players racing inside tunnels where they could dive and climb in addition to turning left or right (Nintendo Power 1996b).

The research and media archaeological efforts made toward finding, preserving, reconstructing, and eventually releasing canceled games is not unique to the Virtual Boy as a platform. What is special though is the context in which they happen—they reflect a desire to consider and think about the “what if” situations in which the games were released, to play with their potential success, and to consider a present time in which the Virtual Boy, while possibly an oddity, was not seen as a commercial failure but rather as a new branch in the evolutionary tree of game experiences.

### Perceptions of the Virtual Boy’s Present

A lot has happened in the years since the Virtual Boy’s release and cancellation. In the half-decade since it was canceled, the Virtual Boy transitioned



8.1 A *Tomodachi Life* direct presentation screengrab (Nintendo3DSuk 2014, 2:10).

from being maligned as a commercial failure to being forgotten and ignored. After that, it took on a new role as a cautionary tale for the gaming media (see chapter 7). And for Nintendo, it slowly began to take on a new role as well: a quirky part of Nintendo’s history that is referenced in games, with a wink and a smile, for Nintendo’s savvy fans to notice and enjoy. The Virtual Boy now sometimes appears in the background of other Nintendo games, for example in the room where players see the trophies they’ve earned in *Super Smash Bros. Melee* (HAL Laboratory 2001) or next to the television set that appears in the background of the stage named “Gamer” in *Super Smash Bros. for Wii U* (Sora Ltd. and Bandai Namco 2014). It is also often sometimes an in-game collectible item such as in *WarioWare Gold* (Intelligent Systems and Nintendo EPD 2018) or in *Animal Crossing: New Leaf* (Nintendo EAD 2013), where it is available as a furniture item for players to decorate their homes. In *Nintendo Labo VR Kit*, a cardboard “fold-it-yourself” kit designed to, when paired with a Nintendo Switch, function as a pair of virtual reality goggles, the Virtual Boy appears “in the flesh” so to speak. *Nintendo Labo VR Kit* has a video section that includes a short clip of gameplay from *Mario’s Tennis*. The footage from *Mario’s Tennis* is preceded by a title card that says “Virtual Boy: Check out old VR in new VR!” before cutting to a first-person perspective real-world view of a Virtual Boy on a table that is turned around and switched on before the camera zooms in and the view transitions to the Virtual Boy footage (Nintendo 2019).

There are also Virtual Boy appearances that are more humorous. For example, figure 8.1 shows a screenshot from a special video presentation



for the Nintendo 3DS title *Tomodachi Life* that featured several famous Nintendo employees portrayed as virtual cartoon (Mii) characters dancing around a Virtual Boy with the caption “All hail the Virtual Boy!” (Nintendo3DSuk 2014). The platform has also been used as a self-deprecating joke. Early in *Luigi’s Mansion 3*, “Professor E. Gadd gives Luigi a way to communicate with him as he trawls the many floors of the hotel. It’s his latest invention . . . the Virtual Boo” (Next Level Games 2019). The device is described by Professor E. Gadd as a “state-of-the-art virtual reality device” that is “really cutting-edge stuff” and he predicts it will “fly off the shelves” as soon as he finishes “the marketing materials” for it (Next Level Games [2019], as seen in screenshots used in Kohler [2019]).

It is perhaps no surprise that Nintendo’s former reluctance to talk about the Virtual Boy seems to have changed. This greater openness also coincides with the resurgent interest in VR. In 2010, stereoscopic 3D television sets started to become widely available (they’ve since largely disappeared), and 2011 saw the release of Nintendo’s 3DS console—a handheld that features stereoscopic 3D effects without the need to look into or wear anything. Approximately a year later, Oculus literally and metaphorically kickstarted a new wave of consumer virtual reality technology, which has since seen growth and diversity with video game companies releasing their own hardware (e.g., Sony’s PSVR, Valve’s HTC Vive, and the later Valve Index) as well as mainstream VR games.

It is somewhat ironic that the Virtual Boy is sort of cool again because it is misperceived as an early home VR device. One of the reasons for its demise is now the source of its credibility. Of all the historical, pre-Oculus VR systems and devices available for use in the home or arcade, none is more present in the public’s imagination and knowledge than the Virtual Boy. The “Virtual” part baked into its name will likely always keep it at the forefront of this historical misperception.

As we have shown, the perception of a platform can sometimes matter more than what it actually does, how it works, and what games were released for it. Furthermore, perceptions of a platform are fluid—shifting and changing as the cultural, technological, and social contexts in which they are used or referred to adjust. We do not know how people will perceive the Virtual Boy in the future. But we do know that it will change—perhaps because Nintendo may rerelease its Virtual Boy games, perhaps because entrepreneurial fans may develop a truly innovative and special Virtual Boy game, or maybe because, partly thanks to this book, it will be explored in even greater depth (pun intended).



This is a section of [doi:10.7551/mitpress/11213.001.0001](https://doi.org/10.7551/mitpress/11213.001.0001)

# Seeing Red

## Nintendo's Virtual Boy

By: José P. Zagal, Benj Edwards

### Citation:

*Seeing Red: Nintendo's Virtual Boy*

By: José P. Zagal, Benj Edwards

DOI: 10.7551/mitpress/11213.001.0001

ISBN (electronic): 9780262380669

Publisher: The MIT Press

Published: 2024

The open access edition of this book was made possible by generous funding and support from MIT Press Direct to Open



The MIT Press

© 2024 Massachusetts Institute of Technology

This work is subject to a Creative Commons CC-BY-NC-ND license.

This license applies only to the work in full and not to any components included with permission. Subject to such license, all rights are reserved. No part of this book may be used to train artificial intelligence systems without permission in writing from the MIT Press.



The MIT Press would like to thank the anonymous peer reviewers who provided comments on drafts of this book. The generous work of academic experts is essential for establishing the authority and quality of our publications. We acknowledge with gratitude the contributions of these otherwise uncredited readers.

This book was set in Helvetica Neue and FilosofiaOT by Westchester Publishing Services.

Library of Congress Cataloging-in-Publication Data

Names: Zagal, José Pablo, author. | Edwards, Benj, author.

Title: Seeing red : Nintendo's Virtual Boy / José P. Zagal and Benj Edwards.

Description: Cambridge, Massachusetts : The MIT Press, 2024. |

Series: Platform studies | Includes bibliographical references and index.

Identifiers: LCCN 2023034670 (print) | LCCN 2023034671 (ebook) |

ISBN 9780262045063 (paperback) | ISBN 9780262361842 (epub) |

ISBN 9780262380669 (PDF)

Subjects: LCSH: Nintendo video games—Design. | Video games—Design. |

3-D video (Three-dimensional imaging) | Virtual reality.

Classification: LCC GV1469.32 .Z34 2024 (print) | LCC GV1469.32 (ebook) |

DDC 794.8/3—dc23/eng/20230920

LC record available at <https://lccn.loc.gov/2023034670>

LC ebook record available at <https://lccn.loc.gov/2023034671>