

The Platformization of Nostalgia

In the 2017-18 academic year, researchers at the Residual Media Depot spent a lot of time working with the original model of the Nintendo Wii. Though this project doesn't focus on Nintendo games in general, and we frankly don't care about Wii games at all, we're interested in how people use the Wii as an emulation device, and why.

Old Consoles and Everyday Practice

The main concern of our research on the Wii is what people *do* with old consoles and games. This includes questions like the following:

- How do people modify the devices on which they run their software?
- How are hacks, mods, and homebrew titles produced and circulated?
- What sorts of conversations do modders and hobbyists have with each other about these subjects?
- Where do they buy their tools and equipment, and who makes those tools?

... and so on. Scholars refer to this mix of activities as “cultural techniques” or “everyday practice.”

We believe that the everyday practice around old video game consoles is relevant for a whole set of reasons that transcend the concerns of video game enthusiasts, or even of academics who study video games.

So far, console modding has evaded serious scholarly scrutiny. Our working thesis is that it has huge implications for production and circulation in many parts of culture, because it exemplifies a kind of ad-hoc, small-scale, just-in-time,

but very effective economy that's only possible because of the Internet. Security and cultural policy issues are part of our agenda too. We're interested in the ongoing official response to such practices, and how to reform policy to better accommodate it to actual patterns of use.

So what were we doing with the Wii? For one thing, the Wii was an extraordinarily popular console, so it merits some attention for that reason alone. Nintendo sold 101.63 million of them, handily besting the other major 7th generation consoles (the PS3 and the Xbox 360) by about 20 million units each. Today, more than seven years after the original Wii model was discontinued, this means that there are a *lot* of old Wiis collecting dust in the closets of North America. In Montreal, where we live and work, you can pick up one in a pawn shop with all of the attendant wires and controllers for between 30 and 50 Canadian dollars. This makes used Wiis cheaper than a Raspberry Pi kit by a long shot. And, as it turns out, because of their various built-in controller ports and video ports, and their overall ruggedness, they make better analog video game emulators too, even for the non-Nintendo titles that intrigue us.

Wii-modding isn't difficult. The initial process only takes about 10 minutes, but in the dozen or so years that the Wii has existed, a number of hobbyists have developed different ways to mod them. Many of the tools necessary for their modding techniques are no longer supported by their developers. Some work better than others. But before you even get that far, once you decide that you're interested in modding a console, it can be difficult to track down reliable information about how to proceed.

After studying the matter, we decided that the reasons for using emulation in an academic context are compelling enough that, as a side benefit to our own research, one of our short-term aims was to describe the process to other researchers, teachers and librarians who might find modded Wiis to be a

useful part of their research and teaching tool kits. So we started drafting a technical report on the subject, aimed at scholars with little or no experience in such matters.

And then the news about the judgement in the case of Nintendo of America Inc. and Jeramie Douglas & Go Cyber Shopping broke.

TPM Overreach

Go Cyber Shopping was a bricks-and-mortar and online retailer in Waterloo, Ontario that sold electronic components to modding hobbyists. Among other things, they sold two sets of devices that triggered the lawsuit: hardware tools that enable the use of copied games on some Nintendo handheld consoles (the DS and 3DS); and mod chips and tools that enable disk copying on the Wii. It's worth mentioning that one of the preliminary findings of our research is that by the time the suit was filed, the Wii mod chip in question was obsolete. It has long been possible to copy Wii disks via a software mod; thus, the lawsuit had more to do with providing legal disincentives to hardware modding in general than it had to do with stopping a common infringement practice.

Though Go Cyber Shopping attempted to argue that such devices had a fair-dealing application – namely, to access third-party homebrew games – the court rejected this argument in section 121 of the judgement: “although homebrew software may be available on the internet and users of the Respondent’s devices could theoretically be using them for homebrew, the scale of such activities is dwarfed by the market for illicit and infringing activities.” The court also found that “there are legitimate paths for developers to develop software on [Nintendo’s] consoles without circumventing the Applicant’s TPMs. There is no need for any TPM circumvention to achieve interoperability.”

Both of these contentions are worrisome, and require detailed commentary, as Michael Geist indicates: “Of considerable

concern is the court's conclusion that the availability of a Nintendo-approved interoperability approach would be enough to eliminate the availability of the anti-circumvention interoperability exception." In other words, Nintendo should not be able to dictate the terms of interoperability for all possible users. However, what we want to address in this short post is the very real, non-theoretical impact of the TPM portion of this ruling on our actual, ongoing research.

"TPM" stands for "Technological Protection Measure," and it refers to one of the most troubling aspects of the judgement, from our perspective. The Copyright Modernization Act (Bill C-11) added TPMs to Canadian intellectual property law. The problem with the law as it is currently written is that *it prohibits the circumvention of TPMs even when a person is not infringing on the work the TPM is designed to protect*. Laura Murray and Sam Trosow argued extensively in the 2nd edition of *Canadian Copyright: A Citizen's Guide* that "there needs to be a general exception for non-infringing uses" (116), but the judgement in the Go Cyber Shopping case has made a bad situation worse.

Sections 82 to 84 of the judgement conclude that "access control TPMs do not need to employ any barrier to copying in order to be 'effective'." What this means is that Canadian law limits access to any device that employs TPMs, regardless of whether copying occurs, or whether the person circumventing a TPM has a right to copy a work protected by those TPMs, or even whether the TPM in question does anything to prevent copying (which raises the question of what, exactly, the "protection" in the name means).

The judgement also broadens the notion of what constitutes a TPM. In sections 86 and 87, it states that "physical configuration" – such as the arrangement of electrical pins on an edge connector, or the shape of a media storage card – "is an access control TPM as contemplated under the Act." With such an expansive interpretation, any point of interaction

with a media playing device, including the slot on a screw holding a case together, not to mention various kinds of media adaptors for ageing and obsolete devices, or even an electromagnetic tape head, could conceivably be interpreted as a TPM.

Because the exceptions to Canadian TPM legislation are extremely narrow, with no provisions for commercial reverse engineering or academic study, the result of this judgement is what legal scholars call a “chilling effect”: “a situation where a speech or conduct is suppressed by fear of penalization at the interests of an individual or group.” While there has recently been some progress in the USA in terms of allowing for the “right to tinker,” with the Supreme Court opinion on *Impression Products, Inc. v. Lexmark International, Inc.*, there is nothing similar on the horizon in Canada.

In his discussion of the *Go Cyber Shopping* case, Geist points to the massive problems that this ruling presents for research:

Much like fair dealing – which Canadian courts have ruled is still available even where a licence is available – the anti-circumvention exceptions should be available even if there are other mechanisms to address the concern. For example, there are currently anti-circumvention exceptions for access to materials for the visually impaired, to protect personal information, and for security research. Those exceptions should not be dismissed simply because there may alternate ways to safeguard privacy or conduct security research. Indeed, the use of circumvention may be a necessity given the possibility that companies could offer opportunities for third-party security research but subject to restrictions or conditions that limit the effectiveness of the research activity.

The restrictions on research in this case extend beyond those

Geist describes in the corporate sector into the academy, though. Our own research agenda is now mired in uncertainty, even though information about how to mod Wiis is freely available in multiple online locations, and the products that Go Cyber Shopping were selling are easy to obtain, both in Canada and abroad. A year ago, we would have argued that not installing the software that allows the Wii to copy its own discs, and proceeding with other forms of modification to use it as a general-purpose emulator, would have demonstrated that the intent was not to copy Nintendo's software and therefore not to infringe copyright. Under the new, broader regime of TPM interpretation, we are concerned that the basic process of preparing a Wii for any form of emulation could be viewed as circumvention. The line between a technological inconvenience and a deliberate protection measure is now too blurry to proceed with confidence.

Instead of directly publishing our research findings as a technical paper, we are now in the unhappy position where we feel it's necessary to write policy articles about how we can't release our research findings to other scholars without fear of corporate reprisal. This is not an unfamiliar situation for scholars in many fields of study, but it's extremely discouraging that it has arisen once again.

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The Go Cyber Shopping ruling has created an absurd situation: there is now a strong possibility that a powerful but "obsolete" computing device like the Wii, discontinued by its manufacturer in 2011, can't be legally repurposed for other uses because of ostensible TPMs, even though any other home computer can easily function as an emulator for the same software. This is not only an issue for academics, engineers and other researchers, though that in itself should be enough to spark a call for a change in the law.

There is also a major ethical issue here relating to how we

deal with e-waste on a global level. Remember: there are over a hundred million Wiis in the garbage cans, basements, random crap heaps and landfills of the world. The ITU Global Waste Monitor report notes that as of 2016, over 44.7 million metric tonnes of e-waste is produced annually, with only 20% of it documented as properly recycled. Anyone interested in keeping still-useful but unfashionably dated home electronics like the Wii out of landfills should be scandalized by this ruling.

So far, the Go Cyber Shopping lawsuit is still relatively unknown to most Canadians, let alone to those in the USA. Nintendo's recent lawsuits (*not* takedown notices,) against two large ROM sites, LoveROMS.com and loveretro.co, however, have received a great deal of coverage, almost entirely negative. Researchers like Frank Cifaldi and Jason Scott have commented extensively on the vital role that ROMs play in video game preservation and game studies. But because ROMs aren't a major component of our research at the Depot, and because I have yet to see anything about the implications of the TPM rulings from anyone other than lawyers, that's where I have focused this post.

We think, though, that there is something larger going on. In concert with the tremendous success of Nintendo's "Classic Edition" mini-consoles, and the impending closure of the Wii Shop Channel (which distributed DRM-protected versions of older Nintendo games) in 2019, it seems that Nintendo has developed a coherent new strategy toward its older properties, one that departs from many years of casual indifference to the enthusiasms of its fans.

You could call it the platformization of nostalgia. This is how business is done in the age of the Stack. On a global scale, Nintendo is concentrating decades of public interactions (infringing and non-infringing alike) with its games and game systems into the narrowest possible channel, in order to shut down cultural practices that they don't like, and to extract the maximum profit from their IP. And it's

perfectly within their right to do so.

But as commentators at Wharton college at U Penn pointed out many years ago, in the final throes of the recording industry's battles over music copying, suing your customers is not a winning business strategy. Nintendo's hard-won public image, and probably their bottom line, will invariably suffer as a result of this change in approach.