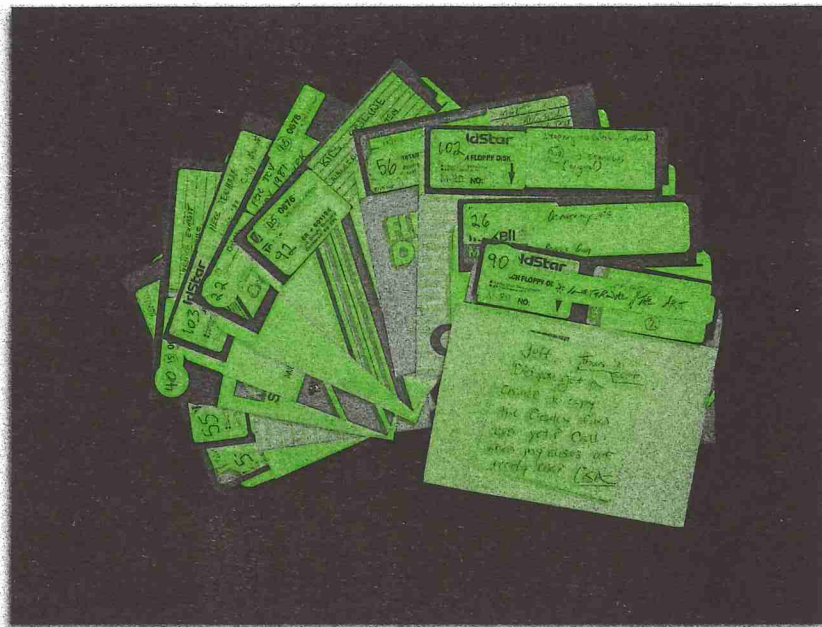


The Death and Improbable Resurrection of Telidon Art

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Telidon art had a precarious existence even in its heyday, and in the decades following came dangerously close to the point of no return. Deeply enmeshed in technologies once thought to promise the future, within a few short years it was relegated to the dustbin of history's also-rans.

The resurrection of Telidon art in the present day was therefore never assured, given the accumulated loss of Telidon hardware, software, and data files over the years. Though our project was ultimately successful, it could have just as easily gone nowhere – if, for example, a box of floppy disks had been discarded, a software toolkit had never come to light, or an old computer terminal had been recycled instead of warehoused.



Floppy disks containing Telidon art files, 2023. Photo by John Durno. Courtesy of InterAccess Archives.

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Sometime around the turn of the millennium, in a crowdsourced compendium of obsolete media called *The Dead Media Project*, artist Geoffrey Shea pronounced Telidon art "dead as a doornail."¹ The exact date of Shea's pronouncement is unknown, but it has to have been between 1995 and 2001.² Regardless of when it first appeared, the phrase "dead as a doornail" implies Telidon art was by then quite thoroughly dead, which is to say it had been dead for quite a while. This raises the question: just when exactly did Telidon art finally die?

Ironically enough, it could be said that Telidon art died several times. In 1982, a scant four years after the Canadian federal government launched the Telidon project, the first version of the Telidon encoding standard (Telidon 699) gave way to the second (the North American Presentation Level Protocol Syntax, or NAPLPS). By design, the second version was not backwards compatible with the first, consigning all the Telidon works then in existence to immediate obsolescence. Although a number of first generation works were converted to the new version, with varying degrees of success, we may consider that transition to be the first death of Telidon art.

The Telidon Project officially ended on March 31, 1985, when budget cuts enacted by the recently-elected Progressive Conservative government brought it to a close. However, as we know, Telidon art continued to be created and exhibited well after that date.

For example, in 1986, Telidon art was featured in two prestigious venues – on a Telidon information network at Expo '86 in Vancouver, and as part of the *Technology and Informatics* exhibition at the 1986 Venice Biennale. True, as Shea notes, the Venice Biennale works never got shown.³ The works on display at Expo '86, though "fragmented" and "disfigured by blacker-than-black screen prompts," fared somewhat better.⁴

In 1987, at the centre of the Telidon art scene, Toronto Community Videotex changed its name to InterAccess, signalling a shift away from Telidon as its primary focus. One might reasonably posit 1987 as the year Telidon art came to an end. This argument is given added weight by the observation that none of the Telidon artworks in InterAccess' archives – of which there are many – can be dated to later than 1987. However, if Telidon art can be said to encompass both its fine and commercial art manifestations, then 1987, far from being the year of its demise, is rather just prior to its period of greatest vitality. 1988 saw the launch of the IBM/Sears joint venture Prodigy Online, a pre-web online subscription service with a then-novel graphical user interface. Built upon the second generation Telidon protocol, NAPLPS, Prodigy would eventually grow to contain "tens of thousands of pieces of hand-drawn digital art."⁵ By 1994, Prodigy boasted two-million subscribers, a moment which could with some legitimacy be called "Peak Telidon," even if no one was using the term "Telidon" anymore.

1994 was, of course, also the year that a relatively new technology called the "World Wide Web" entered the hyperbolic phase of its growth curve. Within two years, Prodigy would reposition itself as a gateway to the Web, and deprecate its NAPLPS-based service, now called "Prodigy Classic." On October 1, 1999, Prodigy terminated its Classic service, and it's here where we finally reach the point to be able to say, without reservation, that Telidon art, in all its manifestations, was well and truly dead. A moment not far removed from the occasion of Geoffrey Shea's *Dead Media* pronouncement.

In the years following, Telidon art languished, all but forgotten. True, "the artworks still exist on 8-inch floppies somewhere in a filing cabinet," as Geoffrey Shea observed, "but as far as I know there is not an existing operating decoder which can display them. Sure some of the work is on slides, etc., but the actual works in their crude 'interactivity' cannot be seen."⁶ Shea's millennial observations became the consensus view, so much so that they were echoed in a *Vice* article on Telidon art fifteen years later: "The only remnants that exist today are photos and videos of the original interactive pieces, as well as floppy disks."⁷

However, at the time the *Vice* article appeared, that view was already coming into question. In January of 2015, I began a project to restore Telidon artworks created by the late Glenn Howarth, working from digital files recovered from floppy disks in the collection of the University of Victoria Archives. By the middle of that year it was clear that at least a partial recovery and restoration of Telidon art would be possible, though many challenges had yet to be addressed.

3. Shea, "Dead Medium."

4. Glenn Howarth to Tom Graff [computer file], 2 July 1986, box 10, folder 4, Glenn Howarth fonds, AR465, University of Victoria Special Collections and University Archives.

5. Benj Edwards, "Where Online Services Go When They Die," *The Atlantic*, July 12, 2014, accessed September 18, 2022, <https://www.theatlantic.com/technology/archive/2014/07/where-online-services-go-when-they-die/374099/>

6. Shea, "Telidon."

7. Jordan Person, "The Original Net Artists," *Motherboard: Tech* by *Vice*, July 21, 2015, <https://www.vice.com/en/article/ezveak/the-original-net-artists>.

It turned out the consensus view was based on a (partly) mistaken assumption. Shea alludes to a "decoder" as a necessary prerequisite for the display of Telidon artworks, reflecting the belief that Telidon art was completely dependent upon specialized computing hardware (a "Telidon decoder") that was no longer available. This is only partly accurate, but completely understandable when one considers the Telidon timeline described above.

As previously noted, the original Telidon artists had largely abandoned the medium by 1988. Up to that point, general purpose personal computers had not been sufficiently powerful to display Telidon, so specialized hardware, somewhat akin to a TV cable box, was required.⁸ But that also changed shortly afterward, due to the ever-increasing processing capacity of desktop computers of the era. By the late 1980s, a number of companies had developed "software decoders" to make possible the display of second-generation Telidon (NAPLPS) on standard personal computers, without the need for specialized hardware. The most prominent of these was Microstar, the Nepean, Ontario-based company that developed Prodigy's NAPLPS rendering subsystem.

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8. "Telidon Videotext Decoder," Ingenium, September 9, 2016, <https://ingeniumcanada.org/channel/innovation/telidon-videotext-decoder>.

However, the consensus view on the difficulty of Telidon art restoration was not entirely wrong. Of the many challenges to be overcome, I will here mention three:

1. Locating a first-generation Telidon decoder. As first-generation Telidon code was not compatible with NAPLPS, no software ever existed that was capable of displaying it. Finding an operating decoder was critical to the restoration of first generation Telidon art.
2. Locating original Telidon art files that we knew had once existed, but whose present whereabouts were uncertain.
3. Locating software capable of displaying NAPLPS artworks as they were meant to be seen – not just rendering the images of which they were composed, but also capable of restoring the "crude interactivity" of which Geoffrey Shea speaks.

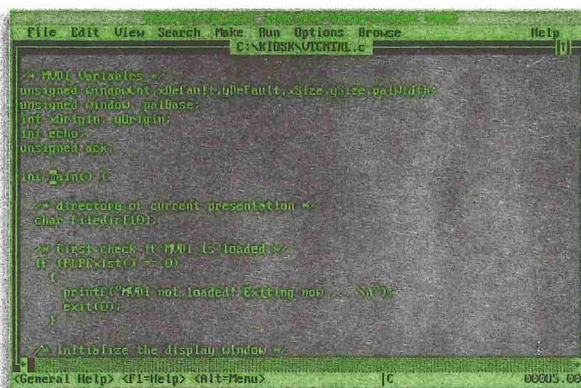
It is fair to say that the uncertainties inherent in overcoming these challenges made the success of our project somewhat improbable, and overly reliant upon what can only be described as "good luck."

First generation Telidon terminals were primarily deployed in a series of field trials held throughout Canada in the very early 80s. As noted above, these terminals would have been obsolete by 1983, and most were likely scrapped shortly thereafter. As very few were ever made, it is remarkable that any survived in working condition. However, one turned up years later in the collection of SPARC, a small, volunteer-run radio museum near Vancouver.⁹ I came across a mention of it on a mailing list archive, and when I approached them SPARC kindly agreed to an extended loan. Although a few other Telidon terminals are known to exist in various public and private collections, this is the only one I have ever come across that was available to our project. They are rare.

9. SPARC Museum, Society for the Preservation of Antique Radio in Canada, <https://sparcradio.ca/>.

While some Telidon artworks were known to be in the University of Victoria Archives, and a few more turned up in the personal collections of the original Telidon artists, the vast majority of works were recovered from the roughly two hundred floppy disks stored since the 80s in a back room of InterAccess. Their continued existence depended on a confluence of fortunate circumstances, notably InterAccess' ongoing stewardship of their historic materials, perpetual throughout the many changes of staff and locations over a period of decades.

Software capable of displaying NAPLPS graphics is still available on the Internet, downloadable from various mirrors of decades-old shareware repositories. However, none of the readily available NAPLPS programs met our requirements. The software we needed turned up instead in the form of a generous gift from the founders and former owners of Microstar. Unasked, they gave to me what could well be the last remaining copy of their software toolkit, MVDI, for building NAPLPS applications. This enabled me to develop a display program implementing the kinds of user interactions characteristic of Telidon art. That this software came my way in the form of an unsolicited donation was fortuitous indeed, as I did not even know it existed before it arrived in my office.



```
File Edit View Search Make Run Options Browse Help
C:\MIDSTAR\MVDIRTL.C
> mvdi
-- MVDI Variables --
unassigned command, set default, get default, set size, get size, get window
unassigned window, get base:
int <dir base, dir length>
int <echo>
unassigned ask:

int main() {
    -- directory of current presentation --
    char *filedir(10);

    -- First check if MVDI is loaded --
    if (FILEEXIST(" "))
    {
        printf("MVDI not loaded! Exiting now ... \n");
        exit(0);
    }

    -- Initialize the display window --
}

<General Help> <F1=Help> <Alt=Menu>
00005.000
```

Software development with Microstar NAPLPS toolkit, 2023. Photo by John Durno. Courtesy of Historic Computing Lab, University of Victoria.

Improbable though the success of our project may have been, it is instructive to contrast it with a parallel project to recover and restore what remains of Prodigy.¹⁰ Although significant progress has been made in rebuilding its underlying technologies, only a small percentage of Prodigy's many thousands of digital art images have been recovered since the project began nearly ten years ago. With each passing year, Benj Edwards's speculation that most of the Prodigy data was "perhaps overwritten by a series of indifferent corporate overlords"¹¹ becomes ever more likely, making a comprehensive recovery impossible, not just improbable. The stewardship of corporate data is too often dependent on monetary value, not cultural value. In light of this, the stewardship practiced by artist-run centres like InterAccess, grassroots collectives like SPARC, and publicly-funded memory organizations like the University of Victoria Archives, is critically necessary. The precarity of Telidon art is a theme running from its earliest beginnings, through its commercial fine art heyday, through its lapse into total obscurity, and now into this present day reintroduction. It is disturbing that some of the earliest works of interactive networked computer art in Canada came as close as they did to vanishing altogether, but also fortunate indeed that so many of these works have since been restored, and that selected examples are now accessible, through the modern convenience of the Internet, to a global audience.

10. "About the Project," Prodigy Reloaded, accessed September 19, 2022, <https://www.prodigyreloaded.com/project/>.
11. Edwards, "Where Online Services Go When They Die."