201105 SWCP Portal

Ghosts in the machine

Digital Immortality?

By Jay Nelson, Editor

A common Internet truism says that once something's posted, it can never be "unposted". Sadly, that rule seems to apply mainly to embarrassing pictures and emails that one would hope would go away. But what about the good stuff, the important papers, events, and accomplishments one wants to preserve online, even after physically departing this world?

This is a question not only for individuals mourning their loved ones. As the world moves into the Digital Age, the issue of what can and should be kept is being debated by historians, librarians, and entrepreneurs. The history of this critical time in our development could very well be lost in a digital dark age if too little is preserved, or drowned in an ocean of useless informational debris if everything is retained.

Part of the problem of choosing is that what is garbage to one academic is gold to another. Archeologists often find more about the intimate lives of people from their trash than their monuments; future scholars may likewise treasure tweets and spam.

However it's not impossible that more digital garbage than useful data will survive. Your old forgotten comments on abandoned forums, outdated information that was once helpful spread across the Net, the ashes of flamed-out email wars — these kinds of things seem to endure despite all efforts to eliminate them. Some have suggested that files be given expiration dates, or somehow slowly fade away or be archived if not accessed regularly. However, no one has come up with a good way to make this work. **Entropy** — natural, inevitable decay — is much more reliable over the long haul, but it's not choosy.

Libraries burn, languages change, servers get fried. Depending on the accidents of time to determine the contents of our legacy is just too risky a gamble. So many treasures of antiquity, for example, have been erased. A good example of just how little actually remains is the original **Trojan War** cycle. This was a collection of a great many more tales than that of the wooden horse and Odysseus' journey home. We probably have less of the full epic, percentage-wise, than if there were just the first and last **Harry Potter** novels and merely cover-blurbs for the rest. That's over *two-thirds* of the entire story missing! Less popular works and themes are even less likely to survive.

Our shiny new gadgets are actually no more enduring than papyrus. We rarely notice because they often become obsolete well before they break. But in time any data format may become as unreadable as Egyptian hieroglyphs were before the **Rosetta Stone**. Even worse is that all depends on ephemeral devices that are not meant to last forever, but be replaced in turn.

It's more than just inconvenient. **Obsolescence** became a serious issue over a decade ago when old programmers had to come out of retirement to deal with the **Y2K** scare. And retirees from NASA struggled for years to rebuild equipment to make the only surviving high-definition copy of the first Moon landing tape viewable again. Even with museums of computing and legacy programs, the problem will only get worse.

Few records other than engraving in stone last forever. Certainly no electronic medium is dependable for more than a decade or so. Therefore, just like the ancients, our new technologies are based on copying and recopying to keep information alive, hopping from one frail form of recording information to the next.

Fragility can be made up for with numbers. Any one paperback is not likely to last for a hundred years but one in a million might. Yet information that is precious to only a few also is only preserved by copying.

What happened to millions of families' home movies from the 50s illustrates this. The films themselves have become brittle, useless, faded scraps of plastic by now. Unless their images were transferred in time, first to VHS by the 80s, then to a CD in the 90s, and most recently to a flash drive, all those memories likely disintegrated somewhere along the way.

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Digital archives

Once uploaded into cyberspace where copying is the norm, data *should* survive indefinitely. Barring accidents and natural or man-made catastrophes, the biggest danger online is deletion due to **irrelevance**.

Not long ago Yahoo shut down its huge **Geocities** webhosting site. A popular portal in the early days of the Web, it offered free hosting and site-building tools. Eventually, the crude, often eye-jarring look of many pages, highly uneven content, lots of spam and the rising availability of better options caused the whole thing to lose posters and viewers. Yet Yahoo's decision met dismay from users. Fans joined together and managed to save and repost 641 GB of content. Only time will tell if their passion was worth it.

There are formidable institutional efforts at preservation as well. Probably the biggest and most successful attempt to save and keep accessible past versions of Internet so far is the **Wayback Machine** at the Internet Archive, *www.archive.org*.

The Internet Archive preserves snapshots of the Web, boasting of **150 billion webpages** saved since 1996. It's possible to trace the growth of favorite websites or find long vanished pages. The site hosts special collections, like one on September 11, and offers assistance to other organizations as well. Likewise, their partners in the National Archives of Britain and the US Library of Congress are also deeply involved in digital preservation and continuity issues.

Memorial websites were for a long time strictly personal efforts but no longer. The rising numbers of online memorial providers, many free, reflect how the world is turning to the Net for all its needs, including grief. Monuments can be private sharing of memories, or open to all. Slideshows, videos, and tributes can be added, even donations for the deceased's favorite charities can be gathered in lieu of flowers.

Due to abuses at some sites, including placement of inappropriate advertising, there is now a voluntary **Memorial Code**, *www.thememorialcode.org*, with guidelines for reputable providers. Due to the potential for identity theft, website providers, both free and for profit, should be carefully checked out, especially their privacy policies and protection.

Death on **Facebook** is no longer necessarily the end either: the site now allows pages for deceased members to become memorials. But there's no guarantee that it or any other free site might not change their policies at some future time. Pay websites expire when the funding runs out, too. All things must pass.

Perhaps, that is, until science invents a way to upload our minds as digital avatars in eternal crystalline matrices. At least until then, what is undoubtedly certain as death itself is that we poor mortals must continue backing up our files and dumping out spam.

SWCP Joins Important IPv6 Non-Event!

We who labor behind the scenes to make the Internet work will be holding our breath on **June 8**, **World IPv6 Day**. With luck, it will be a big yawn for everyone else. On that day, for the first time, many major websites will be reachable by IPv6, including SWCP. The reason few will notice is that not many are using IPv6 yet. But the reason it is an important experiment is that *everyone* will be using IPv6 eventually.

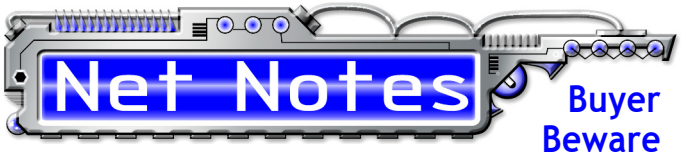
Every computer that connects to the Internet needs an IP address so that it can communicate with other computers. We currently use IP version 4, but the problem is that we are fast running out of those addresses. Most Internet service providers still have some IPv4 addresses available for their customers, but the day is soon coming when they will not.

IPv6 is a new addressing scheme which provides a virtually unlimited number of addresses: **340 undecillion**, a number so big it is impossible to grasp. However, transitioning from one addressing scheme to another for the whole Internet is far more complicated than adding a bunch of zeroes. We need a test.

That is what World IPv6 Day is about. On June 8, Southwest Cyberport will join such Internet giants as **Google**, **Yahoo**, and **Facebook** by making our website available by IPv6. All will still remain available by IPv4, of course. Because very few people yet use IPv6, almost no one would know IPv6 Day was happening if we did not make a big deal of it.

We worry about IPv6 so that you do not have to. As the Internet slouches towards this exciting and potentially tumultuous transition, SWCP is working hard to make sure our customers are taken care of.

There *is* a small chance that World IPv6 Day might cause you problems. The Internet Society estimates that .5 % of Net users will have trouble trying to visit a site that has both kinds of address. If you have difficulty reaching sites on June 8, please call us at **505-232-7992**, or email *help@swcp.com* so we may help.



Buyer Beware

Recently, a book on Amazon was priced at nearly $24 million before anyone noticed. It was a standard biological lab text entitled *The Making of A Fly*, but it was not a special edition etched on gold pages or anything unusual. It was just the first discovered result of a situation where two competing sellers used automatic programs to try to keep their prices at the top. Neither were apparently hoping to sell anything for such ridiculous sums. It seemingly had to do with vendor ratings; higher prices tending to inspire more confidence in buyers, and hence, more positive feedback.

Now the phenomena is known, it's feared that such loops could provide "endless possibilities for chaos and mischief".

- michaeleisen.org