

How the Net Works IV

On Copy Rights and Neutral Nets

By Jay Nelson, Editor

The first battle over copyright on record was an actual battle. Around 560, Columba, an Irish monk, copied out a book of psalms, intending to keep it for himself. This was disputed by St. Finnian, owner of the original volume. The saint was supported by the court which said that the reproduction rightfully belonged to him just as a calf does to its mother. It being the Dark Ages, there was nothing for it then but to fight it out.

Columba's side won the melee; in grief over the carnage, however, the monk left Ireland forever. During his lifelong exile, he founded the great monastery of Iona where the magnificent *Book of Kells* was later made, was the first known witness of the Loch Ness Monster, and became a saint, too, so it all worked out pretty well for him in the end.

A millennium and a half later, however, copyright conflicts are still being fought almost as viciously in the courts. But while modern media could not even be imagined by the scribes of old, the issues would be quite familiar. Now, as then, the greatest disagreements are often caused by the use of new technologies to do things previously impossible – be it with a goose-quill pen and parchment back then, or mouse and keyboard now.

No rational person would disagree that artists should receive some just payment for their creations, nor that those enabling such production and distribution should likewise be fairly compensated. In most cases, the investment of time, talent, and above all, money, is quite substantial. But the problem is that these new devices of ours make it so very easy and inexpensive to reproduce (or alter) books, music, and movies that no one knows *what* their true value may be anymore.

In fact, our digital technology is just as magical as that of *Star Trek*, albeit it's only information that can be transported and replicated effortlessly and not solid objects. But the problems posed are identical. Would a diamond be so precious if you could make as many as you want, wherever you like, at the mere touch of a button? What about a Harry Potter film, then?

So it is that the old cultural agreements hewn out of ideas of material scarcity and the added value of labor must be argued out all over again. But the Internet, by its very nature, makes the situation even worse.

Because, ironically, the way electronic files are transferred across the Net is *entirely dependent* on copying.

Any time you download anything, it is not transmitted directly to your laptop or iPhone. Instead, as pointed out in an earlier article in this series, all that data moves by being replicated time and again across the Internet in the form of small information **packets**. All those copies generated enroute are quickly written over – or should be – but the fact is that the Internet is fundamentally based on copying files, all kinds of files, back and forth.

The inherent uncertainty involved in this is one reason why email is so insecure, but also partly why the entertainment industry is so deeply concerned about people sharing files. They are desperately holding onto an obsolete economic model of control because nobody's yet come up with a new one that works any better.

Things get even more complicated once a file is uploaded. Generally, the amount of data online that needs to be moved across the system far exceeds its capability. In other words, the pipes are just too small for all those packets to go at once. Some scheme to regulate traffic flow is essential.

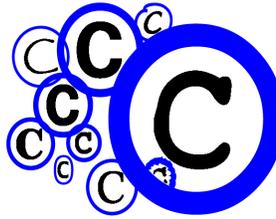
The issue of prioritizing data on the move is called “**Net neutrality**”, and is as hotly debated as copyright, for much the same reason: it's all about having power over the Internet. The implications are also huge, and as much political as economic.

Historically, the Internet has always been neutral, relying on the simple principle of “first come, first served”. Information reaching a server is queued up to be sent on in the order of its arrival, much like physical packages at the Post Office. What *kind* of data the packets contain, origin or purpose, is technically irrelevant.

However, out in the “real” world, such factors are significant indeed. Physical mail is all highly prioritized. Larger packages and greater distances cost more. Extra-value services like express or priority delivery move items to the head of the line, and they may require special handling or tracking. Foreign and suspicious packages can be intercepted, inspected, and held up.

Such practices are slowly appearing on the Internet. Some governments already filter their countries' email for surveillance – as in the Great Firewall of China and the snooping of all traffic by the good old NSA. Questions raised by these policies become ever more intense as global corporations and governments seek to maintain their grip and expand their grasp.

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Content providers, especially those marketing on-demand video, desire to speed their data packets across their systems with as few interruptions as possible. Moreover, they are naturally unhappy about allowing packets from rival services – especially peer-to-peer networks who may be distributing an identical product without charge – to use their systems just as freely.

Comcast has already gotten into trouble for slowing such traffic down. They claim that allowing bandwidth-hogging file-sharing impairs connections for their other customers. But larger issues are also involved, including privacy and ownership of information.

“Fair use” for parody or social commentary is under serious legal attack, often by big media corporations. Individuals have also been sued outrageous amounts for downloading pirated music and movies. Privacy rights online in general are in great peril, too. The *Anti-Counterfeiting Trade Agreement (ACTA)*, a proposed treaty now in final, secret negotiations, could cause entire families, where just one person is suspected of unapproved downloading, to be exiled from the Internet for life, without *any* legal recourse whatsoever, according to geek activists at truthout.org and other sites.

ACTA might even compel ISPs like Southwest Cyberport to enforce this, acting as “Net cops”, required to constantly maintain logs of everything ever done online and snoop on users’ content. Needless to say, these are things we do *not* want to do. We would *much* rather spend our time finding ways to provide new and better services for our customers than to police them.

Hopefully, such a Big Brother scenario will never occur, but unless legal safeguards are soon put into place, Net neutrality is on its way to becoming more of an ideal than a reality. Historic decisions yet to be made concerning who owns the Internet and the information in it, will doubtless be a major factor in shaping the twenty-first century.

Net Notes

Tweets from Space

Astronauts aboard the International Space Station received a special software upgrade recently, providing personal access to the Internet and the Web via the ultimate wireless connection.

This personal Web access, called the Crew Support LAN, takes advantage of existing communication links to and from the Space Station and gives astronauts the ability to browse and use the Web. The system will provide astronauts with direct private communications, helping to ease the isolation of life in a closed environment during long-duration missions.

During periods when the station is actively in contact with the ground using high-speed radio communications, the crew will have remote access to a ground computer, using an onboard laptop to interact directly. In addition to this new capability, the crew will continue to rely on official email, VOIP, and limited video-conferencing abilities.

– NASA

Making content management easy

VLW: A Simple Site-Builder for Everyone

By Victoria Vesey, Director of Technical Support

Individuals and small businesses need a web presence at a reasonable price. Preferably, they could use one that’s also easy to set up and doesn’t require hiring a Web designer or mastering computer codes. For these folks, SWCP recently added a new level of Webhosting called **Starter** at only \$7 per month. However, it still required that you know basic Web design or know someone who could do it for you. What was really wanted was a simple site-building tool that anyone could use – and we’re pleased to announce that we now have a solution.

VLW (for “Very Light Weight”), pronounced “velew”, is the only Web application offered with our Starter Webhosting Package. A basic CMS (or “Content Management System”), VLW provides a quick and simple means of building a website for a wide variety of purposes.

Using an easy editing interface that looks similar to most word processing programs, VLW requires no specialized Web design skills. It also comes with a variety of handy site templates for you to choose from to vary the look of your website, and can set up simple forms for viewers to fill out (you’ll get the answers by email).

You can install VLW on any website hosted here at SWCP, either as the main area of the site, or as a section of an existing website. If you don’t want to get a domain name of your own, we are offering VLW sites hosted under velew.com. They come with addresses such as “joesrestaurant.velew.com” at the same price as our Starter Webhosting.

Building a VLW site is quite simple. When you first log into your administrative page, you’ll be prompted for some basic information about the site and an optional logo. Next, you’ll select a template that will apply to all pages, defining how the whole website will look. Then you can add, delete, and edit the pages in your site online, including contact forms. When first installed, some sample pages are available to demonstrate the capabilities of VLW. You can edit those for your own content, or delete and build your own. It’s that easy.

How useful is VLW? Over the last ten years, I’ve worked on a few personal websites using several different methods, from hand-writing HTML code, to expensive programs like Dreamweaver, to Web applications like VLW. When I needed to put up a quick, informative website recently that someone else was going to maintain, I turned to VLW and had the site up and ready to go in just half an hour.

Those who do have some Web design skills may still want to check out VLW. While the main editing interface is “what you see is what you get”, you can also edit your pages’ HTML code directly for advanced results. You can even create new templates of your own, too, with more information available at www.velew.com. 