Wall of sound

Radio stations are finding ways to stream audio through their websites – and discovering new ways to make money in the process. *Michael Twist* investigates

Stylistic differences: The Web gives access to stations playing exactly the sort of music *you* like

Perhaps one of the most overlooked examples of convergence, despite being able to add significant value to a website, is audio streaming over the Internet. To be able to hear your favourite music merely by accessing a website adds much to the Web experience. Using your home computer as a CD player can be done – so why not use it as a radio? The Web has opened the door to possibilities such as audio streaming, and radio broadcasting through the Web, otherwise known as 'webcasting', is here.

audio streaming

Downloading sound, such as .wav, .au or .mid files, from Web pages takes a significant amount of time, and users still have to wait until these files are fully downloaded before listening to them. With streaming audio, however, adding sound capabilities to a website is a much less painful process – people can hear the audio within seconds of clicking a link. The only catch is a player or plug-in must be downloaded – luckily, these are freely available on the Internet. Companies such as Apple, RealNetworks and Liquid Audio have developed streaming technologies and players for audio and video. Companies such as NetRadio.com have brought the

technology to the next level by partnering CD retailers, to sell directly from the Web. Users of NetRadio.com's website can select music or information channels.

In fact, there are now many radio stations online. Yahoo has one that lets you choose the type of music you like. In London, 1FM, XFM and Virgin lead the audio-streaming pack. And, while it's not an exciting page, the immensely useful MIT list of radio stations on the Internet provides extensive contact details for the UK, Ireland, Canada, Africa, Australia and the rest of the world – in all different languages.

streaming audio websites

MIT Radio Stations List
wmbr.mit.edu/stations/list.html
BBC Radio 1
www.bbc.co.uk/radio1
Virgin
www.virginradio.com/onair/home.htm
Radio 1 Norway
www.radio1.no
XFM
www.xfm.co.uk

Anywhere, anyhow: Radio stations throughout the world are broadcasting, or rather 'webcasting', through the Internet

But why has Internet radio caught on so fast? The simple answer is the ratings figures – what was once a local phenomenon now has the potential of a global audience. Audio streaming opens up a wide listener base beyond the immediate market, especially for more specialised material such as that broadcast on independent radio stations. The technology can also be used to cover live events that users on the far side of the world would otherwise find impossible to attend.

The new technology also meets users' demands that websites become more multimedia-oriented. It's quite clear that text is boring. Elements such as audio ◖

some day my synth will come

The build-it-yourself mentality that has filled the Web since its inception is also found on Net radio. All over the world, enthusiasts are giving airtime to music that would never get played on mainstream traditional stations. *webspace* spoke to Todd Clayton, aka DJ Todd of Real Synthetic Audio (RSA) – player of the finest industrial, goth and synth-pop in Canada.

WS: How did you get into Internet radio?

TC: I've been a club DJ for about the last five years – and I'm also a computer geek. Internet radio is kind of a natural meet in the middle.

WS: How successful is RSA?

TC: I'm clocking about 200-250 people a day, so enough to keep me happy.

WS: Is Internet radio a profitable enterprise?

By no means am I making a profit out of this – this is a labour of love. It does cost me a fair bit of money to do, but it's not a huge thing. I guess you could say that one of the reasons I do it is that

sometimes I have been criticised on the club scene for not being 'underground' enough – and not giving the indie bands enough attention. So this is one of ways to say "oh yes I am – just in a different medium".

WS: Do you gain revenue from advertising or other schemes?

TC: As far as advertising goes, I provide the links to buy the albums from my playlists. I get some money from that, but not a lot. However, as far as banner ads and other mainstream forms of advertising, that sort of thing bugs the hell out of me when I surf, so I don't want to inflict it on anyone else.

WS: Are you worried that what you do may be infringing copyright laws?

From what I've heard, the Canadian government stance is that as long as you have playlists that are publicly available then they aren't going after you. However, even if that changes, I have full support from the industrial and gothic labels that I play – so I don't expect to get any flak.

streaming add value to a website and – most importantly – make it sticky, enticing users to return to the site. With audio streaming, users do not have to wait for hours to download an audio file. They can also multi-task as long as they stay connected to the Web. Listening to the radio, word processing, checking email and using a spreadsheet are all possible at once.

name that tune

How many times have you heard a track on the radio that you like, but don't know the name of either the song or the artist? How would you like to have that information readily available at your fingertips and be able to buy the CD through the Web? There is a rumour that Boxman is developing just such a technology – one that enables Radio 1 Norway to display the song and artist currently being played. Radio Data Services (RDS) accompanies a traditional broadcast and enables listeners to tell what station they are hearing. What is most interesting about this technology is the possibility of somehow transmitting track and artist information with the data, enabling a website to update as each new song comes on.

Rumours are that Virgin and other London radio stations could bring some form of RDS technology to the UK, thus giving radio station websites the ability to sell CDs directly from their radio broadcasts – something that Boxman would surely welcome.

money, money, money

It seems an easy way to sell CDs – a radio station broadcasts music and has a link to an area to purchase the CD online. But for artists, music labels, and radio webcasters, the difficulty is deciding how the money should be divided.

In the US, a battle is currently raging between the Recording Industry Association of America (RIAA) and online radio stations. Because the Web is a new area of convergence, the RIAA has had a hard time keeping up with developments such as the MP3 compression technology that provides near-digital download quality.

Fears of piracy have been realised and RIAA is trying to control the explosion.

Though traditional radio stations pay RIAA nothing for major-label content, they pay fees to the American Society of Composers, Authors and Publishers (ASCAP). RIAA CEO Hillary Rosen recently commented that "RIAA is helping to build an entirely new business on the Web by making it easy to get licences for webcasting." She predicts that "within a few years webcasting will be a very powerful force in the outlet for music."

Because big money is involved in CD sales linked with radio streaming, those who broadcast through the Web want more. Mark Hardie, a Forrester Research analyst suggests that "people like NetRadio and Spinner are trying to prove that, because of them, music sells."

And the record industry is likely to step in and demand some of the online business. Because of this, the Digital Media Association (DiMA) was formed. DiMA includes Web and music industry heavyweights such as TCI, RealNetworks, MTV, and AT&T. The RIAA seems to think that negotiations should be behind closed doors, and not open to the public.

While this wrangling continues, some of the largest radio-related Web businesses are being consumed. For instance, Yahoo recently bought Broadcast.com for $6 Billion USD, and AOL acquired Spinner.

streaming into the future

Regardless of the complicated battles between RIAA and DiMA in America, it is clear is that audio streaming on the Internet is here to stay. It is quite amazing to be able to listen to a live broadcast from a radio station on the other side of the world.

Naturally, radio stations want to promote their broadcasts, and the Web offers further audiences and advertising markets. Selling CDs is a natural extension, and offers consumers a more convenient way to purchase the music they like. What is abundantly clear is that streaming audio through the Web has given radio a fresh breath of life, and that the potential to extend ecommerce is greater than traditional broadcasters could ever have imagined. **w**

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radio gaga

Creating radio for the Net is not as expensive as you might expect. As a guide to the kit needed to start your own Net radio station, this is the hardware and software used by DJ Todd for streaming Real Synthetic Audio.

hardware

Dell Dimension XPS R400, 256MB RAM, 10GB UW SCSI Hard Drive, Soundblaster AWE64 Gold, 3Com Etherlink Fast-XL NIC (x2), 3Com OfficeConnect TP Hub, Nortel 1 MB xDSL Adapter, Creative 2x4 CD-Writer, ATI All-In-Wonder Pro PCI Graphics Card, ATI Rage II AGP Graphics Accelerator, Acer 76e Monitor, Digital 7060 Monitor

software

Microsoft Windows 98, Microsoft FrontPage 98, CoolEdit 96, CDDAE v3.04, Real Producer Plus, Real Player G2 Plus, TAG Composer v2.0

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contacts

Apple (QuickTime)
www.quicktime.com
Boxman
www.boxman.co.uk
Digital Media Association (DiMA)
www.digmedia.org
Liquid Audio
www.liquidaudio.com
NetRadio
www.netradio.com
RealNetworks
www.real.com
Real Synthetic Audio
www.synthetic.org
RIAA
www.riaa.com