



## Internet applications, sites, trends and happenings

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This column aims to draw your attention to various interesting Web sites which I have come across and which might appeal to you, and to keep you up to date with news and views on Web trends and developments. Essentially it offers a personal selection rather than comprehensive coverage.

### Search engine optimization

Hot off the press! The CyberAtlas Research report, *Search engine optimization strategies: a marketer's perspective*, co-authored by search engine guru Danny Sullivan and Chris Sherman is now available at AllNetResearch (<http://allnetresearch.com>) for \$295 (PDF version). Widely considered the Web's search engine guru, Danny Sullivan has been helping Webmasters, marketers and everyday Web users understand how search engines work for over five years. His new 46-page report, *Search engine optimization strategies: a marketer's perspective*, covers the opportunities for search engines to profit from premium participation programmes, and discusses how businesses offering Search Engine Optimization (SEO) services have failed to convince the market that they produce more Web traffic than internal optimization efforts.

### EncycloZine

EncycloZine is a large non-commercial site with hundreds of pages covering the arts, history, humanities, science and technology. It also features games, puzzles, illusions, Web design, photos, etc. According to LibrarySpot, EncycloZine describes itself as a concise *illustrated encyclopedia* and a *compendium of diversions*. LibrarySpot goes on to add that it's also a joy to visit. Although limited in scope, the online encyclopaedia features innovative design, pleasing colour schemes, informative articles and curiosity-arousing diversions. Most of the site's contents feature science and Web design-related information with a healthy dose of optical illusions, an Internet art gallery, and a Web design reference section. In addition, each topical section also includes a list of recommended sites on that same subject.

Claimed to be the first site to use and teach HTML's successor, XHTML, EncycloZine is produced by Alan and Lucy Richmond, founders of the Web's first commercially successful site for Web developers, The Web Developer's Virtual Library, now owned by internet.com (formerly a part of Mecklermedia). EncycloZine (<http://encyclozine.com>) is neither exactly an encyclopaedia, nor exactly a portal – it's a hybrid, combining the strengths of both and circumventing their weaknesses. The result is designed to make it easier to use the World-Wide Web for research and learning. The producers of the site reckon that it is a labour of love and they created it not for commercial gain but because they enjoy creating informative and entertaining Web sites.

**Virtually yours**

Wouldn't it be great if Web sites and e-mails could not only communicate ideas, but also emotions? Well, a new era for a more human interface with the Web has begun with the first application of LifeFX technology. LifeFX claims to be able to represent the expressive variety of human personality and intelligence through the Internet and e-mail using their Stand-In Virtual People system. This free e-mail application lets you send and receive e-mails with LifeFX Stand-Ins that will speak your message.

LifeFX™ Facemail is a powerful, entertaining and easy-to-use technology that enables you to send and receive talking e-mails that have life-like human expressions. This is guaranteed to change forever the way in which you communicate. LifeFX Facemail uses Stand-In Virtual People to communicate the e-mail that you write. It is as simple as typing text the way you do now. Plus, you control the engaging expressions of the Stand-Ins by using typical, familiar emoticons. Each Stand-In Virtual Person has its own set of expressions that can be touching, surprising or funny. Currently you can send facemail messages with your own voice, but eventually you'll be able to send LifeFX a picture of yourself so that they can create your own personal Stand-In that you can employ to read and deliver your e-mails!

To the best of the company's knowledge, LifeFX has the only biologically based facial modelling system in the world, thus enabling it to be the first to break the barrier to creating believable, photo-realistic, life-like virtual people.

You can download your own copy of Facemail (4.5 MB) from the LifeFX Web site (<http://www.lifefx.com>). Or, to experience Stand-Ins on other Web sites, just download the LifeFX player (392 K).

### **Your mouse is watching you**

I've previously discussed how Web sites keep tabs on you, monitor what you do and where you go. Well here is a new twist in the spying tale taken from a recent story on the Beyond 2000 Web site ([http://www.beyond2000.com/news/Sep\\_01/story\\_1274.html](http://www.beyond2000.com/news/Sep_01/story_1274.html)). If you don't know this site, then I commend it to you for all kinds of trendy scientific and technical news and products.

The Web is big business and that means that those with a business stake want to know as much as they can about the habits of consumers. It may feel that as you scroll up and down a page or navigate through a Web site that you are doing so in privacy, but increasingly, your habits are being monitored. Now researchers at MIT's Media Lab have developed a system that can sense, not just where you click on a page as at present but, where your mouse actually moves about on the page. This implies that many more 'habits' of Web surfers can be determined. The system (called 'cheese' since the researchers are following the mouse, like a mouse follows cheese) records changes in mouse location during an individual's visit to a Web site.

The system provides the means to find out exactly how users navigate a page, thus giving an extensive user model. Traditional Web interfaces only respond to mouse clicks when seeking to classify a user and the Media Lab researchers have expanded this to make a system that takes into account all mouse movements on a page, giving even more information about the surfer.

The team conducted a study to find patterns of usage by people on the Net, such as following text with their mouse as they read. Such behaviours, common to many users, are useful to know when creating or changing a Web site's design. The intention is to analyse a user's behaviour in real time, which would allow providers to create a more personal

browsing experience. Some mouse movements are common to many users and Web sites. For example, when a user moves the mouse straight to a link of interest, it indicates a familiarity with the task they are undertaking. The researchers can tell if a user is reading a Web page, because the user moves the mouse to one side or use it to move down the page.

The MIT team studied the mouse movements of 17 people who were all familiar with computers and browsing. Participants used the mouse pointer to read lists on Web pages in 30 per cent of cases, which allowed the team to predict what options the user was considering. The team then applied these findings to a particular scenario, and asked the participants to choose a CD or DVD on barnesandnoble.com or amazon.com. The users moved the mouse cursor over the alternative CD links before selecting the one they wanted to buy. Their second choice was predicted from the link they hesitated on longest. The team's predictions were 65 per cent accurate for one Web site and 75 per cent accurate for the other.

To date, there have been a number of systems developed to monitor certain behaviours on the Net, such as looking where you are and where you've been to anticipate where you will soon go, 'Web-guides' to take you on a tour of the Web once you tell it where you want to go. There are also a number of programs that look at user interaction with mouse-clicks and scroll-bars. So it seems that in the future, instead of a largely unchanging Web page, people will be presented with an interface that changes as the system gets to know their habits.

### **Internet access from home outstrips access from work**

Jupiter MMXI's Online Market Landscape reports on Internet behaviour of over 5000 people every three months, covering Europe's three biggest markets: the UK, France and Germany. A couple of their recent press releases give some interesting insights into Internet behaviour – for instance, of the 92 million people who have an opportunity to access the Internet in the UK, France and Germany, less than a third have Internet access at work. The current report shows that the home computer is still by far the most popular means of accessing the Web. In the UK, 61% of Internet users have access from home, in Germany 57% and in France 51%. Other devices are increasing in popularity, such as PDAs and mobile phones, but they trail the PC.

A combination of other locations such as someone else's home, libraries, Internet cafes and schools prove to be as popular as work for surfing the Web. Of Germans 5.6 million, of French 4.4 million and of Britons 4.1 million are surfing the Web from a friend's house, showing that lack of ownership of a PC is still a barrier to all Europeans having Internet access.

Not only do more people have access from home or alternative locations, more than 50% of people at work in the UK, France and Germany also have to share Internet connections with colleagues. The majority of those (40% in Germany, 45% in France and 44% in the UK) have to share their Internet connection with three or more people.

In another recent report, Jupiter MMXI revealed that last year about 60% of Internet users typically visited more than 20 Web sites every month. This year, the figure is nearer to 30%. It seems that people, after initially spending years on the Web, are now mainly going online just to check their list of favourite Web sites – sites they know to be useful or entertaining. Idle surfing it appears is now merely an occasional pastime – and it's not simply a matter of cost, since many users now have unmetered access. Despite the increased use of the Internet as a business tool, the Internet is used more widely for entertainment and shopping from home – though, in fact, for the majority of people, Internet access is actually e-mail.

For more information about the Online Market landscape, visit Jupiter MMXI's Web site at <http://www.jupitermmxi.com> and select the UK homepage.

### **Web milestones October 1999 to September 2001**

With September 2001's data release, Jupiter MMXI now has two years of research on the evolution of the 'at home' Internet behaviour of Britons. Over that time the Internet has touched everyone's lives, growing at an astounding rate and proving to be an important source of information, communication and services for both business and consumer. Some research highlights, showing how the Internet has developed and evolved in the UK over the last 24 months, can be found at [http://uk.jupitermmxi.com/xp/uk/press/releases/pr\\_101501.xml](http://uk.jupitermmxi.com/xp/uk/press/releases/pr_101501.xml). The research also shows the top ten rankings in the UK: first is msn.co.uk followed by msn.com and yahoo.com. The top ten global domains in the UK have Msn, Yahoo and Microsoft as the top three.

### **More Internet demographics**

Another authoritative online source of information on Internet demographics and trends is Nua.com. It is claimed that over 200000 people in more than 140 countries read Nua's news and analysis every week. Nua's database contains over four years of freely accessible information gathered and collated by Nua, and weekly editorial articles have put topical events into context since 1997. Nua is particularly well known for its unique How Many Online? feature, which offers an estimate of the global Internet user population, based on extensive examination of surveys and reports from around the world. Nua was founded in 1996 and Nua Internet Surveys was acquired in June 2001 by the Scope Communications Group, Ireland's leading IT Media Company. Nua covers a vast range of Internet sectors: advertising, auto industry, e-commerce, financial services, knowledge management, recruitment, telecoms and so on. In addition it surveys trends in areas such as abuse, censorship, education, online communities, privacy, etc. Nua can be found at <http://www.nua.com> or <http://www.nua.ie/surveys/>

### **The invisible Web revisited**

I've previously discussed the Invisible Web and the recent book by Chris Sherman and Gary Price, entitled *The invisible Web: finding hidden Internet resources search engines can't see* (Information Today 2001). The invisible Web Web site, which is a companion to the book, is now available online at <http://www.invisible-Web.net/>

The site includes a directory of some of the best resources the invisible Web has to offer. The directory includes resources that are informative, of high quality and contain worthy information from reliable information providers that are not visible to general-purpose search engines. Precedence is given to resources that are freely available to anyone with Web access. However, a few select resources that are either free to search but have a resulting fee-based content (such as News Library), or charge a small fee to search and a fee to access full-records are also included. Some sites may be free to search and access full records, but require the user to register at no charge before granting access.

The invisible Web directory covers such areas as art and architecture, news and current events, bibliographies and library catalogues, computers and the Internet, education, government information, health and medical, science, and much more – each category has many subdivisions. The invisible Web will soon become your new, preferred information source!

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