

## A WASHABLE, FOLDABLE KEYBOARD

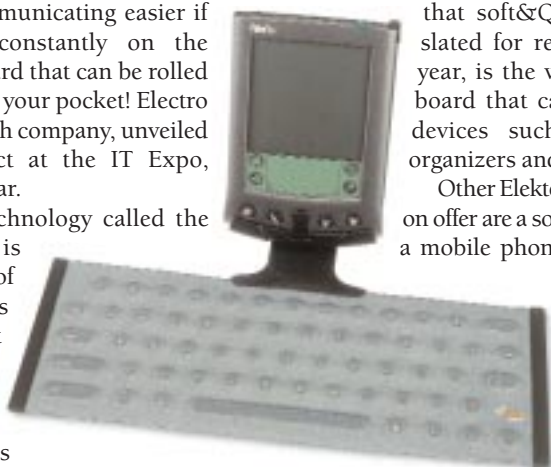
# Hitting the right key

**H**ere's a product that will definitely make communicating easier if you are constantly on the move—a keyboard that can be rolled up and put into your pocket! Electro Textiles, a British company, unveiled such a product at the IT Expo, Cannes, this year.

It uses a technology called the ElexTex which is a combination of fabric structures that support conduction and data processing. One of the products using this technology is the keyboard, soft&Qwerty, which can be washed, scrunched and folded without any harm

to its functionality. Electro Textiles claims that soft&Qwerty, which is slated for release early next year, is the world's first keyboard that can be used with devices such as palmtops, organizers and mobile phones.

Other Elektex-based products on offer are a soft phone, which is a mobile phone with a flexible and conformable body, and Car seat, which has sensors to optimise load distribution for increased comfort.



Take a look at these products at [www.electrotextiles.com](http://www.electrotextiles.com)

## TRANSMITTING DIGITISED SCENT

# The scent of things to come

**S**ome call it the sex toy of the future while others call it a revolutionary e-commerce technology. Digiscents, a private company in California, is developing a technology for 'digitising, transmitting and synthesising' scent. This, according to the company, is a new set of tools for self-expression, communication and even commerce.

Digiscents is developing both the software components and the hardware part called the iSmell Personal Scent Synthesiser.

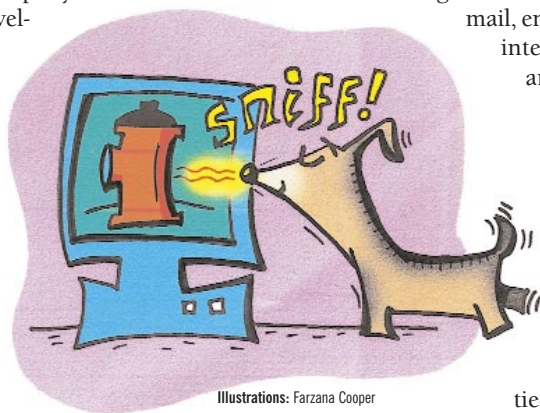
The iSmell is a speaker-sized device that you can attach to the serial or the USB port of your computer. It takes virtual real-

ity to a new level—it emits vapours into your personal space and allows you to do all sorts of cool stuff such as sending and receiving scented e-mail, enjoying realistic interactive games and entertainment, and taking a whiff of products such as groceries and flowers before buying them.

The company has also tied-up with companies such as Real-

Networks and Asia-Pacific's Pacific Century CyberWorks Network. Digiscents also has a scent-enabled portal and plans to release the iSmell device very soon.

Sniff out more information at [www.digiscents.com](http://www.digiscents.com) and [www.firstwhiff.com](http://www.firstwhiff.com)



Illustrations: Farzana Cooper

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“The most absurd thing I've heard in my life.”

**Steve Ballmer**

**CEO, Microsoft**

To Sun's Scott Mcnealy's opinion that software is merely a feature of hardware and not an industry.

“I've said it for two years. The PC is dead.”

**Louis Gerstner,**

**CEO, IBM**

On why his company is investing more in e-business and moving away from the PC business.

“We beat Sun, we beat HP, we beat IBM, we beat Compaq. We beat 'em all.”



**Michael Dell,**

**CEO of Dell, in *Upside Magazine***

Talking about Dell being the number one PC in the US and across the world.

“Mr Gates, I'll be your server today.”

**Sam Ockman,**

**CEO, Penguin Computing, at Network + Interop 2000**

Taking a dig at Microsoft's Windows 2000 series while defending Linux as the better operating system for networking.

“India is an exception. The more you use, the more you are penalized.”

**B.V. Jagdeesh,**

**CEO, Netscaler**

At IT.COM 2000 in Bangalore, commenting on the high telecom rates in India and how they could affect the growth of the Internet.

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## Not just air, even computers are everywhere

Wouldn't you like it if you could do more work or accomplish a lot by actually working less? That's exactly what researchers, working at Massachusetts Institute of Technology (MIT) on project Oxygen, are aiming to do. Under rigorous research, the project aims at bringing down computing to a level which will be freely accessible and available just as oxygen in air. The Oxygen system will bring an abundance of computation and communication to users through natural spoken and visual interfaces, making it easy for them to collaborate, access knowledge and automate repetitive tasks. This system, according to the Laboratory of Computer Science, MIT would be pervasive, embedded, nomadic and eternal. In short, it will blend into the life of people and enable them to do complex computations like rou-

tine tasks. Oxygen rests on an infrastructure of mobile and stationary devices connected by a self-configuring network. This infrastructure supplies an abundance of computation and communication, which is harnessed through several levels (system, perceptual and user) of software technology to meet user needs. With the concept of Oxygen system, a new communication network has been developed in MIT's laboratory. Code-named N21, these networks have the capability of dynamically changing configurations of self-identifying mobile and stationary devices to form collaborative regions. It provides multiple communication protocols for low-power point-to-point, building-wide, and campus-wide communication and also the means for secure information access.

### A NEW CONSORTIUM

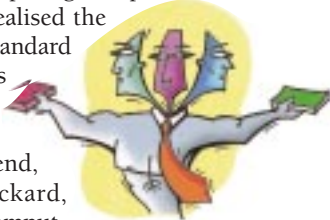
## United we distribute

**D**istributed computing is in the headlines these days. With several startups and established companies such as TurboLinux and Sun Microsystems having developed their own products to use distributed computing, companies have realised the need for a standard to harness this tremendous power.

To this end, Hewlett-Packard, Compaq Computer, SGI, Platform Computing and other companies have joined hands to develop a standard so that this computing power can be channelled effectively. The consortium, New Productivity Initiative, aims to make this technology, called Distributed Resource Management, a transparent computing platform of immense power to help reach new levels of productivity.

According to the consortium, this new initiative will have major implications, which will affect the way executives, department managers, knowledge workers and IT professionals work.

More food for thought at [www.newproductivity.org](http://www.newproductivity.org) and [www.platform.com](http://www.platform.com)



### CYBER SABOTAGE

## Hacked to death

**A**nd you thought it was only the Pakistanis who hacked into Indian Web sites and defaced them. There is a worse cyber war being fought between the Israelis and Palestinians. This war, which started over two months ago, has resulted in the defacing of over 40 Israeli sites and about 15 Palestinian sites. This attack, using a program called FloodNet, started when pro-Israelis created a Web site, wizel.com, which reloaded a target Web site several times a minute, rendering the site dead. Since then, the warfare has resulted in the defacement of many other Palestinian sites such as [hamas.org](http://hamas.org) and Israeli sites such as those of the Bank of Israel and Tel Aviv Stock Exchange.

Now, with a number of script-kiddies and professional hackers joining both the groups, there is a fear that these attacks might escalate with hackers targeting US sites. There are reports that Lucent's Israeli site was hit by a tool called Defend, which is somewhat similar to FloodNet. Also, a Palestinian hacker supposedly intruded and shut down an American Israeli Public Affairs committee site. Time for a cyber peace-squad to make an appearance?

### PCs REDUCE TO TABLET-SIZE

## Small is beautiful

**M**icrosoft is busy putting finishing touches to its latest product—the Tablet PC. The size of an 8x11-inch legal paper, the product is expected to be able to do everything a notebook PC can. Plus, it is peppered with new features such as a voice recognition interface, wireless Internet capabilities and compatibility with a Stylus. Quite a long time in research, this device is rumoured to be Bill Gates's pet project.

Powered by the Crusoe processor, the



Tablet PC has been sampled at the Comdex/Fall this year. Microsoft offered a sneak-peek at what this product could do in June, when it unveiled its .Net strategy. Gates had then showed how the product would allow hand-written input. This product also has handwriting-recognition capabilities similar to that of Palm.

The tablet prototype, which Gates called 'the ultimate .Net client', uses electronic ink technology that will allow users to write directly on the tablet screen, like they do with paper. The ink and screen technologies in the tablet will allow users to do everything from searching their handwritten notes, to opening up screen space and adding annotations.

The product is based on an embedded version of Microsoft's NT-kernel and Whistler, the new operating system being developed by Microsoft.

More details will appear on [www.microsoft.com](http://www.microsoft.com)

## Magic Numbers

### HITS AND MISSES ADVERTISING ON THE NET

**80%**

Web advertisers use  
banner- ads

**0.5%**

banner-ads receive any  
response

**72%**

People check their  
e-mail first

**5-15%**

is the response rate for  
optional e-mail ads

Source: BSA/SSIA Study

### NEW TOOL FOR INTERACTIVE CONTENT

## Bang on Target

Good news for Web developers! Macromedia and Allaire are planning to release a new toolkit called Harpoon, which will enable integration of interactive content with server-side programming. Harpoon will allow developers to use Allaire's ColdFusion and JRun servers as the back-end and use Macro-



media's Flash as the front-end servers. The product would include Flash-based user interface elements such as menus, drop-down lists and grids, which will be presented in CFML (ColdFusion Markup Language) or JSP (JavaServer Pages). Users can control these elements using the above scripting tags. The Macromedia Generator Server can be used to enhance the capabilities of Harpoon.

This product would benefit developers, as many of them are already using Dreamweaver UltraDev with Allaire ColdFusion and JRun to build dynamic Web applications. The merging of Flash into this toolkit would provide the visual appeal of Flash along with the power of ColdFusion. Harpoon is slated for release in the beginning of 2001 with the beta version available in December this year.

All you developers eager for more information can check out [www.macromedia.com](http://www.macromedia.com) and [www.allaire.com](http://www.allaire.com)

### INTEL'S PROCESS TECHNOLOGY

## Moore's Law never dies

Intel is sticking its thumb out at all those predictions about the demise of Moore's Law. The Law certainly seems to be alive and kicking, what with Intel's completion of the development of its 0.13 micron (130 nm) generation logic technology. This will allow Intel to produce chips with transistors that are 1/1000th the width of a human hair. According to Intel, this advanced process technology will make computer chips smaller and more powerful. Volume manufacturing is expected to begin next year and may contain more than 100 million transistors in a chip that could run at multi-gigahertz speeds.

Intel's 130 nm technology, which features the world's fastest transistor, uses a 70 nm transistor gate and a 1.5 nm gate oxide, both the leanest in the industry. Intel is also planning to reduce the SRAM cell size using this technology and intends to create SRAM cells that are the smallest in the industry. The processors are also expected to consume less power and would operate at 1.3 volts or less. Production is expected to begin in 2002. Viva la Moore's Law!

More about Intel's small wonders at [www.intel.com](http://www.intel.com) and [www.intel.com/research/silicon](http://www.intel.com/research/silicon).

## IRUSalert

### Seeker

This new Trojan uses the same vulnerability that KAK and Bubbleboy use to enter into the Windows Startup directory. The Trojan has three parts—the HTML pages and two HTA files. When the surfer views any malicious Web page, the HTML file puts in two files, runme.hta and removeit.hta in the Windows Startup directory and the root directory, respectively. When the system is restarted, the runme.hta executes and then changes the startup page of both Internet Explorer and Netscape Navigator and also modifies the way default search pages are used. It then runs the remove.hta file and removes the runme.hta file. To protect yourself, install the patch from <http://www.microsoft.com/technet/security/bulletin/ms99-032.asp>.

### KRIZ

This virus infects the Windows 9x/NT system when an infected .exe file is run. When installed, the virus drops a file KRIZED.TT6.

This file has a copy of the kernel and the virus codes embedded in it, which modifies the Wininit.ini file. This makes the virus delete the file KRIZED.TT6 after it replaces the original kernel32.dll.

This way, the virus is active in the memory and infects all the executed files, and also attempts to destroy the CMOS of the computer. The system would display a checksum error when it is rebooted and the CMOS has to be reset to default to make the system run again. This virus is in the wild in India.

## MIND VENTURES

### Dotcom Expo

January 4-7, 2001

Venue: Hotel Intercontinental, New Delhi

Contact: Exhibitions Unlimited

Phone: 011-3710973/3716318

E-mail: [dotcomexpo@exhibitionsunlimited.com](mailto:dotcomexpo@exhibitionsunlimited.com)

### IT Buzz.com

January 5-7, 2001

Venue: Nehru Centre, Worli, Mumbai

Contact: Samir Mongia,

Bombaybuzz.com

Phone: 022-5911111/5910001

### Delhi IT.Com 2001

February 5-8, 2001

Venue: New Delhi

Contact: WECOM

Phone: 011-4324674/4324675

E-mail: [wisitex@giasd101.vsnl.net.in](mailto:wisitex@giasd101.vsnl.net.in)



# Is your privacy at stake?

The issue of online privacy has not yet sparked a national debate in India. But does that mean you blindly give personal information to Web sites that ask for it?

Sunil Srinivasan

**C**ookies. Data collection. Profiling. You may not know the exact definition of these terms, but you do know that they have something to do with the rather nebulous issue of online privacy. So what is the hullabaloo about? Is your privacy really at stake? What can companies do with the information they have about you? How would it benefit them?

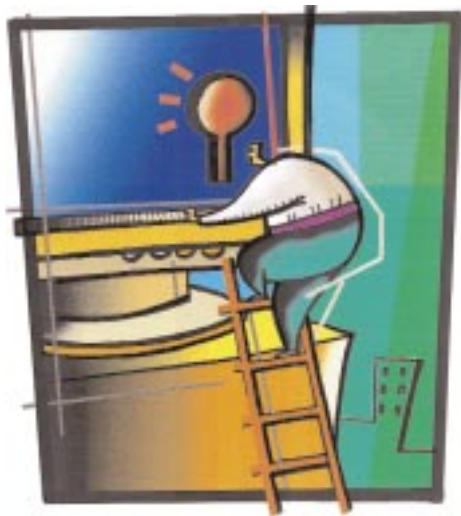
Internet companies such as Amazon and advertising servers such as DoubleClick claim that they collect the information to target and serve the consumers more efficiently.

This might look like the normal procedure of targeted marketing, which most household goods manufacturers follow, but you have to agree that it takes on a greater dimension in the e-world. Also, it goes beyond simply collecting information. Some sites that want to make your visit a little easier just put little bits of information on your computer—cookies—to personalise your visit to the site. At another level, cookies could be used to track anything from your purchasing habits to the sites you visited earlier.

## The verdict of the people

E-commerce has, of course, been hyped about no end, with phrases such as 'e-do or e-die' and 'the future of all businesses is online'. But the important question is: are there enough customers who are

willing to give out their sensitive personal information such as credit card numbers when they shop online? A report presented to the FTC (Federal Trade Commission) on online privacy in the US said that 92 per cent of the users were concerned about the misuse of their personal information on the Internet.



But wait! Another research done by Pew Research Foundation in the US shows how little people are concerned about giving out such personal information as their e-mail ID! According to this survey, only 5 per cent of the respondents used 'anonymising' software to prevent their computers being tracked by Web sites. About 20 per cent used a secondary

e-mail address when they were forced to provide an e-mail address. And barely 25 per cent provided fake names and false responses when personal information was asked for.

## So whose privacy is it, anyway?

These days, every site has a privacy policy where it tells you what it will do with the collected data. But how can you be sure that a site will not sell off or 'share' your information without your knowledge, usually to indicate to other companies that you are a potential customer? This is where third party privacy protection companies and the government come into play.

Companies such as TrustE and CPA's Web Trust frame strict privacy policies for sites, audit individual sites and award a seal of certification to the ones that ensure the customer's privacy. The US government is moving in the same direction. There are about 12 bills relating to the Internet and Online Privacy pending before the assembly. There has been an initiative from the US government that aims to regulate privacy policies and laws such as the Child Online Privacy Act, which prohibits the collection of information from children younger than 13 years.

What about online privacy in India? Well, the simple truth is that there isn't any. Most of the online companies and even major portals here don't have a proper privacy policy in place. They define it the way they want to. But should you be concerned? There are hardly any customers queuing up to make purchases off the Net. Some sites still use the good ol' cash-on-delivery model to conduct transactions. With the low numbers interested in buying online, privacy is not really an issue worth examining right now. But if the process of regulation is not started now, it might be our personal data up for sale out there in the not-too-distant future. ■

## Up for Sale

Aristotle International is a company in the US that caters to the political and the influential by providing names and addresses of over 150 million registered voters. Now it is entering the Internet market and intends to sell its database to Web sites that will use this information to target advertisements better. Aristotle has filed for an IPO. It has

also tied up with MatchLogic which serves banner-ads, through which target ads for Procter&Gamble would be used. Some 25 states have objected to this and are demanding a prohibition on the commercial use of this information, arguing that this data should only be used for governmental, political and scholarly purposes.

## Top Digital Media/Web Companies

Total Unique Visitors: 7,98,59,000

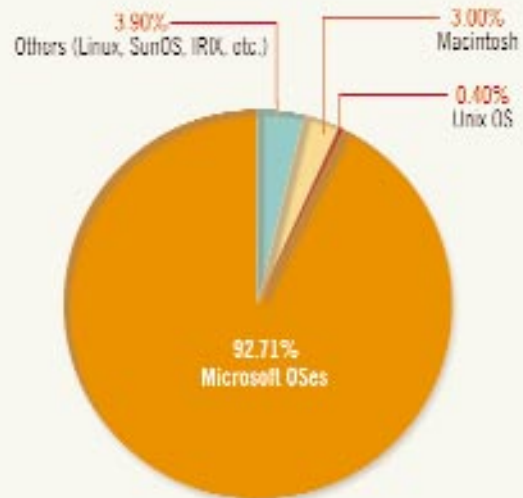


\*Includes other sites owned by them

Figures in Thousands

Source: Media Matrix Inc.

## Operating System Usage on the Web



Source: StatMarket

Infographics: Jaya Shetty



## Q/A

**Manu Agarwal, CEO, DESIGN EXPO NETWORK**

Manu Agarwal, CEO and co-founder of the Mumbai-based Design Expo Network, an Internet solutions and products company, has won a design

patent from the US government along with Manek Advani and Dr K. Reza. Here are more details on the exact nature of the patent.

### ▲ What exactly is the design patent all about?

The patent is basically a design of the architecture of a row decoder for flash memory chips used in all programmable system devices, which are used in consumer products ranging from mobile phones to microwave ovens. Flash memory refers to memory that is not driven by power. For example, when the batteries are taken out of a cell phone, the settings are not affected, since the device works on flash memory.

### ▲ How is this technology different from previous such technologies?

The patent was basically awarded on grounds of cost efficiency, faster accessibility and redundancy. This row

decoder optimises the functioning of the flash memory chip along three parameters—size, time taken for decoding and building a redundancy into the decoder. We worked on reducing the size of the decoder as well as the time it takes to decode. As far as building redundancy into the chip goes, what we did was configure a row decoder that was capable of mapping the bad rows to the extra rows built into the chip.

### ▲ How did the patent come about?

The architecture of the row decoder had been designed while I was a part of the R&D team at Wafer Scale Integration, a US-based company. We were a team of three who designed the

decoder. We applied for the patent in 1997 and received it four months ago. I am expecting a couple of more patents before the end of next year.

### ▲ Have you tied up with companies such as Intel to produce chips incorporating your technology?

There have been no tie-ups as such. As I was always inclined towards creating technologies, I came back to India and started Design Expo Network Pvt Ltd, where I am now heading the Product Division of the organisation.

We are working on the communications technologies for tomorrow. We are actually investing and working on R&D for new products and communication tools.

## Thermometer

### HOT

#### Windows Media

Is certainly going places. An independent research firm—Market Decisions Corp.,—found that 68 per cent of enterprises deployed streaming using Windows Media, a considerable rise from 46 per cent in May 2000.

#### Personal Computers

As per an IDC study, the worldwide PC market grew by 18.3 per cent until the third quarter this year, compared to Q3 of 1999, belying IBM's claims that the PC is dead.

### COLD

#### Netscape 6

All complaints of differing standards have been confirmed by a petition from David Flanagan, the author of JavaScript—The Definitive Guide, that the browser is not conforming to standards.

#### DEJA

Deja, the famous Web site for Usenet access is up for sale according to reports by ZDNet Interactive Week

▲ Asian language domain names are now available for registration ▲ Intel releases Pentium 4—the next generation processor