

**Show stopper**

Wireless technology transforms the trade show experience. **18**

**From code to cash**

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Tariff cuts, new services mean ever more subscribers in India. **32**

**Mobile multi-media**

Mobile is now a media channel, says On publisher Torbjörn Nilsson. **50**

# on

1\_2003

## THE NEW WORLD OF COMMUNICATION

"The user shouldn't have to adapt to the technology all the time. It should be the other way around," says Jon von Tetzchner, founder of the Opera browser



¶ **Just browsing.** Mobile Internet users want to see everything on a Web page, **not just text** or special handheld material, says Jon von Tetzchner, one of the founders of Opera, the **browser designed with mobile devices in mind.** *Page 24*

# THE MAESTRO SPEAKS

According to developer Jon von Tetzchner, Opera may well be the browser for all seasons and most languages ...the mobile Internet browser everyone has been looking for. **Page 24**

**on** 1 2003  
THE NEW WORLD  
OF COMMUNICATION



COVER PHOTO: BO MATHISEN

On the cover: Jon von Tetzchner, developer of the Opera browser.

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Sci-fi will turn sci-fact as technology makes the leap from lab to every day life.



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## 18 ON WITH THE SHOW

Trade shows are going wireless. From exhibition floors to the meeting rooms, conventioners are connecting wirelessly in ways unheard of even five years ago.



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## 28 EARLY DEVELOPER

From idea to finished product, developing a new application is usually easier with a partner.



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## FUTURE FORECAST

¶ Some scientists and researchers are taking wireless technology to the outer limits of “weird science,” proposing everything from spying insects to wearable computers. If the plans of these scientists come true, wireless technology could continue to change our daily lives in more and more bizarre ways, according to a story in this issue of *On*. But I guarantee that if you were to revisit the story in a few years, some of those things that once were perceived as bizarre will have become tomorrow’s realities.

In another story, we see how wireless technology is changing our experience of trade shows. Yet I wonder if there really will be trade shows anymore once the mobile Internet has become a widespread reality. With so many CeBits and Telecoms behind me, I’ll be thirst to volunteer to give up sore feet and a bombardment of public relations messages in exchange for an easy chair and my mobile, where I could watch presentations of products and solutions at my own desired speed and my own convenience. Plus, it would surely be cheaper for all the companies who participate.

It’s better to spend a public relations budget on meeting points such as the 3GSM Congress in Cannes. If you missed it, *On* publisher Torbjörn Nilsson talks about important messages from this year’s congress in his “What’s Next” column. He points to the two strong drivers for market growth: new subscribers and increased usage. The latter will most probably be a very strong force, he says, as new services become available and as mobile users learn to enjoy and benefit from more content such as images and video files. Content such as presentations of new products from companies that dared not take part in the latest trade show.

**LARS-GÖRAN HEDIN**

Executive editor

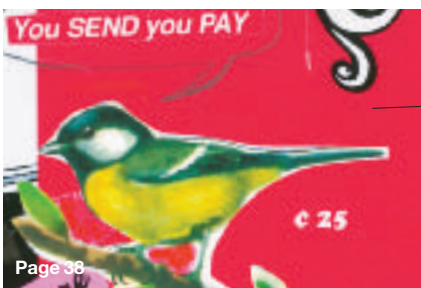
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### 32 INSIDE INDIA

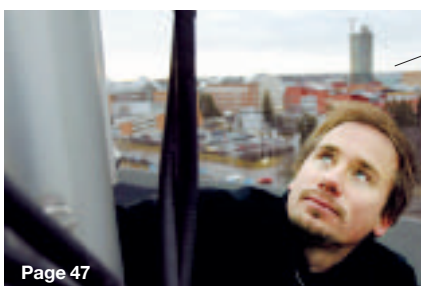
With potential to become the world’s No. 2 market, India’s growing pains don’t seem to hinder its development.



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Operators now widely offer mobile data services, but the trick lies in how to charge the customer – and make money.



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All it takes is a van, a computer with the right software, and a whole lot of patience to make sure networks are the best they can be.

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## CONTRIBUTORS



**Bo Mathisen**



**Nils G. Indahl**



**Pia Koskela**

### BO MATHISEN

Award-winning photographer Bo Mathisen has worked as a staff photographer for VG, Norway's largest newspaper. Now working as a freelancer, he takes on both commercial and photojournalism assignments, as well as video documentary work. Mathisen is currently working on a book of his own photos taken around the world. **Page 24**

### NILS G. INDAHL

Reporter Nils Indahl prefers the Jaguar (Macintosh operating system, that is). He has lived in the Oresund region for the past 15 years and considers Oresund "a river that runs through Scandinavia's main metropolis." He trained as a journalist in England and has worked as a political and foreign correspondent in Oslo. He teaches digital journalism at the School of Arts and Communication (K3), Malmö University. **Page 24**

### PIA KOSKELA

Freelance illustrator Pia Koskela works out of a studio in Stockholm's old town. Her collages can be seen regularly in a number of publications, including *Dagens Nyheter*, Sweden's foremost daily newspaper. She has been known to bring an exacto knife and glue with her on vacation, and together the three of them have experienced such wonders as the Taj Mahal and the Ice Hotel in Jukkasjärvi. **Page 38**

# on THE NEW WORLD OF COMMUNICATION

This is Ericsson's global customer magazine. It's about the excitement and dynamics of the rapidly developing new telecoms world. It's about business opportunities and solutions, the people and players, and major industry developments. In short, it is about being *On – The new world of communication.*

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(on PROFILE)))

# OPERA'S MAESTRO SPEAKS

Some people drive a Jaguar. Others build their own Web browser. Reporter *Nils G. Indahl* talks to Jon von Tetzchner, one of the founders of Opera, by all accounts the browser at the top in terms of the mobile Internet.



¶ The Opera browser is small, compact, fast and takes very little computing power. In fact, Opera seems to be the mobile Internet browser everyone was looking for, replacing MS Explorer as the technological leader in the handheld market.

“ Consumers have a lot of power in the browser market,” says Jon von Tetzschner, co-founder and CEO of Opera Software. Von Tetzschner is demonstrating the new Sony Ericsson P800 model with Opera installed on it. “ The user shouldn’ t have to adapt to the technology all the time. It should be the other way around,” he says.

“ The mobile Internet user wants to see everything on a Web page, not just text or special handheld material,” says von Tetzschner. “ At the same time, we are talking hardware that is at the level of the desktop computer of 10 years ago. The screen is small, and there is no way to click on objects. How do you choose a link or input information? It’ s a real challenge for the software developer.”

Von Tetzschner stumbled upon the Web in 1992. He was a young computer science graduate working for Telenor, the state-owned Norwegian operator. One of the

proposed products was a multimedia word processor that would render text, images and sound on any platform. When Telenor decided to close the project in 1995, he acquired the rights with his colleague Geir Ivarøy and founded Opera Software.

“ From the beginning we were convinced that Web browsers should be designed to work on mobile devices,” he says. “ And they should give the user access to the whole Internet, not just specially designed pages. Consumers will see new services emerging over time. Applications, games.”

Opera Software’ s vision, says von Tetzschner, is to keep the “ boundary-less community” ideal of the Net, but he is quick to point out that not everyone shares that vision. “ There are lots of people out there who would like to see a world where they can control the users and charge them money all the time.” He mentions MSN (Microsoft Network), which was founded as a closed network, with the intention of replacing the Internet. When MSN was redesigned in 2002, the Microsoft sites excluded users who were not using Microsoft Explorer as their browser. That block was later removed.

*From the beginning, the Opera browser was designed to work with mobile devices.*

Von Tetzschner’ s vision of the Internet is as a global network of “ netizens.” “ When we began, we didn’ t understand why the Net was important,” he recalls. “ I now expect 70 to 80 percent of the population to get Internet access. Maybe even a 100 percent, but it will take 50 years.”

¶ Von Tetzschner divides his time between his company and his family. His only indulgence is playing soccer on the local commons. “ I move around the field a lot, both defense and attack. But I’ m known to be a hard hitter when it’ s needed,” he says, smiling.

Von Tetzschner admits that he seldom attends the real-life opera, even though there was classical music in the house in Reykjavik, Iceland, where he grew up. “ My great grandfather wrote the Icelandic national anthem – the real one – not the official one,” he says. “ And my grandmother played the piano almost every day. But opera . . . not very much. The name was chosen because it was international and easy to remember in many languages. Most Internet pages today are in languages other than English.”

The Opera browser exists for a number of computing platforms: WinTel, Symbian OS (handhelds), Macintosh, various Solaris UNIX versions, Linux and BeOS. A version even exists for OS/2, IBM’ s previous operating system, which means users can use their old hardware for Web browsing, or increase the Web experience on newer equipment.

¶ Opera Software has grown organically since it began 13 years ago. Most of its 135 employees work in a former industrial building just across the river in Oslo’ s working-class East End. Opera survived the Internet roller coaster almost unscathed. From a level of 3.5 million euros in 2001, operating revenues doubled in 2002, and the company expects to make a profit within the next year. A strategy of bundling and pre-installation is slowly paying off.

“ We follow Web standards more closely than most,” says von Tetzschner, “ and we think this is one reason that more people

**“THE MOBILE INTERNET USER WANTS TO SEE EVERYTHING ON A WEB PAGE, NOT JUST TEXT OR SPECIAL HANDHELD MATERIAL.”**

**JON VON TETZSCHNER ON ACCESSIBILITY**





*Language is key, says von Tetzchner, who has made Opera available in 42 language versions so far: "It's about making people part of the Internet society and enabling them to access information and knowledge."*

become our customers." He says they get approximately a million new installations every month, and the current Opera community is about 7 million users worldwide as of January 2003. It makes Opera the third most popular Web browser in the world on desktop computers.

Opera for Windows has been customized for 42 languages, including Celtic, Gaelic and Welsh. Among the first languages were Afrikaans and both versions of written Norwegian. Recently Sami – a language used among the aboriginal population in Northern Scandinavia – was added to the list.

Von Tetzchner sees language accessibility as critical to the Net. "It's about

making people part of the Internet society and enabling them to access information and knowledge," he says. "We will see that every place that has television or a telephone will get Internet access. Even though the desktop computer will still be important, there are many more mobile telephones sold every year. Something on the order of 400 million handsets a year."

¶ Opera's idea is that every handheld device should have a small, compact browser pre-installed. In practice, the memory chips of the handhelds don't have the storage space for a lot of software, and software is installed in the hardware (ROM) of the device. What advice does von

Tetzchner offer to operators who are developing the next generation of networks?

"They should use the best browser," he says. "With the right browser, people will start using the Net. Today, 1 or 2 percent of handheld users access the Net. If consumers had full and easy access to information, they would use it. Prices, of course, are another barrier at the moment. They should come down quickly.

"We want our product to represent our core values. We have to make money to survive, but we'll probably never make billions. It feels good, though."