

**A COMPUTER ON EVERY DESK  
AND IN EVERY HOME.  
IT WILL BE MORE THAN AN  
OBJECT YOU CARRY OR AN  
APPLICATION YOU PURCHASE.  
IT WILL BE YOUR PASSPORT INTO  
A NEW, MEDIATED WAY OF LIFE.**

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

**Informational tools  
are symbolic  
mediators that  
amplify the intellect  
rather than the  
muscle of their users.**

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

**ONE OF THE MOST  
REMARKABLE  
ASPECTS OF THIS  
COMMUNICATIONS  
TECHNOLOGY IS THAT  
IT WILL ELIMINATE  
DISTANCE.**

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

A... metaphor... is that of the ultimate market. Markets from trading floors to malls are fundamental to human society, and I believe this new one will eventually be the world's central department store... The global information market will be huge and will combine all the various ways human goods, services and ideas are exchanged. On a practical level, this will give you broader choices about most things, including how you learn and invest, what you buy and how much you pay for it, who your friends are and how you spend your time with them, and where and how securely you and your family live. Your workplace and your idea of what it means to be 'educated' will be transformed, perhaps almost beyond recognition. Your sense of identity, of who you are and where you belong, may open up considerably. In short, just about everything will be done differently. I can hardly wait for this tomorrow, and I'm doing what I can to help make it happen.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

The information  
highway will transform  
our culture as  
dramatically as  
Gutenberg's press did  
the Middle Ages.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

I'M SOMEONE WHO  
BELIEVES THAT BECAUSE  
PROGRESS WILL COME  
NO MATTER WHAT,  
WE NEED TO MAKE THE  
BEST USE OF IT.

BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995

**We asked, ‘What if computing  
were nearly free?’ ...**

**Now there is a new horizon,  
and the relevant question is,**

**‘What if communicating  
were almost free?’**

**BILL GATES, “THE ROAD AHEAD”,  
VIKING PENGUIN, 1995**

**USERS WITH  
CURIOSITY WILL BE  
MESMERISED BY THE  
ABUNDANCE OF  
INFORMATION.**

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**



The major benefit of the PC revolution has been the way it has empowered people. The highway's low cost communications will empower in an even more fundamental way. The beneficiaries won't just be technology-oriented individuals. As more and more computers are connected to high-bandwidth networks, and as software platforms provide a foundation for great applications, everyone will have access to most of the world's information.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

We will have to rethink  
not only what is meant  
by the term 'document,'  
but also by 'author,'  
'publisher,' 'office,'  
'classroom,' and 'textbook.'

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

Gutenberg's invention of the printing press brought about the first real shift in distribution friction – it allowed information on any subject to be distributed quickly and relatively cheaply. The printing press created a mass medium because it offered low-friction duplication. Books gave literacy critical mass, so you can almost say that the printing press taught us to read.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

*The information superhighway  
will revolutionise  
communications even more  
than it will revolutionise  
computing.*

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

The result will be companies that are more effective and, often, smaller. In the longer run, as the information superhighway makes physical proximity to urban services less important, many businesses will decentralise and disperse their activities, and cities, like companies, may be downsized

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

**Lots of companies will eventually be far smaller because using the information highway will make it easy to find and work with outside resources. Big is not necessarily good when it comes to business.**

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

**technology's  
role is to  
provide more  
flexibility and  
efficiency.**

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

This will carry us into a new world of low-friction, low-overhead capitalism, in which market information will be plentiful and transaction costs low. It will be a shopper's heaven... The consumer will get not only competitive cost savings, but also a much wider variety of products and services to choose from.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**



The information highway will be able to sort consumers according to much finer individual distinctions, and to deliver each a different stream of advertising. This will benefit all parties... viewers... producers and on-line publications... advertisers...

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

**The information  
superhighway will allow  
the transfer of intellectual  
property rights from one  
person to another at the  
speed of light.**

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

the information highway  
will provide alternative,  
more efficient ways for  
individual buyers and  
sellers to get together.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

There is a nearly infinite number of tasks left undone in services, education, and urban affairs, to say nothing of the workforce the highway itself will require. So this new efficiency will create all sorts of exciting employment opportunities.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

And the highway, which will put an immense amount of information at anyone's fingertips, will be an invaluable training tool. Someone who decides to change careers and go into computer consulting will have access to the best texts, the greatest lectures, and information about course requirements, exams and accreditation. There will be dislocations. However, overall, society will benefit from these changes.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

Capitalism, demonstrably the greatest of the constructed economic systems, has in the past decade proved its advantages over the alternative systems. The information superhighway will magnify those advantages.

It will allow those who produce goods to see, a lot more efficiently than ever before, what buyers want, and will allow potential consumers to buy those goods more efficiently... consumers everywhere will enjoy the benefits.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

The highway is going to give us all access to seemingly unlimited information, anytime and anyplace we care to use it. It's an exhilarating prospect, because putting this technology to use to improve education will lead to downstream benefits in every area of society.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

EVERY MEMBER OF SOCIETY,  
INCLUDING EVERY CHILD,  
WILL HAVE MORE INFORMATION  
EASILY AT HAND THAN ANYONE HAS  
TODAY. I BELIEVE THAT JUST THE  
AVAILABILITY OF INFORMATION  
WILL SPARK THE CURIOSITY AND  
IMAGINATION OF MANY. EDUCATION  
WILL BECOME A VERY INDIVIDUAL  
MATTER.

**BILL GATES, "THE ROAD AHEAD",**  
**VIKING PENGUIN, 1995**



The information highway  
won't replace or devalue any  
of the human educational  
talent needed for the  
challenges ahead.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

Over time...  
we are likely to see  
computers installed  
in every classroom  
in the world.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

... the information highway will help raise the educational standards for everyone in future generations. The highway will allow new methods of teaching and much more choice. Quality curriculums can be created with government funding and made available for free.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

**The new communications capabilities will make it far easier than it is today to stay in touch with friends and relatives who are geographically distant.**

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

A house is an intimate companion or,  
in the words of the great twentieth-  
century architect Le Corbusier,  
'a machine for living in.' ...

By explicitly indicating allowable  
interruptions, you will be able  
to re-establish your home  
– or anywhere you choose  
– as your sanctuary.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

No one yet knows for sure what the public wants from the information highway. The public itself can't know, because it hasn't had experience with video-capable interactive networks and applications. p228

This is a hallmark of an evolving entrepreneurial market; rapid innovation occurs on many fronts. Most of it will be unsuccessful, regardless of whether it's attempted by a large or a small company. p231

Governments can help assure a strong competitive framework and should be willing, though not overeager, to intercede if the marketplace fails in some particular area. After the trials have yielded sufficient information, they can determine the 'rules of the road' – the basic framework guidelines within which companies can compete. But they should not attempt to design or dictate the nature of the information highway, because governments cannot outsmart or outmanage the competitive marketplace, particularly while there are still questions about customer preference and technological development... The first thing most governments have to do to help the highway start is to deregulate communications. p232

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

There will be dislocations in some business sectors that will create a need for worker retraining. The availability of virtually free communications and computing will alter the relationships of nations, and of socio-economic groups within nations. The power and versatility of digital technology will raise new concerns about individual privacy, commercial confidentiality, and national security. There are, moreover, equity issues that will have to be addressed. The information society should serve all of its citizens, not only the technically sophisticated and economically privileged.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

One of the wonderful things about the information highway is that virtual equity is far easier to achieve than real-world equity.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**



This new access to information can draw people together by increasing their understanding of other cultures... The information highway is going to break down boundaries and may promote a world culture, or at least a sharing of cultural activities and values.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

Frankly, I'm not too concerned about the world whiling away its hours on the information highway. At worst, I expect, it will be like playing video games or gambling. Support groups will convene to help abusers who want to modify their behaviour.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**

This network, and the computer-based machines connected to it, will form society's new playground, new workplace, and new classroom. It will replace physical tender. It will subsume most existing forms of communication. It will be our photo album, our diary, our boom box. This versatility will be the strength of the network, but it will also mean we will become reliant on it.

**BILL GATES, "THE ROAD AHEAD",  
VIKING PENGUIN, 1995**