



Министерство образования и науки Украины
Севастопольский национальный технический университет

THE WORLD WIDE WEB

Методические указания
к аудиторному чтению по дисциплине
"Английский язык" для студентов
факультета "Автоматики и вычислительной техники"
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THE WORLD WIDE WEB. Методические указания к аудиторному чтению по дисциплине "Английский язык" для студентов факультета "Автоматики и вычислительной техники" продвинутого этапа обучения / Сост. Л.В. Зацепина. – Севастополь: Изд-во СевНТУ, 2005 - 27 с.

Целью методических указаний является подготовка студентов к практической деятельности - умению работать с оригинальной технической литературой по специальности и вести беседу по научной тематике.

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ВВЕДЕНИЕ

Данные методические указания предназначены для студентов факультета "Автоматики и вычислительной техники", продолжающих изучение английского языка на базе знаний, приобретенных ими на II курсе.

Основная цель указаний – привести в систему имеющиеся знания и подготовить студентов к практической деятельности – умению работать с литературой по специальности и вести беседу по научной тематике.

В целом методические указания служат развитию и закреплению навыков, необходимых для более глубокого понимания содержания оригинального технического текста и правильного перевода.

1. LESSON 1. THE WORLD WIDE WEB: INTERFACE ON THE INTERNET

1. Translate the text:

For any number of historical reasons, the Internet has emerged as a huge, rich source of information accessible only via a series of not-so- friendly interfaces. The basic commands for Telnet, FTP, Archie, WAIS, and even e-mail are powerful but unintuitive, and the rapid growth of the Internet's user base has resulted in an increasing number of users who have neither the patience nor the desire to learn the intricacies of these interfaces.

Even those who know them, however, are aware that easier systems can very quickly result in greater productivity, an awareness that has spawned such eminently usable tools as the popular Gopher. But Gopher is limited as an information source by the restrictions of its display; a gopher is primarily a table of contents through which users read or download files - and tables of contents are useful for some but by no means all types of information reservoirs.

Enter the World Wide Web. Conceptualized not long after Gopher, the Web began life as a project designed to distribute scientific information across computer networks in a system known as *hypertext*. The idea was to allow collaborative researchers to present their research complete with text, graphics, illustrations, and ultimately sound, video, and any other means required.

Important ideas within or across publications would be connected by a series of hypertext links (or just *hyperlinks*), much like the information displays made both possible and plentiful through the Macintosh's famous HyperCard program and similar interfaces available on the NeXT, Amiga, X Window, and Microsoft Windows platforms. Users would be able to traverse Internet documents by selecting highlighted items and thereby moving to other, linked documents; and in the case of graphical displays, they would see these documents complete with graphics and other multimedia elements.

The World Wide Web project has made possible the idea of accessible and attractive interfaces on the Internet. Using the Web requires an Internet account and a piece of software known as a World Wide Web client, or browser, and it is the browser's task to display Web documents and allow the selection of hyperlinks by the user.

With a graphical Web browser, you see formatted documents that contain graphics and highlighted hyperlinks. These browsers let you navigate the Internet not by entering commands, but rather by moving the mouse pointer

to the desired hyperlink and clicking. Instantly, the World Wide Web software establishes contact with the remote computer and transfers the requested file to your machine, displaying it in your browser as another formatted, hyperlinked document. You can "surf" the Web by hopping from hyperlink to hyperlink without delving deeply into the contents of any particular document, or you can search the Web for specific documents with specific contents, poring over them as you would a book in the library.

But what is the World Wide Web? Where did it come from, and why is it so popular and so potentially important? It is clearly a system of both communication and publication, but how does it work and what can we expect in its future?

These are the questions answered briefly in this chapter and the next. More importantly, however, they're questions explored across hundreds of documents on the Web itself, and in magazines, journals, and research reports the world over. The Web is among the most rapidly adopted technological entities of a century that has seen many, and understanding it might be crucial for understanding the next century.

Let's get started.

2. Complete these sentences, using the words from the text:

- 1) The Internet ... as a huge, rich source of information.
- 2) The easier systems can very quickly ... greater productivity.
- 3) A gopher is ... a table of contents through which users read or download files.
- 4) The Web ... as a project designed to distribute scientific information across computer networks.
- 5) Users ... to traverse Internet documents by selecting highlighted items and thereby moving to other, linked documents.

3. Find answers to these questions in the text above:

- 1) Has the Internet emerged as a huge, rich, source of information?
- 2) Is Gopher limited as an information source by the restrictions of its display?
- 3) Has the World Wide Web project made possible the idea of accessible and attractive interfaces on the Internet?
- 4) Do graphical Wide Web browsers let you navigate the Internet by moving the mouse pointer to the desired hyperlink?
- 5) Can you "surf" the Web by hopping from hyperlink to hyperlink without delving deeply into the contents of any particular document?

4. Sum up the information about interface on the internet.



1.1. The concept of the world wide web

1. Translate the text.

The Internet, it is said, is in need of a "killer app." It needs one tool, one program, one application that will take it from being a much-hyped but difficult-to-use linking of computers around the world to being a highly informative, highly usable database and communications tool. The spreadsheet was the killer app for PCs a long time ago, but so far the Net doesn't have one. Some have given "killer app" status to the immensely popular program called Mosaic, but Mosaic still has its difficulties and its limitations. The same holds true for the equally popular Netscape Navigator, which has also been touted as a killer app, and for all the various alternative and commercial Web browsers that have hit the market over the past year. The true killer app of the Internet remains somewhere around the corner, and nobody knows if just *one killer* app can handle the Internet's complexity. Until we have one, we simply won't know.

What the Internet does have, however, is a killer *concept* — and the name of that concept is the World Wide Web. In only a few short years of existence, the Web has captured the imagination of data searchers and information surfers alike. Its popularity isn't difficult to understand: The World Wide Web provides the technology needed to offer a navigable, attractive interface for the Internet's vast sea of resources, in much the same way that the toolbar on a word processor screen obscures the intimidating codes that the program actually consists of. Given the Net's history of nearly impenetrable commands and procedures, and the trend in today's software to hide complexity behind usable interfaces, this capability is essential if the Net is to become a mainstream set of applications.

But it's important to realize that the Web is a *concept*, not a program, not a system, and not even a specific protocol. It might be more accurate, in fact, to call it an interface, but even that wouldn't be quite right. The most accurate terminology might be meta-interface — an interface that incorporates other interfaces — but words with the word *meta* as a prefix went out of favor sometime during the early nineties. Calling it a tool would be far too restrictive, and calling it a set of applications and interfaces would be reasonably accurate but incredibly clumsy. So let's just stick with "concept," because that's as close as we might be able to get.

2. Complete these sentences using the words from the text:

- 1) ... was the killer for PCs a long time ago.
- 2) Nobody knows if just one killer app ... the Internet's complexity.
- 3) In only a few short years of existence, the Web ... the imagination of

data searches and information surfers alike.

- 4) It's important to realize that the Web is ... not a program, not a system, and not even a specific protocol.
- 5) The most accurate terminology might be ... - an interface that incorporates other interfaces.

3. Find answers to these questions in the text above:

- 1) What does the Internet need?
- 2) What was the killer app for PCs a long time ago?
- 3) Where does the true killer app of the Internet remain?
- 4) What does the World Wide Web provide?
- 5) What is the Web?

4. Sum up the information about the concept of the World Wide Web.



1.2. The conceptual makeup of the web

1. Translate the text.

Calling the Web a *concept*, however, doesn't answer the question of what the World Wide Web actually is. Technically, the Web is nothing more than a distributed hypermedia system, but *distributed hypermedia system* is surely no more understandable a term than *concept* itself.

Right now, though, let's concentrate on defining the World Wide Web, or at least providing a definition that helps understand both its past and its future. To do so, we must turn to the three ideas mentioned above: hypertext, the Internet, and multimedia.

Hypertext is an idea that was introduced way back in the seventies by the sometimes visionary, sometimes flaky, and always provocative Ted Nelson. Hypertext is deceptively simple. A hypertext document is one that provides clearly visible links to other documents; and in a hypertext computer environment, selecting a link in one document moves you directly to the other. Nelson's idea was to link all the world's information in a huge hypertext system. The World Wide Web is closer than any other system so far to accomplishing that idea, even though it remains a long, long way from fulfilling Nelson's vision.

The second system inherent in the Web's design is the Internet. The Internet is a global system of networked computers that allows user-to-user communication and transfer of data files from one machine to any other on the network.

The Net is the basis of the fictional *matrix* or *web* found in the science fiction of such authors as William Gibson and Bruce Sterling, and the basis, as well, of the Clinton administration's much-hyped information superhighway (or, more properly, Global Information Infrastructure). The World Wide Web, in fact, is the closest thing we have now to approximating any of those fictional or semi-fictional technologies.

It's important to note, however, that *the Web as a system does not require the Internet*. In fact, a distributed information system based on the Web can be constructed on *any* local-area or wide-area network, and in fact such systems are being developed all the time.

But the first two words in *World Wide Web* are "world wide," so it makes little sense to talk about the Web without basing it in world-wide networking — and the only (relatively) open (relatively) world-wide network now available is the Internet. As a result, we'll build the Internet into our definition.

Even so, it's useful to keep in mind that the World Wide Web is *not* the Internet. As the focus of popular and media attention moved over the past year and a half from e-mail and newsgroups to the Web and, in particular, Netscape Navigator and Internet Explorer, the perception seemed to emerge that the Web and the Net were synonymous. Today's Web clients can perform FTP, Gopher, and even Usenet access, so it's tempting to see them as the Net's primary interface. But these technologies are in fact separate from the Web itself, even though they're increasingly becoming usable through Web interfaces. Electronic mail remained the biggest hold-out until recently, when Netscape offered an integrated newsreader in its 2.0 version of Netscape Navigator; other Net technologies require proxies and/or gateways to make them work at all. Even the technologies that are included in browsers are usually better accessed through a program dedicated to their use, so it's not even fair to say that the Web is the best means of working with the entire Net. Still, what can't be denied is that the World Wide Web has become the most famous Internet item, and certainly the most popular.

So far, we've looked at hypertext, and we've drawn in the Internet. Good, but not good enough. There's another concept involved as well: *multimedia*.

Although we do not discuss multimedia at great length here, for now let's just say that, as its name suggests, multimedia combines various presentational technologies in an effort to appeal to as many senses as possible. (Actually, the word should be *multimedium* — like multipart, multisession, multiterm, and multilane — but we'll let the linguists battle over that one.)

Put a bit more simply, multimedia draws on graphics, sound, animation, and video to create a full, rich computing experience. And for the first time, through browsers such as Mosaic, Cello, MacWeb, Netscape Navigator, Viola, and Internet Explorer, the World Wide Web offers a multimedia experience for Internet users.

While certainly in need of further development, the Web already lets information presenters place graphics, sound, and video within a page, and users with a direct, high-speed connection can download them quickly enough to feel as if they're participating in full multimedia. With a 28.8 kbps modem, the download process is much improved; but within the next couple of months, high speed access should be much more available and affordable. The important point is that the groundwork has been laid.

So what is the Web, then? Let's try this: *The World Wide Web is a convergence of computational concepts for presenting and linking information dispersed across the Internet in an easily accessible way.*

Does this help? Well, maybe. Other definitions of the Web tend to use phrases such as "network information delivery system" and "distributed



information system"; but no matter how technically accurate these definitions are, they just don't seem very useful, because every term with them needs an individual definition as well. Arguably, so does the rather vague *concept* in our own definition, but we know enough about the word *concept* not to need a firm definition. *Concept* is uncertain, volatile, and difficult to grasp, but so is the Web itself — not as a definable computer technology, but rather as a combination of its specifications and its uses. Using the term *concept* might seem like an author's unnecessary avoidance, but anything more precise would almost certainly be outdated within months.

In its initial proposal, the Web was simply termed "a hypertext project," but it clearly became more than that. What our new definition attempts to do is explain that the Web is a cleverly designed collection of interesting concepts, and allow for the very real possibility that other concepts will soon merge with it.

In fact, this is already happening. Technologies such as WAIS (Wide Area Information Servers) and Archie (the long-lived search engine) are already being programmed into Web-based search tools, and this means that some of the Internet's techniques are already becoming integrated into the Web's conceptual framework. The most successful technologies are those that make their individual components transparent; in the case of the World Wide Web, this seems to be happening early in its history.

The Web contains the technologies necessary to give the Internet a pretty face. Web browsers that take full advantage of these technologies make the Internee easier to use. It's not hard to see where in the history of computing these two crucial ideas — attractiveness and usability — came from. Essentially, the Web and its browsers have done for the Internet in 1994 what the Macintosh did for the personal computer a decade earlier. There were problems with the first Macs from a technological stand-point, and they were written off as toys by the business and computing communities, but they hung on and thrived on the strength of their interface.

Simply put, people could use Macintoshes easily, and that's something that was never true of the IBM PC or its mainframe predecessors. The Mac hid the difficulties of command-line computing under a bunch of objects you could click on with a funny-shaped thing called a mouse, and in doing so it opened computing to the masses. When Microsoft released Windows 3.0 some years later with its iconic, graphic, point-and-click interface (which had originally been developed by Xerox), the masses indeed took over.

Ten years later, graphical World Wide Web browsers such as Mosaic, Netscape Navigator, Internet Explorer, WinWeb, and Midas WWW offer an interface that has its technological problems, that oversimplifies some important Internet procedures, and that has been called a toy for people who want to glide

over the Net rather than delve into it. But just like the Mac, it has thrived because of its interface, and at this time it threatens to overtake all other Internet use, perhaps even the most important Internet tool, electronic mail.

Actually, this comparison between the Mac and the Web isn't quite true, because although the Mac offered just one interface, the Web itself allows all kinds. Its most important interface, however — the graphical, multimedia, point-and-click system offered by Netscape Navigator, Internet Explorer, and others, is attractive for precisely the same reasons as the Mac and Windows. No matter what its detractors might argue, the World Wide Web offers the Internet to the masses, and that's its true power. No longer do people have to master the vagaries of FTP and Archie and WAIS searching (although the Web's own search procedures demand considerable practice themselves), and as the Web fully develops it should fully incorporate e-mail, newsgroups, telnetting, and other technologies.

Different front ends to the Web will compete for our attention — currently we have Netscape Navigator, Internet Explorer, Spy's Mosaic, MacWeb, WinWeb, the GNN Browser (America Online), and others — but the principle will remain the same: Link the information, let the users follow whatever path they choose, and once they reach their destination, let them do with the information whatever they please.

Given all this, it's easy to see why the term "World Wide Web" has become, for many people (including those who actually know better) synonymous with the term "Internet." In fact, it's the potential of the synonymity that makes this book possible in the first place. If you want to master the Internet through the mid- to late nineties, you can't possibly do so without mastering the Web as well. Web sites are popping up everywhere, Web designers and technicians are being hired and deployed, and the Web has even become an add-on for the planet's two most popular word processing packages. Quite literally, it's become unavoidable.

2. Find synonyms to the underlined words:

- 1) Nelson's idea was to link all the world's information in a huge hypertext system.
- 2) The Internet is a global system of networked computers that allows user-to-user communication.
- 3) Electronic mail remained the biggest hold-out until recently.
- 4) Put a bit more simply multimedia draws on graphics, sound, animation, and video to create a full, rich computing experience.
- 5) The Web contains the technologies necessary to give the Internet a pretty face.



3. Find answers to these questions in the text above:

- 1) Who introduced the idea of hypertext?
- 2) What is hypertext?
- 3) What is Internet?
- 4) What is multimedia?
- 5) So, what is the Web, then?

4. Sum up the information about the conceptual makeup of the Web.

2. LESSON 2. PUTTING IT ALL TOGETHER: THE WORLD WIDE WEB

1. Translate the text.

The Web is a by-product of the Internet, created because of the Internet's overwhelming size. There is so much information available across the computers and networks that make up the Internet that finding and actually using the Internet is very, very difficult. We live in an age of information, but keep in mind that information — as its name implies — is *farmed*. Having access to huge amounts of information is part of the Internet's charm, but perhaps only a small part; more significant is being able to find, view, and make use of this information. The World Wide Web, more than any other Internet concept, allows this to happen.

The first secret of a good Internet browser is making it possible for the user to navigate the Net without having to know, remember, or write down the lengthy and clumsy addresses and filenames that the Net and UNIX need to operate. The second secret is providing not just links from information source to information source, but links that are contextually related. The third secret is to present information to the readers in a way that they are comfortable with, that allows them to interact with the information, and that truly makes use of the technology — multimedia, integrated applications, response forms, dynamically changing Web pages, and so on.

The Web does all three, and this makes it different from any other browsing technology. Gopher, for example, offers a highly usable system of navigation, but its links are primarily to sites, not to contextually related documents or (as the Web makes possible) specific sections of documents. When you enter a Gopher directory, you see a wide range of possibly important information, but you can spend considerable time searching for exactly the document — and exactly the section of the document — you need. A well-constructed Web-based hypertext document can make all of this seamless, although it must be noted that most Web documents remain far from this ideal.

Through the use of hypertext, the Web can provide access to mountains of information in a very usable way. The primary reason, quite simply, is that the information (or, rather, the links to the information) is provided in a manner with which readers of the language are familiar. Tables of contents, headings, paragraphs, lists, and graphic elements make up the pages of books, magazines and newspapers, and these are the essential elements in an HTML (World Wide Web) page. Gopher's limitation is that it is exclusively list-oriented, while FTP's limitation is that it provides not just lists, but lists of obscure filenames.



Both seem computer-ish, and since the release of the Macintosh, "computer-ish" is something computers aren't supposed to be. The Web provides a book-like layer on top of the Net, albeit a book with the less-linear capabilities that hypertext and other computer-ish systems offer, and books with their printed pages remain the most efficient and perhaps the most usable information-presentation system we have in place.

A half-millennium of the printed page is not about to be outdone by 15 years of the scrolling screen, and that's what makes the Web so instantly usable. Its usability will only be enhanced, although its efficiency might not be, as it moves toward integrating the multiple media of print with the multiple media of film and television.

History of the Web

The World Wide Web dates back to March 1989. In that month, Tim Berners-Lee of Geneva's European Particle Physics Laboratory (which is abbreviated as CERN, based on the laboratory's French name) circulated a proposal to develop a "hypertext system" for the purpose of enabling efficient and easy information, sharing among geographically separated teams of researchers in the High Energy Physics community.

The three important components of the proposed system were the following:

- A consistent user interface.
- The ability to incorporate a wide range of technologies and document types.
- Its "universal readership"; that is, anyone sitting anywhere on the network, on a wide variety of different computers, could read the same document as anyone else, and could do so easily.

More than a year later, in October 1990, the project was presented anew, and two months later the World Wide Web project began to take shape. Work began on the first line browser (called WWW), and by the end of 1990 this browser and a browser for the NeXTStep operating system were well on the way. The major principles of hypertext access and the reading of different document types had already been implemented.

In March 1991, two years after the presentation of the original proposal, the WWW line-mode browser saw its first limited network use. Two months later, WWW was made available more extensively at CERN, and the Web was effectively off and running. That summer saw seminars about the Web, and announcements were posted to relevant newsgroups. October 1991 brought the installation of the gateway for WAIS searches,

(a crucial development for the Web's future as a search as well as a browsing tool), and shortly before the end of 1991 CERN announced the Web to the High Energy Physics community in general.

2. Find answers to these questions in text above:

- 1) We live in an age of information, don't we?
- 2) Gopher offers a highly usable system of navigation, doesn't it?
- 3) The Web can provide access to mountains on information in a very usable way, can't it?
- 4) Gopher limitation isn't that it is exclusively list-oriented, is it?
- 5) Books with their printed pages don't remain the most efficient and perhaps the most usable information-presentation system we have in place, do they?

3. Discuss three secrets of a good Internet browser.

4. Complete these sentences using the words from the text:

- 1) The World Wide Web ... to March 1989.
- 2) The three important components of the ... system were the following.
- 3) In October 1990 the project was presented
- 4) Two month later the WWW project began
- 5) In March 1991, two years after the presentation of the original proposal, the WWW line-mode browser saw

5. Sum up the above information about history of the Web.



3.LESSON 3. ACCESSING THE WEB

1. Translate the text.

The World Wide Web can be accessed through both direct and indirect Internet connections, and through a variety of clients (browsers). In the following sections, I simply outline the possibilities in a brief explanation of the issues you'll need to consider about Web access.

Indirect and Direct Internet Connections

There are two main types of Internet connection: *indirect* and *direct*. Both types can make use of either modems or existing network cards, and both types range in price from free to very expensive. There are also other ways of describing Net connections (Internet books differ widely on access descriptions), but these two are as effective as any.

The crucial difference between indirect and direct connections is this: With a *direct connection*, your computer is an individual node on the Internet (or, in some cases, a simulated node). With an *indirect connection*, your computer is simply a terminal on a computer or on a network that is itself an individual node on the Internet.

With a direct connection, your computer has its own IP and can be established as a server for FTP, Gopher, News, or the World Wide Web. In turn, you can use software to bring mail and software directly to your computer. Direct access is often necessary if you want to use programs such as Internet Explorer for Windows or Netscape for Macintosh, as well as the other graphical software available for these machines. It is possible to access this software through some other connection tools, such as PC packages that connect to X Window servers, but for many users direct access is the only means available.

With an indirect connection, by contrast, you are given disk space and access time on another computer. When you receive mail, the mail stays on that server, and when you transfer files they are stored on that server as well. (You can download this information to your own computer through a variety of means, but that's a separate activity entirely.) With an indirect connection you can't normally use graphical software such as a Web browser, and instead you must rely on the text-based browsers that your server can run.

Uses of the Web

The Web can be used for multiple purposes. The following sections provide a brief overview of the Web's offerings — from disseminating research and information to providing customer support.

Graphical Design of Information

For a long time, book publishers have known the importance of graphical design. So have computer users — as anyone with a word processor and a set of fonts is well aware. Over networks, however, information has been presented largely as unformatted ASCII, primarily because there were few choices. (ASCII has been an extremely valuable "lowest common denominator," but it is limited.) Exceptions have existed on the Mac, of course, which has had built-in networking since its inception, and more recently on platforms such as NeXTStep, OS/2, and Windows. But over the Internet and other wide area networks, text has been the dominant mode of presentation.

The Web changes that. At least, it changes it if you consider a graphical browser as a default, which is clearly what's happening. Suddenly, information at remote sites can be presented in graphical format, complete with font choices and incorporated drawings, photographs, and other multimedia elements.

2. Finish the sentences:

- 1) The World Wide Web can be accessed through ...
 - a) direct Internet connections;
 - b) indirect Internet connections;
 - c) both direct and indirect Internet connections.
- 2) There are also other ways of describing Net connections, but these two are ...
 - a) as difficult as any;
 - b) as effective as any;
 - c) as necessary as any.
- 3) With a direct connection your computer is ...
 - a) simply a terminal on a computer;
 - b) an individual node on the Internet;
 - c) in some cases a simulated mode.
- 4) Direct access is often necessary if you want to use ...
 - a) disk space and access time on another computer;
 - b) the text-based browsers that your server can run;
 - c) programs such as Internet Explorer for Windows or Netscape for Macintosh.
- 5) With an indirect connection you ...
 - a) can normally use graphical software such as a web browser;
 - b) are given disk space and access time on another computer;
 - c) can't download the information to your own computer.



3. Fill in the prepositions where necessary (in, off, under, over, at, with, for, of, on):

- 1) The Web can be used ... multiple purposes.
- 2) For a long time, book publishers have known the importance ... graphical design.
- 3) Exceptions have existed ... the Mac, of course, which has had built-in networking.
- 4) But ... the Internet and other wide area networks, text has been the dominant mode of presentation.
- 5) Suddenly, information ... remote sites can be presented in graphical format, incorporated drawings, photographs.

4. Sum up the information about direct and indirect Internet Connections.

4. LESSON 4. DISPLAY OF CREATIVE ARTS

1. Translate the text.

For some reason, people in the creative arts are often perceived as traditionalists, stodgy and resistant to new technologies. Yes, there are some of those. But throughout history artists have been among the first to adopt new technologies to their own purposes, as witnessed by everything from the printing press to MIDI. And there's every indication that the artistic community is seeing the World Wide Web as yet another medium that it can exploit in order to present its work and link up with other artists.

Already we have online galleries featuring new visual art, collaborative artistic efforts of a kind not previously possible, and presentations of artwork that outsiders are asked to evaluate. Examples of creative writing are springing up all over the Web, including some interactive stories and illustrated texts as well. There are even some preliminary attempts at Web-based drama.

The Web offers artists a couple of very important features. First, it allows an inexpensive way of mounting work. As long as the site is in place, the rest is up to the artist, in a way that differs considerably from standard galleries or street corners. Second, everyone posting art on the Web has a built-in global audience, and that's something about which artists can usually only dream.

Obviously, there are media that will never be entirely suited to Web presentation, but if today's efforts are any indication the Web, all by itself, could lead to a kind of renaissance in both the amount of artwork publicly available and the ability of a mass audience to access and appreciate it.

• The Future of the Web

For any technology, it's impossible to predict the future. No sooner are the predictions made than the technology develops unexpected adherents and unforeseen uses. This was the case with gunpowder, with television, with computers, and now with multimedia, online services, and the Internet itself. But trends count for something, and the Web has revealed nothing if not a series of trends toward future use. Here are some, presented as ideas to be explored.

• Full-Scale Publishing

A wide range of publishers has already appeared on the Web. Some have presented samples of publications; others have presented full texts. In the future, there's every reason to expect full publishing efforts on the Web, everything ranging from children's books through advertising-laden magazines.



- **Voting**

Well, why not? With fill-in forms establishing themselves as perhaps the most important single advance in Internet-based technology, and with the White House and other governments turning to the Net for information dissemination of a variety of kinds, it seems only a matter of time until the Web can be used for voting — maybe not in a presidential election, at least for a while, but certainly for other purposes. If the idea is to get more people voting on public issues, why not use all public media?

- **Live Interactive Entertainment**

Yes, we have television. But television is presentation only, not interaction, and here the Web can make a difference. Why not comedy routines in which Web users participate in skits and jokes? Why not dramatic pieces in which Web users influence the outcome? How about real-time role-playing games?

- **News**

The problem with CNN or any other continual news supply is that the news we get is the news they decide we'll get. Here the Web's possibilities are enormous. How about fully customizable news packages, so that if we want to focus on Rwanda, or the Middle East, or a flood or earthquake area, or for that matter the qualifying games among African teams for the 1998 World Cup, we can get the text, audio, and video of whatever subject we want. Companies such as Turner Broadcasting, Discovery Channel, Microsoft, and ESPN have already made great inroads into creating information "on demand".

- **Distance Education**

Obvious, maybe, but no less important for being so. For decades, universities and colleges have been looking for ways of offering courses to students who don't have access to the campus (usually because of physical distance). The Web is beginning to see activity in this regard, and this activity will increase dramatically over the next few years. Watch for full university-level courses to be offered over the Web to all registered students (and perhaps others as well), complete with real-time seminars and exams, and professors' visiting hours.

- **Distance Presentations**

Organizations with high-speed Internet connections might well consider offering, multimedia presentations over the Web. These need not be real-time presentations — which eliminates some of the problems presented by desktop conferencing — and they offer the benefit of eliminating travel and accommodation costs, as well as downtime costs, for presentation attendees. Presentations can take full advantage of the Web's multimedia and networking capabilities, and the HTML pages can be quickly redesigned and updated as a result of the presentation. Another benefit is that the presentation can offer links to other information sources, all of which will be updated by the site being linked. The presentation will thus be always up-to-date.

There are other applications: scheduling, interpersonal communication, meetings and conferences, you name it. But the Web is far from the only technology whose future points toward these possibilities, and it remains to be seen if at will overtake, fall behind, or simply incorporate all the rest. What's certain is that the Web is extremely flexible, and that its capabilities haven't begun to be explored.

2. Insert the necessary words:

- 1) Throughout history artists have been among the first ... new technologies to their own purposes.
 - a) to receive;
 - b) to take an idea and use it;
 - c) to use.
- 2) The artistic community is seeing the WWW as yet another ... that can exploit in order to present its work.
 - a) a table;
 - b) a means;
 - c) a reason.
- 3) Examples of creative writing ... all over the world.
 - a) are taking;
 - b) are starting up;
 - c) are bringing up.
- 4) The Web ... artists a couple of very important features.
 - a) gives;
 - b) presents;
 - c) draws.



- 5) Obviously, there are media that will never be entirely ... to Web presentation.
- following;
 - convenient;
 - present.
- 6) For any technology, it's ... to predict the future.
- important;
 - impracticable;
 - objectionable.
- 7) In the future there's every ... to expect full publishing efforts on the Web.
- cause;
 - through;
 - action.
- 8) It seems only a matter of time until the Web ... for voting – may be not in a presidential election, at least for a while, but certainly for other purposes.
- can be employed;
 - can be taken;
 - can be written.
- 9). Companies such as Turner Broadcasting, Discovery Channel, Microsoft ... great inroads and into creating information "on demand".
- have already achieved;
 - have already put;
 - have already seen.
3. Sum up the information about the future of the Web.

5.LESSON 5. INTERNET BROWSERS: INTERNET EXPLORER AND NETSCAPE NAVIGATOR

1. Translate the text.

The tool used to access the World Wide Web, or more correctly, the Internet, is called a *browser*. This name stems from the way you can easily browse through many of the documents, files, and services provided by many different types of servers all over the Internet.

In this sense, a Web browser can best be thought of as an Internet client program for all occasions. Built into most browsers is the capability to communicate with FTP servers, Usenet newsgroup servers, and even WAIS or Gopher servers. More importantly, you access all these servers using the same familiar interface. If this were all that the World Wide Web was capable of, it would already be a valuable tool to many people. However, with the addition of its own special type of server, the World Wide Web truly is the Internet navigator.

Hypertext

To assist you as you explore the World Wide Web, its developers adopted the hypertext system as the basis for its navigation environment.

Hypertext is a process that allows special connections or hotlinks to be embedded in the text displayed on the browser's screen. Clicking on one of these links tells the browser to load the document the link points to. With these links, you can very easily move from document to document without ever needing to know the physical name of the document or even its location. You simply click on a word that reads stocks or bobsled and your WWW browser knows where to go to locate this new information.

What's more, these links can also take you to files on FTP sites, newsgroups, and other services offered anywhere on the Internet.

URLs

To make such a system a reality, a new type of addressing system needed to be developed that could describe not only the location of a file or server, but its type. The World Wide Web uses an addressing system known as a Uniform Resource Locator (URL) to achieve this.

A URL consists of four separate parts that, when combined, completely define the location of any file or service located anywhere on the Internet. These parts are the protocol, domain name, path, and filename.



A completed URL will usually look something like this:
<http://home.mcom.com/home/internet-search.html>.

The Protocol

The most important part of any URL is the protocol definition. This piece of information defines the type of server the selected link points to. Without this information, the WWW browser doesn't know which port and server it needs to talk to in order to obtain the information pointed to by the selected hotlink. The main protocols are listed in table 1.

Table. 1. URL protocols.

<i>Protocol</i>	<i>Service</i>
file:	In addition to referencing information located on the Internet, most WWW browsers can also access files stored on your local hard drive. If file: is followed by a <code>///C:</code> , this indicates that the URL points to a file on your local C: drive. Otherwise it performs the same function as the ftp: protocol.
ftp:	If the nominated link points to a file stored on an anonymous FTP server, the URL must begin with this definition.
http:	All HTML documents are usually stored on a WWW server. HTTP (Hypertext Transfer Protocol) refers to the protocol used by these servers.
gopher:	All WWW browsers can also navigate their way around a Gopher server by using this protocol definition.
mailto:	This is a special type of URL that lets you send an e-mail message.
news:	Links that point to Usenet newsgroups must be declared using this protocol.
telnet:	To indicate that a link needs to open a telnet session, the URL begins with telnet:. Most WWW browsers can't open a telnet session themselves. Instead, they will usually launch a separate telnet client when such links are selected.
wais:	In theory, all WWW browsers can access WAIS servers, but most users prefer to use WAIS gateways such as WAIS gate instead.

Domain Name

Following the protocol definition, the next item of information to be defined by a URL is the location of the server housing the file or information pointed to by the hotlink.

2. Finish the sentences:

- 1) In this sense, a Web browser can best be thought of as ...
 - a) many of the documents;
 - b) an Internet client program for all occasions;
 - c) many different types of servers.
- 2) Hypertext is a process that allows special connections or hotlinks to be embedded in the text ...
 - a) needed to know the physical name of the documents;
 - b) offered anywhere on the Internet;
 - c) displayed on the browser's screen.
- 3) A URL consists of four separate parts that, when combined, completely ...
 - a) could describe not only the location of a file or server, but its type;
 - b) are known as a Uniform Resource Locator;
 - c) define the location of any file or service located anywhere on the Internet.
- 4) Most WWW browsers can also ...
 - a) point to a file on your local C: drive;
 - b) access files stored on your local hard drive;
 - c) refer to the protocol used by the servers.
- 5) WWW browsers will usually ...
 - a) open a telnet session themselves;
 - b) launch a separate telnet client when such links are selected;
 - c) indicate that a link needs to open a telnet session.

3. Sum up the information about Internet Browsers.



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