Using the Internet to Strengthen Curriculum

Internet to Shrengthen Curriculum

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Vİİ

► 1 WHY THE INTERNET?

In 1994, my school district decided to run miles of high-speed telephone lines to each classroom. The purpose? To upgrade computer memory, install appropriate software, and create a computer network. Why did they do this? The answer is obvious. We needed access to the Internet. What forward-thinking school or school teacher in North America facing the new millennium wouldn't want the Internet?

Yet for the first year and a half of its availability, I used the Internet access only a few times. To be honest, I wasn't too sure how to do it; I didn't really know what was "out there" on the Net, anyway; and I was plenty busy doing other things, like planning lessons, grading papers, teaching class, phoning parents, attending staff and team meetings. . . .

Help was available to me the whole time. I'm fortunate to work in a school district that offered me Internet training opportunities. Even though I didn't accept the training help for nearly two years, it was there. But apparently not every teacher is as fortunate. According to a report released by the CEO Forum (1999), a national group of business leaders:

Schools are spending less than \$6 per student on the computer training of teachers, contrasted with more than \$88 per student on computers, computer programs and network connections.

As great a resource as the Internet is, the first exposure to it for a

newcomer can be formidable and overwhelming. Many educators experience some initial fear and trepidation; we want to gain confidence in adding the Internet to our instructional program, but we feel swamped by new information and unfamiliar methodologies. Teachers need help from fellow educators who, first, understand instruction, and who also understand how this awesome technology can assist our work efforts.

The intent of this book is to assist educators who want to use the Internet as part of their school's curriculum to support, enhance, and extend instruction. Based on five years of conducting Internet training workshops across the United States and Canada, the book guides you through the task of reducing this formidable resource into a workable and productive supplemental instructional tool. When you're finished with this book, you will feel more comfortable with bringing the Internet into your classroom.

The Internet Comes to School

The Internet uses technology that has been around for over thirty years. Established in the 1960s, ARPANET was a computer network that functioned to keep U.S. military installations in constant communication. College and university researchers then started using this network to send data over telephone lines from campus computer to campus computer, and from there it grew. Computer networks around the world joined together to form what is commonly known now as the Internet, certainly the Mother of All Networks. But not until the mid- to late-1990s did school districts jump into the use of this important technology.

The occasion that sparked the interest of school districts and educators was the creation of the World Wide Web. Browser software developed by Tim Berners-Lee in 1990 gave computer users a point-and-click, hypertext environment on the Internet. "Hypertext" is tech talk for the ability to link different Web pages together by quick and easy movement around the Web. Berners-Lee named this environment the World Wide Web (beating out other titles such as "Information Mesh," "Mine of Information," and "Information Mine"), and the Internet revolution began.

The Web is the part of the Internet that not only transmits text from computer to computer via telephone lines or cable but is also capable of sending pictures, audio files, and video clips—a multimedia extravaganza that allows users to jump from Web page to Web page with a click of the mouse . . . it's "hyper."

The World Wide Web grabbed your school's attention because it turns every computer connected to it into a library. Imagine an instructional resource that allows up-to-date data and information (words, pictures, sounds, and videos) from multiple sources to travel into a school's computers almost instantly. Pretty exciting stuff.

With the benefits of the Web come some drawbacks. Since its creation, the Web has grown stupendously. As this book was being completed (spring 2001), over 1 billion Web pages were available to you . . . and that's only an estimate. While growth is good, of course, because of the increased amount of information that is now available, finding sources of classroom-quality material becomes more and more difficult. No one knows how many Web sites there actually are, and no one is in control of them. Web sites reside on one of thousands and thousands of Web server computers and vary in their content, layout, and accuracy. No single person, organization, or authority keeps track of everything available on the Web, and no one except the creator of each Web site is responsible for making sure that the information available is correct. Web site operators can even post totally fictitious information on the Web if they want to, so the role of the teacher in promoting proper Internet usage in the classroom is particularly important. All that any Web user knows for certain is that every Web site was created by some human being somewhere on Earth.

So the issue facing us is: How can we as teachers help our students turn this imposing, uncontrolled resource into an instructional ally, and how can we integrate the knowledge available on the Internet into the curriculum we present to students? This book promises to be practical: All the techniques, activities, and assignments come from real classrooms with real kids. The ideas presented are real examples for you to consider integrating into your own teaching.

How the World Wide Web Works The Short Version

When a person or an organization has some information that they want to share via computer with the estimated audience of 250 million people who have Internet access ("Connecting" Your Business, online presentation), they can create a Web site, sometimes called a Web page. To make a Web page, a designer—known as a webmaster—first must learn the language of the Web, Hypertext Markup Language (HTML). (As an option, the webmaster can purchase one of dozens of software packages that perform HTML coding.) Then, as with more traditional media, the next step is deciding what text to type, what pictures or graphics to use, and whether audio and video files would be useful.

Once the site is created, the webmaster picks a name, pays a fee to register it with InterNIC (a central computer that provides service to a network), and parks it on a Web server (a computer that has a connection to a high-speed modem or a direct connection to the Internet, and which is available for 24-hour access).

If all this sounds too difficult to comprehend, it's certainly not hard to accomplish. Millions of people, including schoolkids, have done it already.

Once a Web site is posted on a Web server computer, anyone with Web access can visit it. A computer (and even now a television) accesses the Web by connecting to the Internet via modems, phone lines, or satellites, and by using Web browser software (like Netscape Communicator or Internet Explorer) to move around the Internet once the connection is made.

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Navigating the Web

Of course, just connecting to the Internet is only the beginning. Then comes the more important step of learning how to use the World Wide Web *effectively*, which means navigating the Web to arrive at a site that contains useful, relevant information on a desired topic.

Users have a variety of ways to negotiate the countless number of Web sites to find the desired information. Perhaps the easiest is simply to have a friend or colleague share with you a Web site's address. You can learn about a great site from television or in a newspaper article, journal, or book like this. Educator resource pages list sites of interest and allow you to hyperlink to them with a simple point-and-click connection. You can assign a student to find certain information for you (instructions for this assignment are provided later in the book). You can also conduct your own search using a search engine or a search directory. How educators can start reducing the monstrous informational network of the World Wide Web into a usable school resource is the subject of this book, and we begin our quest in Chapter 2.

References

CEO Forum on education and technology. (1999, February 22). *Professional Development: A Link to Better Learning*, p. 8.

The Internet audience is estimated at 250 million in 2000, and is projected to be 320 million in 2001, 400 million in 2002, and 500 million in 2003. From the slide "Internet Use is Growing Worldwide" in *"Connecting" Your Business* online presentation at http://www.as400.ibm.com/campaign/ roadshow/extreme/present/connecting4.htm.