

**Title**

Searching and Researching on the Internet

**Target Audience**

This course is intended for in-service teachers of grades K-12.

**Prerequisites**

To successfully participate and complete the assignments in this course, the learner must:

- Have past experience in working with and teaching K-12 students.
- Have past experience in using e-mail and the Internet.
- Have access to a group of students at the K-12 level in order to complete a Web tool implementation.
- Have access to the use of the Internet in the classroom or a computer lab where students will be working.
- Be familiar with taking an online course or have completed the PBS “Practice Learning Online with TeacherLine” course.

**Course Description**

With today’s changing technologies, our planet, it seems, has become a smaller place – although the amount of information easily available and extremely accessible in the world of the Internet has increased in staggering amounts. The need for teaching our students to become digitally literate has never been more important. To be able to effectively search for information on the Internet and conduct research, students need to develop certain sets of skills that will help them to understand where and how to find information, and then how to dig deeper and use the content effectively. This course will present strategies for helping students develop searching and researching skills, including the use of Web 2.0 tools such as Web start pages, blogs, wikis, and social bookmarks. Learners will explore ways to create authentic learning environments that make use of primary resources, go beyond sites such as Wikipedia for conducting research, and teach students to become responsible Web users. The course project will require learners to create a research toolbox for developing searching and researching skills that will be used to help in the teaching of a particular curriculum area. Please note that learners will be required to implement the use of a Web 2.0 tool in your classroom or with a group of students.

**Instructor/Facilitator**

See instructor/facilitator sheet

**Credits**

To be determined by college or university

**Goals**

In this course, learners will explore ways to effectively search for information on the Internet and conduct Internet research. They will learn about searching strategies and how search engines work, including ones that employ Web 2.0 technologies and help students learn to dig deeper for information, fine-tune their searches, and find primary sources of information. They will learn how to help students approach and use the content, including learning how to develop strategies for online reading. They will learn about tools that educators and students can use for research,



including Web start pages in order to create research portals, the use of blogs, and other collaborative tools. They will also learn strategies for helping students understand how to use the Web responsibly.

By the end of this course, learners will:

- Know how to use search engines to find information, how to search the invisible Web, and how to fine-tune a search.
- Understand and incorporate strategies for effective online research, including ways to approach the page, use the content, and read online.
- Be able to use Web 2.0 tools to help students develop skills in searching and researching on the Internet.
- Have learned strategies and developed techniques to help students use the Web responsibly.
- Have created a research toolbox for developing searching and researching skills that will be used to help in the teaching of a particular curriculum area.

### **Outline of Content and Assignments**

After previewing the documents in the Course Information area, learners will proceed to Course Content to complete the following six sessions, working through each session in order. Throughout the sessions, learners are asked to articulate their ideas in various forms: they are encouraged to reflect on their ideas and experiences; the discussions in the discussion forum are designed to allow learners to glean information from other learners' experiences. The course project will require learners to create a research toolbox for developing searching and researching skills that will be used to help them in the teaching of a particular curriculum area.

This course is designed to address ISTE's *National Educational Technology Standards (NETS\*T)* and *Performance Indicators for Teachers*. The ISTE standards addressed in this course focus on the fundamental concepts, knowledge, skills, and attitudes for applying technology in educational settings. The standards addressed include Facilitate and Inspire Student Learning and Creativity; Design and Develop Digital-Age Learning Experiences and Assessments; Model Digital-Age Work and Learning; Promote and Model Digital Citizenship and Responsibility; and Engage in Professional Growth and Leadership. The techniques and strategies presented are general enough to be customized to fit NCTE, IRA, NCTM, state content and technology standards and guidelines and yet specific enough to define the scope of the topic.

This course specifically addresses the following ISTE NETS\*T:  
Standards I (B, C, D); II (A, B, C, D); III (A, B, C, D); IV (A, B, C); V (D)

Visit

[http://www.iste.org/Content/NavigationMenu/NETS/ForTeachers/2008Standards/NETS\\_T\\_Standards\\_Final.pdf](http://www.iste.org/Content/NavigationMenu/NETS/ForTeachers/2008Standards/NETS_T_Standards_Final.pdf) for a full list of ISTE's *National Educational Technology Standards (NETS\*T)* and *Performance Indicators for Teachers* and for more information about these standards.

### Session 1: Information Literacy

In this session, learners introduce themselves to fellow students in the discussion forum and set some goals and questions to guide their learning in this course. In addition, they read about information literacy, the different sets of skills students need for today, what Web 2.0 is and what it means for research. Then learners complete an activity in which they review several Web 2.0 tools and think about their impact on student research in the classroom.

By the end of this session, learners will be able to:

- Define their professional goals and expectations for this course.
- Explain their prior knowledge and experiences about searching and researching on the Internet.
- Analyze the new skills that our students need to develop and the role of educators in facilitating the development of those skills.
- Review Web 2.0 tools to determine the ways they can change the approach to and execution of student research projects.

Read

- "Introduction to Information Literacy"
- "The New Literacy"
- "Passionate Voices"
- "It's All About the Tags"
- "What is RSS?"

View Videos

- "Information R/evolution"
- "RSS in Plain English"

Write Journal Reflections

- Reflect on expectations for the course.
- Reflect on prior knowledge and experiences searching and researching online.
- Reflect on the use of Web 2.0 tools for research.

Participate in Online Discussions

- Introduce themselves to other learners in the Virtual Café forum.
- Discuss the new skills of today: the 4 E's.

Complete Activities and Assignments

- Research Tools Activity

### Session 2: Searching the Web Effectively

In this session, learners study the basics of searching, how to narrow down and find the results they are looking for, and how to teach these skills to their students. They also learn how Web 2.0 is changing the face of Web searching and have the opportunity to conduct their own search, using the strategies they have learned.

By the end of this session, learners will be able to:

- Identify the skills needed for searching on the Web and strategies that can facilitate the development of those skills.



- Discuss the reasons why it is important to help students learn about the use of different ways to search for information and ways to help them get beyond the use of a single search engine for conducting research.
- Analyze and reflect on the effectiveness of the search engines used in a Web research activity.

#### Read

- Recommended Search Engines
- “Search 2.0 vs. Traditional Search”
- “Choosing the Right Tools: Search Engines, Directories, and Metacrawlers”
- “Search the Web More Efficiently”
- “Searching Tips for Keyword Searches”
- Teacher Tap: “Search Strategies”
- “Invisible or Deep Web: What it is, How to find it, and Its inherent ambiguity”
- “The Invisible Web: How to Find and Search The Invisible Web”

#### View Videos

- “Web Search Strategies in Plain English”

#### Explore Interactives

- Search Strategies interactive

#### Complete Activities and Assignments

- Web Search Activity (not required)
- Curriculum Web Search Activity

#### Write Journal Reflections

- Reflect on developing students’ research skills.

#### Participate in Online Discussions

- Discuss helping students learn about the use of different ways to search for information and going beyond the use of one single search engine.

### Session 3: Information and Research Skills

In this session, learners discuss, learn about, and explore resources on information and research skills and then begin working on a strategy assignment that will be integrated into the course project.

By the end of this session, learners will be able to:

- Discuss how authentic learning environments can be developed and nurtured in the classroom, and the role of student Web research within an authentic learning environment.
- Reflect on the use of primary resource materials in the classroom.
- Identify the skills needed for searching and researching on the Internet and then provide strategies for developing those skills.

#### Read

- “Springing into Active Learning”
- “How to Get Students to Use New Skills”



- “Beyond the Book: A New Role for Your Students”
- Library of Congress: Primary Sources Program Web site
- Library of Congress: Teaching with Primary Resources Newsletters
- Guggenheim Museum Web site
- “8Ws of Information Inquiry”
- Digital Information Fluency Model
- “Skimming, Scanning, Scrolling, and Sensemaking”
- “Summarizing and Note-taking”
- The KVYL for Kids Research Portal – How to Do Research
- “Rethinking Online Reading Assessment”

#### Write Journal Reflections

- Reflect on using primary sources in the curriculum.

#### Participate in Online Discussions

- Discuss the types of student skills needed for online research and the authentic learning environment.

#### Complete Activities and Assignments

- Begin Skills and Strategies Assignment

### Session 4: Tools for Research

In this session, learners explore how Web 2.0 literacy is changing the use of technology and learn about the ways to integrate Web 2.0 tools into classroom research. The use of social bookmarking sites, personal start pages, blogs, and other collaborative tools all make research meaningful, authentic, and powerful.

By the end of this session, learners will be able to:

- Identify the skills needed for searching and researching on the Internet and then provide strategies for developing those skills.
- Debate when and if the use of Wikipedia in student research projects is appropriate.
- Reflect on the Web 2.0 tool that they will use in their classroom, identifying the obstacles and advantages they foresee in the use of the tool.

#### Read

- “Let’s Talk 2.0”
- “Creating a Student Research Portal”
- “Using Pageflakes as Student Portal”
- “Writing with Weblogs: Reinventing Students Journals”
- “A Space for ‘Writing without Writing’”
- “Four Web 2.0 Collaborative-Writing Tools”
- “Critical Evaluation in a Collaborative Era”
- “Using Wikipedia in the Classroom: A Good Starting Point”
- “Stepping Beyond Wikipedia”
- “Power of the Mashup”

#### View Videos

- “Netvibes Screencast: Setup, Configuration, Tab Sharing”
- “Webloggs”



**Write Journal Reflections**

- Reflect on planning a classroom Web 2.0 implementation.

**Participate in Online Discussions**

- Discuss the use of Wikipedia as a reference in research projects.

**Complete Activities and Assignments**

- Complete Skills and Strategies Assignment
- Complete peer reviews of two other assignments created by other learners
- Create a research portal (course project)
- Explore “The Edutopia Poll”

**Session 5: Project Planning**

In this session, learners explore netiquette, which is proper online cyber etiquette, and cyberbullying, an extremely challenging issue facing educators and parents as children go online. They also think about how to integrate both standards and assessment strategies into online searching and researching projects.

By the end of this session, learners will be able to:

- Reflect on the implementation of a Web 2.0 tool for developing searching or researching skills in their classroom or with a group of students.
- Discuss the integration of the teaching of Web responsibility, including netiquette and cyberbullying, into the curriculum and what is currently being done in their school in relation to these issues.

**Read**

- *National Educational Technology Standards for Students 2007*
- “Meeting the Needs of Adolescent Learners with Media and Technology”
- “Behaveyourself.com: Online Manners Matter”
- “‘She Used to Be Pretty’: Schoolyard Harassment Goes Online”
- “Rethinking Online Reading Assessment”

**Write Journal Reflections**

- Reflect on the implementation of the Web 2.0 tool in the classroom.

**View Videos**

- “Cyberbullying: Feathers in the Wind” (Part 1 of 3)
- “Cyberbullying: You Can’t Take It Back” (Part 2 of 3)
- “Cyberbullying: Broken Friendship” (Part 3 of 3)

**Participate in Online discussions**

- Discuss teaching Web responsibility.

**Complete Activities and Assignments**

- Classroom Web 2.0 Implementation Activity

**Session 6: Theory to Practice**

This final session provides learners with the opportunity to pull together all the concepts they have learned during the course by completing the course project.

By the end of this session, learners will be able to:

- Create a Research Toolbox to be used for developing searching and researching skills in the classroom, including the use of Web 2.0 tools.
- Explain how the toolbox could be integrated into the planning of a particular curriculum topic.
- Assess learning in this course by comparing their prior knowledge and acquired knowledge.
- Analyze the learning experience in this course by reflecting about their professional goals and expectations.

Write Journal Reflections

- Reflect on the acquired knowledge from the course.
- Reflect on professional goals and expectations.

Complete Activities and Assignments

- Course Project Part 1: The Research Toolbox
- Course Project Part 2: Research Toolbox in Action Paper

### **Schedule**

It will take about 30 hours to complete this course. Each session should take approximately 4-5 hours. If you find yourself spending several hours more than this in any given session, please contact your facilitator to make sure this is necessary to complete the given assignments.

### **Requirements**

Learners are expected to:

- Complete all assignments and activities.
- Complete all journal reflections.
- Participate and actively engage in discussions with fellow learners while contributing to the social construction of knowledge.
- Be self-directed and self motivated.
- Ask for assistance when they need it.

### **Materials** (hardware, software, plug-ins)

#### **Technical Requirements**

- Word processor
- Internet service provider
- E-mail

### **Academic Dishonesty Policy**

To be inserted by university institution only

### **Evaluation**

This course is evaluated on a letter grade basis, and may be available for graduate credit. See graduate credit details pertaining to specific graduate credit institutions.



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