

# Teacher Professional Development: Blending the Traditional With Web- Based Learning Environments

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# How it all began...

## **RESEARCH NEWS AND COMMENT**

### **The World Wide Web: A Technology to Enhance Teaching and Learning?**

RONALD D. OWSTON

Nothing before has captured the imagination and interest of educators simultaneously around the globe more than the World Wide Web.<sup>1</sup> The Web is now causing educators, from preschool to graduate school, to re-

- Does it promote improved learning?
- Does it accomplish the above while containing, if not reducing, the per unit costs of education?

These are tough questions—and

cal screen layout, interactive multimedia learning materials, simplified access to and searching of databases, exponential growth of new resources around the world, and open technical standards that allow any modern com-

March 1997 *Educational Researcher*

# Six years earlier - first website

## Aug. 1991

### World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents. Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policy](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

### [What's out there?](#)

Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

### [Help](#)

on the browser you are using

### [Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#) ,X11 [Viola](#) , [NeXTStep](#) , [Servers](#) , [Tools](#) , [Mail robot](#) , [Library](#) )

### [Technical](#)

Details of protocols, formats, program internals etc

### [Bibliography](#)

Paper documentation on W3 and references.

### [People](#)

A list of some people involved in the project.

### [History](#)

A summary of the history of the project.

### [How can I help ?](#)

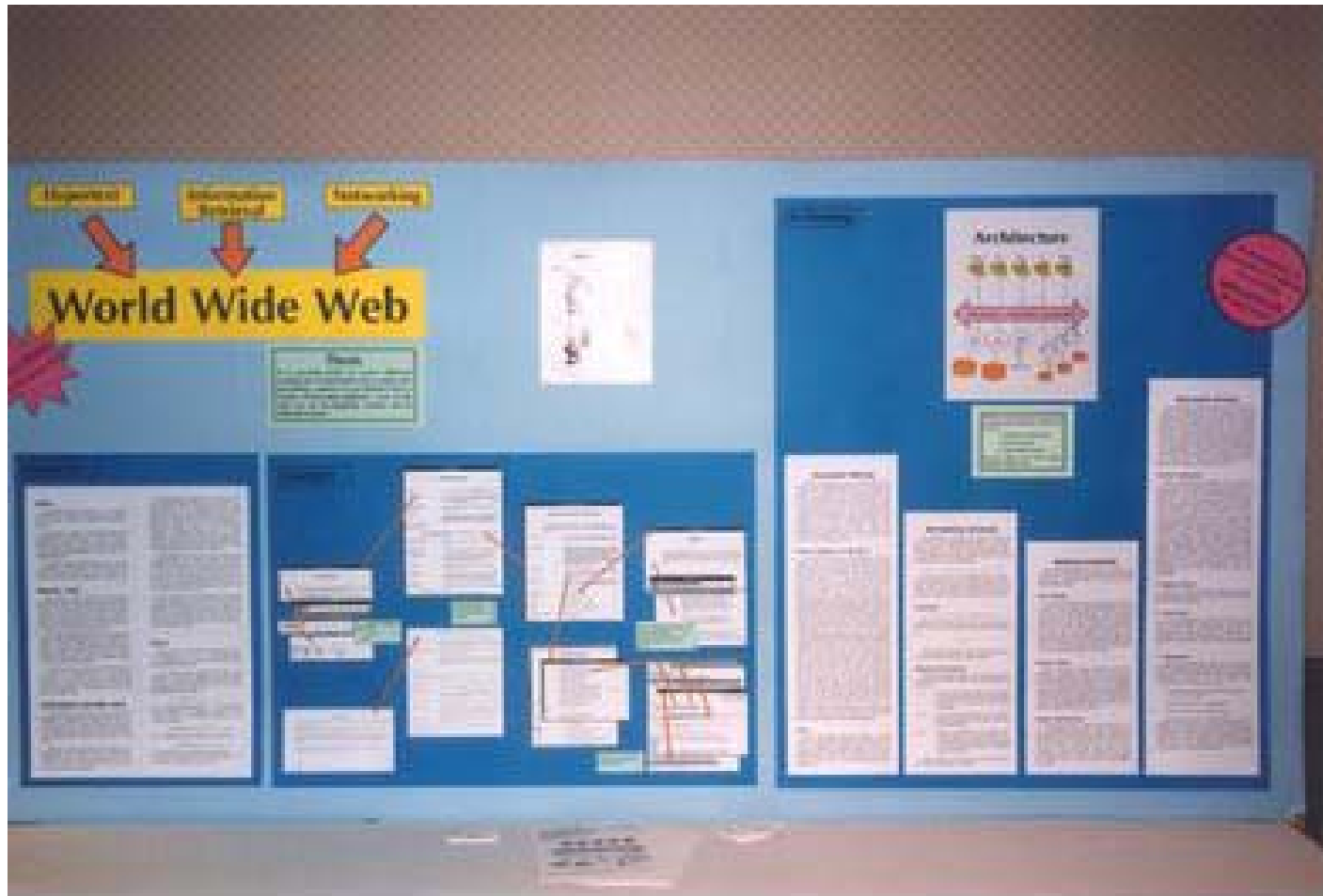
If you would like to support the web..

### [Getting code](#)

Getting the code by [anonymous FTP](#) , etc.



TBL's description of the web is relegated to a poster session!



# Questions I asked in the article about the Web

1. Can it increase *access* to learning?
2. Can it lead to improved *learning*?
3. Can it maintain or reduce *costs* for learning?

**RESEARCH NEWS  
AND COMMENT**

**The WWW and Classroom Research:  
What Path Should We Take?**

MARK WINDSCHITL

Educators have developed many special classroom activities and collaborative projects based on the use of the World Wide Web; educators, in particular, have developed a wave after wave of special classroom activities and collaborative based technologies help students learn simply by connecting them to the world of information is removing one

Windschitl (1998)

**Research News  
and Comment**

**Educational Research in the Internet Age:  
Examining the Role of Individual Characteristics**

by Kendall Hartley and Lisa D. Bendixen

The use of the Web and other computer-based technologies in classrooms has become more prevalent. Previous Research News and Comment articles have discussed the use of bulletin boards, hypermedia tutorials, and information searching, and other technology-based environments that are intended to enhance learning. Whereas research on methods has been more productive. Investigations into these first two areas, media and methods, have

Hartley & Bendixen  
(2001)

# Greenhow, Robelia & Hughes (2009)

**Research News**  
**and Comment**

**Learning, Teaching, and  
Scholarship in a Digital Age**

**Web 2.0 and Classroom Research: What Path  
Should We Take Now?**

Christine Greenhow, Beth Robelia, and Joan E. Hughes

Since Windschitl first outlined a research agenda for the World Wide Web and classroom research, significant shifts have occurred in the experiences for learners, and he argued for more research that examined students' inquiry processes with the Web and the

Educational Researcher

## The 50 Most-Frequently Read Articles

in EDUCATIONAL RESEARCHER during September 2009 thru March 2010 – updated monthly

1. Christine Greenhow, Beth Robelia, Joan E. Hughes

**Learning, Teaching, and Scholarship in a Digital  
Age: Web 2.0 and Classroom Research: What  
Path Should We Take Now?**

EDUCATIONAL RESEARCHER May 01, 2009;  
38: 246-259.

(In "Learning, Teaching, and Scholarship in a  
Digital Age") [\[Abstract\]](#) [\[Full Text\]](#) [\[PDF\]](#)

## My response to Greenhow et al.

### Additional promising areas of research:

1. Implications of youth's immersion in a digital world
2. Classrooms, games, and learning
3. *Teacher learning and the web*

# Blended teacher learning environments

Offer possibility of:

1. Situated, on-the-job learning
2. Strengthening teacher community beyond face-to-face or online only
3. Flexibility in participation time
4. Learning over an extended period



# Evaluated 3 blended professional learning programs

- **ABEL**: ongoing, teacher-driven, provides access to teacher community and resources, summer institutes
- **Learning Connections**: ongoing, focus on middle school literacy & numeracy, semi-structured online activities, summer institutes
- **Teacher e-Learning**: two one-year projects, middle school math & science, 2-3 cycles of 1 day f-2f followed by 8 wks online during school year, formally structured weekly activities


Reports available at <http://irlt.yorku.ca>

# Focus of current paper

- Meta evaluation findings published in *Internet & Higher Education*, 11, 2008
- Focus of this paper on 3 areas of teacher blended learning needing more research and a possible model

# 1. How can we improve online participation?

- Hypothesis:

Greater structure  higher participation  
but

Greater structure  less impact on practice

- Research needed to examine inter-relationship of structure, participation online and classroom practice

## 2. How can teachers develop a greater sense of community?

- Hypothesis:

Shorter F2F interval  higher sense of community


and

Higher sense of community  higher impact on practice

- Research needed to examine relationship between F2F interval and sense of community

### 3. How to increase impact of blended programs on teacher classroom practice?

- Hypothesis:

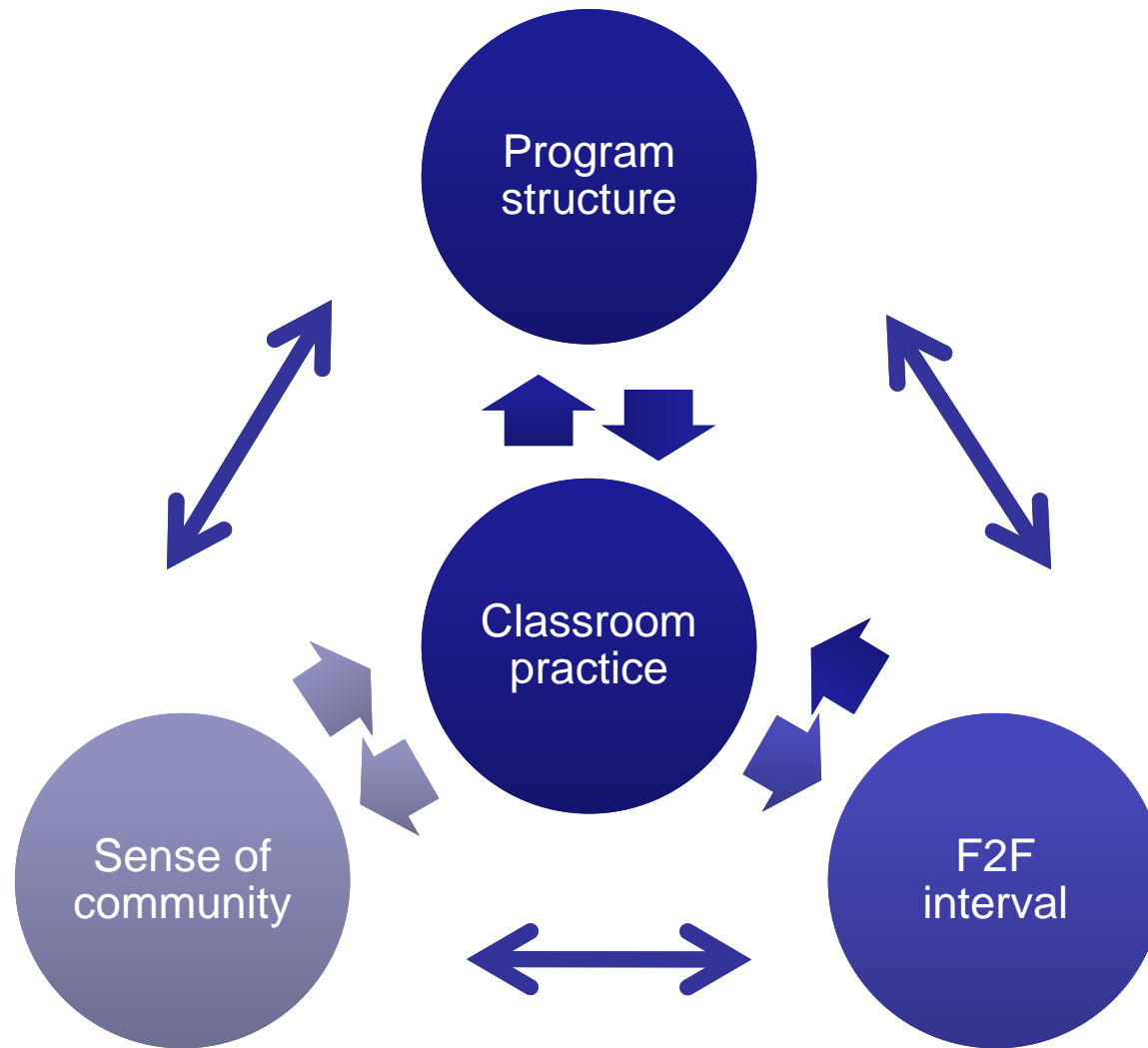
More relevant curriculum  higher likelihood of classroom impact

but

High relevance  higher costs

- Research needed to examine relationship between relevance and classroom impact

# Potential model to investigate



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