

# Chapter 4.15

## Scenarios for Web-Enhanced Learning

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### INTRODUCTION

After several years of Internet use in traditional universities, some patterns have emerged, both in the nature of use, and in understanding the conditions associated with successful adoption and application of Web-enhanced learning (WEL). This article summarizes, in the form of nine scenarios, the ways in which the Internet is being used to enhance learning in traditional universities. It also discusses the changes needed if universities are to benefit more widely from WEL.

### BACKGROUND

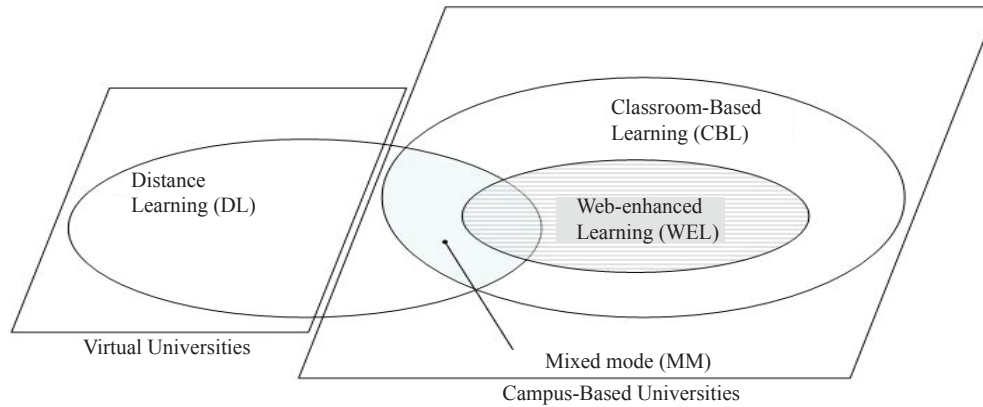
The World Wide Web is used by universities to make courses available to students who are distant from campus (distance learning, DL) and to enhance learning by students who attend courses on campus (Web-enhanced learning, WEL). Universities may be classified on the basis of the modes of learning that they offer. Virtual universities offer access to courses by DL only.

Traditional, or campus-based universities, offer courses that are based on formal lessons held in classrooms or laboratories (classroom-based learning, CBL), but may also offer courses by DL or flexible learning (FL), which is a combination of DL and CBL.

WEL is the use of the Web to enhance CBL in traditional universities. WEL provides students studying in the classroom with access to electronic resources and learning activities that would not be available to them in traditional classroom-based study. Simple forms of WEL provide access to the Web from within the classroom, using the Web as a platform for real-time demonstration or as a digital library. More sophisticated forms of WEL blend activities in the classroom with Web-enabled learning activities that promote collaborative learning among students, even when they are distant from the classroom.

Figure 1 illustrates the relationship between the modes of learning offered by universities. WEL is represented as that portion of CBL that uses the Web to enhance learning. When it is used to blend in-classroom and out-of-classroom

Figure 1. Relationship between Web-enhanced learning (WEL) and other modes



activities, WEL shares the characteristics of DL and FL.

WEL differs from flexible learning in that the focus of the lesson remains the traditional classroom. With FL, classroom-based learning is mixed with learning at a distance. In the most common form of FL, distributed learning (also known as blended learning or mixed mode learning), students participate in formal lessons both in the classroom and at a distance, according to a schedule prepared by the instructor. Some flexible learning may be enhanced by use of the Web, for example, to provide discussion forums in which students studying at a distance and in the classroom may participate together, but use of the Web is not necessary for flexible learning.

This article is concerned with integration of online learning and classroom-based learning to achieve effective and manageable WEL for campus-based students. The focus is on change across a university system rather than in an individual classroom. We argue that WEL adds most value when it is used to enable new forms of learning, and in particular, online collaborative learning by students working at a distance from the classroom, as well as within it (Rudestam & Schoenholtz-Read, 2002). This value can only

be obtained through attention at the institutional level to the organizational transformation required to implement, support, and sustain WEL (Bates, 2000).

## WEL SCENARIOS

Nine distinct scenarios for use of WEL can be identified (Table 1, based on Klobas & Renzi, 2003). They can be divided into four groups: information provision scenarios, in which the Web is used to provide information to students and others outside the classroom; classroom resource scenarios, in which the Web is used to extend the classroom, either by providing access to resources in the classroom or by enabling lessons to be broadcast outside the classroom; interactive learning scenarios, which range from interactive virtual classrooms to the use of the Web to support collaborative learning among students working at a distance; and an experimental scenario, in which the Web is used to experiment with technology and pedagogy in ways not envisaged by the preceding scenarios. Any or all of the scenarios may be used alone or in combination, in a single course or by a whole university.

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