# Stakeholders in Web–Based Education

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## INTRODUCTION

As we move from a focus on data acquisition to a knowledge-based society, just-in-time and just-in-place education is becoming a necessity. Web-based education (WBE), an innovation of the twentieth century, provides anytime, anyplace education to anybody— irrespective of time, social status or distance. WBE extends from same-time-same-place (synchronous) to anytime-anyplace (asynchronous) environments (Aggarwal & Legon. 2003; Zhang, 2004). With advances in the Internet and the Information and Communications Technologies (ICT), the traditional emphasis on classroom instruction is disappearing and the particular media used in instruction is becoming less relevant (Alavi & Leidner, 2001; Benbunan-Fich, 2002; Berghel & Sallach, 20041). Learning can be accomplished through face-to-face class meetings or using the radio, CDs, television, or the Web. Just as in face-to-face education, it is becoming feasible to develop learning skills and critical thinking through the Web (Zhang, 2004). Many researchers are suggesting a "blended" approach, where part of the class is offered online and another part of the class is face-to-face (Turoff & Aggarwal, 2004). This gives the stakeholders, the nuclei of WBE, flexibility in selecting the medium of instruction.

Stakeholders are entities that have an interest in a product and/or expectations from a process. Stakeholders are like suppliers or customers that are either providing or demanding online conveniences. In the case of Web-based education (WBE), the goal is to provide seamless education from a learner's inquiry to graduation. Stakeholders can be external and internal. External groups develop plans, set policies, and develop products. The internal groups develop and facilitate the process. WBE is meaningful if it is well designed, 24/7 accessible, teacher- and learner-centered, efficient, effective, flexible, and occurs within a supportive learning environment.

This article has two specific purposes: to identify the stakeholders in WBE and to discuss their roles. This article should be useful worldwide for universities planning to start WBE and looking to develop a seamless and efficient system.

## WBE AND STAKEHOLDERS

The following section provides a summary and the evolution of WBE.

## WBE

WBE started in the late 1990s and continues to proceed rapidly through major evolutionary stages: innovation —first stage/phase, 1990-2000; to growth— second stage 2001-2005; to stabilization— third/future stage 2005+ (Turoff & Aggarwal, 2004). Each of these stages is not mutually exclusive. There is a continuous movement from one stage to another as stakeholders master stages. However, a point of caution is needed—not every stakeholder is in the same stage; some who are just venturing into WBE are still in Stage 1, whereas innovators may be experimenting and beginning Stage 3. One of the big issues is "seamless" WBE. Seamless Web-based education is defined as a smooth flow of information on the Web without human interference. Students are assuming more of the characteristics of customers and demanding online education with online convenience. Universities are recognizing this and differentiating their program offerings by providing a seamless educational environment from admission to graduation.

WBE is now available anytime, anyplace, to anybody—irrespective of time and distance. Typically, two dimensions are used to describe Web-based teaching: time and place. The scenarios for WBE extend from same time-same place (synchronous) to anytime-anyplace (asynchronous) environments. While WBE grows in size and diffuses world-
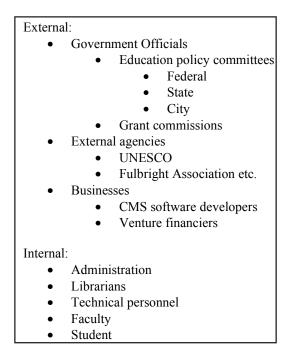
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wide, many different experiments, interpretations, and models are emerging. Aggarwal and Bento (2000) have suggested three models of "Internetalizing"courses at a traditional university: (a) Web support for information storage, dissemination, and retrieval, (b) Web support for two-way teaching, and (c) Web-based teaching. The nature of Web support and usage increases from Model (a) to Model (c). In Model (a), web usage is primarily for "informational" purposes, while Model (c) requires a complete Web-based environment. The Web is included as part of the educational experience in the first model, whereas it is the only medium of instruction in the third model. It is this third model that provides time and place independence and is of interest here.

The following section describes various stakeholders and their role in WBE.

## Stakeholders

Developing and delivering Web-based education depends on the collective effort of a number of stakeholders. Many stakeholders are involved—key players that help to create and provide a "seamless" environment. Table 1 gives examples of stakeholders in WBE. Stakeholders are both external and internal to a WBE system.

*Table1. Stakeholders in WBE*

| External: |
| --- |
| • Government Officials |
|    • Education policy committees |
|      • Federal |
|      • State |
|      • City |
|    • Grant commissions |
| • External agencies |
|    • UNESCO |
|    • Fulbright Association etc. |
| • Businesses |
|    • CMS software developers |
|    • Venture financiers |
| |
| Internal: |
| • Administration |
| • Librarians |
| • Technical personnel |
| • Faculty |
| • Student |

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External stakeholders are outside the system and institutions have very little control over them. These stakeholders, typically, set national policies and provide grant money and guidance at the macro level. Government officials, an example of external stakeholders, will set policies on budgeting for higher education and distance learning (WBE). Internal stakeholders must work within those guidelines.

Internal stakeholders are within an institution and typically collaborate in development, design, and operational aspects of WBE. Administrators, an example of internal stakeholders, make strategic decisions as to outsourcing WBE or keeping it in-house, or creating strategic alliances with universities currently planning or already offering WBE. This can be a collaborative decision of administrators, technical personnel, and faculty.

Stakeholders are like suppliers and customers. Suppliers (businesses) act as facilitators and provide technology to instructors, trainers, learners, support staff, and the institution (Pouloudi & Whitley, 2004). Customers (students) are learners and want an open, flexible, and a user-friendly system. Developing an e-learning strategy involves many stakeholders: teachers, students, and IT staff are obvious, but also vital are the senior administrators, government agencies, business developers, librarians, finance, and procurement staff. External stakeholders set the overall policies, provide guidelines, and become outside champions. Internal stakeholders are involved in internal planning, day-to-day operations, and are internal champions of WBE.

## External Stakeholders

External stakeholders, like the government businesses and outside agencies, set policies, provide directions, grants/funds and incentives, and generally provide motivation for new ventures. Government needs to set clear policies about data transfer across boundaries. Government's role is much more important in third-world countries where these officials often need to make policies about opening up the economy, encouraging external investment, and in general providing guidance to interested parties. In many third-world countries, government is the key source of funding for education. In such cases,

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