

1 8. The model curriculum has career targets that require both core and elective content.
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3 **4. MOTIVATION FOR UPDATING IS 2002**

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5 There are several factors motivating the IS curriculum update. This section will provide an
6 overview of the reasons why it was critically important for the IS community to go through the
7 curriculum revision process.
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9 The first, and most obvious, reason is the time elapsed since the previous update. The last
10 comprehensive undergraduate curriculum revision was IS'97 (Davis et al. 1997); IS 2002 was
11 largely an editorial update completed to address the need to take into account the increasing
12 popularity of e-commerce courses in the IS curriculum (Gorgone et al. 2003). Most of the work
13 done on IS'97 was completed in the mid-1990s, making the curriculum elements closely linked to
14 a specific set of technologies quite antiquated.
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16 Second, there has been a great deal of change in technology and industry practices. This major
17 contextual change has several factors driving it, including:

- 18 1. Complex globally distributed information systems development – The full extent of the
19 distributed nature of IT development was not fully visible during the development of the
20 previous curriculum. The skills needed by IS graduates have, consequently, changed
21 significantly. Increasingly, many IS jobs require skills in working with colleagues and
22 development team members around the world. Further, for business school graduates
23 capabilities in the management of globally distributed development resources are
24 increasingly in demand.
- 25 2. Web technologies and development – Mature modeling and development platforms for
26 the web environment have become a core part of IS development.
- 27 3. Emergence of a new architectural paradigm. Service-oriented architecture, web services,
28 software-as-a-service, and cloud computing are all important elements in the new way of
29 organizing the fundamental architecture for computer-based systems and solutions that is
30 gradually becoming the dominant paradigm of organizational computing.
- 31 4. ERP/packaged software – Information systems and business processes have become
32 closely integrated, and increasingly often, core infrastructure applications are based on
33 large-scale enterprise systems so that the focus has shifted from development to
34 configuration.
- 35 5. Ubiquitous mobile computing – Global organizational life using a variety of devices has
36 become dependent on mobile and ubiquitous platforms.
- 37 6. IT control and infrastructure frameworks – Frameworks and standards such as COBIT,
38 ITIL, and ISO 17799, have become very important sources of guidance for IT/IS
39 practices in organizations. We have to at least ask the question about what their role is in
40 IS curricula.
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42 Clearly, the professional context in which our graduates do their work has changed considerably
43 over the past decade, and this change should be reflected in the curriculum. Not only should the
44 new concepts be covered in the curriculum but the new model they collectively specify for
45 computing in organizations has a profound impact on the capabilities that Information Systems
46 graduates need.
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48 Third, the interest in the study of IS as a field has dramatically declined among students at most
49 institutions. Therefore, it is imperative that the IS community as a whole addresses this problem
50 from several different perspectives, including curriculum design. The response to the enrollment

1 crisis cannot only be based on curriculum changes; however, an outdated curriculum can be a
2 sufficient reason to turn a prospective student away from the discipline.

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4 Fourth, the IS discipline must address its core principles and values within and through the
5 curriculum. By doing so, the importance of clearly articulating the identity of the IS discipline
6 can be established and strengthened. The recent approval of the model curriculum for the
7 emerging IT discipline has made this reason particularly important.

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9 Finally, the revision process was seen as a mechanism to engage the IS community in a more
10 comprehensive way than was possible during earlier update efforts. The task force believed that
11 the Internet and, specifically, Web 2.0 technologies would provide a strong set of technical
12 capabilities to enable and encourage collaboration among IS academics and practitioners around
13 the world.

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15 Of course, this list cannot be inclusive of all motivations for the curriculum revision. We hope,
16 however, that these issues clearly stress the importance of substantially and systematically
17 overhauling the current curriculum.

20 **5. GUIDING ASSUMPTIONS ABOUT THE INFORMATION** 21 **SYSTEMS PROFESSION**

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23 In conceptualizing the role of information systems in the future and the requirements for IS
24 curricula, several elements remain important and characteristic of the discipline. These
25 characteristics evolve around four major areas of the IS profession and therefore must be
26 integrated into any IS curriculum:

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28 1. IS professionals exist in a broad variety of domains, including, for example, business,
29 health care, government, and non-profit organizations. Students must therefore
30 understand that:
- 31 • IS professionals are enablers of successful performance in a multitude of
32 organizations
 - 33 • IS professionals span and integrate all organizational levels and functions
 - 34 • IS professionals need both an excellent understanding of the domain within
35 which they work and appropriate technology knowledge for their organizational
36 role
 - 37 • Information systems in organizations are increasingly of strategic significance
38 because of the scope of the organizational systems involved and the role systems
39 play in enabling organizational processes and strategies.
- 40 2. IS professionals must have strong analytical and critical thinking skills to thrive in a
41 competitive global environment. Students must therefore:
- 42 • Be problem solvers and critical thinkers
 - 43 • Use systems concepts for understanding and framing problems
 - 44 • Be capable of applying both traditional and new concepts and skills
 - 45 • Understand that a system consists of people, procedures, hardware, software, and
46 data within a global environment
- 47 3. IS professionals must exhibit strong ethical principles and have good interpersonal
48 communication and team skills. Students must understand that:
- 49 • IS professionals require the application of professional codes of conduct