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| CHAPTER LEARNING OBJECTIVE QUESTIONS |  |

1-1 Why Is Introduction to MIS the Most Important Class in the Business School?

1-2 How Will MIS Affect Me?

1-3 Why Are MIS-Related Jobs in High Demand?

1-4 What Is MIS?

1-5 What Is Information?

1-6 What Data Characteristics Are Necessary for Quality Information?

Learning Catalytics™ is a student response tool that helps you generate class discussion, customize your lecture, and promote peer-to-peer learning based on real-time analytics. Learning Catalytics uses students’ smartphones, tablets, or laptops to engage them in more interactive tasks.

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| SO WHAT? |  |

## A Is for Alphabet

1. *The feature identifies the Internet as a catalyst for the Information Age. What other innovations have contributed to the era of unprecedented access to information via computers?*

Student answers will vary. Several important innovations that may be mentioned include the development of the PC, wireless networking technologies, development of smart mobile devices, the cellular communication system, and satellite communication systems.

1. *Think about your daily use of phones, tablets, and traditional desktop/laptop computers. How many searches do you perform each day? What types of things do you search for on the Internet? Do you use Google for these searches? If not, what search engine do you use? Why do you use that search engine?*

Student answers will vary, depending on each individual’s routines regarding search. Although exact numbers are difficult to pin down, Google’s share of global searches has been around 90% in recent years, and in 2018 the number of searches on Google surpassed the 2 trillion mark (See <https://bluelist.co/blog/how-many-google-searches-per-day/>).

1. *Conduct an Internet search to find a project or product offered by Alphabet that you had not heard about before reading this feature. Are you surprised at the diversity of the company and its projects and research initiatives?*

Students are likely to discover unexpected projects in a wide array of areas. If necessary, have your students look at <https://x.company> to learn more about the Alphabet company that is termed a “moonshot” factory: tackling huge problems with radical solutions and breakthrough technologies.

1. *What technological innovation do you think will drive the next great era in humanity? What do you think the defining elements of that era will be?*

Student responses will vary. This question should generate some interesting discussion. As a starting point, try focusing the discussion on the area of artificial intelligence and machine learning using the self-driving car context.

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| COLLABORATION EXERCISE 1 |  |

*This chapter discussed why collaboration is a key skill in maintaining job security. In this exercise, you will build a collaboration IS and then use that IS to answer the questions that follow in a collaborative fashion. You might want to read the four questions below before you build your IS.*

*Until you answer question 1-4, you’ll have to make do with email or face-to-face meetings. Once you’ve answered that question, use your communication method to answer question 1-5. Once you’ve answered question 1-5, use your communication and your content-sharing method to answer question 1-6. Then use the full IS to answer questions 1-7 and 1-8.*

*If you have any questions about how to build your collaboration IS, please review Chapter Extension 10. It details the tools and systems you can use to develop your collaboration IS.*

1. *Build a communication method:*
2. *Meet with your team and decide how you want to meet in the future.*

No specific answer; a task to be performed by students. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *From the discussion in part a, list the requirements for your communication system.*

No specific answer; a task to be performed by students. Expect students to include requirements in terms of ease of use, availability, and features that support the way the team wants to work. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Select and implement a communication tool. It could be Skype, Google Hangouts, or Skype for Business.*

No specific answer; a task to be performed by students. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Write procedures for the team to use when utilizing your new communication tool.*

No specific answer; a task to be performed by students. Look for students to include procedures regarding meeting notifications, tardiness and missing meetings, and designating a team member to send out reminders. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Build a content-sharing method:*
2. *Meet with your team and decide the types of content that you will be creating.*

No specific answer; a task to be performed by students. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Decide as a team whether you want to process your content using desktop applications or cloud-based applications. Choose the applications you want to use.*

No specific answer; a task to be performed by students. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Decide as a team the server you will use to share your content. You can use Google Drive, Microsoft OneDrive, Microsoft SharePoint, or some other server.*

No specific answer; student decision will depend in part on the availability of tools, such as SharePoint, in their environment. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Implement* *your content-sharing server.*

No specific answer; a task to be performed by students. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Write* *procedures* *for the team to use when sharing content.*

No specific answer; a task to be performed by students. Look for students to include procedures regarding responding to requests to edit, timeliness of responses, and expectations for participating in content review. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Build a task management method:*
2. *Meet with your team and decide how you want to manage tasks. Determine the task data that you want to store on your task list.*

Student answers will vary. Check to see that the task data listed by the team is complete, and includes at least: a task name, task description, task assignment, task due date, task check-out and check-in, and priority. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Decide as a team the tool and server you will use for sharing your tasks. You can use Google Drive, Microsoft OneDrive, Microsoft SharePoint, or some other facility.*

No specific answer; student decision will depend in part on the availability of tools, such as SharePoint, in their environment. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Implement* *the tool and server in part a.*

No specific answer; a task to be performed by students. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Write* *procedures* *for the team to use managing tasks.*

No specific answer; a task to be performed by students. Look for students to include procedures regarding task creation, task assignment, priority setting, check-out and check-in, and meeting deadlines. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Nonroutine skills:*
2. *Define* abstract reasoning *and explain why it is an important skill for business professionals. Give three other examples of abstractions commonly used in business.*

Abstract reasoning is the ability to construct and use a model or representation. Being able to construct a model or representation of a complex situation through abstract reasoning is an important skill for business professionals, who frequently must make decisions under uncertain and highly complex situations. This is a highly marketable skill. Student answers will vary, but some examples of abstractions used in business include a list of items in inventory and their quantity on hand, project plans, budgets, and business process models. (LO: 2, Learning Outcome: Describe the components of an information system (IS), AACSB: Reflective Thinking)

1. *Define* systems thinking *and explain why it is an important skill for business professionals. Give three other examples of the use of systems thinking with regard to consequences of Bell’s Law, Moore’s Law, or Metcalf’s Law.*

Systems thinking involves identifying and modeling the components of a system and connecting the inputs and outputs among those components into a sensible whole, one that explains the phenomenon observed. This is an important skill because business people must be able to identify and understand the relationships among the elements involved in a complex situation. Regarding examples, student answers will vary. Bell’s Law, for example, states that digital devices will evolve so quickly that they will enable new platforms, programming environments, industries, networks, and information systems every 10 years. Right now, smartphones and tablet devices are predominant platforms for consumers, but how will that evolve and what does that mean for current smartphone/tablet providers? Will smart watches finally catch on, or some other “wearable” product? (LO: 2, Learning Outcome: Describe the components of an information system (IS), AACSB: Reflective Thinking)

1. *Define* collaboration *and explain why it is an important skill for business professionals. Is the work product of your team better than any one of you could have done separately? If not, your collaboration is ineffective. If that is the case, explain why.*

Collaboration is the ability to work productively with others when developing ideas and plans. A good collaboration results in a final work product that is superior to one that would be developed by a person working alone. Regarding student teams, the students answers will vary. It is likely that students have not spent enough time and effort reviewing and evaluating each other’s ideas and improving the work product. Often student groups are satisfied with whatever is contributed and little attention is paid to critique and refinement. (LO: 2, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Interpersonal Relations and Teamwork)

1. *Define experimentation and explain why it is an important skill for business professionals. How does the fear of failure influence your willingness to engage in experimentation?*

Experimentation involves creating and testing promising new alternatives, consistent with available resources. In today’s demanding business environment, new ideas will be essential to success, and business people must overcome their fear of failure and pursue new approaches rationally. If any of the group members respond to a suggested process with the comment, “that will never work,” he may be reflecting his fear of failure. Unwillingness to try a new way of doing things may be an accurate assessment that the approach is unworkable, but it could also be an unwillingness to work in a new way. (LO: 2, Learning Outcome: Describe the components of an information system (IS), AACSB: Reflective Thinking)

1. *Job Security*
2. *State the text’s definition of* job security.

The text defines job security as “a marketable skill and the courage to use it.” The text also argues that marketable skills are no longer specific task-related skills, but rather are “strong nonroutine cognitive skills.” (LO: 1, Learning Outcome: Describe the components of an information system (IS), AACSB: Reflective Thinking)

1. *Evaluate the text’s definition of job security*. *Is it effective? If you think not, offer a better definition of job security*.

It is likely that students will be dismayed that the more traditional task-oriented skills they are learning (e.g., computer programming, accounting) will not provide them with job security. That is probably not the message they receive from their parents and grandparents. However, this definition of *job security* should cause the students to think critically about what they are getting from their college education and may cause them to think differently about their experiences in college. (LO: 1, Learning Outcome: Describe the components of an information system (IS), AACSB: Reflective Thinking)

1. *As a team, do you agree that improving your skills on the four dimensions in questions 1-4 through 1-7 will increase your job security?*

Student answers will vary, but we hope that thinking about these dimensions will change their attitudes about what comprises marketable skills and how to work to develop them. (LO: 1, Learning Outcome: Describe the components of an information system (IS), AACSB: Reflective Thinking)

1. *Do you think technical skills (accounting proficiency, financial analysis proficiency, etc.) provide job security? Why or why not? Do you think students in the year 2000 would have answered this question differently? Why or why not?*

Technical skills are not irrelevant to job security, but they are not sufficient to guarantee job security. This circumstance is very different than in 2000, when technical skills probably were sufficient to get and keep a decent job. (LO: 1, Learning Outcome: Describe the components of an information system (IS), AACSB: Reflective Thinking)

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| CASE STUDY 1 |  |

## Pluralsight

1. *Go to* <http://pluralsight.com> *and search for a course you might be interested in taking. What is attractive to you about online versus traditional training?*

Student answers will vary in terms of the course that is interesting. Attractive features of online training versus traditional classroom training include the convenience and flexibility of taking a lesson/course when time allows. (LO: 1, Learning Outcome: Describe the effects of e-commerce on the modern business world, AACSB: Analytic Skills)

1. *What advice would you give executives at Pluralsight if they wanted to grow their business? How could they increase revenues?*

Pluralsight has traditionally focused on corporate training. Students might be more familiar with an academic environment and might suggest that Pluralsight establish programs with universities so that students could take courses to supplement their traditional coursework at a reduced rate. Possibly some companies could be lined up to help pay the subscription rate, since the students should be more able to provide needed skills to those companies when they graduate. (LO: 1, Learning Outcome: Explain how IS can be used to gain and sustain competitive advantage, AACSB: Analytic Skills)

1. *Why would corporate clients be interested in online technology training for their internal employees? How would they benefit from paying Pluralsight for training?*

Technical skill requirements are constantly changing and employee skills constantly need to be updated. Paying for skills training from Pluralsight is probably much more cost effective for a company than trying to provide the training in-house. Pluralsight is a training outsourcer and if their training quality is good, the company is much better off obtaining the training this way. (LO: 1, Learning Outcome: Discuss the role of information systems in supporting business processes, AACSB: Analytic Skills)

1. *Why is there a technology skills gap? Why do employers have the need for highly skilled workers, and why do too few workers have these skills?*

It is difficult for a traditional college or university to include every type of technology skill in its curriculum, so graduates will not necessarily know every type of technology an employer requires. In addition, skills required evolve quickly and employees need to be updated and retrained on new technologies. (LO: 2, Learning Outcome: Discuss the role of information systems in supporting business processes, AACSB: Analytic Skills)

1. *How might a traditional university benefit from a partnership with Pluralsight? Why might some universities see such a partnership as a threat to their existence while others might see it as a great opportunity?*

Universities could benefit from a partnership with Pluralsight in several ways. One, a university’s IT staff would undoubtedly benefit from access to these training courses. Two, faculty members in certain fields might like to enhance their own knowledge and skills. Finally, students might like to supplement their more traditional classes with some more focused skills training offered in these courses. Many universities would not fear this partnership because their courses are not focused only on technical skills but more on conceptual knowledge. Colleges and universities that do offer focused skills training might find this partnership a little threatening if students prefer the Plurasight online courses to the traditional university offerings. (LO: 1, Learning Outcome: Explain how IS can be used to gain and sustain competitive advantage, AACSB: Reflective Thinking)

1. *Suppose you were considering buying stock in Pluralsight. What types of threats might Pluralsight face in the future? Could a large tech company mimic its business model and threaten its profitability? How could Pluralsight defend against this type of competition?*

Like any company today, there are constant competitive threats. An example of a threat that could disrupt Pluralsight is the rapid growth of cloud computing. A major cloud computing provider, such as Amazon, could launch a skills training business geared toward all its cloud computing environments and tools that would be far superior to Pluralsight’s. Pluralsight could defend against this by establishing a partnership with Amazon to provide Amazon’s cloud computing skills training. (LO: 1, Learning Outcome: Explain how IS can be used to gain and sustain competitive advantage, AACSB: Reflective Thinking)

For an example illustrating the concepts found in this chapter, view the videos in [mymislab.com](http://mymislab.com/).