2 Collaboration Information Systems

LEARNING OBJECTIVES

Q2-1 Describe the two key characteristics of collaboration.
Q2-2 Describe three criteria for successful collaboration.
Q2-3 Explain the four primary purposes of collaboration.
Q2-4 Describe the requirements for a collaboration information system.
Q2-5 Explain how to use collaboration tools to improve team communication.
Q2-6 Explain how to use collaboration tools to manage shared content.
Q2-7 Explain how you can use collaboration tools to manage tasks.
Q2-8 Discuss which collaboration IS is right for your team.
Q2-9 Discuss your ideas on how we may collaborate in 2027.

CHAPTER OUTLINE

Q2-1 What are the two key characteristics of collaboration?
- Importance of constructive criticism
- Guidelines for giving and receiving constructive criticism
- Warning!

Q2-2 What are three criteria for successfulcollaboration?
- Successful outcome
- Growth in team capability
- Meaningful and satisfying experience

Q2-3 What are the four primary purposes of collaboration?
- Becoming informed
- Making decisions
    - Operational decisions
    - Managerial decisions
    - Strategic decisions
    - The decision process
    - The relationship between decision type and decision process
    - Decision making and collaboration systems
- Solving problems
- Managing projects
    - Starting phase
    - Planning phase

    - Doing phase
    - Finalizing phase

Q2-4 What are the requirements for a collaboration information system?

- The five components of an IS for collaboration
- Primary functions: communication and content sharing

Q2-5 How can you use collaboration tools to improve team communication?

Q2-6 How can you use collaboration tools to manage shared content?

- Shared content with no control
- Shared content with version management on Google Drive
- Shared content with version control
    - Permission-limited activity
    - Document checkout
    - Version history
    - Workflow control

Q2-7 How can you use collaboration tools to manage tasks?

- Sharing a task list on Google Drive
- Sharing a task list using Microsoft SharePoint

Q2-8 Which collaboration IS right for your team?

- Three sets of collaboration tools
    - The *minimal* collaboration tool set
    - The *good* collaboration tool set
    - The *comprehensive* collaboration tool set
- Choosing the set for your team
- Don't forget procedures and people!

Q2-9 2027?

Learning Catalytics is a "bring your own device" student engagement, assessment, and classroom intelligence system. It allows instructors to engage students in class with real-time diagnostics. Students can use any modern, web-enabled device (smartphone, tablet, or laptop) to access it. For more information on using Learning Catalytics in your course, contact your Pearson Representative.

SECURITY GUIDE

Evolving Security

1. *This guide emphasizes how information security strategy has changed over the past two decades due to advancements in technology. What do these changes mean for you personally in managing and securing your own personal systems and data?*Private technology users encounter the same types of risks that companies encounter. If your tablet or smartphone is lost or stolen, the data on those devices can be compromised with minimal effort. If you happen to use Dropbox, this means that all of your personal photos, documents, financial statements, and even tax returns may be

accessed by a third party. Furthermore, if you are tech savvy and happen to have a VPN set up to your home network, nefarious actors could access systems and other devices on your home network.

2. *Take a few minutes to conduct an Internet search on insider threats. Besides some of the high-profile cases of employees stealing and selling or distributing corporate data, what other examples can you find?*Students will find a vast array of examples based on their search terms. The key point of this question is to help students recognize that insider threats are common and that the risks associated with insider threats are severe.

3. *What kinds of collaboration tools have you used to complete class assignments and projects? Could these collaboration tools pose a risk to you? How?*Students have likely used file-sharing software like Dropbox to compile and access team resources. Dropbox users often forget to end shared access to folders and files when the project ends and thereby leave vulnerabilities open to any device linked to their Dropbox account if a former collaborator were to upload a malicious file. Students have also likely used Google Docs – other team members can easily access information shared in a Google Doc and disseminate that information to other friends or teams without the consent of the content creator.

4. *How do you feel about the trend of companies using new technologies to monitor their employees? Would you want to work for a company that uses monitoring technologies? Why or why not?* The response to this question is clearly subjective and student responses will be mixed. Some students will likely encourage any measure that can be taken to secure the systems and data at their place of employment while others will consider these technologies an invasion of privacy.

5. *Monitoring digital activity is not exclusive to the workplace. Internet service providers monitor your Web traffic and many Web sites monitor everything that you do while interacting with their site. What does this mean for users working from home? How might an ISP's monitoring activities be a threat to corporations?* The main tension in information security used to be between security and accessibility. Today a new tension between security and privacy has emerged. Privacy is clearly being sacrificed in most digital environments and the implications of this trend are difficult to quantify. Privacy will be a perpetual issue as technology continues to become more and more pervasive over time.

SO WHAT?

Augmented Collaboration

1. *This feature provides two examples of possible business uses for the HoloLens. Think about the future impact of this innovation by identifying other industries that may benefit from the development of augmented reality technology.*

Student answers will vary. There are many types of situations where the work of someone could be guided by a remote expert who was able to view the field of view at the local site and provide expert direction. As an example, insurance companies who are dealing with post-disaster claims could use augmented reality technology to replace the highly-trained on-site insurance adjustment team with local agents who could perform immediate inspections and claims processing with the guidance of experts. Pilots or astronauts could receive more detailed instruction from experts when faced with an emergency situation. A chef could be assisted by a specialist on how to prepare a new type of dish. Law enforcement and military personnel could receive assistance in making decisions on how to proceed in high-risk and/or high-stress situations.

2. *What is the difference between the Oculus Rift and the Microsoft HoloLens?*
   Oculus Rift is a virtual reality headset geared to 3D gaming and new forms of social media.The Microsoft HoloLens is a mixed-reality headset, meaning that the user can see the real world through the device while the interface, videos, and other content created by the device are superimposed on top of the real world.

3. *How could this type of technology benefit your collaborations as a student? Think about how you interact with tutors and fellow students on group projects and how you seek and receive help from your instructor.*
   Students who are working on homework problems could communicate with an instructor or tutor and enable the remote expert to see the student's solution through the HoloLens. The remote expert could diagram on the headset interface places where the solution is wrong and make suggestions for corrections. When collaborating with fellow students, joint editing of documents might be feasible.

4. *Privacy concerns are one of the factors that prompted Google to delay a full release of the Google Glass. What are the security and privacy implications of releasing a product like the HoloLens?*Any time information is transferred through the Internet it is at risk of being intercepted and/or compromised. While industries like health care, higher education, and law enforcement can all benefit from this type of innovation, interactions and data exchanged in these contexts are sensitive and require robust regulations. Patient health data, student transcripts, and criminal histories all require security and privacy considerations, and live feeds of interpersonal dialogues occurring in these contexts would require similar if not more robust security and privacy solutions than the protocols that exist today.

5. *Virtual reality and augmented reality headsets are currently a novelty, but that will change over the coming years. How might these new innovations affect collaboration and business 10 or 20 years from now?*
   As with any new technology, over the next decades the technological issues and societal issues will be dealt with and will evolve. Use of these augmented reality headsets may become standard practice and widely accepted as a part of our collaborative toolkit. Concerns over privacy may be minimized through enhancements to security systems.

USING YOUR KNOWLEDGE

2-4. This exercise requires you to experiment with OneDrive. You will need two Office IDs to complete this exercise. The easiest way to do it is to work with a classmate. If that is not possible, set up two Office accounts, using two different Outlook.com addresses.

a. Go to www.onedrive.com and sign in with one of your accounts. Create a memo about collaboration tools using the Word Online. Save your memo. Share your document with the email in your second Office account. Sign out of your first account.

(If you have access to two computers situated close to each other, use both of them for this exercise. If you have two computers, do not sign out of your Office account. Perform step b and all actions for the second account on that second computer. If you are using two computers, ignore the instructions in the following steps to sign out of the Office accounts.)

No answer required; a task to be performed by the student. (LO: 6, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Information Technology)

b. Open a new window in your browser. Access www.onedrive.com from that second window and sign in using your second Office account. Open the document that you shared in step a.

No answer required; a task to be performed by the student. (LO: 6, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Information Technology)

c. Change the memo by adding a brief description of content management. Do not save the document yet. If you are using just one computer, sign out from your second account.

No answer required; a task to be performed by the student. (LO: 6, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Information Technology)

d. Sign in on your first account. Attempt to open the memo and note what occurs. Sign out of your first account and sign back in with your second account. Save the document. Now, sign out of your second account and sign back in with the first account. Now attempt to open the memo. (If you are using two computers, perform these same actions on the two different computers.)

No answer required; a task to be performed by the student. (LO: 6, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Information Technology)

e. Sign in on your second account. Re-open the shared document. From the

Filemenu save the document as a Word Document. Describe how OneDrive processed the changes to your document.
No answer required; a task to be performed by the student.(LO: 6, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork,AACSB: Information Technology)

COLLABORATION EXERCISE 2

2-5.Build a communication method:

a. Meet with your team and decide how you want to meet in the future. Use Figure 2-8 as a guide.
b. From the discussion in a, list the requirements for your communication system.
c. Select and implement a communication tool. It could be Skype, Google Hangouts, or Skype for Business.
d. Write procedures for the team to use when utilizing your new communication tool.

No specific answer given – an activity to be performed by the students. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Information Technology)

2-6.Build a content-sharing method:

a. Meet with your team and decide the types of content that you will be creating.
b. 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.
c. 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.
d. Implement your content-sharing server.
e. Write procedures for the team to use when sharing content.

No specific answer given – an activity to be performed by the students. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Information Technology)

2-7.Build a task management method:

a. 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.
b. 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.
c. Implement the tool and server in step a.
d. Write procedures for the team to use when managing tasks.

No specific answer given – an activity to be performed by the students. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Information Technology)

2-8.Using your new collaboration information system, answer the following questions:

a. What is collaboration? Reread Q1 in this chapter, but do not confine yourselves to that discussion. Consider your own experience working in collaborative teams, and search the Web to identify other ideas about collaboration. Dave Pollard, one of the authors of the survey on whichFigure 2-1 is based, is a font of ideas on collaboration.

Student answers will vary. Their ideas on collaboration should focus on people working together to achieve a common goal, result, or work product. Feedback and iteration is involved so that the results of the collaborative effort are greater than could be produced by any of the individuals working alone. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking)

b. What characteristics make for an effective team member? Review the survey of effective collaboration skills in Figure 2-1 and the guidelines for giving and receiving critical feedback and discuss them as a group. Do you agree with them? What skills or feedback techniques would you add to this list? What conclusions can you, as a team, take from this survey? Would you change the rankings in Figure 2-1?

Student answers will vary, depending on their team experiences. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking)

c. What would you do with an ineffective team member? First, define an ineffective team member. Specify five or so characteristics of an ineffective team member. If your group has such a member, what action do you, as a group, believe should be taken?

Student answers will vary. The characteristics of an ineffective team member will include lack of interest and commitment, unwillingness to give or take criticism, unwillingness to listen, and indifference. Students are typically not too tolerant of ineffective team members, but are not always willing to boot them off the team, preferring instead to just work around them. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking)

d. How do you know if you are collaborating well? When working with a group, how do you know whether you are working well or poorly? Specify five or so characteristics that indicate collaborative success. How can you measure those characteristics?

Student answers will vary. Characteristics of collaborative success center on the output of the group being superior to the output that could have been created by an individual working alone, including such things as being more productive, more creative, and generating more and better ideas. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking)

e. Briefly describe the components of your new collaboration IS.
No specific answer given – student answers will vary depending on the work done in parts 1-3 of this exercise. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Information Technology)

f. Describe what your team likes and doesn't like about using your new collaboration system.
No specific answer given – student answers will vary depending on the work done in parts 1-3 of this exercise. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking)

CASE STUDY 2

Eating Our Own Dog Food

2-9.In your own words, define dogfooding. *Do you think dogfooding is likely to predict product success? Why or why not? When would dogfooding not predict product success?*
The term is used to describe an organization that utilizes its own products in its day-to-day business operations. A company that demonstrates commitment to its own products by using them exclusively should gain useful insight into the products' actual performance in realistic settings. Assuming those insights are used to improve the product, then it seems likely the product has an increased likelihood of success. If the use of the product is mandated but is done only for appearance (e.g., a car dealer that requires its salespeople to drive only the car brands sold by the dealership), then dogfooding probably does not predict product success.(LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork,AACSB: Reflective Thinking)

2-10. Explain how this team uses the shared whiteboard to generate minutes. What are the advantages of this technique?
The whiteboard was used by the meeting participants to list the initial agenda, create new task lists, and indicate task completion. Once the whiteboard contents were saved, there was no forgetting of the topics discussed, completed, or planned (a common occurrence in meetings when note taking is absent or spotty). All the accomplishments and plans from the meeting were recorded on the whiteboard and saved as a resource for the team.(LO: 4, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork,AACSB: Information Technology)

2-11. Explain how this team uses alerts. Summarize the advantages to this team of using alerts.
Alerts were established so that when a task was added to the task list and assigned to a team member, that member received an email notifying him/her of the task. This way the alert brought the new task to the attention of the right person in a timely

way.(LO: 4, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork,AACSB: Information Technology)

2-12. Explain why this team does not use Skype for Business.
Skype for Business was not used by the team because it was not allowed to be installed by the publisher, Pearson. It is necessary to ensure that a tool that is being contemplated for use does conform to the organization's IT standards. (LO: 4, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork,AACSB: Information Technology)

2-13. Summarize the advantages to this team of using SharePoint.
SharePoint is a powerful tool for content sharing. SharePoint enabled this team to keep track of many documents that were evolving through a series of edit/review cycles; keep track of many tasks; and communicate effectively despite being geographically dispersed. As a result, the team was able to complete work on a big project efficiently and effectively without the expense and hassle of traveling.(LO: 4, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork,AACSB: Information Technology)

2-14. Explain how you think Office 365 Professional contributes to the efficiency of the development team. How might it contribute to the quality of this text?
The most important contributions of Office 365 Professional to the efficiency of the textbook development team are the improvement in communication amongst the team and the control of the textbook content as it is being created and reviewed in preparation for publishing. Because of these capabilities, we can expect that the textbook is of higher quality. More edit/review cycles can be completed, so the textbook content is more refined. In addition, more current content can be incorporated into the textbook because the edit/review cycles do not take as much time as in the past.(LO: 4, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork,AACSB: Information Technology)

2-15. Which aspects of Office 365 Professional described here could have value to you when accomplishing student team projects? Explain why they add value compared to what you are currently doing.
Student answers will vary. Students will probably find the text chat, audio and videoconferencing, online content sharing, content management and control, discussion forums, wikis, blogs, email, and concurrent document editing to be useful for student projects. Compared to traditional student group processes, there should be more meaningful participation by group members, less confusion about the status of the project, more satisfaction with the group process, higher quality group product,and more satisfaction with the group product.(LO: 4, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork,AACSB: Reflective Thinking)

For an example illustrating the concepts found in this chapter, view the videos in

mymislab.com.