2 Collaboration Information Systems

LEARNING OBJECTIVES

- Describe the two key characteristics of collaboration.
- Describe three criteria for successful collaboration.
- Explain the four primary purposes of collaboration.
- Describe the requirements for a collaboration information system.
- Explain how to use collaboration tools to improve team communication.
- Explain how to use collaboration tools to manage shared content.
- Explain how you can use collaboration tools to manage tasks.
- Discuss which collaboration IS is right for your team.
- Discuss your ideas on how we may collaborate in 2024.

CHAPTER OUTLINE

- What are the two key characteristics of collaboration?
  - Importance of effective critical feedback.
  - Guidelines for giving and receiving critical feedback.
  - Warning!
- What are three criteria for successful collaboration?
  - Successful outcome.
  - Growth in team capability.
  - Meaningful and satisfying experience.
- What are the four primary purposes of collaboration?
  - Becoming informed.
  - Making decisions.
  - Solving problems.
  - Managing projects.
- What are the requirements for a collaboration information system?
  - The five components of an IS for collaboration.
  - Primary functions: communication and content sharing.
- How can you use collaboration tools to improve team communication?
- 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.

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- How can you use collaboration tools to manage tasks?
  - Sharing a task list on Google Grid.
  - Sharing a task list on Microsoft SharePoint.
- Which collaboration IS is right for your team?
  - Three sets of collaboration tools.
  - Choosing the set for your team.
  - Don't forget procedures and people!
- 2024?

Using MIS InClass 2

Does AllRoad Parts Need Microsoft Office? Do You?

1. *Create a list of criteria for deciding whether AllRoad needs Microsoft Office. Cost is one criterion, but what else should AllRoad consider? Revise your answer as you work your way through these questions.*

   - Does it contain the essential features/functions we use?
   - Does it contain "nice-to-have" features that we enjoy having? Are those features worth the cost?

2. *Suppose that Addison tells you, "Look, it's $10 a month. Our average labor cost is $35 an hour. If anyone wastes an hour of time messing around with a problem with LibreOffice or Google Docs that equals three-and-a-half months of that person's license fee. Just pay for Microsoft Office and forget about it." Do you think her statement has merit? Explain why or why not.*
   The question here really is whether we need to pay that $10 a month for each and every employee to have all the features of Office. If we never use the features associated with Office and could easily accomplish all our work tasks with LibreOffic or Google Docs, why spend the money for Office at all? It is just not prudent to commit to an ongoing expense that is not providing any added value to AllRoad's employees.

3. *On the other hand, suppose Lucas tells you, "The problem with any desktop product, whether it's Microsoft Office or LibreOffice, is that it has to be installed on the users' computers. You wouldn't believe how much time we waste installing and re-installing programs for our employees. If we can get by with Google Docs, there are no installations; Docs run from the browser and all my installation problems go away." Do you think his statement has merit? Explain why or why not.*
   There is merit to this comment. Browser-based products do eliminate the need for software installations on each and every device. Generally, browser-based products have more limited functionality than thick-client options. The question is to determine if Docs has sufficient functionality for AllRoad's needs.

4. *Divide your team into two sub teams, A and B. Obtain a Google account for each of the two sub teams. If team members have their own Google accounts, use those accounts if you want.*

   a. *Create a document as follows:*
      1. *For sub team A, download LibreOffice from* www.libreoffice.org/download. *Install it on the computer of one of the members of sub team A.*
      2. *For sub team B, use Microsoft Office. If one of the team members has Office already installed, use it. Otherwise, go to* www.office.microsoft.com/en-us/try/ *and download and install the trial version of Microsoft Office.*
   b. *Using either Microsoft Word or LibreOffice Text Document (whichever product your sub team has), create a document containing the instructions in question 4 as sample text. Use the indentation style that you see here. Save your document using your sub team's name.*
   c. *Upload your document to Google Grid and convert it to Google Docs format.*
   d. *Open and edit the other sub team's document as a Google Docs document. Remove the instruction for question 4c. Correct the paragraph numbering for items d and e. When the other team has finished its edits, re-open the documents and look for formatting oddities that have been introduced by the other team's work.*
   e. *Using your notes, comment on inconsistencies in the way these products handle document formatting.*

   No specific answer is provided for this experiential exercise. Students will directly experience the inconsistencies that can be introduced into documents that originate in one form when they are converted to the Google Docs format.

5. *As you have just seen, there are significant differences in formatting features among these three products. If you were at AllRoad, how would you go about finding out what other differences exist? For example, as of this writing, Google Spreadsheet does not have a pivot table, but Microsoft Excel does. How would you find out about other such differences and missing features?*

   A web search for "Google Docs Feature Comparison" finds numerous discussions of Google Docs features compared with other similar products. By reviewing some of these articles, AllRoad could develop a preliminary list of important differences. Then it would need to determine how significant those differences are to its employees' work habits. So, for example, can they live without the Format Painter in Office? Are their printing requirements simple or complex? Do their documents need the graphics handling features of Office? How important is the grammar check and automatic spelling correction features of Office? These are some of the areas that are different between Office and Docs, for example.

6. *Summarize ways that you could use a sample of AllRoad employees to answer question 5.*

After discovering the areas of difference, a sample of employees could be surveyed to get their opinions on the importance of these difference to their own work. I could also ask a sample of employees to use the alternative product exclusively for a period of time and documents the problems/ limitations encountered.

7. *Based on your experiences in this exercise, answer Kelly's question. If you do not have an answer based on your experience in this exercise, explain how you think AllRoad should proceed to answer her question.*
   Students may arrive at different recommendations for AllRoad's decision about Office. Their opinion should be backed up with an evaluation process that includes identifying needed features for AllRoad's employees and a careful and objective evaluation of how well the various products satisfy those needs. Like any software selection process, the choice should be based on identifying needs first then matching each product's ability to satisfy those needs. If a product cannot provide essential requirements, that product will not be satisfactory for AllRoad's purposes.

USING YOUR KNOWLEDGE

2-1. *Reflect on your experience working on teams in previous classes as well as on collaborating teams in other settings, such as a campus committee. To what extent was your team collaborative? Did it involve feedback and iteration? If so, how? How did you use collaborative information systems, if at all? If you did not use collaborative information systems, describe how you think such systems might have improved your work methods and results. If you did use collaborative information systems, explain how you could improve on that use, given the knowledge you have gained from this chapter.*
   Student responses will vary depending on their specific prior experiences with collaborative teams and collaborative information systems. In your discussion, emphasize the value of feedback and iteration to teams, but also emphasize that the team members must have the skills to accept critiques, criticism, and revisions of their work. In some student teams, the focus is strictly on fulfilling a requirement and not necessarily producing the highest quality work product possible through the collaborative efforts of the team members. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking Skills)

2-2. *Using your experience working in past teams, give an example of an unhelpful statement for each of the guidelines in Figure 2-2. Correct your examples to draft a more productive and helpful comment.*

   Student responses will vary depending on each person's specific experiences with teams. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking Skills)

2-3. *Using a past team project from your own experience, summarize how your team*

conducted the four phases listed in Figure 2-5. Evaluate how your team conducted problem-solving, decision-making, and informing activities. Rate your past team on Hackman's criteria as discussed in Q2.

Student responses will vary depending on each person's specific experiences with teams. (LO: 1, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking Skills)

2-4. *This exercise requires you to experiment with SkyDrive. 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 Hotmail addresses.*

a. *Go to www.skydrive.com and sign in with one of your accounts. Create a memo about collaboration tools using the Word Web App. 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: Use of Information Technology)

b. *Open a new window in your browser. Access www.skydrive.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: Use of 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: Use of 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: Use of Information Technology)

e. *Sign in on your second account. Re-open the shared document. From the* File *menu save the document as a Word Document. Describe how SkyDrive 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: Use of Information Technology)

COLLABORATION EXERCISE 2

1. *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 Microsoft Lync.*
   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: Use of Information Technology)

2. *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 Grid, Microsoft SkyDrive, 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: Use of Information Technology)

3. *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 SkyDrive, Microsoft SharePoint, or some other facility.*
   c. *Implement the tool and server in 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: Use of Information Technology)

4. *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 which Figure 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 Skills)

   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 Skills)

   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, 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 Skills)

   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 Skills)

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: Use of 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: Use of Information Technology)

CASE STUDY 2

Eating Our Own Dog Food

2-5. *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 Skills)

2-6. *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: Use of Information Technology)

2-7. *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 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: Use of Information Technology)

2-8. *Summarize the advantages to this team of using Lync.*
Lync is used to enable the team members to communicate collaboratively. Lync allows team members to use email, instant messaging, and audio/video calls. Color coding is used to indicate team member availability. Team members can also share their desktops, share programs, and see and contribute to a shared whiteboard. Teams can also utilize surveys and polls and conduct webinars with Lync, but this probably was not needed in this context. (LO: 4, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Use of Information Technology)

2-9. *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: Use of Information Technology)

2-10. *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 is 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: Use of Information Technology)

2-11. *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 Skills)

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2-12.   *Reread about 2024 in Q9. Do you agree with the conclusions? Why or why not? If F2F meetings become rare, what additional impacts do you see on the travel industry? In light of this change, describe travel industry investments that make sense and those that do not. What are promising investments in training? What are promising investments in other industries?*
Because this question is primarily an opinion question, student responses will vary. Some students may agree that technology that supports communication and collaboration will result in very few face-to-face business meetings in 2024 and beyond. Others may believe that there will always be a role for face-to-face meetings in business, and that technology is a poor substitute. For those students who are skeptical, point out that as people become more comfortable and adept at using the technology, and as that technology improves, technology-based collaboration will become more natural and productive.

Further reductions in business travel will hurt the already struggling airline industry. If travel shifts to being primarily recreation-oriented, then recreation-oriented destinations will benefit. Investments that create and/or enhance recreational destinations (theme parks, water parks, casinos, entertainment venues, along with amenities like hotels, restaurants, car rentals, etc.) will make sense.

Training investments that make sense would be (1) training to be an effective user of the collaboration technology, and (2) just about any computer-based training, especially that which includes video. Investing in bricks-and-mortar training centers does not make sense.

Students are likely to think of many different industries that might be promising investments in the future. One thing to think about is when virtual meetings become the natural way of meeting, many people can essentially live anywhere they choose. Communities with desirable locations (near a beach, for example), should invest in a telecomm capability so that residents can easily get connected to their business meetings. In addition, innovative rural communities should consider developing their telecomm capabilities so that people who are attracted to that way of life can still engage in business activities with offices in metropolitan areas. (LO: 8, Learning Outcome: Explain how IS can enhance systems of collaboration and teamwork, AACSB: Reflective Thinking Skills)

2-13. *This exercise requires you to experiment with Google Drive. You will need two Google accounts to complete this exercise. If you have two different email addresses, then set up two Google accounts using those addresses. Otherwise, use your school email address and set up a Google Gmail account. A Gmail account will automatically give you a Google account.*

a. *Using Microsoft Word, write a memo to yourself. In the memo, explain the nature of the communication collaboration driver. Go to* http://drive.google.com *and sign in with one of your Google accounts. Upload your memo using Google Docs & Spreadsheets. Save your uploaded document and share your document with the email in your second Google account. Sign out of your first Google account.*
    (If you have access to two computers situated close to each other, use both of them for this exercise. You will see more of the Google Docs functionality by using two computers. If you have two computers, do not sign out of your Google 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 Google 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: Use of Information Technology)

b. *Open a new window in your browser. Access http://drive.google.com from that second window and sign in using your second Google 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: Use of Information Technology)

c. *Change the memo by adding a brief description of content management. Save the document from your second account. 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: Use of Information Technology)

d. *Sign in on your first account. Open the most recent version of the memo and add a description of the workflow control communication driver. Save the document. (If you are using two computers, notice how Google warns you that another user is editing the document at the same time. Click Refresh to see what happens.) If you are using just one computer, sign out from your first 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: Use of Information Technology)

e. *Sign in on your second account. Re-open the shared document. From the File menu, save the document as a Word document. Describe how Google 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: Use of Information Technology)