

Creating Ambidextrous Courses: A New Way Forward

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Abstract

During this roundtable, we hope to foster curiosity and share ideas about the relevance and importance of creating ambidextrous courses. An ambidextrous course is intentionally designed to be taught in a variety of modalities (e.g., fully online, fully traditional face-to-face, or hybrid/blended). We will briefly present key characteristics of ambidextrous organizations and individuals and describe how those characteristics apply to the process of creating ambidextrous courses. We will dialogue with participants about their experiences and thoughts on potential benefits of ambidextrous courses and how ambidextrous courses may serve our future instructional needs as tradition meets technology in complex environments.

Key words: ambidextrous courses, course design, dynamic educational environments

Introduction

The purpose of this roundtable is to briefly present the key characteristics of ambidextrous organizations and individuals discussed in the literature, describe our perspective on how those characteristics apply to the process of creating ambidextrous courses, and dialogue with participants on their thoughts about their experiences as well as potential benefits and possible disadvantages of ambidextrous courses. We define an ambidextrous course as a course that provides a consistent student learning experience by balancing and integrating existing and new course elements across differing instructional modalities (e.g., fully online and traditional face-to-face (f2f) or fully online and hybrid/blended), thus addressing the conference theme “Tradition meets Technology: Finding a way Forward.” For the purposes of this discussion, we define these instructional modalities as follows. Fully online courses are asynchronous or mostly asynchronous with some intermittent synchronous interaction between faculty and students; whereas, f2f is the traditional classroom experience in which students are expected to attend classes in person. Hybrid courses combine the online and f2f class experience; generally, alternating between f2f classes and online. In keeping with the goal of ambidextrous organizations and individuals, we believe that ambidextrous courses provide an innovative approach to address a constantly changing and sometimes chaotic environment in which our educational institutions reside and within which we teach.

The target audience for this discussion is anyone who has had to switch teaching (instructional) modalities, perhaps several times during a semester, during the COVID 19 pandemic. The intended outcome of this roundtable is to foster curiosity and share ideas about the relevance and importance of creating ambidextrous courses. To support this outcome, we intend to:

- Share our thoughts about how the key characteristics of ambidextrous organizations and individuals apply to ambidextrous courses;
- Introduce the Change-adept Course Creation Process that supports the creation of ambidextrous courses;
- Invite colleagues to share their thoughts/experiences about ambidextrous courses; and
- As a group, reflect on what might be next as we discuss what we learned and consider potential benefits and concerns surrounding ambidextrous courses.

Theoretical Foundation/Teaching Implications

In the Collins dictionary (n.d.), the first definition of “ambidextrous” is “equally expert with each hand,” which suggests flexibility. However, the second definition of ambidextrous, “highly skilled or adept” (Collins, n.d.), is directly relevant when applied to ambidextrous organizations and individuals as well as ambidextrous courses.

Key to an ambidextrous organization is its adeptness at balancing two divergent orientations—*what exists* (exploitation) and *what could be* (exploration) to enhance performance in a dynamic environment. Ambidexterity is an essential characteristic described by Tushman and O’Reilly (1996) and expanded on by O’Reilly and Tushman (2004) and Raich et al. (2009), among others. Subsequent research focused on ambidextrous individuals (managers) and described the adeptness of those individuals to influence organization performance by taking advantage of both existing capabilities while exploring and integrating new opportunities (Birkinshaw & Gibson, 2004; Mom et al., 2009). Mom et al. (2007) and Schnellbacher and Heidenreich (2020) examined how ambidextrous managers used organizational knowledge to positively affect organizational performance. Again, the focus was on taking advantage of existing capabilities while exploring and potentially integrating new opportunities within the

organization. Good and Michel (2013) described the ambidextrous individual's ability to adeptly manage the real-time interplay between the two orientations in a dynamic environment.

As we reviewed the research on ambidexterity, we concluded that the key ambidextrous characteristic of balancing existing capabilities with new opportunities applied equally to ambidextrous courses, especially in a dynamic environment. From our perspective, the importance of creating ambidextrous courses is two-fold. More recent and foremost on our minds is the need to seamlessly shift from one instructional modality to another during the semester in response to external events (e.g., pandemic, major hurricane). Even before the advent of COVID-19, many of us experienced significant, disruptive events—hurricanes, typhoons, floods, wild fires—that impacted our students and us, necessitating a quick shift in instructional modalities during a semester (Barber & McCollum, forthcoming). We anticipate these types of situations will be ongoing as experts warn that “extreme weather events . . . are likely to become more frequent and intense . . .” (EPA, *Climate Change Indicators 2016*, p. 17) and future pandemics are inevitable (Gill, 2020). By creating ambidextrous courses, we enable our students to continue learning regardless of external, disruptive events.

Additionally, creating ambidextrous courses is pertinent to increasing our ability to offer a consistent student learning experience. Ambidextrous course design provides a way switch to a different instructional modality necessitated by external events. In addition, an ambidextrous course can part of a strategy to better manage our workload as faculty. For example, if you teach a course on Organization Behavior, one course section might be f2f, another online, and yet another hybrid—all the same course but with different instructional modalities for different course sections. When this is the case, you may find it easier to create an ambidextrous Organization Behavior course that can be used regardless of the instructional modality. We have

found that it is easier to create and revise an ambidextrous course that includes more than one instructional modality than to create and revise two or more versions of the same course, each employing a specific instructional modality.

Creating an ambidextrous course ensures cohesive content as well as alignment of course goals and student learning outcomes, while providing the flexibility to capture the strengths of each instructional modality. Furthermore, an ambidextrous course helps ensure similar learning activities, consistent assignment instructions, and similar assessments and feedback strategies. Thus, an ambidextrous course gives you a broader view of what instructionally may work or work with modifications across the differing modalities. In addition, revising a single ambidextrous course rather than two or more separate versions of the course means you are less likely to introduce errors and can quickly correct those that may occur.

Well suited to support the creation of ambidextrous courses is the Change-adept Course Creation Process (CCCP). The CCCP and its three stages of Prepare, Create, and Revise (Barber et al., 2020) incorporate

- the definition of ambidextrous as “highly skilled or adept” (Collins, n.d.), previously discussed;
- elements of action research that include a cyclical, iterative process that is flexible, interactive, and non-linear and integrates self-reflection and dialogue as part of the process (Coghlan & Brannick, 2014; McNiff & Whitehead, 2011); and
- the need to balance the exploration of new opportunities with the focus on existing capabilities (ambidexterity) (O’Reilly & Tushman, 2004; Birkinshaw & Gibson, 2004; Raich et al, 2009) in complex, dynamic environments (Good & Michel, 2013).

The incorporation of these three areas within the CCCP supports the creation of ambidextrous courses that provide students with a similar learning experiences across differing modalities. The CCCP is composed of three interactive stages: Prepare, Create, and Revise. The interaction among the stages is non-linear rather than sequential, which enables flexibility within the process that is necessary to create an ambidextrous course. Self-reflection and dialogue with colleagues are integral within and across each stage of the process—opening up appreciation of what exists, exploring what might be, and finding ways to balance and integrate the two. In addition, this ongoing balancing and integrating of elements serves to reinforce the notion that what is created at one stage may be revisited and changed based on what emerges at a different stage. Ultimately, the results from the overall process coalesce into an ambidextrous course.

In the Prepare stage, the overarching course goal is developed and broad course topics and their connections are identified (Barber et al., 2020). As part of ambidextrous course preparation, the simultaneous balancing and integrating of new/modified ideas with existing capabilities are shared across the differing instructional modalities. Note that as the process continues, some elements may be revised depending on the decisions made during the Create and/or Revise stages.

During the Create stage, balance and integration occur as course elements are reviewed, and a decision is made on how well existing course elements and modified/newly created course elements fit across the differing instructional modalities. Occasionally, a unique course element that takes advantage of a specific modality's distinctive quality may be warranted. However, in keeping with the need to provide all students with a cohesive, consistent learning experience, a

similar experience would need to be provided across other instructional modalities. Below are three examples of course elements that can be used across differing instructional modalities.

- Example 1 - Activities: Discussion Board questions for an online course can be used in a traditional face-to-face (f2f) or hybrid/blended course as part of a flipped learning strategy where students are asked to consider the Discussion Board questions to prepare for a class discussion. The Discussion Board can serve online, hybrid/blended, and f2f instructional modalities and ensures a similar learning experience for students regardless of instructional modality.
- Example 2 - Assignments: Presentations of group project findings can be given synchronously during an online session or videotaped and posted for comment by other class members. F2f students may present their findings and discuss the findings during class. Students in hybrid/blended courses can use either method. Regardless of the instructional modality used, the presentation assignment modifications provide a similar learning experience as long as a common assessment/feedback process is used.
- Example 3 - Resources: Resources posted in your LMS are easy for students to access regardless of the instructional modality. In addition, short lectures that are posted for online students can be used as resources for students in f2f or hybrid classes.

The final stage of the CCCP process is Revise. During this stage, the course is reviewed for overall coherence and alignment among the Prepare and Create course elements and coherence and appropriateness across the instructional modalities. The balance and integration of what exists and the exploration of what could be are considered again during the Review stage. The changes identified in the Revise stage may necessitate changes in either the Create and Prepare stages or both. In addition, surveys at the beginning of the semester and middle of

the semester to allow students to anonymously share their thoughts and challenges about the course. Gathering this type of data provides an opportunity to address issues during the course and make revisions across the instructional modalities within the course once the course has ended.

We believe that ambidextrous courses bring many benefits. A few of those teaching benefits include consistent course materials, activities, assignments, and feedback; aligned course objectives and student learning outcomes based on similar activities and assignments; a chance to create and teach innovative courses; intentional course creation across differing instructional modalities that provides a similar learning experience for all students; and a decrease of the time spent on creating and revising courses allowing for time for other value-added activities. However, it does take more time initially to design a course that is flexible enough to accommodate the use of any one of the different instructional modalities, depending on the designated course section instructional modality or the need to switch mid-course in response to an external event.

Given the disruptions we have faced and will most likely continue to face for a variety of reasons, we believe creating ambidextrous courses that accommodate differing instructional modalities that can be switched seamlessly, is a worthwhile endeavor. Ambidextrous courses provide us with the flexibility to deal with dynamic environments. In this way, tradition meets technology and finds a way forward.

Session Description

Total Time = 60 minutes	Description of roundtable activities
5	Participant introductions
7	Introduction to ambidexterity and the Change-adept Course Creation Process
5	An example of incorporating multi-instructional modality course elements and participant comments
18	Participant ideas on ways to create ambidextrous courses
19	Group reflection on ambidextrous course benefits and concerns/disadvantages
6	Summary and wrap up

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