WE’RE HUMAN, AFTER ALL!:
HUMAN-CENTERED APPROACHES FOR CREATIVE IL CURRICULUM DESIGN

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INTRODUCTION

Design thinking, or human-centered design (HCD), is a growing area of interest within academic librarianship, as the method focuses on a more user-engagement approach to addressing service and pedagogical challenges, and developing practical solutions specifically formulated with the needs and interests of end-users in mind. Having evolved from its roots in various science, business, and industry endeavors of the 1960s to solving problems in the public sector and academic disciplines of today, concepts of HCD were introduced during this workshop, followed by participant interaction with the Inspiration and Ideation phases of the design process by exploring one of the six frames of the current ACRL Framework for Information Literacy.

For the purpose of this paper, curriculum design can be defined as the processes involved in the (re)development of techniques and formulas associated with student learning, including what content is delivered, the specific learning objectives that will be attempted to be met, the measurement of academic goals, and the types of learning activities distributed throughout the process to support skill mastery and intellectual efficacy (Albashiry, N.M., Voogt, J.M., & Pieters, J.M., 2015, p. 603). As the neoliberalization of higher education continues to reframe motivations associated with student recruitment, retention, and degree attainment, administrators and academics alike continue to conceive opportunities to incorporate more creative, user-centered models within curriculum planning, such as human-centered design. Not surprisingly, the strategic application of learner-centered approaches to designing curriculum in higher education has thus been widely debated, with a number of disparate beliefs challenging not only what the body of content to be taught in these institutions should look like, but also the process by which learners will engage with the content they encounter as part of their academic endeavors (Beauchamp, 1975; Cullen, Harris, Hall, & Weimer, 2012; Schiro, 2008).

In addition, as academic librarians grapple with, what some believe to be, a monumental shift in the organizational narrative related to teaching information literacy skills, as seen in the rescindment of Information Literacy Competency Standards for Higher Education to the adoption of the Framework for Information Literacy in Higher Education, meaningful opportunities to collaborate with academic faculty on a wider general education curriculum design can still seem out of reach (Beilin, 2015). However, the universality and flexibility of human-centered design allows for an appropriate application to information literacy curriculum, including embedded and one-shot instruction. The purpose of this workshop, therefore, was to invite participants to actively engage with the HCD process, focusing in on a chosen frame within the Framework, and discussing their rough ideas within the overall group.

HUMAN-CENTERED DESIGN

The rationale for applying human-centered design concepts to curriculum design with information literacy elements stems from the open access design kit work produced by IDEO, as well as the Protolib project undertaken as part of the Futurelib Innovation Programme by the University of Cambridge. Essentially, HCD is described as a creative approach, or series of steps meant to help
in the design of meaningful solutions to industry or company-specific challenges (IDEO, n.d.). When thought of in terms of a Venn diagram, HCD solutions exist at the intersection of three factors: desirability, feasibility, and viability (IDEO, p.6). Generally, there are three phases of the HCD process, Inspiration, Ideation, and Implementation. The Inspiration phase is related to considering a challenge or problem and thinking about alternative approaches and perspectives for making it better or more relevant to the user. The Ideation phase is the most hands-on phase and includes the generation of ideas, making them tangible, and prototyping (IDEO, p.9). Finally, the Implementation phase re-evaluates what worked/didn’t work in the prototype(s) and considers how user feedback may influence future iterations of the “solution.”

Overall, HCD can be implemented within curriculum design in order to encourage pedagogy that is relevant and sustainable, as well as providing innovative and creative opportunities that benefit both individual and institutional learning objectives (Bowie & Cassim, 2016). In considering Potter’s description of HCD, an approach which prioritizes the end user, their needs, and their behavior at every stage of the design process, with an aim to making several small changes to improve the user experience, it becomes apparent that HCD has great potential for allowing librarians academic freedom to completely customize not just the content they intend to share with students, but to also be flexible in their pedagogical approaches depending on the unique diversity within each classroom they interact with (2017). By prioritizing the needs and behaviors of students, whilst simultaneously integrating knowledge practices and dispositions associated with each frame from the Framework, it is hoped that students will consider information literacy concepts to be more meaningful and be able to demonstrate those concepts with greater mastery as a result of incorporating HCD with relevant transfer goals and purposeful content learning intentions (Fisher & Frey, 2016).

**Workshop and Objectives**

This workshop was based on the IDEO Design Kit and incorporated the three major stages of design (inspiration, ideation, and implementation). The purpose of the workshop was aimed toward facilitating both a discussion and exploration of practical applications of the processes with regard to curriculum design for IL instruction and discussed how the ACRL Framework for Information Literacy could be reimagined using the process. The objectives of this workshop included:

- The ability to characterize human-centered design and interpret how the inspiration, ideation, and implementation phases of the process could be applied to curriculum design for information literacy instruction.
- The completion of individual and group activities related to the inspiration phase of the human-centered design process that were focused on building empathy and gaining meaningful and actionable insights from users/stakeholders.
- The ability to distinguish how the synthesis process within the ideation phase of human-centered design provided unique opportunities for sharing inspiring stories and learnings captured through immersive research techniques and experimentation with prototyping as a method for gathering feedback and improving ideas.
- The offering of alternative tools for anticipating how participants could build partnerships, refine curriculum design techniques, draft or pilot ideas, and present them to their academic, institutional, or wider communities.

**Visual Telephone**

Beginning with an icebreaker called, “Visual telephone,” the first 15 minutes of the session were dedicated to introducing participants to Design thinking, or human-centered design, calling specific attention to the highly iterative nature of the process. During this icebreaker, participants were given an activity sheet (see Appendix A) wherein they were asked to write down a sentence. No parameters or rules were provided, other than that a complete sentence should be written. Upon completing this task, participants were asked to pass their worksheet to another participant who would then draw an illustrative representation of the sentence on the form. The next step in the process was for participants to fold the worksheet in a manner so that only their illustration was visible on the page. Participants were then asked to once again pass the worksheet over to another person who was then tasked with writing a sentence they believed described the illustration on the page. Repeating the entire process, participants were asked to fold or cover the worksheet so that only the second sentence was visible and draw a corresponding or representative illustration based on the sentence provided. Finally, after covering previous sentence descriptions, worksheets were passed between all participants, and each person was asked to write a final sentence on the page before returning them to the original owner/creator.

**Mindsets**

The purpose of the “Visual telephone” activity was to introduce participants to the importance of recognizing the role mindsets within a group and how they influence how a solution to a challenge may be approached. Afterall, it is the difference in mindsets of human-centered designers that encourage learning from failure, “making” ideas real, developing creative confidence, gaining empathy, embracing ambiguity, chasing optimism, and persistence through the iterative process. Recognizing different
mindsets also illuminates how the philosophy behind this creative approach directly affects the potential for solutions to be innovative and effective.

IDEO describes seven specific mindsets that are crucial in order for the HCD process to be successful and emphasizes that, although HCD is often considered a hands-on, tactile set of techniques, the mental component of the model is equally important. The seven mindsets include:

- Learning from failure
- Building creative confidence
- Making something
- Empathy
- Embracing ambiguity
- Continuous iteration (IDEO, n.d.)

**Beginner’s Mind**

In conjunction with applying HCD mindsets, the IDEO Design Kit also encourages participants and designers to adopt the concept of employing a “beginner’s mind” during each phase of the process. Adopting a beginner’s mind may feel risky for academic librarians developing curriculum associated with information literacy because, quite often, we have become experts in the subject matter and do not always notice when our instruction practices have become ineffective for students (Elder, 2012, p.75.) Embracing a beginner’s mind asks us to consider how to approach IL curriculum as novices in order to reflect on previous iterations and think about how to be more experimental or creative in the future. The goal of utilizing a beginner’s mindset is not to come to the “right” solution, but to come to the “best” solution.

After setting the stage for considering how mindsets effect approaches to design challenges and solutions, participants were asked to begin cogitating about how design thinking, or human-centered design may apply to their own work, projects, or curriculum design, and how frames could be incorporated into those ideas.

**GROUP INTERACTION**

For the interactive portion of this workshop, participants were asked to form appropriate sized groups based on the total number of attendees in the session, with no more than six groups total. Unfortunately, due to low attendance, only three groups were formed, ranging from 4-6 participants each. Rather than assigning each group one of the six frames from the Framework, each group was asked to choose the frame they wanted to focus on for the activity in which they were engaged, with no more than six groups total. Rather than assigning each group one of the six frames from the Framework, each group was asked to choose the frame they wanted to focus on for the activity in which they were directed through all three stages of design thinking. Arranged at large, round tables, each group was provided with permanent markers, colorful sticky notes, and a large blank piece of paper to use as a canvas. Lists of frames from the Framework were also provided for participants to use as a reference.

For the first stage, Inspiration, groups were guided through exercises to explore their knowledge, experiences, and assumptions related to the frame they chose. In order to plan the hypothetical curriculum that may result with regard to the challenge, the following steps were suggested to be followed:

1. Choose your design challenge by collecting your thoughts, reviewing what you know, defining what you don’t know, and reviewing your constraints and barriers
2. Plan your research methods by learning from the people you are planning for, learning from experts, immersing yourself in the context, and keeping an open mind to analogous inspiration
3. Capture your learnings by piecing together common themes, gather resulting insights, and engage in “How Might We” exercises to further formulate ideas (IDEO, n.d.).

The next section of the workshop, executing the ideation phase, will included both a synthesis and prototyping portion intended to facilitate imaginative strategies for insight and learning, as well as a starting point for creative iteration. Participants engaged in “How Might We” exercises in order to consider how their ideas and learning about their specific frame (including knowledge practices and dispositions) could potentially evolve into conceptions or foundations for prototyping. Due to time constraints, the prototyping portion of this workshop was largely focused on the (intangible) process of prototyping, however groups were encouraged to engage in tangible exercises involving provided materials in order to illustrate the importance of group feedback as a result of building and testing ideas through various iterations.

The final section of this workshop consisted of each group sharing their general takeaways from the inspiration and ideation processes, as well as any group reflection on how they may/may not implement their ideas within their own institutions/communities.
CONCLUSION

This workshop introduced the basic concepts of design thinking through Human-Centered Design and served as an opportunity for participants to engage with unfamiliar processes meant to tap into creativity, innovation, and problem-solving. By encouraging librarians to think of themselves as designers, the use of HCD allowed them to think of learning and curriculum development as a process, rather than a set of content areas (Khalid & Elkhider, 2016, p. 151). As librarians continue to work with faculty and administrators seeking out more user-centered approaches to curriculum development, they must continue to gain expertise in instructional design in order to create customized learning environments where students can effectively gain skills needed to succeed academically (Turner, 2016).

By adopting HCD processes, such as those available from IDEO and other design models, librarians can begin to actively engage with student needs and provide relevant connections between student experiences and information literacy skills in a manner that looks beyond “what” is taught and focuses on “how” content is effectively delivered and demonstrated.
REFERENCES


Virtual Telephone handout from workshop

Sentence:

Drawing 1:

Sentence:

Drawing 2:

Sentence: