Good afternoon, everyone! I’m so happy that you’ve decided to come to this workshop on human-centered design and design thinking for course creation today! We’re going to have a LOT of fun! First, let me introduce myself— as you are probably already aware from the screen, my name is Rebecca Blunk. I am a reference and instruction librarian at the College of Southern Nevada in Las Vegas and have been working in libraries for the last 13 years. This is my first year attending LOEX because prior to working at CSN, I was living in England with my family. In addition to that, I am also
None of these things listed. I’m actually a bit new to design thinking and have only worked on a couple of projects that have really integrated this type of work, but it was really exhilarating, and I loved it and I’m hoping to share that with you today and get you all thinking about how you may or may NOT end up using this method when considering course design or other endeavours.
So, being involved in instruction, I feel like it’s my duty to tell you how I envision our time together will go because whether you know it or not- we have barely enough time to get through everything. So we’re going to start off with talking about design thinking and human-centered design (if you haven’t figured it out yet, I use those two interchangeably), we’re going to do some partnering- don’t worry- if you’re not the partnering-type, it’s really low-risk socialization, then we’re going to break down the process of human-centered design- do another activity, and then we’re going to get down to a sort of super-activity where you’ll be in larger groups where you’re going to prototype (figuratively) and talk about your fantastic creations. As we go through, we’ll pause for discussion about the process- including if you hate it and never intend to use it again or if you learned something you’d like to take forward. This workshop is not about me and my ideas- it’s about everyone’s ideas so I’ll get started here with my bit and then it’s off to the races for you all. Sound good? Anyone feel like bolting now? Okay- Let’s get to it!
So I keep using this term, human-centered design- and you’ve likely heard of it before- so just what exactly do I mean by HCD, and why does that matter for the kind of work we do in our academic institutions? HCD is a creative approach, or series of steps that will help you design meaningful solutions for the work you do. If you think of it as a venn diagram, design thinking solutions exist at the intersection of three factors: desirability, feasibility, and viability. And while it can be an intimidating process to consider, HCD is actually a deeply empathic and intuitive process that taps into abilities we inherently all have but often overlook. In other words, you don’t have to be a designer to use creative tools to solve problems. Instead, HCD relies on our ability to be intuitive, to recognize patterns, to construct ideas that resonate emotionally and rationally, and to be expressive through action. With HCD, the main tenant is to address people’s needs.
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**.

*Cited: NED POTTER (2017)*

All that being said- here’s a sort of generalized definition of what HCD is: (pause) So when we look at this and see terms like “end user” or “user experience,” it typically bring other images to mind, right? When we think of how companies or industries address their users or how human-centered design may be realized, we typically think of things like this:
Virtual or augmented reality, the design of applications & interfaces, or interior design
Human centered design is also used to attempt to solve problems in developing countries or low-income areas. For example, as a result of a design institute held each year at Stanford University’s d school, products such as this have been developed for infants in India, Nepal, and other countries. When I was researching some cool examples of how human-centered design is applied in reality, I really loved this one. These are embrace products that are available for premature babies at a fraction of the cost of incubators. I know this is all well and good and everyone loves a feel-good story about vulnerable babies and women gaining access to something that we may take for granted. So I also understand if you’re wondering how I’m planning to connect this to what we do in higher education. So let’s go back to that definition I shared a minute ago and think about it.
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.

NED POTTER (2017)

If we go back to our definition (and there are many others), let’s think about how this could pertain to our students, our departments, and our institutions. It seems fairly evident to me. Now I know we all have procedures to follow and curriculum standards we have to uphold when we design and offer courses BUT I also think that there is plenty of room within those processes in which, if we really objectively look at making the needs and known behaviors of our students a priority, we can absolutely improve their experience in our classrooms (whether in person or online), which will hopefully increase their self-efficacy and connection to their school.
Some of you, at this point, may be wondering whether it’s our job to create “experiences” for students. I mean after all, we’re here to teach them something, right? So let me take a moment and clarify- I’m NOT saying that this is all about making things fun or pretty or entertaining. I’m not delusional enough (yet) to believe that human-centered design is the end-all, be-all for course design. It’s not. YES, I believe that we need to be creating learning experiences and that those experiences should, at times be fun and creative and different and interesting. BUT I am also keenly aware that as instructors, educators, etc. we have a sort of duty to ensure that we can clearly point to evidence of assessment as well as providing some sort of measurement in which we are able to account for what we tell students and other stakeholders that we will teach them and what they will be expected to adequately demonstrate once they’ve completed the class.
Let’s get **visual**

Virtual telephone
I wanted everyone to give that a try for a few reasons. One of the most obvious is that it’s an icebreaker- HOPEFULLY you feel a bit more at ease now than you did when you first got here. Secondly, one of the important aspects of design thinking is recognizing that everyone sees things and interprets them differently. We all look at different challenges through different lenses, right? I know that’s a really cliche thing to say, but it’s a vital part of the design process. I can’t tell you how many times I’ve sat in a meeting where I listened to other librarians discuss what they “KNOW” our students wanted or how they were likely to react to something. Anyone else? I know I’m guilty of it myself. I’ve had all kinds of “brilliant” ideas I was sure other people would like or find useful. They were sort of educated guess-centered if you will. So I hope that after you leave today- even if you don’t think HCD is for you, that you’ll at least consider how viewpoints are different and that even with the best intentions, you could be missing your mark completely.
Let’s move on to the design process. The HCD process is best thought of as a system of overlapping phases rather than a sequence of orderly steps. There are three phases to keep in mind- inspiration, ideation, and iteration. This process is non-linear and alternates between convergent and divergent thinking- the abstract and the concrete. For today, we’re more likely to go through this process in a linear way, however, the more experienced you become using this process, you’ll likely notice that you jump from one part of the process to another. So let’s start talking about each one of these phases.
HCD is as much about your head as it is your hands. There are 7 specific mindsets within HCD that help to uncover the philosophy of the approach to creative problem solving, and show that how you think about design directly affects whether you’ll arrive at innovative, impactful solutions.
Don't think of it as failure, think of it as designing experiences through which you are going to learn. Failure is an incredibly powerful tool for learning. Designing experiments, prototypes, and interactions and testing them is at the heart of human-centered design. So is an understanding that not all of them are going to work. As we seek to solve big problems, we’re bound to fail. But if we adopt the right mindset, we’ll inevitably learn something from that failure.
Creative confidence is the notion that you have big ideas, and that you have the ability to act on them. Anyone can approach the world like a designer. Often all it takes to unlock that potential as a dynamic problem-solver is creative confidence. It is the belief that everyone is creative, and that creativity isn’t the capacity to draw or compose or sculpt, but a way of approaching the world.
When you start with making something simple first, you take risk out of the process. And regardless of what you make (whether it’s physical or conceptual), you always learn lessons from it. As human-centered designers, we make because we believe in the power of tangibility and we know that making an idea real is a fantastic way to think it through. When the goal is to get impactful solutions out into the world you can’t stay in the realm of theory. You have to make your ideas real.
Understanding the importance of empathy is nothing new to librarians or instructors. Moreover, it’s vital that we realize that we can’t come up with any new ideas if all we do is exist in our own bubbles. Empathy is the capacity to step into other people’s shoes, to understand their lives, and start to solve problems from their perspectives. Human-centered design is premised on empathy, on the idea that the people you’re designing for are your roadmap to innovative solutions. All you have to do is empathize, understand them, and bring them along with you in the design process.
EMBRACE AMBIGUITY

We may not know what that answer is, but we know that we have to give ourselves permission to explore. Human-centered designers always start from the place of not knowing the answer to the problem they’re looking to solve. And though that’s not particularly comfortable, it allows us to open up creatively, to pursue lots of different ideas, and to arrive at unexpected solutions. Embracing ambiguity allows us to give ourselves permission to be fantastically creative.
Optimism is the thing that drives you forward. I believe that design is inherently optimistic. To take on a big challenge, especially one as large as integrating information literacy into instruction, we have to believe that making progress is an option. Optimism is the embrace of possibility, the idea that even if we don't know the answer, that it's out there and that we can find it.
What an iterative approach affords us is that we can gain validation along the way...because we’re hearing from the people we’re actually designing for. HCD is an inherently iterative approach to solving problems because it makes feedback from the people we’re designing for a critical part of how a solution evolves. By continually iterating, refining, and improving our work we put ourselves in a place where we’ll have more ideas, try a variety of approaches, unlock our creativity, and arrive more quickly at successful solutions.
Beginner’s mind- Before we go into the three phases of design thinking more closely, and keeping in mind with the mindsets for HCD, I want to add the importance of embracing the “beginner’s mind.” This refers to approaching problems as a novice even if you feel like you already know a great deal about the subject. So, for example, many of you may be well versed and familiar with course or curriculum design - but by thinking with a beginners mind, you may find that you are able to be more eager to learn and willing to experiment rather than to take the approach of finding the right solution. For this- we’re going to do a quick activity.
For this exercise, I want you to get with a partner and discuss the last activity you tried for the first time. Was it exciting? Was it scary? Talk about how being a novice helped you in the situation. This can be large or small scale. The example that I have is that I recently bought cycling cleats. I’ve been taking an indoor cycling class on a stationary bike for about three months now and I always hated how I was constantly trying to adjust the foot pedals. I also didn’t want to buy cleats because I was worried that I would end up never using them. I FINALLY acquiesced and bought a pair. It was exciting for me because I went with a new friend and it gave us some time to get to know each other and talk- so that was great for me. Being a novice in this situation helped because I ended up asking a lot of questions about the cleats, how they were supposed to feel and what I could expect. I took my time and considered a lot of options and ended up feeling like I was able to make an informed decision.
The inspiration phase is about framing a design challenge and discovering new perspectives on the opportunity. So this is where you think, “I have a challenge, how do I approach it?” Adjectives you think about with this phase are discover, hear, interpret, empathize, define. This is also the beginning of the divergent process because this is where you start to think about (AND TAKE ACTION) regarding how you gain a deep understanding of people’s needs. Instead of trying to make educated guesses about how to approach a challenge, you start to immerse yourself in the lives of those you are designing for.

It’s during this phase where you start learning on the fly, opening yourself up to creative possibilities, and trusting that as long as you remain grounded in desires of the people you’re designing for, your ideas will evolve into the right solution.
Choose Design challenge. Whether you like it or not, the design challenge for today has already been chosen for you! (yay). Otherwise, this would be the first step that you would take. Once you’ve decided on your challenge, it’s important to create a common understanding about what you’re working toward.
In order to do that, you'll need to think about these four things: Collecting your thoughts is all about working with your team to collect and write down your thoughts together about the challenge itself. This can help you refine your challenge if it's too broad or too specific. After that, it's a good idea to review what you already know. It's likely that members of your team are going to have some good ideas knowledge about the challenge you chose. It's going to be important for you to share within your team what you already know so that you can build upon it and then focus on discovering what you don't YET know. Speaking of what you don't know- and getting back to that beginner’s mind, you also need to write down and share what you don’t know or what you don't yet understand about the challenge. Finally, at this point, you should start reviewing the restraints and barriers that might prevent you from tackling your design challenge. You’ll also brainstorm solutions for overcoming or working around these barriers.
Step 2:
Plan your research methods

Because research is going to be fueling your ideas, it’s vital that you start planning your research methods at this point in the DT process, which can be a bit different from what you may be used to with other processes. In order to do this, you need to be willing to learn from people, learn from experts, immerse yourself in context, and seek analogous inspiration.
HCD is built upon deeply empathic research. It's spending quality time with people to gain insight about and inspiration from the people you’re designing for. The problem is- learning from people requires time and preparation. In order to do this, one of the places to think about starting from is defining your audience. Who are the people and groups that are going to be directly involved in or reached by your challenge? Who are those peripherally involved? Seek those people out to talk to. Yes... TALK to. You also want to think about your extremes and mainstreams with regard to who you interview. An idea that suits an extreme user will nearly certainly work for the majority too. The good part about talking to extremes is that it may spark creativity and think about using cases that you may not have thought of on your own. With regard to logistics, you want to make sure that you think about exactly what you want to do with each participant. How long will you meet? Are there certain questions you only want to ask them specifically? Is there anything you want them to be prepared for? Along those same lines and as part of your set of participation recruitment tools, it’s important to have a strategy around who you want to talk to, what you want to ask them, and what pieces of information are you looking to gather? Finally, it's very important to create a trusted atmosphere- especially if you are meeting with someone on their “turf.” Be considerate of the space you’re in and make sure you have an appropriate level of privacy. It’s also always good to start the interview or conversation by talking about a subject not related to the research you are undertaking to create a more relaxed environment.
Though human-centered design is all about talking with people, there are moments where you'll need more context or history than a typical interview can afford. This is where both expert interviews and secondary research come into play. Experts can often give you a systems level view of your project area, tell you about recent innovations—successes and failures—and offer the perspectives of others. You will want to choose experts based on your objective. Are you looking for someone with a radical opinion, or do you want to gain a more historical overview of what’s worked and what hasn’t? Get a few different perspectives to balance out your information. You might also look to experts for specific technical advice. Just like with learning from others, you need to plan for the conversation you’re going to have with your expert. Ask smart, researched questions and plan how you want the conversation to flow. Though you should come prepared with an idea of what you’d like to learn, make sure your game plan is flexible enough to allow you to pursue unexpected lines of inquiry. Really think about trying to ensure your interview is an efficient and effective use of both your time. Challenges in education and course design, like the one we’re going to broach today, can be difficult to try to unpack. Try to find recent innovations in your particular area. They could be technological, behavioral, or cultural. Better yet, take a look at other solutions in your area. Which ones worked? Which ones didn't?
Because the Inspiration phase is dedicated to hearing the voices and understanding the lives of the people you’re designing for, there’s no better way to do that than by immersing yourself in their lives and communities. When you plan any observations for your research, the best route to gaining an understanding of the people you’re designing for is to see in person, where they live, work, and lead their lives. Even in our case, it may be useful to have a more holistic view of our students. I’m not saying it’s mandatory that you spend the day walking in their shoes in order to design a course, but it is important to have some kind of understanding as to how your course is going to fit into their lives. You also want to make sure that when you observe, that you’re choosing an experience that can inform your challenge. For example, if you’re going to make a learning activity in your course require an online platform or exercise, you may want to spend some time observing how students access their courses online. As part of immersing yourself, it’s going to be natural to start interpreting what your students are doing or formulate ideas about the meaningfulness of their actions—just make sure you are also taking down concrete information and any quotes to ensure you’re not missing something or relying on your memory. Once you’ve made your observations, it’s going to be the most effective if you’re able to take some time and reflect on the moments you found most interesting, as well as useful. You may even consider capturing them on Post-its or in your notebook so you will be able to share back with your team in a way that is accurate, vivid, and visual.
You're probably familiar with what an analogy is: it’s an associative thought-process that allows you to transfer meaning from one subject to another. Analogous research takes inspiration from a different context to give you a fresh perspective. To begin this process, it’s a good idea to brainstorm different analogous experiences- which you can do by thinking of some distinct activities, behaviors, and emotions you’re looking to research in your own design challenge. Then you can start thinking about settings or situations where you might observe this activity, behavior, or emotion. To give you an example, the library has previously looked into making the experience of booking a study room in the library similar to the experience of making a reservation at a restaurant or checking in for other service appointments. You should remember, however, that if you’re going to embark on an analogous journey for research, that you make arrangements or get permission - especially if you're planning to talk to people in private settings. Finally, try not to make too much of making sense of the experience in the moment. This part of inspiration is all about gaining learnings from unexpected places and experiences. In fact, your design team may find it helpful to keep an eye out for analogous experiences throughout the process, not just in the Inspiration phase.
Once you’ve really thought about how to go about collecting information, including building your interview guide and have considered any other research methods, such as utilizing personal diaries, photo essays, customer journeys, card sorts (word on it and deciding what's a priority and what’s not), or concept provocations (concept drawings with accompanying explanations), you’ll have to start capturing your learnings.
Now that we’ve covered inspiration, let’s talk about ideation. This is the part of the process that is about generating ideas and making them tangible. This is where you start to think about what you’ve learned and how you’re going to interpret and express your ideas. The words associated with this phase are ideate, create, prototype.
The Ideation phase begins with synthesis, one of the most challenging parts of the human-centered design process. This is where you start turning your learnings into opportunities for design. There are numerous ways to enact your synthesis phase—which can take a few days to a couple weeks. For the purpose of today, I’m going to talk about a few steps that you may consider when fleshing out synthesis. Learnings are the recollections of what stood out during a conversation or observation: direct quotes, anecdotes, notes on sounds, smells, textures, colors, etc. Learnings should be communicated in full sentences to capture the story. Themes are created after you have organized the stories from your field research into categories. Did you hear similar statements or observations from multiple people? Themes are the headlines for clusters of similar learnings. Insights are a succinct expression of what you have learned from your field research activities. Insights offer a new perspective, even if they are not new discoveries. They are inspiring and relevant to your challenge. “How Might We” questions are the starting point for a brainstorming session. How Might We questions are written in direct response to an insight. These questions feel optimistic and exciting and should help you think of new ideas quickly. Ideas are generated during a brainstorming session. Ideas can be practical and simple or wild and crazy. All judgment is deferred during a brainstorm, as the goal is to come up with as many ideas as possible. Ideas are best communicated with quick sketches.
After synthesis comes the prototyping phase of ideation. This portion will enable you to turn your opportunities for design into innovative concepts to prototype. This is where, if our design challenge was not so intangible, I would be providing you with a bit more materials that may be more useful for physical prototyping. Following the synthesis of your ideas into opportunities, the Ideation phase is a chance for you to make your ideas come to life and test them with the people you’re designing for. There’s a few key things to remember about prototyping. Prototyping is all about learning from failure. Build and test your ideas quickly so that you may learn and continue iterating on them. Second, don’t think of prototyping as a linear process. As you test your concepts, you will have to jump between the following steps often. This cyclical process of testing your prototypes, getting feedback, and iterating is an important one in order to create an effective, innovative solution in the end.
Step 1: Generate ideas

As you’ve now heard, idea generation is all about coming up with as many ideas as possible—wild and crazy or simple and practical. You then narrow these ideas down to what you most practically see succeeding and what you think will be most innovative. The final ideas will serve as the basis for you to build out the concept for your solution. Brainstorming may often be thought of as wild and unstructured, but it is actually a focused activity that involves a lot of discipline. This is the stage of the human-centered design process where you really get to tap into your creativity.
First, before we create one—what’s a concept? A concept is a more polished and complete version of your idea. It’s starting to look like an answer to your HMW question. This is where you move from problem to solution and it drives everything that comes next. The best place to start for this step is to select your most promising ideas. The passion and energy of your team around particular ideas will make the development of your designs successful going forward. To get a sense of which brainstorming ideas generate the most excitement, everyone on the team will vote on their favorites while they are still fresh in your minds.
Step 3: Prototype

This is the fun part! Prototyping is the time to make ideas tangible, to learn more about your idea simply by trying it. Remember, you learn just as much from the failures as the successes. Your prototypes should be rough and only as accurate as needed to get key feedback from the people you’re designing for. You can determine what you will prototype by starting to breakdown the user experience, by creating an experience map, or by creating a sort of order of operations. A prototype is essentially a tangible answer to a theoretical question. And rather than testing an entire idea, the best prototypes help to get you answers to very specific questions about an idea. Sometimes designers have great ideas, but create prototypes that are much too broad to give them good answers. So this is where you can try lots of things and find out what’s going to work best!
Prototypes enable you to share your ideas with other people, get feedback, and learn how to further refine them. You can prototype just about anything and you can do so through several methods, including building models, creating mock-ups, creating role-play opportunities, creating diagrams, creating stories, or even creating advertisements. No matter what you do, just remember the mindset- just make something.
Soliciting feedback on your concept and prototypes helps keep the people you’re designing for at the center of your project. Collecting feedback from potential users is what pushes things forward and allows you to iterate and refine until your solution is working. Feedback is one of the most valuable tools in developing an idea. Sharing prototypes early in the design process helps you see what really matters to people and which aspects need improvement. Getting feedback is about going back and talking to the people you’re designing for and begin getting feedback on your ideas.
Now you'll want to synthesize some of the feedback you got and brainstorm how your concept could change based on your feedback. Feedback is invaluable to developing an idea, but can also be quite confusing. It may be contradictory or may not align with your goals. Sort through the responses you receive and decide on what to integrate in your next iteration. Then, once you've determined how your prototype should change to reflect the feedback you got, go ahead and build it. This loop of prototyping, getting feedback, and iterating based on feedback will happen a number of times.
Finally we have iteration- which is interchangeably called implementation. This phase is all about continual experimentation based on user feedback. This is the phase where, yes, you have a prototype- which has been tested with others- but how are you going to test it with users and refine it? It is important to note that iteration takes time. Unlike the inspiration and ideation phases, you may go through multiple rounds of iteration on your concept before you are ready to fully implement an idea. The goal here is to create a series of tests, or mini-pilots, that continue to build on your initial prototype, and to remain open to the idea that user feedback will lead you towards directions that you may not have previously anticipated. Like the other two phases of this process, there are a few helpful steps that I would suggest implementing for this one as well.
Before implementing, you'll want to understand what your solution will mean to both the people implementing it and to those you're designing for. Everyone wants a revolutionary idea, but long-term success might come from incremental change. Also, think about the capacity of the implementing group; you'll want a solution that they can actually carry out.
Devising an innovative solution and putting it into practice are two different propositions. Creating a plan for implementing will help you understand what will be required to get your solution out in the world and where your organization will have to seek help. Some other ideas to consider when creating your action plan would be to devise a roadmap, staff the project, build partnerships, develop a funding strategy (although not particularly useful for this exercise), and create a pitch so that you can communicate your idea—how it works, why it counts, and who it benefits.
After you’ve taken your idea to the next level and launched your solution, don’t forget that, like assessment, this shouldn’t be closing a loop, but starting an upward spiral. What I mean by that is that you’ll need to continue to keep seeking out feedback and iterating. This may sound impossible for course design, but just the slightest tweaks may make the difference in taking a student from having a good classroom experience to one that can serve as a foundation for their future learning and connection to their education and the college. Don’t lose sight of the iterative approach that you’ve taken so far. As counterintuitive as it might seem, your solution is never truly finished. Even when you’ve “gone to market” you can always improve it. Of course, the hope is that once you go through feedback and iteration, you’ll reach the point of scaling impact. Your goal has always been to have big impact, and that’s what human-centered design is all about—providing effective solutions for the people you’re trying to serve.
Whew. that certainly was a lot. Okay. It’s now time for our super mega-what-you’re-here-for activity.
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REFERENCES


thank you.
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