Design Thinking for Your Students and Your Program KRISTIN FONTICHIARO

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KRISTIN FONTICHIARO University of Michigan School of Information N. Texas Library Expo, 10/27/2018, 11:30 – 2:00

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Hello!

I'm Kristin Fontichiaro

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Tell me about you.

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Let's try this game. With someone at your table, brainstorm what you might invent and why.





Find this game at http://makinglibraries.si.umich.edu/handbook (scroll down to "design game")





Good start, but ...

Looking beyond one's own knowledge is a key element of design thinking.



Γoday

- 1. What's design thinking and why might you be interested in it?
- 2. Nudging the design thinking process so it aligns with our library research/info lit goals
- 3. DT and inventions
- 4. DT for processes and priorities
- 5. Hands-on DT simulation: your library program



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A *process* for gaining insight prior to creating or revising a product or process

Open-ended for students yet with some semi-structured stages for educators

Iterative



Synonyms/Similar

Contextual Inquiry Customer Discovery



If we want future generations to solve real problems, they need real tools. *Thinking tools.*



IDEO: multidisciplinary teams exploring "how might we ..."





CASE STUDY UCSF

Improving Quality of Life for Young Adults with Schizophrenia

IDEO





CASE STUDY PILLPACK

Launching an Online Pharmacy Startup



CASE STUDY IKEA

Designing the Future Kitchen



CASE STUDY BOSCH

The Future of Car Servicing







CASE STUDY GLIDE

A Sleek, Seamless Apple Watch Camera Band



CASE STUDY FORD

Beyond Cars: Designing Smarter Mobility





IDEO/Stanford d.School



What might the benefits of design thinking be for library curriculum? For library leadership?



"Do people really want this widget? Am I solving a problem, or just adding to the noise?"

https://crowdfavorite.com/the-value-of-balancing-desirability-feasibility-and-



This design thinking exercise was developed by Kamya Sarma as part of the Making in Michigan Libraries project

How might we improve the experience of driving a car?

Identify a problem | Research, Observe, Interview | Synthesize and Focus on one problem in particular Brainstorm possible solutions | Choose one solution and prototype it | Test, revise, test again | Assessment

1. Identify a problem.



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on one problem in particular.

IDEO mantras:

- Defer judgment
- Build on the thinking of others.



4. Brainstorm possible solutions.

- Voice activated
- Touch screen instead of buttons on a rod?
- Add a rod instead of doubling up with cruise control rod?
- Moisture sensors to turn on wipers automatically?
- Default to on when start car; driver must manually turn them off while still safely in parking lot/garage/driveway?





Pro Tips:

 Prototyping = quick physical representation of an idea

5. Choose one solution and prototype it.

- Use materials that can be easily changed or reconfigured (e.g., LEGO, Strawbees, play dough, cardboard, LittleBits, recycled materials)
- Beware of preciousness







Identify a problem | Research, Observe, Interview | Synthesize and Focus on one problem in particular Brainstorm possible solutions | Choose one solution and prototype it | Test, revise, test again | Assessment


Desirability

- Will this solution fill a need?
- Will it fit into people's lives
- Will it appeal to them?
- Will they actually want it?



7. Assessment



Amy Lamp, "The value of balancing desirability, feasibility, and viability" https://crowdfavorite.com/the-value-of-balancing-desirability-feasibility-and-viability/

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Feasibility

Is the technology needed to power the design available or within reach?

7. Assessment

- How long will this take?
- Can the organization actually make it happen?



- Viability Will the design solution align \bigcirc with the business [school, family, organization, library] goals?
- Does this solution honor the ()organization's budget?
- What will the return on the \bigcirc investment look like?



7. Assessment

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Commercials Pitches Process Journals Written memo to manufacturer/funder Promotional video/poster/podcast

7. Assessment





Sample DT questions

- How might we design a better community playground?
- How might we design a maker corner that works better in our library/classroom?
- How might we improve how we move from place to place in the school? The after-school pick-up line?
- How might we improve our pets' care when we are at school?

- How might we improve how people carry water during the day?
- How might we improve storage at school for kids?
- How might we help people with Parkinson's eat more independently?
- How might we make the library friendlier for people in wheelchairs?
- How might we get kids to eat healthier or get more exercise?









Thoughts before we move to the next section of the workshop ...

- Design thinking can help level the playing field by getting some kids out of putter mode.
- 2. Having a flexible process **lowers teacher anxiety** while **maximizing student creativity**.
- 3. Assessing writing/promotion of the product (and not the product itself) can maximize students' tolerance for risky creations.





How might we improve the bags we carry to work?



Let's research, observe, interview. Use the worksheet. Take 15 minutes and circulate! Pick up your lunch while you're at it.



While you eat, talk with the people at your table about what you observed and interviewed. Choose one problem to work on. Brainstorm possible solutions. Sketch a prototype. You have until



Brainstorm possible solutions. EMPATHIZE DEFINE PROTOTYPE Synthesize and focus on Synthesize and rocura problem in particular. Test, revise, test IDEO/Stanford d School

Research, observe, interview Identify a problem-

choose one solution and

TEST

ASSESSMENT

prototype it.

Gallery walk of prototypes.

Ask one tablemate to stay behind to host and collect feedback. The rest of you circulate! You have ___minutes.



We probably won't have time to revamp our prototypes in this session, but I'm putting this slide here just in case. ©



We probably won't have time to revamp our prototypes in this session, but I'm putting this slide here just in case. ©





Thoughts from this section(and Q&A):

- Design thinking is often pitched at educators, but if we lean into the research, interviewing, and observation phases, there is a natural home for librarians.
- 2. Design thinking can be a **fresh way to think about information literacy** and research projects.
- 3. Design thinking maximizes students' open-ended thinking while also giving instructors (or high-anxiety students!) a comforting sense of structure.

What does it mean to create a **process** or **program** using design thinking?





I Believe in Hidden Synergies



Think about it: When is the last time you had a really **substantive** and **strategic** conversation with your admin/teachers? How can librarians be better helpmates and better support student learning?

Hypothesis

When you engage in the instructional aspirations of your administrators/teachers and start solving their pain points, you become a more significant player in the life of the school. That gives you a bigger platform with which to impact students.



Said differently:

When we know better, we do better.

Said differently: When we know better, we do better. And we all want to do better.

"We sometimes forget that the goal of the library is to support the school, not the other way around."

- I swear Doug Johnson said this once, but I can't find where I think he said it. *©*



How might we better serve our campuses?

Who/what might we research, observe, and interview? {turn & talk}











On your own or with colleagues, pick one to prototype. How could you make this come to life in a library? What would you need in terms of support, materials, partnerships, expertise...? Test your prototype. Share your idea with others at your table. Keep a growth mindset. Remember that they are trying to help you!
Take a minute to **process** the feedback and make Monday morning **notes**. You're a design thinker!





Thoughts from this section (and Q&A):

- Design thinking's emphasis on research, interviewing, and observation are right in librarians' wheelhouses.
 (Sometimes, we spend too much time talking when we should be listening.)
- 2. Finding people's instructional pain points and solving (or offering to solve) them is a winning strategy..