

2018-11-10

# Service Design: Thinking Holistically about Services & Technology

Vacek, Rachel; Varnum, Kenneth J.

<https://hdl.handle.net/2027.42/146184>

<http://creativecommons.org/licenses/by-nc-sa/4.0/>

---

*Downloaded from Deep Blue, University of Michigan's institutional repository*

# Service Design

## Thinking Holistically about Services & Technology

### Rachel Vacek

Head of Design & Discovery  
[rvacek@umich.edu](mailto:rvacek@umich.edu)  
[@vacekrae](#)

### Ken Varnum

Senior Program Manager  
[varnum@umich.edu](mailto:varnum@umich.edu)  
[@varnum](#)

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum

November 10, 2018



### Prior to session starting, put **SMALL** handouts on tables

RACHEL introduces KEN:

Ken Varnum is Senior Program Manager at the University of Michigan Library. His focuses are the library's user-facing discovery & delivery interfaces as well as data wrangling to support the library and campus analytics projects. Ken's has written or edited several books focused on library technology, including the forthcoming "New Top Technologies Every Librarian Needs to Know" and "Beyond Reality: Virtual, Augmented, and Mixed Reality in the Library." I've been a friend of Ken for years, and in 2016 I had the pleasure of becoming his colleague at Michigan.

KEN introduces RACHEL:

Rachel Vacek manages the Design & Discovery department that provides front-end web development, design, content strategy, user research, accessibility expertise, and UX strategy across the entire University of Michigan Library web presence. She has previously worked at the University of Houston, Vanderbilt University, and Miami University. Rachel regularly teaches workshops and gives presentations at local and national library conferences on UX, library web technologies, service design, and library leadership. She was also a 2007 ALA Emerging Leader, a 2014 Library Journal Mover & Shaker, and the 2014-2015 LITA President. And she's an avid gamer — she organized Game Night last night.

You can follow us both on Twitter (point to slide).

**For today:**

Letting you know up front that we originally planned to do a hands-on workshop, and then realized we were assigned a 50-minute time slot. So we are going to do our best to make this presentation engaging.

## Activity, Part 1: Identifying a Challenge

1. Individually, think about how problems might be solved in some institutions with:
  - People (We need a committee!)
  - Technology (Hey, look at this thing I saw at a conference. Go do that.)
  - Money (We'll get students to do it, or create a position.)

Think of a situation where one of these approaches to problem solving was taken in your library.

Time: 2 minutes

**Design thinking** is a **design methodology** that relies on the deep interest in developing an understanding of the people for whom we're designing things, and provides a solution-based approach, often through experimentation and empathy, to arrive at innovative solutions.

Inspired by the multiple definitions listed on  
<https://medium.com/@diogorebelo/difference-between-design-thinking-and-service-design-35e33044d413>

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



RACHEL (15 min)

Before we dive in, we thought it would be important to make sure we are all on the same page about what Service Design means and where it comes from..

John E. Arnold was one of the first authors to use the term 'design thinking' in an article "Creative Engineering" back in 1959. So this isn't a new concept.

**Service design** is about **applying design thinking**  
in creative and practical ways  
to improve the user *and* employee experience  
in existing services or in new services.

Inspired by the multiple definitions listed on  
<https://medium.com/@diogorebello/difference-between-design-thinking-and-service-design-35e33044d413>  
and by the Nielsen Norman Group's definition at <https://www.nngroup.com/articles/service-design-101/>

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



RACHEL

From Nielsen Norman Group: “Service design improves the experiences of both the user and employee by designing, aligning, and optimizing an organization’s operations to better support customer journeys.”

Ask for a general show of hands of who’s familiar with service design.

# So why are we here to talk with you about service design?

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



RACHEL

# Background

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



RACHEL



## Library goals on space and service planning

Take a strategic approach to physical space planning

Create welcoming, accessible, safe buildings and services

Transform organizational culture

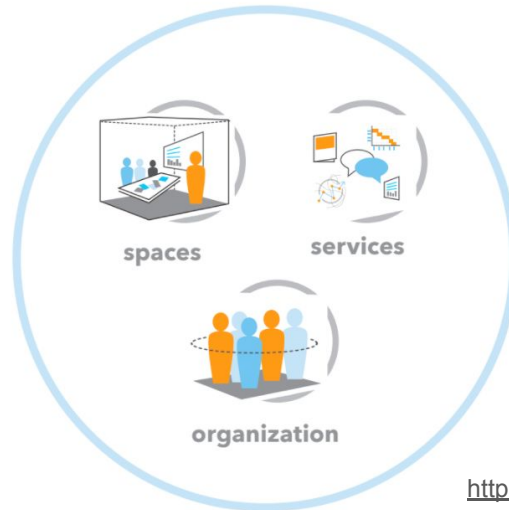
### RACHEL

We have three intersecting goals at U-M Library that we have been making progress toward in the past few years through a variety of efforts:

- Take a strategic approach to physical spaces planning.
- Strive toward making our buildings and services welcoming, accessible, and safe.
- Transform our organizational culture, including developing skills and capacity within our organization to become more user-centered and service-centered.

The library realized early on that you can't think about redoing spaces without thinking about the services in those spaces. Additionally, you can't only focus on physical spaces - the virtual spaces we have are just as critical of a part of our library ecosystem.

# Collaboration with brightspot



<https://www.brightspotstrategy.com/>

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



## RACHEL

In 2016, the U-M Library chose brightspot to help us at the beginning stages of this journey and to connect these goals to our other large-scale efforts.

Their expertise centers around holistically connecting people, services, organizations, and space in strategic planning or design.

They are adept at transitioning organizations to work more flexibly, and to “get tangible” by encouraging us to engage in physical pilots and prototypes to help test and improve theoretical workflows or services.

During our engagement, there were multiple site visits which included workshops with specific groups of library staff, our executive team, and the academic community at large.

# Library Service Philosophy

1. **Enhance the Platform for Discovery** through foundational changes to physical and digital space usability, access, and navigation.
2. **Accelerate Partnerships in Scholarship** by engaging with library users and working with them throughout the service experience.
3. **Deliver as One Library** with a shared service philosophy and improved library staff workspace.

RACHEL

One of the many things that came out of working with brightspot was our new service philosophy.

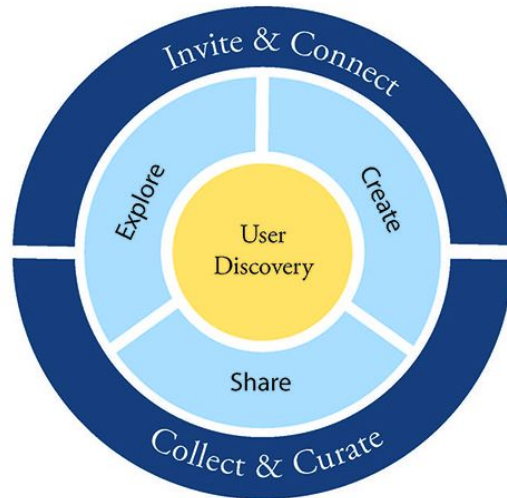
There are 3 parts.

In the first one, **enhance the platform for discovery**, notice the mention of both physical and virtual space? Again, you can't really talk about one without talking about the other.

The second one, **accelerate partnerships in scholarship**, is all about collaboration and user experience and recognizing that people don't come to the library to just user resources. We are partners and need to have physical and virtual spaces for collaboration. They are invited in, we connect with them. They create, curate, discover, explore, and share.

The third one, **deliver as One Library**, is here because we are such a large library (with nearly 500 library staff), that collaboration across divisions can be challenging at scale. This is a way to unite and share a common language about our service-related values.

# Library Service Framework



Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



## RACHEL

The service framework is represented in a circular diagram and provides us shared language to talk about how we're presenting services to users, moving beyond representing services according to our organizational structure.

This is significant organizational change that seems so simple but reflects the hours of engagement that brightspot had with staff and users. By having this shared language we were able to experiment with service teams that used this user-centered philosophy to consider ways of transforming spaces to better meet emerging needs of scholars and learners.

Together, the service philosophy and framework drove our next steps:

1. Promote organizational change
2. Experiment with service teams
3. Transform spaces to improve the user experience

## Service Design Task Force (SDTF)



**Emily Puckett Rodgers**  
Head of Library  
Environments

**Operations**



**Meghan Sitar**  
Director of Connected  
Scholarship

**Learning & Teaching**



**Rachel Vacek**  
Head of Design  
& Discovery

**Library IT**

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



### RACHEL

A three-person team was formed to help coordinate and lead the efforts of promoting organizational change, creating service teams that would go through a deep dive in understanding an existing service within the library, and through pilots and prototypes, transform spaces to improve users' experiences with the library.

We were charged to co-create a shared service strategy based on the adopted service philosophy and framework in order to promote organizational change, create service teams that would go through a deep dive in understanding an existing service within the library, and through pilots and prototypes, and help to transform our virtual and physical spaces to improve users' experiences with the library.

----

Emily's department is in Operations and collaborates with library staff and our academic community to design and strategically develop adaptive staff and public spaces within the library. They care about the UX of physical spaces.

Meghan's department has direct interactions with users, runs the consultation service, does instruction, runs programs, and manages learning spaces.

My department manages the library's website, Intranet, and many aspects of how virtual services are integrated and access across our web presence. Like Emily's

department, we also have UX staff, but are more focused on our virtual spaces.

# Service Teams

The SDTF activated three service teams focused on deep dives and pilot/prototyping work around three plays identified in the *Hatcher-Shapiro Library Service and Space Strategy Playbook*:

- Digital Scholarship
- Consultation
- Staff Innovation



Additional service teams formed:

- Citation Management
- Library as Research Lab
- Library Lifecycle (UX Toolkit)

## RACHEL

The SDTF activated 3 teams to go through a deep service design process. We chose these teams based on their potential for cross-divisional work and to take a One Library approach to services we already offer in different forms, but that are not well-represented or defined for users.

We also wanted to use existing services that already had staff and financial resources.

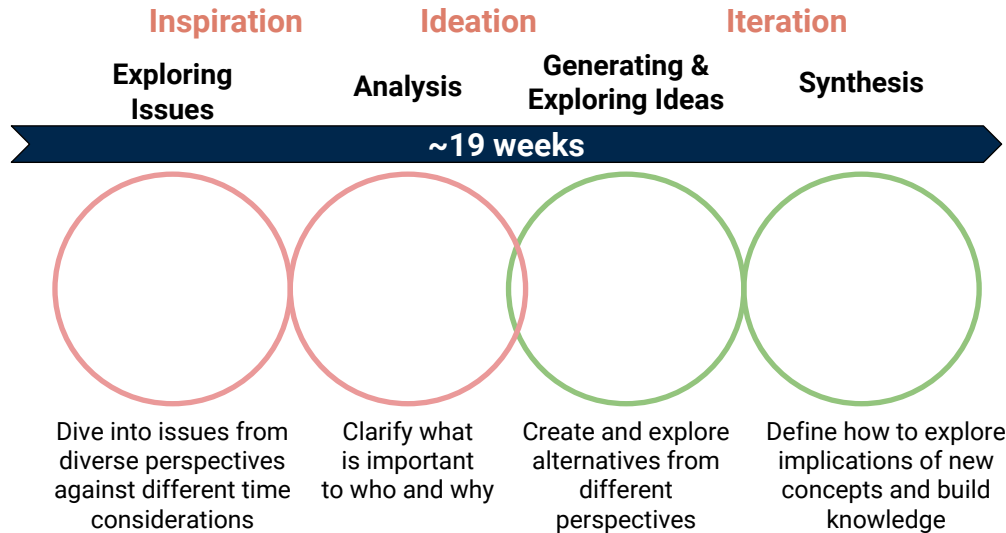
After these teams got started, 3 more teams were formed.

The 3 teams listed on the left went through a 19 week service design process, and the 3 on the right went through a similar process in about half the time.

The resource we relied on the most was The Service Innovation Handbook, by Lucy Kimbell.

On-click: I was involved with the Digital Scholarship Team, and Ken was involved with the Citation Management Team.

# Our approach to service design



Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



## RACHEL

Our approach followed four phases, and each took 4-6 weeks to complete.

These phases map roughly onto other design thinking approaches (such as the Design Thinking For Libraries guide from Ideo, etc.) that label the phases as gathering inspiration, engaging in ideation, and iterating on concepts to test them.

Each team had the agency to move through the phases at their own pace based on their deep dive priorities.

Each team moved through the four phases of exploring issues, analysis, generating and exploring ideas, and synthesis.



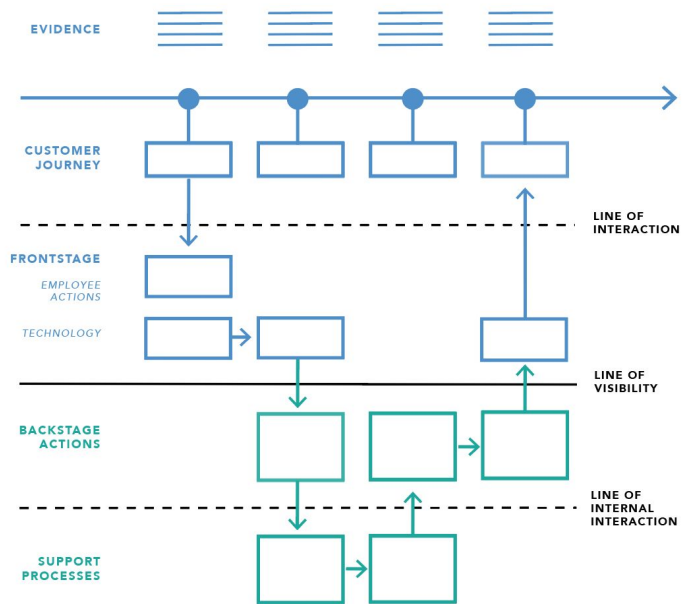
## Team deliverables

- Recommendations for pilots and prototypes, and other possible next steps
- Service Blueprint

RACHEL

Each of the service teams had deliverables - recommendations for pilots and prototypes, next steps, and or service blueprints.

# Service Blueprint



From:  
<https://www.nngroup.com/articles/service-design-101>

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



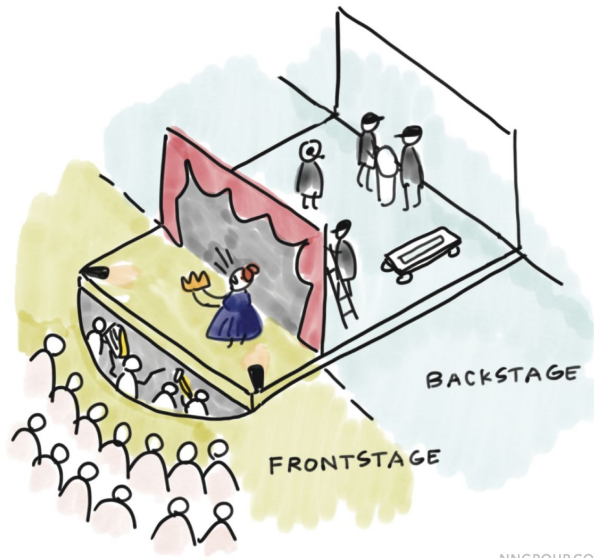
RACHEL

So what's a service blueprint?

HANDOUT TIME!

Go over the SMALL handout!

# Frontstage vs. Backstage



NNGROUP.COM NN/g

From: <https://www.nngroup.com/articles/service-blueprints-definition/>

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



Frontstage = Front of the house. What and who the user interacts with. Public services staff, too.

Backstage = Back of the house. Library staff and technologies and workflows behind the scenes.

## Activity, Part 2: Pairing Up to Discuss Challenges

1. Pair up with someone in the room.
2. We previously asked you to think about a problem in your library that you've been trying to solve with people, money, or technology. Take turns talking about whether a service design approach might have been better instead.

Time: 5 minutes total

Problems might be solved in some institutions with people (we need a committee!), technology (hey, look at this thing I saw at a conference. Go do that.), or money (we'll get students to do it, or create a position). Can you think of a situation where one of these approaches was taken in your library, but a service design approach might have been better instead?

# Case Study: Scheduling Application for Library Instruction (SALI)

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



KEN (15 minutes)

So with the teams that Rachel and I were involved in, some of the recommendations presented with the service blueprints were able to move into the next phase of implementing the recommendations to test it for a while and assess the progress after a semester.

Some of the recommendations involved moving to other technology solutions that align more with user needs to again test it for a while and assess the progress after a semester or so.

The “Service Design” model was permeating the library, and at the same time, there was a need to revise an existing service in Library IT.

We decided to take a Service Design approach to this project, but a modified one without a pilot or prototype. The service had intentionally moved to a new service model over years, leaving the technology platform behind. Applying service design methods to understanding the existing service model, and redesigning the application to fit the service need, was the direction we moved in.

We realized as we explored needed features that the service model had evolved incrementally over the course of a decade, and the tool had been dragged into each new future state. We didn’t have a complete understanding of the service model, and

the application correspondingly partially met those needs.

## What is SALI?

- Key service for our library: teaching library resources and techniques
- Home grown application
  - Fragile, desperately needing some TLC
- Provides a way for people throughout U-M to request library instruction sessions
- Enables library staff to schedule rooms and make arrangements for those sessions

## Project Goals

- Pay off huge technical debt and refresh the interface
- Harmonize actual campus and library workflows with tool
- Enable multiple use cases
- Make it more usable, accessible, responsive, and themable
- Improve data flows from campus systems **into** the tool
- Improve data flows **from** the tool for activity reporting and learning analytics
- And, modernize antiquated codebase and deprecated APIs

KEN

Technical debt: Old Ruby on Rails. Deprecated APIs. A UI design that is tightly bound to the application, and isn't even "only a parent could love it" appealing anymore. Developer who built & maintained it retired.

Actual goals

- Harmonize actual campus and library workflows with tool
- Enable multiple use cases
- Make it more usable, accessible, responsive, and themable
- Improve data flows from campus systems into the tool
- Improve data flows from the tool for activity reporting and learning analytics
- And, modernize antiquated codebase and deprecated APIs



# Moving from This Reality



Log out  
varnum

[Request New Instruction Session](#)

[Instruction Report](#)

[Admin Maintenance](#)

[Recent Email](#)

[Recent Eval List](#)

[Help](#)

0

[Dashboard](#)

## New Workshop Session Request

### Faculty/GSI

\* **Uniqname**  **Ken Varnum** [Find by name](#)

Note: Library Instructors - You are automatically recorded as the contact. Please input the faculty/GSI name above for curriculum-related instruction.

### Session Information

**Class-Related Session**  *This session is for a class offered by UM*

**Subject**

**Course Number**

**Section Number**

\* **Workshop Title**



KEN

# To This (Not Yet Final) Future

The screenshot shows a web interface for a 'New Instruction Session Request'. At the top, there is a dark blue header with the 'M|LIBRARY SALI' logo on the left and a 'My Account' dropdown menu on the right. Below the header is a light gray bar with a blue arrow and the text '< Back to dashboard'. The main content area has a blue header with the text 'New Instruction Session Request'. Underneath, there are two sections: 'Requestor' and 'Contact Info / Purpose'. The 'Requestor' section features a circular profile picture of a woman, the name 'Sally Oliver - Library instructor', and a gray tag that says 'L&T - Learning Program and Initiatives'. The 'Contact Info / Purpose' section has the question 'Who should we contact for this request?' followed by a text input field containing the name 'Sally Oliver'.

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



KEN

This isn't simply a cosmetic reskinning. We're trying to redesign the entire online workflow to match the real world one, so that they are in sync and collect only the data that is actually needed to schedule, manage, and report on library instruction.

# Developing a Service Blueprint for SALI

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



## KEN

- Extensive interviews with library users and campus users to understand usage and desired future state
- Screen designs and InVision mockups to validate workflows
- Data specification — what is needed throughout the workflows
- Reporting specification — finding gaps between data naturally collected to enable workflows and data needed for complex reporting needs (to meet business needs, to enable learning analytics research)

## Interviews & Conversations

Met with various constituencies to understand their met and unmet workflows & functionality needs

- Library instruction staff
- Other library staff
- Campus faculty & GSIs

Used InVision to display limited interactive displays

Held design reviews with stakeholders

# SALI Service Blueprints

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



KEN

**Ask RACHEL to pass out the BIG handouts.** Talk about them!

# Preliminary Service Blueprint

Service Design: Thinking Holistically about Services & Technology  
 Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



KEN

This is the multicolored side of the large handout you have.

How we started, through inquiry and conversations. This is in Excel, and breaks out the front of house, back of house, and interactions between them.

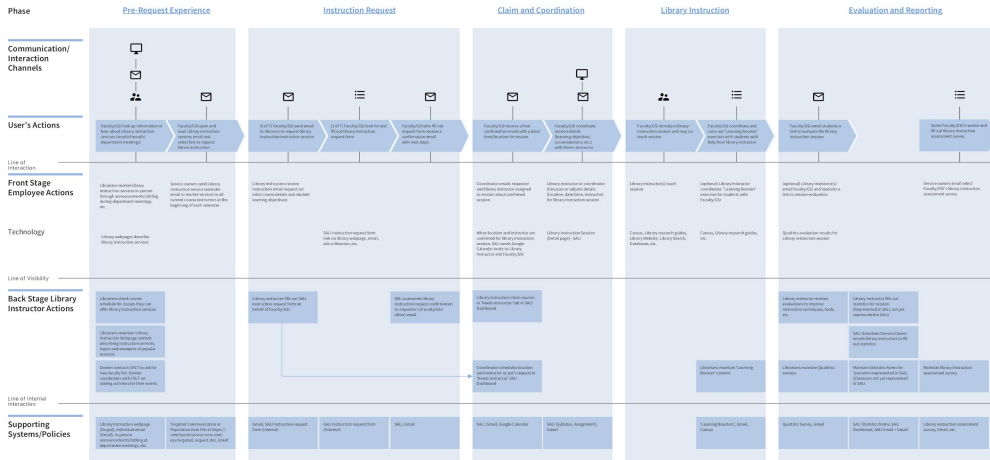
# Future State Service Blueprint



University of Michigan Library  
Scheduling Application for Library Instruction (SALI)  
Future State Service Blueprint

- Library Website  
Department Website
- Email
- In person Consultation
- In person Instruction
- Instruction Request Form

**Project Team**  
Design & Discovery Department and Library Learning and Teaching Department  
Christine Stabile  
Alex Housler  
Thomas Skarvin  
Neil Krasner  
Dora Berg



Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



KEN

This is the flip side.

And this is how we've refined it (both visually and in terms of what the steps and interactions are).

This was created in Mural (free online tool).

# Going from Blueprint to Reality

Service Design: Thinking Holistically about Services & Technology  
Rachel Vacek & Ken Varnum | 2018 LITA Library Technology Forum



KEN

Now we know

- What we are trying to build
- How user interactions should flow
- What data we need
- How it should look
- What next?



## Translate the Blueprint into Agile Framework

- The past service blueprinting is prelude to active development work
- In the Agile model we use, we craft **User Stories** to describe user needs and **Tasks** to make them real
- Some stories are bigger than others. These are **Epics**.
- You may use different methods, but the blueprint will help them, too

KEN

Since we know the functions and features that are key to the application, we are able to prioritize and describe them in Agile terms: Epics, Stories, and Tasks, so that we may begin development based on a blueprint.

## Lessons Learned for Future Projects

### Service Design Blueprints

- Provide a construct for looking at service and user needs holistically
- They don't say *how* to build the tool, but they clarify *why* it is needed and *what* it should do
- Works well with *new services* and *bringing old tools in line with current services*

## Activity, Part 3: Sharing

1. Think about the challenge you identified earlier.
2. If you're willing, share the challenge with the room and how you think going through the process to create a service design blueprint might help the situation.

Time: 5 minutes

## Questions?



**Rachel Vacek**

Head of Design & Discovery

[rvacek@umich.edu](mailto:rvacek@umich.edu)

@vacekrae



**Ken Varnum**

Senior Program Manager

[varnum@umich.edu](mailto:varnum@umich.edu)

@varnum



Hatcher Graduate Library

<http://bit.ly/ThinkingHolistically>

Thank you!