Designing navigation for humans Principles for effective website

information architecture

Dan Zollman New England Drupal Camp, November 2023

Navigate and understand

Topics

- 1. Understanding how humans navigate
- 2. Attending to conceptual structure
- 3. Considerations for navigation menus

Dan Zollman

Independent consultant in Cambridge, MA

Information architecture & UX strategy for digital products and services

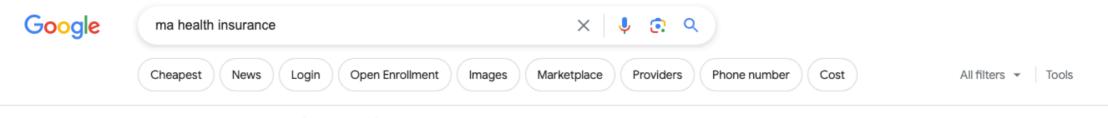
IA in complex orgs: Government, higher ed, nonprofit, finance

Responsible & ethical design

Getting health insurance in Massachusetts



Getting health insurance in Massachusetts



About 452,000,000 results (0.65 seconds)

Results for Massachusetts (Use precise location)

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affordablehealthinsurancetoday.com

https://www.affordablehealthinsurancetoday.com/

2023 Individual Health Plans - Find The Right Health Coverage

Cut through the noise, get your quote and start your coverage now. 2023 Rates. Your Free Lightning Fast Quote is Waiting - Get Covered & Start Saving on **Healthcare** Now.

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Your annual period to switch plans or sign up for a new one is here.

Open Enrollment Prices

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gethealthcoverage.org https://www.gethealthcoverage.org

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Best Massachusetts Health Insurance. Health coverage you can count on, at an affordable price.

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S Obamacare-Plans.com http://www.obamacare-plans.com/open-enrollment/2023

Marketplace Health Plans - 2023 Affordable Care Act Plans

Healthcare Coverage Does Not Expire Until the End of 2023. Plans from \$30 per Month.

Google

Mass.gov

https://www.mass.gov > Health & Social Services

MassHealth

In Massachusetts, Medicaid and the Children's Health Insurance Program (CHIP) are combined into one program called MassHealth. MassHealth members may be ... MassHealth Health Plans · Mass Health · MassHealth Plans and... · Seniors

People also ask :

What is MA health insurance?	~
How much does health insurance cost per month in Massachusetts?	~
What is the maximum income to qualify for MassHealth?	~
How do I get healthcare in MA?	~
	Feedback

Massachusetts Health Connector https://www.mahealthconnector.org

Massachusetts Health Connector - The right place for the right ...

The Health Connector offers health and dental coverage from the state's leading insurers and provides tools for Massachusetts residents and small businesses ... Individuals & Families · ConnectorCare Plans · Student Health Insurance · Contact

mahix.org
 https://www.mahix.org > individual

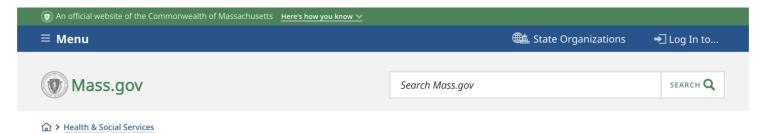
Massachusetts State Health Connector-Individual & Families

The Massachusetts Health Connector is the state's Marketplace for health and dental insurance. Before your get started, be sure to check the Help Center for ...

Blue Cross Blue Shield of Massachusetts https://www.bluecrossma.org

Blue Cross Blue Shield of Massachusetts: MyBlue Healthcare ...

Blue Cross Blue Shield of Massachusetts brings health insurance plans, medical claims, insurance coverage, benefits and telehealth via MyBlue Web & App.



🖱 MassHealth

In Massachusetts, Medicaid and the Children's Health Insurance Program (CHIP) are combined into one program called MassHealth. MassHealth members may be able to get doctors visits, prescription drugs, hospital stays, and many other important services.

ALL MASSHEALTH MEMBERS NEED TO RENEW THEIR COVERAGE STARTING IN APRIL 2023. WE MAY CONTACT YOU VIA TEXT OR EMAIL ABOUT YOUR RENEWAL OR WITH OTHER IMPORTANT INFORMATION. WE WILL NEVER THREATEN YOU OR ASK FOR YOUR CREDIT CARD INFORMATION.

MassHealth Eligibility Redeterminations +

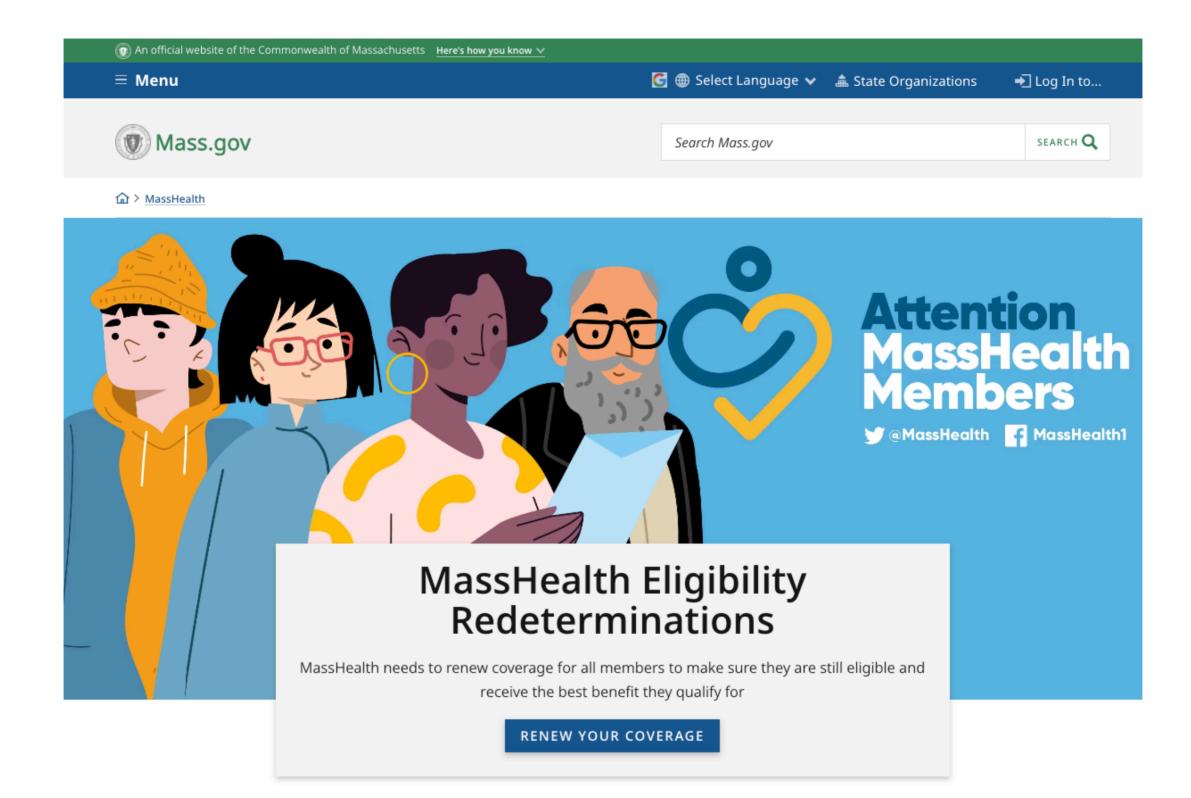
Information for MassHealth Applicants >

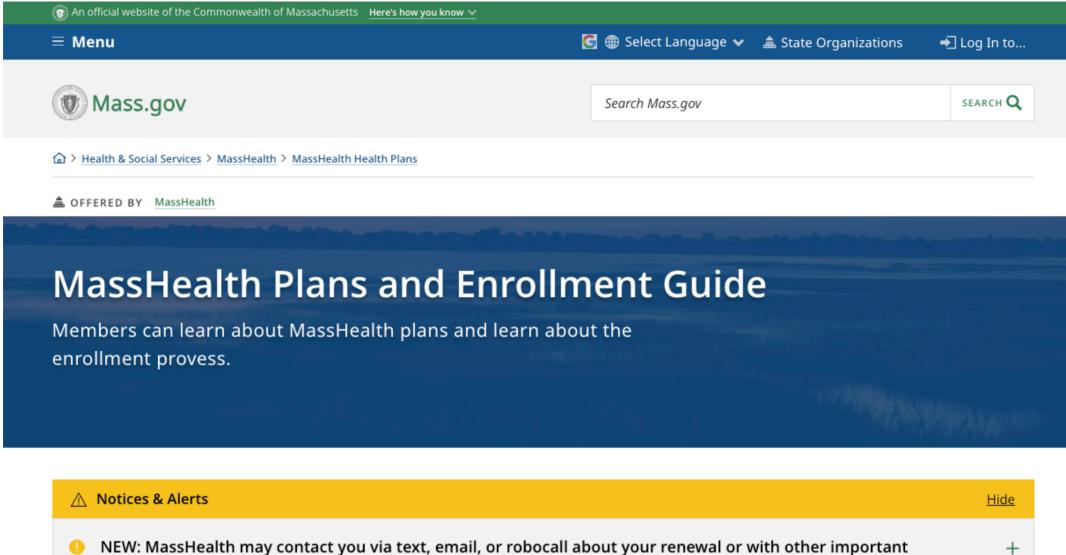
Coronavirus Disease (COVID-19) and MassHealth >

Information for MassHealth Members	+
MassHealth Health Plans	+
MassHealth Initiatives	+
MassHealth Provider Information	+
MassHealth Publications	+

MassHealth Resources >

Feedback

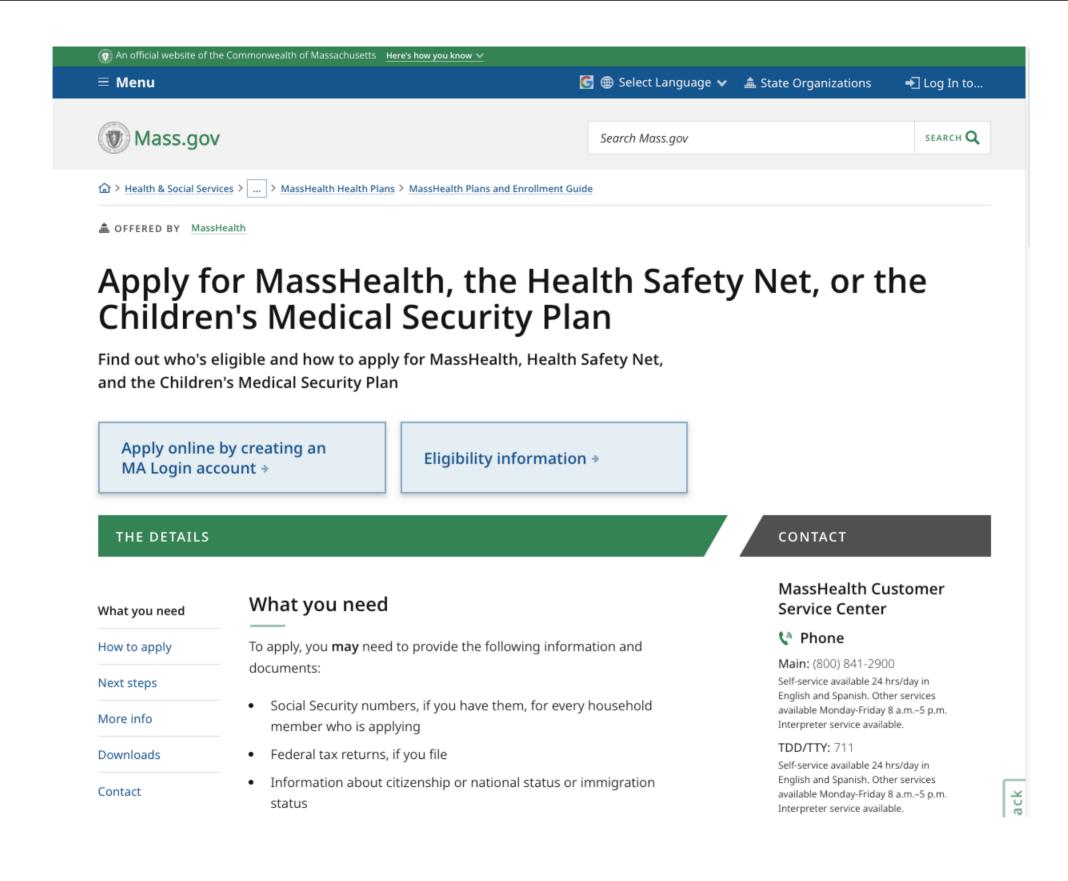


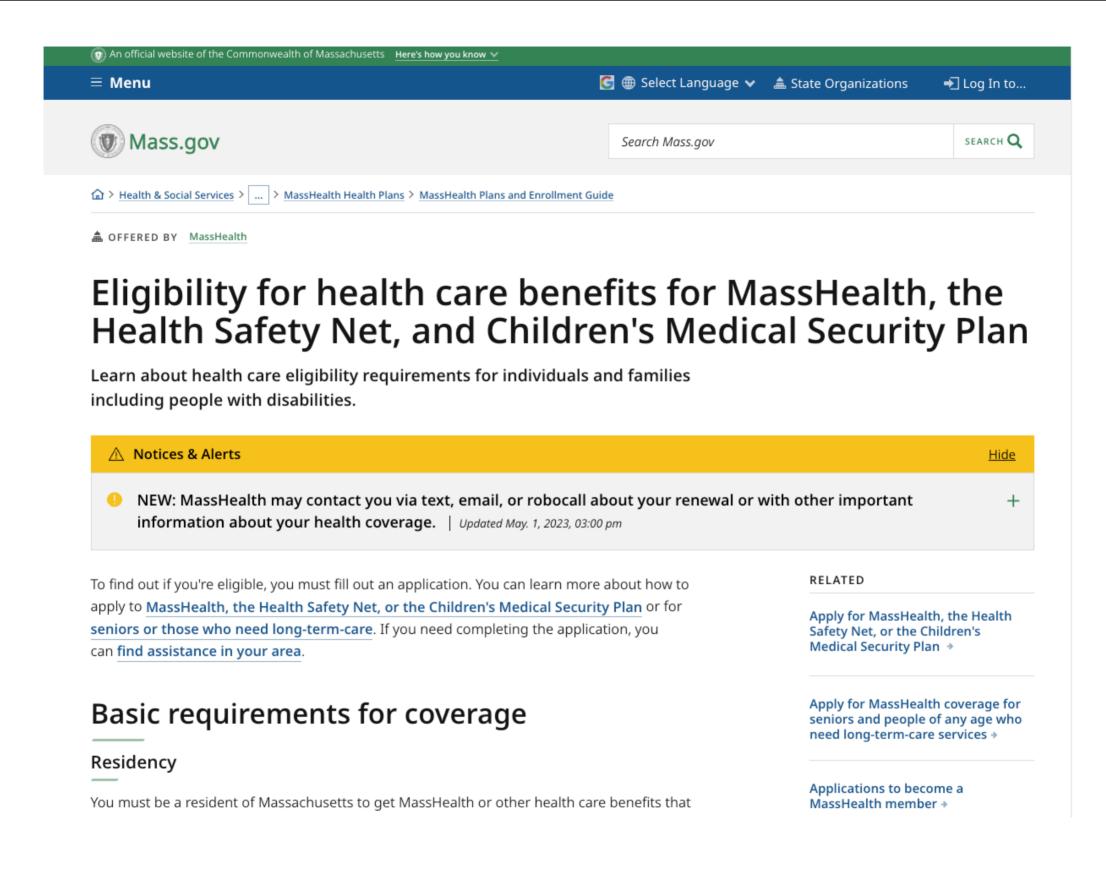


information about your health coverage. Updated May. 1, 2023, 03:00 pm

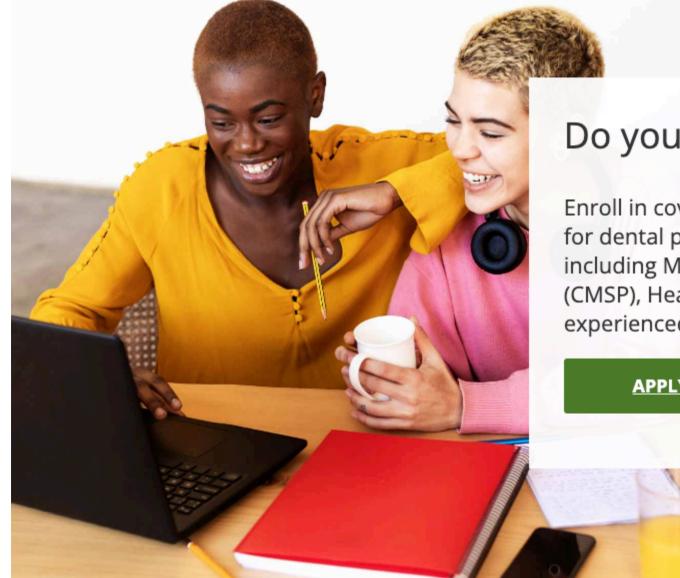
Once you have been approved for MassHealth coverage, it's important to choose a health plan for you and your family! MassHealth provides health plans so members can get the health care they need. Learn about the plans that are available in your area, compare them, and then enroll in one.

If you are not already a MassHealth member, you must first apply for MassHealth coverage. Follow the "Nonmembers apply for coverage here" link to apply for coverage.









Do you need health coverage?

Enroll in coverage **any time of the year** if you are applying for dental plans or help paying for health coverage including MassHealth, Children's Medical Security Plan (CMSP), Health Safety Net, or ConnectorCare. Or, if you've experienced a qualifying event.

APPLY NOW

LEARN MORE

English

Forms





Start your Application for Health Coverage



Sign In

Please sign in if you have an account.

Sign In

WARNING

This system may contain Government information, which is restricted to authorized users ONLY. Unauthorized or improper use of this system may result in civil and criminal penalties. Your use of the system is subject to monitoring to detect potential fraudulent and abusive behavior. Such monitoring may result in the acquisition, recording and analysis of all data being communicated transmitted processed or



 \sim

See What You May Qualify For

Your Zip Code

Coverage Start Date August 01, 2023

Do you want to check to see if you are eligible for help paying for costs?



Preview Health and Dental Plans and Prices

Before you apply for coverage, you can see health and dental plans and prices available in your area. The premiums (costs of plans) you see do not include Advance Premium Tax Credits or other savings. You will need to fill out an application to see if you qualify for help paying for costs.



Important Dates

Contact MassHealth

Need assistance? You can schedule a video or phone appointment online with a MassHealth representative using the <u>MassHealth Appointment Scheduling Tool.</u>

If you are a current MassHealth member and need to update your account, enroll in or change your health plan, need to choose your doctor, or have questions about your coverage, call the **MassHealth Customer Service Center at**

1-800-841-2900, or TTY 1-800-497-4648 for people who are deaf, hard of hearing, or speech disabled.

Business Hours

- Monday–Friday: 8:00 a.m. to 5:00 p.m.
- Saturday: Closed
- Sunday: Closed

Self-service available 24 hrs/day in English and Spanish.

Go to the MassHealth website for more information

Why doesn't this experience work?

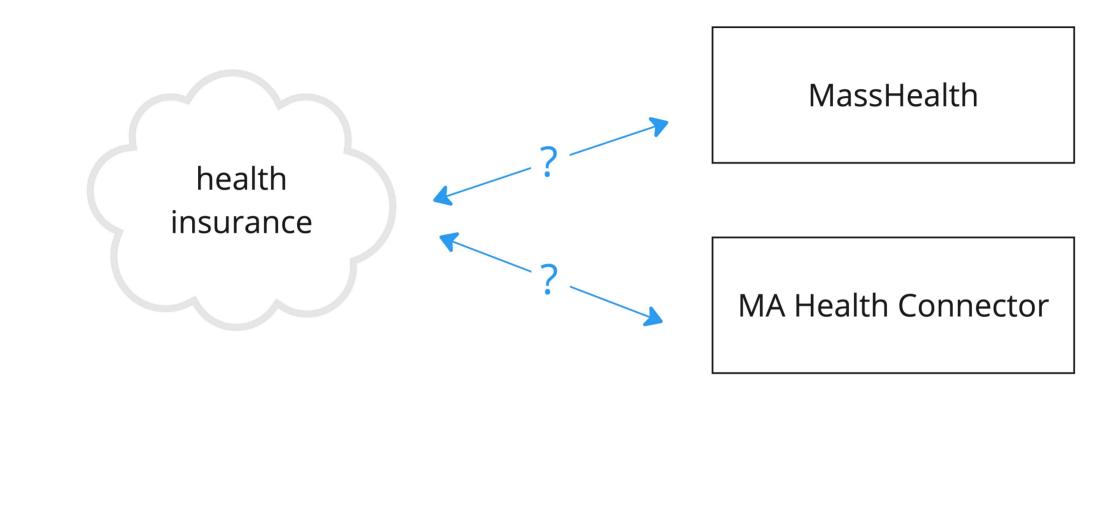
User task:

What health insurance is available to me?

User task:

What health insurance is available to me?

Much of the content I encountered required me to *already know* which government program I was interested in.

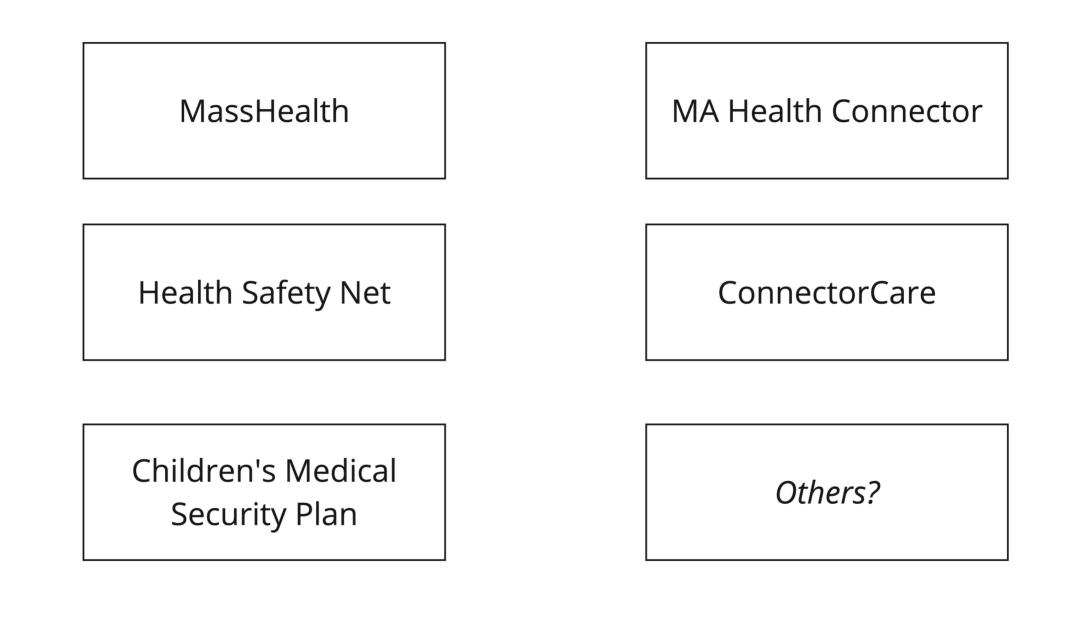


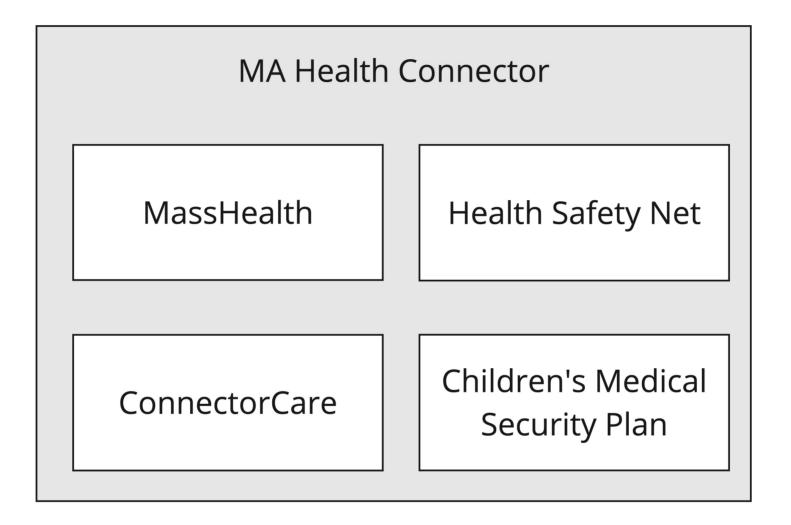
My perspective

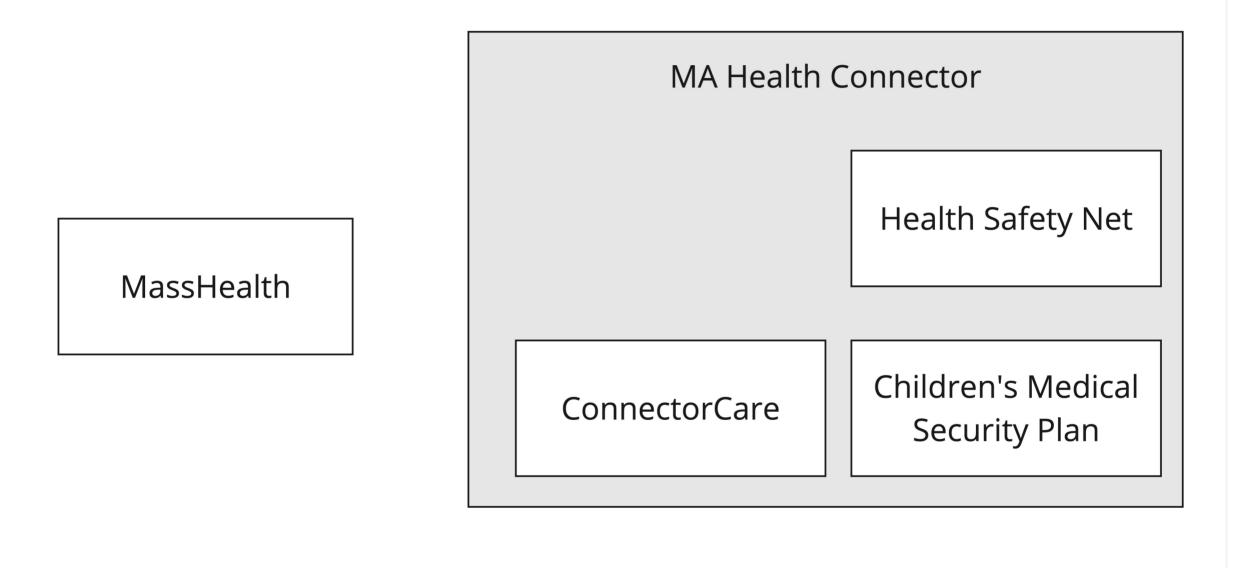
Program perspective

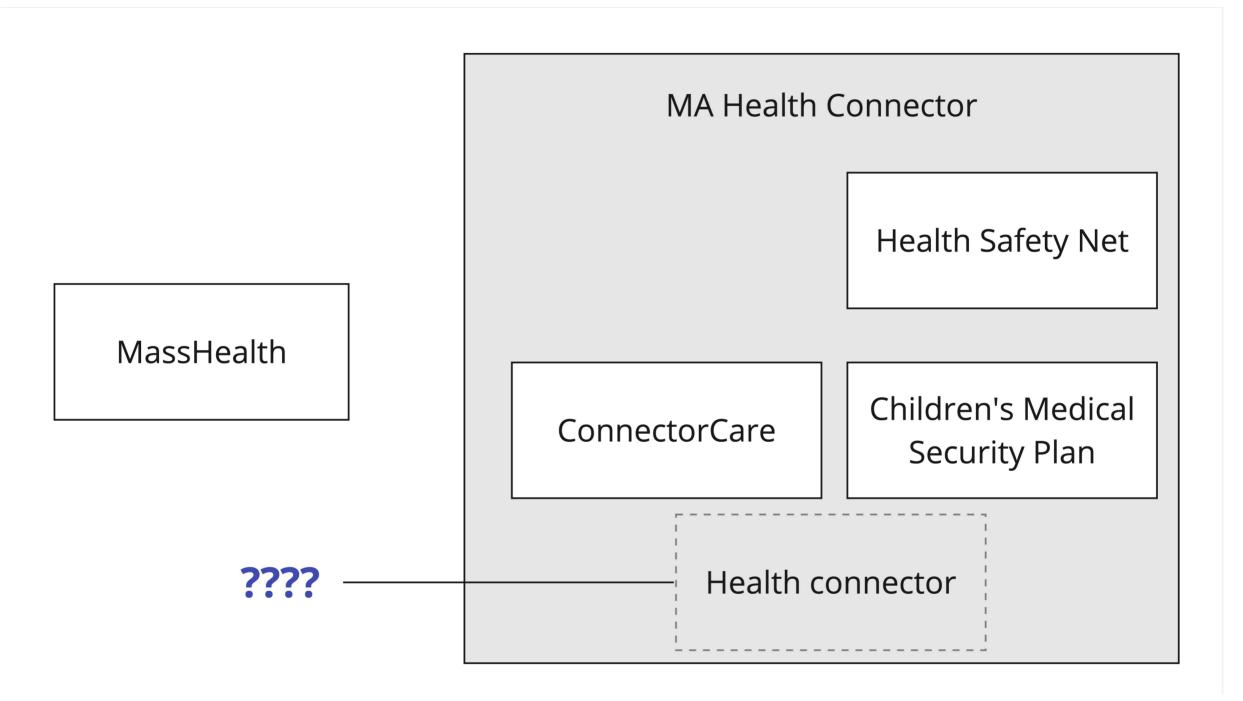
MassHealth

MA Health Connector

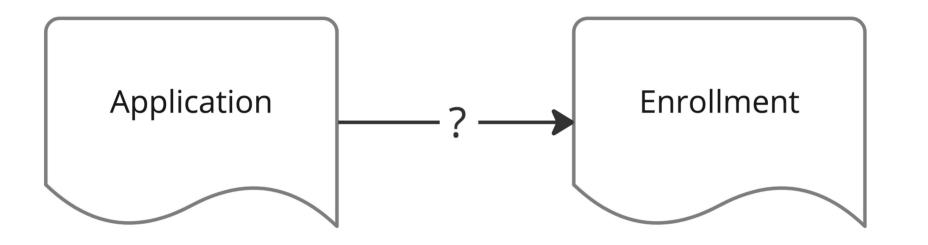


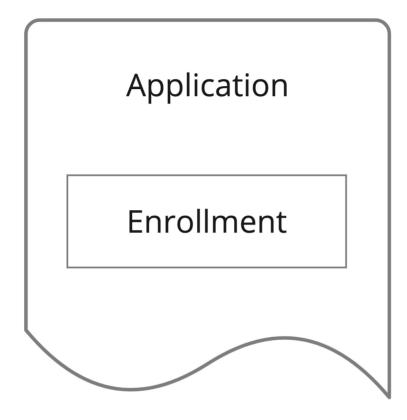














Ambiguous

Unstable



Consistent



Martha's Vineyard

LIVING V WORKING V LEARNING V VISITING & EXPLORING V YOUR GOVERNMENT V <u>COVID-19</u>

Welcome to Massachusetts

What would you like to do?

Search Mass.gov

SEARCH Q

POPULAR SEARCHES

Apply for unemployment benefits **>** Renew your driver's license **>**

Work and Family Mobility Act (WFMA) >

Search court dockets, calendars, and cases Federal extra COVID SNAP benefits to end How to apply for RAFT

What you need	What you need
How to apply	To apply, you may need to provide the following information and documents:
Next steps	
More info	 Social Security numbers, if you have them, for every household member who is applying
Downloads	Federal tax returns, if you file
Contact	 Information about citizenship or national status or immigration status
	 Employer and income information for everyone in your household (for example, from paystubs or wage statements)
	 Information about any job-related or other health insurance that you are currently enrolled in or have access to

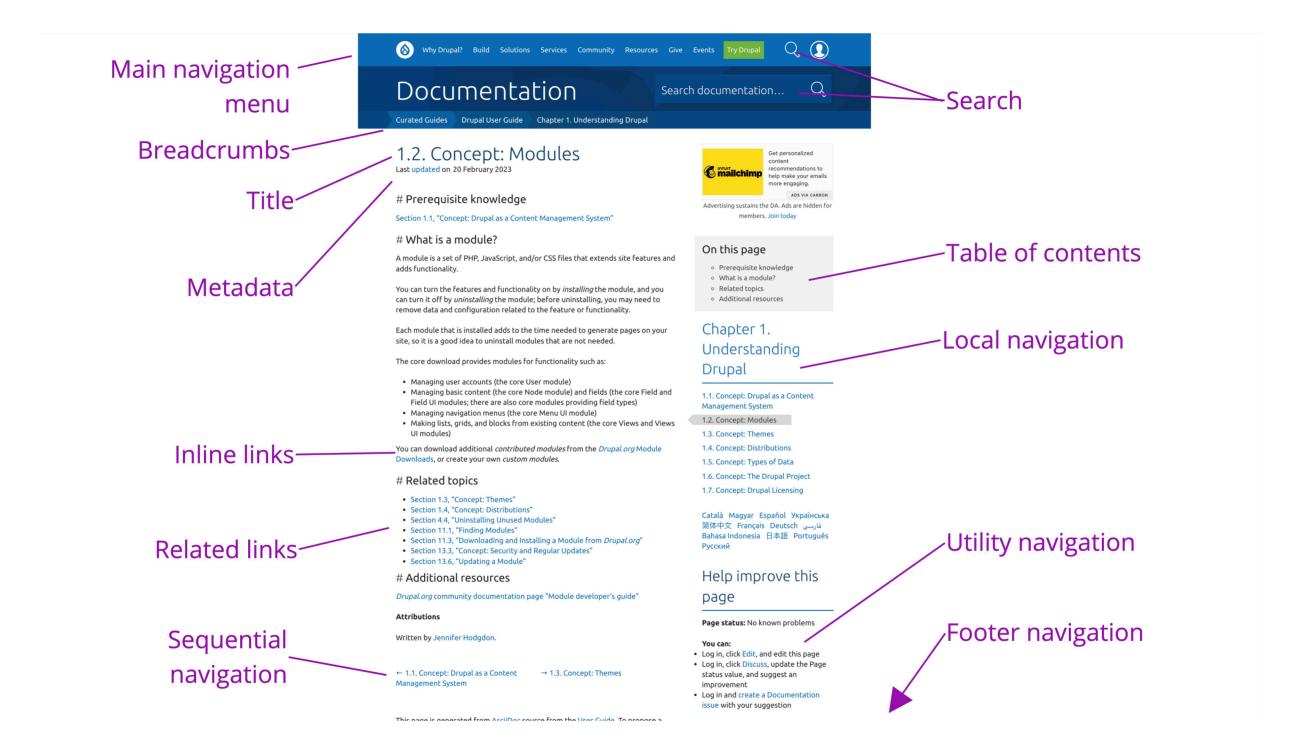
Who can use this application

IA is not easy.

- Not as visible as other design & dev work
- Reduced to menus
- Determined by guessing
- Determined by org structure & politics

We build environments in which people live and work

Part I: How humans navigate



"Navigation is not a menu on a screen. Navigation is what people do." – Andrew Hinton¹

1. Andrew Hinton, "What We Talk About When We Talk About Navigation", IA Summit 2019. Used with permission.

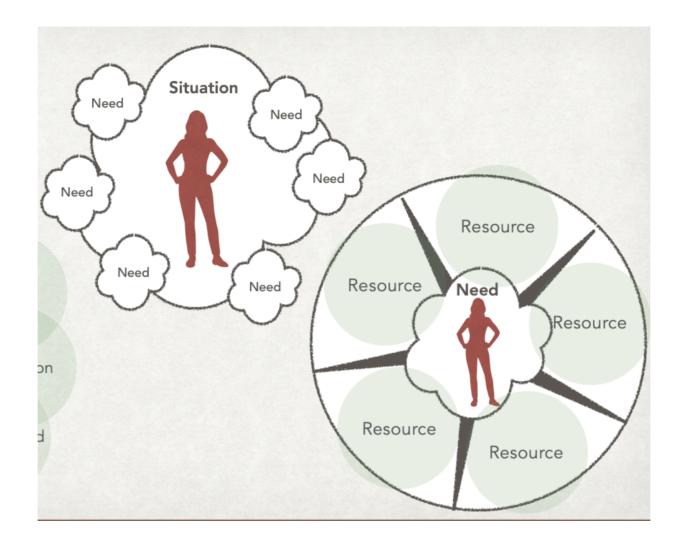
"My health insurer's website just had a big update that made it a lot more navigable...that's great! But what it does NOT do is help me navigate the broader system more effectively - it doesn't help me find my way, translate between divergent meanings, or interact with other entities very well." – Andrew Hinton¹

1. Andrew Hinton, "What We Talk About When We Talk About Navigation", IA Summit 2019. Used with permission.

"We say 'navigate', but we really mean 'understand'."

– Luca Rosati & Andrea Resmini ¹

1. Rosati & Resmini (2011), *Pervasive Information Architecture*. As paraphrased by Andrew Hinton.



Source: Andrew Hinton, "What We Talk About When We Talk About Navigation", IA Summit 2019.

Navigation => Understanding

but..

Just having the information isn't enough for people to find it.

Information seeking behaviors

Berry-picking model (Marcia Bates)¹

 Bates, M.J. (1989). The design of browsing and berrypicking techniques for the online search interface. Online Review, 13(5), 407–424. Also in: Marcia J. Bates (© 2016), Information Users and Information System Design, Selected Works, vol. 3, pp. 195-216.

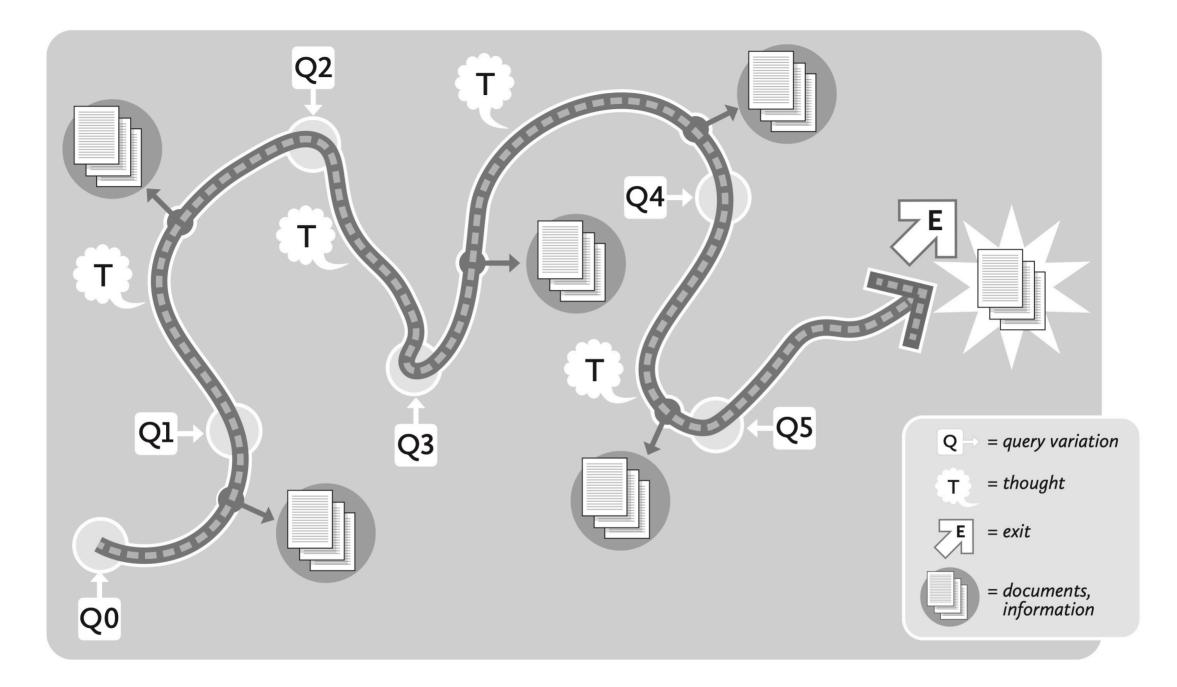


FIG. 2. A berrypicking, evolving search



Modes of information seeking (Donna Spencer) 1

- 1. Exploratory
- 2. Known-item
- 3. Don't know what you need to know

4. Re-finding

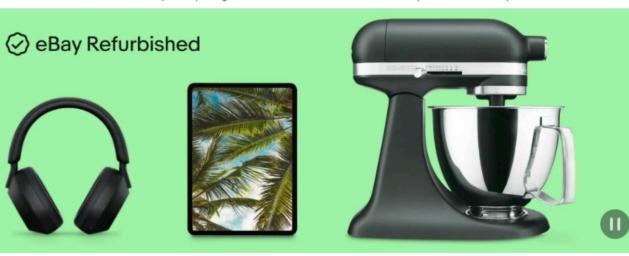
 Donna Spencer, "Four Modes of Seeking Information and How to Design for Them", in Boxes and Arrows. March 14, 2006. https://boxesandarrows.com/four-modes-of-seeking-information-and-how-todesign-for-them/





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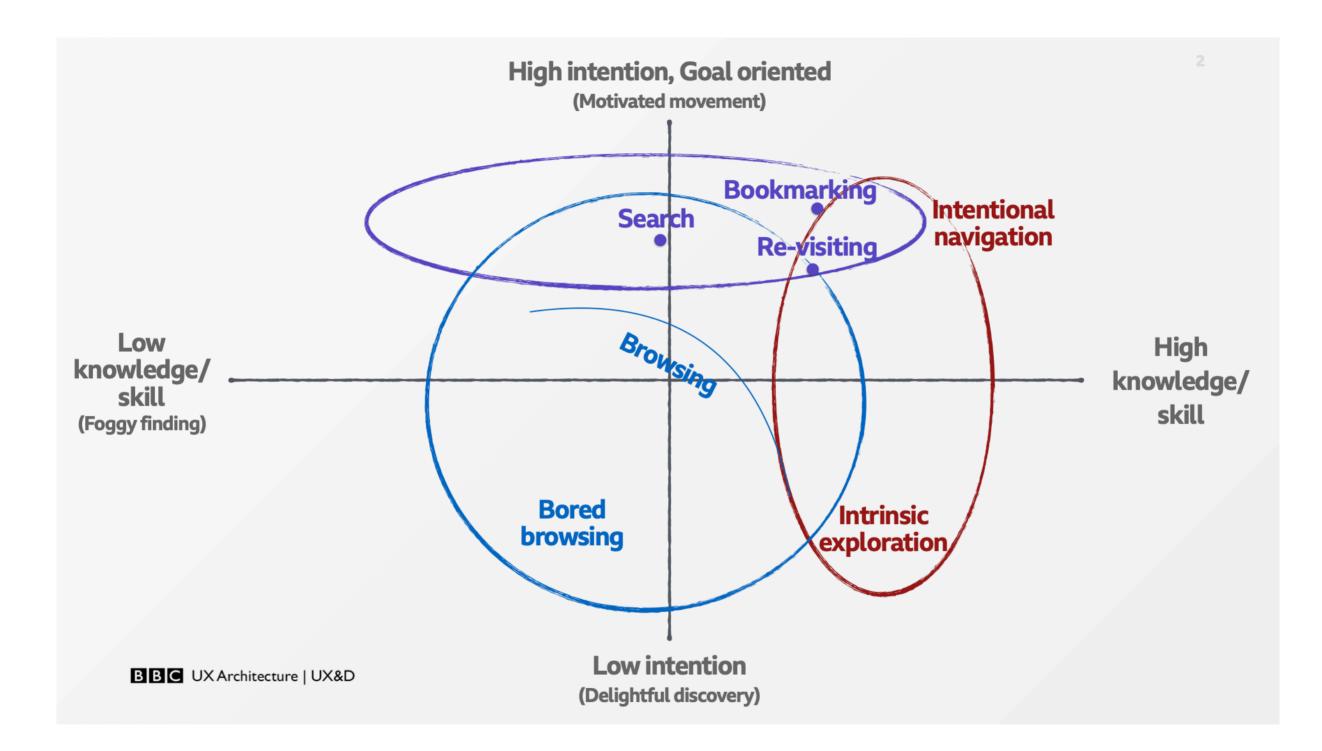


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Your Recently Viewed Items \forall See all \rightarrow



48



Modes of information seeking (Dan Ramsden) $\frac{1}{2}$

- 1. Motivated movement
- 2. Delightful discovery
- 3. Foggy finding
- 4. Not necessarily navigation

 Dan Ramsden, "A model for navigation and information-seeking". See https://danramsden.com/2017/01/27/model-navigation-information-seeking/ and the four linked pages. ✓ ☑ Q Search Help Sign In
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Books Starter Packs Gear Gift Cards On Sale

RECENT BOOKS



Information seeking behaviors are affected by:

- UI affordances
- Discovery
- Recognition over recall

Information scent

(Information foraging theory¹)

1. Developed by Peter Pirolli and Stuart Card





Why Drupal? Build Solutions Services Community Resources Give Events Try Drupal



10.1

Drupal 10.1 is here and packed with amazing improvements! It makes customizing the look of your site easier, adds support for decoupled navigation, improves content modeling and editing, block management, performance, and more. Still the best digital experience platform(DXP) on the web, **proudly open source**.

Upgrade to Drupal 10

Get involved

lacksquare



Why Drupal? Build Solutions Services Community

Resources Give

10.1

Events Try D

Try Drupal

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DrupalCon Pittsburgh

DrupalCon Lille

Community Events

Drupal 10.1 is here and packed with amazing improvements! It makes customizing the look of your site easier, adds support for decoupled navigation, improves content modeling and editing, block management, performance, and more. Still the best digital experience platform(DXP) on the web, **proudly open source**.

Upgrade to Drupal 10

Get involved

lacksquare

Perceiving and acting

Wayfinding

- 1. How people orient themselves and navigate from place to place
- 2. Systems in the built environment (e.g. signage) that enable wayfinding

Wayfinding on websites ¹

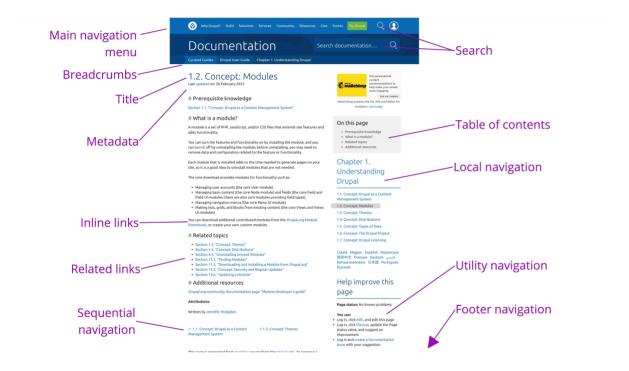
- Where am I now?
- Where can I go?
- What will I find when I get there?
- What's nearby?
- How do I get out?

1. https://ux.iu.edu/writings/wayfinding-systems/

Part I Recap: How humans navigate

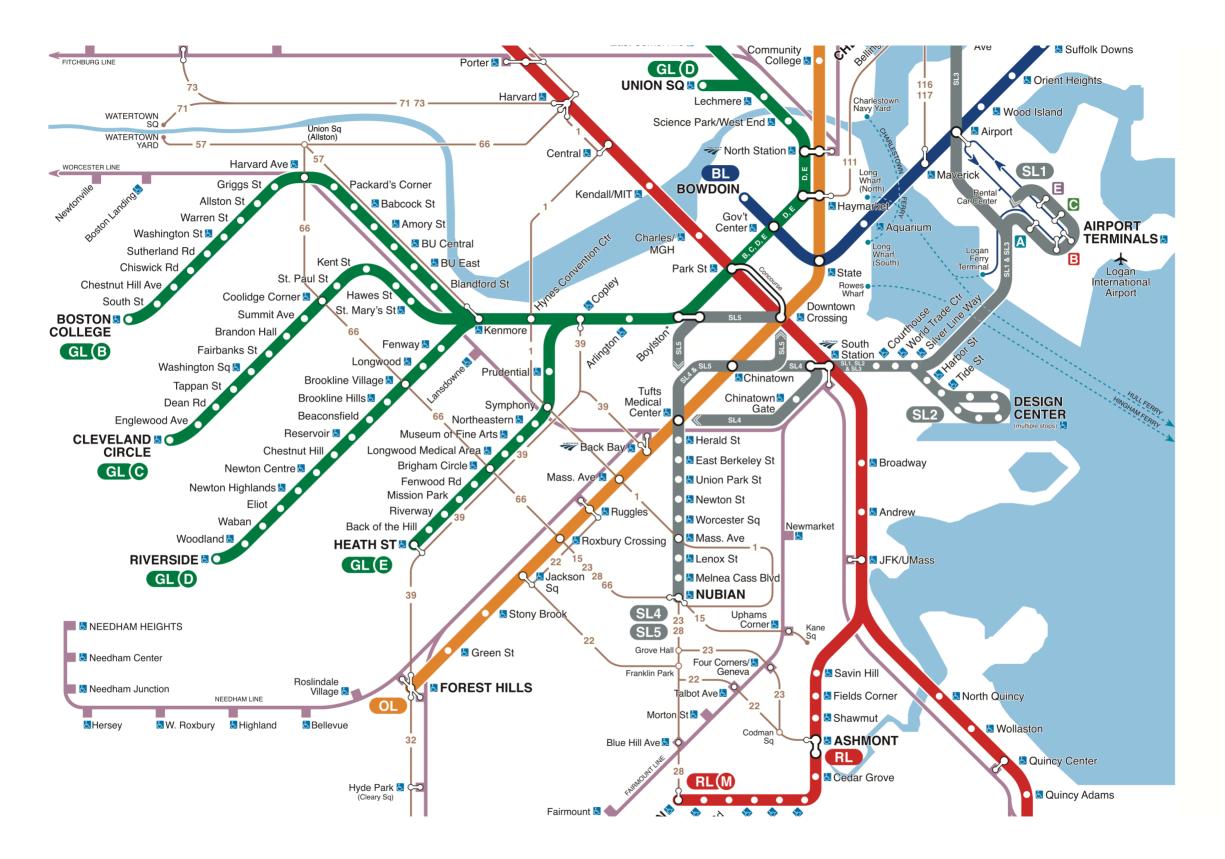
- Navigation => Understanding
- Provide support for a mix of information
 seeking behaviors, including situations where
 people *do* and *don't* know what they're looking
 for
- Support wayfinding by making the structure visible

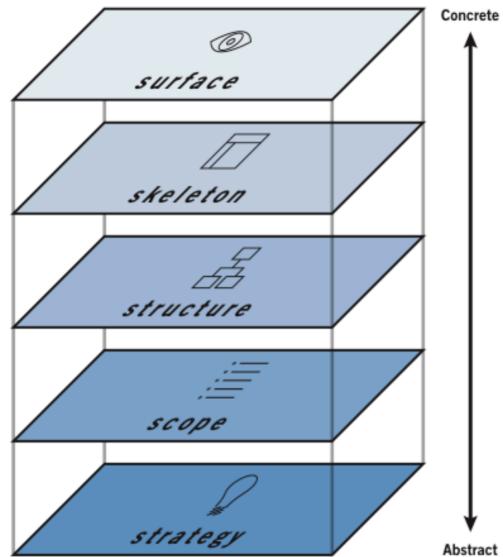
Part II: **Designing with** conceptual structures



Navigation systems help to:

- Make structure visible
- Support wayfinding
- Communicate what is available





Surface brings everything together visually: What will the finished product look like?

Skeleton makes structure concrete: What components will enable people to use the site?

Structure gives shape to scope: How will the pieces of the site fit together and behave?

Scope transforms strategy into requirements: What features will the site need to include?

Strategy is where it all begins: What do we want to get out of the site? What do our users want?

Jesse James Garrett THE ELEMENTS OF USER EXPERIENCE

NOW AVAILABLE IN BOOKSTORES EVERYWHERE

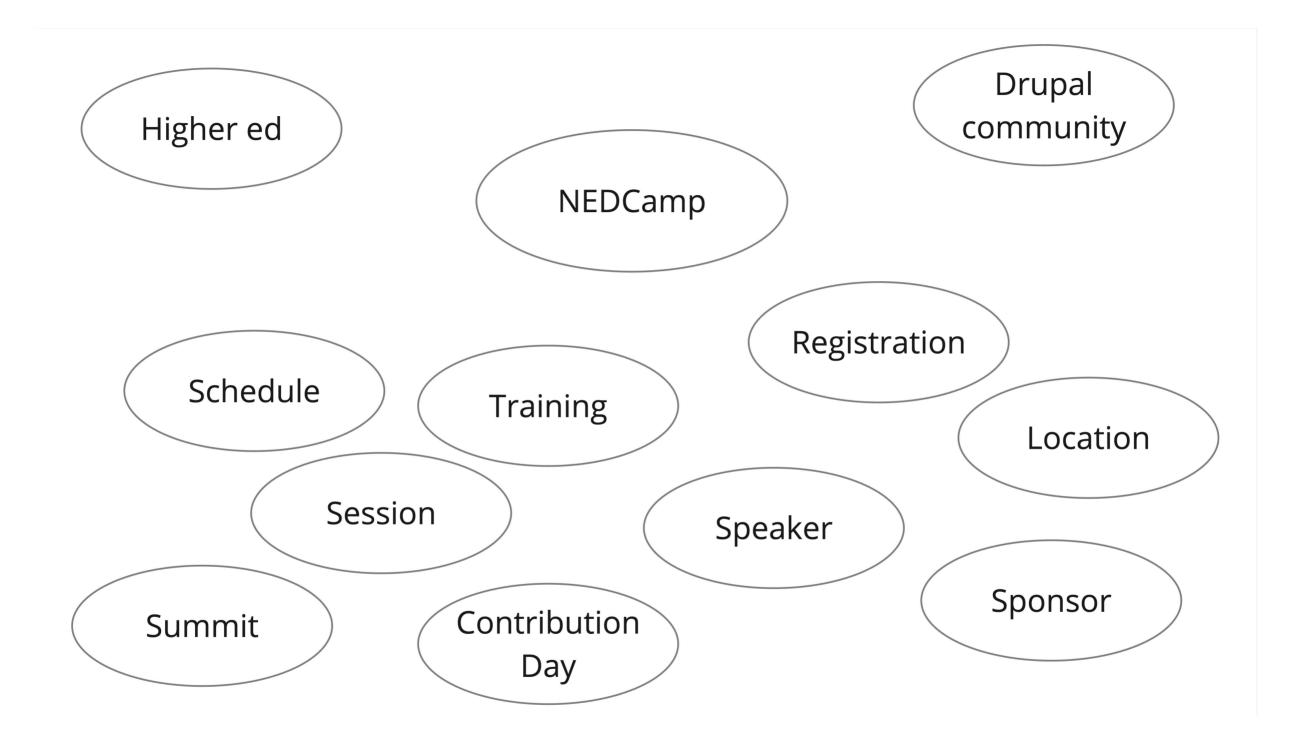


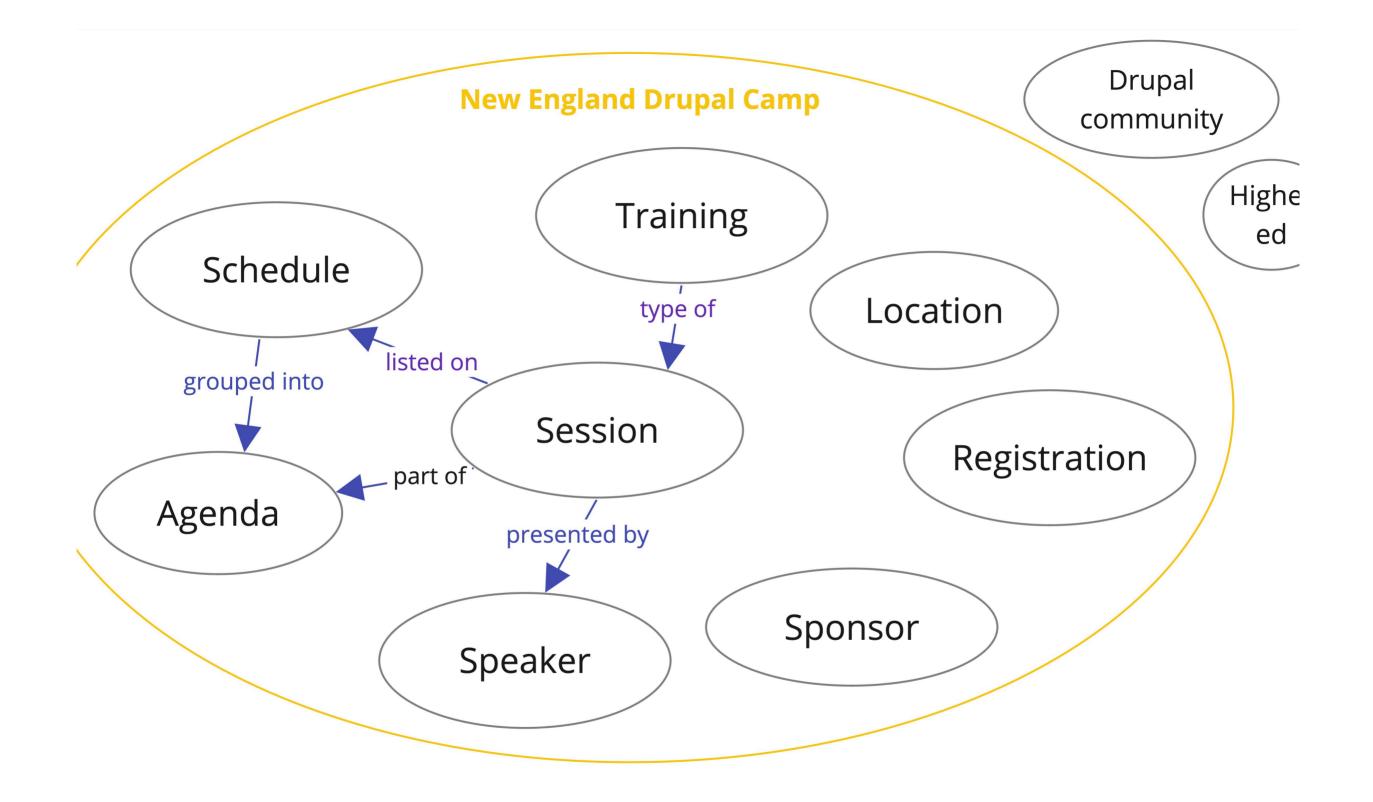
jjg.net/elements



NOVEMBER 17-18, 2023 THE NEW ENGLAND DRUPAL CAMP

Our 10th New England Drupal Camp — a community sharing and training event for Drupal enthusiasts and newbies alike. New England DrupalCamp is an attendee-driven, completely volunteer initiative. You'll walk away with new ideas, practical advice, and a tight-knit community to support you along the way.

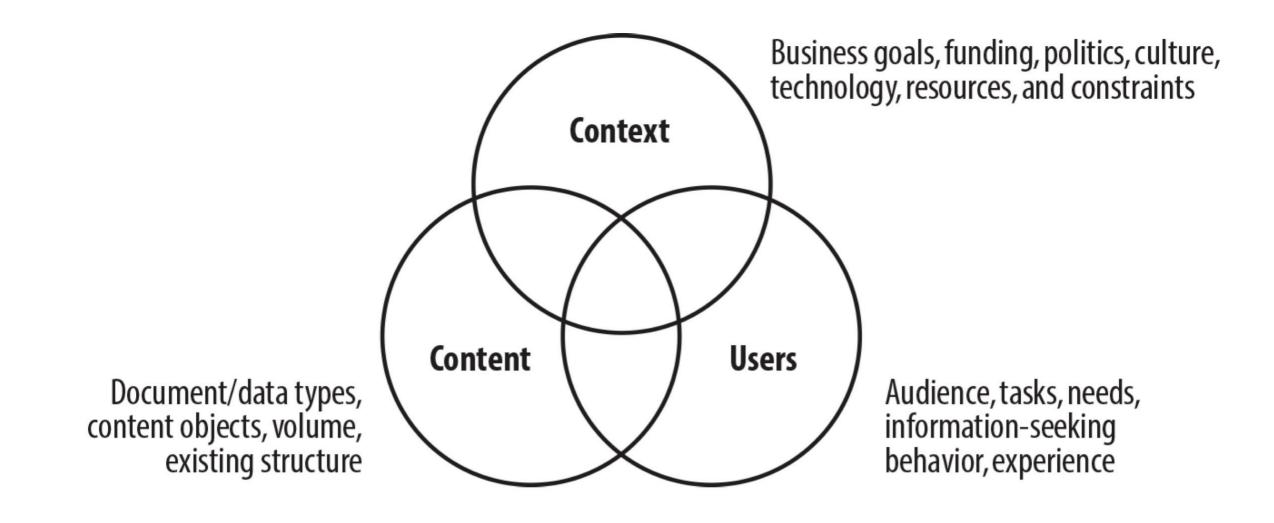




How do we arrive at a good conceptual structure? How does it fit into our process?

Rough design process

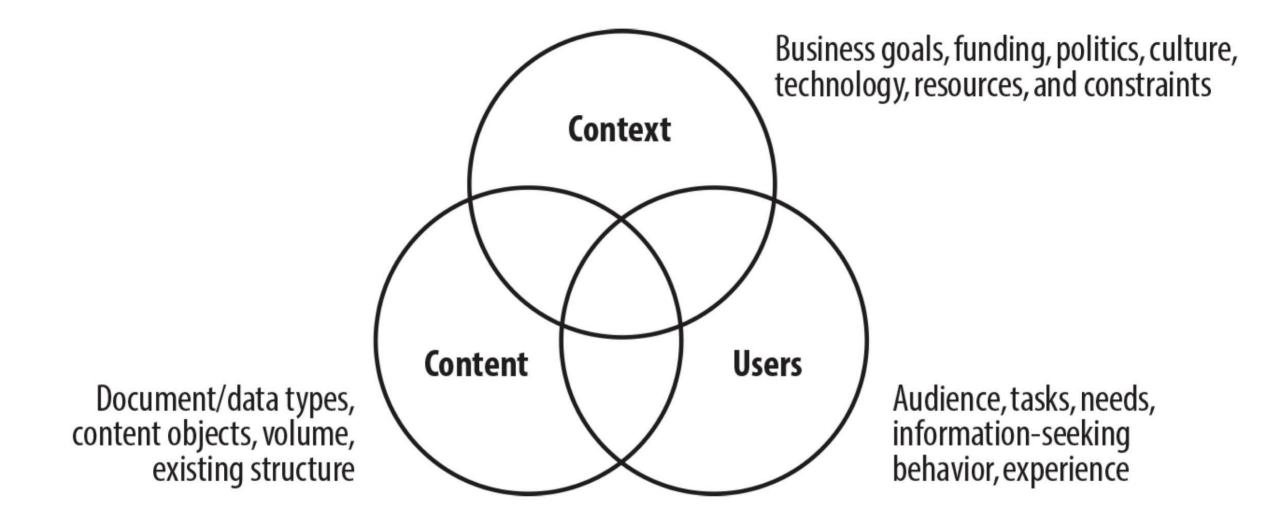
- 1. Planning
- 2. Research/discovery
- 3. Synthesis/strategy
- 4. Design/development
- 5. Release/improve

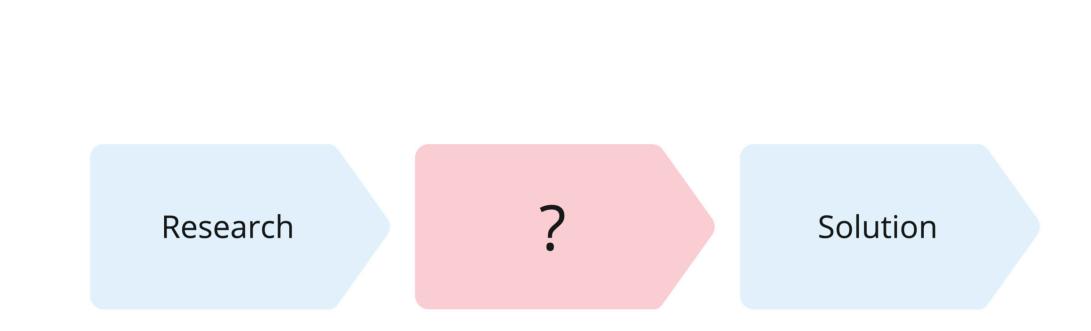


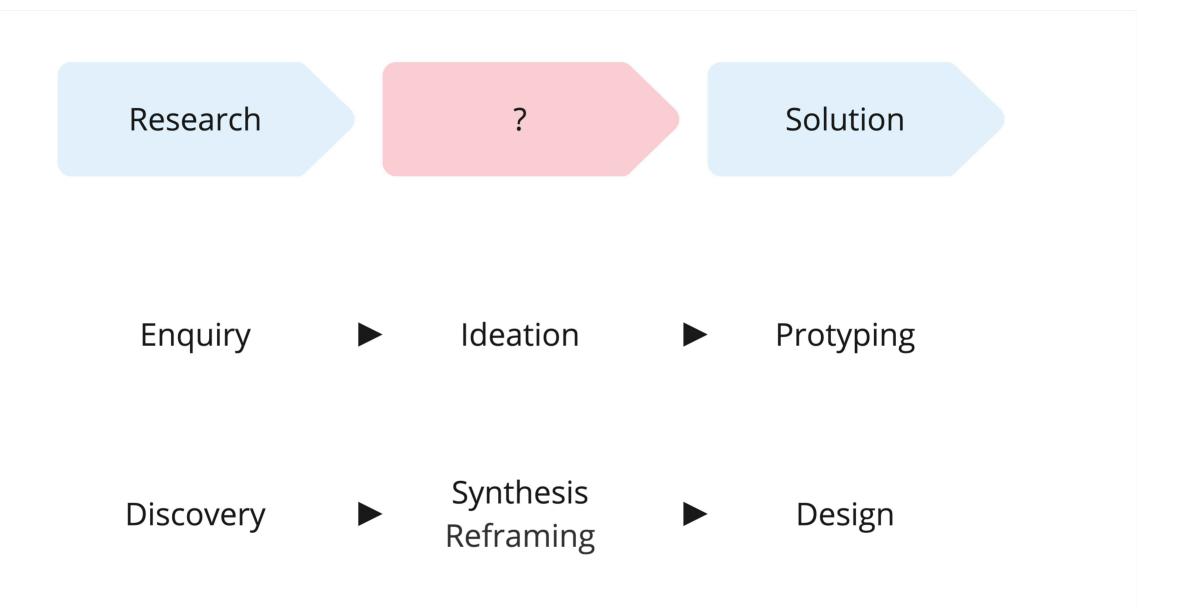
From Rosenfeld, Morville, & Arango. Information Architecture: For the Web and Beyond.

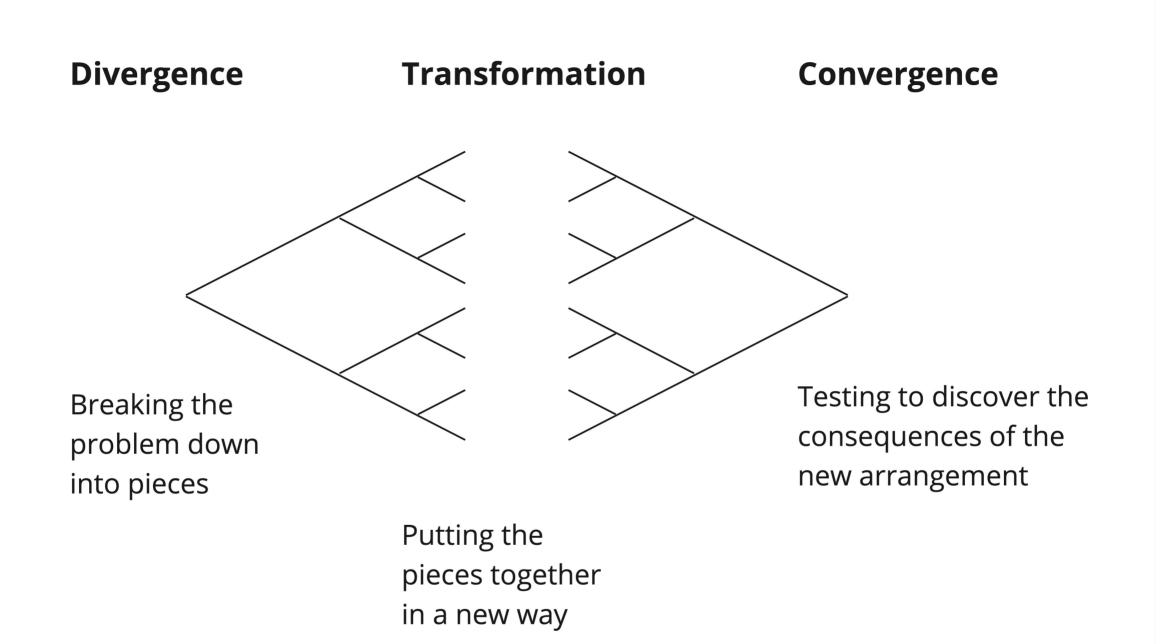
Common user models

- personas
- scenarios
- activities
- mental models (see Indi Young, Mental Models)









Modeling

Modeling is useful for...

understanding:

- Getting through situations of ambiguity
- Synthesizing research
- Mapping what exists & how things work
- Communicating the things you're trying to understand

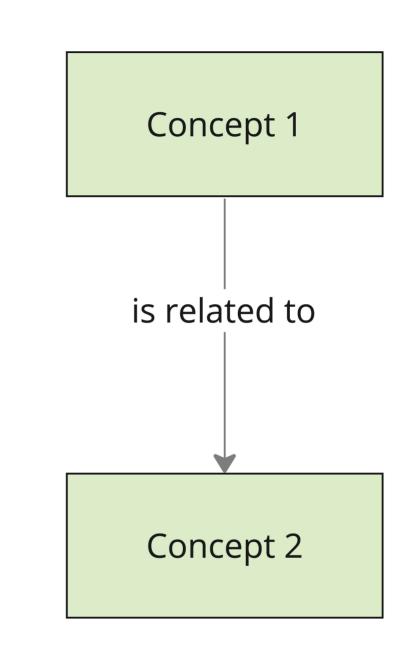
Modeling is useful for...

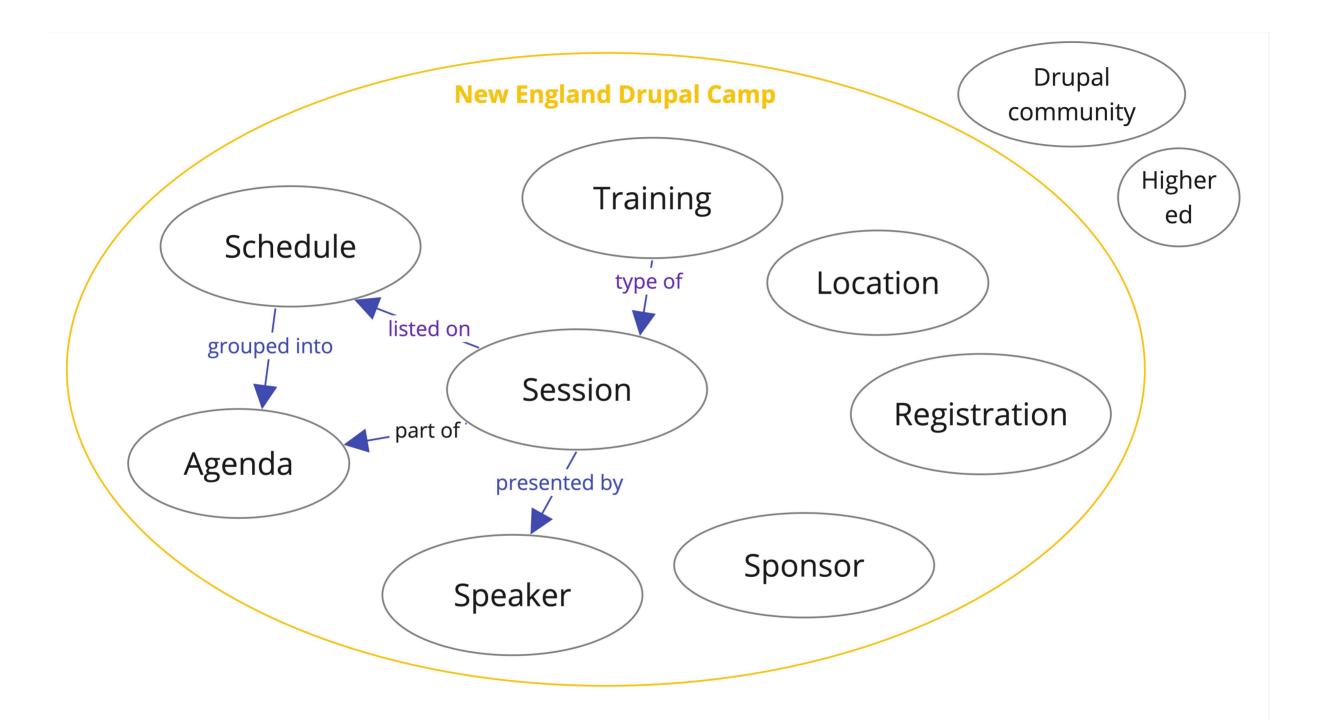
meaning-making:

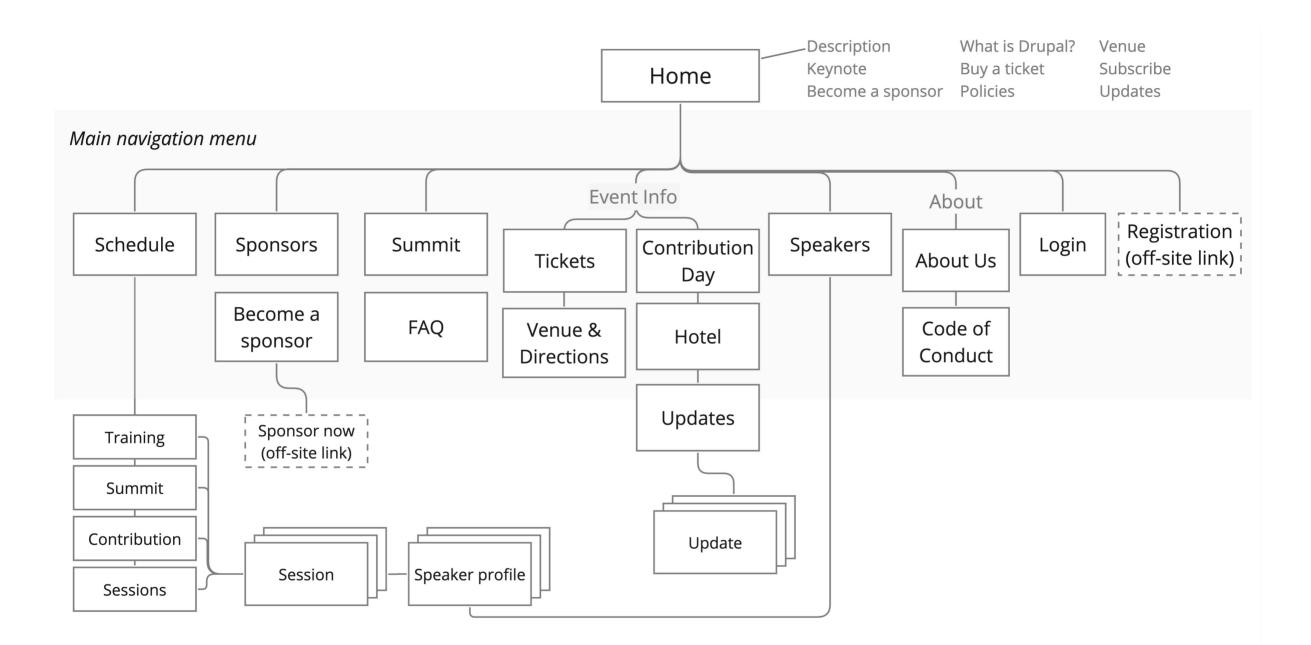
- Define the concepts and relationships we discover
- Explore new arrangements
- Build alignment
- Creating a conceptual foundation before (and during) UX design, content modeling, or data modeling

Basic process for concept modeling

- Gather a list of concepts (usually nouns)
- 2. Add the relationships
- 3. Label the relationships (usually verbs)
- 4. Arrange
- 5. Share / invite conversation / feedback / iterate







Part II Recap

- Effective IA is built upon a cohesive underlying conceptual structure
- Use "Users/Content/Context" to explore the conceptual structure of the design situation
- Use concept modeling to synthesize, resolve ambiguity, and build alignment upstream of content modeling & UI design

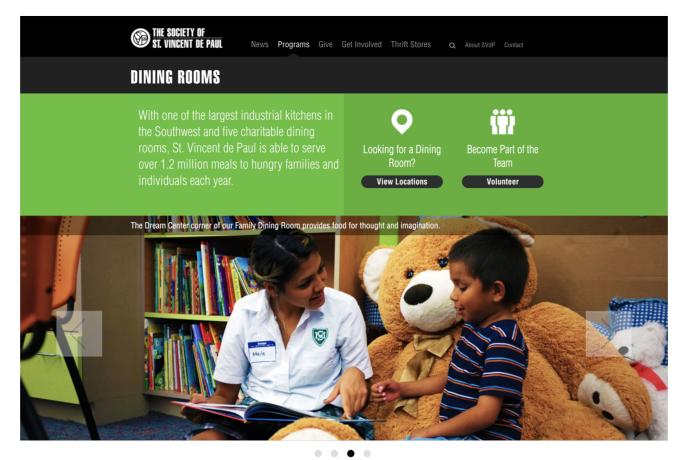
Part III: From concepts to navigation design

Concept models

Content models

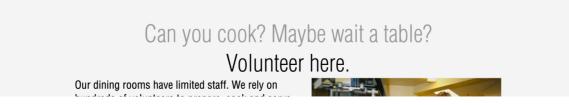
Sitemaps

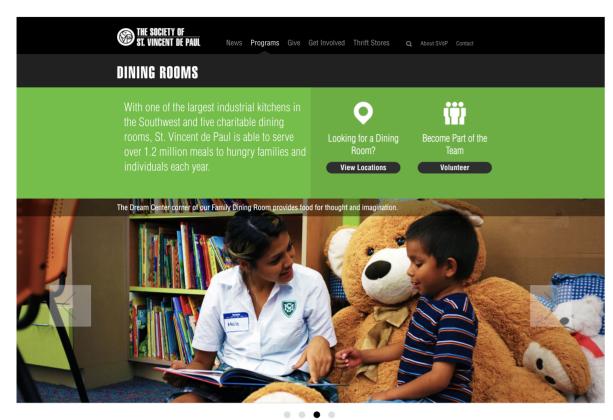
Navigation systems (menus, etc.)



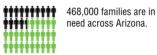
When you visit us to serve or be served, it's rarely just about eating. Volunteers create an experience many of us take for granted, an opportunity not only to eat but to meet and greet as well. It's also a chance to discover other ways to help our guests. Stomachs and hearts are filled in five dining rooms, where 3,500 nourishing, hot meals accompany our hospitality every day. Thanks to recent donor generosity, our Family Dining Our Dining Rooms give those in-need a chance to Room now offers many of the amenities of a supportive home or school atmosphere, including communal reading and group art projects for our younger guests, plus one-on-one tutoring programs and fun educational activities.



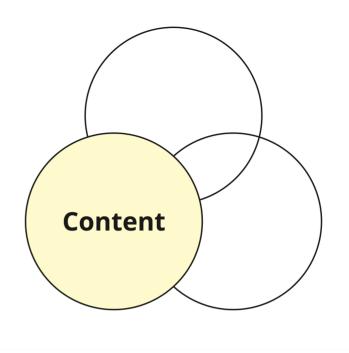




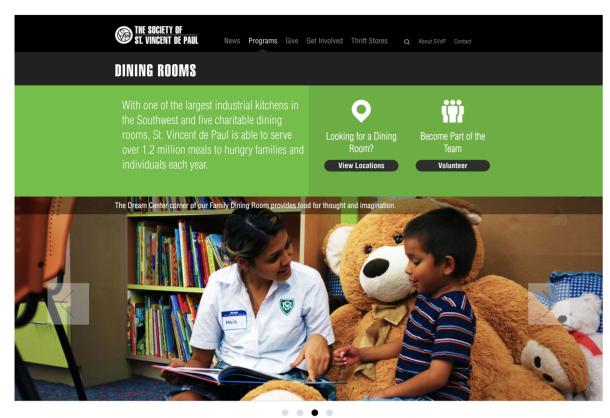
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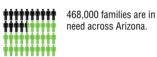




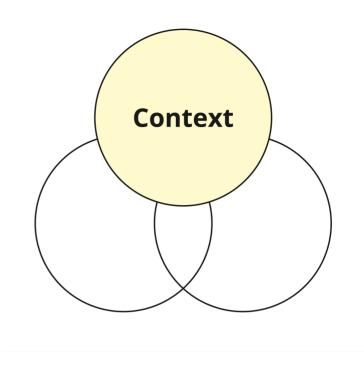
- Programs
- Locations
- Volunteer opportunities



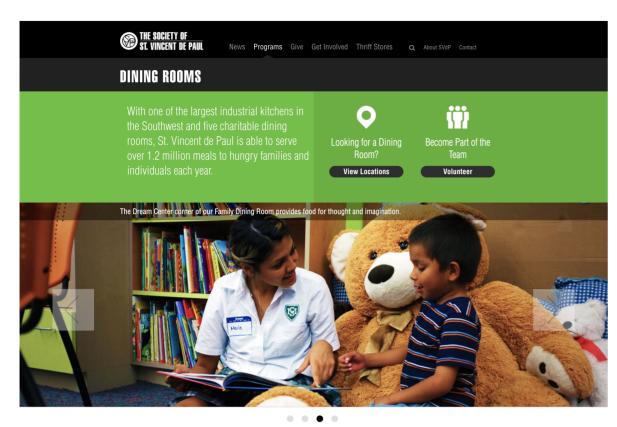
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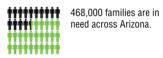




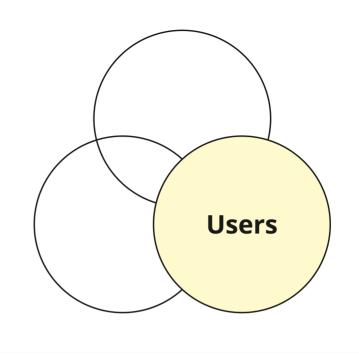
- Goals, mission, philosophy
- Importance of community & meaningful service
- Sustainable models for addressing homelessness, etc.

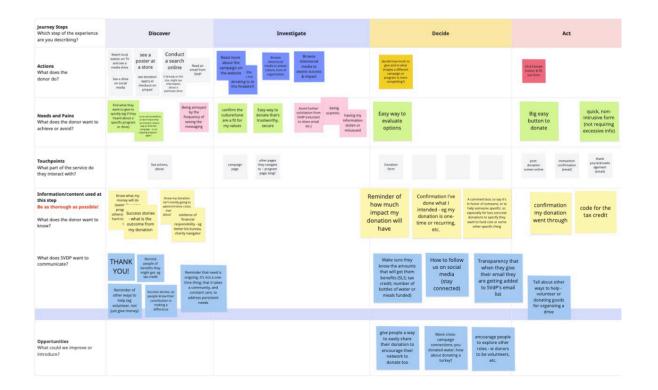


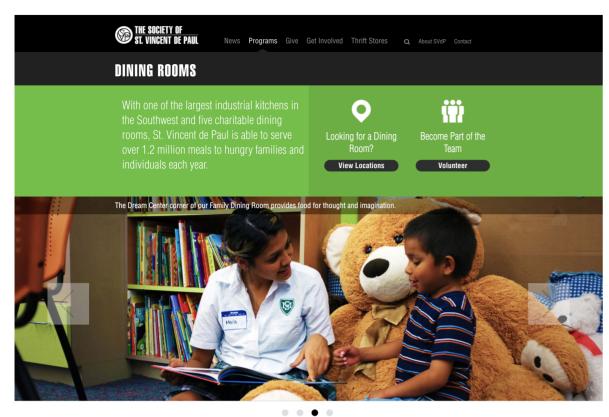
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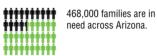


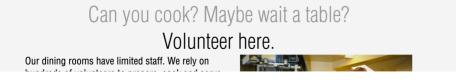


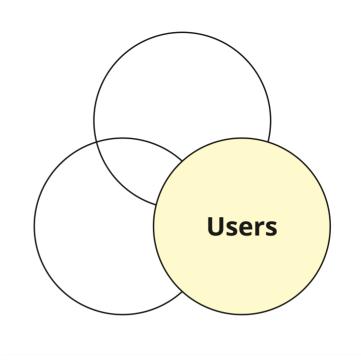




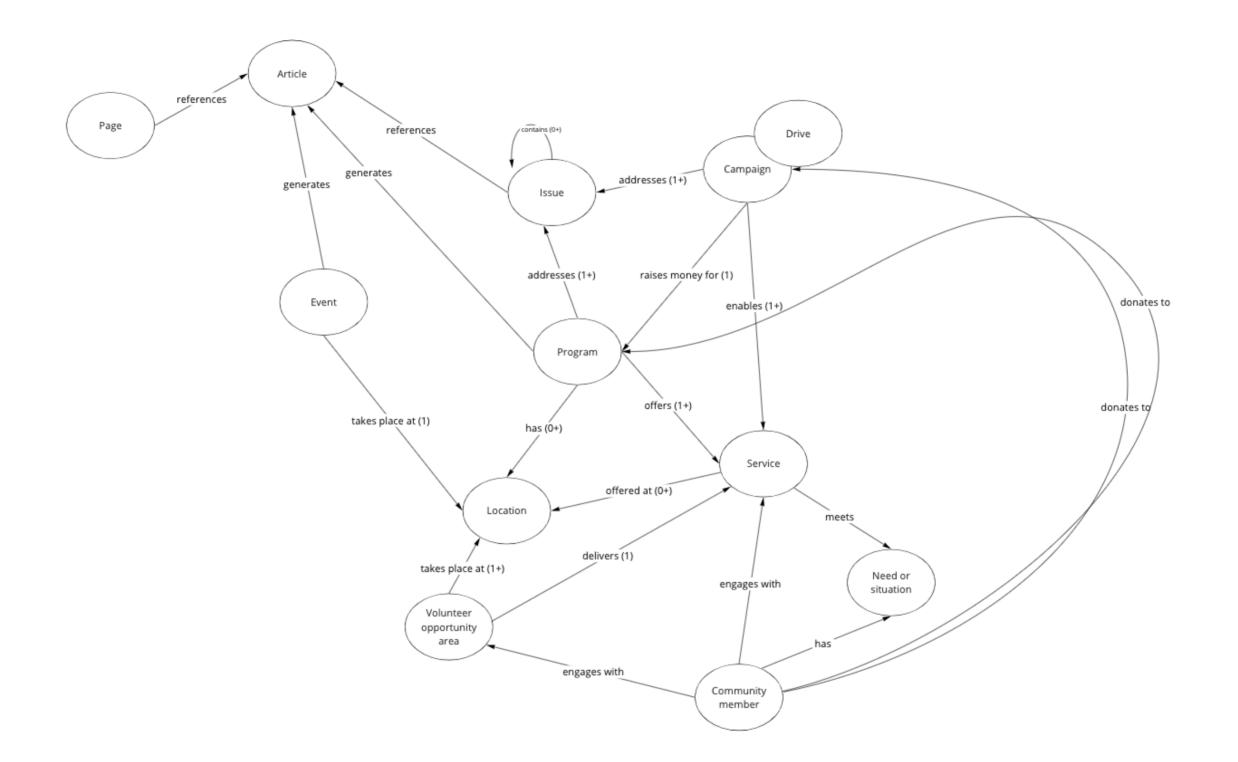
When you visit us to serve or be served, it's rarely just about eating. Volunteers create an experience many of us take for granted, an opportunity not only to eat but to meet and greet as well. It's also a chance to discover other ways to help our guests. Stomachs and hearts are filled in five dining rooms, where 3,500 nourishing, hot meals accompany our hospitality every day. Thanks to recent donor generosity, our Family Dining Our Dining Rooms give those in-need a chance to Room now offers many of the amenities of a supportive home or school atmosphere, including communal reading and group art projects for our younger guests, plus one-on-one tutoring programs and fun educational activities.

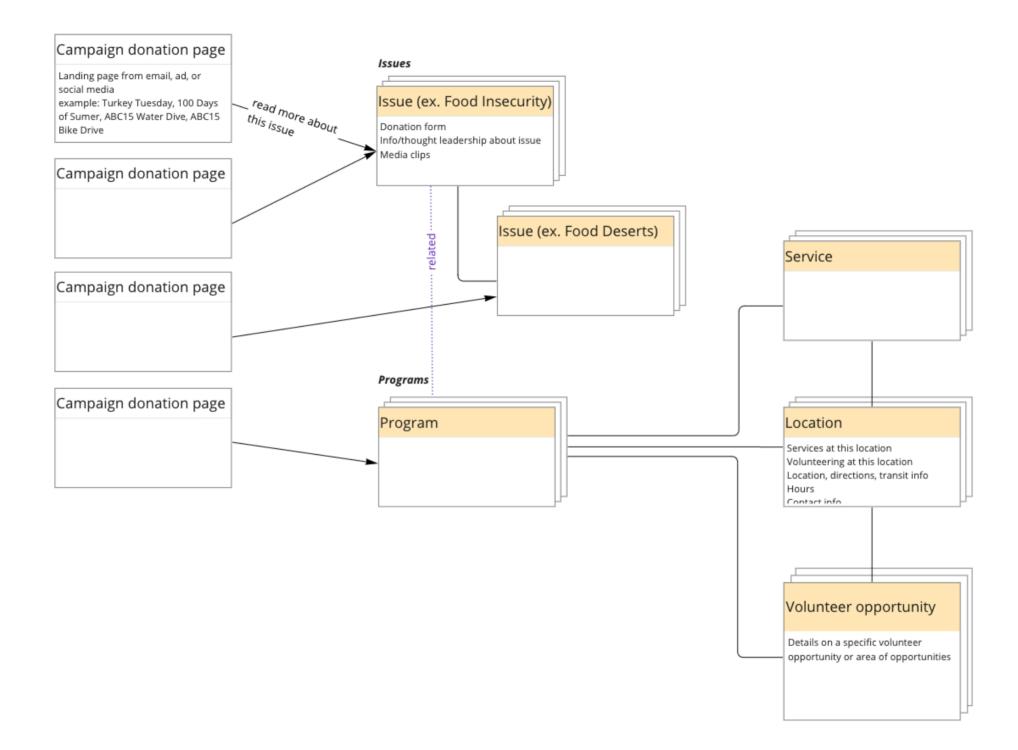




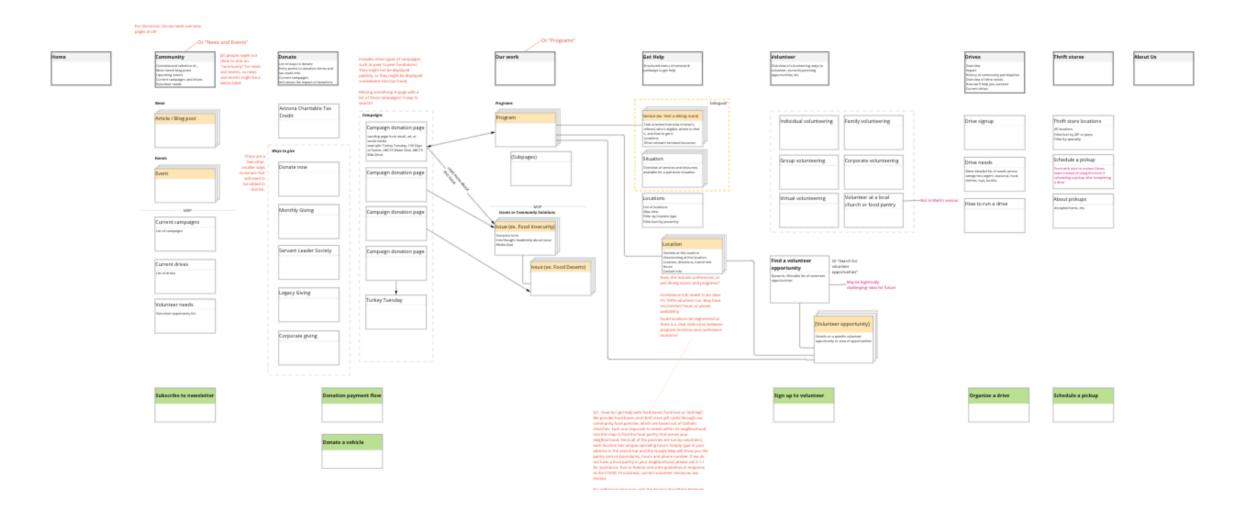


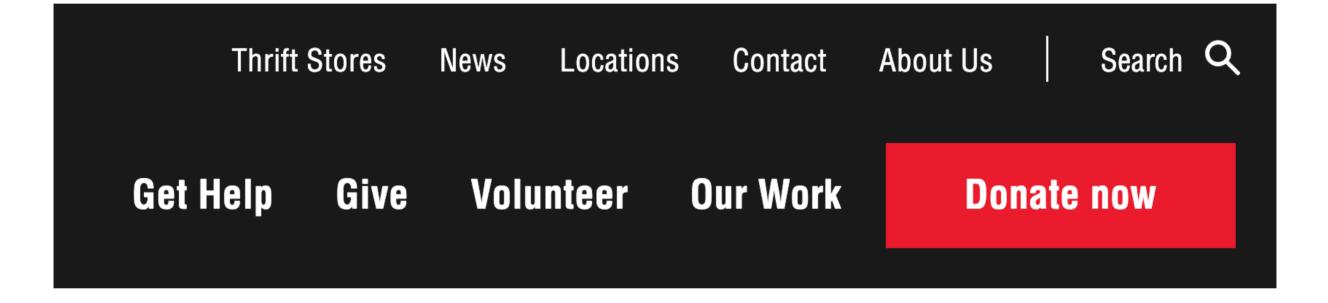
- Many, many audience segments
- Need for educational info
- Programs vs. Services





		Thrift Stores	News	Locations	Contact	About Us	Search Q	
Get Help	Give	Volunteer		Our Work		Donate now		





Four purposes of a site's main navigation menu

1. Provide pathways to all/most content

1. Provide pathways to all/most content

Things to think about:

- Build upon users' mental models
- Derive categories through content classification
- Choose labels that provide information scent

1. Provide pathways to all/most content

Ways of classifying content:

- By customer need
- By user activity/task
- By stage in the customer lifecycle
- By subject/topic
- By content type or metadata
- mixed

2. Provide quick, direct access to specific items/tasks

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Things to think about:

- User scenarios
- Top tasks (cf. Gerry McGovern)
- Known-item seeking may call for different labels

3. Inform users what's available on the site

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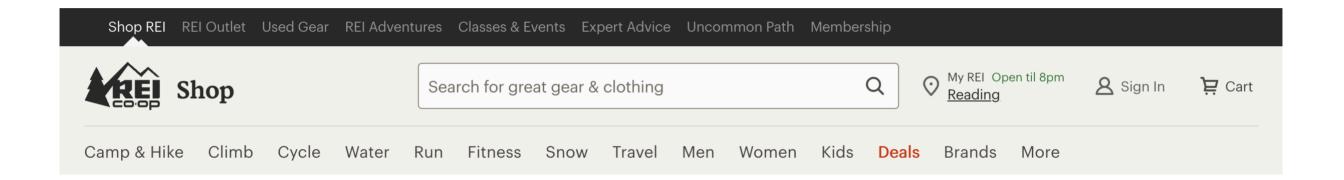
Things to think about:

- "Don't know what you need to know" and Exploratory info seeking
- Principle of recognition over recall
- Business goals, products, lines of business
- What is shown vs. hidden initially?

4. Explain the brand

Things to think about:

- Brand tone, voice, personality, key words
- Business goals (e.g. what needs to be promoted)



Stuart Maxwell, "The Politics of Navigation" at the IA Summit, April 24 2015

4. Explain the brand

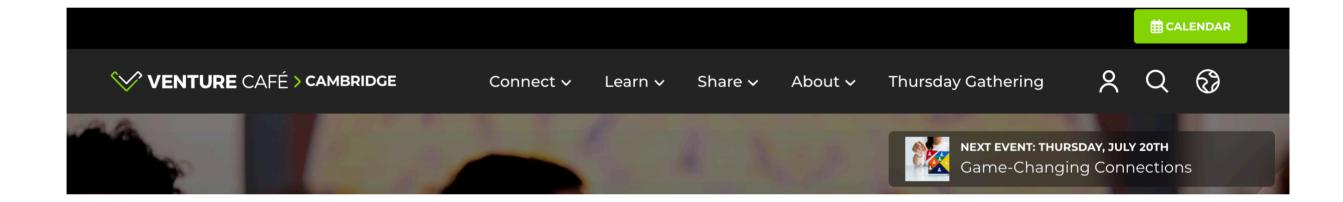
Things to think about:

- Brand tone, voice, personality, key words
- Business goals (e.g. what needs to be promoted)
- Ensure clarity, understandability, and information scent are not lost









Checks/tests for main navigation taxonomy

- Use user scenarios & user tasks as a checklist
- Consider different info seeking behaviors (known item, exploratory, don't know what you need to know, etc.)
- Test: "Where would you expect to find...?"
- Ask: "What would you expect to find under [label]?"

Purposes of a site's main navigation menu

- 1. Provide pathways to all/most content
- 2. Provide quick, direct access to specific items/tasks
- 3. Inform visitors what's available on the site
- 4. Explain the brand

And: Promote features/content, orient users, inspire users, inform search engines $\frac{1}{2}$

1. Jenny Benevento and Abby Covert, "Put A Label On It: Navigation As Brand", IA Summit 2018

Thank you!

Slides & resource guide

danzollman.com/navigation

Contact

danzollman.com

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