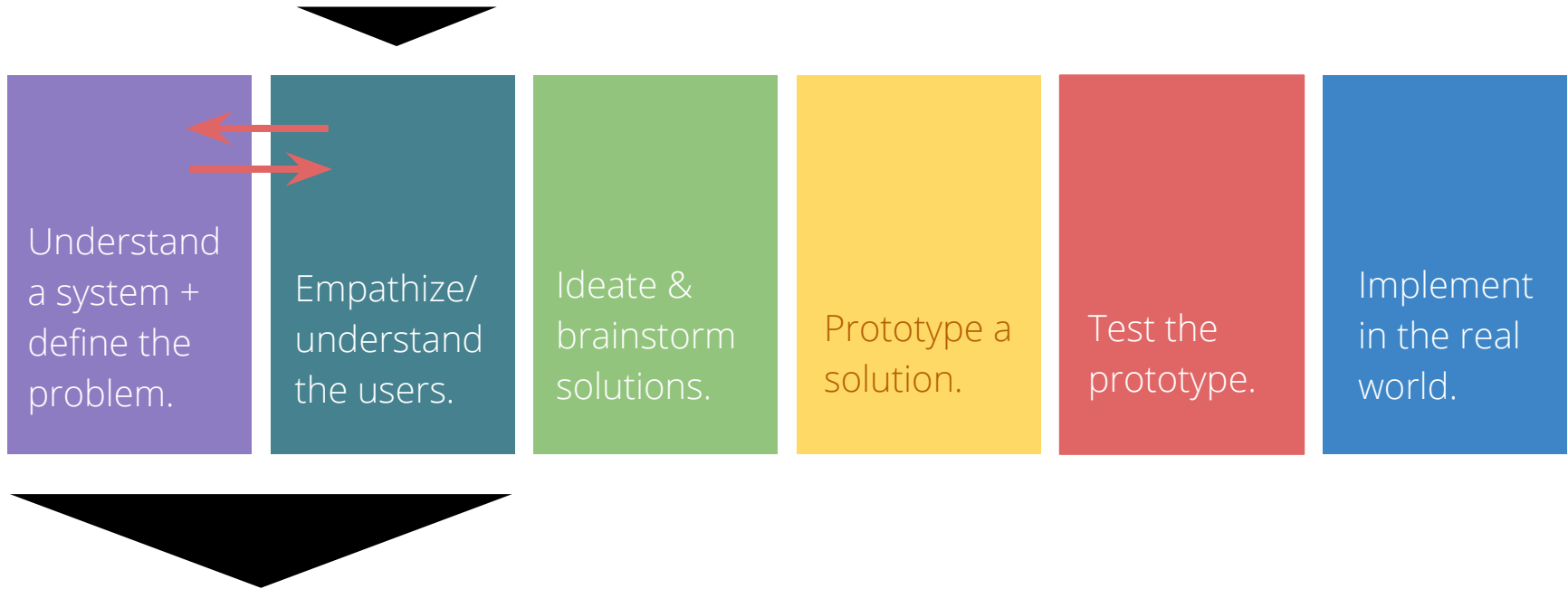# Understanding Users

Understand who is involved in the problem, and who the problem affects. Who are you designing a solution for? Whose behaviours and actions need to be changed?

After you've identified an issue, we can try to better understand the people the problem affects — the stakeholders or "users".

| Understand a system + define the problem. | Empathize/ understand the users. | Ideate & brainstorm solutions. | Prototype a solution. | Test the prototype. | Implement in the real world. |

Step 1) Understand the issue, what system it's located in, and the people involved.

Personas

Think of personas as "profiles" describing the different stakeholders involved or affected by the issue at hand. This will be helpful to reference when ideating and creating a solution - but also to narrow down the problem you are trying to fix.
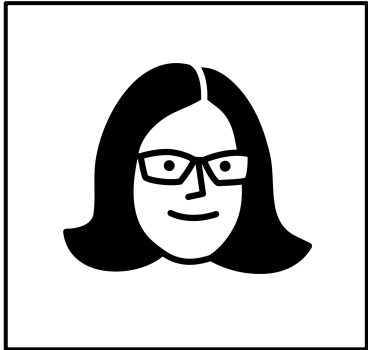
Name: Anita

Age: mid-20s

Occupation: PhD student in Biology

Background:

_____
_____
_____
_____

Goals & Needs:

_____
_____
_____
_____

User Interviews

Don't make assumptions about people. Talk to them - have a conversation with them - and get to know their needs & challenges.

Not a student? Interview a variety of students to understand their experience more deeply. Not a researcher? Talk to these people or conduct a survey to gain their perspective.

*Goal: collect information that will feed into empathy maps & journey maps.

Empathy Maps

Design with humans in mind allow us to understand a person's unique wants, need, struggles, and how their behaviour and thought process might be influenced.

Whenever possible, use the information collected from research / your <u>user interviews</u> to build an empathy map!

Don't depend on stereotypes or assumptions.

Methods

WHAT DO THEY
THINK, FEEL & WANT?

Anita
PhD Student,
Biologist

WHAT DO THEY
SEE?

What do they hear?
How are they
INFLUENCED?

[describe their environment]

What are their
PAINS & GAINS?

[pains: frustrations & challenges]   [gains: desires & measures of success]

Empathy Maps

Methods

→ Ambition: Looking for a post-doc and eventually teaching position.

→ Wants research to make real-world impact, to reach lots of people

→ cares about the world: does some activism work on the side (e.g. March for Science)

WHAT DO THEY THINK, FEEL & WANT?

Anita
PhD Student,
Biologist

→ Not super familiar with alternative publishing models

→ Doesn't know about her library's institutional repository

→ Goes to biology conferences regularly to network & learn

How do they THINK & FEEL?

→ Supervisor tells her where to publish; they already have a contentious relationship & difficult to challenge supervisor's thinking

→ Traditional metrics (e.g. impact factor) pressure to publish in prestigious journal

How are they INFLUENCED?

What are their PAINS & GAINS?

→ FRUSTRATED: Burnt out, stressed, not a lot of extra time beyond research schedule

→ CHALLENGED: bad academic job market, rocky relationship with supervisor

→ DESIRES: finishing PhD, work-life balance

→ MEASURES OF SUCCESS: citation counts, good relationships & positive impact on students she TAs, media attention about her research's real world impact

Empathy Maps

User Journey Maps

Develop a better understanding of a stakeholder's experience navigating a system — or in working to complete a particular task — by visually sketching out their "journey".

Identify where potential barriers and challenges are, and what points in their experience may be most effective to design a solution.
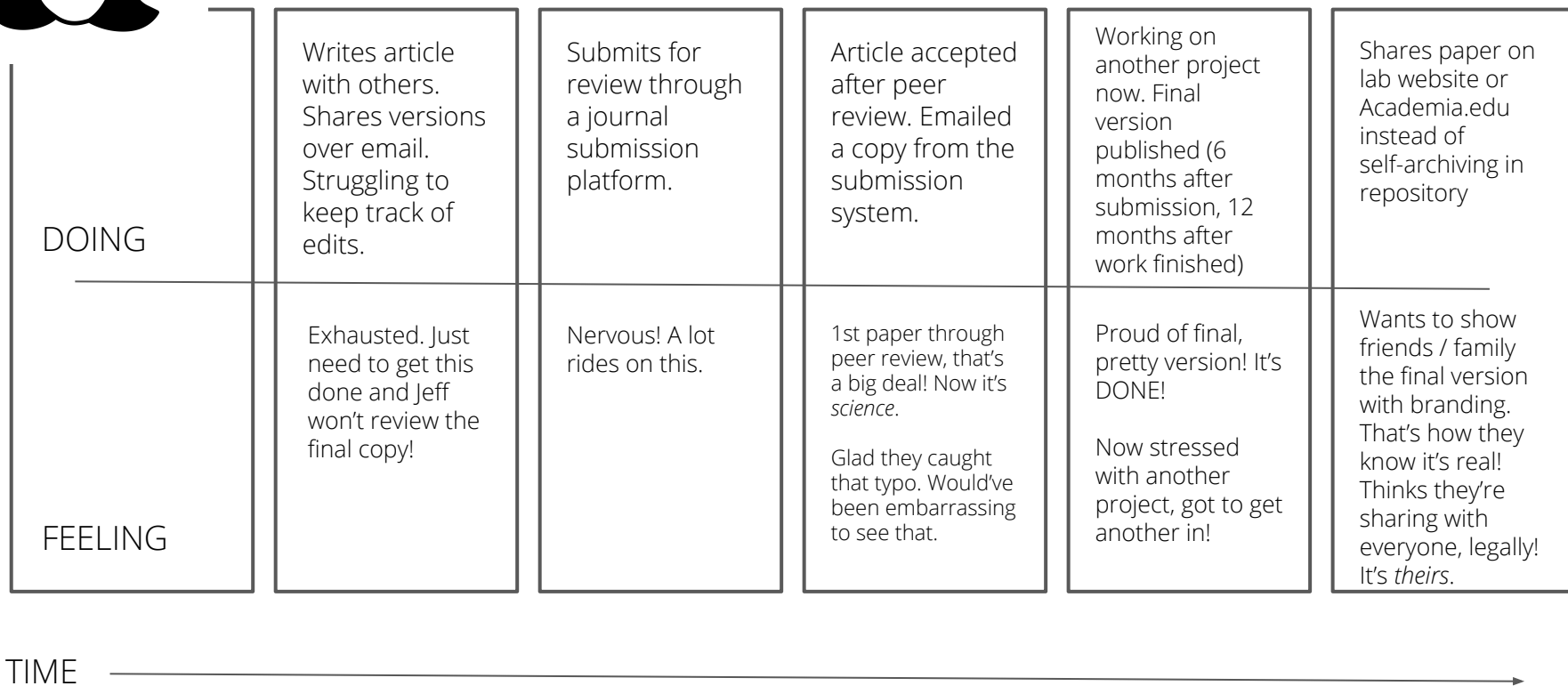
Name: _____
Occupation: _____

DOING

FEELING

TIME

User Journey Maps: [Frame the journey around an issue or problem statement]

Anita
PhD Biology Student

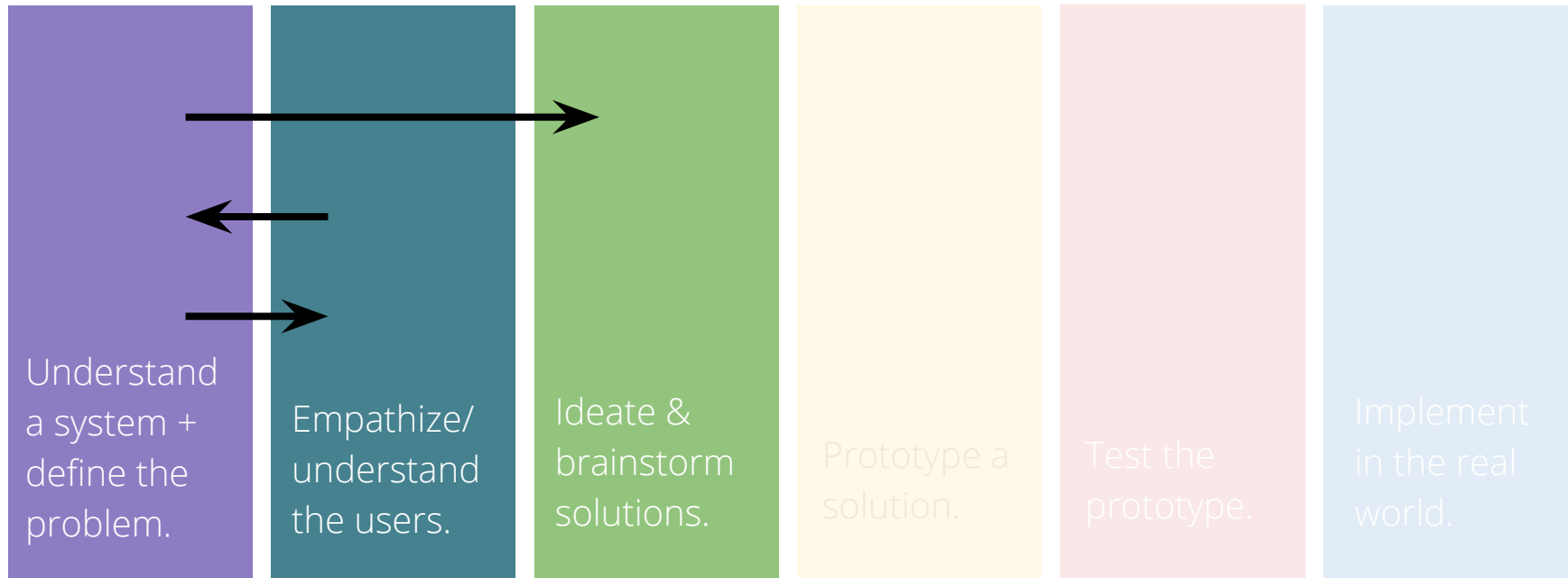|					
DOING	Writes article with others. Shares versions over email. Struggling to keep track of edits.	Submits for review through a journal submission platform.	Article accepted after peer review. Emailed a copy from the submission system.	Working on another project now. Final version published (6 months after submission, 12 months after work finished)	Shares paper on lab website or Academia.edu instead of self-archiving in repository
FEELING	Exhausted. Just need to get this done and Jeff won't review the final copy!	Nervous! A lot rides on this.	1st paper through peer review, that's a big deal! Now it's *science*. Glad they caught that typo. Would've been embarrassing to see that.	Proud of final, pretty version! It's DONE! Now stressed with another project, got to get another in!	Wants to show friends / family the final version with branding. That's how they know it's real! Thinks they're sharing with everyone, legally! It's *theirs*.

TIME →

User Journey Maps: How might we encourage more researchers to self archive their work?

Remember — design thinking is an iterative, cyclical process.

Your "How might we" problem statement will probably change after you have a better understanding of the user and their specific challenges.

Has your problem changed now that you understand your user better? What can you carry over to ideation?

Understand a system + define the problem.

Empathize/ understand the users.

Ideate & brainstorm solutions.

Prototype a solution.

Test the prototype.

Implement in the real world.

We should be able to generate more specific problems now that we better understand Anita:

→ How might we leverage traditional academic conferences as a space to promote open research practices?

→ How might we make it less confusing - and super easy - for graduate students to self-archive their work?

→ How might we encourage graduate students to use open resources in the classes they TA?

References

Methods - Journey Map, DesignKit.org

The Practical Guide to Empathy Maps: 10-Minute User Personas

Personas, Open Design Kit

Design Thinking 101

Download the full OpenCon Design Thinking for Open Research and Education Slide Deck here.