Design Under Pressure

Methods for Stress Cases

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#dtcamp20 #designunderpressure

About Molly

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> Teaching design thinking for 10 years
>> Stanford d.school (US), HPI School of Design Thinking (DE)
> **Design *can* improve the world, if our process is driven by our values.**

Image: Südwolle GmbH

About Simply Secure

Simply Secure (http://simplysecure.org) is a design nonprofit based in Berlin and NYC, founded in 2014.

We design and support responsible technology that enables human dignity.

We offer design and strategy support for:

> Open technology tools
> Privacy, security, decentralization, transparency, human rights tools
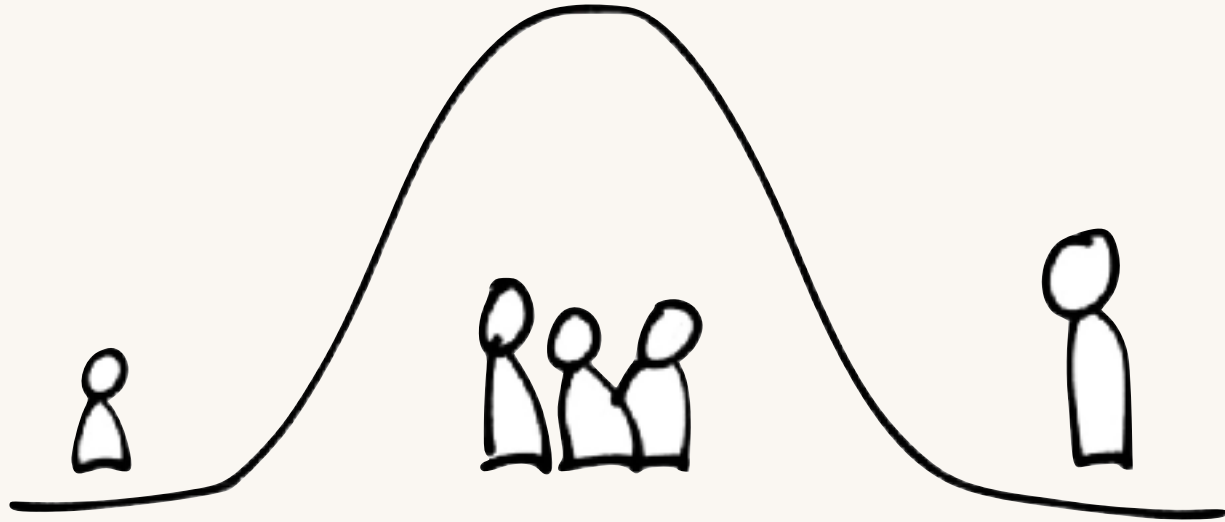> Nonprofits working in and around technology

What are stress cases?

Why do they matter?

What are 3 methods you can use tomorrow?

> Personas non grata
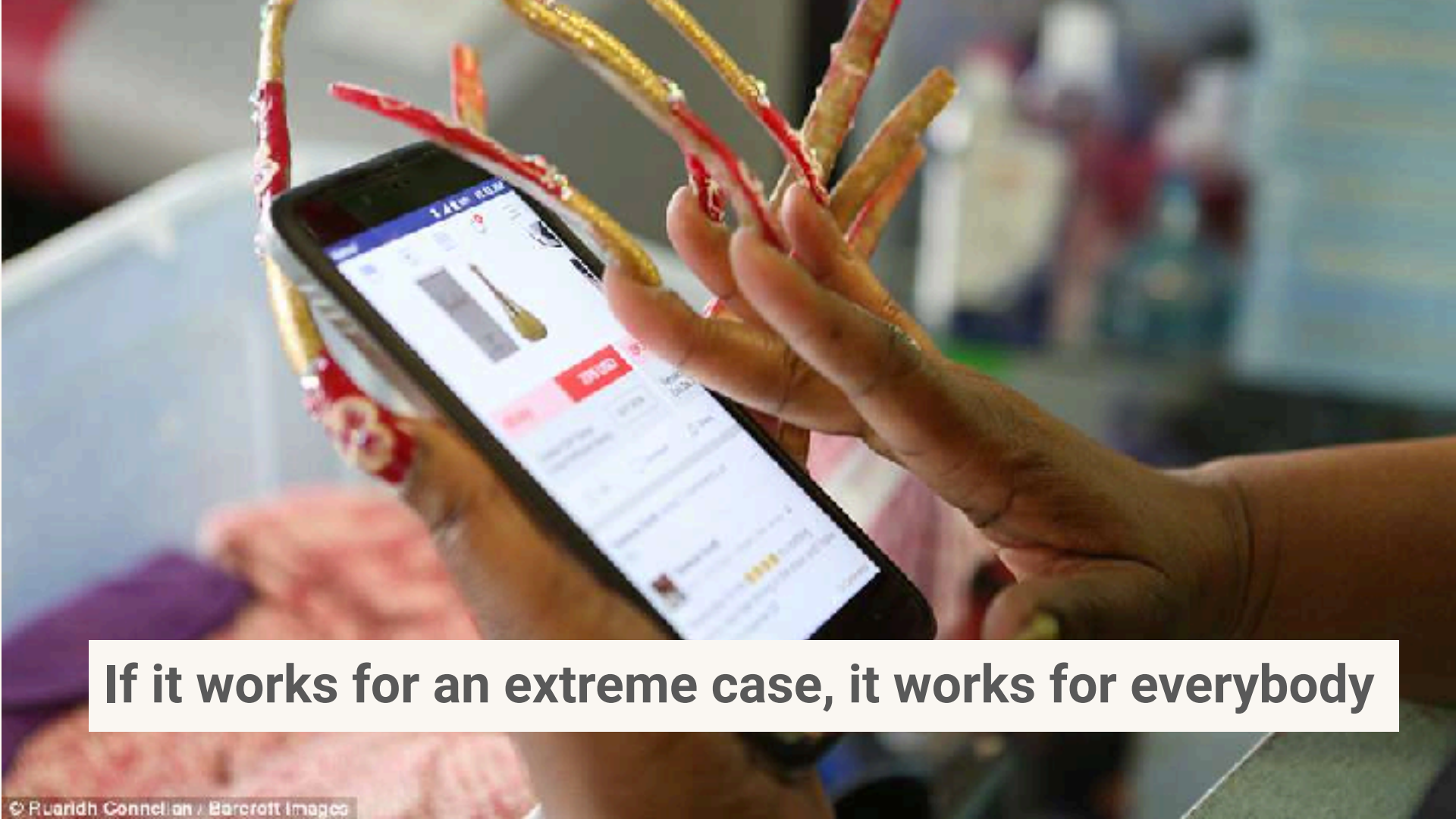> Threat modeling
> Anxiety games

"Extreme users" provide inspiration

Extremes and Mainstreams

Designing a solution that will work for everyone means talking to both extreme users and those squarely in the middle of your target audience.

Image: ideo.org

If it works for an extreme case, it works for everybody

This still prioritizes satisfying the user

"The No. 1 thing that has made us successful by far is obsessive compulsive focus on the customer"

Jeff Bezos - Amazon Founder & CEO

What if we stopped putting the user first?

Amazon's least satisfied customer

> Two brothers in Tennessee bought 18,000 bottles of hand sanitizer intending to resell on Amazon

> Amazon shut down all sales of hand sanitizer

> Now they have a garage full of hand sanitizer they can't sell. *Womp womp.*

> **Sometimes even Amazon deprioritizes "user delight"**

Image: New York Times

Stress case:
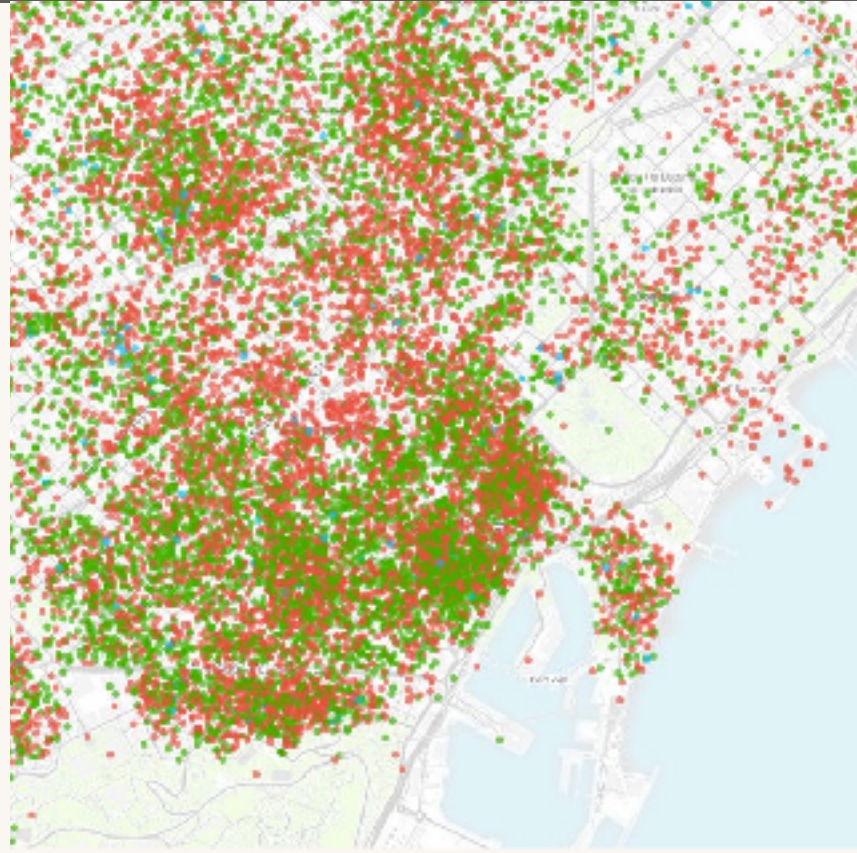When extreme conditions cause unintended consequences

Facebook's "memories" feature

> **"Let's give people a fun, personalized way to look back on their past."**

> In 2016, Eric Meyer's daughter Rebecca died of a brain tumor at age 6
> **Stress case: catastrophe in someone's life**

Image: meyerweb.com

Airbnbs in Barcelona

> **"Let's make it easy for people to post apartments online."**

> Over 20,000 Airbnbs in Barcelona (2017)

> 20 million people/year come to Barcelona, a city of 1.6 million

> Rising rents, unlivable neighborhoods, residents' quality of life declining

> **Stress case: non-users become stakeholders**

Image: Inside Airbnb

City council meeting "zoombombed"

> **"Let's make videoconferencing quick and easy."**

> 4 April 2020: Charlevoix, Michigan (population 2513) city council meeting interrupted with pornography and racial epithets
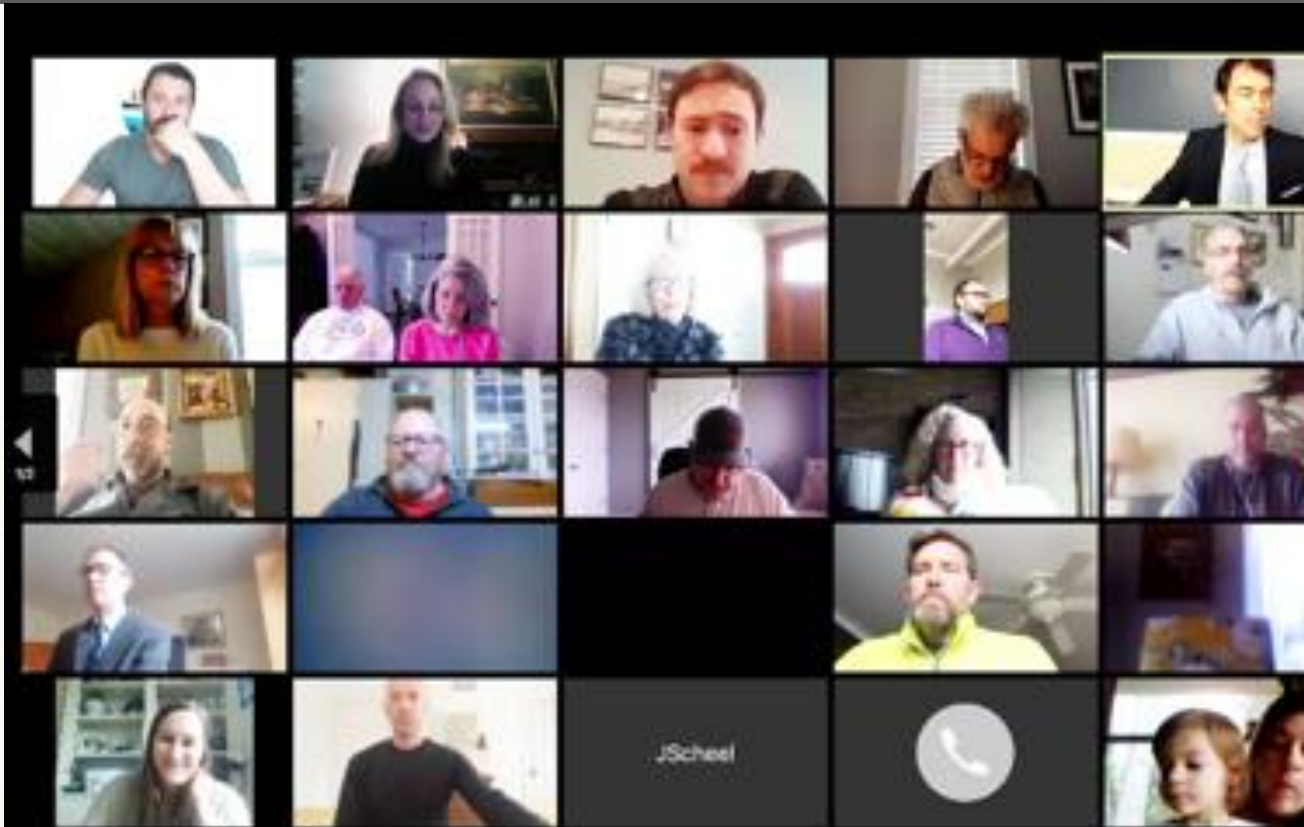
> **Stress case: unintended uses, bad actors**

Image: Petoskey News-Review

Zoom tries to "plug holes"

> Features to prevent zoombombing do exist, but...
>> They're not on by default
>> They're hard to find
>> They need explanation
> Is every city council member supposed to know this?

Image: Anderson Ed Tech

Stress cases: summary

> Stress case: when extreme conditions cause unintended consequences

> Stuff that isn't your fault can completely break your design

> Non-users are also stakeholders

> Malicious actors are more common than you think, and they can have a disproportionate impact

> **Yes, you CAN design for stress cases!**

Method #1

Personas Non Grata

Difficulty: Beginner
Phase: Ideation

WHAT?
A persona non grata is a **user you aren't planning for and don't want**. They break your design or the system around it.

WHY?
Bake stress cases into your idea, rather than trying to fix them later

Cheaply and easily construct stress cases that are hard to actually prototype or test
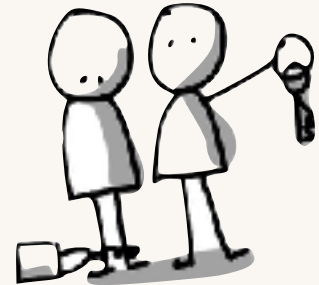
Personas Non Grata
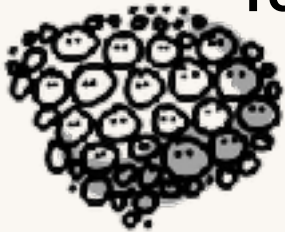
Stalker

Terrorist

Government

Truther

Abuser

Swarm

Prankster

Fraudster

Naïf

Opportunist

"Troll" is too general and sounds humorous; "hacker" is too general and covers all unwanted digital activity

A more detailed tool

THE FORGOTTEN

THE SERVICE DOG

THE SIREN

THE SIREN

What would using your product "too much" look like?

How does your product encourage users to engage, and how does it make it easy to disconnect?

How does your product respect people's boundaries and the other parts of their lives?

In what situations might it be inappropriate or distracting to use your product?

tarotcardsoftech.artefactgroup.com

Method #2
Threat Modeling

Difficulty: Intermediate
Phase: Research, Synthesis

WHAT?
Threat modeling is the attitude of **identifying situational risks** for the people you're designing for.

WHY?
Leverage the research phase to **prevent foreseeable catastrophes**

Prioritize stress cases to design for

What is this man doing?

Person + context -> threat model

how to secure computer

People also ask

How do I secure my home computer?

How can I secure my laptop?

How do I secure my computer from unauthorized access?

How can I secure my operating system?

Feedback

iag.me › tech › 10-tips-to-make-your-computer-more-s… ▼

10 Tips to Make Your Computer More Secure

10 Tips to Make Your Computer More Secure. By Ian Anderson Gray | 51 | Last Updated November 12, 2019. barbed wire. Tweet154 · Share126 · Share27.

www.businessnewsdaily.com › … › Security ▼

How to Secure Your Computer From Hackers

Jan 10, 2019 - 12 Ways to Secure Your Computer From Hackers. By Jackie Dove, Contributing Writer January 10, 2019.

support.microsoft.com › en-us › windows-keep-your-c… ▼

Keep your computer secure at home - Windows Help

Apr 6, 2020 - Tips to protect your computer. Use a firewall. Windows 10 and Windows 8 have a

(but this probably isn't)

Asking about threats

> ~~What could hurt you?~~ *Too invasive and scary!*
> Is there anything that would help you feel safer? More confident?
> What sorts of things do you do to help yourself stay safe [in this context]?
> What advice do you give others to stay safe [in this context]?
> Is there anything you worry about?
> Is there anything that makes you uncomfortable?

Image: WOC In Tech

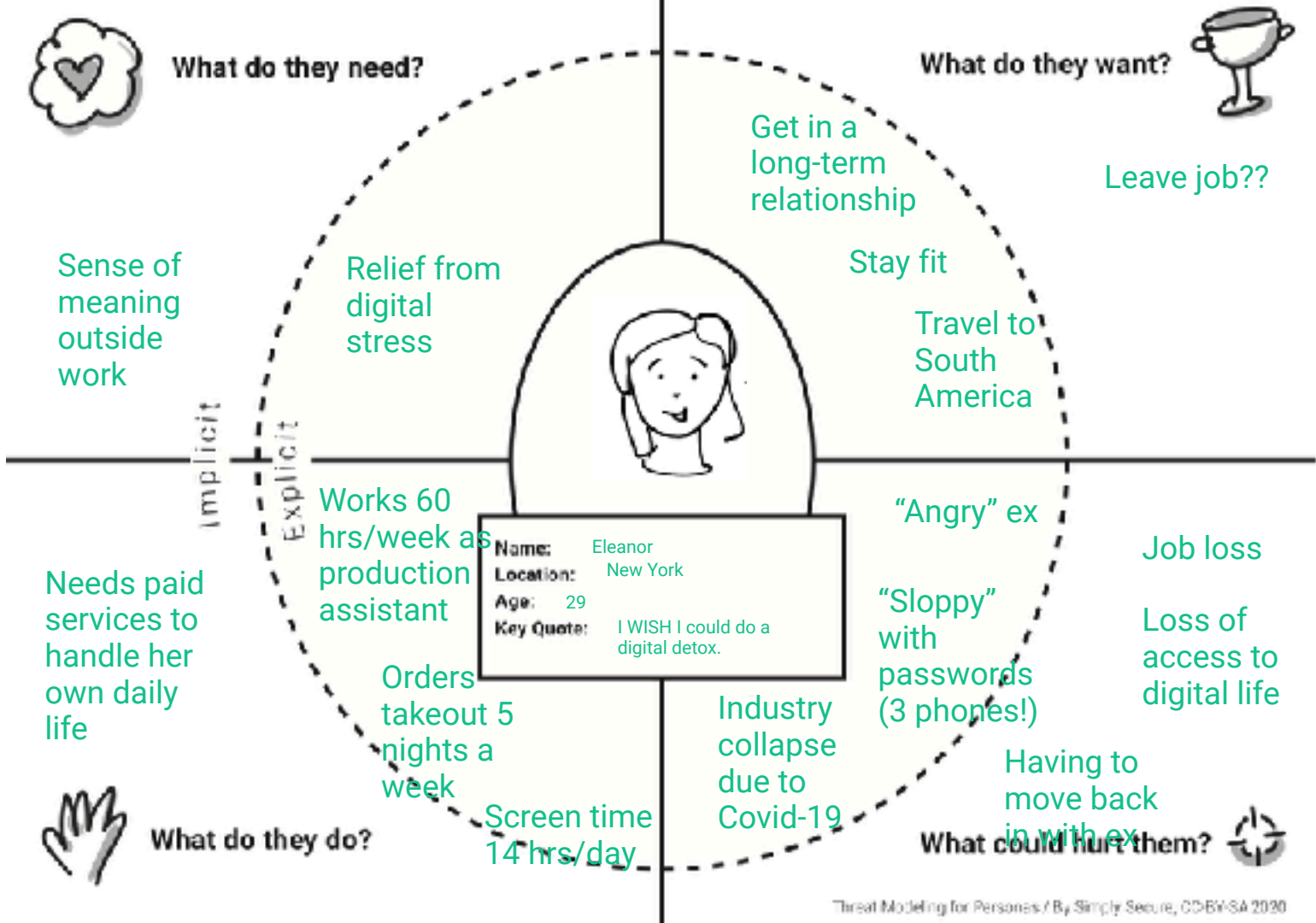What do they need?

What do they want?

Implicit

Explicit

Name:
Location:
Age:
Key Quote:

What do they do?

What could hurt them?

What do they need?

Sense of meaning outside work

Relief from digital stress

Needs paid services to handle her own daily life

What do they want?

Leave job??

Get in a long-term relationship

Stay fit

Travel to South America

What do they do?

Works 60 hrs/week as production assistant

Orders takeout 5 nights a week

Screen time 14 hrs/day

What could hurt them?

"Angry" ex

Job loss

"Sloppy" with passwords (3 phones!)

Loss of access to digital life

Industry collapse due to Covid-19

Having to move back in with ex

Implicit

Explicit

Name:	Eleanor
Location:	New York
Age:	29
Key Quote:	I WISH I could do a digital detox.

Threat Modeling for Personas / By Simply Secure, CC-BY-SA 2020

Method #3

Anxiety Games

Difficulty: Advanced
Phase: Any "diverge" phase
(Understand, Research, Ideate)

Creator: Andrew Lovett-Barron
(andrewlb.com)

WHAT?
Anxiety games are a way to **explore stress cases**.

WHY?
Expand your awareness of the system that your design is part of

Reduce fear by mentally preparing for crises

Prepare Post-its

Resources

> Write all the resources relevant in your space.

Inflections

> Write events that would force a decision.

Catastrophes

> Write truly terrible events.

Expertise

Hardware

User base

Office

Reputation

Community support

Employees

Lose lease

We get trashed in blog post

Key employee leaves

Key funder withdraws

Google buys Facebook
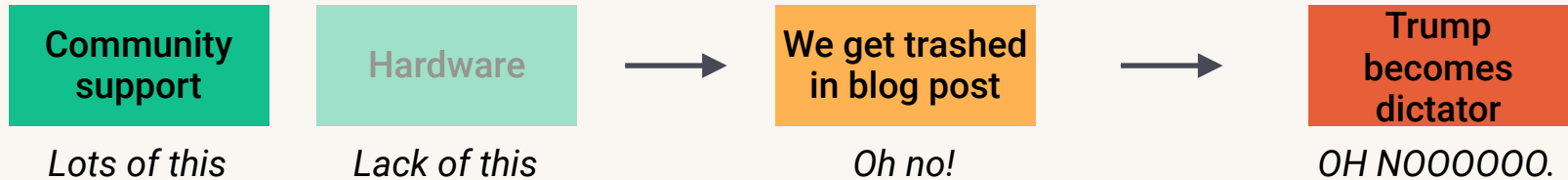
World loses 1/3 of population

Germany leaves EU

One of us dies

Trump becomes dictator

Borders closed permanently

How to play

> Draw 2 <u>resources</u>.

>> 1st card: you have a lot of this.

>> 2nd card: you have a lack of this.

> Draw an <u>inflection</u>. Discuss what you would do.

> Draw a <u>catastrophe</u>. Discuss what you would do.

Community support	Hardware		We get trashed in blog post		Trump becomes dictator
Lots of this	*Lack of this*	→	*Oh no!*	→	*OH NOOOOOO.*

Prepare Post-its

Finances

User base

Tech infrastructure

Employees

Office

Resources

> Write all the resources relevant in your space.

Community support

Product supplier

Inflections

> Write events that would force a decision.

Fire in office

Competitor kicks our butt

Major hack

Catastrophes

> Write truly terrible events.

Key funder withdraws

We get sued

Need to lay off 1/3 of staff

Bankruptcy

City floods due to climate change

Cell network down for months

"But we need positive energy!"

Image: Molly Wilson
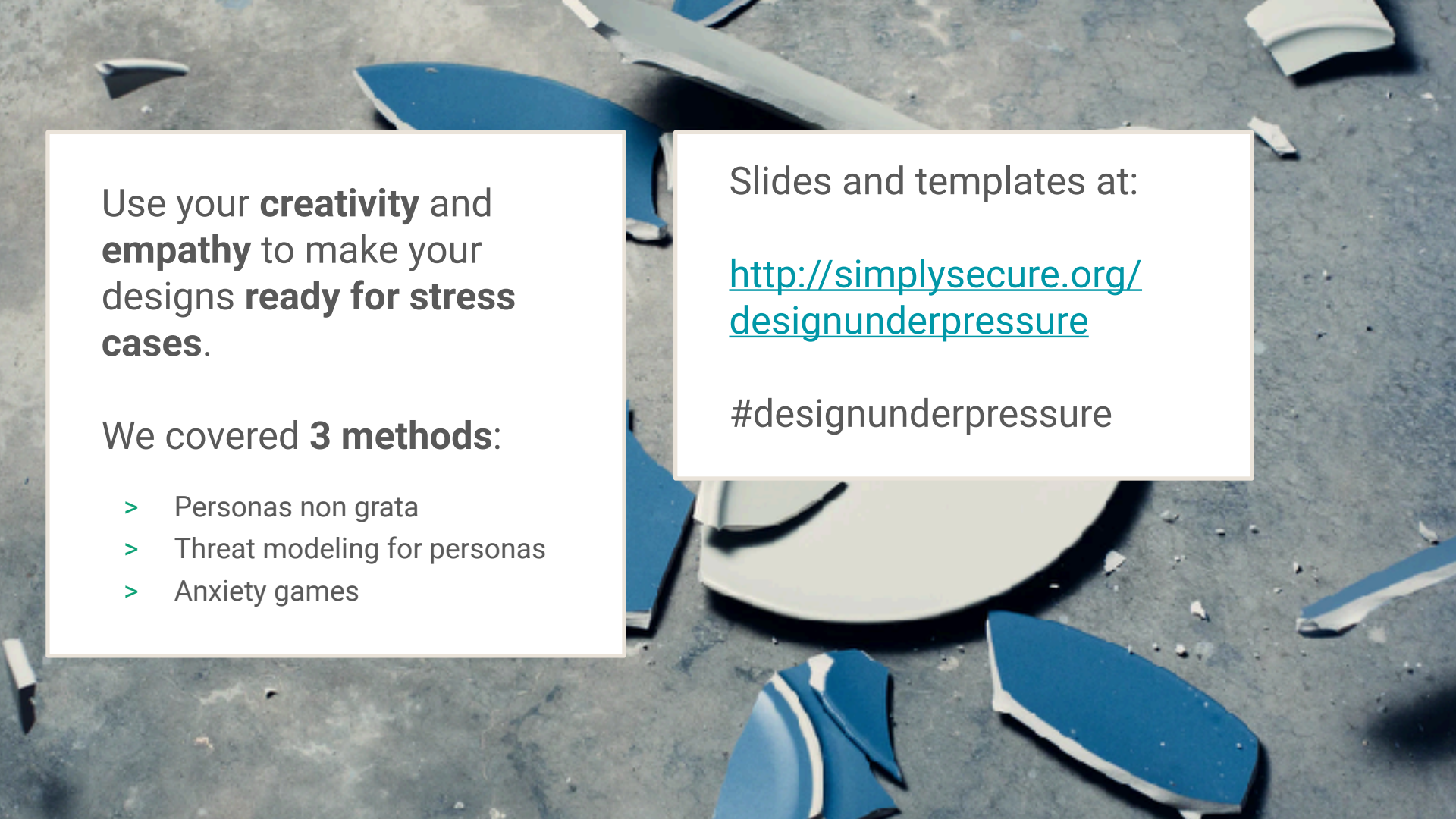
Image: Molly Wilson

In times of crisis, we must all decide again and again who we love.

– Frank O'Hara, *Meditations in an Emergency*

Use your **creativity** and **empathy** to make your designs **ready for stress cases**.

We covered **3 methods**:

> Personas non grata
> Threat modeling for personas
> Anxiety games

Slides and templates at:

http://simplysecure.org/ designunderpressure

#designunderpressure