Design Under Pressure
Methods for Stress Cases

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#dtcamp20 #designunderpressure
About Molly

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.

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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.
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**
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
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?
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

tarotcardsoftech.artefactgroup.com
Method #2
Threat Modeling

**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
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?

10 Tips to Make Your Computer More Secure


How to Secure Your Computer From Hackers


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 built-in firewall. Check your settings to ensure that your firewall is turned on and configured to protect your computer.
This might be safe for some people
(but this probably isn't)

**Bank**
- big 46 dog 81
- checking
- PIN 4681
- look for me 46
- savings
- PIN 2000

**Email**
- @GREENTEA888
- @BLACKTEA46
- New
- gmail: murphy 4681
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?
Get in a long-term relationship

Leave job??

Loss of access to digital life

Eleanor

Sense of meaning outside work

Relief from digital stress

Stay fit

Travel to South America

“Angry” ex

Orders takeout 5 nights a week

“Sloppy” with passwords (3 phones!)

I WISH I could do a digital detox.

Works 60 hrs/week as production assistant

Industry collapse due to Covid-19

Having to move back in with ex

Needs paid services to handle her own daily life

Relief from digital stress

Screen time 14 hrs/day

Job loss

Loss of access to digital life

New York

29

I WISH I could do a digital detox.

Having to move back in with ex

What do they need?

What do they want?

What do they do?

What could hurt them?
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.
How to play

> Draw 2 resources.
  >> 1st card: you have a lot of this.
  >> 2nd card: you have a lack of this.
> Draw an inflection. Discuss what you would do.
> Draw a catastrophe. 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 N000000.
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.
“But we need positive energy!”
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](http://simplysecure.org/designunderpressure)

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