humu

Building for Trust:

Because we don't *all* have to learn lessons the hard way

Lea Kissner
Chief Privacy Officer, Humu

@LeaKissner
leak@humu.com

Why am I here?

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Failure.

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No, really.

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No, really.

Framework on how to help teams build with respect.

Tested, practical in the face of edges.

Edges

- **The world is made of edges.**
  - Systems are large enough that “edge cases” aren’t
  - There are so many humans and so many types of human

- **“If something happens to 1/1,000,000 users once per year, at Google that’s best expressed as *‘six times per day’*.” -Andy Schou**

Outline

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2. *Framework*
3. *Collaboration: technical*
4. *Collaboration: public policy/regulation*

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  - Willingness to engage with us
  - Willingness to believe in our reliability
  - Willingness to believe we speak the truth
  - Willingness to believe we act with respect

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- “Respect is a **positive feeling or action shown towards someone or something considered important, or held in high esteem or regard**; it conveys a sense of admiration for good or valuable qualities; and it is also the **process of honoring someone by exhibiting care, concern, or consideration for their needs or feelings**.” – Wikipedia

Building for trust

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Building for trust

- Why build for trust?
- Would you like to buy a Pinto?
- The Pinto was about average for subcompact car safety.*

* Schwartz, Gary T. (1991). “The Myth of the Ford Pinto Case.” *Rutgers Law Review*. 43: 1013–1068.

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Building with respect

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- No one is an expert in everything.
- Start at the beginning.
- If you can’t, don’t despair.

Steps for respect review

1. *Find all the parts.*
2. *Check the invariants.*
3. *Model the threats.*
4. *Triage and correct issues.*
5. *Document, document, document.*

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  - Driven by regulations or contracts
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- **Start by checking invariants**
  - Faster than the more in-depth analysis
  - No point in further work until the invariants are satisfied

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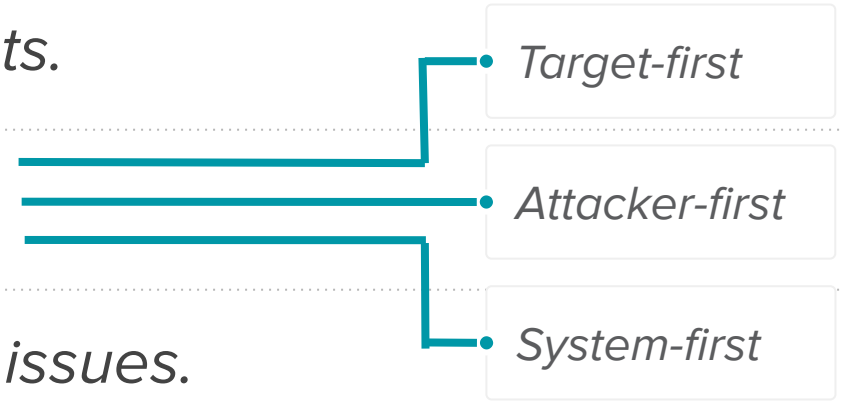

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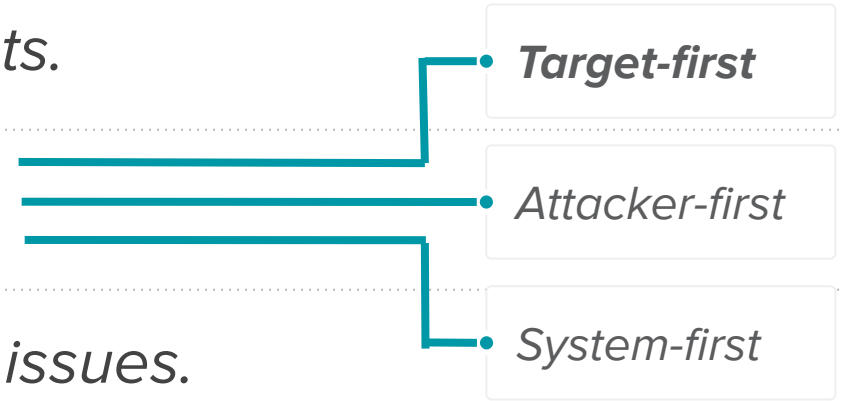

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  - Team diversity helps
  - User research helps

Example vulnerability factors

- Visible minority
- Invisible minority
- Gender
- Age
- Other identities
- Disability
- Poverty
- Abuse
- Target of generalized government action
- Target of specific government action
- Person with a secret

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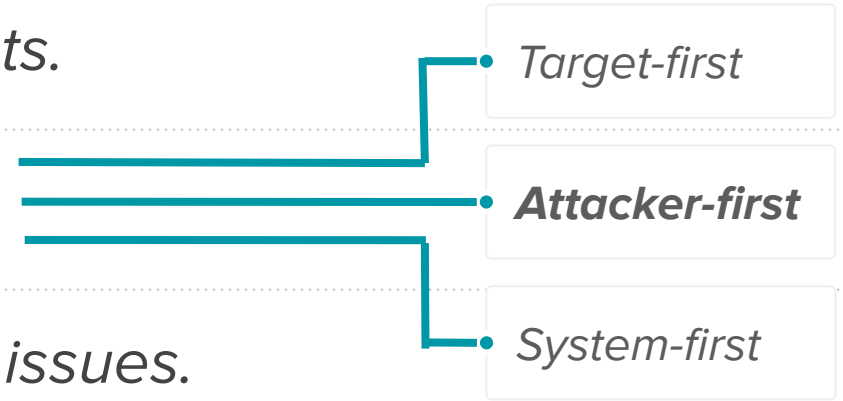

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- Objective: commercial
- Objective: criminal
- Objective: political
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- Bonus features:
  - Advanced
  - Insider
  - Intimate
  - Power figure
  - Persistent

Example attackers

- Intimate persistent threats
- Advanced intimate persistent threats
- Untrusted roommate
- Employer
- Angry online attack mob
- Impersonal manipulator
- Suppressing political dissidence (targeted)
- Suppressing political dissidence (untargeted)

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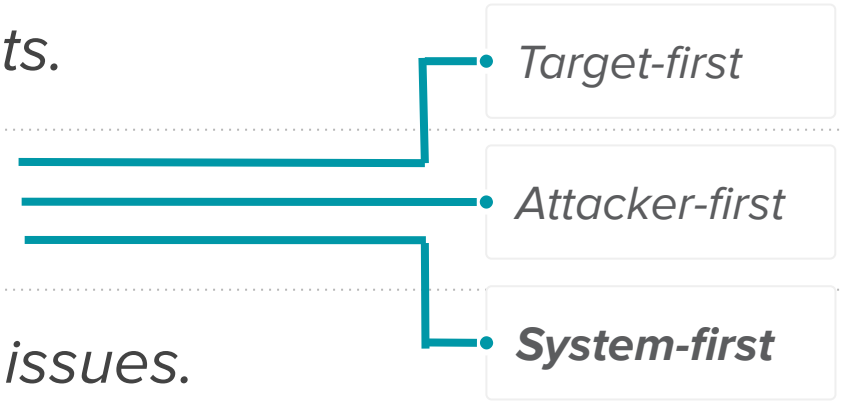

Example system areas

- Information sharing
- Authentication (and un-authentication)
- Authorization (system and models)
- Automated decision-making (correct and incorrect)
- Anti-abuse systems and their failures
- Where two systems meet
- System turndown

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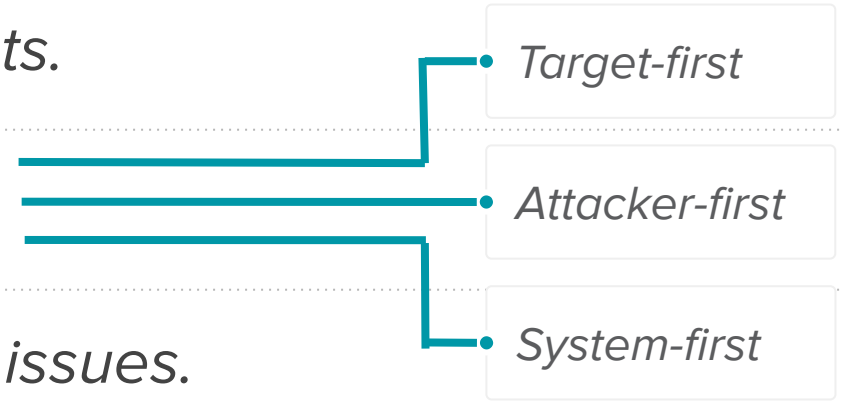

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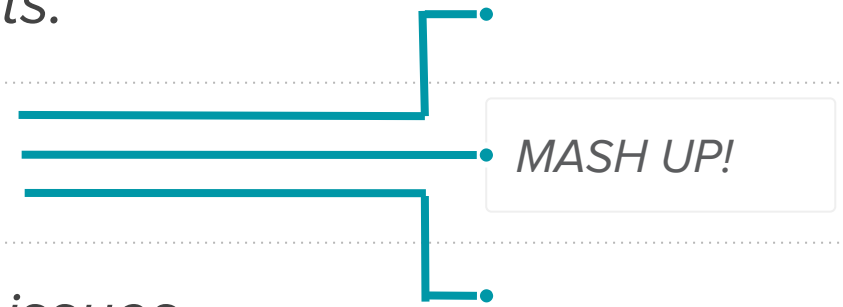

Mash up!

- Used as intended
- Used as intended (adjacent group)
- Used by someone well-meaning & misguided
- Used by attacker
- Used by (nearly) everyone
- Social & financial pressures
- Feelings

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- **Goal: respectful, well-reasoned decisions in a reasonable amount of time.**

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... now do it again for every change

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- Would you like to join the curation committee? Let me know.

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