

CS377Q: Today's goals

- Designing for Aging
- A6 Idea pitches (3 min. each)
- Reflect on idea pitches
- P1 Brainstorming
 - Form project teams (3 people)



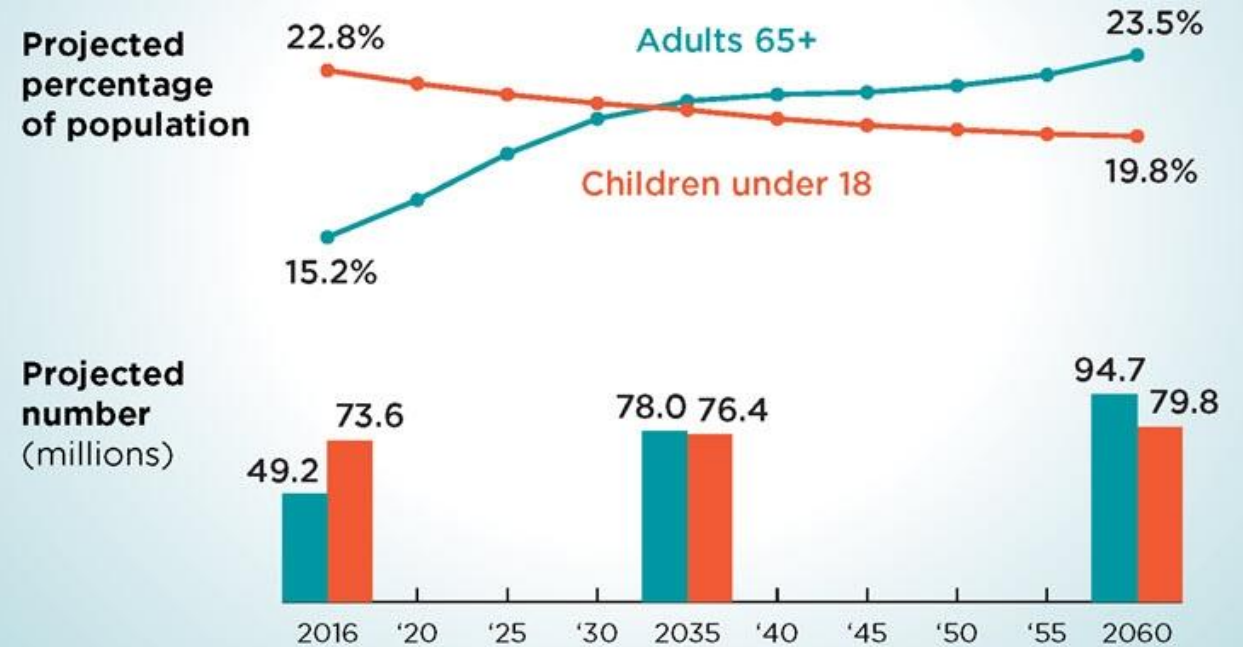
Aging demographic



An Aging Nation

Projected Number of Children
and Older Adults

For the First Time in U.S. History Older Adults Are
Projected to Outnumber Children by 2035



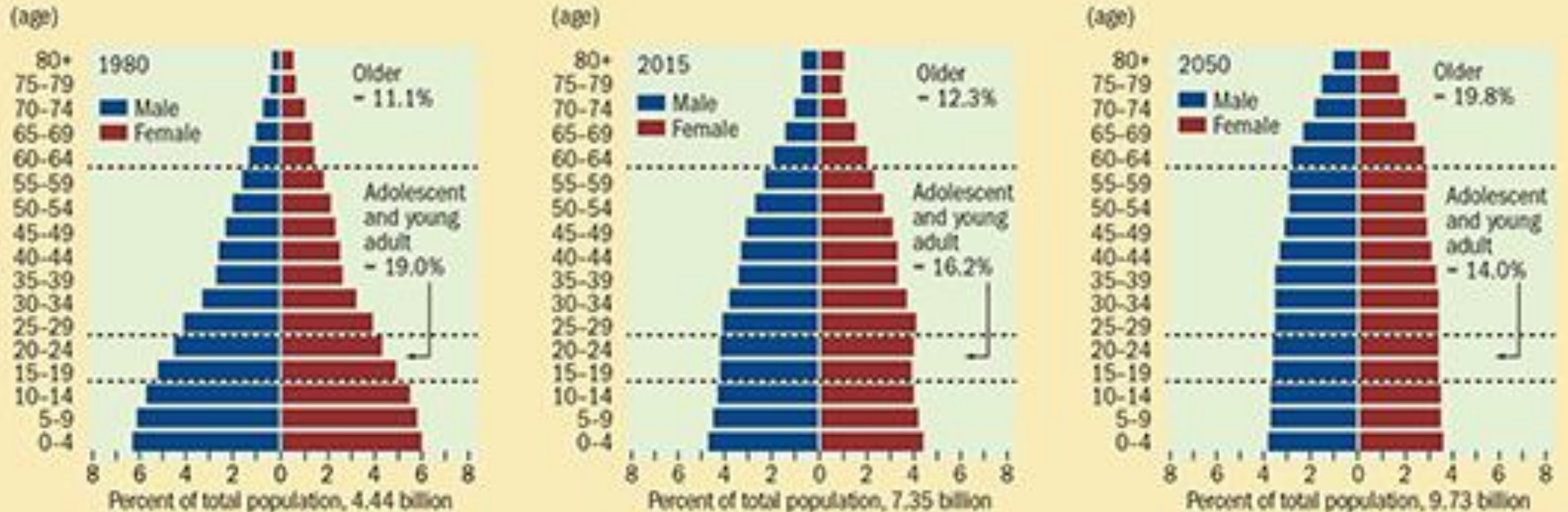
Note: 2016 data are estimates not projections.

Aging demographic shift

Chart 4

Moving on up

As a large youth cohort gets older, its age wave works its way through the population pyramid from the young base to the middle and ultimately to the peak ages.



Accessibility issues associated with aging

- Sensory acuity (visual, hearing)
- Motor control (targeting small buttons)
- Memory (especially short term)/cognitive
- More diverse attitudes towards technology

Positive

- Tend to have better vocabulary
- More real-world experience
- Use fewer mouse clicks to complete a task

Reasons for rejecting technology

- Don't see the need
- Expense (devices and recurring connectivity)
- Social responsibility (automation unemployment, social isolation)
- Avoid stigma and assumptions
- Playing the age card to mask other reasons



April 23, 2019

More Benches, Special Goggles: Taking Steps to Assist Older Travelers

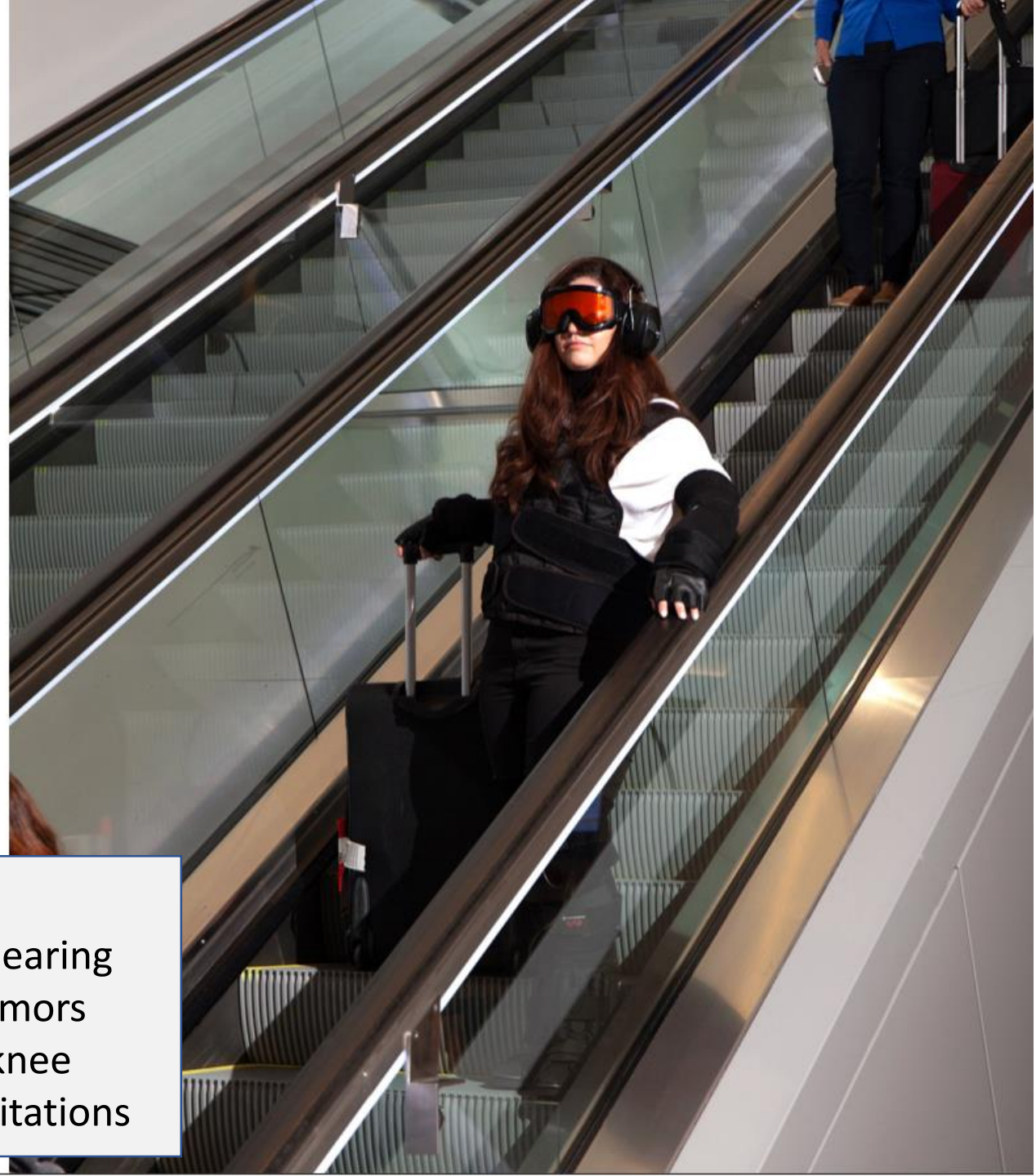
The number of people 60 and over is growing. So airports and hotels are beginning to look at design changes to help them.

Nearly 30 lb. “age simulation suit”

Goggles and headphones “impaired” sight and hearing

Gloves reduced feeling and simulated hand tremors

Weighted shoes, along with neck, elbow and knee movement restrictors, approximated mobility limitations



Design changes

- Elderly people were more likely to look down while they were walking
 - Airports should place more information closer to the ground
- Older air travelers often head straight for gate to reduce anxiety about missing flights
 - Airports should add more food options near the boarding areas
- Airports installing special systems that transmit announcements directly to the telecoil receiver in a user's hearing aid device
- Marriott International introducing "Studio Commons" — four rooms around a single common area for multigenerational family trips

Reminder about terminology during A5

- “Normal”
- “Handicapped”
- Interview question: How would you describe your disability?
- Sharing pointers with us with permission (I’m also at johntang@stanford.edu)

Sharing idea pitches

- Building on each others' ideas
- Looking for project idea inspiration
- Looking for people to work with on your team

Reflecting on idea pitches

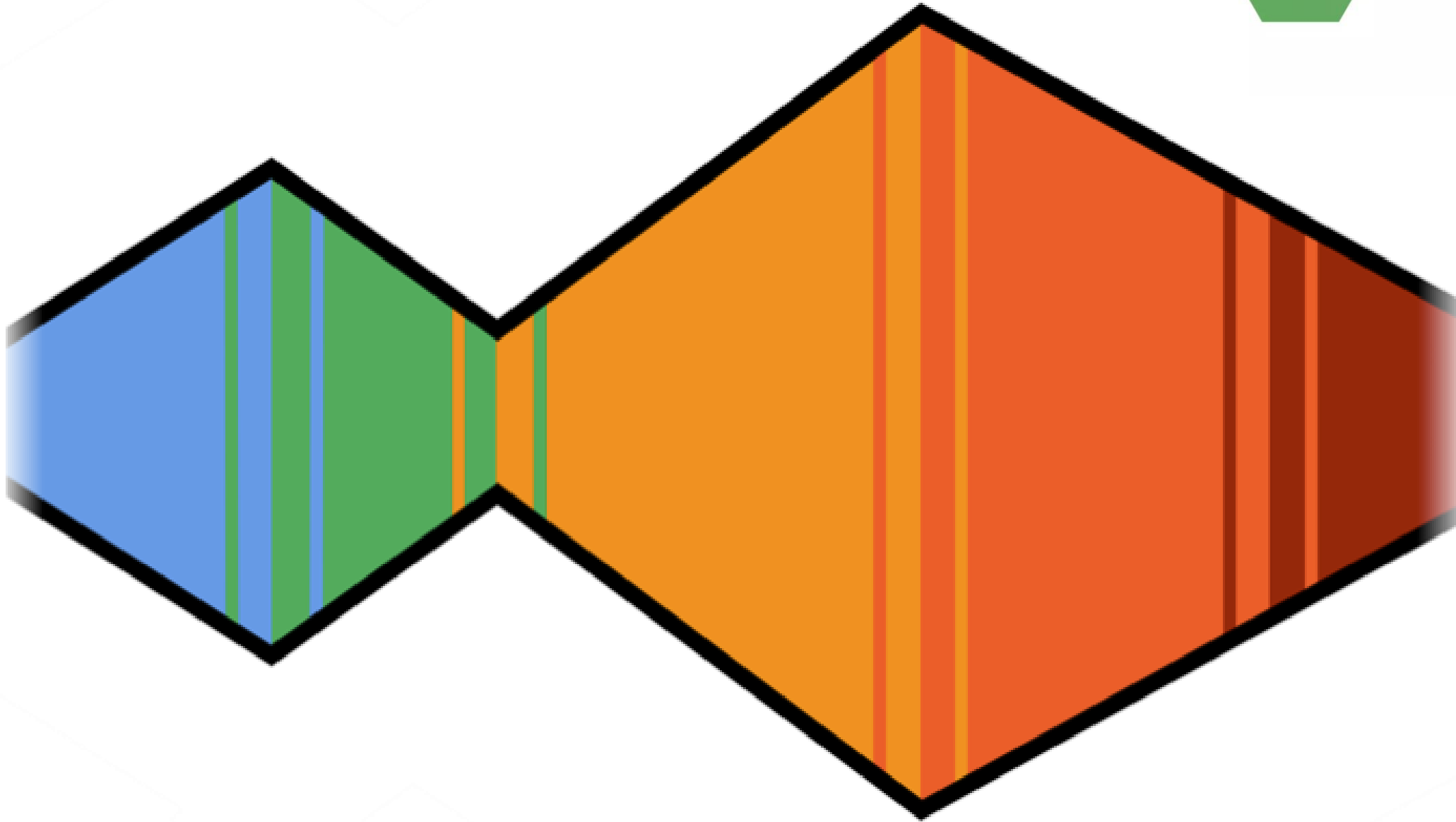
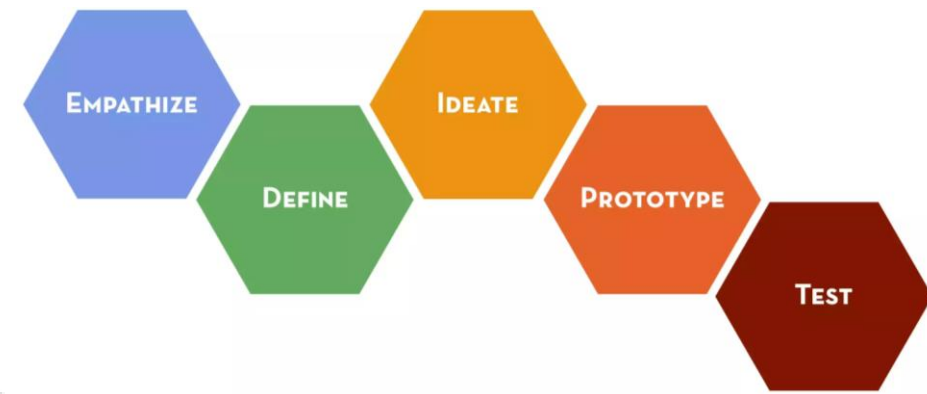
- Domains
- Common themes
- Concerns

Break

Brainstorming



Brainstorming and Flaring





Cardinal rules of brainstorming

- Go for quantity
- Defer judgment
- Enforce a time limit
- Riff and build on others' ideas
- Record and move on

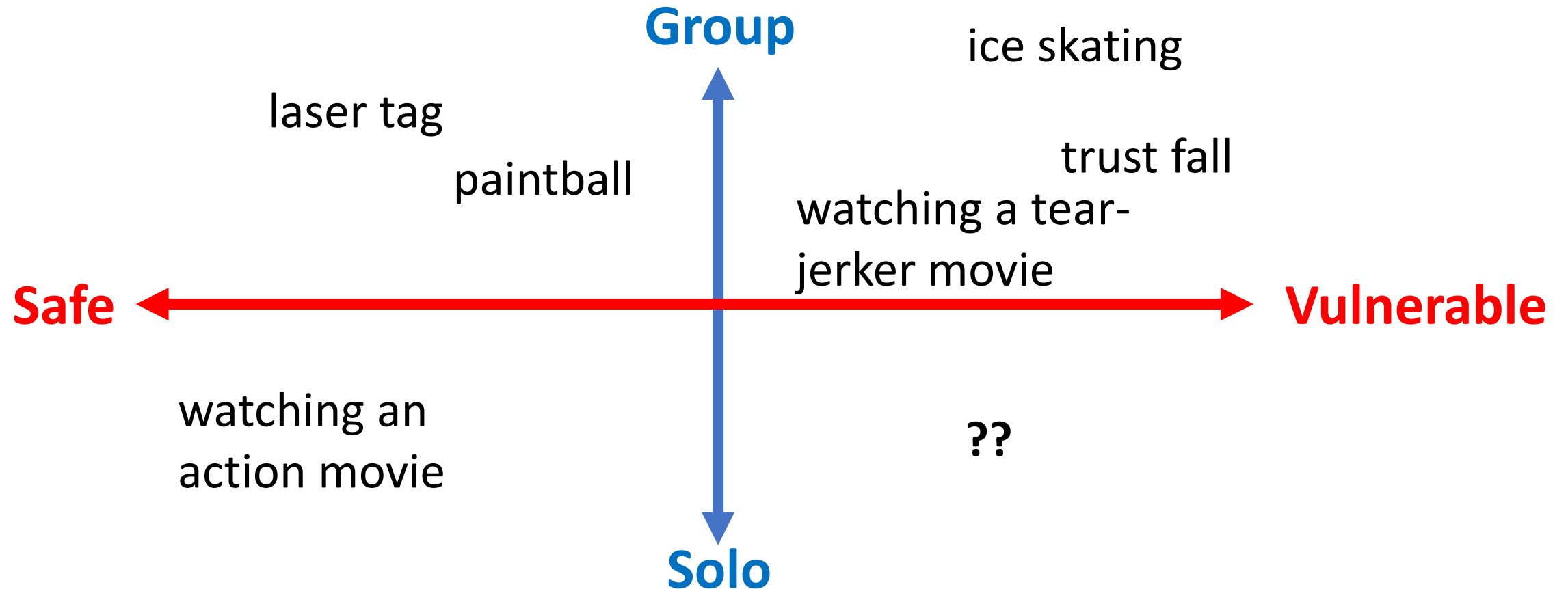
One Tactic: Powers of Ten

- When you're considering a question, scale it up and scale it down
- Ice skating as a deliberate controlled vulnerability...
 - Could 1000 people at once engage in a controlled vulnerability activity? Could someone do it alone?
 - Could we do this in extreme heat environments?



Design Space Axes

- Pull out high-level dimensions along which your observations or ideas vary, then look for holes



Good Ideas can be Bad

- Ideas intended to address the Point of View often end up as local fixes or “safe” solutions
- They are right, but boring. These ideas often become the targets of **design fixation**.

Dark horse ideas

- Explore a space that is dark, meaning that it is risky, radical, infeasible, and/or in a direction orthogonal to previously explored solutions
- Depart from a plausible direction already converged on
- Make you feel uncomfortable
- Ex. Deepening social ties

P1: Brainstorming (5 points)

- I think brainstorming is a key part of the process, often just give lip service
- Build on all that you've done so far, brainstorm ideas.
- May need to modify idea
- May need to do some more need finding/observation

Brainstorming practices

- Generate at least 10 different ideas on the project
- Different approaches
- Variation on idea
- Go for diversity
- Go for wild ideas
- Try “dark horse” ideas

P1: Presentations

- Prepare 2-minute presentation of the top two ideas
- Will get 1 minute of critique feedback

Time to form teams

- Form teams
- Make initial plans
- Schedule time to meet
- Check-in with teaching team before leaving with initial plans