BRAINSTORMING & TEAMWORK
When are assignments due?

4:00am on the day of class/section
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Late policy: Random (submissions will be downloaded b/w 4:00-8:00am)
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exceptions: completed during class/section
Today

• Brainstorming +
• Teamwork =
• Team brainstorming

—Assignment 2a: Project ideation
Brainstorming

1. Sharpen the focus.
2. Write playful rules.
3. Number your ideas.
4. Build and jump.
5. Make the space remember.
6. Stretch your mental muscles.
7. Get physical.
Brainstorming

1. Sharpen the focus.

- “spill-proof coffee cup lids” too narrow
- “bicycle cup holders” too dry and product focused
- “helping bike customers to drink coffee without spilling or burning their tongues” good

7 secrets to good brainstorming

Tom Kelley from IDEO
Brainstorming

2. Write playful rules.

- Don’t start to critique or debate
- Go for quantity **100 ideas/hour**
- Encourage wild ideas
- Be visual
Brainstorming

3. Number your ideas.

- Keeps you on track
- Easy to jump back and resume

7 secrets to good brainstorming

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4. Build and jump.

*build: what are other ideas?*

*jump: let’s switch gears*

7 secrets to good brainstorming

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5. The space remembers

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6. Stretch your mental muscles.  
\textit{warm up before starting}

- Background reading + expert lecture
- Go to a toy store
- Do nothing

7 secrets to good brainstorming

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Brainstorming

7. Get physical.
   3D materials
   Bodystorming

7 secrets to good brainstorming

Tom Kelley from IDEO
Brainstorming

Our group performed a brainstorming session on October 13th, which lasted around 3 hours. We started the brainstorming by talking about challenges for persons with AS, expanding to different contexts of usage and requirements. We wrote these on post-its and clustered them as we go. We started getting design ideas throughout this exercise and collected these ideas on the other side of the board. Later we grouped these ideas into different types of designs (e.g. robots, wearables, VR, etc.). A lot of our discussions revolved around scenarios involving the two personae that we created in the first deliverable of this project. In order to converge to three designs we went over each idea and talked about motivations for each idea. Some of our top three design ideas combined few of these initial ideas. We show pictures from our brainstorming session in Fig. 8 and a summary of our discussions in Fig. 9.

Fig. 8. Pictures from the brainstorming activity.

We are currently conducting a survey to get feedback from primary users of the tool we would like to build. This survey involves questions that address the most important assumptions underlying our three design ideas. Survey questions are shown in Fig. 10.

Appendix 2: Survey

In order to use in our video prototype we created a fake Social Memento software using iWeb. Snapshots from this prototype are shown in Fig. 11.

Appendix 3: Software tool prototype for Social Memento

In order to use in our video prototype we created a fake Social Memento software using iWeb. Snapshots from this prototype are shown in Fig. 11.

Appendix 4: Additional sketches

An early story board sketch for Social Memento is shown in Fig. 12. Sketches for the Social Memento software tool (see Appendix 3) and for the screenplay of the video prototype for this design are given in Fig. 13. Some sketches for the prototype of Social Maze are given in Fig. 14.

here’s how we brainstormed google glass back when it didn’t exist :)
Brainstorming

1. The boss gets to speak first.
2. Everybody gets a turn.
3. Experts only please.
4. Do it off-site.
5. No silly stuff.
6. Write down everything
Organizing data/ideas

• Affinity diagrams
  – Step 1: Put bite-size observation/idea on a card or post-it
  – Step 2: Place related observation/idea close together, indicate relationships
  – Step 3: Discover clusters and categorize all observation/ideas in a cluster (sometimes useful to have misc cluster)
Organizing data/ideas

Discover relationships and groups
After affinity diagramming

Interactive Software
- Video Blogging, record yourself (Social Mirror), augment, improv
- Role play virtual practice

Robots
- Turn-taking
- Pets– responsibility, Pairo, social isolation

Virtual Reality
- CAVE– interactive VR

Mobile Devices
- Mood Identifier Mobile App
- Cheat Sheet App

Cooperative Games
- SIMS like
- Role-play
- Cooperative teams

Social Networks
- Forums- tips, chatting
- Connecting to all AS–share
- How do they interact?
- AS adult/AS kid tutoring–creation and receiving social stories
- Teaching expertise
- Producing social stories
- Parents of AS kids connected to AS adults
- Teleconference
- Video blogging

Where
- Within therapy
- At home
- In a social situation

Who
- Virtual
- Family
- Online Users
- Caregivers/therapists
- Support network
- Primary user
- Actors

Assembling everyday life versus assisting therapy?

Requirements
- In control
- Low cost
- On own schedule
- Motivation

Wearables
- Physiological monitoring system
- Self-awareness monitor
- Wearables communicate to phone
- Earpieces
- Recording real interactions for reflection, practice, therapist feedback
- Wearable camera–hat, glasses, undercover cop style

Design Considerations
- Feedback
- Realistic
- Transferable
- Adeptness in technology
- Motivational
- Fun
- Emotional safety
- Flexibility in both interests and skills
- Effective
- Contributions to society
- rewarding
- Focus on adults
- Build on strengths

AS Challenges
- Social anxiety
- Afraid of change
- Perfectionist
- Non-verbal
- Recognition versus production
- Eye contact
- Voice inflection and tone
- Gestures
- Facial expressions
- Body movements and postures
- Social interaction
- Conversation topics
- Stay on topic
- Turn taking
- Starting conversations
- Ending conversations
- Awkward, embarrassing statements
- Proxemics, personal space

Top Ideas
1. Producing Social Stories
- Producing rather than watching
- Match with children, inherent reward

2. Mobile/Wearable
- “wrap it up”
- Mood, cheat sheet

3. Games
- Cooperative
- Role-play
Teamwork

• Teams are different from groups
• There is a place for groups

**Working groups** are both prevalent and effective in large organizations where *individual accountability* is most important. The best working groups come together to:
- share information, perspectives, and insights
- make decisions that help each person do his or her job better
- reinforce individual performance standards.
Teamwork

• Teams are different from groups
• There is a place for groups

**Teams** require both individual and mutual accountability. Teams rely on more than group discussion, debate, and decision; on more than sharing information and best practice performance standards. Teams produce discrete work-products through the joint contributions of their members. This is what makes possible performance levels greater than the sum of all the individual bests of team members.
Teamwork

**Groups**
- strong leader
- individual accountability
- organizational purpose
- individual work products
- efficient meetings
- measures performance by influence on others
- delegates work

**Teams**
- shared leadership
- individual & mutual accountability
- specific team purpose
- collective work products
- open-ended meetings
- measures performance from work products
- does real work together
Key to team success
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• Common commitment
  – requires a purpose in which team members believe
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  – requires a purpose in which team members believe

• Specific performance goals
  – comes directly from the common purpose
  – helps maintain focus – start w/ something achievable
Key to team success
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• A right mix of skills
  – technical/functional expertise (programming/design/writing)
  – problem-solving & decision-making skills
  – interpersonal skills
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• A right mix of skills
  – technical/functional expertise (programming/design/writing)
  – problem-solving & decision-making skills
  – interpersonal skills

• Agreement and mutual accountability
  – who will do particular jobs, when to meet & work, schedules
Working as a team
Working as a team

• School has taught you to succeed as an individual
Working as a team

• School has taught you to succeed as an individual
• Too many projects are done in groups
  – Drawing boundaries between code responsibilities
Working as a team

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• This class requires you to work as teams
  – You can split up, but you have to come back together
  – Use complementary skills, be mutually accountable
Working as a team

• School has taught you to succeed as an individual
• Too many projects are done in groups
  – Drawing boundaries between code responsibilities
• This class requires you to work as teams
  – You can split up, but you have to come back together
  – Use complementary skills, be mutually accountable
• The “real world” requires this too
Working as a team
Working as a team

• Get to know each other; figure out strengths of team members
Working as a team

• Get to know each other, figure out strengths of team members

• Assign each person a role
  – responsible for seeing work is organized and done
  – not responsible for doing it themselves
Working as a team

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• Names/roles listed on major reports
  – Group Manager (coordinate team)
  – Documentation (coordinate writing)
  – Design (coordinate visual/interaction design)
  – Fieldwork and Testing (coordinate fieldwork and testing)
Collaboration tools
Team assignments

• We did our best!
Assignment 2a: Project Ideation

• 64 ideas about your project
  – specific problems and needs that a person might have in the context of your larger problem
  – tasks: what a person might accomplish in this context
  – features: a capability a design might have
  – interactions: how a feature might work
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starts now!