

Who are We?

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Dr. James Landay

- Professor in Computer Science at Stanford
 - formerly professor at Cornell Tech, U. of Washington & Berkeley
 - spent 3 years as Director of Intel Labs Seattle
 - spent 2.5 years as visitor at Microsoft Research Asia & Tsinghua U.
 - ACM Fellow
 - Member SIGCHI Academy
- PhD in CS from Carnegie Mellon '96
- HCI w/ focus on ubiquitous computing, AI, smart input/output (pens, speech), web design (tools, patterns, etc.) & human-drone interaction
- Founded NetRaker, 1st in web experience management (sold to Keynote)
- Co-authored The Design of Sites with Doug van Duyne & Jason Hong
- Email: landay@stanford.edu

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Zhixiu Liu

- Digital Game Design Undergrad
- Information Arts & Design Masters @ Tsinghua University
- Interested in data-aided design, gamification, and social impact design
- I love photography, movies, travel, food

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Zhican Yang

- Ph.D Candidate
 - Pervasive Human Computer Interaction
 - Department of Computer Science & Technology @ Tsinghua
- Bachelor's Degree
 - Computer Science and Technology @ Tsinghua
- Research Interests
 - Text entry, Smartphone interaction, Indirect touch

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Why Teach In China

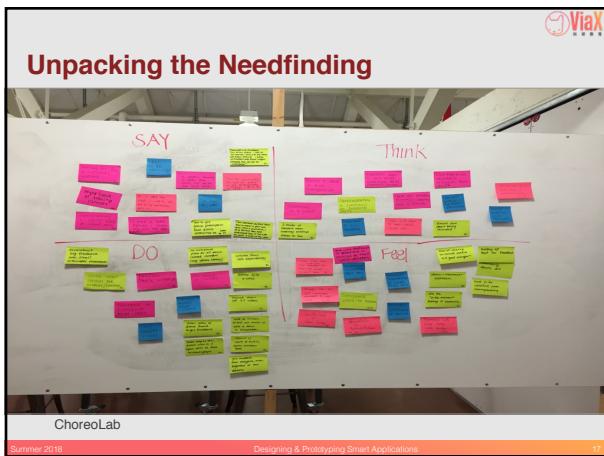
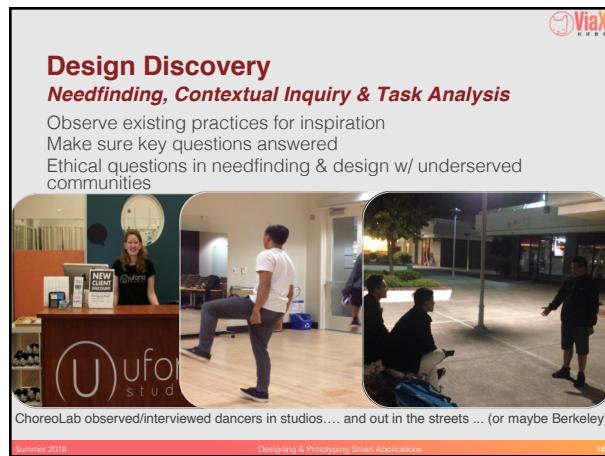
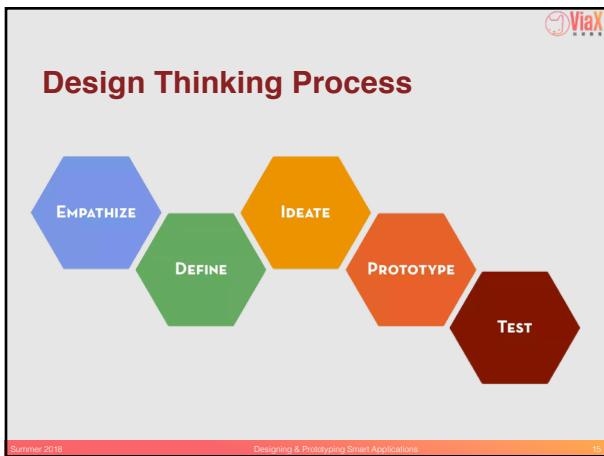
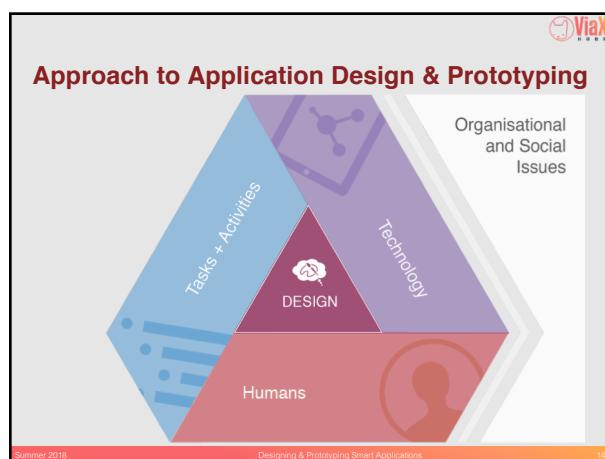
- China & US are two most important countries to the future of the world
- AI & UX Design are two key technologies & methodologies to make impact
- I want to help students learn these ideas
- I have lots of experience teaching in China

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Project Domain: Improving Health with Smart Technology

We will explore the intersection of health and smart technology. We'll be looking at how to design products that use AI to monitor and improve health in a meaningful way. Students will be exposed to examples from different aspects of health and then choose one area to focus on for their final project, which they will design and build a prototype.

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Sketching & Storyboarding

Phocus

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Rapid Prototyping

Fantasy Basketball

- Build a mock-up of design so you can test it
- Low fidelity techniques
 - paper sketches
 - cut, copy, paste
- Interactive prototyping tools
 - HTML, SketchFlow, Balsamiq, Axure, proto.io, Sketch+Marvel, etc.
- UI builders
 - Expression Blend + Visual Studio, Xcode Interface Builder, etc.

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Evaluation

- Test with real customers (participants)
 - w/ interactive prototype
 - low-fi with paper "computer"
- Low-cost techniques
 - expert evaluation
 - walkthroughs
 - online testing

ESP

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Goals of the Course

- Learn to design, prototype, & **evaluate** Smart apps
 - the **needs & tasks** of prospective customers
 - technology & techniques used *to prototype smart* apps
 - techniques for **evaluating** design
 - how to work together on a **team** project
 - communicate** your results to a group
key to your future success
- Understand where technology is **going &** what Smart applications of **the future** might be like

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Course Format

- Interactive lectures → you speak!
- Each day
 - 1-2 lectures on techniques & background
 - 1-2 hands-on activities
- Week-long project
- Readings (evening)
- Course material will be online
 - slides, exercises, readings, schedule

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Projects

- Each team will propose a project
 - fixing something you don't like or completely new idea
 - based on **team needfinding**
- Theme
 - smart mobile/wearable for health
- Groups
 - 3-4 students to a group
- Cumulative
 - apply several methods to one app

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Lecture Schedule (5 days)

- Mon
 - Needfinding
 - Ideation & Brainstorming



Solas observed/interviewed people in their homes...

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Lecture Schedule (5 days)

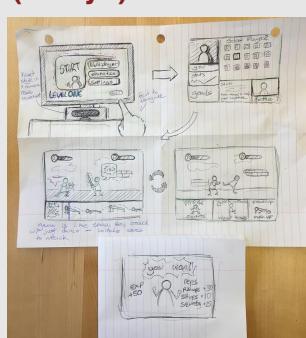
- Mon
 - Needfinding
 - Ideation & Brainstorming




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Lecture Schedule (5 days)

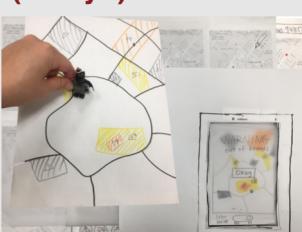
- Mon
 - Needfinding
 - Ideation & Brainstorming
- Tue
 - Solution Exploration
 - Designing AI Interfaces
 - AI & Prototyping Tools



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Lecture Schedule (5 days)

- Mon
 - Needfinding
 - Ideation & Brainstorming
- Tue
 - Solution Exploration
 - Designing AI Interfaces
 - AI & Prototyping Tools
- Wed
 - Low Fidelity Prototyping
 - User Testing



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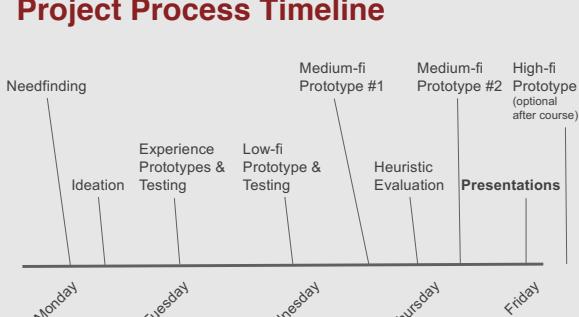
Lecture Schedule (5 days)



- Thur
 - Medium-fi Prototyping
 - Heuristic Evaluation
- Fri
 - Future Smart Interfaces
 - Project Presentations

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Project Process Timeline

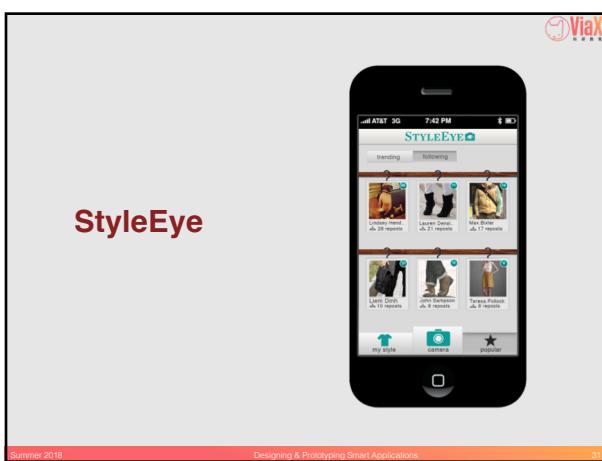


Needfinding
Medium-fi Prototype #1
Medium-fi Prototype #2
High-fi Prototype (optional after course)

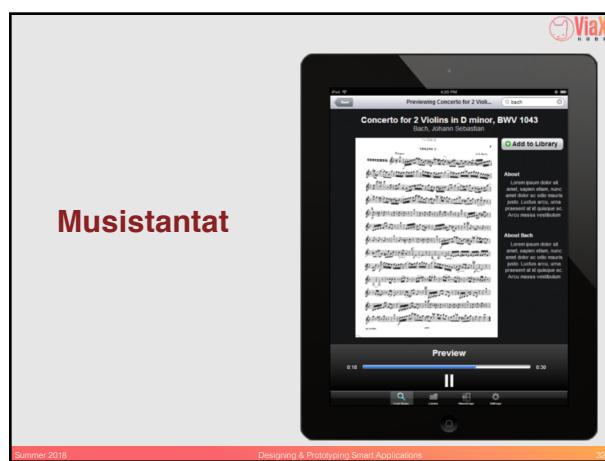
Ideation
Experience Prototypes & Testing
Low-fi Prototype & Testing
Heuristic Evaluation
Presentations

Monday Tuesday Wednesday Thursday Friday

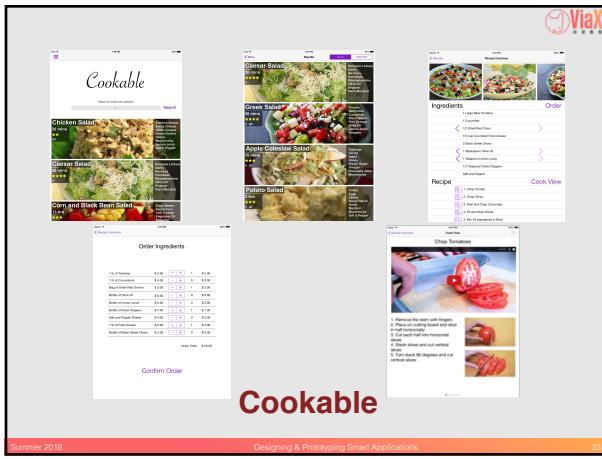
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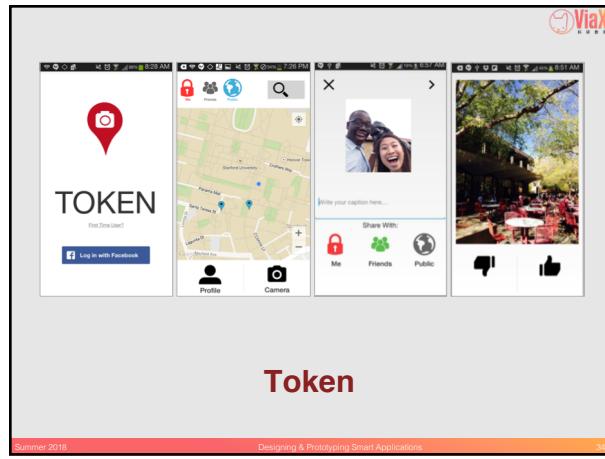
StyleEye



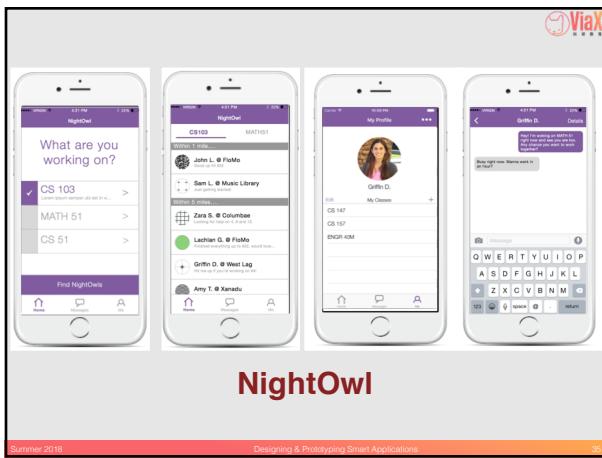
Musistantat



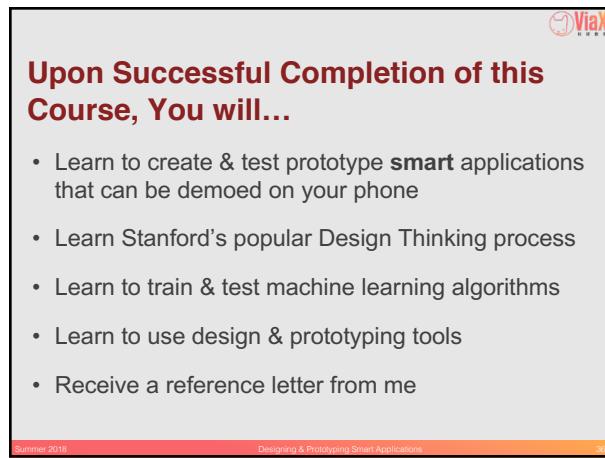
Cookable



Token



NightOwl





Summary

- UX design is an important part of most of today's software
- Smart applications require even more thought
- Getting the app & its interface right is hard, but...
- Solution in *Iterative Design* including repeated cycles of Design, Prototyping, & Evaluation