Admin stuff (10 minutes)

Design —> Product (30 minutes)

Break (5 minutes)

Final wrap ups (60 minutes)

Admin stuff (10 minutes)

Lab today - Meeting up with each group to check final progress.

Admin stuff (10 minutes)

Today (3/7)

- Last meetings with any group we haven't talked to for design specs.

- If you have process books drafts, Nikita/Daisy and I can skim them.

- Lab 8: Last prep, check in with TAs if you plan on working outside the lab

Admin stuff (10 minutes)

Wednesday (3/9)

- Upload videos to Dropbox link (on Canvas) by 8:00 am PST.

- Everyone is expected to come to present their video prototype.

- I'll bring doughnuts for final class video presentations.

- Last wrap up for class.

Admin stuff (10 minutes)

Final grades for activities, critiques, and labs will be posted on Wednesday 3/9.

Admin stuff (10 minutes)

Tuesday, March 15, 2016

- Group design specs are due 8:00 am PST.

Wednesday, March 16, 2016

- Individual process books are due 11:59 pm PST

design ➝ product

Jason C. Yip

Information School
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design in business is risky

fully realizing a design into a product requires individuals to take major risks

today we discuss a few famous stories of people moving designs from ideas to realities

Facebook

Google

iPod

the origin of Facebook

Harvard didn't offer a student directory with photos and basic information, known at most schools as a face book. Zuckerberg wanted to build an online version for Harvard, but the school "kept on saying that there were all these reasons why they couldn't aggregate this information," he says. **"I just wanted to show that it could be done."** ...

Ellen McGirth, Fast Company, May 1st, 2007

the origin of Facebook (continued)

So one night early in his sophomore year, he hacked into Harvard's student records. **He then threw up a basic site called Facemash**, which randomly paired photos of undergraduates and invited visitors to determine which one was "hotter" (not unlike the Web site Hot or Not). Four hours, 450 visitors, and 22,000 photo views later, Harvard yanked Zuckerberg's Internet connection.

Ellen McGirth, Fast Company, May 1st, 2007

the origin of Facebook (continued)

After a dressing-down from the administration and an uproar on campus chronicled by The Harvard Crimson, Zuckerberg politely apologized to his fellow students. But he remained convinced he'd done the right thing: **"I thought that the information should be available."**

Ellen McGirth, Fast Company, May 1st, 2007

the origin of Facebook (continued)

In February 2004 Mr Zuckerberg launched "The facebook", as it was originally known; the name taken from the sheets of paper distributed to freshmen, profiling students and staff. **Within 24 hours, 1,200 Harvard students had signed up**, and after one month, over half of the undergraduate population had a profile.

Sarah Phillips, The Guardian, 25 July 2007

the origin of Facebook (continued)

https://www.youtube.com/watch?v=RgZrgo_Owhg

reflection

what enabled Zuckerberg to take these risks?

reflection

what enabled Zuckerberg to take these risks?

the design idea **cost nothing** to produce except his time

his **prototypes**, *Facemash* and *The Facebook,* enabled him to test and deploy the idea with minimal engineering commitment

Facebook created an investment-based business model in which the **design could evolve with user feedback** and defer the profit motive (but for how much longer?)

the origin of Google

Google began in March 1996 as a research project by Larry Page and Sergey Brin, Ph.D. students at Stanford working on the **Stanford Digital Library Project** (SDLP). The SDLP's goal was "to develop the enabling technologies for a single, integrated and universal digital library." and was funded through the National Science Foundation among other federal agencies...

Wikipedia.org, "History of Google" May 28th, 2010

the origin of Google (continued)

In search for a dissertation theme, Page considered—among other things—exploring the mathematical properties of the World Wide Web, understanding its link structure as a huge graph. His supervisor Terry Winograd encouraged him to pick this idea (which Page later recalled as "the best advice I ever got").

Wikipedia.org, "History of Google" May 28th, 2010

the origin of Google (continued)

Page **focused on the problem of finding out which web pages link to a given page**, considering the number and nature of such backlinks to be valuable information about that page (with the role of citations in academic publishing in mind)...

Wikipedia.org, "History of Google" May 28th, 2010

the origin of Google (continued)

Page's web crawler began exploring the web in March 1996, setting out from Page's own Stanford home page as its only starting point.

Originally the search engine used the Stanford website with the domain google.stanford.edu. The domain google.com was registered on September 15, 1997. **They formally incorporated their company, Google Inc., on September 4, 1998 at a friend's garage** in Menlo Park, California.

Wikipedia.org, "History of Google" May 28th, 2010

reflection

what enabled Page and Brin to take these risks?

reflection

what enabled Page and Brin to take these risks?

they could observe the **failures** and **limitations** of dozens of *existing* search engines

they had millions of dollars of federal **research funding** and a university environment that protected them from personal financial loss

they **evidence** evidence that their design idea worked better than current search engines *before* they started their company, mitigating the risk of market failure

the origin of the iPod

Tony Fadell, former employee of General Magic and Phillips, had a vision for a brand new MP3 player. Unlike the bulky flash memory-based MP3 players from Rio and other companies, Fadell wanted to deliver **a small hard drive-based player that was linked with a content delivery system where users could legally obtain and download music**.

Tom Hormby and Dan Knight, lowendmac.com, September 2007

the origin of the iPod (continued)

The first company he pitched it to was RealNetworks (in 2000), where the CEO, Rob Glaser, was already in control of a large content delivery system through Real's premium radio and television channels. **Real could not rationalize going through the trouble of releasing an accessory to their already profitable system**, so they would be caught off guard when the iTunes Music Store was opened.

Fadell also approached Phillips, which also rebuffed him.

Tom Hormby and Dan Knight, lowendmac.com, September 2007

the origin of the iPod (continued)

Out of desperation, Fadell turned to Apple, which years before had sworn off consumer electronics after their unsuccessful Pippin and Newton. The executives at Apple were very enthusiastic about implementing Fadell's plan at Apple - unbeknownst to Fadell, Apple had bought the rights to SoundJam MP months before. **He was hired in early 2001 and was given a development team of around thirty people and a deadline of one year to release a successful product**.

Tom Hormby and Dan Knight, lowendmac.com, September 2007

the origin of the iPod (continued)

Fadell was not confident that Apple would fund (or even complete) the development of custom hardware and software for the player, so **he shopped around for an existing software player** to use as the basis of the Apple player. After briefly looking at Rio and Creative, the team found PortalPlayer, a new company that had not yet released a full product.

Tom Hormby and Dan Knight, lowendmac.com, September 2007

the origin of the iPod (continued)

PortalPlayer was assisting other companies to develop MP3 players based on common software. Before Apple approached them, their most promising customer was IBM, which was working on a black, flash memory-based player that had a Bluetooth headphone system. The executives at **PortalPlayer did not like the chances of IBM releasing a consumer MP3 player, so they jumped at Apple's offer to design their player's software exclusively**.

Tom Hormby and Dan Knight, lowendmac.com, September 2007

the origin of the iPod (continued)

Steve Jobs took a very active role in the project, scheduling frequent meetings with the directors from Fadell's group and PortalPlayer. During these meetings **he would tell them in detail what issues he had with the device, whether it was the interface, sound quality, or the size of the scroll wheel.**

This was rare for an Apple project at the time, and it reassured the leaders in the group that the project would not be axed immediately.

Tom Hormby and Dan Knight, lowendmac.com, September 2007

the origin of the iPod (continued)

In the span of **eight months**, Fadell's team and PortalPlayer dedicated all of their energies to finishing the iPod. **In three months**, Apple had created a preliminary version of the user interface and scroll wheel that would ship with the finished iPod.

Tom Hormby and Dan Knight, lowendmac.com, September 2007

reflection

what enabled Fadell and Apple to take these risks?

reflection

what enabled Fadell and Apple to take these risks?

they could observe the **failures** and **limitations** of dozens of existing MP3 players

Apple had many other products and could **risk the failure** of a consumer device

Apple had the freedom and money to take these risks that no other company did

the product and its user interface design benefitted from **extremely detailed critiques by Jobs**, the CEO (and these critiques were actually addressed)

how do you make a design a reality?

first, be confident and have the initiative

    translating designs into reality requires entrepreneurs and risk-takers

mitigate risk by **prototyping** and **testing** your idea before you launch

find a context (or make one) in which the risk of investing in your design is **minimal**

    but most of these stories involve a lot of circumstantial luck....

what if you're a designer inside a company?

with any idea, you'll have an **incredibly high risk aversion barrier** to overcome

your primary job will be to **convince other decision makers** that the design you're proposing involves minimal risk

the risk factor can change the design process, causing you to **ignore ideas** that appear to be risky or different

>   don't let that happen; some seemingly risky ideas turn out to be simple and valuable!