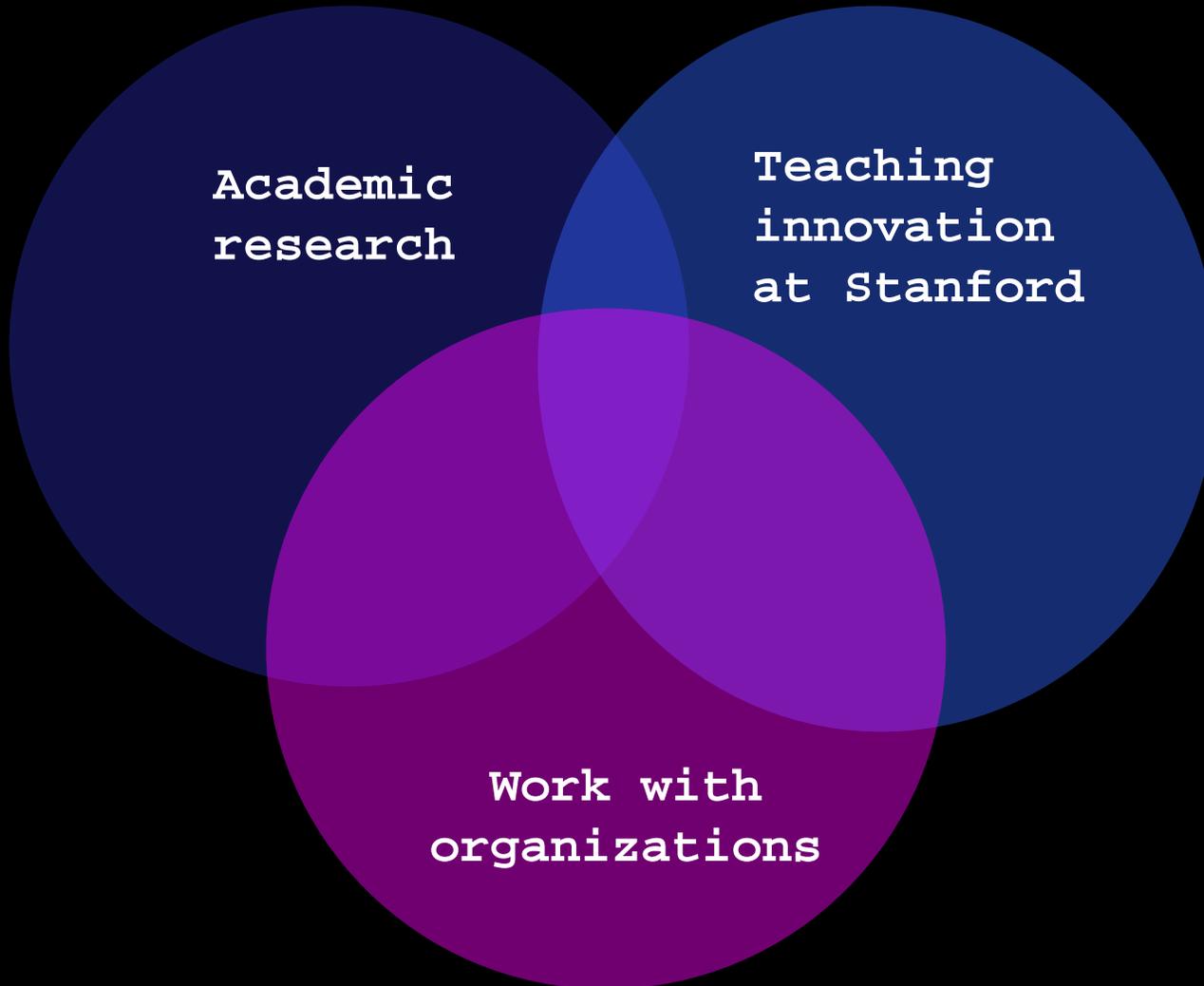


Teaching People to Innovate



Robert Sutton
Stanford University

A point view on teaching innovation: 5 lessons



Academic
research

Teaching
innovation
at Stanford

Work with
organizations

#1 Innovation is a team sport

- The “lone inventor” is a myth.
- Great innovations happen in teams – from Thomas Edison’s Lab to Google.

Our d.school "product" creative collaborators



2. Learn how to fight and when to fight

- Innovation happens when people respect each other -- but fight like crazy over ideas.

William Wrigley Jr.

“When two people in business
always agree, one of them is
unnecessary.”



The hallmark of
effective creative abrasion

- Fight as if you are right,
listen as if you are wrong.

3. Blend experts and novices

Experts: People who know what has been done, what can be done, and what can't be done.

The naïve: People who don't know what can't be done or is impossible to do.

"Adult Supervision" for Young Upstarts

Apple: Steve Jobs and Steve Wozniak
had Mike Markkula

Google: Sergey Brin and Larry Page
have Eric Schmidt

Creating Infectious Action: Spreading the Firefox internet browser

firefoxies

<http://www.firefoxies.com/>
<http://www.myspace.com/firefoxies>
<http://www.spreadfirefox.com/blog/170865>

givefirefox (formerly save granny)

<http://www.givefirefox.com/>
<http://www.spreadfirefox.com/blog/173718>
<http://www.savegranny.org/>
<http://www.spreadfirefox.com/blog/172474>

million reasons

<http://themillionreasons.com/>
<http://www.spreadfirefox.com/blog/170515>

celebrity firefox

<http://www.celebrityfirefox.com/>
<http://www.spreadfirefox.com/blog/171780>

celebrity firefox

<http://www.celebrityfirefox.com/>
<http://www.spreadfirefox.com/blog/171780>

foxy tee

<http://www.foxytee.com/>
<http://www.spreadfirefox.com/blog/170745>

faith browser

<http://faithbrowser.com/>
<http://www.spreadfirefox.com/blog/171716>

firefox for kids

<http://www.firefoxkids.org/>
<http://www.spreadfirefox.com/blog/171948>

the safe internet guide

<http://www.thesafeinternetguide.com/>
<http://www.spreadfirefox.com/blog/171791>

11 websites and 10 blogs by
26 Students in 14 days

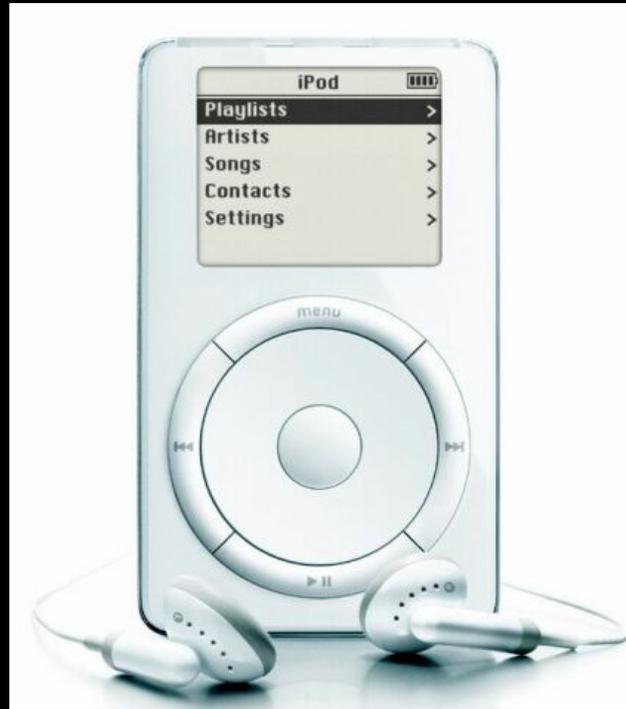
Michael Dearing,
EVP eBay

“Well, I’ll tell you what I learned from coaching CIA: I am giving my people too much time to do their projects.”

#4 Creativity means doing new things with old things

- .Bringing old ideas to new products, people, and places
- Creating new combinations of old ideas

First Apple iPod: Concept to market in 8 months



Apple did the case and interface,
rest were off-the-shelf parts from
outside vendors

#5 Prototype a lot, fail a lot,
and fail fast

Failure is no fun, but it is
the life blood of innovation

**Creative geniuses (and companies)
don't succeed at higher rates -
they just try more things.**

"Creativity is a consequence of sheer productivity. If a creator wants to increase the production of hits, he or she must do so by risking a parallel increase in the production of misses. The most successful creators tend to be those with the most failures!"

Dean Keith Simonton

The First 39 Formulas Failed



Implications for Educational Policy

- 1 Producing smart individuals is the first step; teaching them to collaborate is the second step.
- 2 Teach people how to fight as if they are right and listen as if they are wrong.
3. Teach experts to seek out novices, and novices to seek out experts.
4. Teach people to treat innovation as an import-export business.
5. Teaching people how to succeed isn't enough; teach them how to fail too.