Y-Prize 2014-2015

David Hsu
Richard A. Sapp Associate Professor
Associate Professor of Management,
The Wharton School
Y-Prize 2014-2015

Enabling and engaging innovators in creating truly disruptive technologies based on nanotechnology
Y Prize in Nanotechnology

Phase I: Team formation, ideation, concept development, market analysis, feasibility study

Phase II: Design, prototyping, development of a business plan
## Competition Schedule

### Important dates:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct. 6</td>
<td><strong>Tech Briefing, Ideation, and Team Formation Event</strong> with Wharton and SEAS faculty</td>
</tr>
<tr>
<td>Oct. 22</td>
<td><strong>Creating Your Proposal Q&amp;A</strong> with Wharton faculty and business consultants</td>
</tr>
<tr>
<td>Nov. 5</td>
<td><strong>Submission deadline.</strong> Teams submit 5 min video pitches of their applications.</td>
</tr>
<tr>
<td>Nov. 21</td>
<td><strong>Finalists announced.</strong> Finalist teams are paired with a tech and business consultant</td>
</tr>
<tr>
<td>Jan. 2015</td>
<td><strong>Grand Finale.</strong> Finalists present applications to a panel of judges. Grand Prize: $5,000</td>
</tr>
</tbody>
</table>
Birth of the modern computer

John Atanasoff, Iowa State Univ.

John Mauchly, Univ. of Pennsylvania
Atanasoff’s approach

- Built a machine (1937-42), largely alone, for the specific purpose of solving a system of simultaneous linear equations (not general purpose nor reprogrammable “punch card burner problems”)

- Never really emerged from the basement labs at Iowa State
Mauchley’s approach

- At Penn’s Moore School of Electrical Engineering (1946), partnered with J. Presper Eckert and a large team of engineers, mechanics, and programmers to produce the ENIAC (first electronic general purpose, reprogrammable, computer).

- Formed the Eckert-Mauchly Computer Corporation (1947) to commercialize UNIVAC, which was sold to Remington Rand, then merged to form Sperry Rand, which is now Unisys.
Generating innovative venture ideas

Personal frustrations with the status quo (Case/AOL, Omidyar/eBay, Yang/Yahoo!)

Technological innovation (Noyce & Moore/Intel, Boyer & Swanson/Genentech, Bose, Google)

Recognizing missed opportunities within an industry by:
  ● deep personal experience working in an industry (Bloomberg, Walton/Walmart)
  ● reading trade publications (Gates & Allen/Microsoft)
  ● engaging in consulting projects (Kelleher/SWA)
  ● leveraging customer, supplier, industry and professional contacts
Understanding the (evolving) context in which value is created

- Changing regulatory environments (e.g., banking, communications, etc.)
- Frictions to customer adoption (e.g., IKEA, Barnes & Noble)
- Re-conceptualize the competitive space
  - Swap a functional product for an emotional one (Starbucks) or vice-versa (Body Shop)
  - Rethink your competition (Southwest Air; Home Depot)
  - How do you add value in the value-chain? (Dell, Taiwan Semiconductor; buyout industry)
  - “Idea arbitrage” across organizational, industrial or geographic boundaries (Schultz/Starbucks)
2 approaches to generating venture ideas

- Start with the problem to be addressed and brainstorm potential solutions

- Start with the solution or technology to be used and brainstorm potential applications
2 approaches to generating venture ideas

• Start with the problem to be addressed and brainstorm potential solutions (X prize)

• Start with the solution or technology to be used and brainstorm potential applications (Y prize)
Some evaluation considerations

• Is the idea feasible?
• Is the size potential of the opportunity attractive?
• Where do revenues come from? Who pays? Why?
• What are the largest concerns/obstacles to commercializing the idea?