To Sell a Better Mousetrap

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A *LearningSpace* for Entrepreneurial Education

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An Observation

- Successful technology companies are as often started by non-technologists as by scientists and engineers
Premise 1

- Invention is not enough -- creating economic value requires:
  - *Market insight*: how using the technology confers an advantage customers will pay for
  - *Business model*: that packages the technology and market insight to build a defensible competitive advantage
  - *Effective organization*: implements the business model, delivers the goods, and collects a fair price
Premise 2

• Goal is that students *learn entrepreneurship*
  – Learn the *complete art* of entrepreneurship
  – Not just learn *about* entrepreneurship

• Two requirements:
  – Knowledge
  – Practice
Premise 3 (Practice)

- Learning entrepreneurship is a *social activity*
  - Conceptually not difficult to understand
  - Information to be mastered
    - Economics, accounting, finance
- But, entrepreneurship is very hard to do
  - Behavioral art rather than a science
- Requires practice
  - Emphasized over the traditional information-passing in the classroom
Premise 4 (Knowledge)

• Successful entrepreneurship is *context specific*

• Successful entrepreneurs understand:
  – Technological context
  – Societal constraints
  – Legal & regulatory framework
  – Market context

• Distributed generation, for example
Premise 5 (alas, fact)

- University resources will be increasingly constrained
  - Students will feel time constrained
  - Productivity will be sought
Conclusion

• **Perhaps** we can use technology to engineer a solution
  – Allow students to try on the relevant behaviors
  – Provide an effective tool for transfer of information
    • Discovery, not telling
  – Grows in capability with use
  – Frees faculty time for mentoring
• **LearningSpace**
The Origin of LearningSpace

• An Internet space
• A variety of learning tools
  – Tutorial
  – Work spaces
  – Collaboration/mentoring spaces
  – Game/simulations
  – Experience space
• Disneyland + Children’s Television Workshop
• Learner-driven
What it does…

• Provides **context** for entrepreneurship
  – Unique to building technology companies
  – First context: energy/environment
  – Next: telecomputing

• Enables entrepreneurial or student team to build effective business model/plan
  – Value creation
  – Value capture
Value Added

• For the learner…
  – Understand cumulative experience of practitioners and students in context
  – Personal interaction between learner and mentor
  – Emphasizes mentoring of teams

• For the university/incubator
  – Builds ongoing, value-added relationship with entrepreneur
  – Mission critical capability
  – Conserves resources
Systems Architecture
Level 1

- Entry Portal
  - Introduction
  - Instructions for use
- Data Links
  - Updated and annotated external resources
- Tutorial Resources
  - Venture finance
  - Intellectual property
Systems Architecture
Level 2

- Collaboration Space
  - Allows teams to work together
  - Public and private components
- Mentoring Space
- Entrepreneurs’ Toolkit
  - Accounting software
  - Tax software
Systems Architecture
Level 3

• Game-Simulation Space
  – Replicate context of selected technology markets
  – Diagnostic tool
  – Learning tool

• Experience Space
  – Accumulates the experience of selected teams or companies
Current Status

• Building prototype platform with NSF grant
  – Partnership in Innovation

• Preparing content: energy/environment
  – Book on technology-based entrepreneurship
  – Collecting external information resources

• Seeking partners
  – support for Simulation Space
Challenges

• Investment
  – Building the game/simulation is a big deal
• Sustainability
  – Find a way to support and maintain the LearningSpace
  – Create not-for-profit corporation?
• Scale: international, but niche
  – Find a way to grow to critical mass quickly
  – Network economies of scale
  – Bring in value-added partners
In Conclusion

• There is “…at least one point when you have to change dramatically to rise to the next performance level. Miss the moment, and you start to decline.”

  -- Andy Grove

• “The evolutionary race goes to the adaptable, not to the well-adapted, to those who can learn, not those who know.”

  -- Kenneth Boulding