

# Starting New Ventures 64-361.202

## Chap 3 Segway: A Case Study in Lack of Due Diligence



# Segway –Hailed as New Form of Transportation

- Code Name: Ginger
- Intense Hype and Mystery
  - Anti-gravity?
  - Personal helicopter?
- Dec. 3, 2001 unveiled on Good Morning America
- John Doerr: VC : As important as the internet
- Steve Jobs: Cities will be built around it.
- Factory could produce 40,000 per month
  - (actual was less than 300 /mo. or 6000 in 21 months)



1 Hour Segway Tour of the Boston Harbor Walk.

# Dean Kamen



- Attended WPI, but dropped out to invent
- invented the first drug infusion pump and started a company, AutoSyringe, to market and manufacture the pump.
- His company DEKAResearch (NH) patents
  - technology used in portable dialysis machines,
  - an insulin pump (based on drug infusion pump technology)
  - an all-terrain electric wheelchair known as the iBOT
  - 440 Total Patents in his name
- Founded FIRST in 1989
  - For Inspiration and Recognition of Science and Technology

# Segway

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- The Segway technology was adapted from his brilliant gyroscopic wheelchair.
- Segway was a technological tour de force
- The technology worked perfectly and exactly as designed and advertised.
- It passed extensive field testing and environmental stress testing
- What happened?

# Feasibility Analysis –lets do our own.

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- Some things are easy –there are no competitors
- Founder is brilliant and experienced.
- This is an entirely new market and there is no easy historical trend
- Consider Item 5 in First Screen part 1
  - Strength of Business Idea
    - 5. The degree to which the idea requires customers to change their behavior! **SUBSTANTIAL!**

# Regulatory Issues

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- Is this a motor vehicle?
- May it travel on roadways?
- May it travel on sidewalks?
- Where do you park it?
- How do you get it from place to place over longer distances?
  - Car? Train? Bus?
- Are cities designed to accommodate this?
  - (Did Steve Jobs REALLY believe that cities would be redesigned for this?)
- Who represents the potential market and how large is it?
  - Who do you target first?
- What happens when you run out of charge?
  - Re-charging stations?



# Answers were hard to find.

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- And then there are the safety issues.
  - Driver safety?
  - Training?
  - Pedestrians in the area.
  - -Some cities outlawed it immediately! (i.e. San Francisco)
- Would you rather try to drive this in New York City traffic or on a crowded New York City sidewalk.
  - What about an LA Freeway?
  - On a snowy Massachusetts street?
  - In a rainy Portland road?
- Requires two hands and thus cannot be used by anyone that needs to have a free hand.



# And What is the Market?

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- Markets probably exist, but were not targeted.
  - They targeted everybody and nobody
  - Price was too high at \$4950
  - Did financing pressure force the broad target?
  - Why not do a competition to pick a first city?
    - Get the leaders on your side.
    - Build publicity and excitement
    - Create envy in other cities.
    - Ramp up slowly and create an artificial shortage?
  - Find a target group
    - Police
    - Tourists
    - Military, etc.





# Sold

- In 2010 Segway was sold to a British Millionaire –Jimi Heselden
  - He died in a Segway accident on September 27,2010
  - Heselden, 62, apparently fell off a 30-foot cliff into a river while riding a Segway near his home in West Yorkshire, UK. Police found Heselden's body and a Segway personal transporter in the river.
  - Police and security organizations have become the major purchasers.



# Unexpected Result

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- The technology created to save the world, by saving energy and re-making cities is now mainly a police and military technology!



# Questions

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- Speculate as to why they failed to do a feasibility analysis.
- Tell how you would have done the feasibility analysis.
- How could Segway have done a better job to prepare the market for its introduction?
- Are there markets that you would have targeted first? How?
- If you were made CEO of Segway tomorrow, how would you try to reposition it? Or is it simply a lost cause?
- How does such a brilliant guy make such a huge mistake?

