Day 1
Disruptive Innovations and Systems Thinking

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Adapted from material by Munir Mandviwalla and Steven L. Johnson
WELCOME to MIS 5801
Managing Information in the Enterprise
Discussion:
The World is FLAT
- What is the overall point of the video?
- What are the four main flatteners and their implications?
- What does a company have to do to be competitive?
- What does an individual have to do to be competitive?
Video + Discussion:
The FILTER BUBBLE

https://www.youtube.com/watch?v=B8ofWFx525s
Breakout Session:
In your group, discuss GOOGLE INC
- The case describes several of Google’s “products” (search engine, Gmail, Google Earth). What do they have in common? What is Google’s line of business?

- What is Google’s revenue model (how do they make money)? Who are its customers? What is Google’s real product?

- Based on the material in the case, how would you describe Google’s strategy? Do they have one?

- The last section of the case is titled “What Should Google Do?” What is your answer (it doesn’t have to be one of the options described in the case)? Make sure you explain why you chose that course of action.
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Watch + Discuss:
Inside the Mind of
GOOGLE

3 CLIPS / SEARCH / PRIVACY / ADWORDS
Discussion:

Disruptive INNOVATION and Systems Thinking
What do these have in common?
Disruptive Innovation Theory

- **Low-end**
  - Quality increasing faster than need
  - Opportunity for low-cost entrant

- **New-market**
  - Fits an emerging segment with an unmet need
Responding to Disruptive Innovations

Your existing position + What’s going on in the environment = What to do

Options
- Compete directly
- Serve a different market
- Create a new market
So how do companies innovate?

- New products for high-margin customers
- Cheap alternatives to existing products
- New products for “nonconsumers”
Resources, Processes, Values

**Resources**
- Assets
- People, cash, products

**Processes**
- Way of working
- Hiring, budgeting, product development

**Values**
- Criteria used to make decisions
- Customer demands, ethics, cost structure

Determines whether a company embraces or ignores a disruptive innovation.
Understanding Signals of Change

**Undershot Customers**
- When companies are filling up-market need
- i.e., new data analytics software to handle “big data”

**Overshot Customers**
- When companies are filling down-market need
- i.e., Netbooks, Kindle Fire

**Nonconsumers**
- When new markets are being created
- i.e., Facebook, iPad

**Nonmarket Contexts**
- Barriers to innovation are changing
- i.e., Government regulation

# Systems Thinking Versus Process Thinking

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<tr>
<th>Process Thinking</th>
<th>Systems Thinking</th>
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<td>• Considering the system as a collection of independent processes</td>
<td>• Considering the system as a collection of integrated processes</td>
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<tr>
<td>• Decompose and optimize</td>
<td>• Synthesize and optimize</td>
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For what types of problems is each best suited?
Connecting Systems Thinking to Disruptive Innovation

The Kindle as a disruptive innovation

What processes did it directly affect?

How did it affect the publishing industry?

What were the secondary effects on society?
Thinking more broadly...

- What is **systems thinking** and how it can be applied?

- What is the role of **feedback** in designing information systems?

- What are the effects of **disruptive innovation** on industries?