

Reflection Journal

Laetitia Crouch
MIS 5402
4-25-15



GLOBALIZATION



2

■ Technology is an enabler of globalization

■ The world is flat:

- “Value is being created horizontally
- Whatever can be done, will be done
- Importance of collaboration”
- Individual and business competition is everywhere
- Rapid evolution of technology and knowledge

■ The filter bubble:

- Personalized web content generation
- Biased information generated by search engines

■ Management challenges

- How to adapt to constant technology innovation?
- How to collaborate in a flat world?
- How to foster innovation in a horizontal structure?

■ Key insights

- **Adapt and innovate or “die”**
- Importance of **defining a framework to build on knowledge acquired versus pure knowledge acquisition** (e.g. reference to the fact that IT courses are outdated before students graduate)
- Internet research results are completely biased to past research and **doesn’t allow you to broaden your perspectives...** which is scary!

<https://video.mit.edu/watch/the-world-is-flat-30-9321/>

<https://www.youtube.com/watch?v=B8ofWFx525s>

SYSTEMS THINKING

■ Systems Thinking

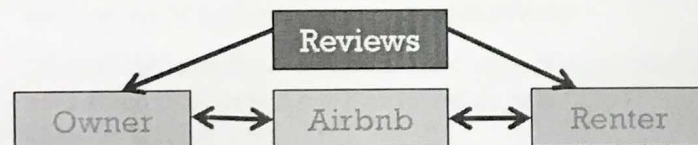
- System as a **collection of integrated processes** vs. System as a collection of independent processes (process thinking)
- Utilized to solve complex problems with multiple stakeholders and factors involved
- Diagram visualization is often used in systems thinking

■ Feedback Loop

- When output is sent back to the input
- Positive feedback loop: indefinite expansion
- Negative feedback loop: ideal equilibrium

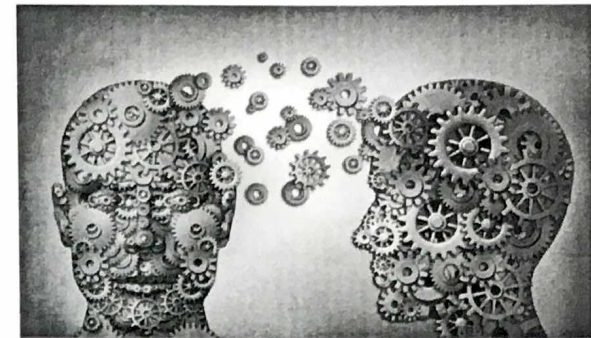
■ Airbnb

- Owner/renter trust challenges
- Use of reputation system (reviews) to understand and resolve issues
- Simplified feedback loop:



<http://pespmc1.vub.ac.be/FEEDBACK.html>

http://www.thinking.net/Systems_Thinking/OverviewSTarticle.pdf



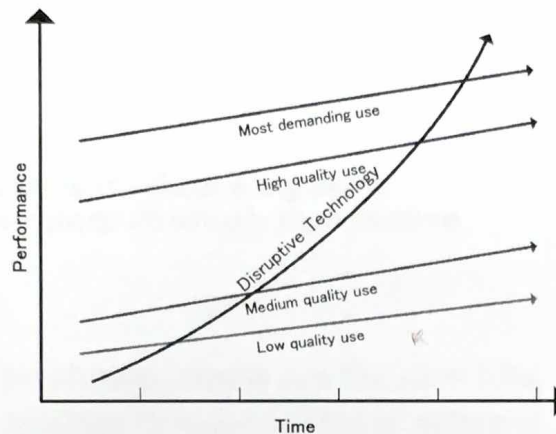
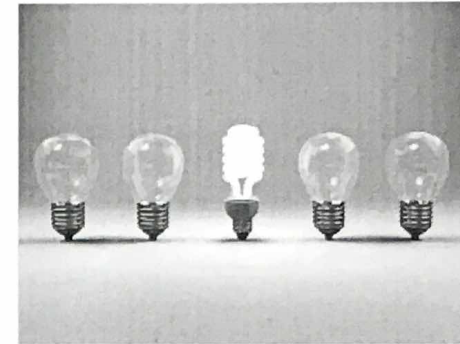
■ Management challenges

- When to apply systems thinking versus process thinking?
- How to collaborate among departments to apply systems thinking?
- How to build trust in online ecommerce websites?
- How to integrate and use feedback in business?

■ Key insights

- **Utilize both process and systems thinking in problem solving**
- **Online reviews are a powerful tool and businesses need to learn how to exploit them** and listen to feedback for maximum positive impact
- Diagrams can help shape out a solution with same/opposite direction effects
- There is no one answer to a problem but a **myriad of alternatives that can help reach that ideal equilibrium**

DISRUPTIVE INNOVATION



■ Disruptive Innovation

- New products or services that create new markets
- Serves a new set of customers with unmet needs

■ Challenges

- Enabled by a combination of three criteria: **resources, processes and values**
- Often initiated by start-up firms
- Established firms pursue **sustaining innovation** (new products for up-markets - high margin customers or down-markets - alternatives to existing products)
- Few companies are able to combine disruptive and sustaining innovation

■ Google Case

- Google was able to achieve both and drive innovation in both core market and new emerging markets
- "Free" products (e.g. Gmail, Google Maps, etc.) but **consumer and data collected on backend is the "real" product** Google sells to advertisers

■ Management challenges

- Is disruptive innovation too risky for established firms vs. high margin products from sustaining innovation?
- Will shareholders tolerate that level of risk tied to potentially less returns?
- How to establish values and processes that support disruptive innovation?
- How to combine both sustaining and disruptive innovation?

■ Key insights

- Disruptive innovation is "change that unlocks new value" (Jamie Notter)
- Corporations can engage in disruptive innovation through a **spinout organization** if internal capabilities can't support it
- Public corporations will need to have a **unique shareholder structure for them to accept disruptive innovation** (e.g. Google founders control votes)
- I was very interested to learn that a framework does exist to pursue disruptive innovation... yet **many established companies probably prefer to play it safe to please their shareholders, which refrains a form of innovation!**

DIGITAL INNOVATION



- **Network enabled business models empower individuals to create content through interactive programs**
→→The world is flat
- In the next technology revolution, atoms are the new bits
 - **Democratization of technology** (Internet, hardware, software)
 - Individuals drive innovation through open source, crowdsourcing and production outsourcing
- Free! Why \$0.00 is the future of business
 - Increased processing power, bandwidth, storage lead to **falling prices and free business models**
 - Corporations focus on broader ecosystem with large audiences where “1% of users support all the rest” or on value-added services that will generate indirect revenue streams (e.g. ads)
- Radiohead: Music at your own price
 - **Successful creative independent business model based on free downloads**
 - Viable only for established artists... yet many new artists can get exposure and launch their career online at “zero cost”
 - Similar to the music industry, the publishing industry is undergoing a drastic shift in business models

■ Management challenges

- How to adopt an open sourcing approach?
- Should corporations adopt open sourcing or is it reserved to entrepreneurs?
- How to build a sustainable free business model?

■ Key insights

- **Technology is becoming “free”**
- Open sourcing can make any individual anywhere in the world contribute to any enterprise
- **Digital production and manufacturing** (3D printers) **could redefine the entire economy of countries** (e.g. China)
- **Digital innovation leads to virtually no infrastructure or inventory which signifies cost savings** and large corporations need to seriously consider and take advantage of this new model
- The free business model seems to no longer be an option and corporations / industries are required to creatively embrace this new era with **alternative revenue streams that make sense to the consumer**



OPEN INNOVATION



6

- Open innovation is **shared information and knowledge** to strategically remain competitive and **accelerate innovation, saving time and money in R&D**
 - There can be idea generation or problem solving open innovation projects
 - Mostly leveraged across a specific **ecosystem** such as customers, partners and suppliers for a business
- Communities of practice
 - Groups of individuals sharing an interest and repertoire for their practice engaging in sustained interaction leading to collective learning (e.g. LinkedIn groups)
 - Applicable in business organizations, government or education
- Open Innovation (OI) at Siemens
 - Decentralized structure with teams working in silos versus a centralized OI department
 - OI can be both internal (across business units) and external (across Siemens' ecosystem) and leverage proven metrics to demonstrate success
 - Critical factors tied to OI include **culture** shift supported by leadership, external innovation **processes** to facilitate inflow and outflow of information, **skilled resources** leveraging relevant metrics and **motivation** to address rewards paradox (incentivize OI and not only closed innovation) and address barriers ("not-invented-here" syndrome, IP concerns)

■ Management challenges

- How to balance OI and closed innovation?
- How to manage OI with potential information leaks to competition?
- How can corporations better capture knowledge sharing where knowledge is their most important soft asset?

■ Key insights

- **Knowledge needs to be managed strategically** at various levels of scale
- Very interesting how corporations now need to drastically change their longstanding approach of closed innovation to remain competitive in the market
- It is smart to **embrace OI progressively** through internal projects easier to manage and to gain experience before going external
- The importance of **tracking metrics is paramount** to prove success and yet it can be very hard to determine relevant metrics aside from tradition ROI especially when looking only at **short term results**
- I believe there is an opportunity for corporations to **extract more knowledge from their resources through OI** with more formalized information sharing processes (e.g. TechnoWeb at Siemens)

+ GLOBAL MANAGEMENT & PLATFORMS



- **IT is now a powerful globalization enabler and a strategic tool as opposed to being viewed as a limited service operation like it was in the past**
- **The Globalization of Wyeth**
 - Implemented to increase shareholder value, streamline operations and cut on costs
 - IT is a strategic tool for R&D, marketing and supply chain
 - Money-driven project, which diminishes value
 - Globalization led by IT department, which is unusual
 - Successful onsite visits to **engage leadership and smart implementation strategy starting with highest cooperative countries**
 - Challenges include regulatory constraints, accounting rules, cultural differences, loss of control, lack of funding and overall misunderstanding of the benefits
- **Volkswagen**
 - History of outsourcing IT knowledge
 - Difficult to convey the value of corporate projects over top priority local projects and how they “compete” for funding
 - Conflict between local and corporate projects led to probable failure of IT projects

■ Management challenges

- How to address the recurrent funding issue of critical IT projects?
- How can management successfully convey and implement the new strategic role of IT?
- What are the key elements to avoid or reduce the conflict between local and corporate projects?

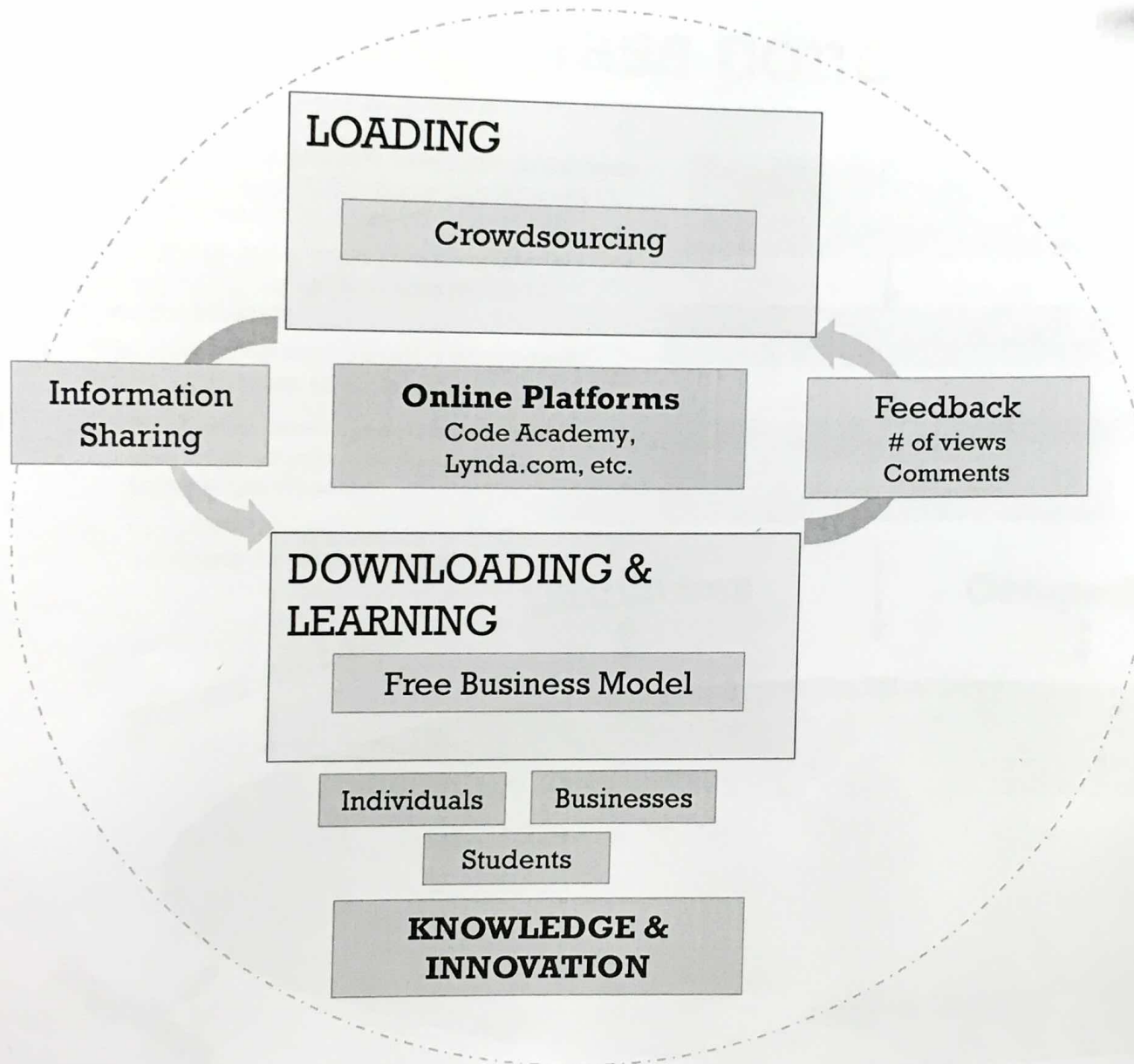
■ Key insights

- IT is an area that requires significant investment to deliver its full potential
- **Corporations that don't invest in IT and utilize it as a strategic tool to mine data will lag behind**
- **Engage leadership** and seek for their input and feedback to gain endorsements and facilitate implementation
- Refrain from directly competing local and enterprise programs to avoid major resistance
- I was very interested to read that large corporations **lack the engagement of leadership and struggle to release sufficient funding for such critical projects** ... this always happens in smaller corporations but you would think larger corporations would do better!

+ ONLINE LEARNING



8

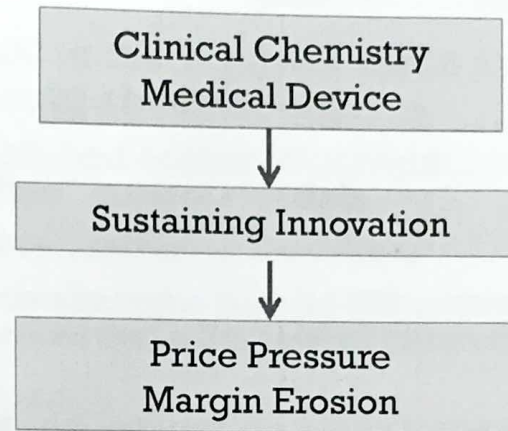


- Online learning platforms are based on crowdsourcing and leverage a “free” business model strategy for its users (individuals, students, businesses) to download and learn content ultimately leading to building knowledge and potentially innovation down the road...
- Material kept current and relevant based on user feedback including views and comments

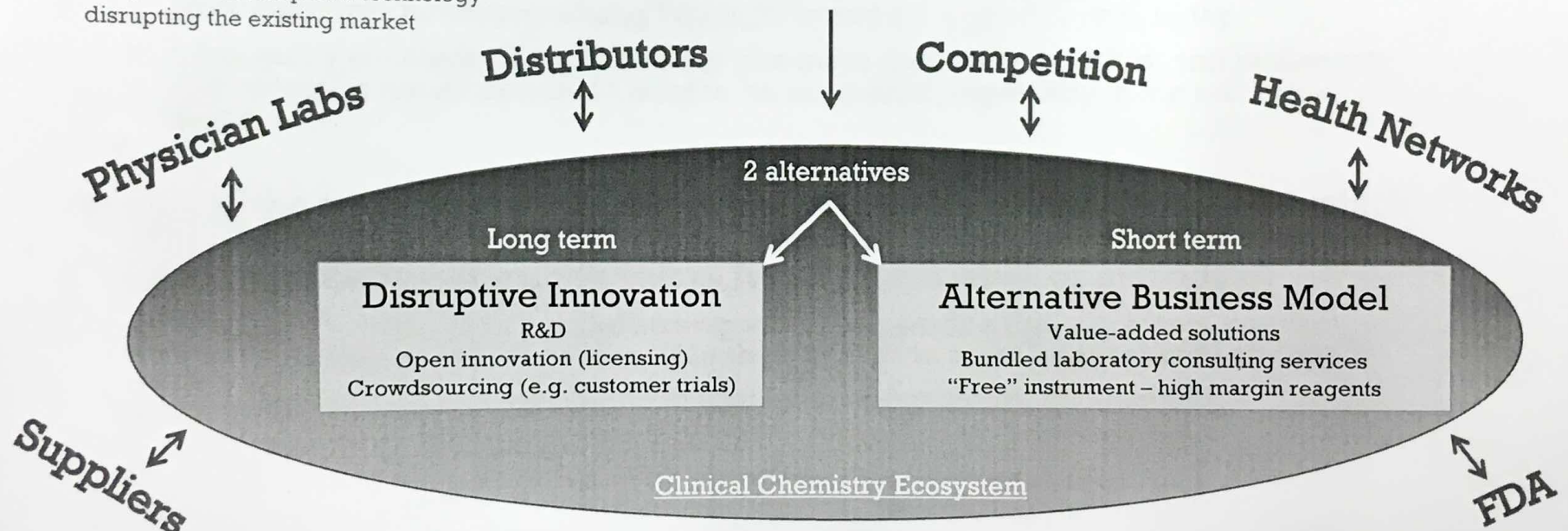
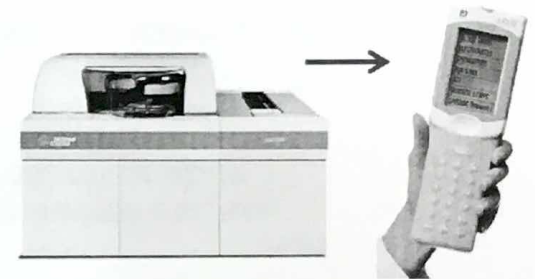
MY COMPANY FRAMEWORK

applying class concepts

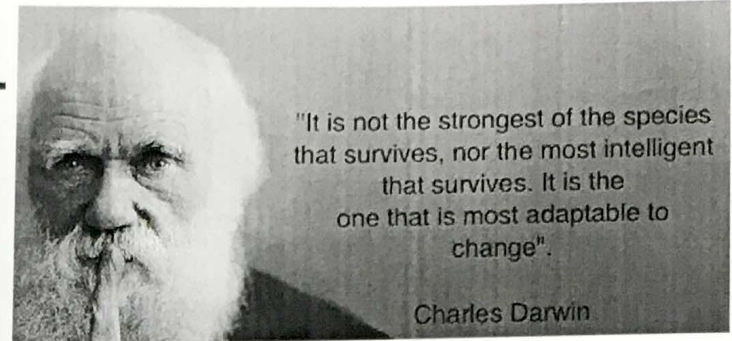
- The clinical chemistry business leverages an established technology (photometry) and has been losing traction recently
- Sustaining innovation does enhance products but is limited and leads to margin erosion
- Our plan revolves around a short-term and a long-term strategy:
 - Short-term: define alternative business model with value-added consulting solutions and high-margin reagents
 - Long-term: develop new technology disrupting the existing market



- Example of disruptive innovation in clinical chemistry medical device



+ OVERALL SUMMARY



- I thoroughly enjoyed MIS 5402 in that it forced me to think and reflect on topics I had never really thought about before
 - Certain ideas go against established economy concepts such as economies of scale with open sourcing or even “free” business models
 - Technology was something very abstract to me before
 - I did not truly understand many concepts such as disruptive innovation or open sourcing and did not even suspect that a framework could exist to enable certain forms of innovation
 - Tying information technology and business to use as a strategic competitive advantage was never something I thought would be a priority until today
 - I was guilty of categorizing IT as a service more than a strategic tool and realize that technology is not an option if I want to be successful, especially in the marketing world
- One of the most interesting underlying topic seen throughout the class which also summarizes my perspective on this course would be around change and adaptation (with culture and values for an organization or individual)
 - To quote Darwin, “**It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change**”.
 - I see this class as an opportunity to change my perspective on technology