Novel business practices

A presentation by Ultimate Synergy (Group 2 – Tutor: Dr Andrew M Gravell)

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We are Ultimate Synergy!!
The members of our tutor group
Novel business practices: an introduction

Adam Barrett
What are novel business practices?

In the age of the dot com boom, many companies are required to employ new strategies to keep up with competitors, most of which revolve around the use of available computing technology.

Take the example of GoldCorp Incorporated; a Gold mining company based in Vancouver, Canada...
Tough times...

In 1999, Rob McEwen, the CEO for GoldCorp Inc., was facing a crisis.

The company’s profits were at a standstill and the many geologists the firm employed were unable to find any exact locations and furthermore quantities of gold.

With belligerent shareholders on his case, he decided he had to take radical action: he employed a novel business practice.
A different approach

In March 2000 the “GoldCorp Challenge” was launched.

Amid much scepticism, in a bold move McEwen ordered that all of the company’s geological data on the company’s 55,000 acre property was published for all the world to see.

$575,000 in prize money was offered for the best solution/estimates

News of the contest spread rapidly, attracting the attention of many would-be prospectors. Ranging from experts in Physics to Computer Graphics.
What happened?

The contestants identified over 100 targets on the Red Lake property, 50 percent of which had not been previously identified.

80 percent of said targets yielded massive quantities of gold.

McEwen’s approach to the problem transformed GoldCorp from a struggling $100 million dollar company into a $9 billion dollar power-house. *He did good.*

One hundred dollars invested in the company in 1993 was worth over $3,000 dollars today.
And why is this important??

In the ‘cut-throat’ world of business, many companies are forced to employ **new tactics** that depend on **technology** to try and **keep the cutting edge**.

Another example of a company which outsources via IT is **Procter and Gamble** who get **50% of their business ideas** from **external innovators** who submit their ideas via the **P&G portal**, at [http://www.pgconnectdevelop.com/home/submit_innovation.html](http://www.pgconnectdevelop.com/home/submit_innovation.html)

There are however well established views that this new use of technology is a **threat to the legitimate right of companies to make a profit**. Take the mass-engineered project – Linux for example.

Companies that fail to devise **new methods of generating profit** and **exploiting available technology** are at risk of failure. When was the last time anyone bought a **CD**? 😊.
And so what, today? Why would I want to listen, you might be asking yourself?

Ultimate Synergy’s aim is to look at the various ways technology is employed in the workplace and the subsequent consequences.

Our topics range from technology in business pre-production to technology in finance with a focus on the technical/social aspects of each.
Novel business practices: Pre-production

Matthew Searle
Computer Aided Design (CAD)
“Computer-aided design (CAD) is the use of computer systems to assist in the creation, modification, analysis, or optimization of a design.”

3 Dimensional drawing tools in combinations with other technologies such as 3D printing allow Engineers to test principles and concepts in a whole new way.

3D printing means that engineers can prototype throughout the design process and actually get their hands on models of the end product which in the past may have been too difficult to model to scale.
How has it improved upon the old method

Beginning in the 1980s computer-aided design programs reduced the need of drafters.

– Drafters were specially trained artists that would sit at drafting boards and create accurate, scaled drawings of the designed product.

– The drafters would have to draw many different variations of the given design for architects and engineers to argue over before the final design was decided upon.

– Now the models having been designed on a computer can be much more easily modified and assessed.
Example application: Google sketch up

- **3D models** allow designers to almost **walk around the space they are designing in**
- Architects and Engineers can model the space and simulate sunlight to check for **light dispersion**
- The computer is able to test whether the design is structurally **safe**
- This also give clients an **accessible medium** by which to **imagine the finished product** rather than a technical drawing
Novel business practices: Production

Jacob Causon
Automated production lines

- Faster and more accurate than a human
- Have abilities humans don't such as the ability to 'see' infrared and x-rays
- Doesn't need to take breaks or be paid
- Has had an impact on the unskilled labour market
- Will need new, expensive skilled employees to manage the system
Automated production lines

• Only lead to **savings** when producing products **high volumes**

• Still has the **costs** associated with **transportation** from factory to consumer

These systems **can't be used everywhere** but when they can they can **change the way that the business operates** for the better
Novel business practices: Working practices

Roberto Gregoratti
How this all started... In the ‘90s

• 1990s: the Dotcom Bubble and the advent of the Internet account for new business models being developed by companies...

  BUT...

• “The business plans floated on the theoretical supposition of everyday interactivity failed because the experience turned out to be so clunky when real home users tried it out on dial-up computers.” (Peter Day, BBC, 2003)

• Technology was not sufficiently developed to be deployed on a corporate level!!

• New business models started to emerge anyway, based on the predicted growth of technology in the industry...
And where we are today...

- **100% of the corporate world** today uses technology to their advantage
- **Technology** at the heart of financial transactions, **employee development** programs, **career** progression and financial **success**
- Internet is the main platform for a company to **advertise** themselves!
- **A fully interconnected world**... new business model from the ground up
Open and linked data usage

• Key principle: Open source movement and an ever-increasing amount of data are at the centre of the business world today...

• Increasing bandwidth and Internet resources = companies can use technology as their development, outreach and deployment platforms

• Automation of 90% of business services = enormous quantities of data to handle

• Everyday interactivity key of business success today

• Linked data: “a method of publishing structured data so that it can be interlinked and become more useful”. Similar concept: open data

• Companies are applying transparency in their business model. Data published on the Internet leads to more interactivity and cooperation

• Corporate cooperation = successful business practices and larger market shares. Collaboration = better, more popular products: more resources, higher success
New ways of working / Productivity

- Trending practices: homeworking and teleworking
- ICT allows for flexibility on workspace and distance work
- Meetings and face-to-face projects can’t be included in the scheme: a combination of face-to-face and distance working is proving prolific for some businesses
- Reduction of costs for employers
- Hot desking also developing for certain businesses
Company efficiency improved through **training for new employees**, by using:

1. **Technology** (training software, hands-on experience)
2. Custom, tailored **training packages**
3. **Collaborative environments**

**Strategy 1: Custom-designed training software**
- **Advantage:** tailored, self-paced training.
- **Disadvantages:** lack of face-to-face training from experienced employees. Often costly (development). Not hands-on most of the time.
- **Example:** system functionality tutorials

**Strategy 2: Learn-by-doing approach**
- **Advantages:** personal experience, contact with experienced personnel. No added cost for the company.
- **Disadvantage:** Often a lengthy process.
- **Example:** mentoring scheme
Legal issues, data protection and intellectual property

• More technology = more **data**, more **legalities (patents, etc)**. Companies need to observe **laws** (Data Protection Act et al.) – **downside** of technology in corporate world.

• Cooperation= productivity : growth of **open source products and services** (most famous startup model: Linux). Often this represent great revenue for the company.

• **Creative Commons** licensing and cooperative model.

• Need to **protect patents and intellectual property**:  
  ✓ **2012** – Record number of **patents**: 257,000+ Europe only  
  ✓ **Intellectual property** most valuable asset for a company  
  ✓ Copyright and severe restrictions on **important products**
Novel business practices: Logistics

George Davies
Logistics

• Logistics is defined as “the detailed organization and implementation of a complex operation”\(^1\)

• When relating logistics to business, it evaluates to the management of transportation, storage and stock of products.
Transportation

• 34 million vehicles are registered on Great Britain’s roads\(^1\).

• In 2010 there were 1,966 million tonnes of freight lifted in Great Britain, with 1621 million tonnes of this going by road\(^1\).
Transportation

- **Satellite navigation** has evolved to allow businesses to dynamically adapt to daily road conditions.

- The **efficiency** of modern **delivery** provides faster delivery using **less employees**.
Stock management

• To build a **successful assembly line**, the **materials** must **arrive** in the **correct quantity** at a **time** before they are needed.

• By using **technology driven delivery**, materials can be delivered **within a time frame**. To ensure that there is the correct quantity of materials at the location, **stock management** is needed.
Stock management

• Using a technological solution such as a database can nullify the need for a dedicated employee responsible solely for this purpose.

• This process reduces the reliance on one person and increases reliability of stock ordering.
Storage management

• Businesses have a **finite amount of storage space**.
• A company must ensure that the storage space they do have is **effectively managed** so that there is a **balance** between the **volume of stock being sold** and the **volume being produced**.
Storage management

• The warehouses distributed across the planet must maintain a varying range of products to increase the availability of a product globally.

• By maintaining a global-stock database versus a location based database, a business can effectively ship its products from factories and warehouses to enable an even global distribution of its products is maintained.
Novel business practices: Communication

Jiaxin Shen
Technical aspect

*Smart meetings*
- Software programme
- Easy to share content and capture ideas in powerful, engaging ways

*Instant communication*
- Instant messaging
- Allow two or more people contact in one time
- Reduce time of consumption
Social aspect

*Translation*
- Enable a larger market
- Make simple and easy understand

*Network*
- Git
- LinkedIn
Novel business practices: Finance

Alex Kumaila
Online transactions

🎉 Electronic Commerce

✓ “A type of industry where buying and selling of either product or service, is conducted over electronic systems.”

🎉 The introduction of ‘E-tailing’

✓ Virtual store fronts, sometimes gathered into a ‘virtual mall’.


🎉 A safe way of payment; SSL encryption covers current conventional methods (Visa, PayPal etc).
Bitcoin

- Peer-to-peer payment system.
- Creation and transfer is completed over open source encryption protocols.
- Not managed by a central authority. (Anarchism, Microphilanthropy)
- Acquired through either exchange or mining (the procedure of using your own computing power to process and maintain the security of Bitcoin transactions, and/or crunching onerous mathematical equations).
- Slowly becoming more and more accepted as a payment method.
- An anonymous transaction, often used in online blackmarkets. (Silk Road)
The loss of a ‘middle man’

Two key business benefits:

- Reduced paper trails.
- Faster and more accurate forecasts of revenues and expenses.

Increases productivity within business, no need for human intervention for every transaction.

With ease of payment comes ease of decision, pushes more sales.
Some online transfers, however, entail levels of fees which hinder global payment growth.

Payments which include currency exchange are often charged an exchange commission.

This can, in many cases, sway the decision of the customer, as complication and lack of value is introduced to the transaction.
Novel business practices: the conclusion...

We might end here, but this is just the beginning...
Conclusion…

✓ What we have presented today is just a small part of the application of technology in the creation of new business models in today’s corporate world.

✓ Technology is being employed in business to create successful products, increase the productivity and efficiency of the existing models and generate more revenue by introducing cooperation with other companies and other innovative business models.

✓ There are many more issues for further exploration and discussion!!
From Ultimate Synergy...

... thanks for listening!!

(And if you want to know where we got the inspiration from, check our references in the next slide!)
Sources / References

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