The new economy: 
e-commerce, intellectual property rights, trust and other dangerous things

Prof. Dr. G.W.M. (Matthias) Rauterberg
Faculty Industrial Design
TU/e Technical University Eindhoven

From old to new economy

Relative economical importance (business with …)

knowledge
physical artifacts

1800 1900 2000
Industrial phase Post-Industrial phase
Business in the old economy...

Definition of Data

1 : factual information (as measurements or statistics) used as a basis for reasoning, discussion, or calculation;

2 : information output by a sensing device or organ that includes both useful and irrelevant or redundant information and must be processed to be meaningful;

3 : information in numerical form that can be digitally transmitted or processed.

[source Webster's Dictionary]
Definition of Information

1: the communication or reception of knowledge or intelligence;

2a (1): knowledge obtained from investigation, study, or instruction (2): intelligence, news (3): facts, data
   b: the attribute inherent in and communicated by one of two or more alternative sequences or arrangements of something (...) that produce specific effects
   c (1): a signal or character (...) representing data (2): something (...) which justifies change in a construct (...) that represents physical or mental experience or another construct
   d: a quantitative measure of the content of information; specifically: a numerical quantity that measures the uncertainty in the outcome of an experiment to be performed;

3: the act of informing against a person;

4: a formal accusation of a crime made by a prosecuting officer as distinguished from an indictment presented by a grand jury.

[source Webster's Dictionary]

Definition of Knowledge

1 obsolete: cognizance;

2a (1): the fact or condition of knowing something with familiarity gained through experience or association (2): acquaintance with or understanding of a science, art, or technique,
   b (1): the fact or condition of being aware of something (2): the range of one's information or understanding (...),
   c: the circumstance or condition of apprehending truth or fact through reasoning; cognition
   d: the fact or condition of having information or of being learned (...);

3 archaic: sexual intercourse;

4a: the sum of what is known: the body of truth, information, and principles acquired by mankind,
   b archaic: a branch of learning.

[source Webster's Dictionary]
Data, Information and Knowledge

Business in the **new economy**...

Before a deal

After a deal
How to make money, if...

The new economy has to make business with copying knowledge!

<table>
<thead>
<tr>
<th>Access to natural resources</th>
<th>Old economy</th>
<th>New economy</th>
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<tbody>
<tr>
<td></td>
<td>limited</td>
<td>irrelevant</td>
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</table>

| Access to knowledge        | limited     | “unlimited” |

The new economy has to make business with *copying* knowledge!

Crucial success factors

**Trust:** Consumers’ lack of trust can be explained by concerns in terms of:
- Security
- Privacy
- Difficulty of use
- Lack of direct interaction (products/services & people)
- Unfamiliarity of new business models
- Legitimacy of businesses
- Credibility of information and knowledge

[F. EGGER, 2001: Trust in e-commerce. PhD project at TU/e]

**Knowledge transfer:**

- 70% of knowledge specialists and other business leaders feel they are “reinventing the wheel daily at their jobs.”
- 90% of lessons being learned are not being shared with the organization.

[L. MILLER, 2000: International publish report on knowledge management research.]

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Limiting factors

Trust

- perceived trustworthiness ≠ objective trustworthiness
- individuals differ as to their **general propensity** to trust

Attention

- human attention span is NOT unlimited
- ‘new economy’ leads to ‘attention economy’

Intellectual property rights

- guarantee of the distinction between *original* and *copy*
- automated copy-right checker
- punishability (can and will lead to mistrust!)
Information and Attention

Information processing capacity

Attention intensity

expectation

limit

reality

Public versus protected Knowledge

Public knowledge “common sense”

protected knowledge “intellectual property”

old economy

new economy
Possible solutions...

Old economy
- ownership rights
- product charge
- natural decay
- limited edition
- etc.

New economy
- intellectual property rights
- consumption charge
- time bounded (e.g. stock market)
- expertise bounded (e.g. consultant)
- process bounded (e.g. service)
- context bounded (e.g. counter intelligence)
- access bounded (e.g. information broker)
- etc.

Summary

- selling knowledge means making ‘copies’
  [successful knowledge transfer leaves the source untouched]
- the new economy will be an attention economy
  [production is unlimited, consumption is limited]
- free communication is essential for trust
- trust is essential for selling knowledge

Do you trust me?