



Knowledge Management

Department of Computer Systems and Communications

Academic Year: 2016-2017

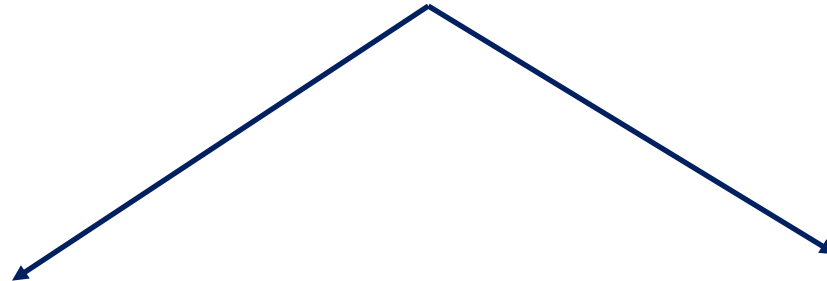
The value of knowledge

Francesco Caputo

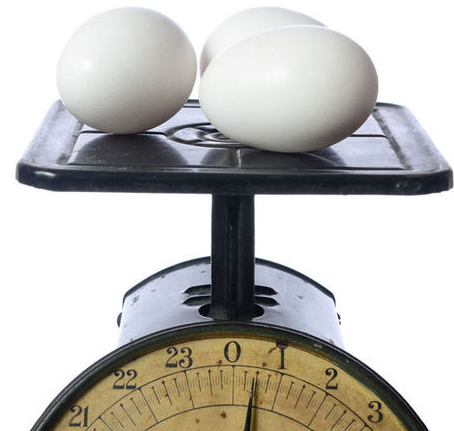
fcaputo@mail.muni.cz

Quality Vs. Quantity

The relevance of knowledge



Quality



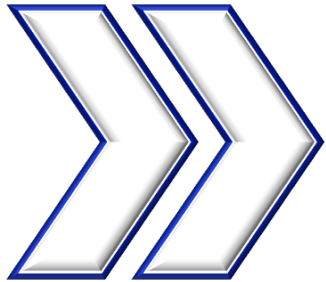
Quantity

The drivers of knowledge economy

- ✓ The *efficiency* with which knowledge interprets the needs and opportunities in the different contexts.
- ✓ The *multiplication* of the uses which increases the total product value, as the knowledge spreads, resulting in an increasing number of re-uses.
- ✓ The *appropriation* of the fruits obtained by the use of knowledge, by adjusting the process so as to give to each person in the chain of a product value share, enough to keep it active and involved in the function performed.

The value of knowledge economy

From a formal viewpoint, the *utilities that form the economic value of knowledge can be measured through a 'mental experiment'*.



It is possible to identify the maximal value that people could pay to use a specific knowledge.



The value of knowledge economy

The total amount of value produced by the knowledge is composed by a *tangible part* (the money that people pay to use the knowledge) and by an *invisible part* (the psychological benefits obtained by the use of knowledge).



The value of knowledge economy

The *total value of knowledge produced by the interactions among the three drivers is not objective.*

The value of knowledge depends by the *specific features of people, organizations, or companies involved in the 'process of transformation'*.

This process *acts on the original knowledge and it produces somethings of different that can be used in different contexts.*

The efficiency

The economic value of knowledge is the sum of three elements::

- ✓ The *(monetary) price* that the consumers pay to obtain the knowledge.
- ✓ The *(psychological) revenue* that the consumers obtain thanks to the acquired knowledge.
- ✓ The *intrinsic (psychological) value* that producers and consumers give to the cognitive experience.



The multiplier

They exist different approaches to the *re-use the knowledge*:

- ✓ To increase the number of products realized by using the knowledge.
- ✓ To enlarge the number of people able to use the knowledge.
- ✓ To extend the time in which it is possible to use the knowledge.
- ✓ To use the available knowledge to build new applications or to solve new problems..



The multiplier

The reproducibility of knowledge is affected by decreasing costs.



*The cost is centred on the first unit
(on the first application of knowledge)*

The multiplier

Reproducibility \neq Replicability



Tangible



Intangible

It occurs to defend the new knowledge in order to obtain and economic revenue by its use.

The knowledge sharing



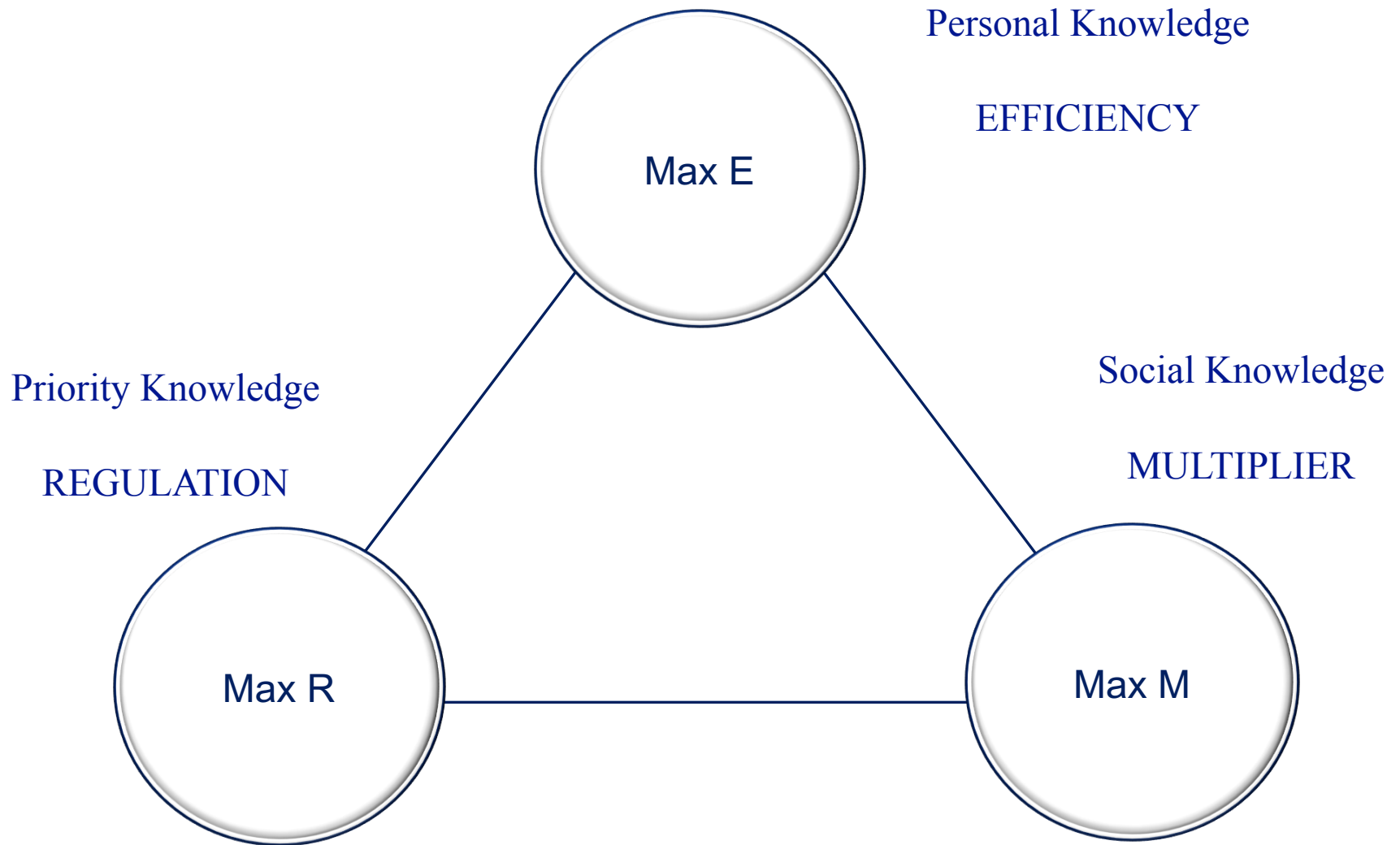
The sharing of the value produced by the use of knowledge is affected by different problems because during the interactions there are many externality.

The aims of knowledge sharing

To improve the efficiency and the effectiveness in the sharing of value produced by the knowledge it occur to achieve three aims:

- ✓ To *maximize the value for the society*.
- ✓ To *split up the value among all the the actors* involved in the process of knowledge generation and use.
- ✓ To *build the conditions to support new investment* in knowledge production and sharing.

The drivers of knowledge management



The potential multiplier

The *potential multiplier of knowledge* is represented by all the possible users for a specific knowledge.

