

# Competences discourse: concepts and implications for higher education in the knowledge-based economy

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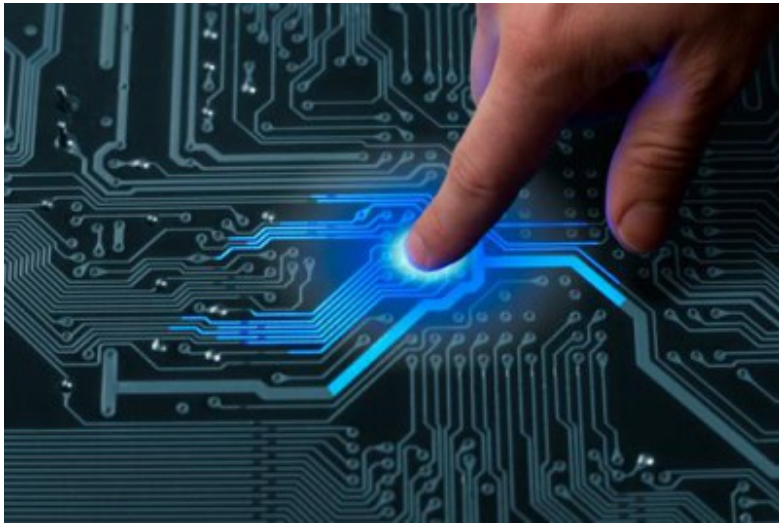
**National Erasmus+ Office in Russia**

# Broad context

- Globalization with its greater exchanges and integration across geographic borders
- Knowledge-based and green economy development accompanied by the diffusion of ICTs and nano-technologies as a great potential for the creation of sustainable jobs
- Rapid pace of technological change
- Growing uncertainty due to financial and economic turbulence

# Broad context drivers

- Global connectivity
  - Smart machines
  - New media



# Broad context – implications for competences development

- The above factors stimulate:
  - demand for better and adapted competences
  - an urgent need to enhance human capital and employability reshaping how we think about work, what constitutes work, and the skills we will need to be productive contributors in the future
- Globalization and globally connected world with increased global interconnectivity puts diversity and adaptability at the center of organizational operations and behavior patterns

# Terminology (1)

- Definitions are many (over 250) and boil down to the following:
  - Competence is a set of knowledge, skills, and attitudes that are functionally related, and that allow tasks and problem-solving to be executed satisfactorily.
  - Competence means the set of knowledge, abilities and characteristics that allow a person to act.

*The Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR), 2002; 2008.*
- As it is, competence involves being able to select from and then orchestrate a set of competencies to achieve a particular end within a particular context.
- The competent person makes multi-criteria judgments that consistently are appropriate and situation-sensitive.

# Terminology (2)

- Competence vs competency
- In EU documents the concept of competency is understood as a common connecting concept
- Associated with fully understandable personal potential and opportunities to adapt to the variable and targeted abilities based on knowledge and experience.
- A “competency” is often taken to mean an identifiable skill or practice. “Competence,” in contrast, is often understood to consist of a large number of discrete competencies which can be tested independently by objective means

# Terminology (3)

- **Conclusion:**
  - Given the multitude of definitions, agreement should be reached about the use of terms and cases of synonymous usages (e.g. “skills”, “capacities”, “abilities” and “learning outcomes”) should be accepted.



# Demand (sector perspective) (1)

- The next decade will see an increasing demand for a high-qualified and adaptable workforce and more skills-dependent jobs.
- Rising employment shares are expected for knowledge-based sectors and other services, with declines for primary industries (especially agriculture) and manufacturing.
- By 2020 “non-market” services (which include health and education) are expected to account for almost 50% of employment, while primary and manufacturing industries will account for fewer than 1 in 5 jobs.
- Business and related services are expected to account for the bulk of the new jobs.



# Demand (sector perspective) (2)

- The structural changes have direct implications for the demand for competences.
- Knowledge and skills intensive jobs are on the rise.
- Higher level occupations such as managers, professionals and associate professionals are envisaged to enjoy demand.
- Overall, the number of jobs employing highly qualified people is projected to rise to over 1/3 of the total.

# Demand (competence perspective) (1)

- A feature of contemporary work is the increasing unpredictability of the future and the accompanying uncertainty over the competences that, both qualitatively and quantitatively, are important, which has repercussions for higher education.
- Besides professional skills (which are taken for granted), graduates are expected to have learning, social and career (key/transversal/generic) competences in order to guarantee wide employability, including in the longer term.
- These competences are broader than the traditional 8 EU key competences.

# Demand (competence perspective) (2)

- They include:
  - social and civic competences,
  - entrepreneurial competences,
  - culture awareness and expression, sense-making,
  - social intelligence,
  - novel and adaptive thinking,
  - cross-cultural competence,
  - computational thinking, new media literacy,
  - transdisciplinarity and design mindset,
  - cognitive load management,
  - virtual collaboration
- And NB – skills/competences for sustainable development that are to be incorporated in all of the above..

*Future work skills 2020. (Institute for the Future for the University of Phoenix Research Institute.*



# Competences for sustainability

- Competences for sustainability is a transversal axis within the field of higher education.
- Presupposition:
  - need to opt for a type of education that allows the university to instill in students the need to live in a different way, recognizing our absolute dependence on the natural environment.
- This requires:
  - fundamental changes in the curriculum, as well as a broader view of the role played by educational institutions.
  - training students in skills regarding sustainability, to have professionals who know how to deal with problems regarding unsustainability.

# Competences for sustainability

- Observed options:
  - the creation of degrees in environmental science or environmental engineering, offering doctoral programs in these fields, etc.
  - incorporation of an environmental variable in training cycles and lines of both basic and applied research that are not directly concerned with sustainable development, but are related to it in some way.

# Competences for sustainability (3)

- Education about sustainability should incorporate the promotion of three basic types of competencies: cognitive, methodological, and attitudinal, as:
  - (1) they serve as a point of reference to achieve the final objectives set for university education;
  - (2) their acquisition is transversal, as they are facilitated from different academic areas and at different moments of evolution; and
  - (3) they require the learning of new contents (conceptual, procedural, and attitudinal) through the implementation of various active methodologies to be applied in different contexts.

# Competences for sustainability (4)

- The elements of sustainability competence are:
  - competence to think in a forward-looking manner, to deal with uncertainty;
  - competence to work in an interdisciplinary manner;
  - competence to achieve open-minded perception,
  - trans-cultural understanding and cooperation;
  - participatory competence;
  - planning and implementation competence;
  - the ability to feel empathy, sympathy and solidarity;
  - competence to motivate one's self and others;
  - competence to reflect in a distanced manner on individual and cultural concepts

Wals, A. (2009). *Review of contexts and structures for education for sustainable development learning for a sustainable world.*  
Paris, UNESCO

# Competences for sustainability and values

- Sustainability competences are closely related to the value system.
- The value system is acquiring an ever growing importance in the modern system of transversal competences to address tolerance, recognition and acceptance of diversity and cross-cultural interaction/communication.
- Cross-cultural communication competence is critical to ensure communication that is not distorted by misinterpretation, misperception, or misevaluation. It should improve cognitive, affective, and behavioral performance.
- Knowledge about the beliefs, values, and attitudes that underlie the relationships between people and their environment (capacity to relate values - behaviors) should underpin all subject areas to form appropriate and responsible behavior.



# Key competences for LLL

## Key competences

Communication in mother tongue

Communication in foreign languages

Mathematical and basic competences In science and technology

Digital competences

Learning to learn

Social and civic competences

Sense of initiative and entrepreneurship

Culture awareness and expression

2. Numerical and Informational  
Society Technologies

1. Communication in Native  
and foreign languages

3. Learning, personality and  
citizenship: Learning to learn

MAP OF THE ADULTS LLL  
SIGNIFICANT KEY COMPETENCES

5. Entrepreneurship

4. Learning, personality and  
citizenship: Cultural awareness  
and expression

# Conclusions

- The issue of competences is highly relevant to enhance quality of education in a very complicated contemporary world  
Interpretations of the concept of competences are many and often confusing, however there is common agreement as to their added value
- To exploit the added value to the full it is essential to agree on a common definition and stop arguing about the theory behind competences
- Traditionnaly we have distinguished between occupational/subject specific and key/trasversal/generic competences
- Today the latter category is acquiring unprecedented importance with the growing relevance of sustainability competences and the value system

# Thank you for attention!

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Multiculturalism

Dialogue support

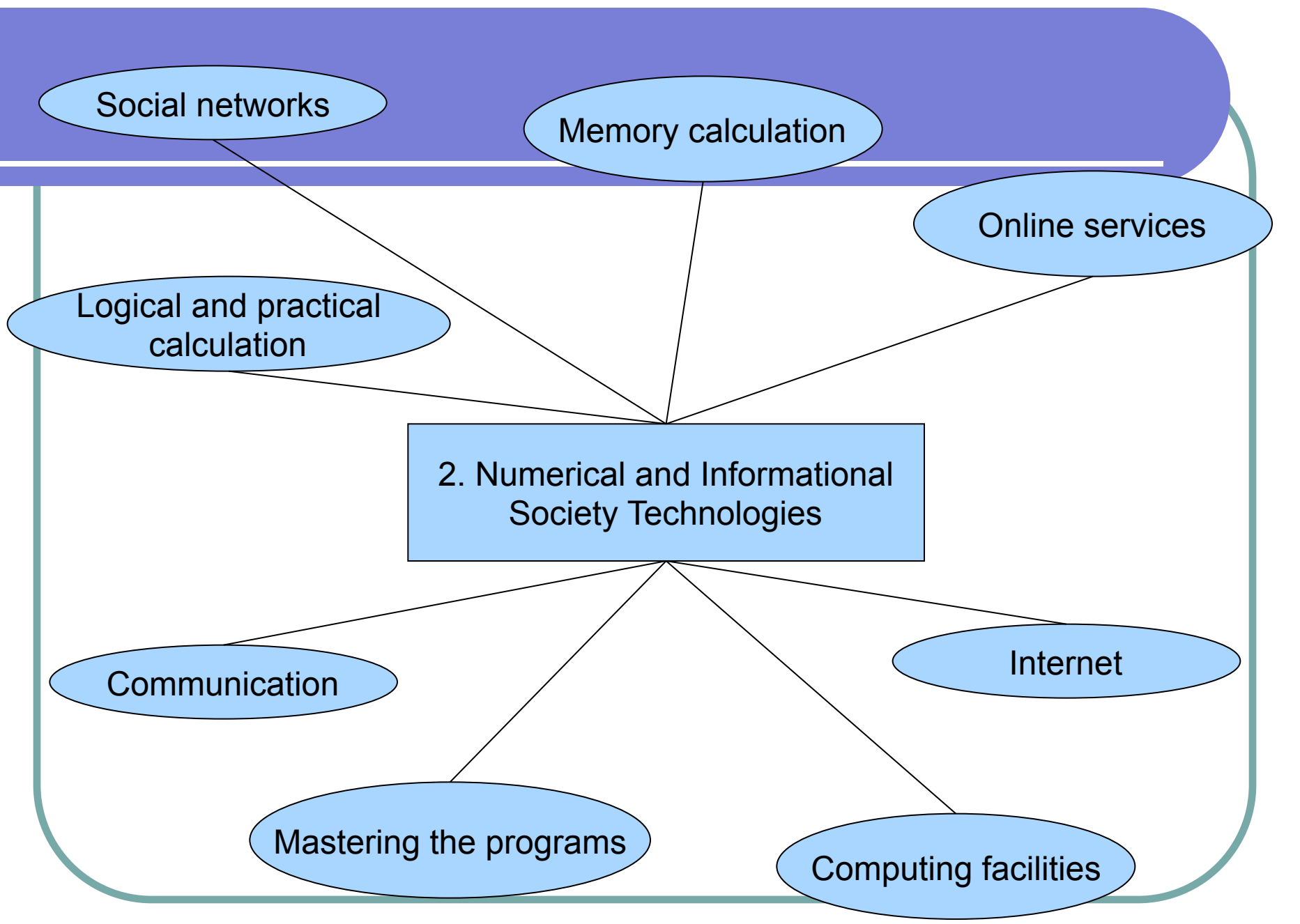
The reasoned expression  
of thoughts

1. Communication in Native  
and foreign languages

Vocabulary

Understanding of the  
information or  
comprehension

Text preparation



Social networks

Memory calculation

Online services

Logical and practical calculation

2. Numerical and Informational Society Technologies

Communication

Internet

Mastering the programs

Computing facilities

Self-regulated learning

Learning with the other

Reflection of learning

3. Learning, personality and citizenship: Learning to learn

Planning of learning

Problem solving

