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E-Learning and 21st Century Competences

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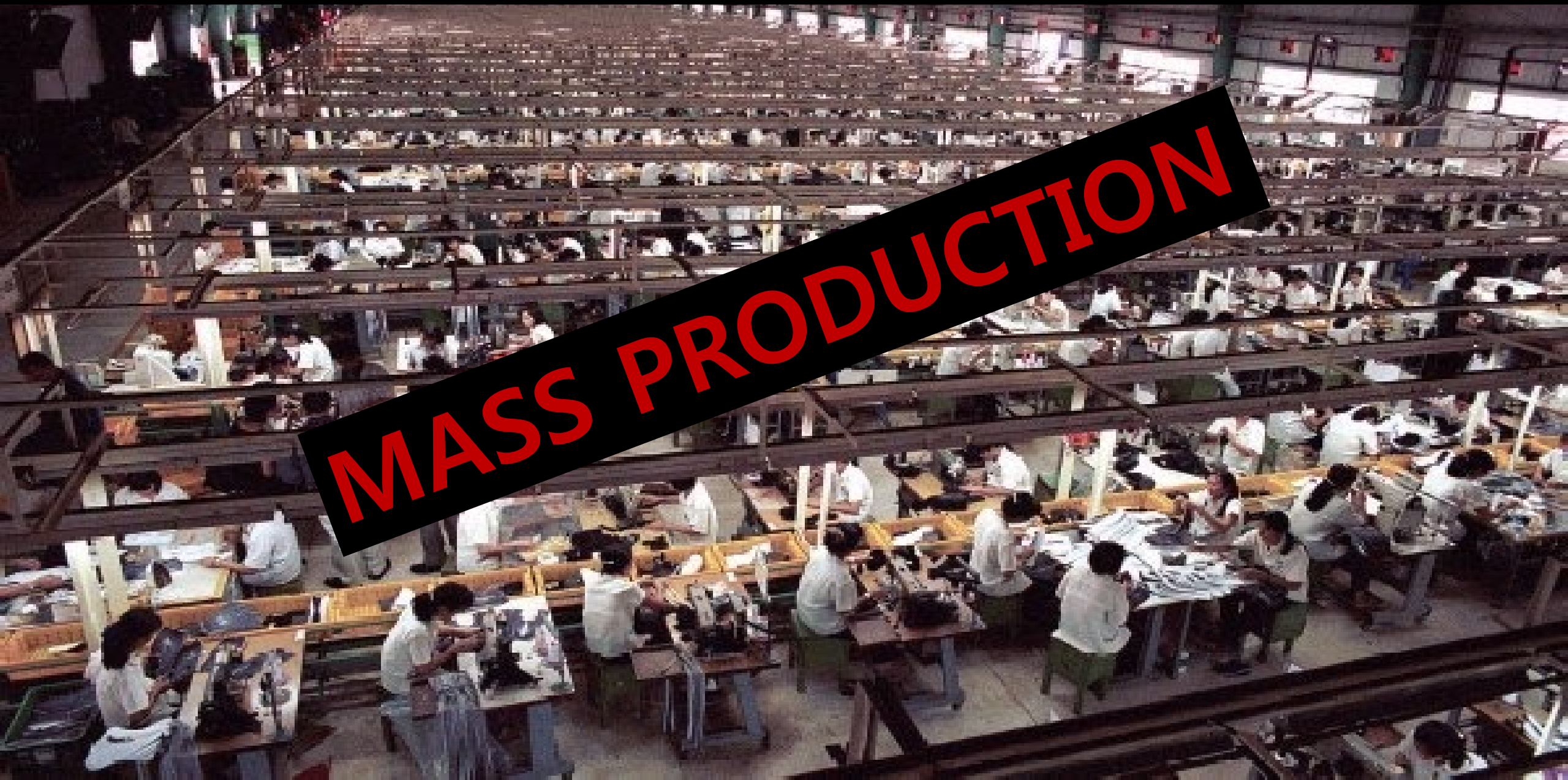
Asia-Europe Meeting
ASEM Education and Research Hub for Lifelong Learning

e-ASEM RN1

“Today, because of rapid economic and social change, schools have to prepare students for jobs that have not yet been created, technologies that have not yet been invented, and problems that we don't yet know will arise.”

Andreas Schleicher, OECD Education Directorate, 2010.

Our society has changed from the industrial society ……



.... to the knowledge society, that is, the information society.

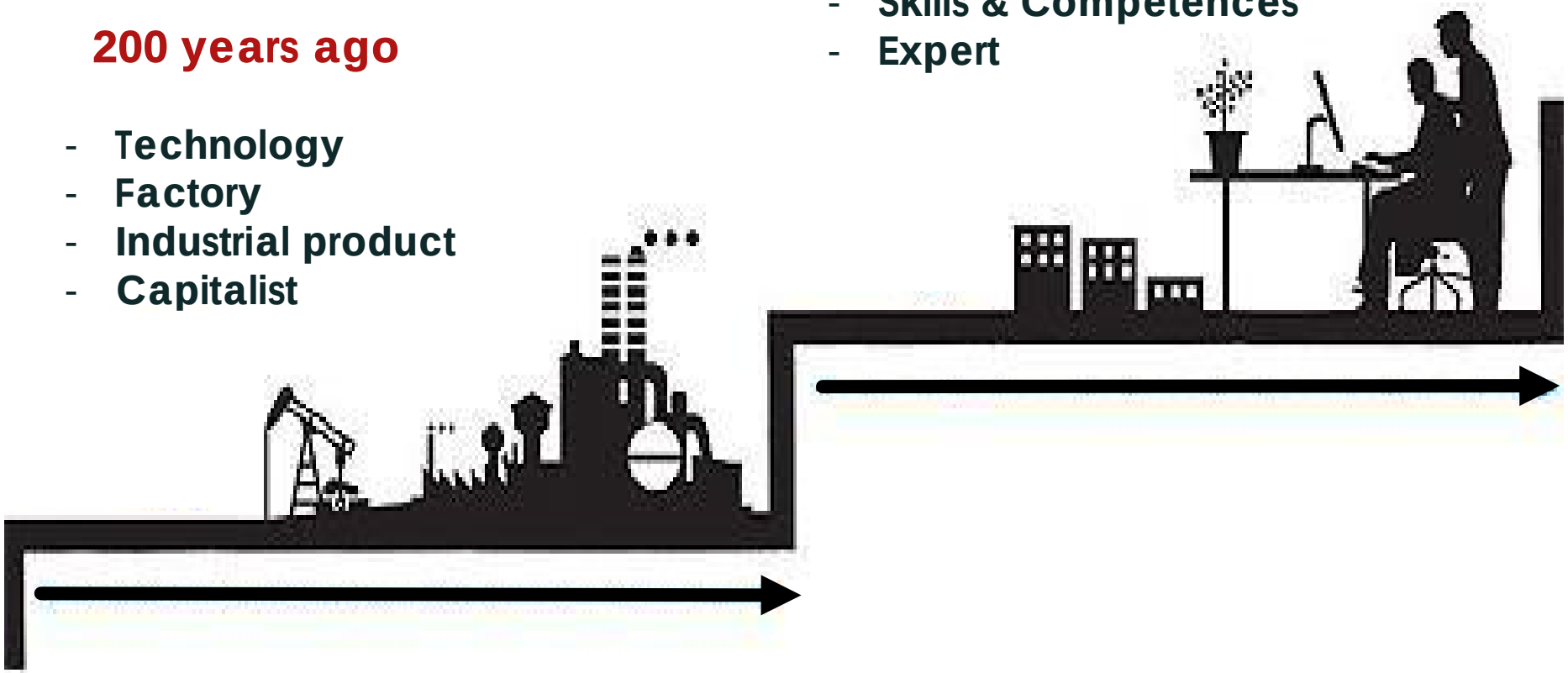
Industrial Society vs. Information Society

200 years ago

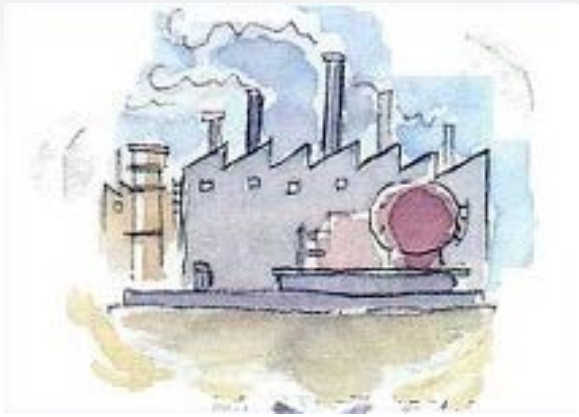
- Technology
- Factory
- Industrial product
- Capitalist

20 years ago

- Network
- Office
- Skills & Competences
- Expert

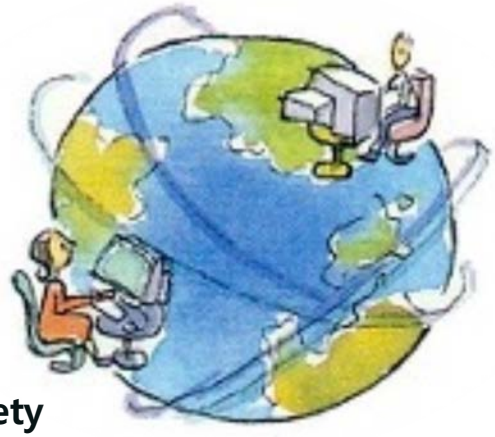


Industrial Society vs. Information Society



Basic skills and competences required by industrial society

- Reading
- Writing
- Arithmetic

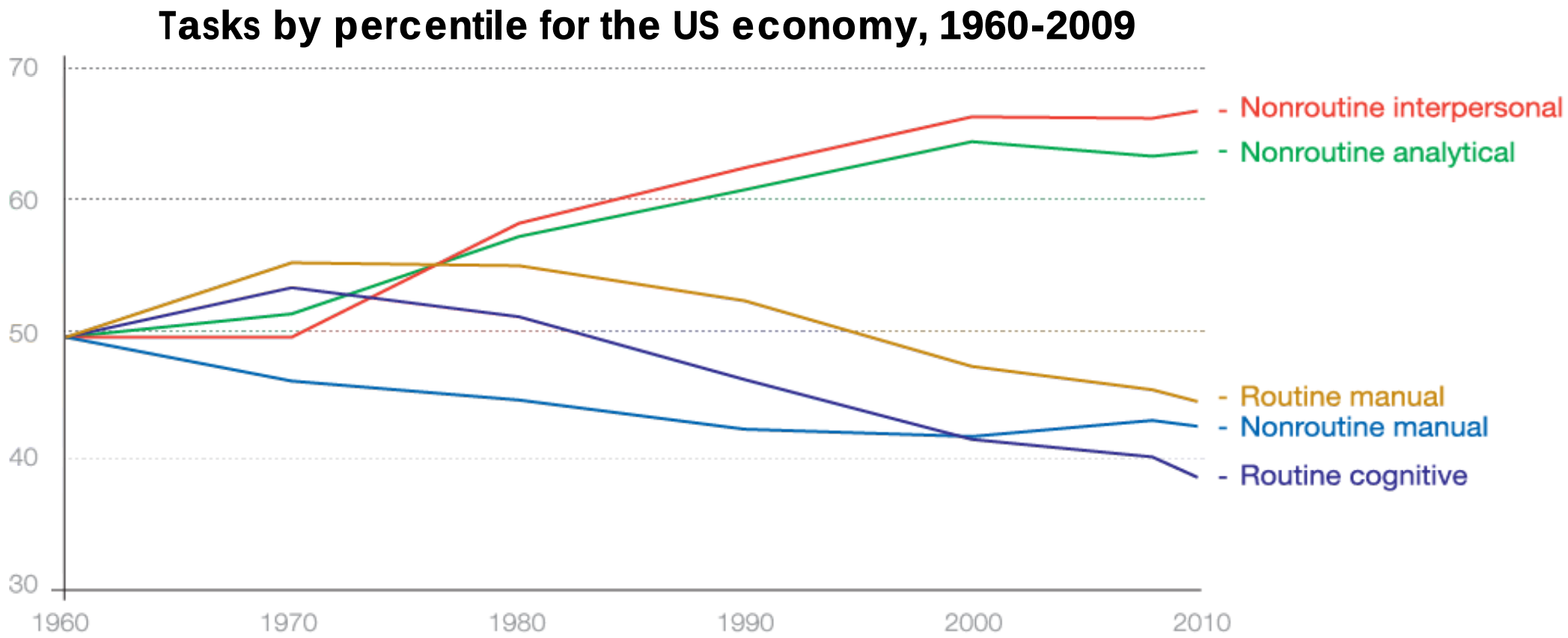


Basic skills and competences required by information society

- ICT literacy
- Digital literacy
- Media literacy

WORLD ECONOMIC FORUM

The Labour Market Increasingly Demands Higher-order Skills



Source : http://widgets.weforum.org/nve-2015/chapter1.html

New Social and Economic Context : Challenges

- Students need to be prepared for jobs that do not yet exist. (Dede, 2010)
- Mismatches are found between the qualifications of graduates and the skills demanded by jobs: growing number of “overqualified” employees. (Eurydice, 2012)
- Jobs requiring higher level of knowledge and skills are increasingly demanded. (Cedefop,2010)

To Summarize,

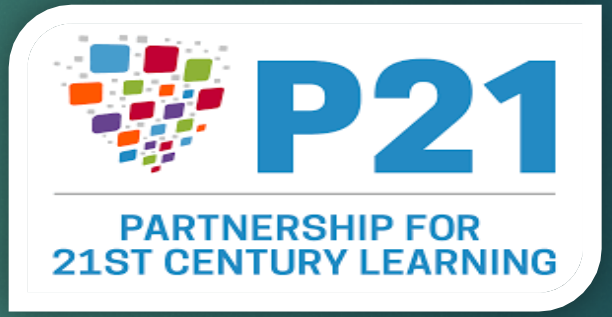
- **Students in the 21st century** are required to learn different skills and competences from those learned by students in the 20th century, and
- **The skills they learn** should reflect the specific, concrete demands that will be placed on them in a complex, knowledge-based, and technology-driven economy.

NEW competences!!

OECD
DeSeCo Project

ATC21S
ASSESSMENT & TEACHING OF 21ST CENTURY SKILLS

EU Framework for
Key Competence


P21
PARTNERSHIP FOR
21ST CENTURY LEARNING

APEC

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21st Century Skills and Competencies Included in the OECD Survey

- Creativity/innovation
- Critical thinking
- Problem solving
- Decision making
- Communication
- Collaboration
- Information literacy
- Research and inquiry
- Media literacy
- Digital citizenship
- Information and communications technology operations and concepts
- Flexibility and adaptability
- Initiative and self-direction
- Productivity
- Leadership and responsibility

DeSeCo Project

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OECD
DeSeCo Project

EU Framework for Key Competence

(European Commission, 2006)

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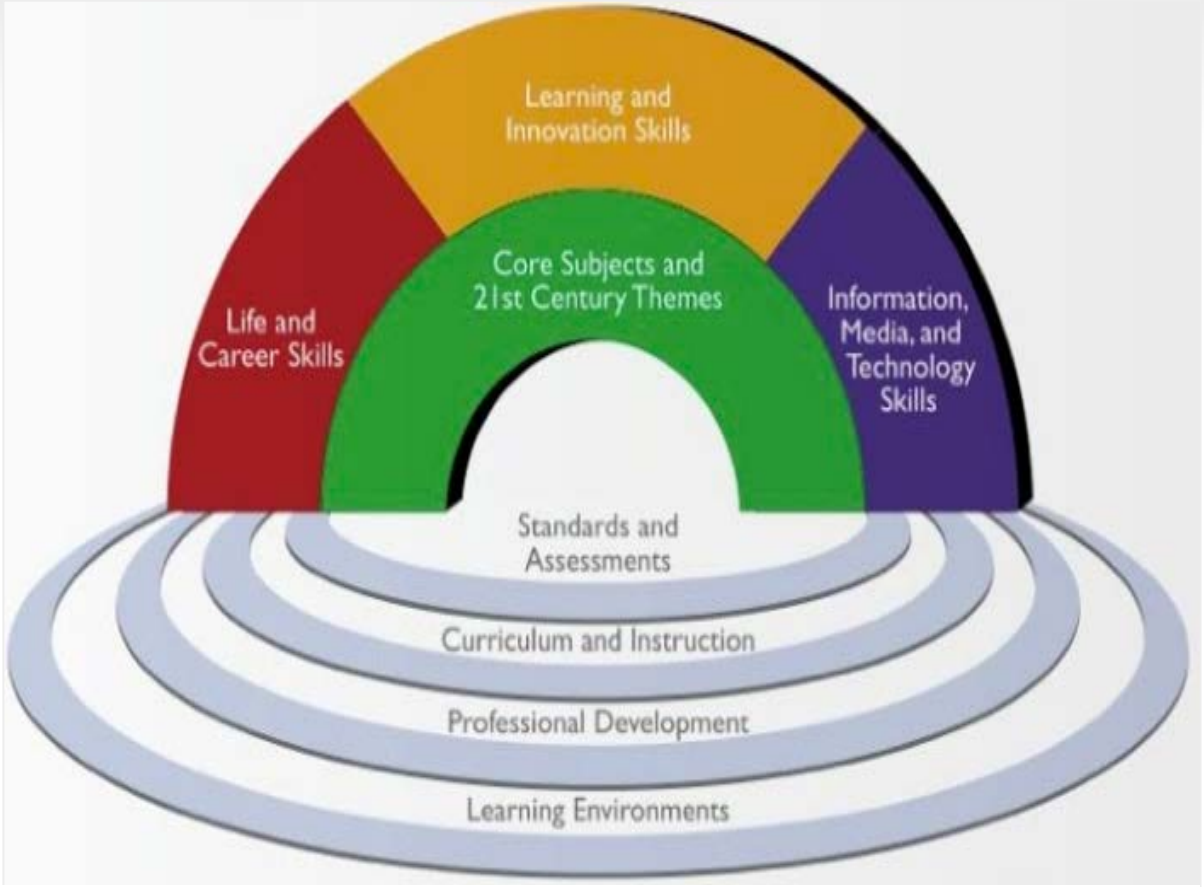
21st century Key competences by P21



(Partnership for 21st century skills, 2009)

Life and Career Skills

- Flexibility & adaptability
- Initiative & self-direction
- Social & cross-cultural interaction
- Productivity & accountability
- Leadership & responsibility

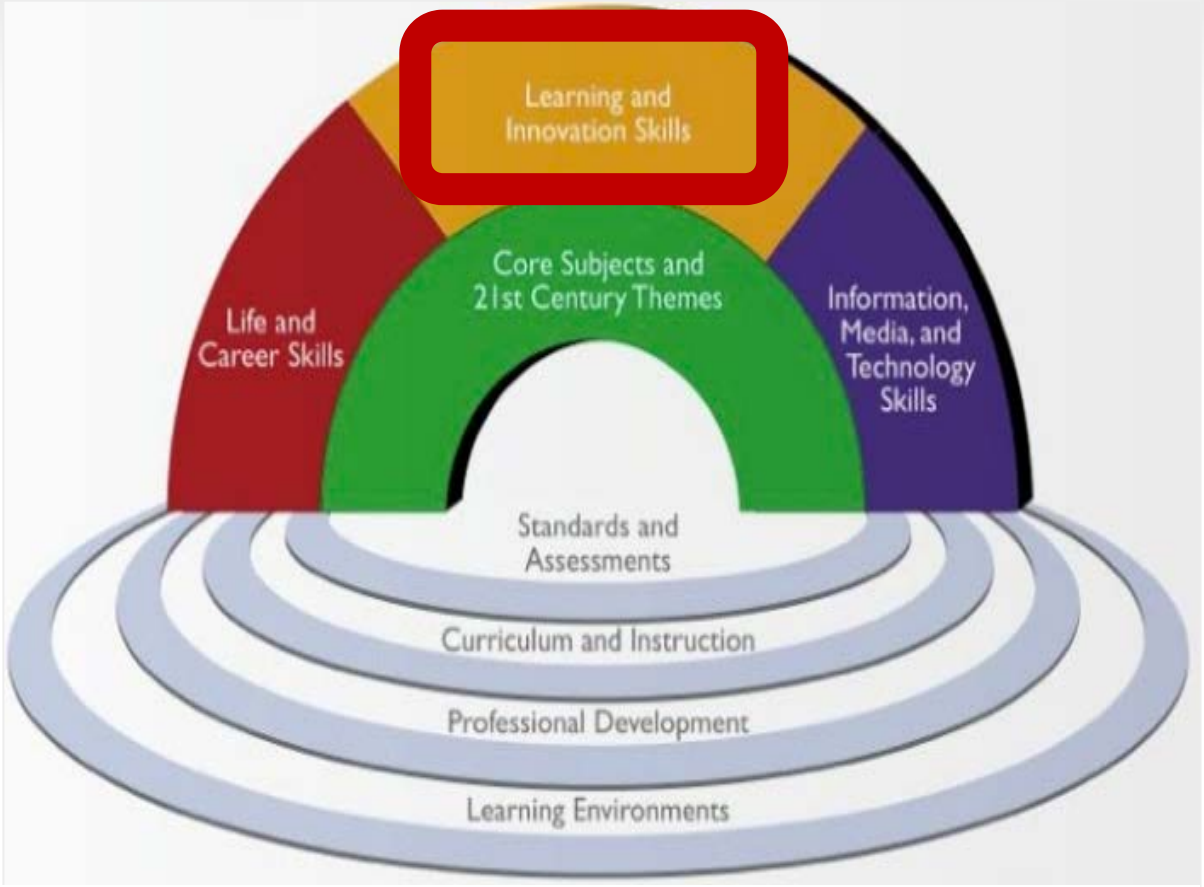
Learning & Innovation Skills

- Critical thinking & problem solving
- Communication & collaboration
- Creativity & innovation

Information, Media & Technology Skills

- Information literacy
- Media literacy
- ICT literacy

21st century Key competences by P21



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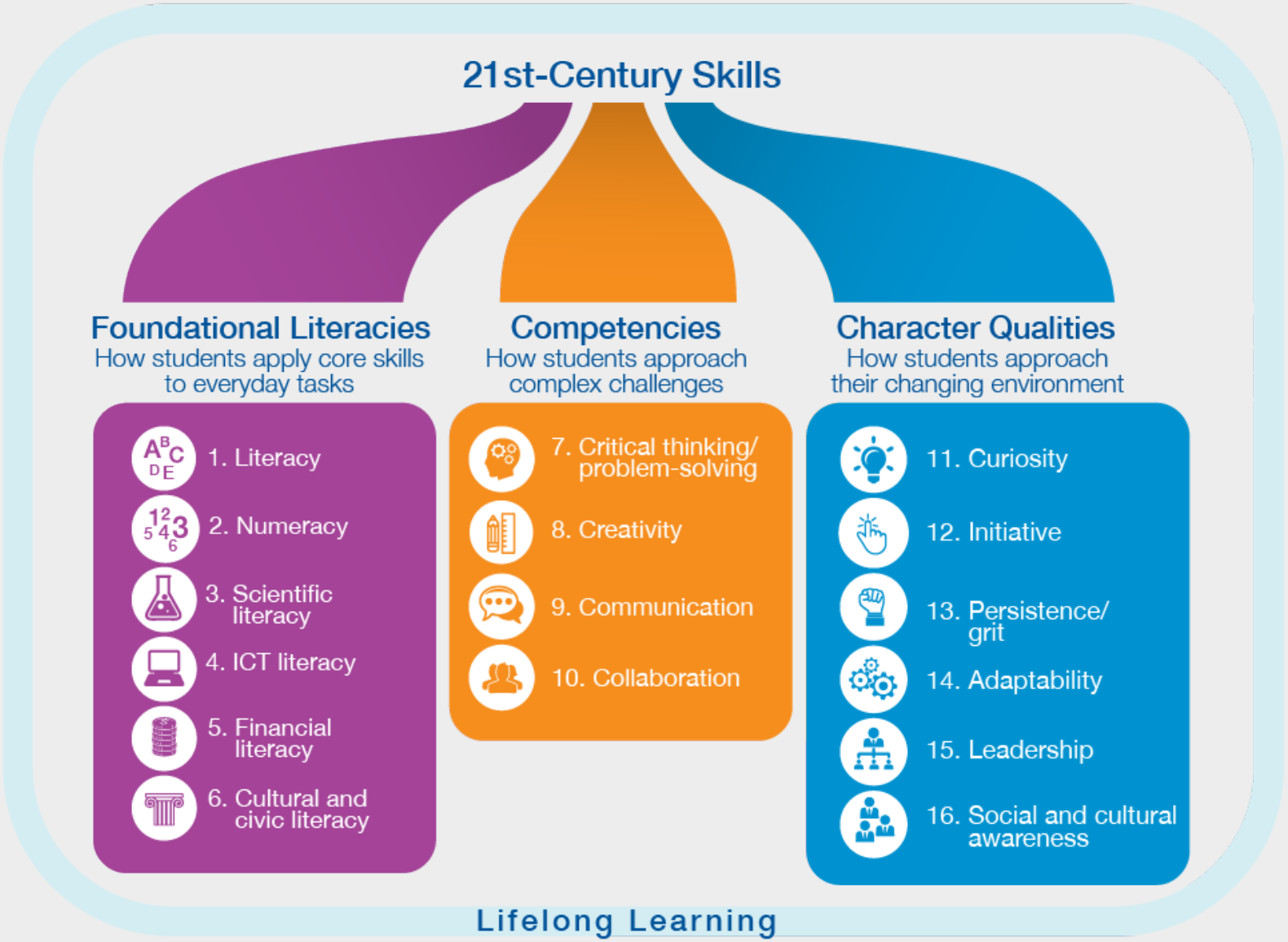

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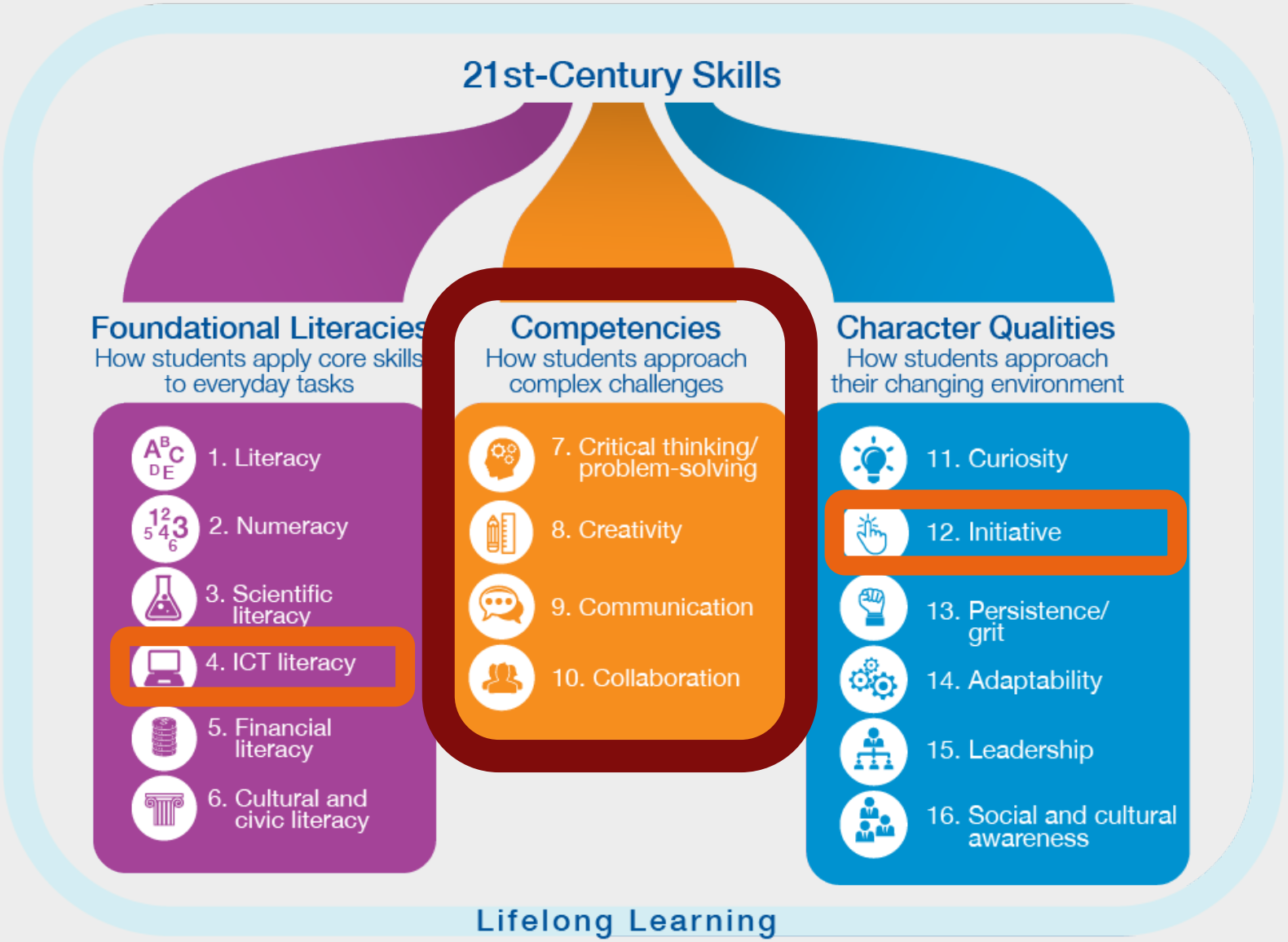

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21st century competences (common)

- ICT/Digital Literacy
- Creativity
- Critical Thinking
- Problem Solving
- Initiative & Self-direction
- Communication
- Collaboration

21st century competences (common)

ICT/Digital Literacy	Creativity	Critical Thinking	Problem Solving
Initiative & Self-direction	Communication	Collaboration	

Controversies,

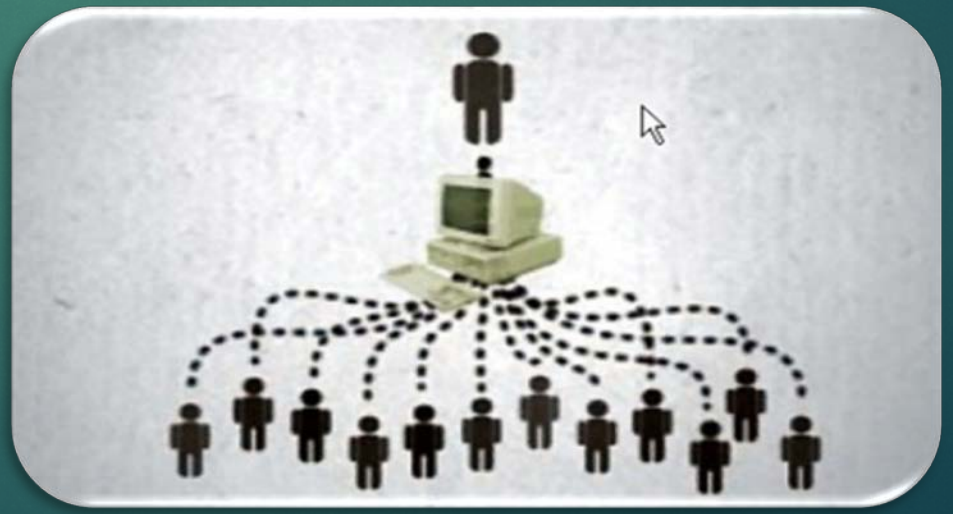
- Schools and teachers have always taught cross-disciplinary or the so-called 21st century skills, even though they did not name it.
- If too much emphasis is laid on the skills or “learning to learn,” students may not get “the basics”. They need a broad knowledge base.
- 21st century skills and competences are not easy to assess, which makes it hard to evaluate teachers or schools.

Controversies, but

- Knowledge and information are, whether they are basic or applicable in real-life settings, readily available for the present students. What matters is to find, to use, and to process them.
- What matters more is the fact that schools, teachers, students and the learning environment are changing, and at the heart of the change is e-learning.

How is E-learning to support the development of 21st century competences?

Traditional E-Learning



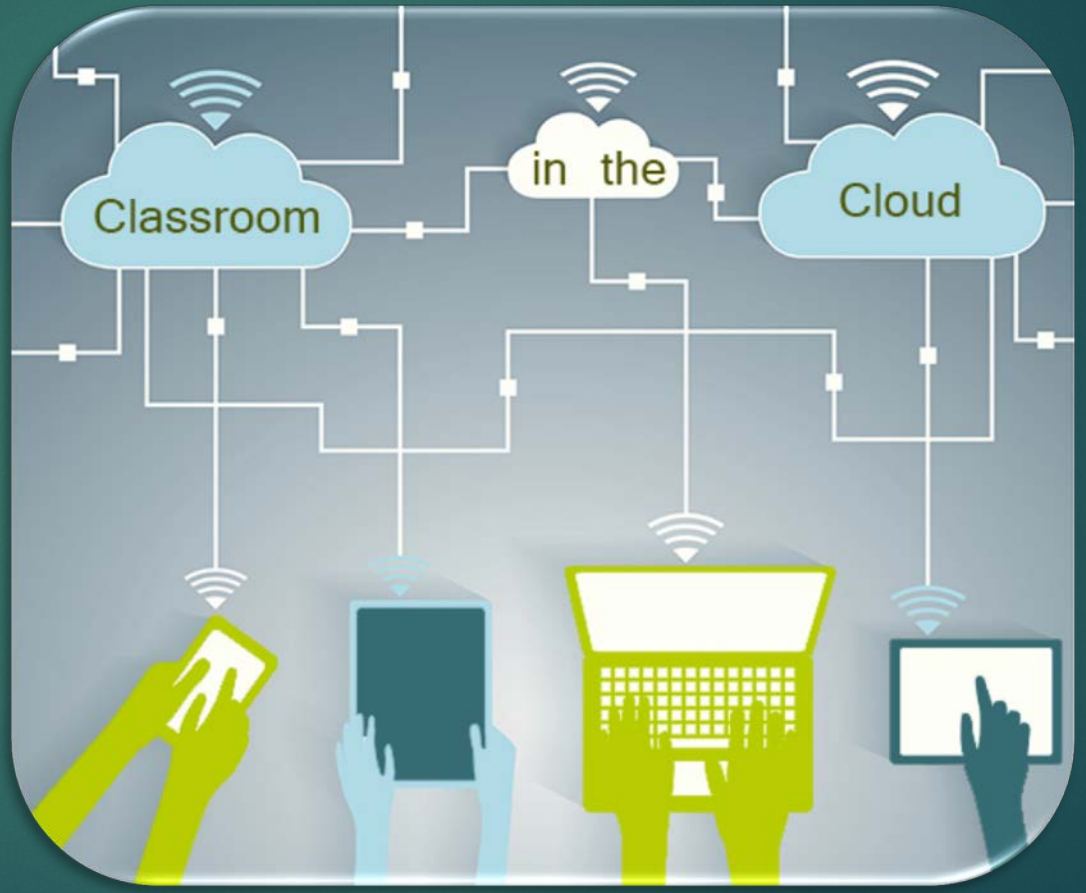
E-Learning is Changing

Mobile

Web 2.0 tools

OER / MOOC

1. E-Learning is more mobile



2. E-Learning is more collaborative

3. E-Learning is more popularized

OER

OCW

MOOCs

4. E-Learning is more connected

E-learning & 21st Century Competences

- E-learning has become more mobile, more collaborative, more popularized and more connected.
- 21st century key competences are demanded.

  digital literacy, communication, collaboration

  critical thinking, creativity

✓ Change and development of E-learning enable teaching and learning of the 21st century skills and competences.

New Paradigm of E-Learning

Moving forward,

- Structure no longer based on divided disciplines
- Adding new subject/contents to the existing curriculum
- Learning from lecture-based to project-based or performance-based
- Focusing not only on accountability (assessment of learning) but also on productive and useful feedback (assessment for learning)
- Integrating 21st century competences on curriculum and assessment
- Encouraging collaboration and networking (not only 'within' but also 'outside' the education sector)

Thank you!