



New Challenges for Higher Education in the 21st Century: Implications for Quality Assurance

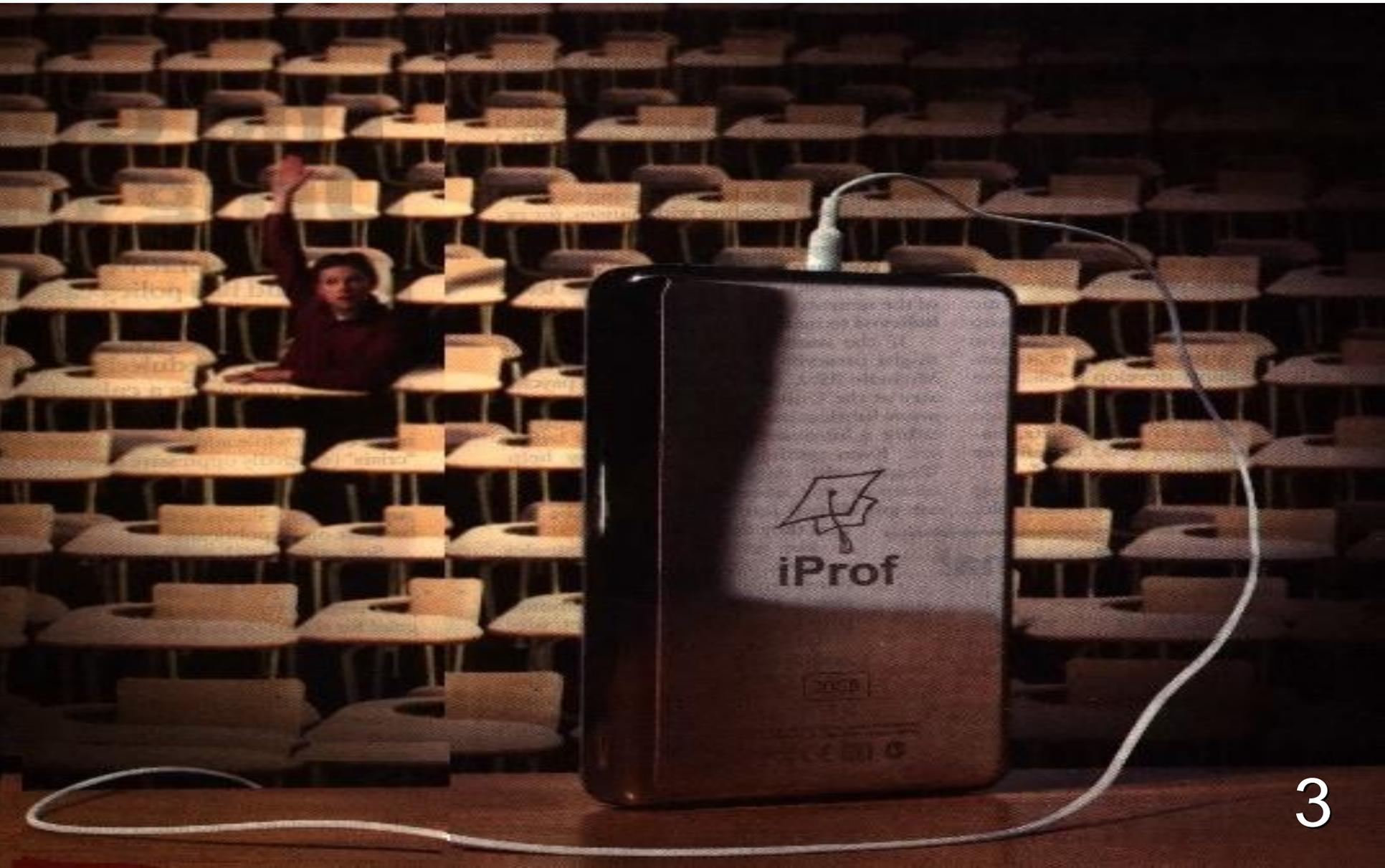
Jamil Salmi

Astana Conference – 15 October 2015

the future of higher education?



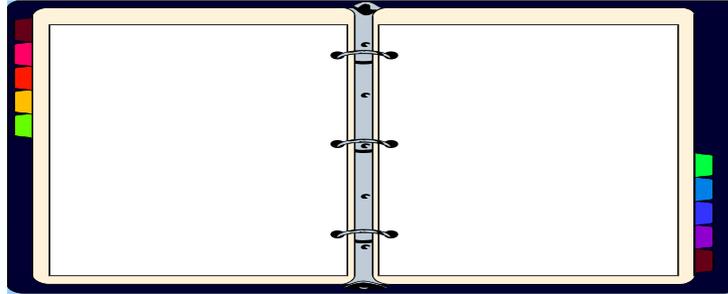
a world of science fiction?



how can Brazilian and Latin American universities keep up?

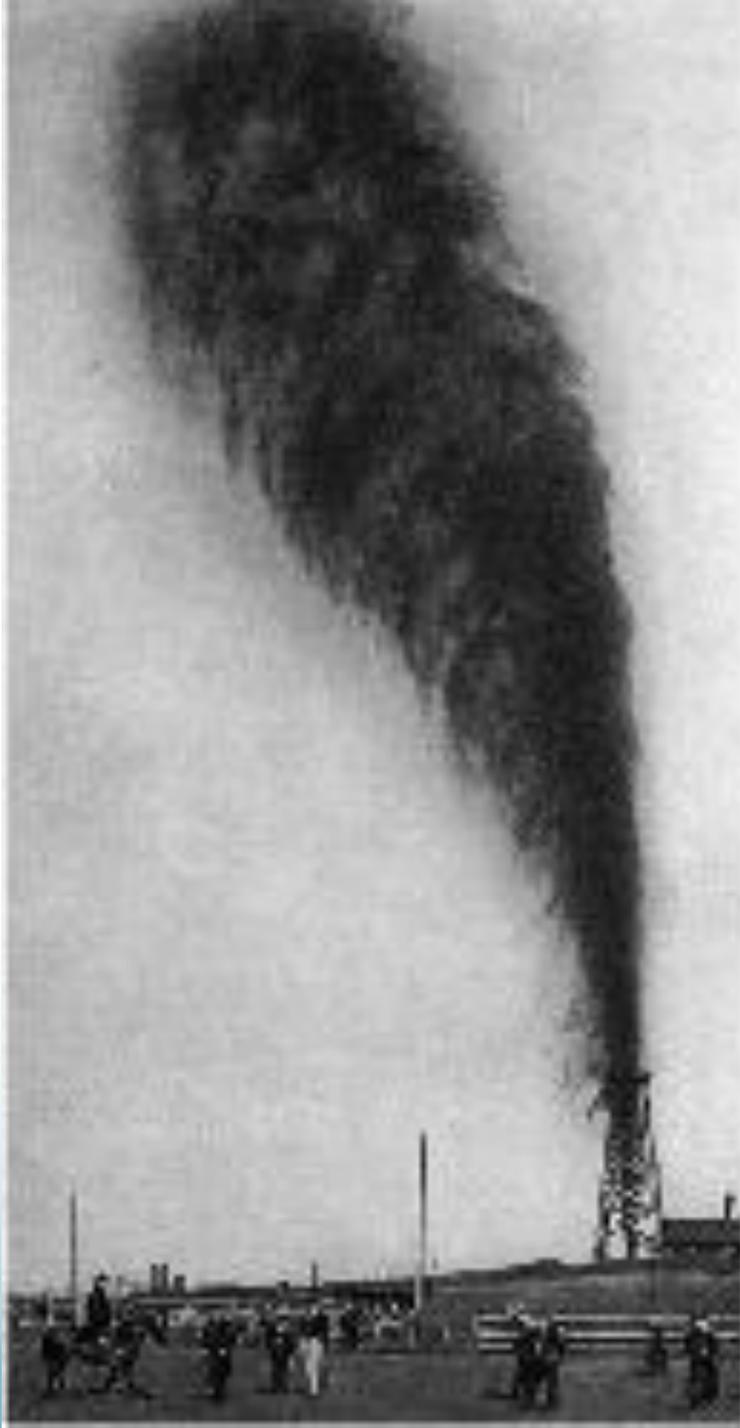


outline of the presentation...

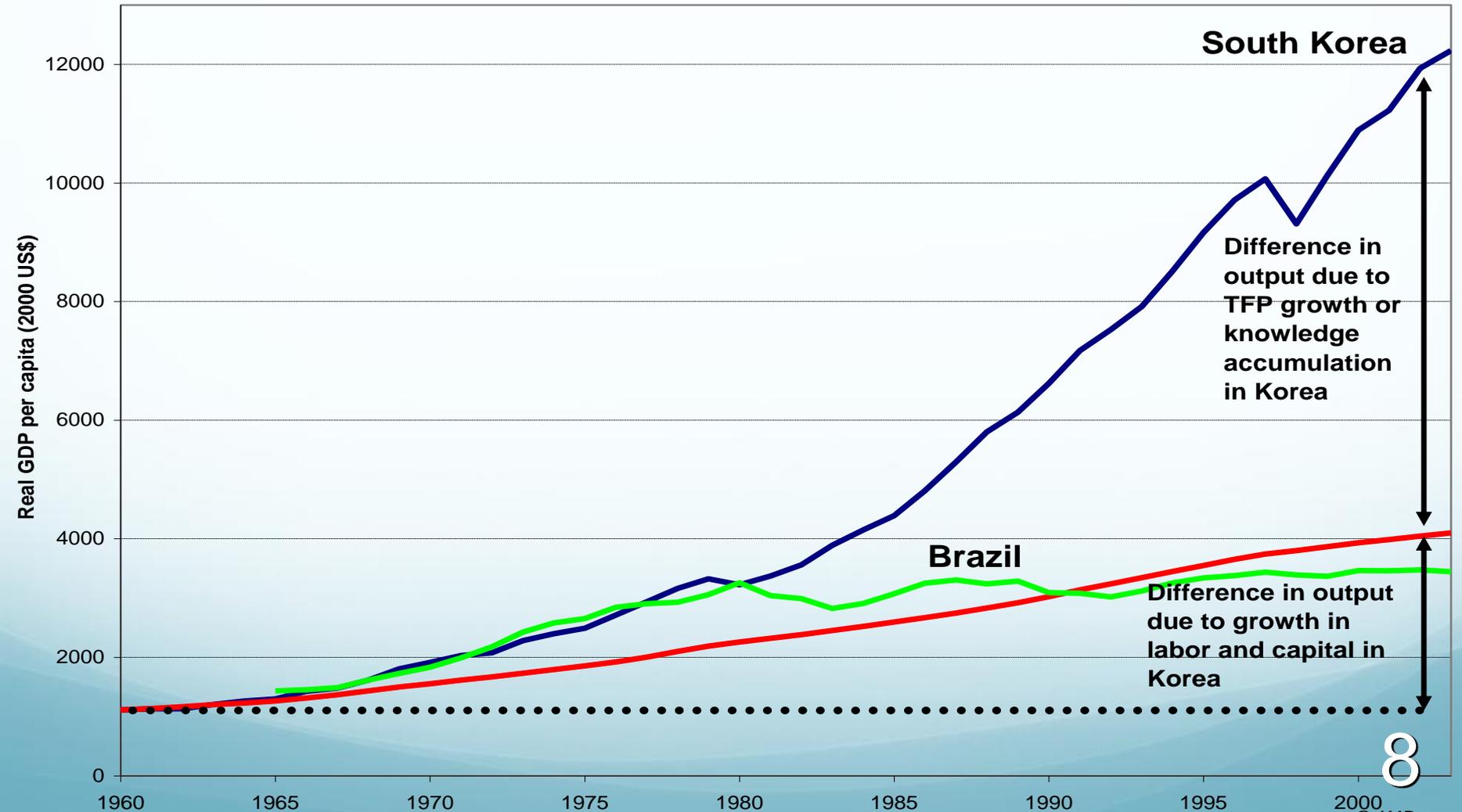


- importance of knowledge for innovation
- impact of innovation on higher education
- implications for quality assurance

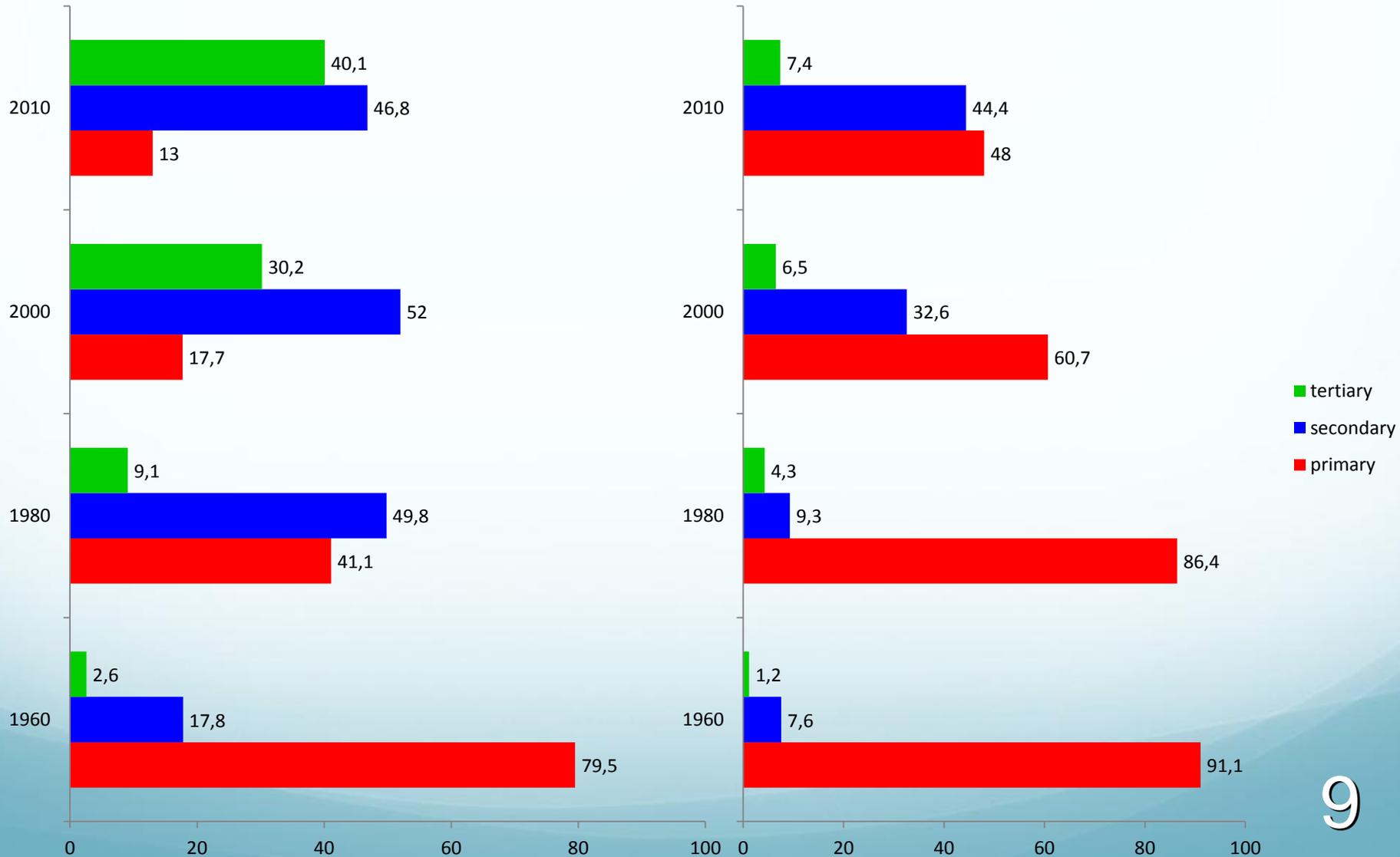




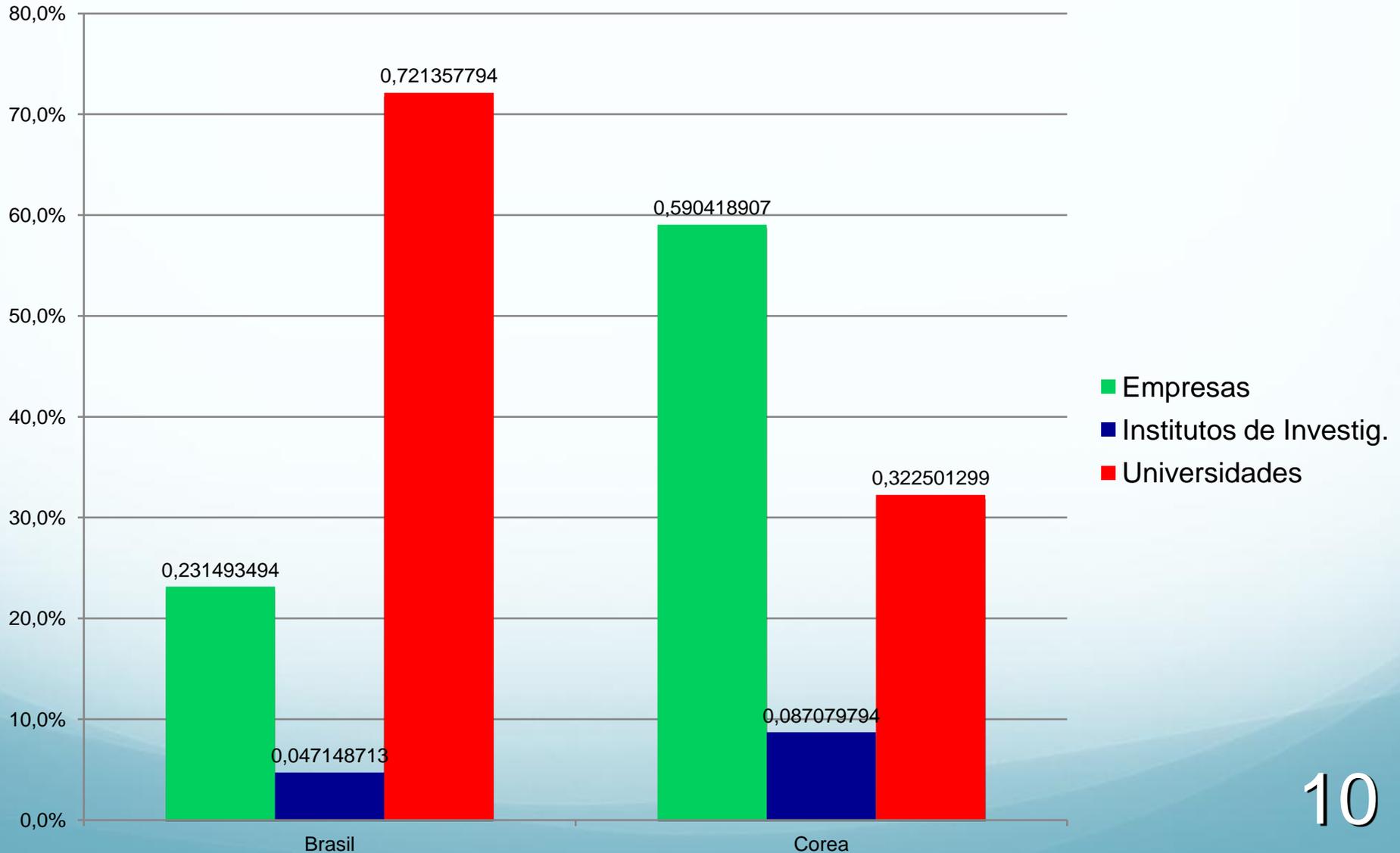
explaining the difference between poverty and wealth



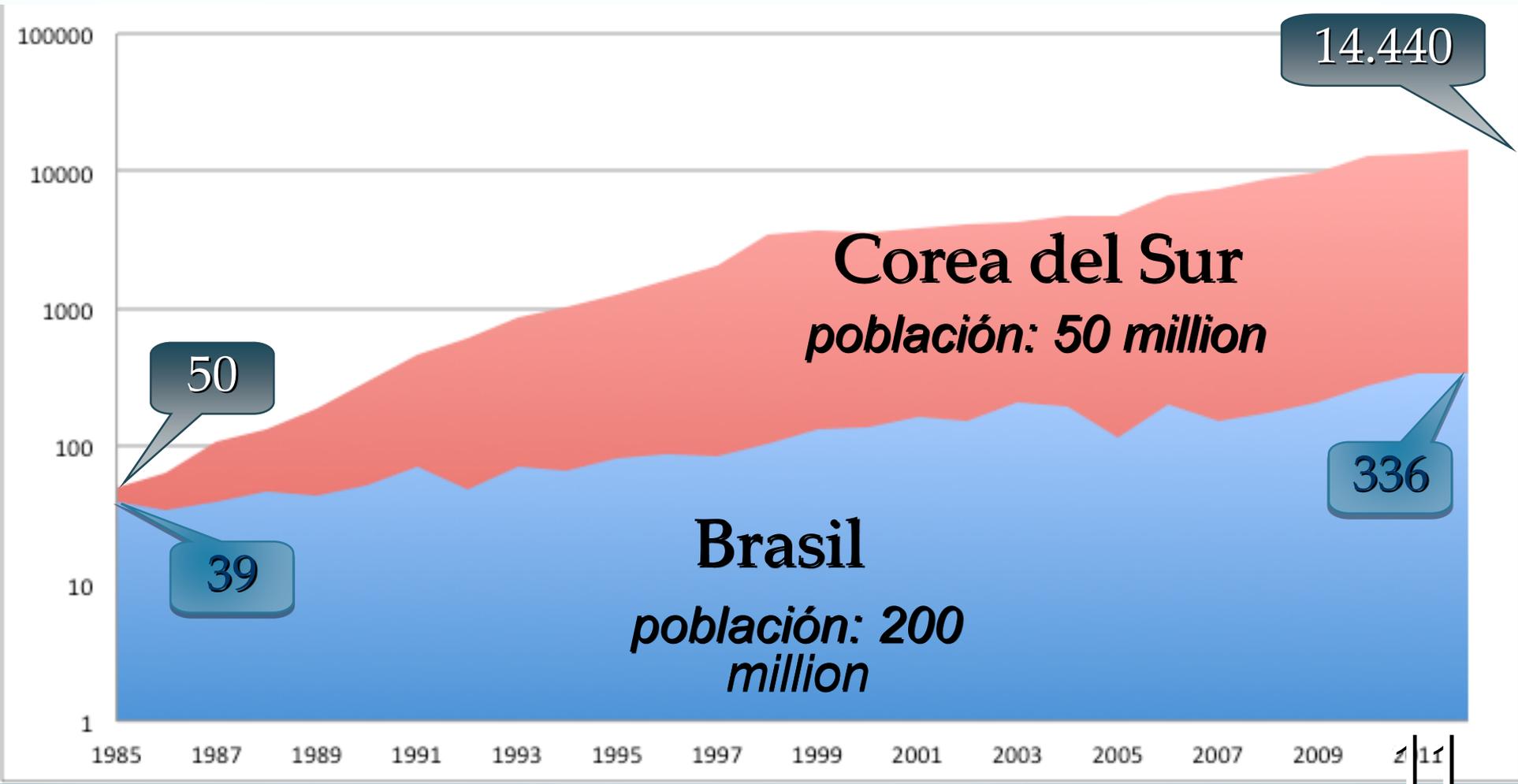
South Korea and Brazil



scientists active in R&D



patents/USPTO, 1985-2012



exception





INSTITUTO TECNOLÓGICO DE AERONÁUTICA

Chile and Finland (2012)

- Chile
 - total population: 17.6 million
 - 185 PhDs working in companies
- Finland
 - Population: 5.4 million
 - 23,000 PhDs working in industry



Oulu



OULUN KAUPUNKI
City of Oulu

OULUN YLIOPISTO
University of Oulu

NOKIA

Nokia E7
Biểu tượng mới
của người thành đạt



NOKIA
Connecting People

NOKIA

Connecting People

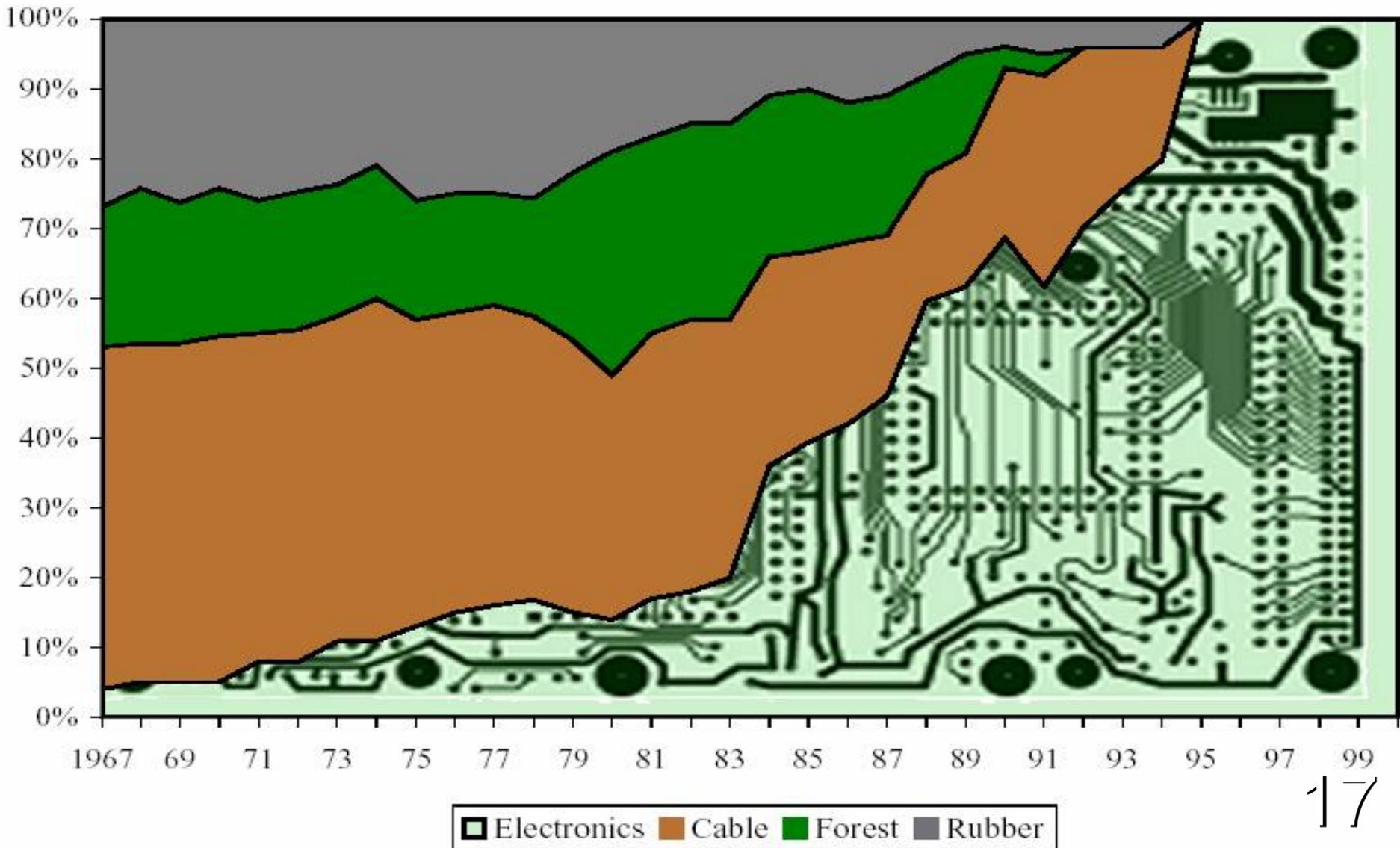
OPEN: 08h00

CLOSE: 21h00

Nokia E7
Biểu tượng
của người thành đạt



evolution of Nokia sales



Blackberry: from success to failure

- launched in 1998 from a little office above a bakery
- 3 million clients in 2004
- 20,000 employees and 2 billion dollars income in 2006

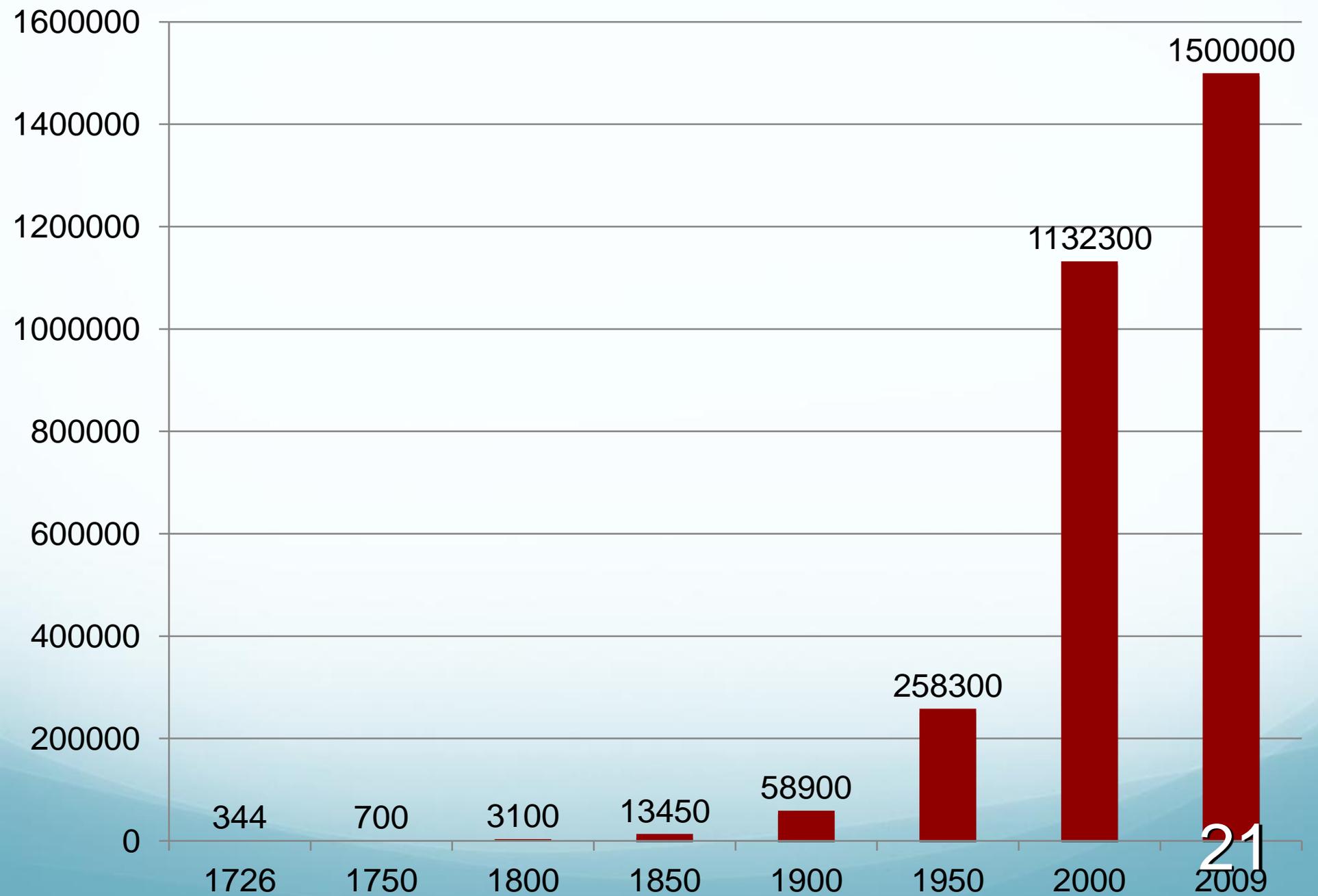
Blackberry: from success to failure (II)

- loses a legal suit on a small patent for a cost of 614 million dollars
- the two founders fight
- iPhone

acceleration of speed of
creation of new knowledge



number of scientific articles



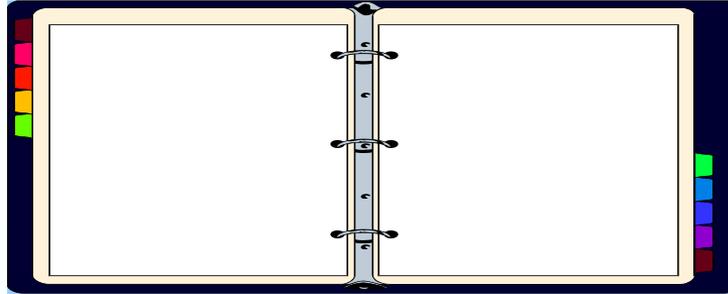




how can we keep up?



outline of the presentation...



- importance of knowledge for innovation
- **impact of innovation on higher education**

three dimensions of innovation

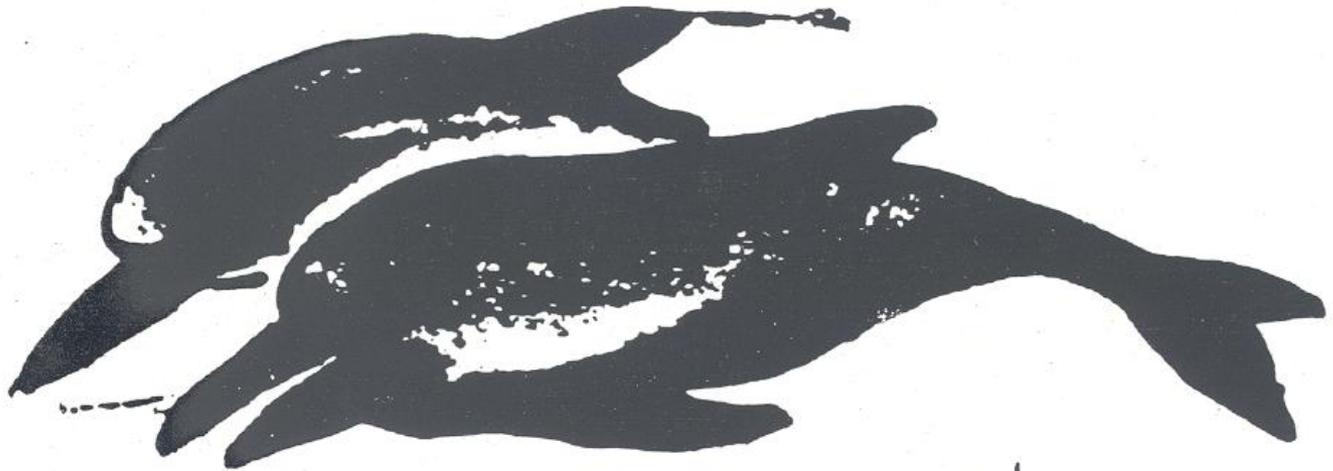
- new skills and competencies (curriculum)
- new pedagogy (learning approach)
- innovative use of new technologies in support

need to think in terms of multiple intelligences (Howard Gardner)

- linguistic
- logical and mathematical
- spatial
- bodily / kinesthetic
- musical
- interpersonal
- intrapersonal

generic complex competencies

- information analysis, critical thinking & problem solving
- global contextual analysis
- creativity
- teamwork / collaboration
- communication



J. Harris

“Although humans make sounds with their mouths and occasionally look at each other, there is no solid evidence that they actually communicate among themselves.”

character qualities

- curiosity (motivation)
- initiative (entrepreneurial thinking)
- persistence / grit
- adaptability
- leadership
- ethical awareness & reasoning (social, cultural & environmental dimensions)

design



prada phone

Giorgio Armani-Samsung cel



AURA™

THE RETURN OF ARTISTRY





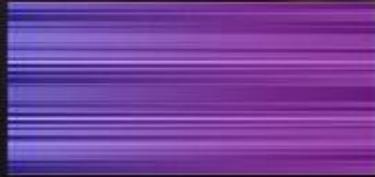














creativity

**“I didn't know
you could do that!”**



changing education needs and practices

- new competencies
- lifelong learning











changing education needs and practices

- **new skills**
- **lifelong learning**
- **learning to learn and unlearn continuously**

Edwin Land, founder of the Polaroid

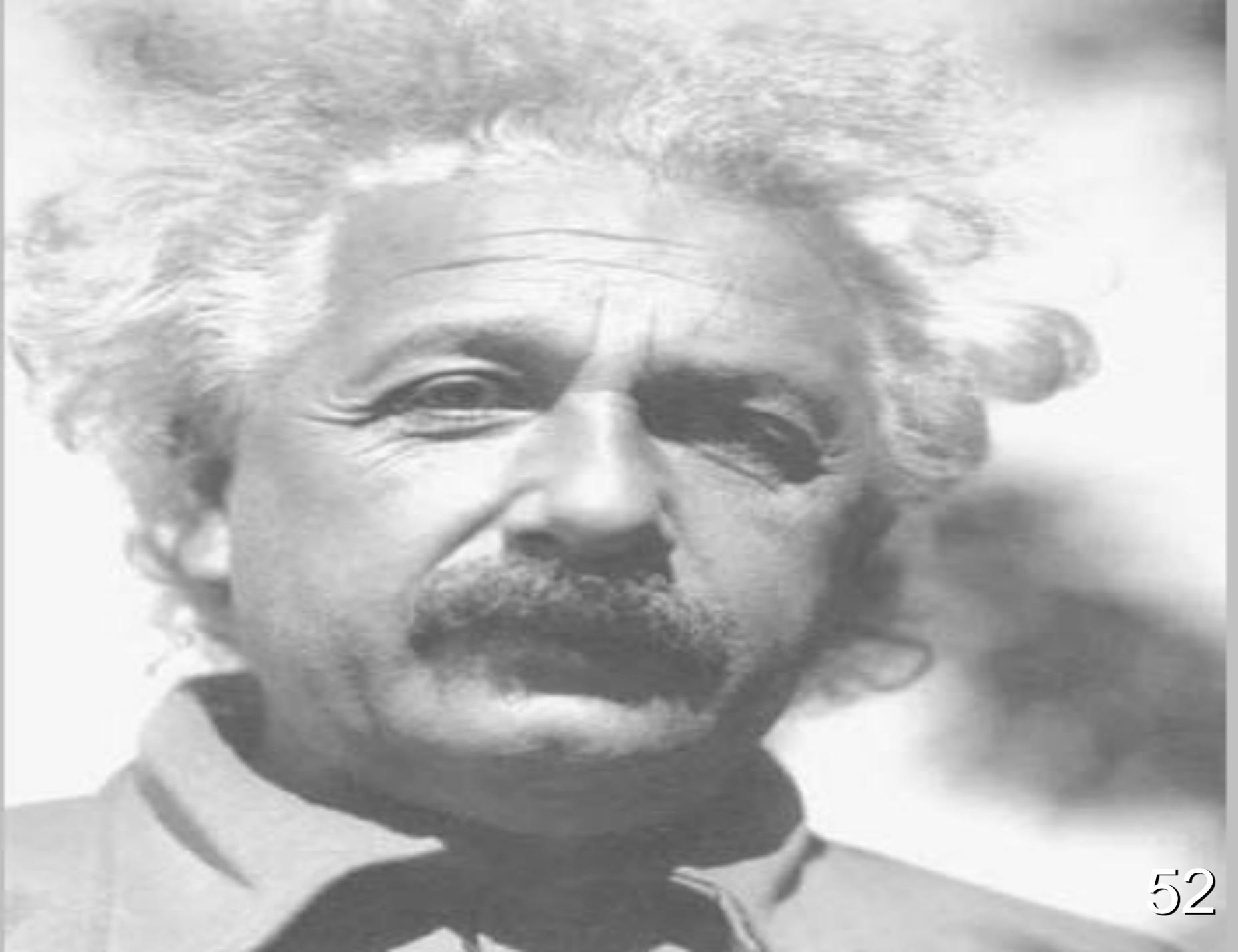


“It’s not that we need new ideas,
...

but we need to stop having old
ideas.”

Alvin Toffler

The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn





new pedagogical approaches

- focus on learning tailored to needs of individuals rather than teaching
- new and varied modalities for learning: active, interactive, collaborative & experiential learning
 - learning from faculty & peers

when you want...



where you want...



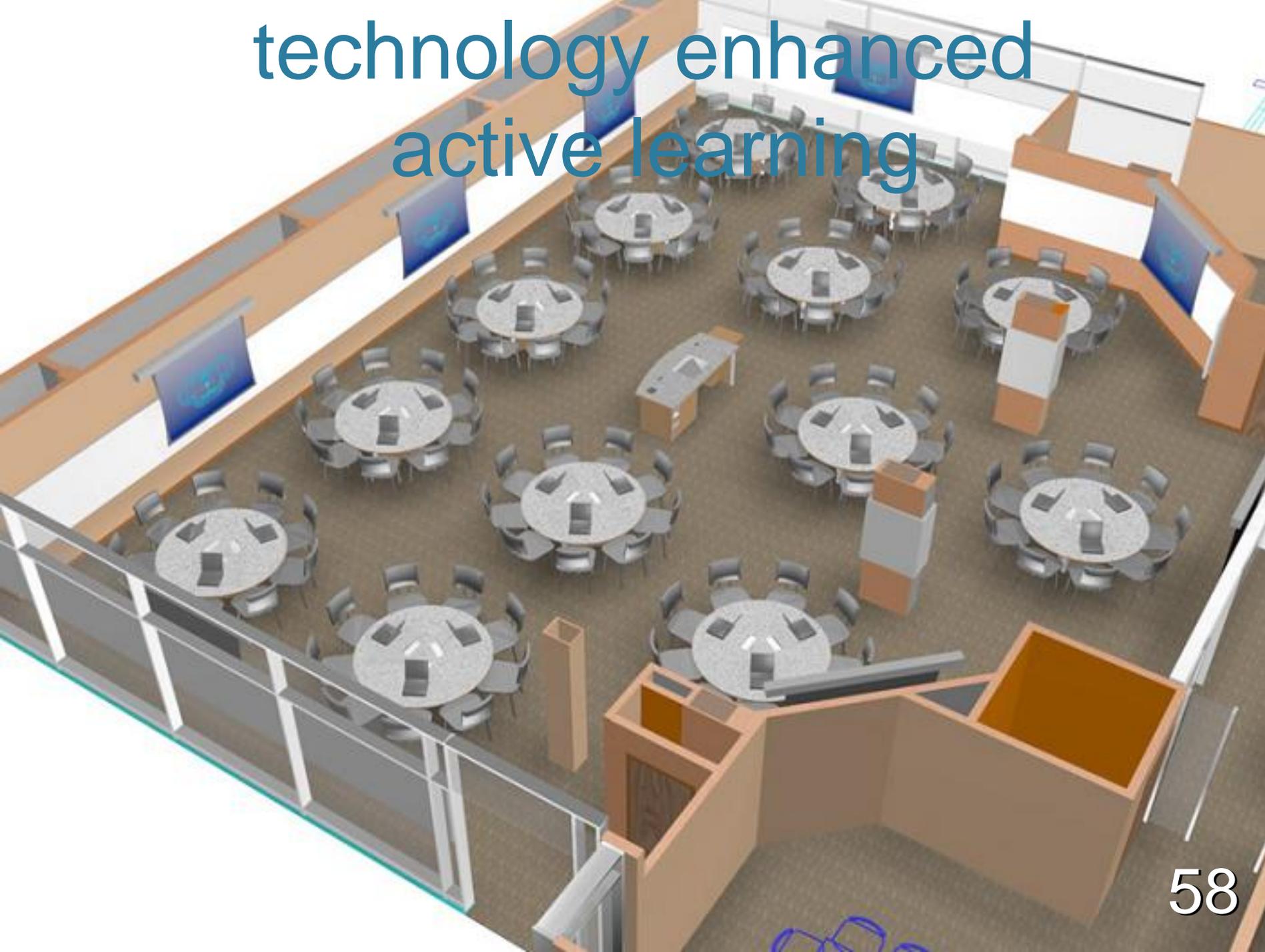


Water Based Activities
The Water Based Activities are designed to provide a fun and educational experience for all ages. The activities are designed to be interactive and engaging, and are suitable for all ages. The activities are designed to be interactive and engaging, and are suitable for all ages.

Water Based Activities
The Water Based Activities are designed to provide a fun and educational experience for all ages. The activities are designed to be interactive and engaging, and are suitable for all ages.

Please Read!
Please follow the rules and instructions to ensure a safe and enjoyable experience.
1. Please do not run or play rough games in the water.
2. If you would like to participate, please sign up at the registration desk.
3. Please do not drink alcohol while participating in the activities.
4. Please do not use any weapons or sharp objects in the water.
5. Please do not use any profanity or offensive language.

technology enhanced
active learning











the new model

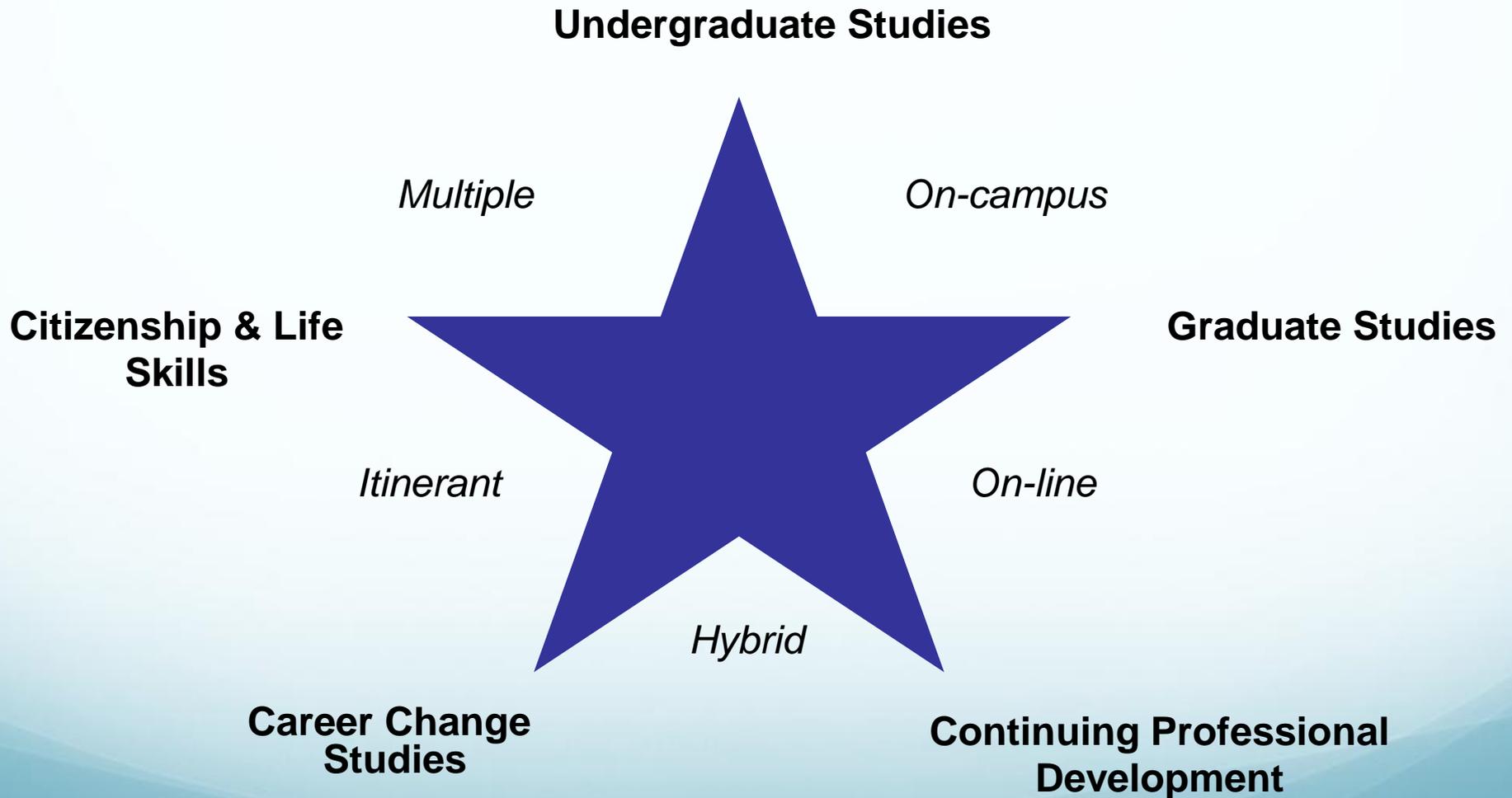
- transfer of knowledge / construction of knowledge
- follow instructions / follow your passion
- learn in the classroom / learn 24 x 7
- learn as an individual / learn in teams

today

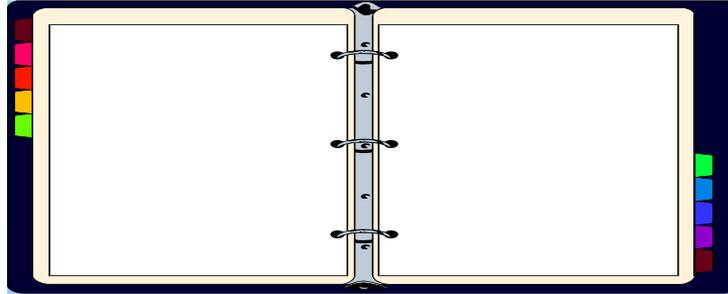
postgraduate
studies

first degree

university of the future?



outline of the presentation...



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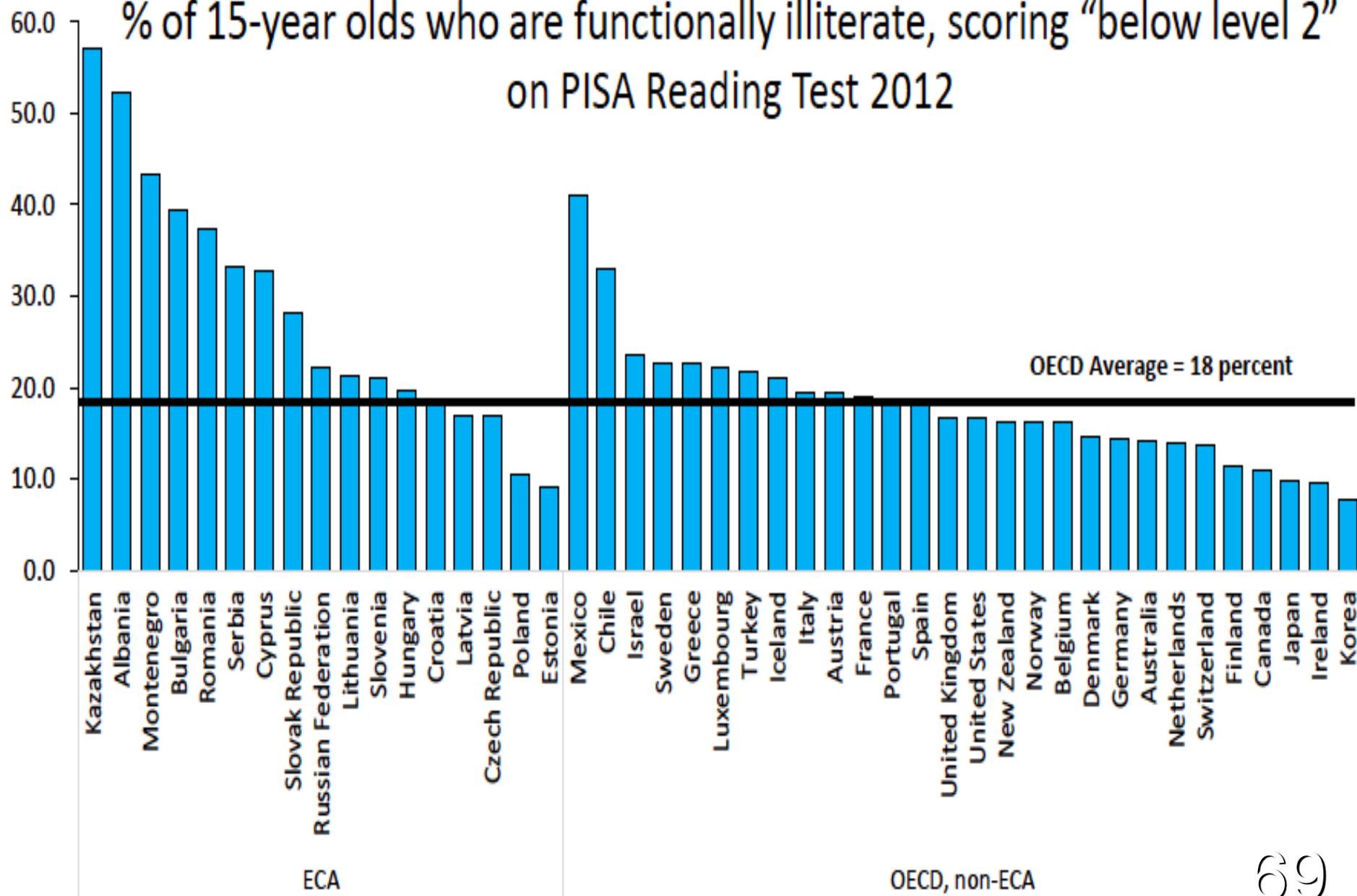


quality and relevance challenges

- weak academic preparation of incoming students

Too many youth fall behind in basic cognitive skills

% of 15-year olds who are functionally illiterate, scoring "below level 2" on PISA Reading Test 2012



quality and relevance challenges

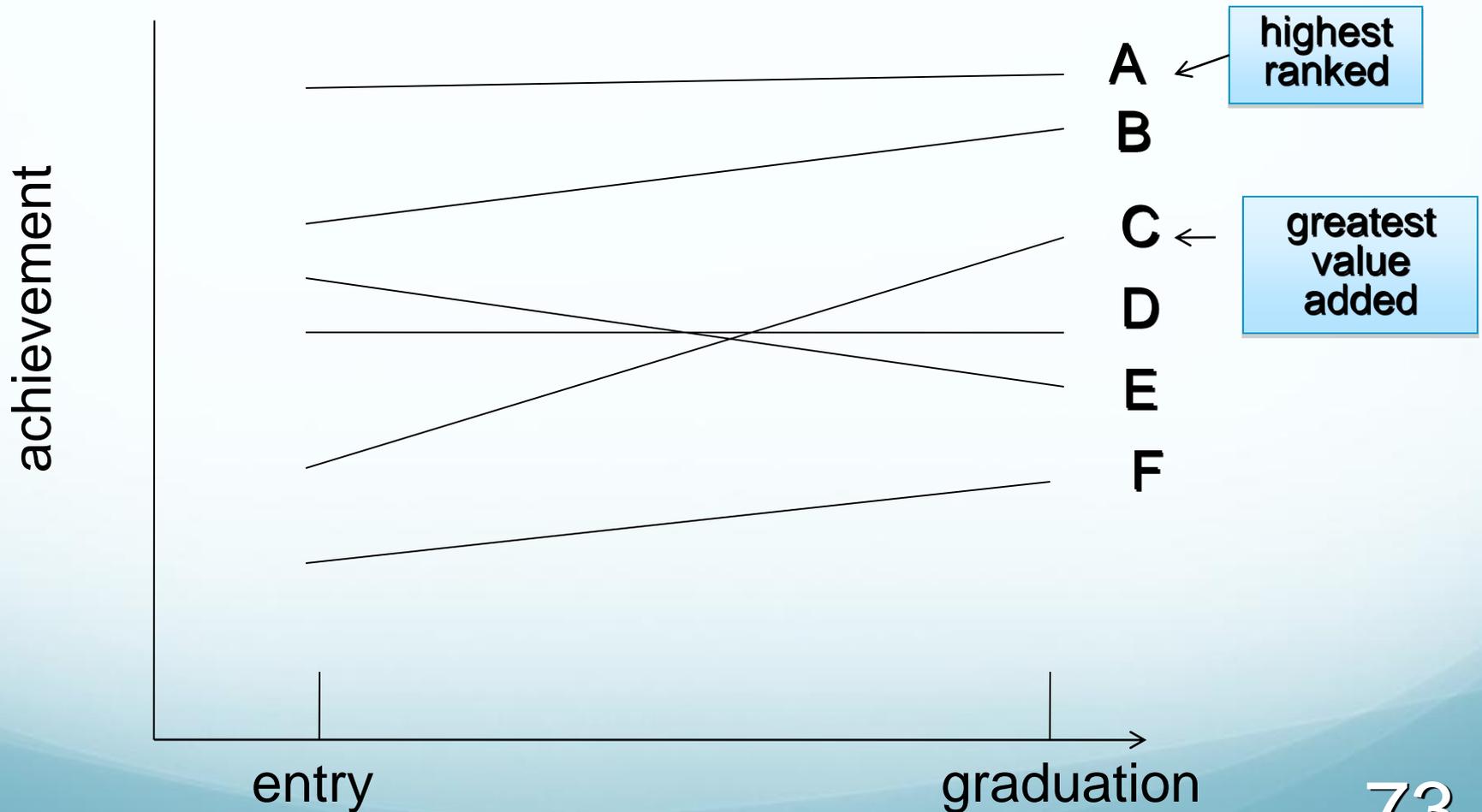
- weak academic preparation of incoming students
- 21st competences & skills
 - professional skills
 - soft skills
- traditional pedagogical practices
- poor integration of teaching and research



quality and relevance challenges

- measurement of learning outcomes
 - inter-disciplinary
 - added value

absolute achievement vs. value added



quality and relevance challenges

- measurement of learning outcomes
 - inter-disciplinary
 - added value
- e-learning

e-learning

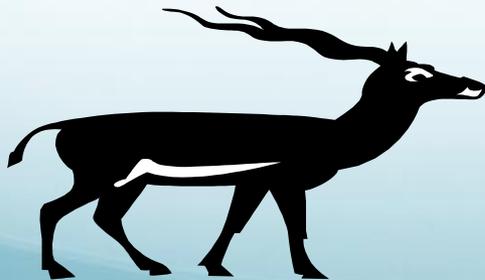


conclusion

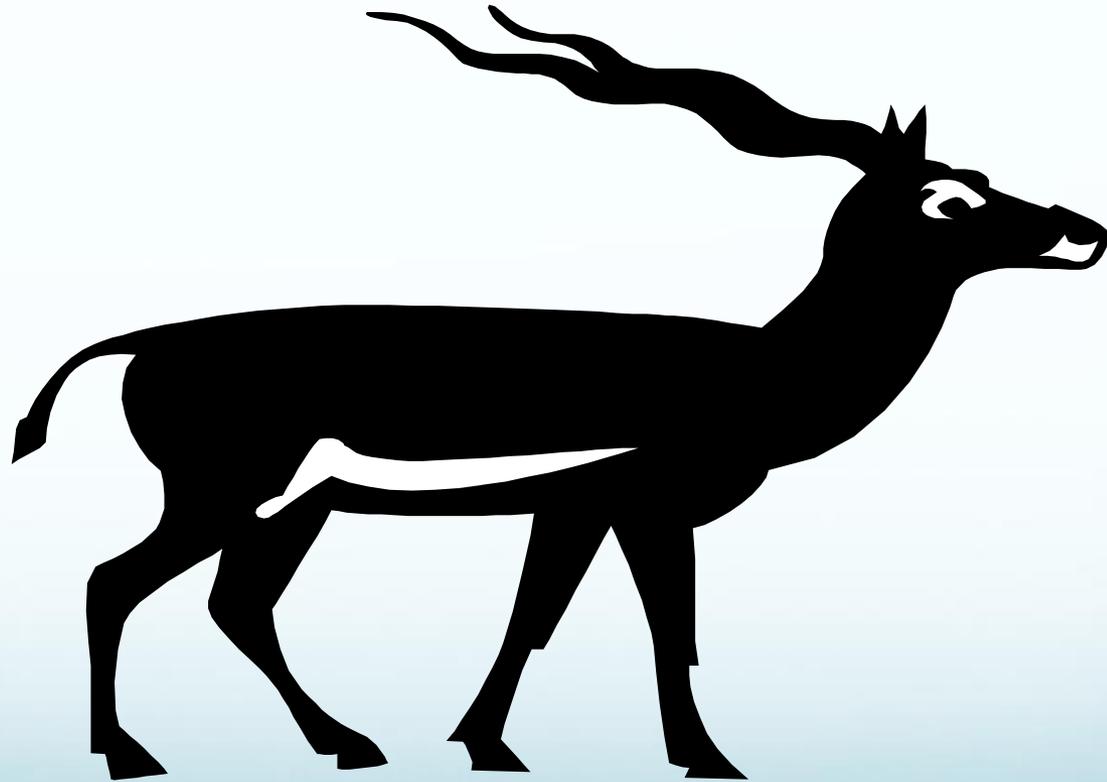




competing in the learning society...



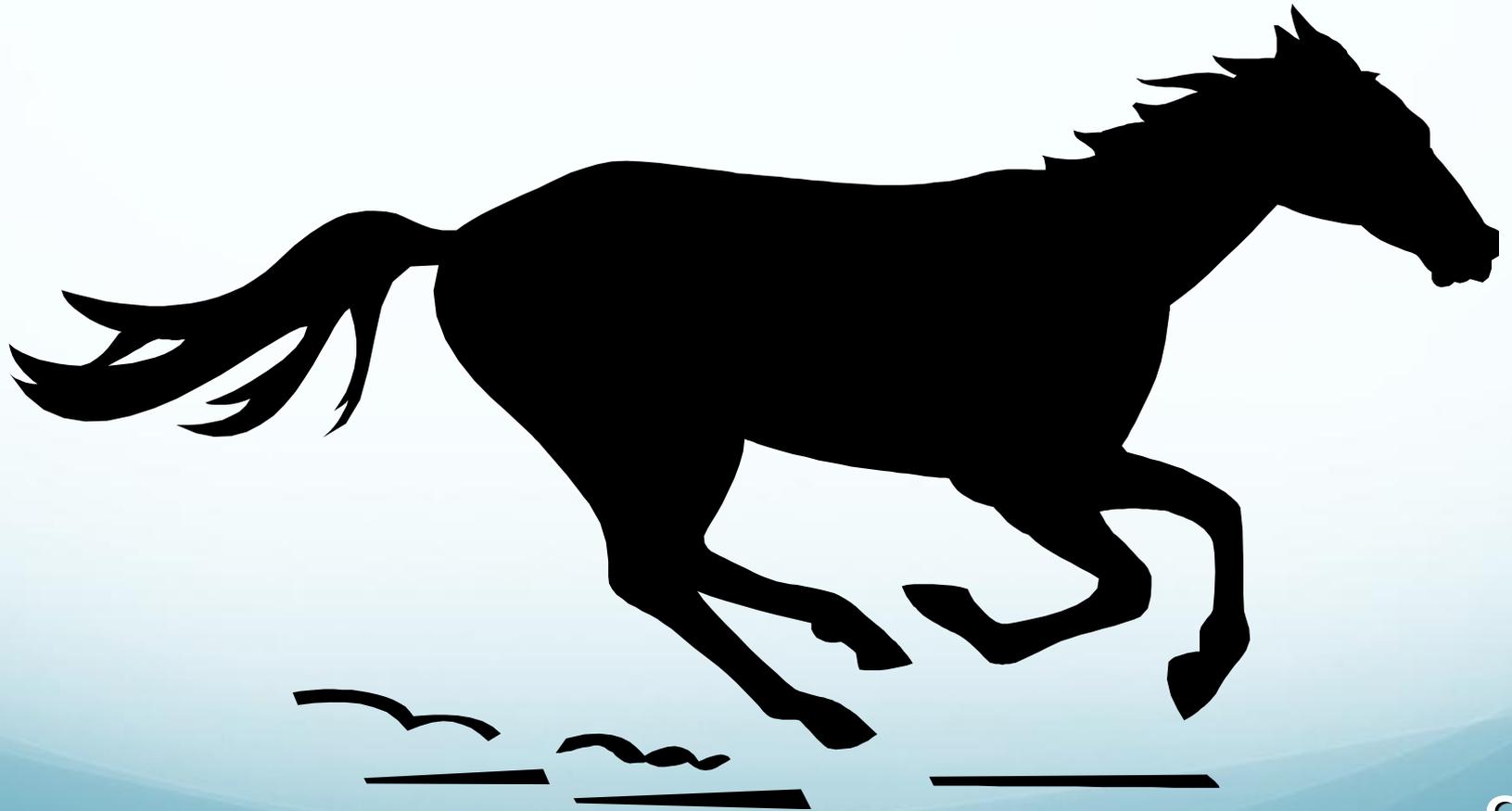
competing in the learning society...



competing in the learning
society...



competing in the learning
society...



rule of the strongest









what is your vision?





make your own path ...