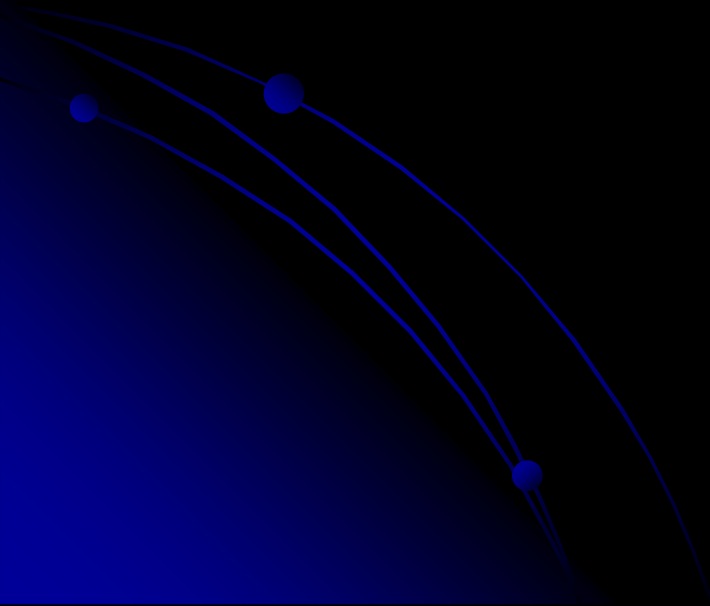


INNOVATION, FORMAL AND INFORMAL EDUCATION
CAN UNIVERSITIES NURTURE THE CREATIVITY OF
STUDENTS?



EDUCATION

In the broadest sense it is any act or experience that has a formative effect on the mind, character or physical ability of an individual.



FORMAL EDUCATION: A formal education programme is the process of training and developing people in knowledge, skills, mind, and character in a structured and certified program. Hierarchically structured, chronologically graded 'education system'.



- PRIMARY EDUCATION
- SECONDARY EDUCATION
- HIGHER EDUCATION
- ADULT EDUCATION



NON-FORMAL EDUCATION refers to education which takes place outside the formally organised school.

Any organised educational activity outside the established formal system - whether operating separately or as an important feature of some broader activity - that is intended to serve identifiable learning clienteles and learning objectives.

This education is called non-formal because:

- it is not compulsory
- it does not lead to any formal certification
- it may or may not be state-supported



INFORMAL EDUCATION is the truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment - from family and neighbours, from work and play, from the market place, the library and the mass media.

The distinction is largely administrative. Formal education is linked with schools and training institutions; non-formal, with community groups and other organizations; and informal covers what is left.



CREATIVITY

Creativity is the ability to generate innovative ideas and translate them from thought into reality. The process involves original thinking and the implementation of the creative idea. Over time, the term creativity came to include human innovation, especially in art and science and led to the emergence of the creative class.

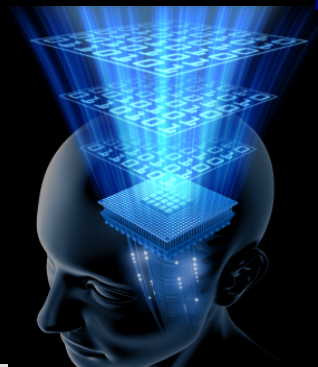


THE POWER OF CREATIVES

The **Creative Class** is a socioeconomic class that economist and social scientist Richard Florida, a professor and head of the Martin Prosperity Institute at the Rotman School of Management at the University of Toronto, identifies as a key driving force for economic development of post-industrial cities

The Creative Class includes a wide range of occupations (e.g. science, engineering, education, computer programming, research), with arts, design, and media workers; and also professionals which are the classic knowledge-based workers.

The Creative Class is a class of workers whose job is to create meaningful new forms



EUROPE IN THE CREATIVE AGE

Richard Florida, along with Irene Tinagli, carried out a study on the European “level of creativity”

In seven out of the 14 European nations studied, the Creative Class made up more than 25% of the workforce. And in three – Belgium, the Netherlands and Finland – it was very close to the US figure of 30%.

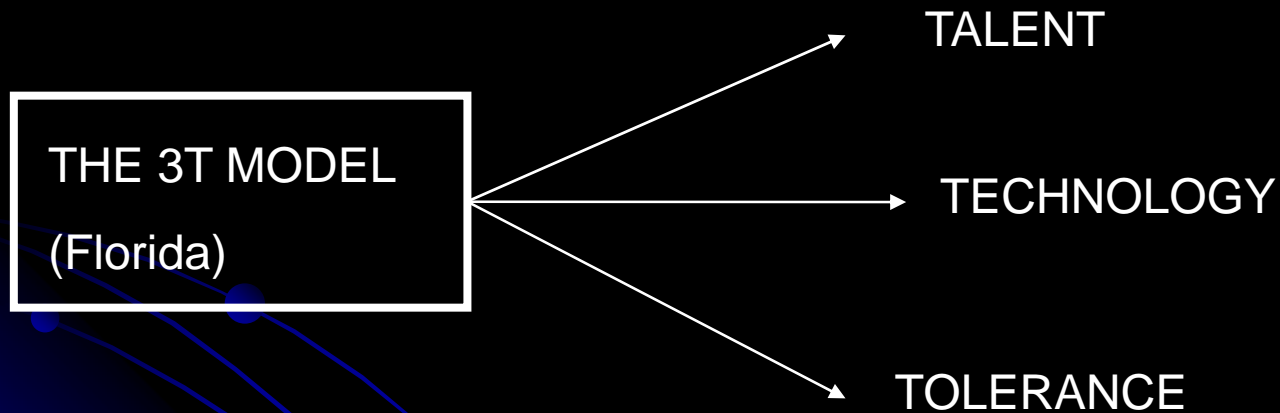
At the lower end of the scale, with Germany at only just over 18%, Austria under 17%, and Italy at a little over 13%, just ahead of Portugal.

Questioning
Inquiring
Learning
Thinking
Creativity



CREATIVITY - INNOVATION

The changing role of the university is bound up with the broader shift from an older industrial economy to an emerging Creative Economy, which harnesses knowledge and creativity as sources of innovation and productivity growth.



TECHNOLOGY: As major recipients of both public and private R&D funding universities are often at the cutting edge of technological innovation.

TALENT: Universities affect talent both directly and indirectly. They directly attract faculty, researchers and students, while also acting as indirect magnets that encourage other highly educated, talented and entrepreneurial people and firms to locate nearby, in part to draw on the universities' many resources.

TOLERANCE: Research universities help shape a regional environment, to make it open to new ideas and diversity. They attract students and faculty from a wide variety of racial and ethnic backgrounds, economic statuses, sexual orientations, and national origins.



THE CONSEQUENCE: THE BRAIN DRAIN IS THIS A PROBLEM OR A POSITIVE ASPECT?

The movement of talented, high human capital people from one region to another, as seen from the losing region's perspective. Low retention rates of local graduates is troubling parents and economic developers alike, and many regions are trying to figure out ways to keep graduates from leaving or to lure them back when they get older.

A region that retains many of its own graduates but fails to attract degree-holders from other regions will most likely fall behind.



HONG KONG CREATIVITY INDEX

- MOBILITY → as a key element of openness
- CIRCULATION OF NEWSPAPER, BOOK AND PERIODICAL TITLES
- PERFORMANCES BY GOVERNMENT CULTURAL SERVICES

CULTURE AS A WAY TO NURTURE CREATIVITY



HANS J. EYSENCK CREATIVITY FACTORS

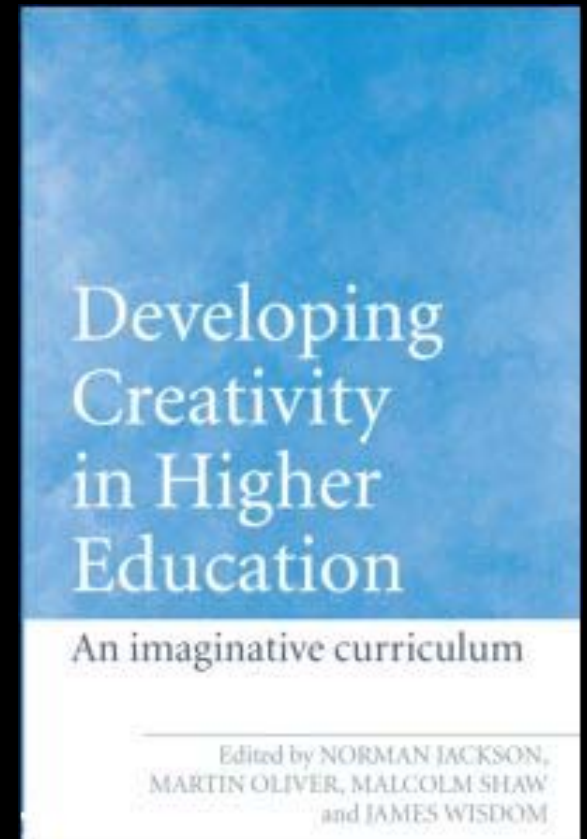
Variables that interact in a multiplicative mean to produce creative outputs:

- COGNITIVE
 - ENVIRONMENTAL
 - PERSONALITY
-
- **COGNITIVE:** Intelligence, knowledge, technical skills, special talents;
 - **ENVIRONMENTAL:** Political-religious factors, cultural factors, social and economic factors, educational factors;
 - **PERSONALITY:** Internal motivation, self-confidence, unconventional



Aurelie Duchateau points out:

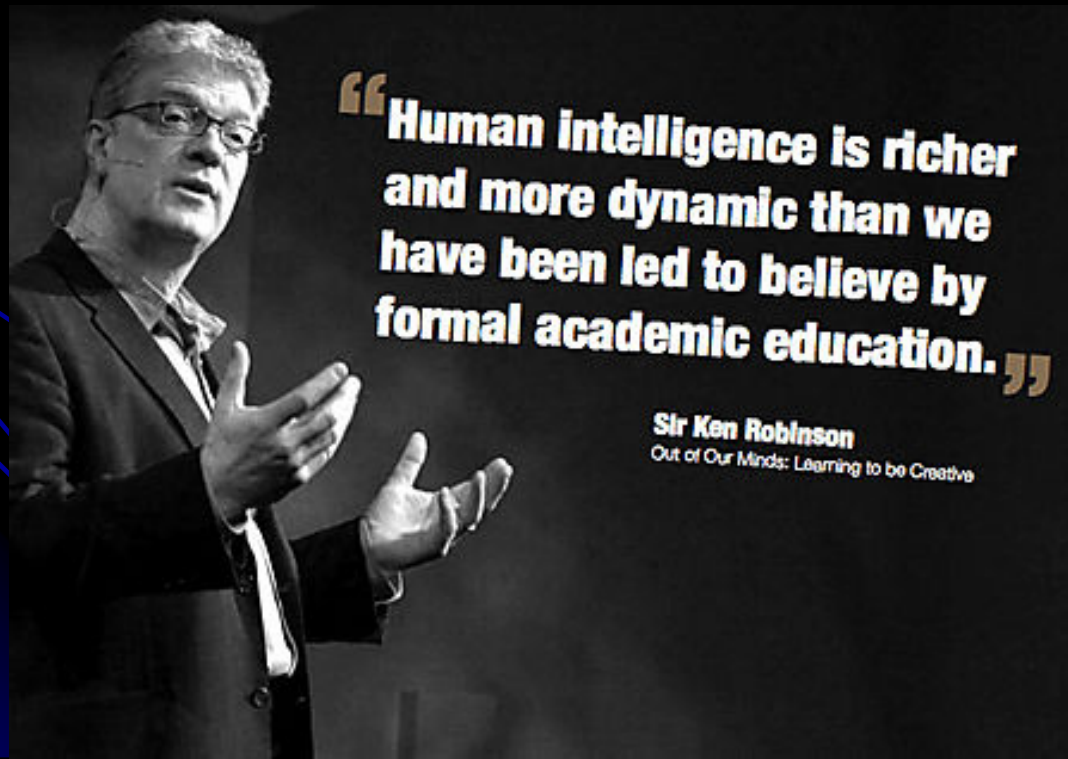
Norman Jackson (Creativity in Higher Education 'Creating tipping points for cultural change' in SCEPtrE Scholarly Paper 3: March 2006): creativity is a moral purpose to make a difference to students but also for the world. To be creative is to imagine, explore, synthesize, connect, discover, invent and adapt. It is important for our well-being and it prepares people for an uncertain and complex world. At the same time such people are "good" for the prosperity of society.



George Zacharopoulos indicates:

Ken Robinson`s defines creativity as the "process of having original ideas that has value". Ken Robinson is probably the most gifted leaders when it comes to explain the value of creativity and most of his work is focused on the relationship between the educational system and the creativity. He explains that creativity is a process not an event (that people wish to take place sometime), therefore is something that people can learn systematically through education.

Do Schools Kill Creativity?



COMMERCIALIZING UNIVERSITIES: GOOD OR BAD DECISION?

Does it kill or foster creativity?

There has been a movement around the world to make universities “engines of innovation,” and to enhance their ability to commercialize their research. Universities have largely bought into this view because it makes their work more economically relevant and as a way to bolster their budgets.



LET'S TALK



Aurelie Duchateau:

What I wanted to say is that when we receive a task in school by which we have to be creative, we just can't be creative. So if we think "I have to be creative", we cannot be creative. For me it seems then, that first we produce something (a painting, an essay, etc.) and then we can judge if it was creative or not.

Lorenzo Pizzuti:

Creativity is a process to nurture ideas and make them real.. It gives birth to something you cannot find anywhere else and that represent an unique solution to a problem or a need in every possible field. ...it's the basis of competition and innovation...

Jan Endrik Niermann :

In order to „create“ creativity (= combinative and associative thinking) it needs to be activated by associative, inter-related and diverse practices.

Creativity's virtues extent far beyond economic benefits!!



Paula Martinez:

Creativity is a **skill** (and, so, innate, but also something that can be improved by means of work) which operates **unconsciously** most of the time...

Carlotta Rossi:

Creativity is a gift... but I think that everyone can be creative if well stimulated!

Creativity is the
opposite
of routine



PROPOSALS

- Reduce standardized tests and models in order to emphasize the diversity of students (extra courses complementary to the existing ones, with a different evaluation)
- Create conditions for individual support of each student at the university
- Modernize the way of teaching by creating multimedia material, developing of new technologies
- Programs built on flexibility
- To estimate free resources of universities
- Promote research as a creative process
- Promote extra-curricular activities
- Formal activities based on informal experiences

[...]



IN WHICH WAY UNIVERSITIES CAN NURTURE THE STUDENTS' CREATIVITY?



- **SPORTS**
- **LEARN A NEW LANGUAGE**
- **ARTS: MUSIC, DANCING, ORCHESTRA...**
- **COURSES IN ENGLISH:** (a gateway to new perspectives)

• **INTERNATIONAL COLLABORATION:** between universities and students (as UNICA forum)

• **STUDENT ASSOCIATIONS, POLITICS, UNIONS and COUNCILS**

• **STUDENTS EXCHANGE:** (foreign students help you see things from a different point of view)





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- Hans J. Eysenck
Race, Intelligence and Education (in the US: The IQ Argument)



Lorenzo Pizzuti

Carlotta Rossi

