



UNESCO Institute
for Information Technologies
in Education



INTERNATIONAL
COUNCIL FOR OPEN AND
DISTANCE EDUCATION

IITE-2016 International Conference “ICT in Education: Innovation for Quality, Openness and Inclusion”

Sustainable Development Goals: Ensuring Access and Enhancing the Quality of Education

UNESCO IITE Series of Open Lectures

St. Petersburg State University of Aerospace Instrumentation

5-6 September 2016, St Petersburg, Russia

Gard Titlestad, Secretary General

Member of UNESCO IITE Governing Board

International Council for Open and Distance Education

Why is ICDE here?



- To be the leading global network for making **quality learning accessible** throughout the world using online, open, distance and flexible education.
- To **connect institutions, organisations and professionals** from across the globe so that they can share ideas, resources and best practices, partner on major projects and advocate together.
- To be the official **partner of UNESCO**, that shares that agency's key aim inclusive and equitable quality education and lifelong learning for all.
- ICDE believes that in pursuing education as a universal right, the needs of **the learner must be central**.
- To organize members in **all regions of the world** – global balance.

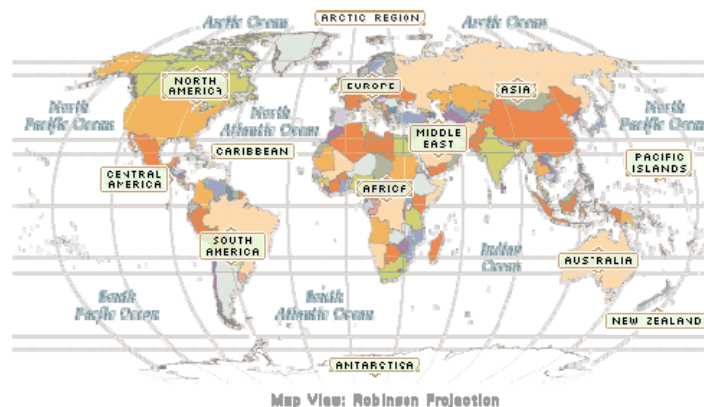


Support
From
Norway
28 years

UNESCO
Partner
>50 years



Platinum
open access



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Focus: Higher Education

The background of the slide is a photograph of a mountain range at sunset. The sky is a gradient of orange and yellow, while the mountains are silhouetted in dark purple and black. The text is overlaid on this background.

Information Superhighway
Knowledge based economy
Information Society

Research area
Higher education area
Mobility and internationalisation

Globalisation
Economic growth
Jobs
Education for all

2000



**WE CAN
END POVERTY
2015** MILLENNIUM
DEVELOPMENT
GOALS



What are the 10 biggest global challenges?



2016



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Image: REUTERS/Daniel Munoz



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD

- On 25 September 2015, the United Nations General Assembly formally adopted the universal, integrated and transformative 2030 Agenda for Sustainable Development, along with a set of 17 Sustainable Development Goals and 169 associated targets.

Goal 13: Take urgent action to combat climate change and its impacts



In historic ceremony, Ban commends China, US for formally joining Paris Agreement



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



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Main principles



- Education is a fundamental human right and an enabling right.
- Education is a public good, of which the state is the duty bearer.
- Gender equality is inextricably linked to the right to education for all.

Millennium Developments Goals 2000 – 2015

Education for All

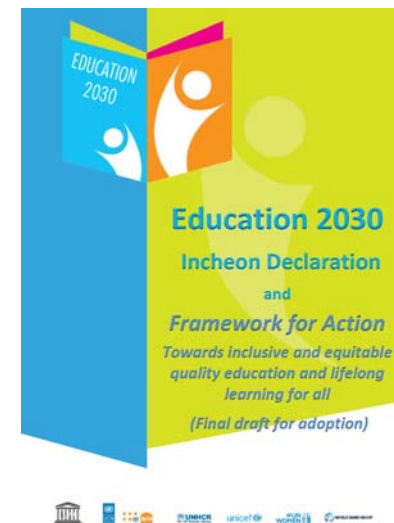
- Addressing developing countries - south
- Addressing primary education



Sustainable Development Goals 2015 – 2030

"Towards inclusive and equitable quality education and lifelong learning for all"

- Addressing all countries, all the world
- Addressing all education, including higher education



Education 2030 Framework for Action (FFA)



- UNESCO is entrusted to lead Sustainable Development Goal 4 (SDG4) - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all - through the Education 2030 Framework for Action (FFA).



“Towards inclusive and equitable quality education and lifelong learning for all”



1. By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes
2. By 2030, ensure that all girls and boys have access to quality early childhood development, care and preprimary education so that they are ready for primary education
3. By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
4. By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
5. By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
6. By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
7. By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
8. Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive and effective learning environments for all
9. By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries
10. By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states

“Towards inclusive and equitable quality education and lifelong learning for all”



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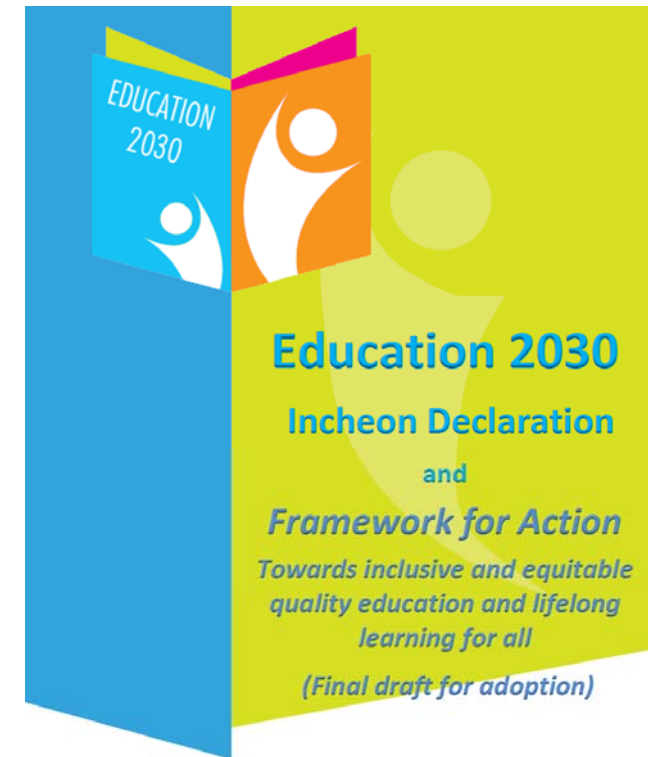
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Framework for Action Education 2030:



Target 3, point 43.:

A well-established, properly-regulated tertiary education system supported by technology, Open Educational Resources (OERs) and distance education modalities can increase access, equity, quality and relevance, and narrow the gap between what is taught at tertiary education institutions and what economies and societies demand. The provision of tertiary education should be progressively free, in line with existing international agreements.



November 2015

SOME QUOTES TO SET THE SCENE:



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NELSON MANDELA

GLOBAL
CITIZEN®

"EDUCATION IS THE MOST POWERFUL WEAPON
WHICH YOU CAN USE TO CHANGE THE WORLD"

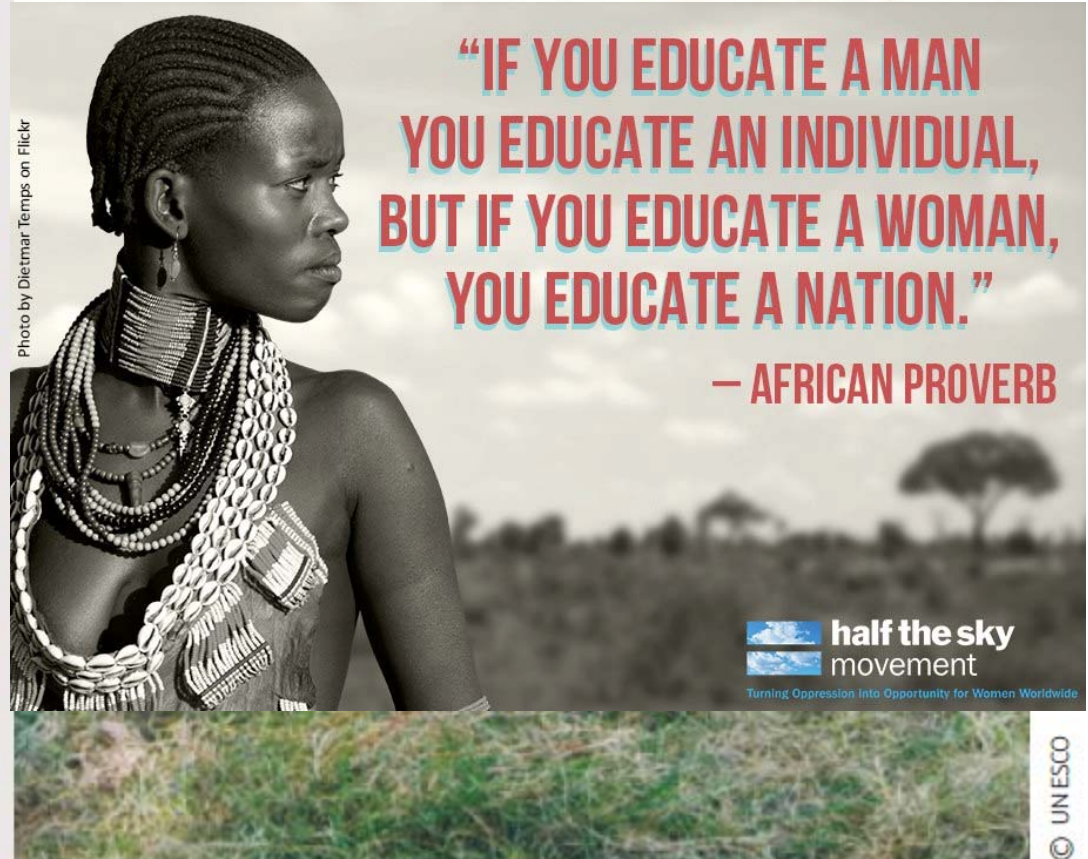


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Quality Education

- ✓ Saves lives of mothers and their children
- ✓ Improves child nutrition and health
- ✓ Reduces early marriages and pregnancies
- ✓ Increases job opportunities
- ✓ Leads to faster growth
- ✓ Increases tolerance and understanding
- ✓ Increases awareness and sensitisation about environmental issues

Photo by Dietmar Temps on Flickr



**“IF YOU EDUCATE A MAN
YOU EDUCATE AN INDIVIDUAL,
BUT IF YOU EDUCATE A WOMAN,
YOU EDUCATE A NATION.”**

— AFRICAN PROVERB

 **half the sky
movement**

Turning Oppression Into Opportunity for Women Worldwide

© UNESCO

Cognitive technologies



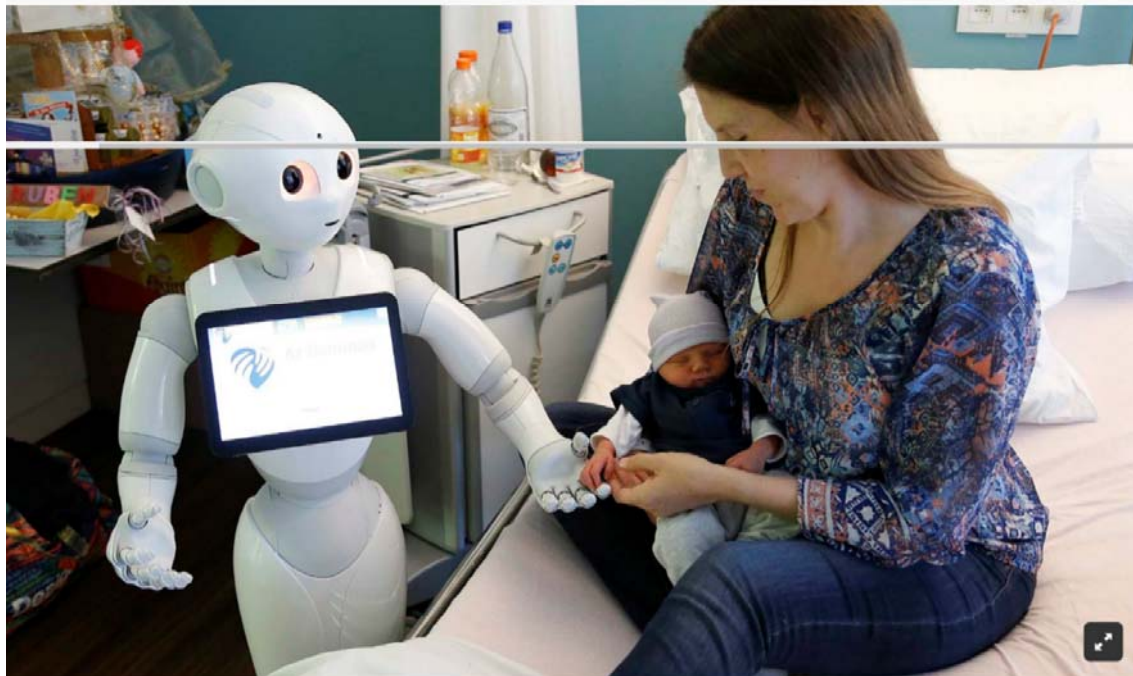
“ The combination of people and computers will be able to think in a way that neither people nor computers have ever done before. I think that’s the really exciting potential and opportunity for us ahead. ”

– Thomas Malone, Director, MIT Center for Collective Intelligence

Legene brukte flere måneder på kreftdiagnosen. Watson brukte ti minutter.

FRØYDIS BRAATHEN

OPPDATERT: 03.SEP.2016 23:05 | PUBLISERT: 03.SEP.2016 20:58



Pepper, som bruker datahjernen Watson, er nylig «ansatt» ved AZ Damaan sykehus i Belgia for å ta imot og ta vare på besøkende og pasienter.



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<https://www.youtube.com/watch?v=X8BG3KOexi8>

«We think cognitive technologies will fuel the digital transformation as the damp machine fuelled the industrial revolution».

— IBM Norway.

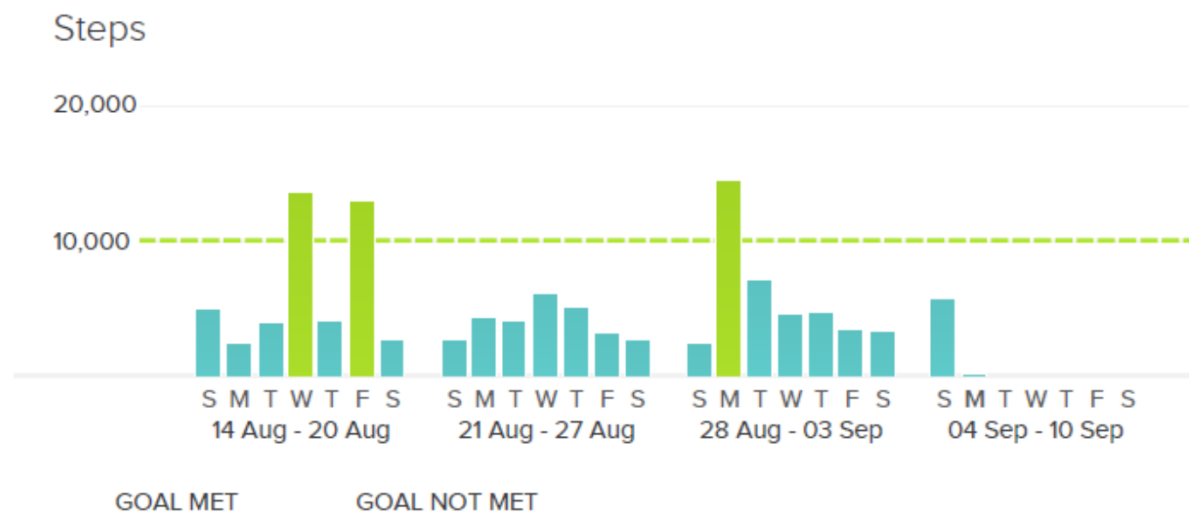
<https://www.bing.com/videos/search?q=cognitive+technologies+and+education&&view=detail&mid=4FDFBA52BEB89D240AE14FDFBA52BEB89D240AE1&FORM=VRDGAR>

Analytics



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My Fitbit



28 Days

28-Day Average

5,442 steps

Decrease Over Previous 28 Days

22% less steps

Best Day: Mon 29 Aug

Learning analytics



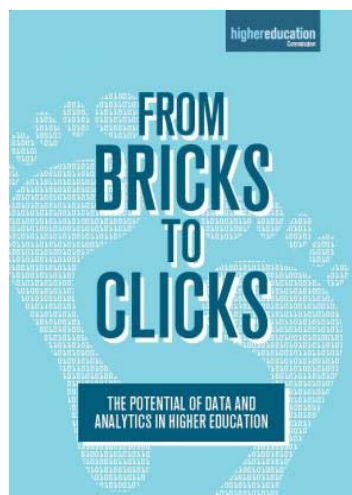
“enormous potential to improve the student experience at university” JISC, UK

- As a tool for quality assurance and quality improvement
- As a tool for boosting retention rates
- As a tool for assessing and acting upon differential outcomes among the student population
- As an enabler for the development and introduction of adaptive learning

<https://www.youtube.com/watch?v=fUOrlp6AZ8E>

<https://vimeo.com/105802864>

The Open University, UK, policy



The UK Higher Education Commission 2016

<http://www.policyconnect.org.uk/hecr/research/report-bricks-clicks-potential-data-and-analytics-higher-education>

Principle 1

Learning analytics is an ethical practice that should align with core organisational principles, such as open entry to undergraduate level study.

Principle 3

Students should not be wholly defined by their visible data or our interpretation of that data.

Principle 5

The University is transparent regarding data collection, and will provide students with the opportunity to update their own data and consent agreements at regular intervals.

Principle 7

Modelling and interventions based on analysis of data should be sound and free from bias.

Principle 2

The OU has a responsibility to all stakeholders to use and extract meaning from student data for the benefit of students where feasible.

Principle 4

The purpose and the boundaries regarding the use of learning analytics should be well defined and visible.

Principle 6

Students should be engaged as active agents in the implementation of learning analytics (e.g. informed consent, personalised learning paths, interventions).

Principle 8

Adoption of learning analytics within the OU requires broad acceptance of the values and benefits (organisational culture) and the development of appropriate skills across the organisation.

Do we need a global code of practice for learning analytics?

Code of practice for learning analytics

June 2015

Introduction

Learning analytics uses data about students and their activities to help institutions understand and improve educational processes, and provide better support to learners. It should be for the benefit of students, whether assisting them individually or using aggregated and anonymised data to help other students or to improve the educational experience more generally. It is distinct from assessment, and should be used for formative rather than summative purposes.

The effective use of learning analytics will initially involve the deployment of new systems, and changes to institutional policies and processes. New data may be collected on individuals and their learning activities. Analytics will be performed on this data, and interventions may take place as a result. This presents opportunities for positive engagements and impacts on learning, as well as misunderstandings, misuse of data and adverse impacts on students. Complete transparency and clear institutional policies are therefore essential regarding the purposes of learning analytics, the data collected, the processes involved, and how they will be used to enhance the educational experience.

This Code of Practice aims to set out the responsibilities of educational institutions to ensure that learning analytics is carried out responsibly, appropriately and effectively, addressing the key legal, ethical and logistical issues which are likely to arise.

Educational institutions in the UK already have information management practices and procedures in place and have extensive experience of handling sensitive and personal data in accordance with the **Data Protection Act 1998 (DPA)**. By transferring and adapting this expertise to regulate the processing of data for learning analytics, institutions should establish the practices and procedures necessary to process the data of individuals lawfully and fairly.

Responsibility

Institutions must decide who has overall responsibility for the legal, ethical and effective use of learning analytics. They should allocate specific responsibility within the institution for:

- » The collection of data to be used for learning analytics
- » The anonymisation of the data where appropriate
- » The analytics processes to be performed on the data, and their purposes
- » The interventions to be carried out
- » The retention and stewardship of data used for and generated by learning analytics

Student representatives and key staff groups at institutions should be consulted around the objectives, design, development, roll-out and monitoring of learning analytics.



Just the beginning:



“Education is on the brink of a revolution. Collaborating on learning-related work across disciplines through an integrated research agenda could yield powerful advances in optimizing online learning experiences.”

MIT Online Education Policy Initiative.

April 2016.

<http://news.mit.edu/2016/mit-releases-online-education-policy-initiative-report-0401>

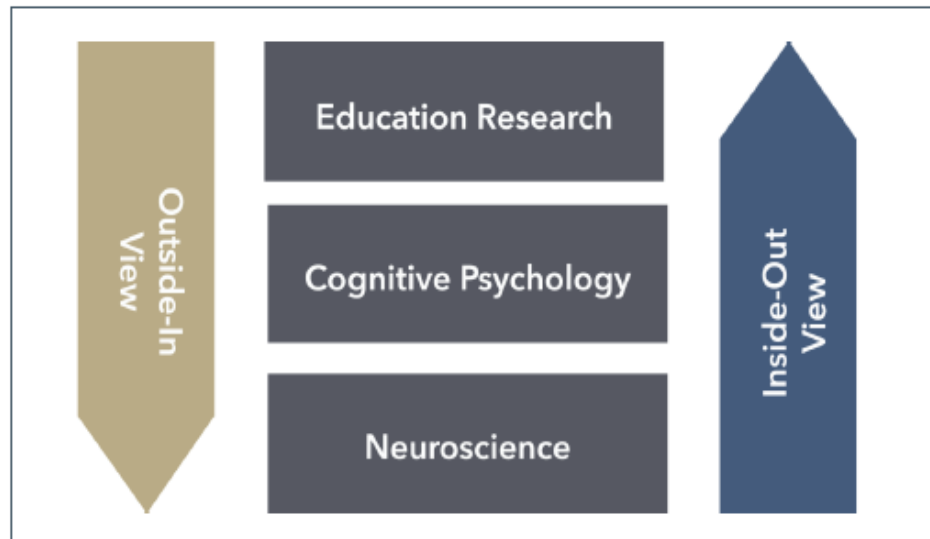


Figure 2: Outside-In and Inside-Out Views

Trends - ICDE

1/2



- Open and distance learning, is now going mainstream: online, blended, open, flexible and technology enhanced learning.
- Digital transformation is challenging the relevance of educational institutions all over the world.
- New developments as OER and MOOCs are fueling innovation in education.
- New methodologies; learning analytics, Big Data, and new online education systems, enable a shift to adapted, personalized learning and assessment.
- Education is on the brink of a revolution caused by convergence of research. Education, Cognitive Psychology and Neuroscience: powerful advances in optimizing online learning experiences.

Trends

2/2



- Lack of resources or lack of understanding of the concept of online, open and flexible education is observed in some parts of the world as a major threat to scalable quality higher education both on a national and institutional level, and therefore also as a threat towards SDG 4.
- Skills and the relation education - employment, is a hot topic in all regions. Life long Learning is becoming more important than ever.
- **Quality, quality assurance and accreditation become a top priority issues.**

The big quality agenda Led by UNESCO



- The SDGs
- SDG 4
- Global and regional conventions
- Quality assurance initiative
- X direct for education
- Education 2030: Towards inclusive and equitable quality education and promote lifelong learning opportunities for all
- Preparation of a GLoBal Convention on the Recognition of Higher Education Qualifications – to be decided 2019 (UNESCO)
- Quality assurance: Achieving sustainable development through a diverse provision of higher education, regional meetings and studies leading up to a global conference issuing guidance 2018 (UNESCO, INQAAHE, ICDE and COL)

QUALITY ASSURANCE:



ACHIEVING SUSTAINABLE DEVELOPMENT THROUGH A
DIVERSE PROVISION OF HIGHER EDUCATION



Global Conference 2018
6 – 10 regional meetings 2016 - 2017

Quality issues



- Opportunities

- Online learning
- Student support and mentoring systems
- Learning analytics and other personalised technology enhanced learning systems

- Challenges

- Competencies
 - Faculty
 - Quality agencies
 - Experts on quality assurance
- Innovation
- Access, inclusion
- Ethics

Quality issues



- Weaknesses
 - Failures in current system e.g.
 - Weak employability
 - Drop-out
 - Weak retention and
 - Access, lack of inclusion
 - Digital divide
- Threats
 - Corruption
 - Underfunding
 - Class distinction, stratification

The ICDE Quality initiatives



- Benchmarking and good practice
- Address quality:
- Explore new methodologies:
- Build future capacities
- Models for Online, open, flexible and technology enhanced higher education
- Global Quality Network
- Learning analytics initiative
- The Global Doctoral Consortium

GLOBAL DOCTORAL CONSORTIUM

Connecting for quality research related to online,
open, flexible and technology enhanced learning.

Is your institution offering doctoral programs? Are you currently enrolled as a doctoral student? Sign up for invitations to join the Global Doctoral Consortium!

The Global Doctoral Consortium in a Nutshell

The Global Doctoral Consortium (GDC) is a global initiative aiming to support doctoral students in the research field related to online, open, flexible and technology enhanced learning. GDC is a virtual network and knowledge hub that will support doctoral students in building relationships, collaborating and sharing research ideas. The GDC will provide insight in the research themes selected by its doctoral students and will foster collaboration and international engagement between institutions.

Founding Partners



Contact North | Contact Nord

Ontario's Distance Education & Training Network



For more information and registration visit:

www.icde.org/gdc



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The change



- From focus on
 - Quality of students admitted
 - Qualification of faculty
 - Design and management of programmes
 - Rigour of marking
 - Course outputs as intended outcome?
- To focus on
 - Student engagement and satisfaction
 - Data analytics
 - Reflective assessments by students
 - Student-instructor-student interaction
 - Assessments for learning
 - Faculty satisfaction and engagement

The message

Holistic
And
Specific

The message:

Holistic



- All relevant SDG
- All levels, global, regional, national, institutional
- Mainstream conventional and digital, on and off campus, off and online
- Formal post secondary and lifelong learning

The message:

Specific



- Change focus to the students learning experience, student success.
- Good governance for quality education, transparency and accountability.
- Ethics on all levels.



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THANK YOU

titlestad@icde.org

www.icde.org

Sustainable Development Goal 4: **Education 2030**

**“TOWARDS INCLUSIVE AND EQUITABLE
QUALITY EDUCATION AND LIFELONG
LEARNING FOR ALL”**

Seize digital opportunities, lead education transformation