School on the Cloud:
Connecting Education to the Cloud for Digital Citizenship

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Lifelong Learning Programme

School on the cloud

- network
- EU funded
- 57 partners from 18 countries
- 2014-2017

Lifelong Learning Programme

School on the cloud in 2 minutes

Society is different now

- we need to be aware that the world is different now

Society is different now

- we need to be aware that the world is different now
- what used to be science fiction is reality today

Survey 'Education on the Cloud 2014: State of the Art'

how are different European countries making their transition to using the Cloud in education.

- ▸ i) how about cloud policy and education,
- ▸ ii) who is promoting the cloud,
- ▸ iii) who is using the cloud for education.
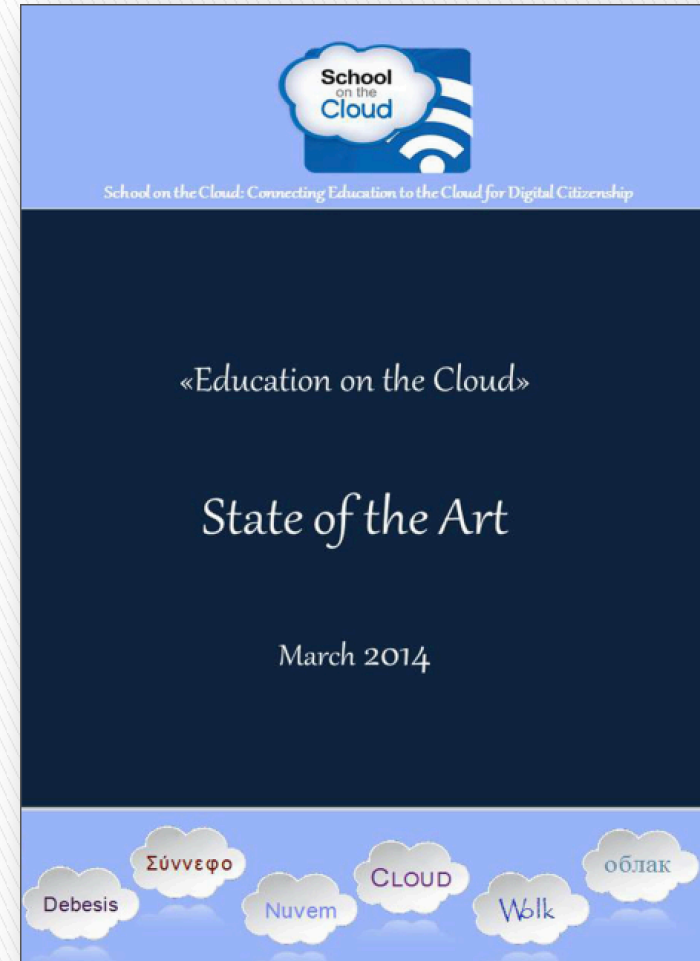
Survey 'Education on the Cloud 2014: State of the Art'

Countries that have already implemented one way or the other an education cloud policy. (Austria, Bulgaria, Greece, Ireland, Italy, Poland, Portugal, Switzerland and UK)

Countries (Belgium –Flanders, Cyprus, Czech Republic) – although already taking actions on the use of the cloud in domains like government – do not have a clear existing or on-going official education Cloud policy.

Survey 'Education on the Cloud 2014: State of the Art'

Most countries relay on outsourced global services from Google, Microsoft, etc. to promote the Cloud.

Partner survey

- January – February 2014
- 60 responses, 22 countries
- **Defining the Cloud, Cloud computing and personalising learning is not very simple**

Which of the following applications does Cloud computing mean to you

Application	√
Allocation of space to users on demand	
Computers connected through the Internet	
Hosted Internet space	
Services offered online	
Sharing of computer space	
Virtualisation of computers	

Defining the Cloud
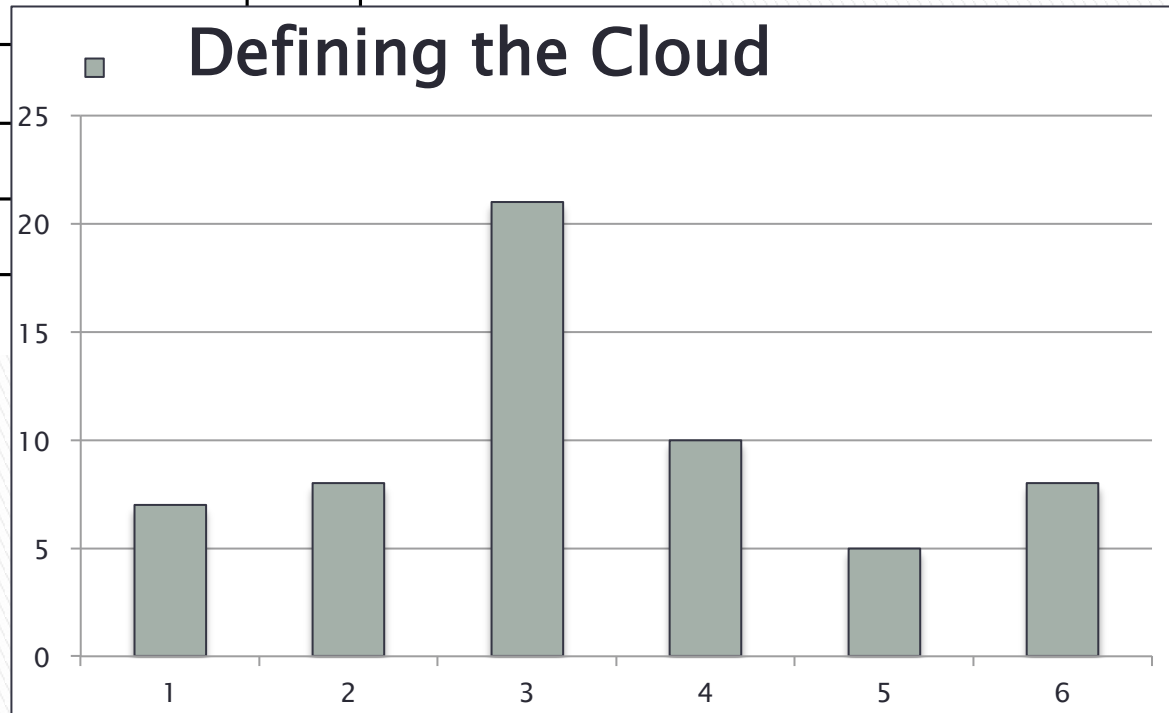
Which of these characteristics does the Cloud offer for education?

Characteristic	√
Ability to share resources and information	
Great speed, makes IT operations faster	
Improved accessibility	
Increased capacity	
Independence of location	
More capability (opportunities)	
Reduced costs	
Safety for users	
Security of information	

Cloud charateristics

Category	Value
1	1
2	2
3	2
4	14
5	12
6	8
7	9
8	7
9	4
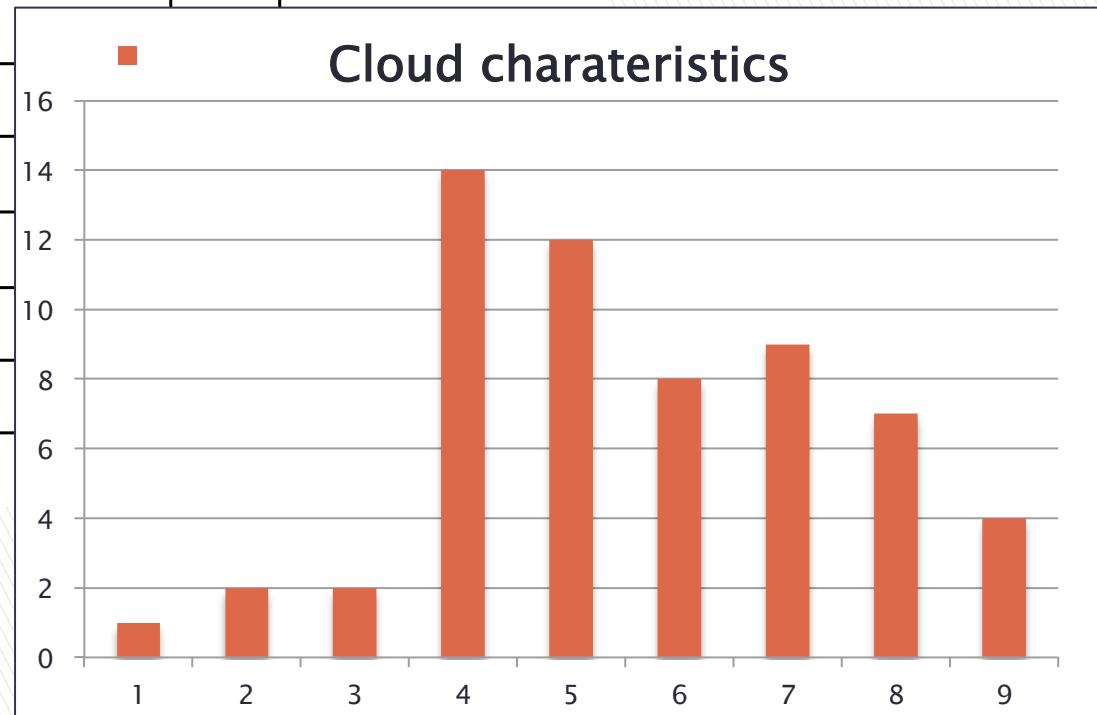
Give examples of Cloud-based tools or approaches and ideas you have used in education

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Why should the Cloud be used in education?

What advantages does it bring?

Easy access.
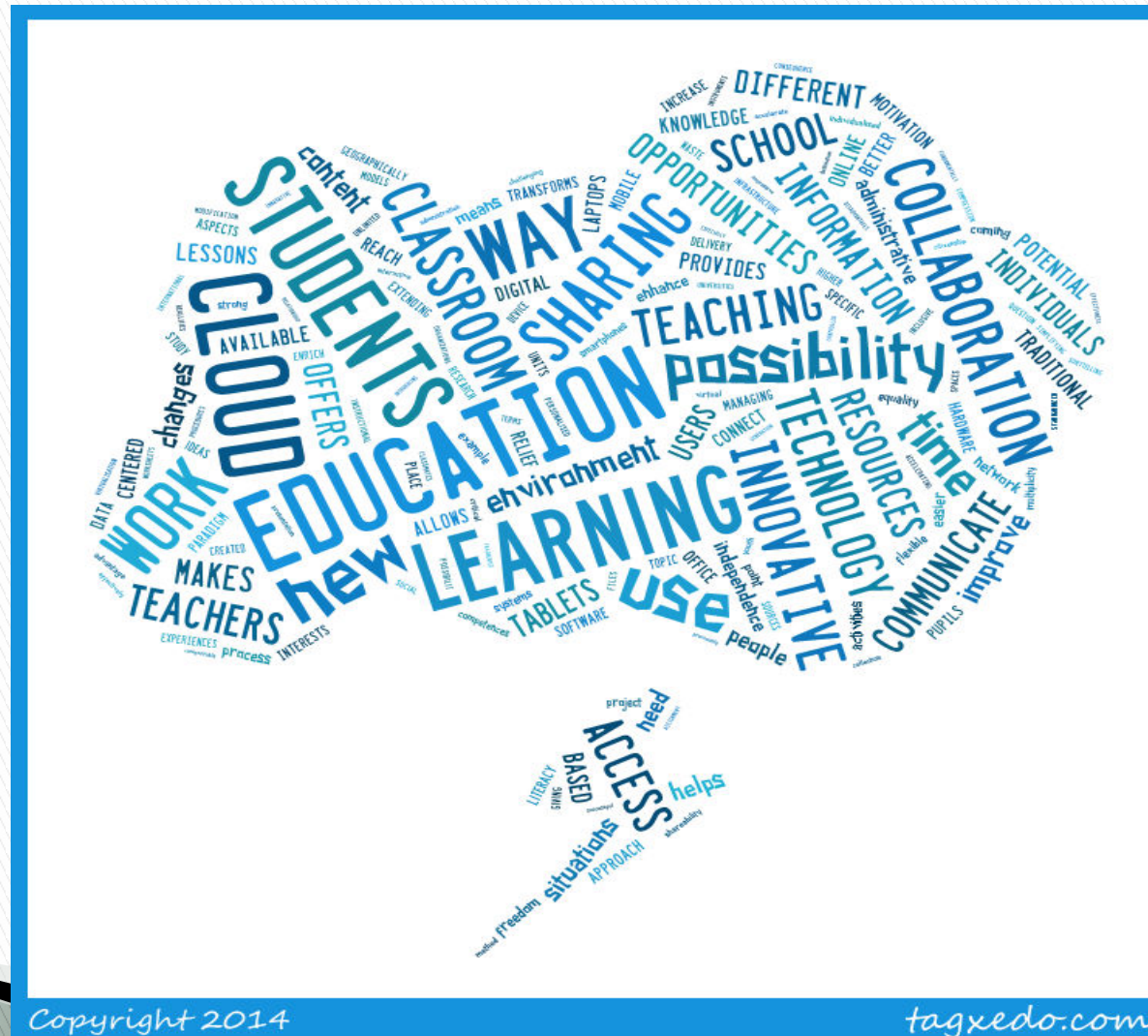Stability.
Security.
Shareability.
Trackability.
Collaboration.
No more photocopying
Chances of losing content are
quite small.

From your perspective, what makes using the Cloud in education innovative?

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From your perspective, what makes using the Cloud in education innovative?

1. freedom from hardware and disc storage
2. used in all forms of learning situation
3. takes learning beyond traditional classroom situations
4. many innovative apps and tools
5. transforms education for many
6. provides access - MOOCs

From your perspective, what makes using the Cloud in education innovative?

In higher education, the primary purpose of technology should be to enable and inspire innovation in the classroom and lab as well as in the student self-learning activities. That means giving educators, administrators, and students both the applications and the freedom they need to do their work. With the agility of the cloud model, IT organizations can try out new applications with minimal commitment, pay for as much as they use, and adjust as necessary. The cloud can also offer new ways for institutions of higher education to explore up-to-the-minute research opportunities by sharing cloud-computing resources with other universities.
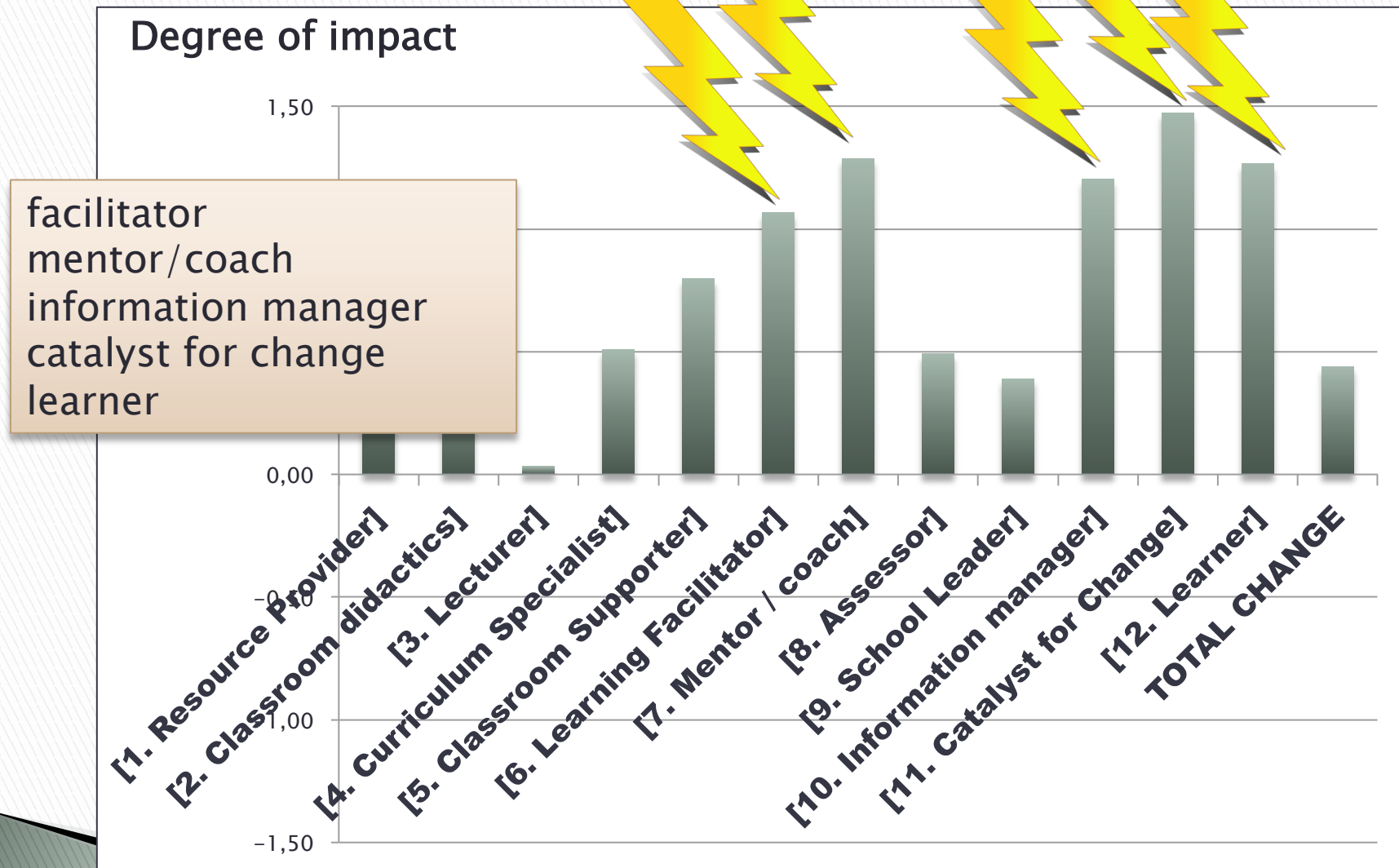
Role of the teachers

6. What impact does Cloud-based education have on the role of teachers and trainers in education? What becomes more important and which less?
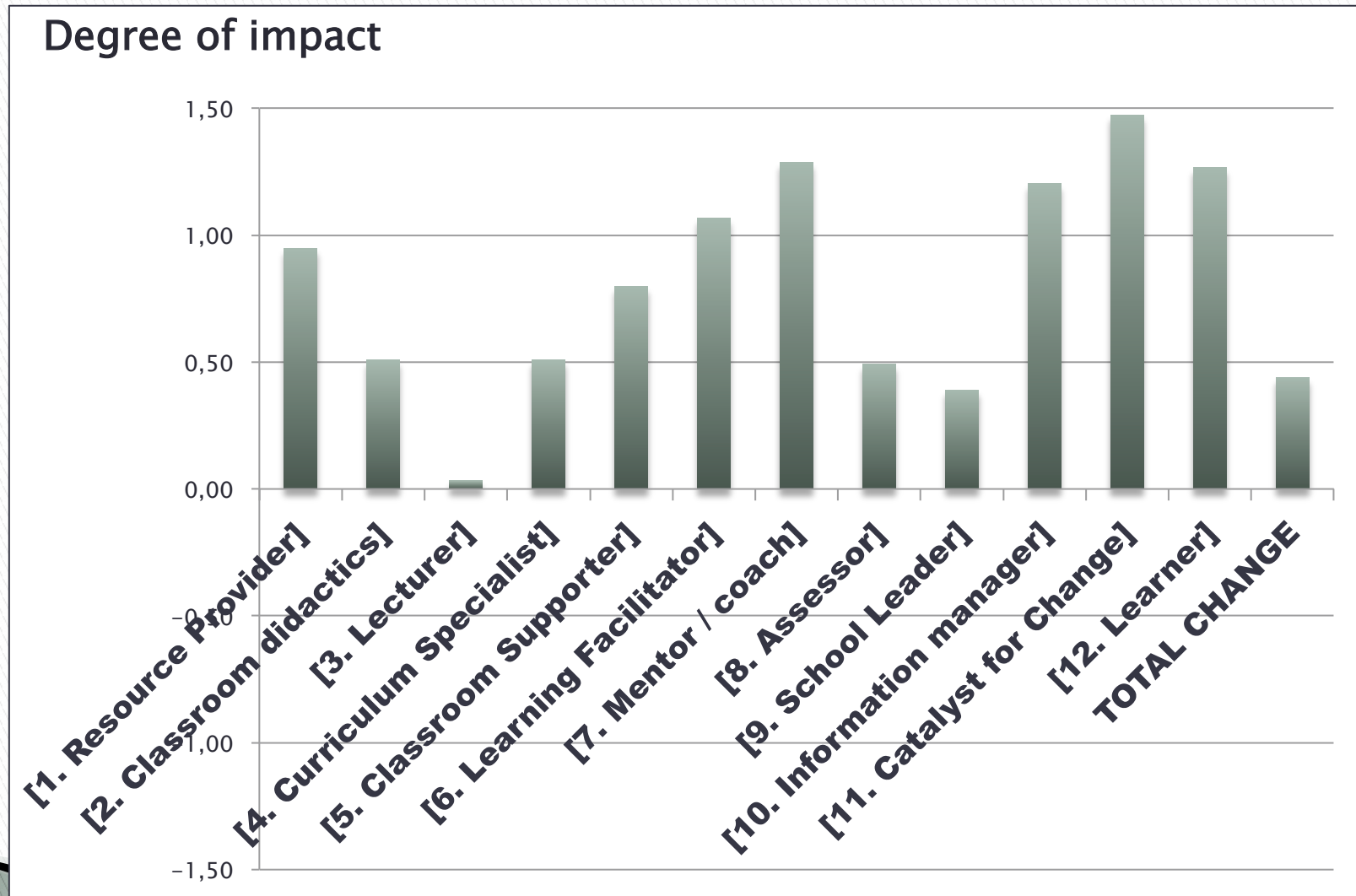
Role of teachers importance	a lot more	a bit more	the same	a bit less	a lot less
1. Resource Provider					
2. Classroom didactics					
3. Lecturer					
4. Curriculum Specialist					
5. Classroom Supporter					
6. Learning Facilitator					
7. Mentor / coach					
8. Assessor					
9. School Leader					
10. Information manager					
11. Catalyst for Change					
12. Learner					

List adapted from Harrison H and Killion J 2007. Ten Roles for Teacher Leaders, Teachers as Leaders, 65(1) 74-77 and Harden R M and Crosby J R (2000). AMEE Education Guide No 20: The good teacher is more than a lecturer – the twelve roles of the teacher, Medical Teacher 22(4): 334-347.
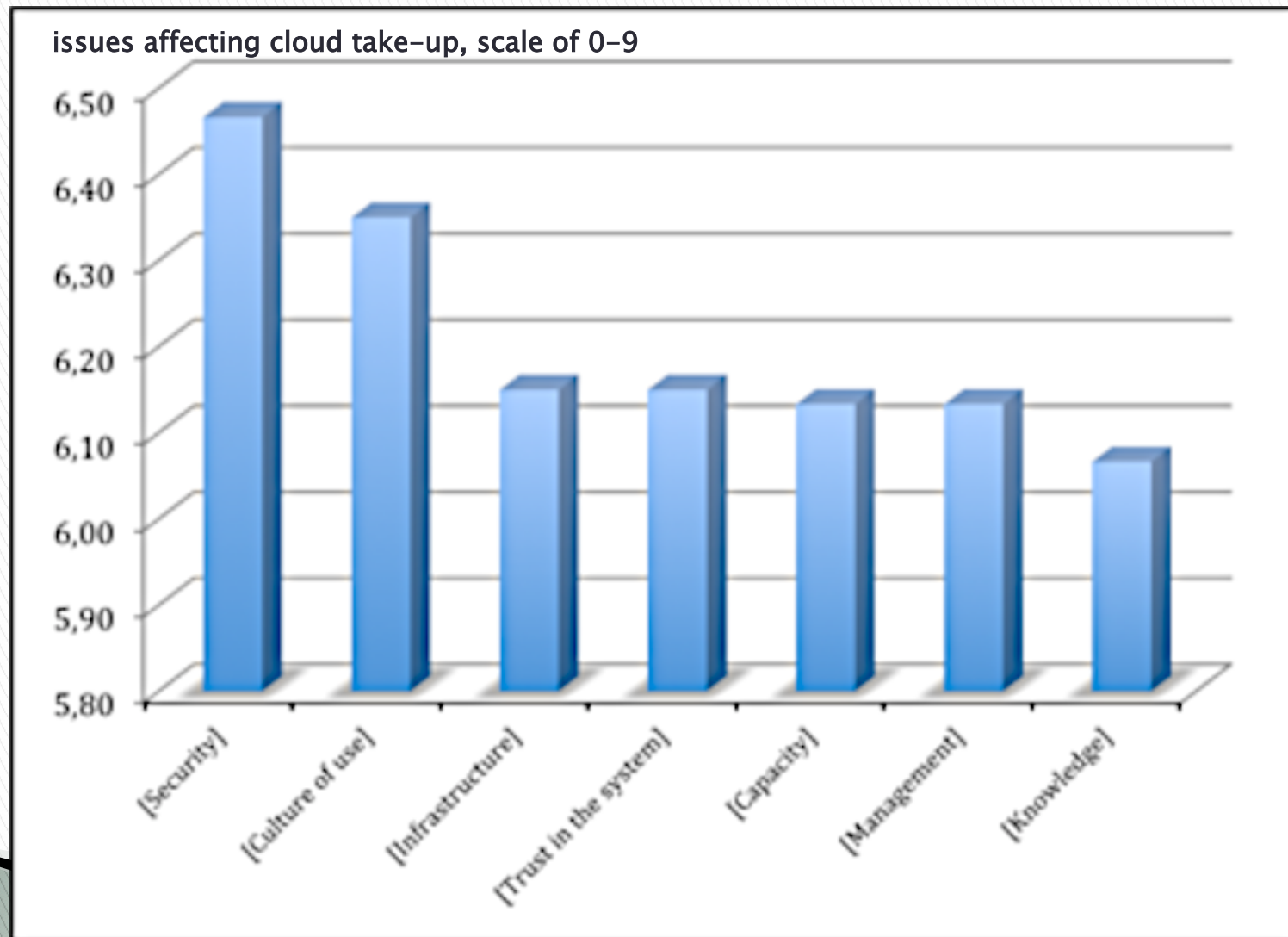
Role of the teachers

Degree of impact

facilitator
mentor/coach
information manager
catalyst for change
learner

1,50

0,00

−1,00

−1,50

[1. Resource Provider]
[2. Classroom didactics]
[3. Lecturer]
[4. Curriculum Specialist]
[5. Classroom Supporter]
[6. Learning Facilitator]
[7. Mentor / coach]
[8. Assessor]
[9. School Leader]
[10. Information manager]
[11. Catalyst for Change]
[12. Learner]
TOTAL CHANGE

Role of the teachers

Degree of impact

what are the pitfalls or concerns with Cloud-based education?

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Barriers tu use the cloud (in your organisation)

issues affecting cloud take-up, scale of 0–9

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issues affecting cloud take-up, scale of 0-9
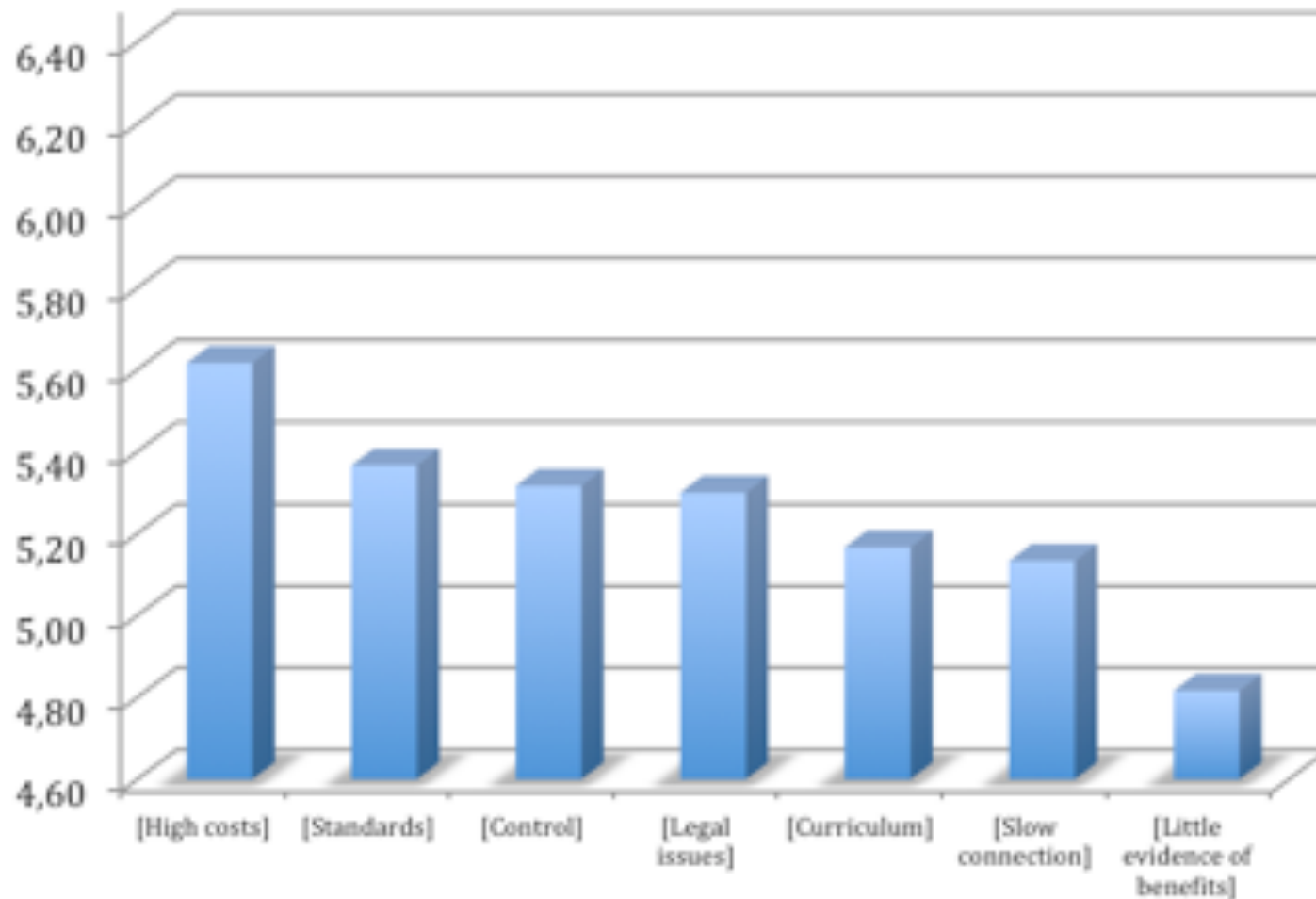
what is personalised learning?

Personalized learning is …..	Agree?
each student can program his or her curriculum in order to meet his or her needs, interests and abilities; (Parkhurst and the Dalton Plan, 19th century)	32 / 57
expand educational focus to creative activities and emotional and social development, Washburne: Self-government and the Winnetka Plan (first years of '900)	24
schoolchild should have the opportunity to freely choose a series of activities, already predisposed by the teacher (Claparède E., L'Ècole sur mesure, Genève, Payot, 1920)	26
a method whereby students are not advanced to a subsequent learning objective until they demonstrate proficiency with the current one (Bloom and the Mastery learning ('50s-'60s)	11
instruction on the base of the students' requirements allowing them to work on course modules independently. It is an individually paced mastery oriented teaching method. (Keller within the Personalized System of Instruction ('60s)	27
problem solving oriented, with the teacher direction minimized. The teacher acts more as a facilitator encouraging self decision and self control of the learner, more than delivering knowledge and information. (Kilpatrik "Project Method" (early 21st Century)	43
adjusting the pace, adjusting the approach, and connecting to the learner's interests and experiences. (National Educational Technology Plan, US)	33

What challenges do you see in using the Cloud for personalised learning

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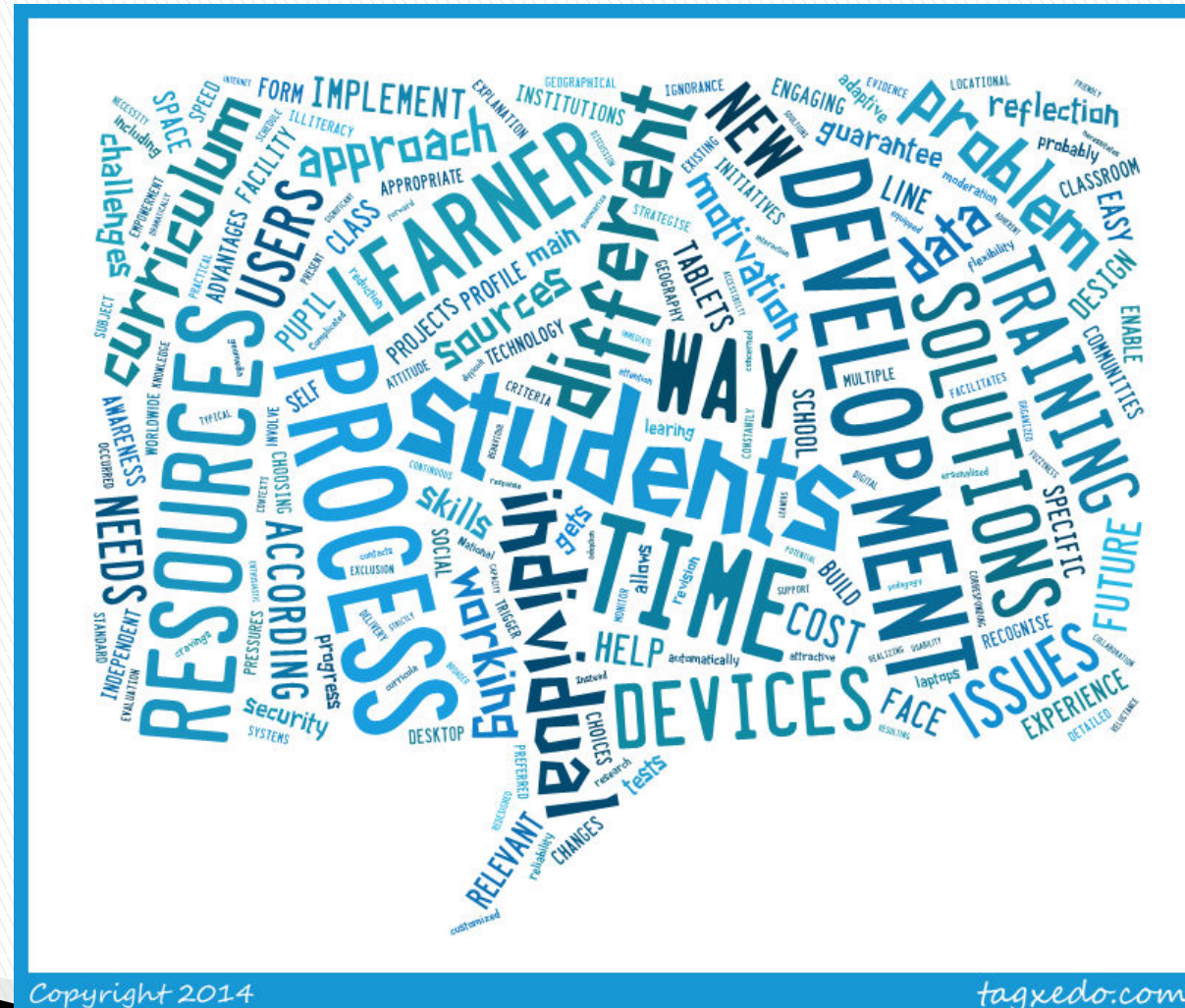
What challenges do you see in using the Cloud for personalised learning

Lots of advantages …. BUT the classroom layout should be redesigned to reflect the shift of attention from the teacher to students. Instead of typical rows of tables, classroom setup can be organized in such a way that students – equipped with individual computers or tablets – will be facing each other and the teacher. Class schedule changes and corresponding resource allocation adjustment due to the necessity to provide a wider curriculum choice.

What challenges do you see in using the Cloud for personalised learning

I do not understand very well in which way these ways of learning can be more innovative and at the same time to permit the students to obtain knowledge and competences that enable them to get high marks at the National exams that are very strict.

What challenges do you see in using the Cloud for personalised learning

The many challenges we have to face are strictly related to type of school and age of the students. It's really difficult summarize them in few words but the big deal probably is the awareness that technology and cloud are not the solution but merely an opportunity for a new education more adherent to the internet society.

iManager: transition from ground to Cloud

iTeacher: role of the teacher

iLearner: Integrating the Cloud

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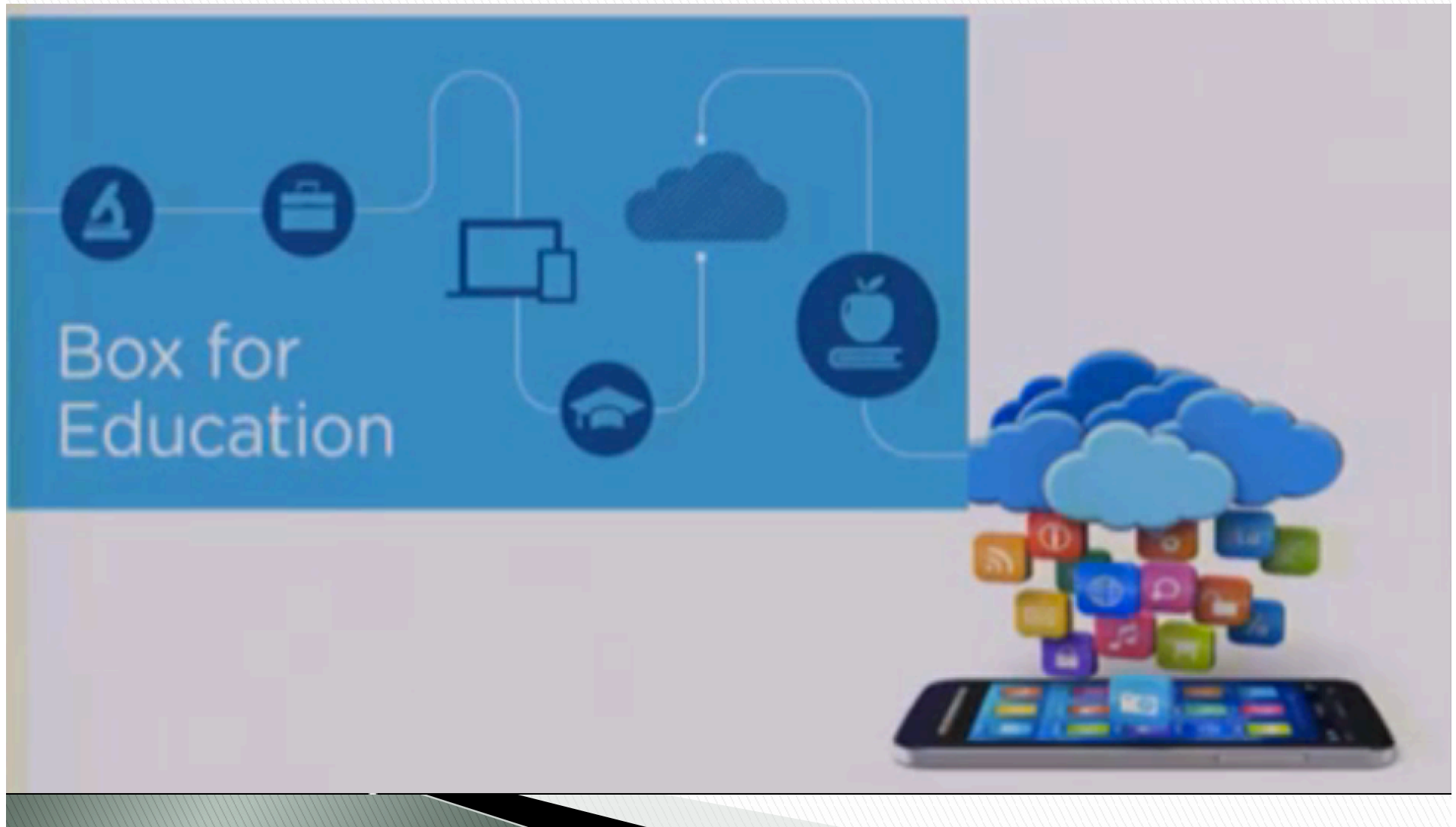
iLearner: Integrating the Cloud

iFutures: future prospects

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http://schoolonthecloud.eu