

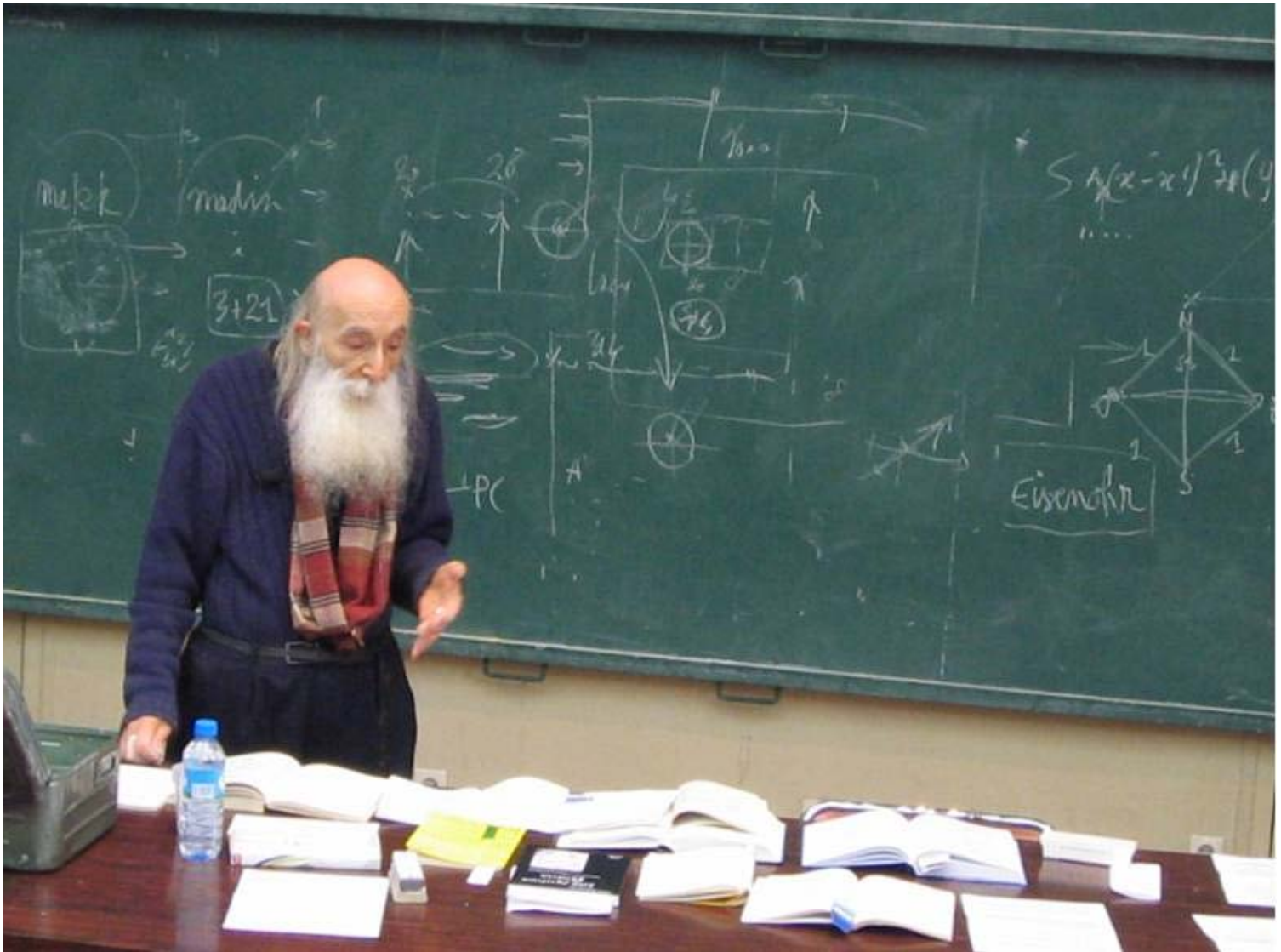
IITE-2014 International Conference
“New Challenges for Pedagogy and Quality Education:
MOOCs, Clouds and Mobiles”

Moscow, October 14-15, 2014

Being Human through Bits and Bytes

Professor Michael Meimaris
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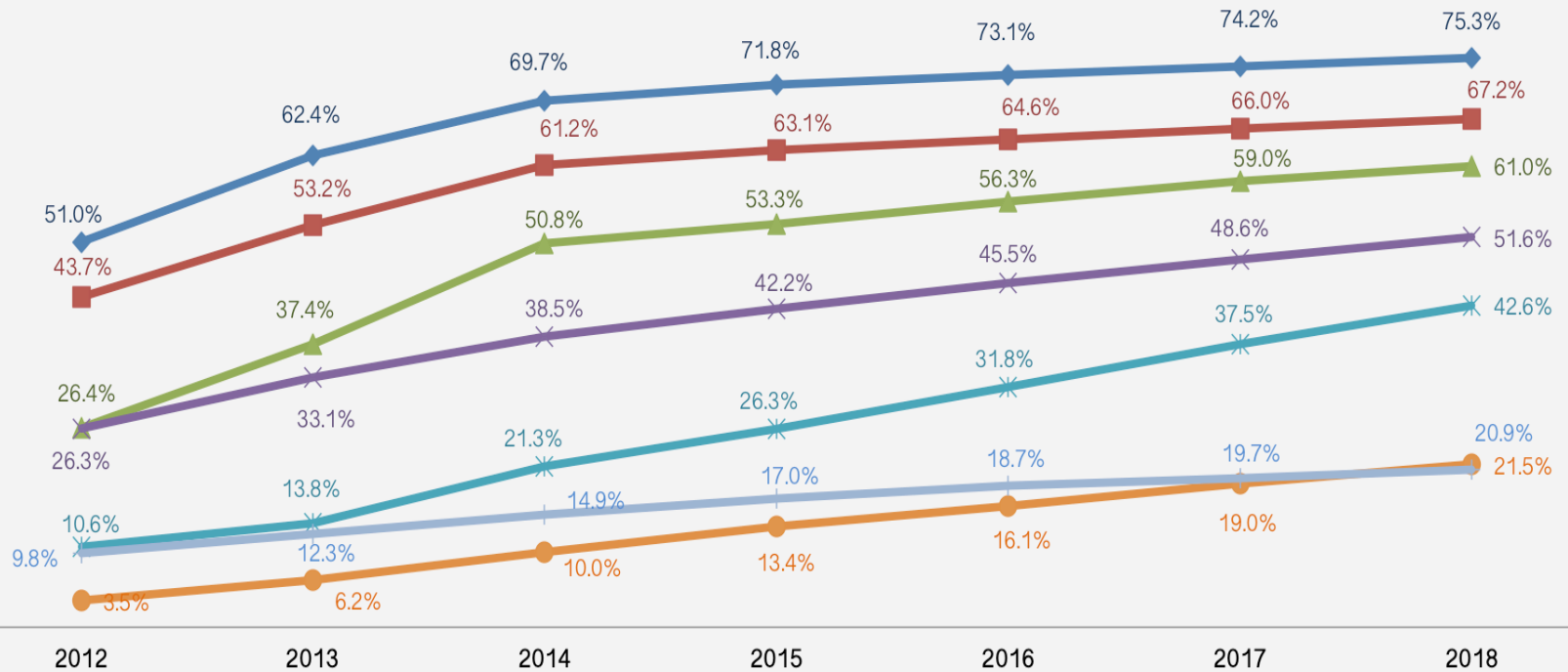




$$\begin{aligned}
\ln q_\mu^*(\mu) &= \mathbb{E}_\tau [\ln p(\mathbf{X} \mid \mu, \tau) + \ln p(\mu \mid \tau) + \ln p(\tau)] + C \\
&= \mathbb{E}_\tau [\ln p(\mathbf{X} \mid \mu, \tau)] + \mathbb{E}_\tau [\ln p(\mu \mid \tau)] + \mathbb{E}_\tau [\ln p(\tau)] + C \\
&= \mathbb{E}_\tau \left[\ln \prod_{n=1}^N \mathcal{N}(x_n \mid \mu, \tau^{-1}) \right] + \mathbb{E}_\tau [\ln \mathcal{N}(\mu \mid \mu_0, (\lambda_0 \tau)^{-1})] + C_2 \\
&= \mathbb{E}_\tau \left[\ln \prod_{n=1}^N \sqrt{\frac{\tau}{2\pi}} e^{-\frac{(x_n - \mu)^2 \tau}{2}} \right] + \mathbb{E}_\tau \left[\ln \sqrt{\frac{\lambda_0 \tau}{2\pi}} e^{-\frac{(\mu - \mu_0)^2 \lambda_0 \tau}{2}} \right] + C_2 \\
&= \mathbb{E}_\tau \left[\sum_{n=1}^N \left(\frac{1}{2} (\ln \tau - \ln 2\pi) - \frac{(x_n - \mu)^2 \tau}{2} \right) \right] + \mathbb{E}_\tau \left[\frac{1}{2} (\ln \lambda_0 + \ln \tau - \ln 2\pi) - \frac{(\mu - \mu_0)^2 \lambda_0 \tau}{2} \right] + C_2 \\
&= \mathbb{E}_\tau \left[\sum_{n=1}^N -\frac{(x_n - \mu)^2 \tau}{2} \right] + \mathbb{E}_\tau \left[-\frac{(\mu - \mu_0)^2 \lambda_0 \tau}{2} \right] + \mathbb{E}_\tau \left[\sum_{n=1}^N \frac{1}{2} (\ln \tau - \ln 2\pi) \right] + \mathbb{E}_\tau \left[\frac{1}{2} (\ln \lambda_0 + \ln \tau - \ln 2\pi) \right] + C_2 \\
&= \mathbb{E}_\tau \left[\sum_{n=1}^N -\frac{(x_n - \mu)^2 \tau}{2} \right] + \mathbb{E}_\tau \left[-\frac{(\mu - \mu_0)^2 \lambda_0 \tau}{2} \right] + C_3 \\
&= -\frac{\mathbb{E}_\tau[\tau]}{2} \left\{ \sum_{n=1}^N (x_n - \mu)^2 + \lambda_0 (\mu - \mu_0)^2 \right\} + C_3
\end{aligned}$$



SMARTPHONE USER PENETRATION APAC 2012 - 2018 (% of Population)

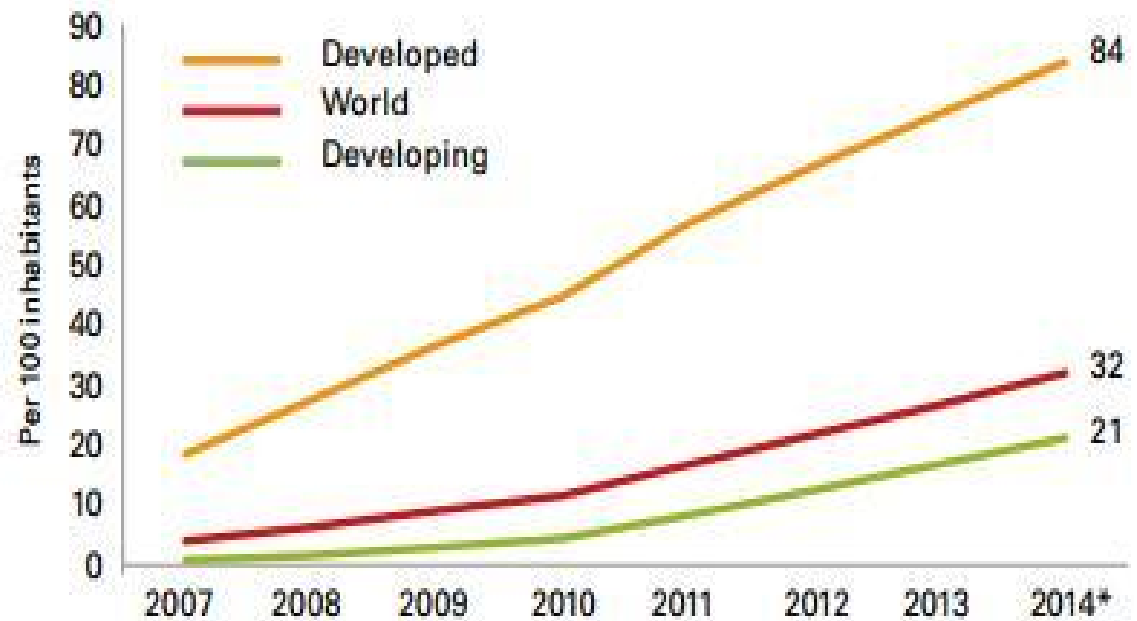


Source: eMarketer, June 2014

◆ South Korea
 ■ Australia
 ▲ Japan
 × China
 ✱ Indonesia
 ● India
 — Others



Active mobile-broadband subscriptions per 100 inhabitants, 2007-2014*



Note: * Estimate

Source: ITU World Telecommunication/ICT Indicators database

We need to utilize these data for the sake of understanding the human condition and build better education for the forthcoming generations based on our knowledge of the world.

“With linked data, when you have some of it, you can find other, related, data”

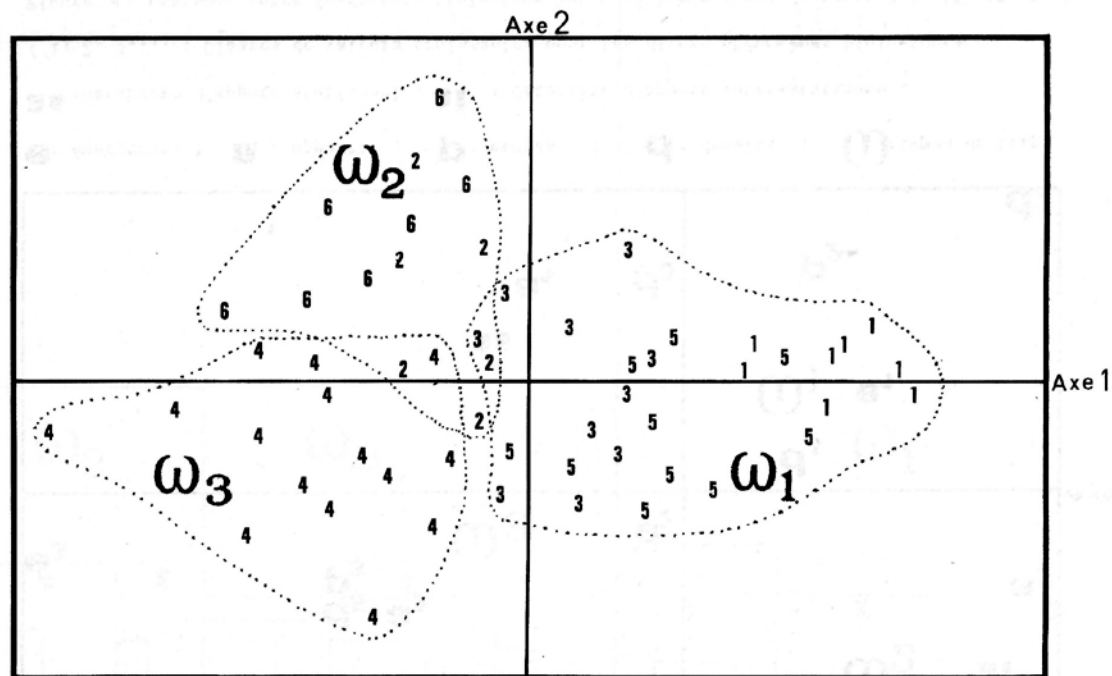
-Tim Berner's Lee

“Data really is the new oil. Data is a raw material for information businesses, just as oil is a raw material for fuel and plastics businesses. Data is also everywhere, it is cheap, and it can deliver huge rewards”

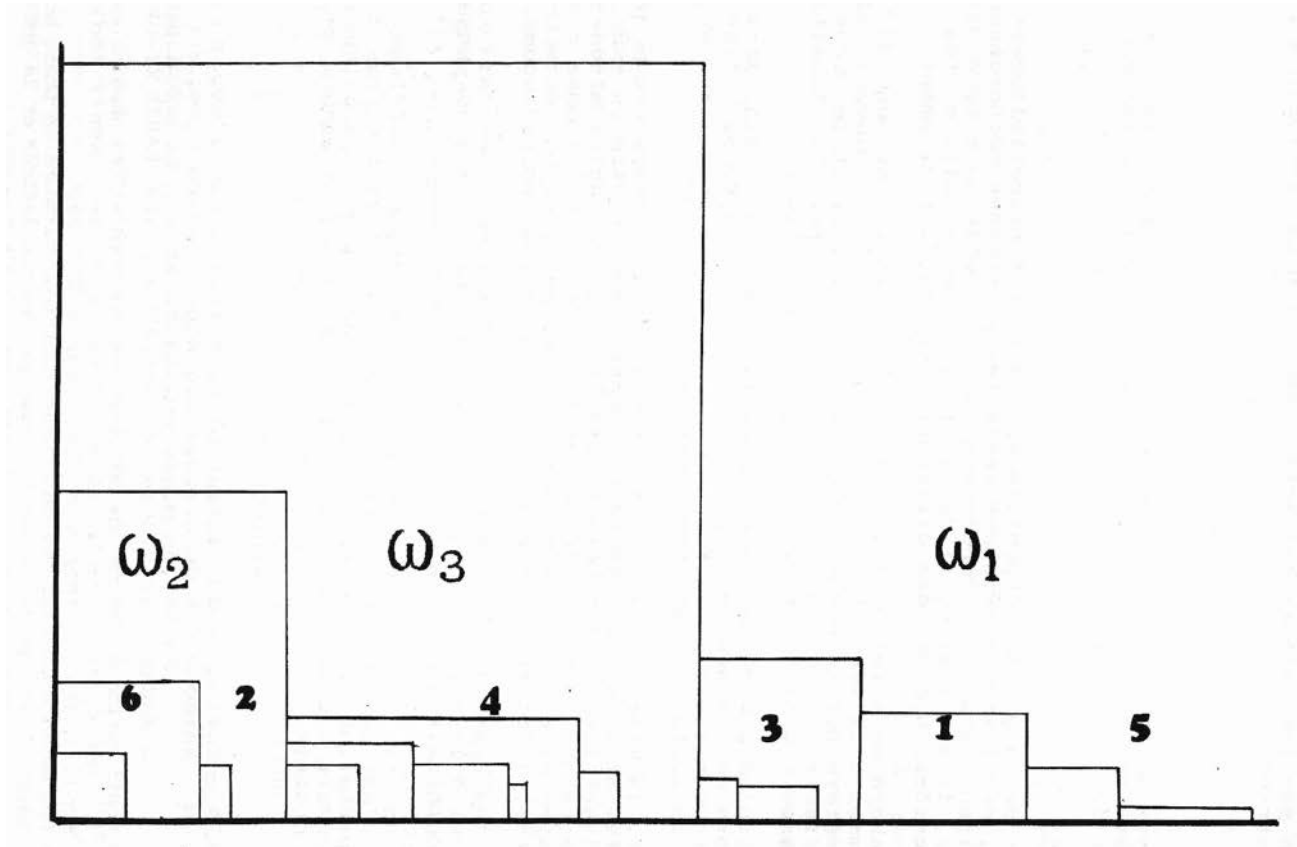
-Neelie Kroes

The interminable lines of 0 and 1, more and more often constitute a multimedia product comprised of still images, video, music, sounds, text, graphic designs etc.

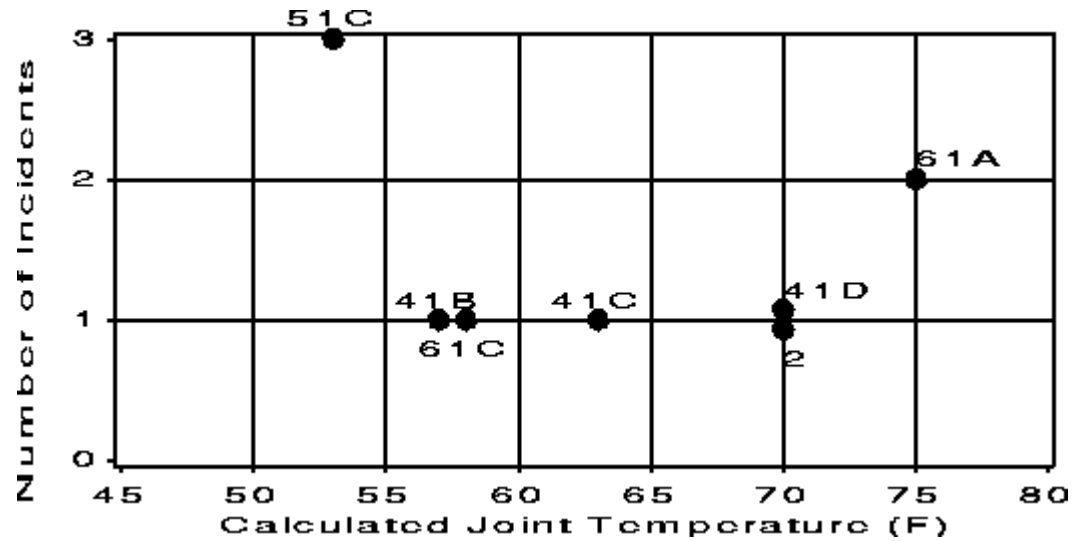
Analyse factorielle des correspondances



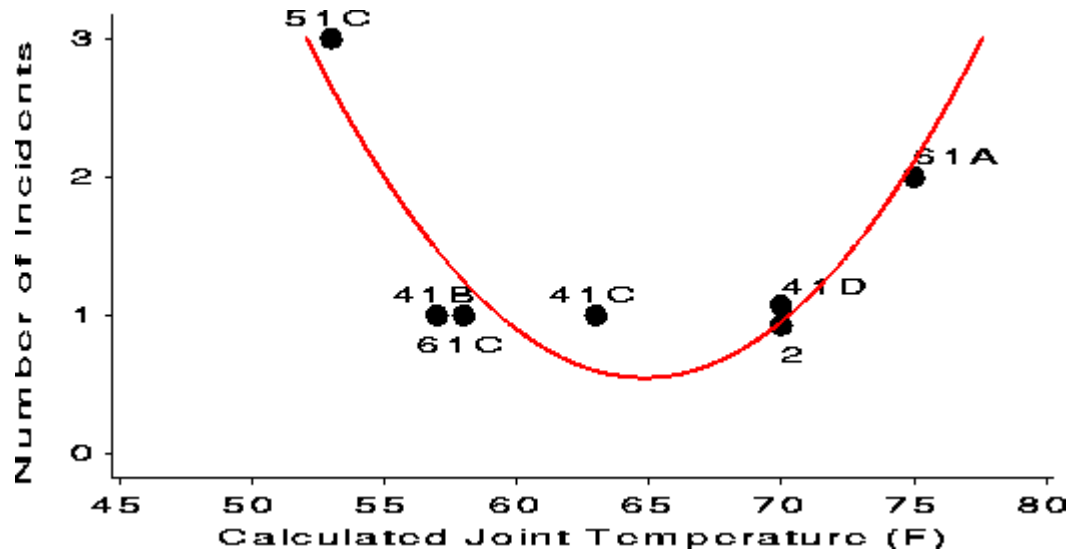
Classification Automatique



The Challenger Disaster



The Challenger Disaster



Research studies on learning have revealed connections between so-called “non-cognitive factors” or “non-cognitive skills” e.g. motivation, interest, curiosity, responsibility, determination, perseverance, attitude, work habits, self-regulation, social skills, etc. and “cognitive learning results” e.g. improved academic performance, test scores, information recall, skill acquisition, etc.

Engagement is thought to be a sine qua non aspect of our mediated –through especially digital games and social media– time, not only for digital natives, but for digital immigrants and foreigners, as well. So what we are expected to do is use a highly personalized way that stirs up engagement in every single one of them.

Nowadays students have grown up in a framework of constant connectivity and interactive culture and, thus, may have different attitudes and understandings of concepts such as creativity, collaboration, communication and sharing. This behaviour should have arguably led to reforming the institutions of learning and education.

What kind of educational environments could be created, fused with the values of collaboration and meaningful communication which are pillars of the Commons-oriented, open source movement?

Could these scenarios and environments be considered as “objects-to-think-with” (Papert, 1993), which would contribute to the social process of constructing the education of the future?

The Magic Potion

EPINOISI project • <http://www.media.uoa.gr/epinoisi>



ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ
ΚΕΝΤΡΙΚΟ ΓΕΝΙΚΟ ΛΥΚΕΙΟ
ΕΠΙΧΕΙΡΗΣΙΑΚΟ ΠΡΟΓΡΑΜΜΑ
ΕΚΠΑΙΔΕΥΣΗ ΚΑΙ ΔΙΑ ΒΙΩΣΙΜΗΣ
ΑΝΑΓΚΗΣ

ΕΠΙΧΕΙΡΗΣΙΑΚΟ ΠΡΟΓΡΑΜΜΑ
ΕΚΠΑΙΔΕΥΣΗ ΚΑΙ ΔΙΑ ΒΙΩΣΙΜΗΣ
ΑΝΑΓΚΗΣ

The Electro-room



Το ΗΛΕΚΤΡΟ-δωμάτιο © v1.0 - Copyright © 2011 Marina Tomara

Lo, the water cycle



LO - WATER CYCLE

PREMIER REFERENCE SOURCE

Cognitive and Emotional Processes in Web-Based Education

Integrating Human Factors and Personalization



Constantinos Mourlas, Nikos Tsianos, & Panagiotis Germanakos



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<http://www2.media.uoa.gr/medialab/milia/>

Digital Storytelling allows us to create our own multimedia story, thus transforming us into creative storytellers, and what is more, with digital skills.

Digital storytelling is available to everyone: from school to university students, from intellectuals to even illiterate people (and we know how important this can be for a large number of the 194 member states of Unesco), younger or older citizens, men or women, without any cultural or other boundaries, discriminations or limitations.

In a learning environment, capturing the interest of the learners is the first step towards achieving knowledge.

Stories created by educators aspire to increase the curiosity of the learners in the exploration of new topics, concepts and ideas, while laying the field for a free and productive discussion on the issues addressed.

When learners are assigned the creation of their own digital stories, their active involvement enhances their research skills and critical ability, helps them improve the way they organise, express and communicate their ideas, as well as evaluate without judging their own work as well as that of others.

The process of creating digital stories, equips learners with the so called “21st Century Skills” –also known as “Digital Age Literacies” – that is the digital, global, technology, visual and information literacies. Acquiring this set of skills is considered crucial for today’s citizens who are expected to meet the highly demanding requirements of our interconnected societies and markets.

By creatively associating data we provide them with a “connective tissue” that results in structuring a story. These digital narratives through the multiple canals of a multimedia product stimulate our various –in the words of Howard Gardner– intelligences and, thus, we can achieve, and we have proof of these achievements over the years, impressive learning results.

Mrs Amalia and young George worked together, each one with their own skills, choosing and then downloading the music score, choosing and scanning photos from her personal albums, etc.

This way Mrs. Amalia realised not only that she had to gain from the digital world, but also, and this is of grave importance and what motivated her to learn more about the technologies involved, that she has a lot to give to the digital world surrounding her.

Bintu

<http://vimeo.com/album/2575488/video/53430541>

Digital Storytelling can be applied to a wide range of areas and purposes, such as:

- Telling an Organization's Story
- Reflective Practice
- Health and Human Services
- Intergenerational Connection
- Disability
- Youth Problems
- Identity and Diversity
- Activism

- International Development
- K-12 and Higher Education Curricula
- Scenario Planning/Futures thinking
- Personal Reflection
- Team Building
- Journalism
- Technology Training
- Digital Storytelling and Urban Planning

«We should design a framework of educational provisions, which, among others, aspires to trace and accentuate the “wounded” information that writhes inside us»

-Teodor Currentzis

Conductor & Artistic Director of Perm State Opera and Ballet Theatre

New Technologies Laboratory in Communication,
Education and the Mass Media
National and Kapodistrian University of Athens

<http://www.media.uoa.gr/medialab>