Open Educational Resources and Open Learning

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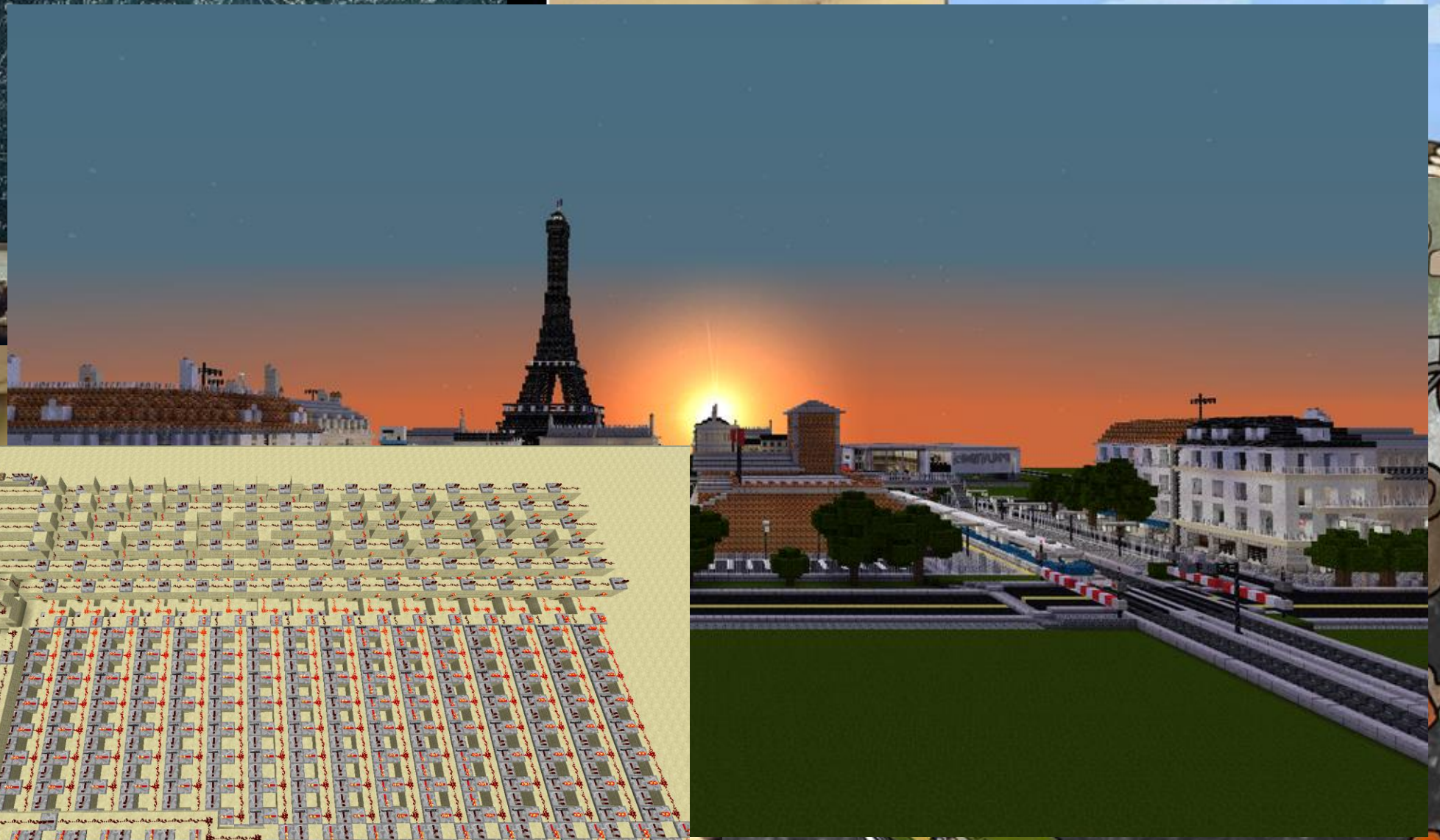
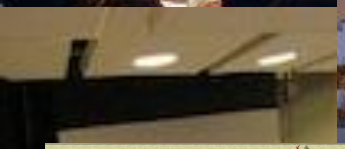
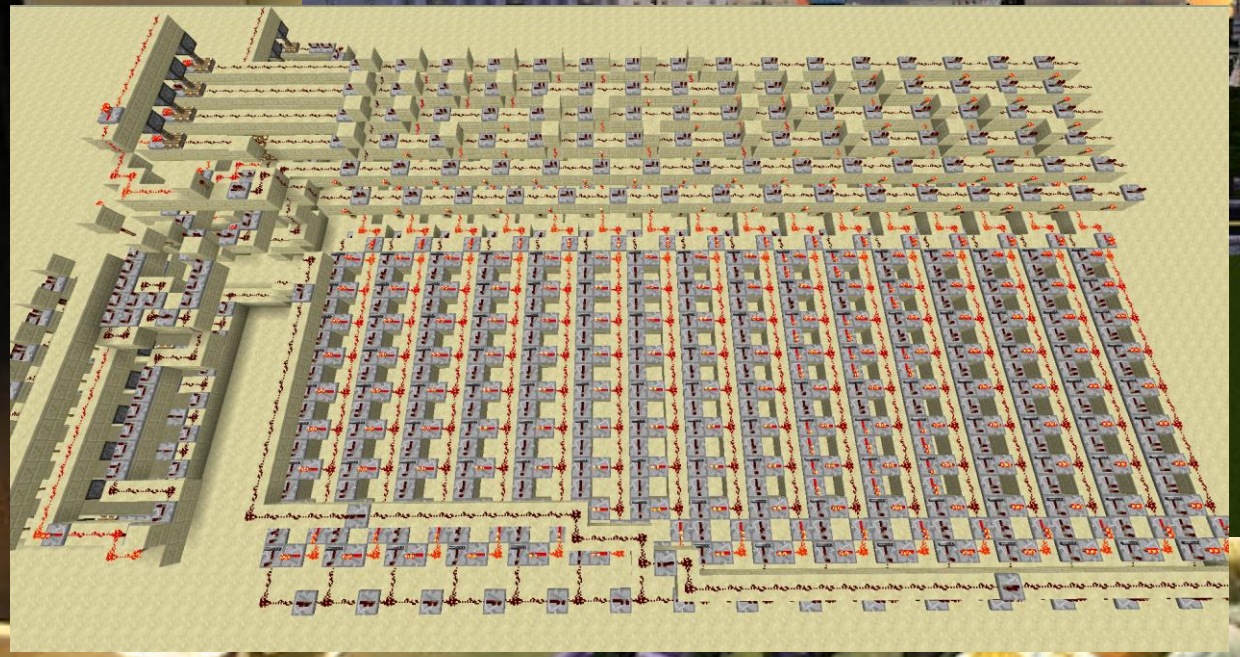
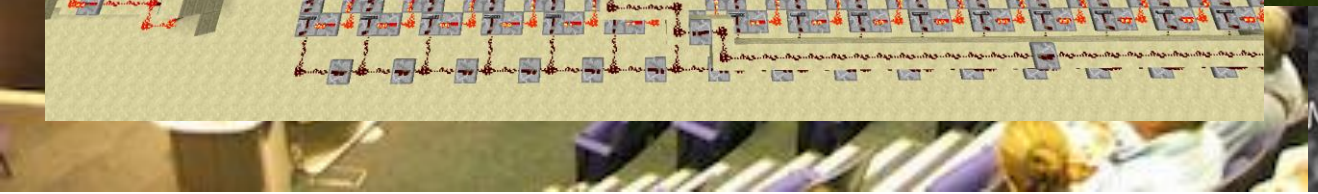
www.ereakcije.com









Open Learning

Holistic view on openness in education

Incentives and motivation

Open Universities

Open accreditation

Open value added models

Open badges

Open content

Open licenses

Open textbook

Open organisation

MOOCs

Open source

Open environment

Open Context Aware Environments

Open legislation

Open software

Open access

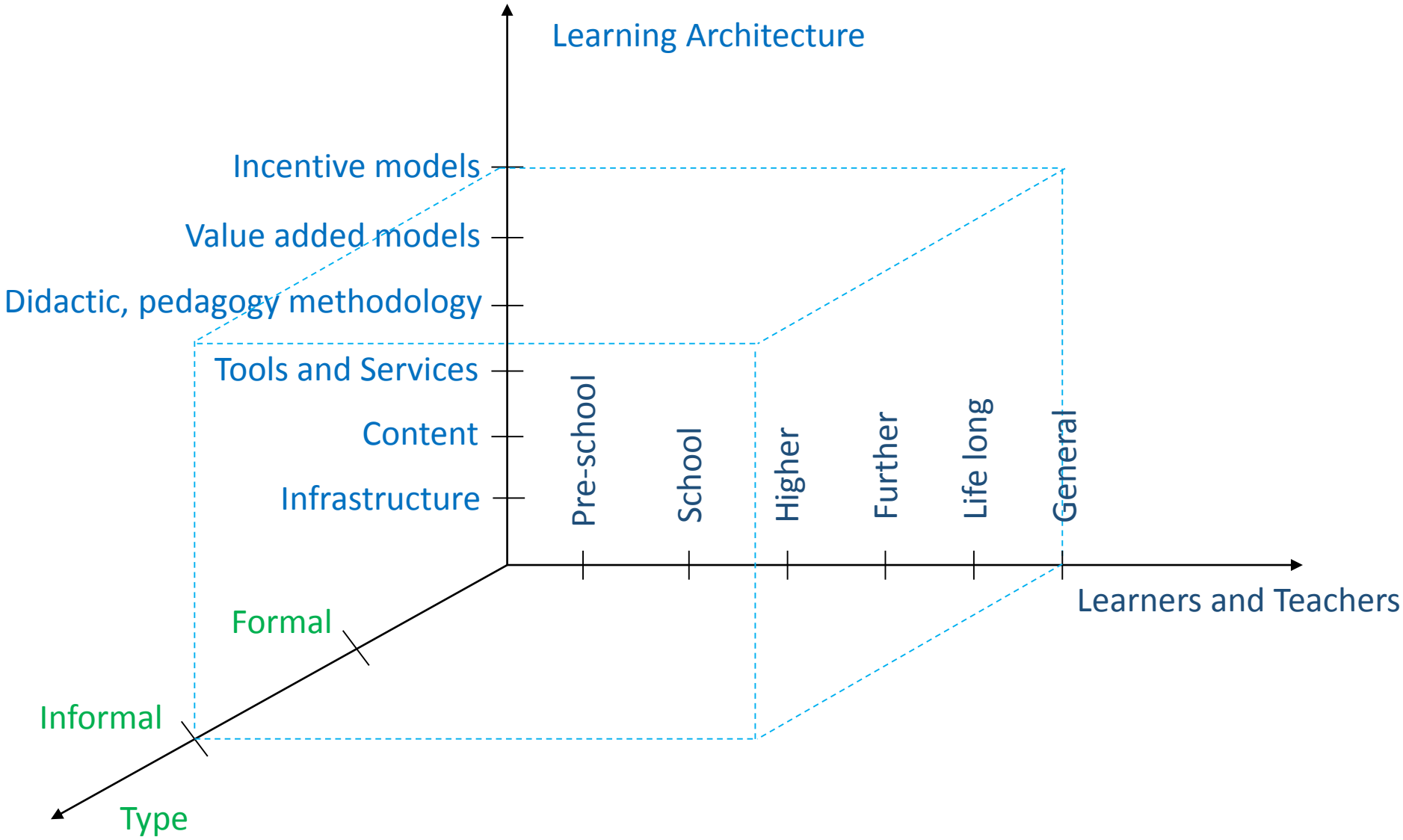
OER

Open curriculum

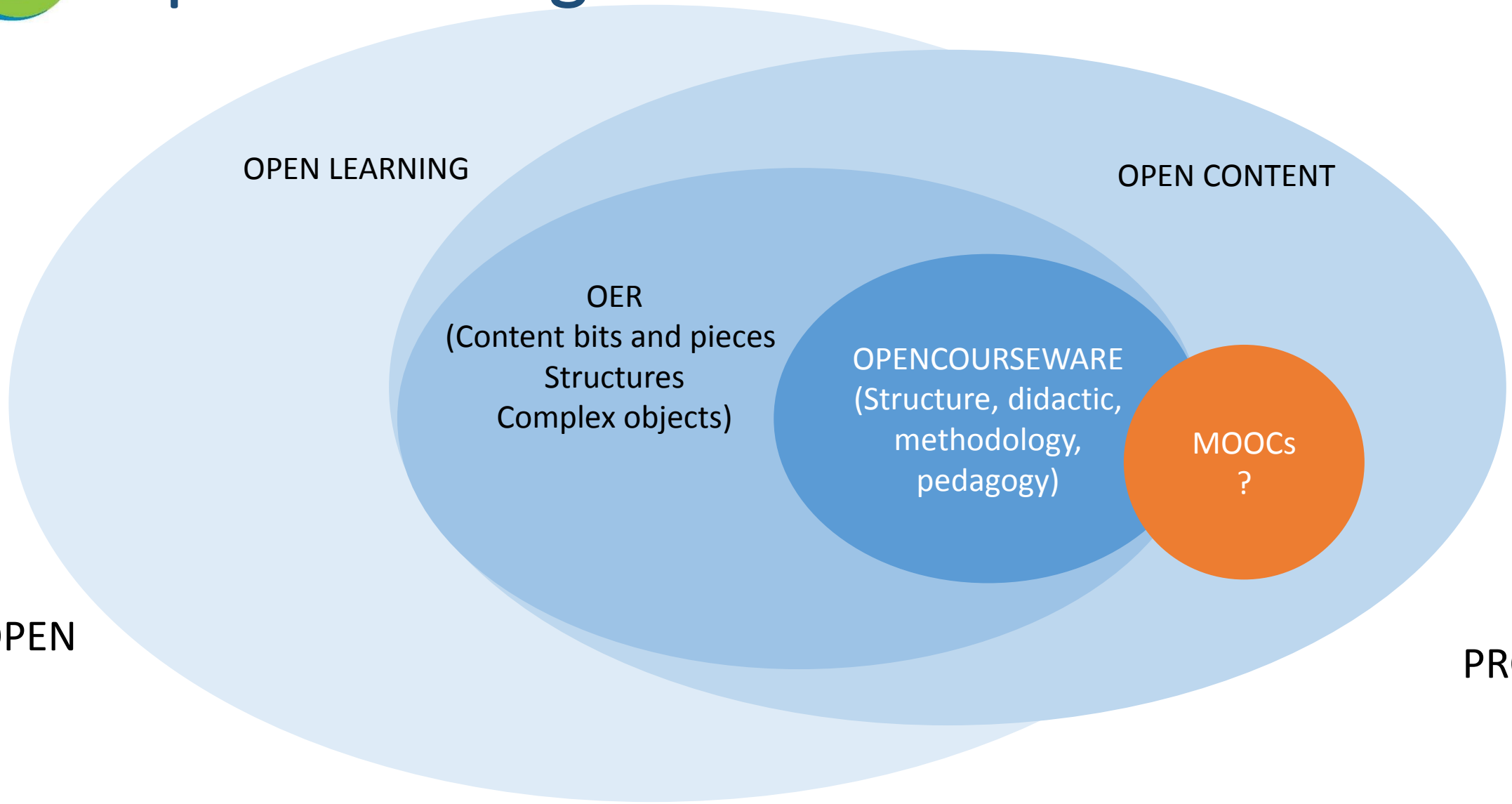
OCW

Open approach

Open education matrix



Open Learning vs. OER



OER status and developments

Open Educational Resources

UNESCO: 1st Global OER Forum in 2002

OPEN = FREE + PERMISSIONS

Retain

Reuse

Revise

Remix

Redistribute

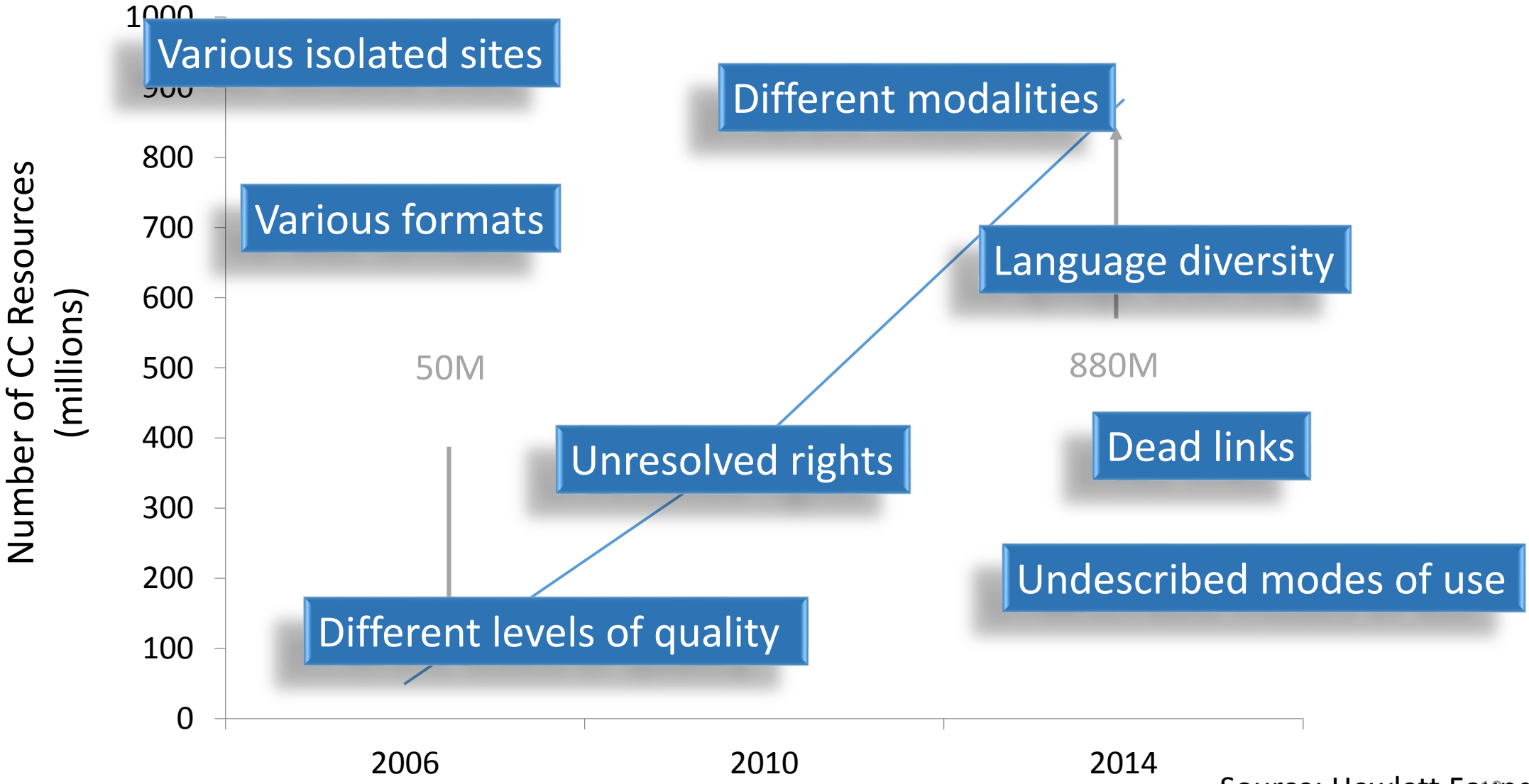
OER evolution

1994 - Learning object – (Wayne Hodgins) – standards and metadata
1998 - Open content – (David Wiley) – OS approach to content
2001 - Creative Commons – (Larry Lessig)
2002 - OpenCourseWare – (MIT)
2002 - Open Educational Resources – (UNESCO)
Emergence of many mainly academic OER repositories

2012 - Paris OER Declaration - 2012 OER World Congress
A number of Regional Policy Fora
Various projects and initiatives

2016 - …. OER is becoming a serious issue

Mass content missing mass use



Source: Hewlett Foundation

Obstacles to mainstream OER

- Commercial interests
- Language and cultural barriers
- Ensuring inclusive and equitable access to quality content (disabilities, quality assurance, all ICT environments)
- Capacity of users to access, re-use, and share OER
- Development of appropriate policy solutions
- Need for clarity on the term ‘open

A need for a UNESCO Normative Instrument that focusses on OER

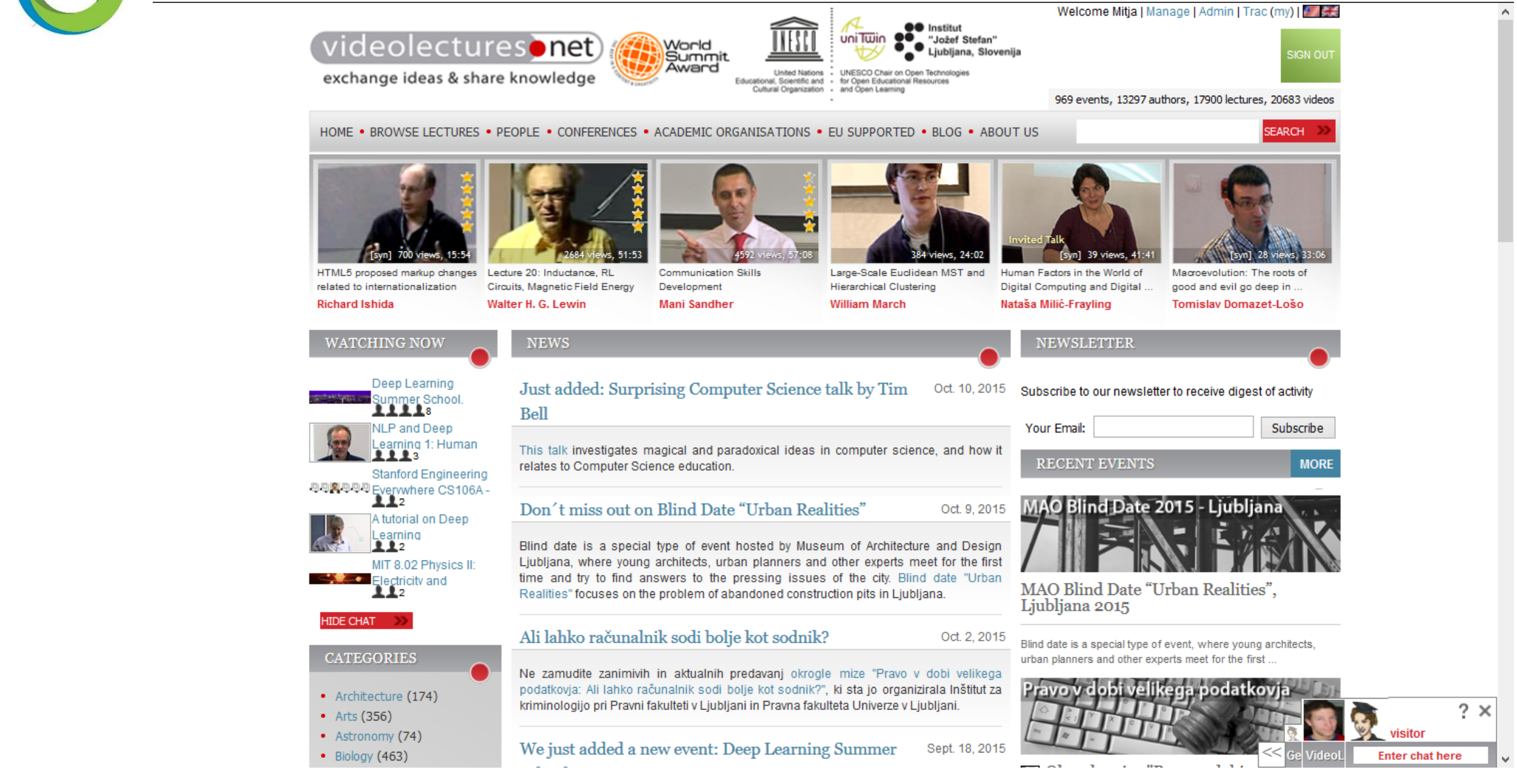
- Paris declaration is not officially a UNESCO standard-setting instrument
- OER has a central role to play in Education 2030 Agenda in Sustainable Development Goal 4
  - … and several national policies
  - Quingdao Declaration 2015
- Mainstreaming OER in formal educational policies?
- Establishment of a Recommendation and not a Convention on OER
  - By 2019
  - A milestone 2017 – 2nd UNESCO Congress on OER in Slovenia
  - A critical mass of devoted countries
  - A pool of most active countries in OER

Opening Up Education in EC

- Still only a Communication
- Some concrete steps for OER recognition:
  - Some call for proposals in H2020 requires synchronization with the OUE
  - MSCA is redefining the concept of reserachers' mobility
  - Mainstreaming Open Science which involves OER
  - SWAFS is discussing to boost up mechanisms for openness in science and education

Opening Up Slovenia

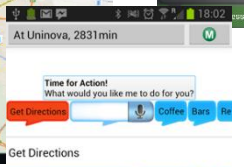
http://www.ouslovenia.net



Artificial Intelligence Technologies

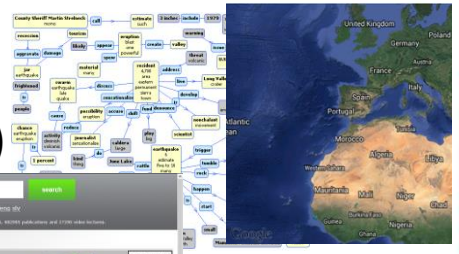
Deep Semantics & Reasoning (Cyc, CC)

Light-Weight Semantic Technologies
(OntoGen, OntoBridge)

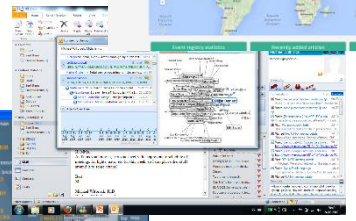


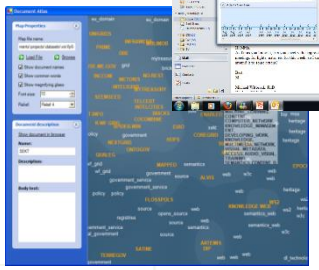
Decision Support (DEX, MobiS)

Social Computing/Web2.0 (LiveNetLife)

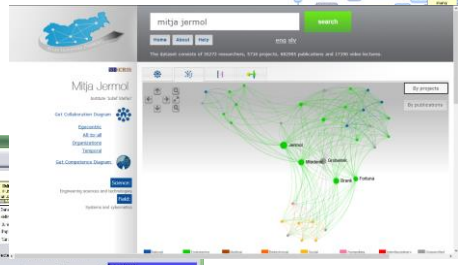


Computational Linguistics
(Eventregistry, Enrycher, AnswerArt, iDiversyNews)



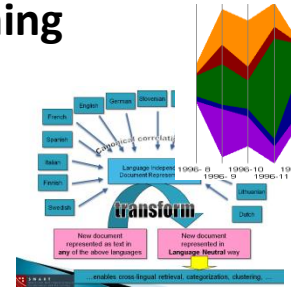


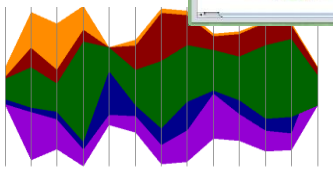
Complex Data Visualization
(DocAtlas, NewsExplorer, SearchPoint)

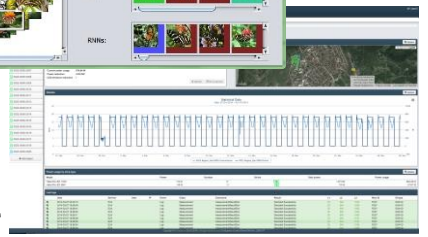


Graph/Social Network Analysis
(GraphGarden/SNAP, IST-World, Scienceatlas, Contextify)

Data/Web/Text/Stream-Mining
(TextGarden Suite of tools)



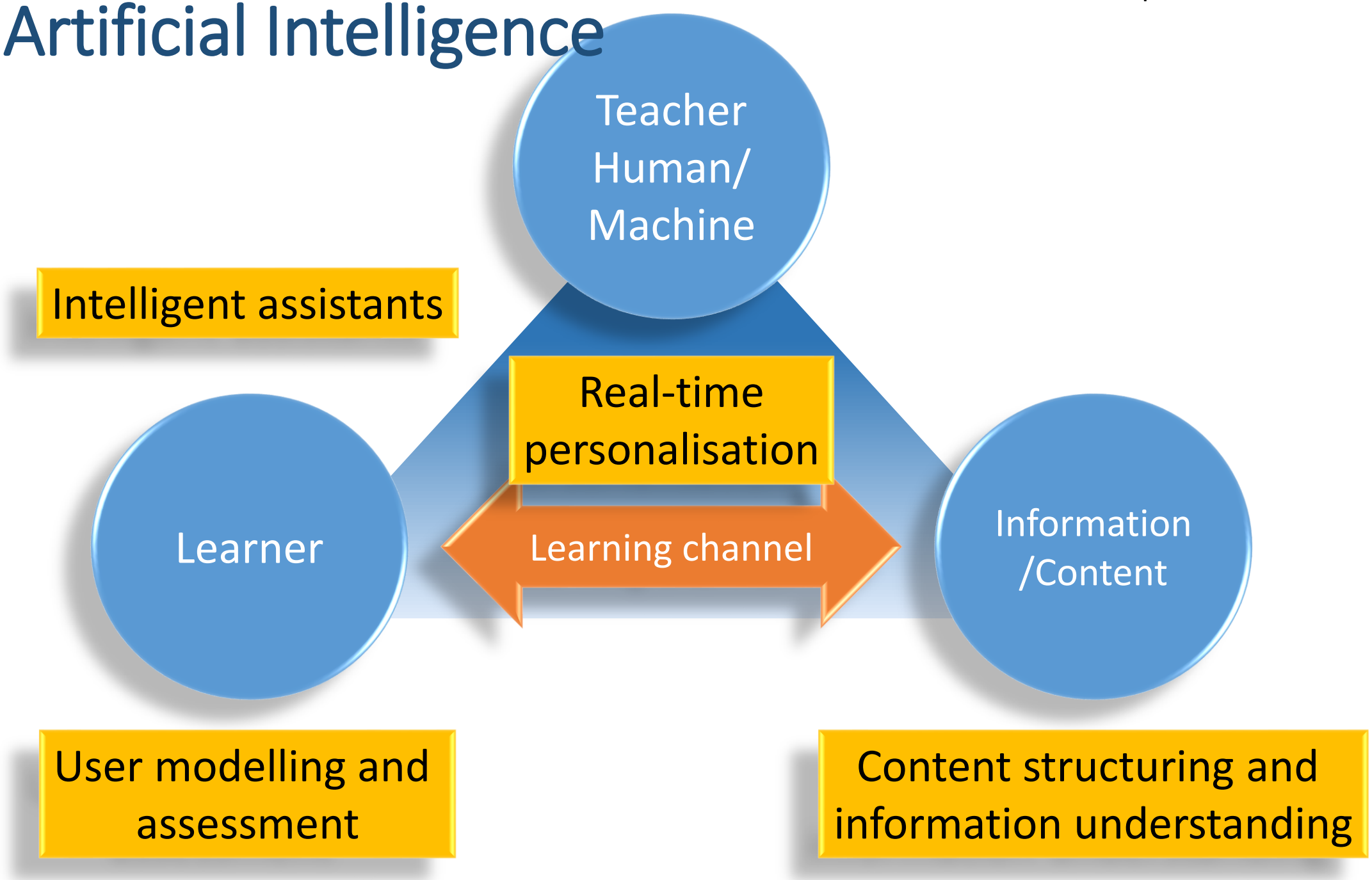


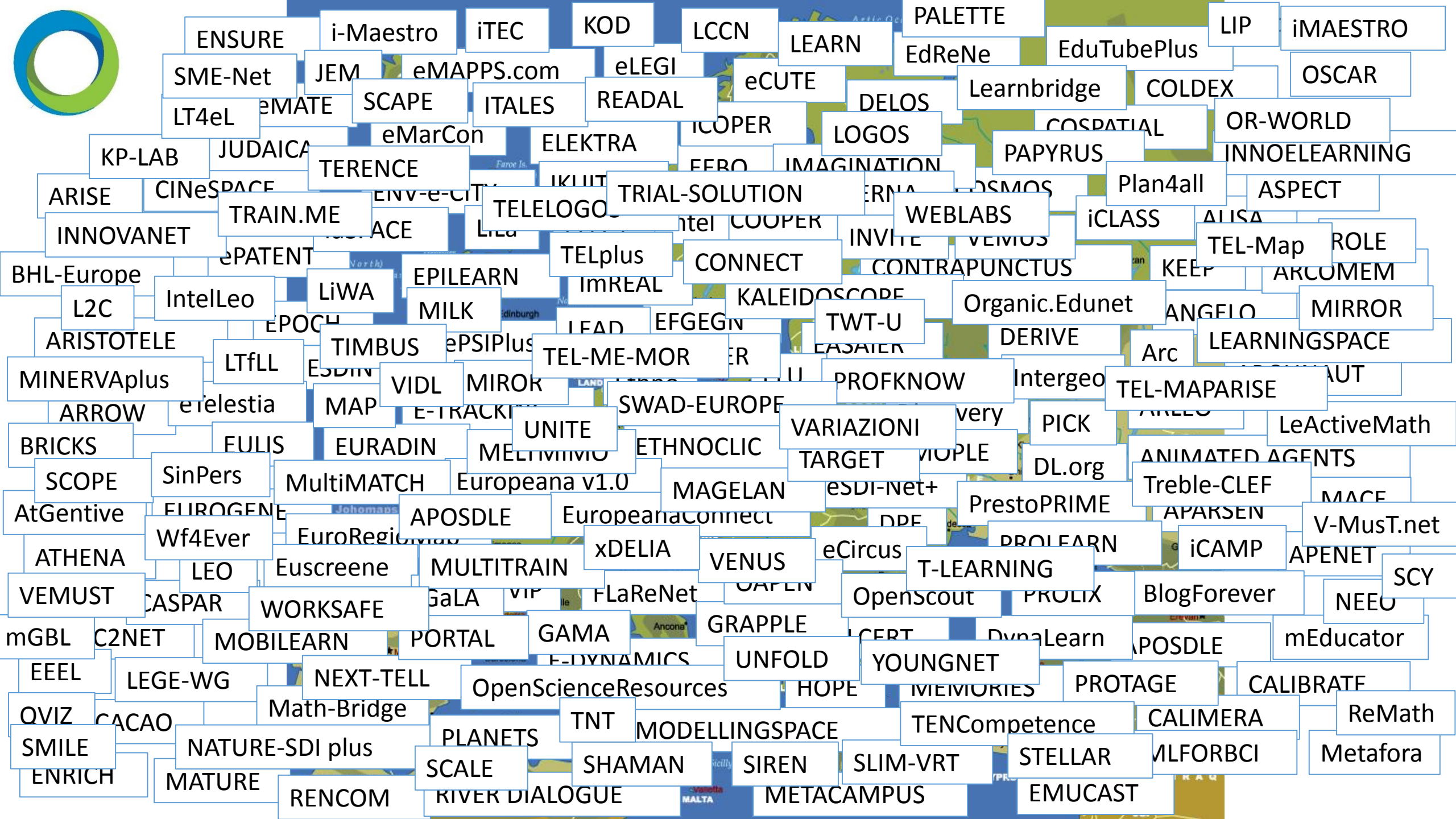


Statistical Machine Learning

VIDEOLECTURES.net
EXCHANGE IDEAS / SHARE KNOWLEDGE

Artificial Intelligence




ENSURE
i-Maestro
iTEC
KOD
LCCN
LEARN
PALETTE
LIP
iMAESTRO
SME-Net
JEM
eMAPPS.com
eLEGI
eCUTE
EdReNe
EduTubePlus
OSCAR
LT4eL
SCAPE
ITALES
READAL
DELOS
Learnbridge
COLDEX
KP-LAB
eMarCon
ELEKTRA
LOGOS
OR-WORLD
TERENCE
PAPYRUS
INNOELEARNING
ARISE
TRIAL-SOLUTION
Plan4all
ASPECT
TRAIN.ME
TELELOGOS
WEBLABS
iCLASS
INNOVANET
TELplus
CONNECT
TEL-Map
BHL-Europe
EPILEARN
CONTRAPUNCTUS
LiWA
ImREAL
L2C
IntelLeo
MILK
KALEIDOSCOPE
Organic.Edunet
MIRROR
TWT-U
ARISTOTELE
TIMBUS
DERIVE
LEARNINGSPACE
LTfLL
TEL-ME-MOR
Arc
MINERVAplus
VIDL
MIROR
PROFKNOW
Intergeo
TEL-MAPARISE
ARROW
MAP
SWAD-EUROPE
UNITE
VARIAZIONI
PICK
LeActiveMath
BRICKS
EULIS
EURADIN
ETHNOCLIC
TARGET
SCOPE
SinPers
MultiMATCH
Europeana v1.0
DL.org
Treble-CLEF
MAGELAN
AtGentive
APOSDLE
PrestoPRIME
V-MusT.net
Wf4Ever
xDELIA
VENUS
eCircus
iCAMP
ATHENA
LEO
Euscreene
MULTITRAIN
T-LEARNING
SCY
VEMUST
WORKSAFE
FLaReNet
OpenScout
BlogForever
NEEO
mGBL
MOBILEARN
PORTAL
GAMA
GRAPPLE
mEducator
EEEL
LEGE-WG
NEXT-TELL
UNFOLD
YOUNGNET
PROTAGE
OpenScienceResources
QVIZ
Math-Bridge
TNT
TENCompetence
CALIMERA
ReMath
SMILE
NATURE-SDI plus
PLANETS
MODELLINGSPACE
STELLAR
Metafora
ENRICH
SCALE
SHAMAN
SIREN
SLIM-VRT
MATURE
RENCOM
METACAMPUS
EMUCAST

EC communication titled ‘Opening up Education’ (DG EAC, Connect), Sept 2013

Slovenia – “Just the right size” country

Opening Up Slovenia

A reference country on open education

How did we get to OuS?

The role of a Catalyst

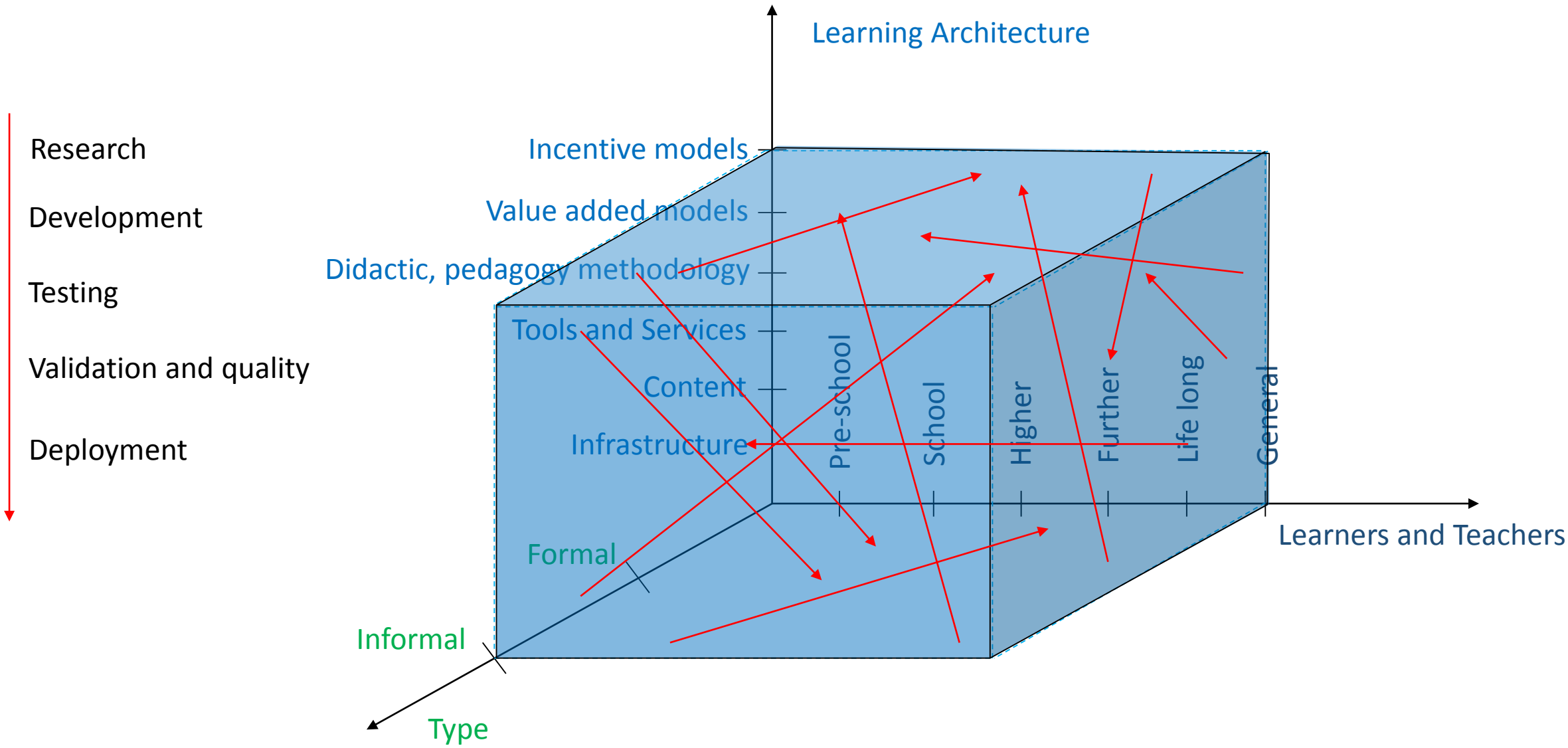
- Involving all stakeholders: Open community
- Need for change: Bottom Up
- Holistic and systemic approach
- Inform, Listen, Share, Collaborate: Unconditional
- Projects with concrete results
- Formal political support

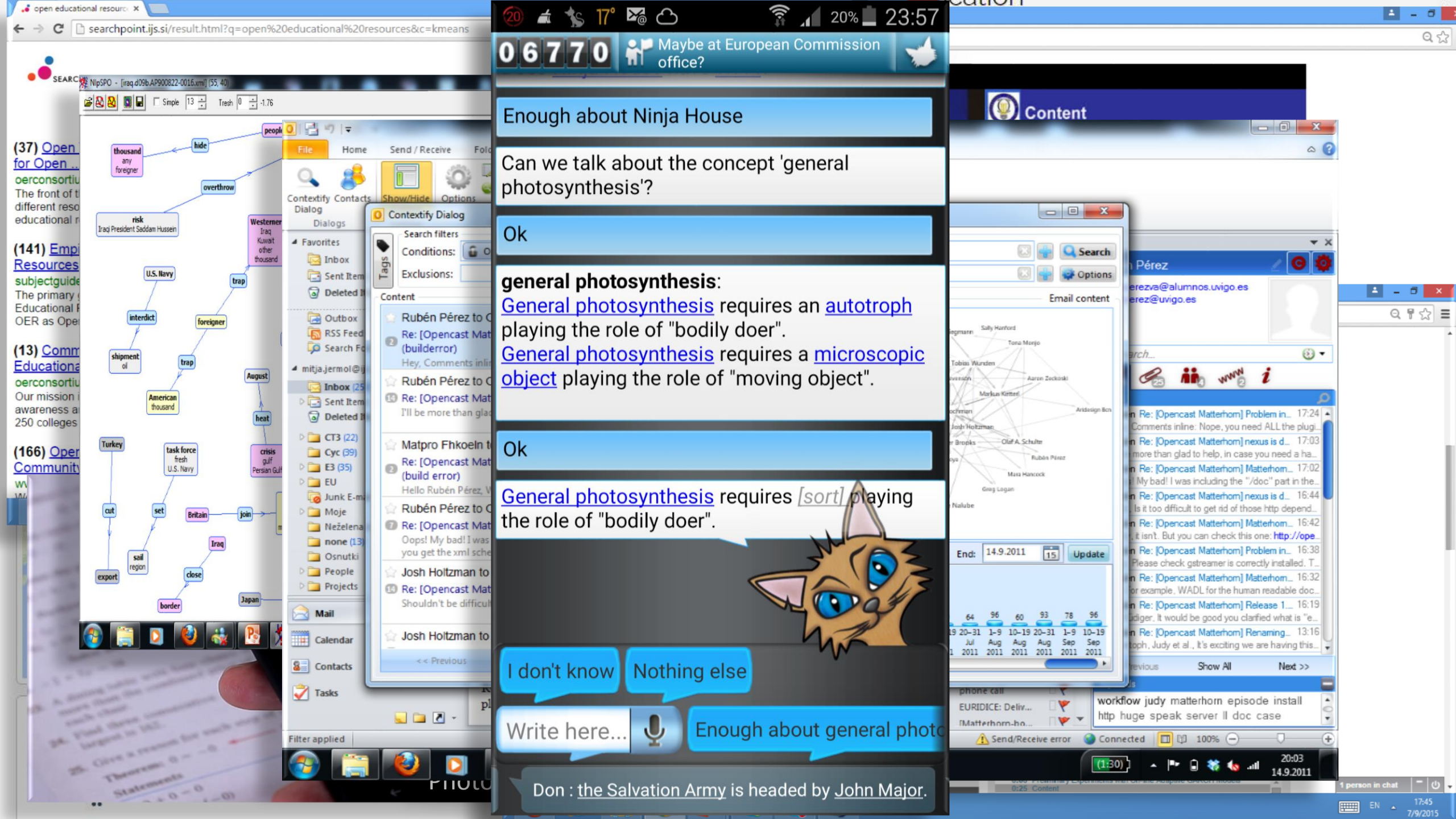
Just the Right Size Country

Core group

- Knowledge 4 All Foundation Ltd.
- Institut Jožef Stefan
- University of Maribor
- University of Primorska
- University of Ljubljana
- University of Nova Gorica
- Ministry of Education, Science and Sport
- UNESCO national office
- Savsko Naselje Primary School
- Kindergarten Center Trnovo
- Technical High School Center Kranj
- IP Institute
- Slovenian Chamber of Commerce
- Slovenian Post
- Elected representative of the primary school headmasters of Slovenia
- Elected representative of the high school school headmasters of Slovenia
- Elected representative of the kindergarten headmasters of Slovenia
- Representative of public health institutions
- Representative of the public administration workers
- Student society representative
- Representative of the visually impaired people organisation
- Topolšica Hospital
- Lek d.d.
- Kolektor Group
- Gorenje d.d.

Open education matrix

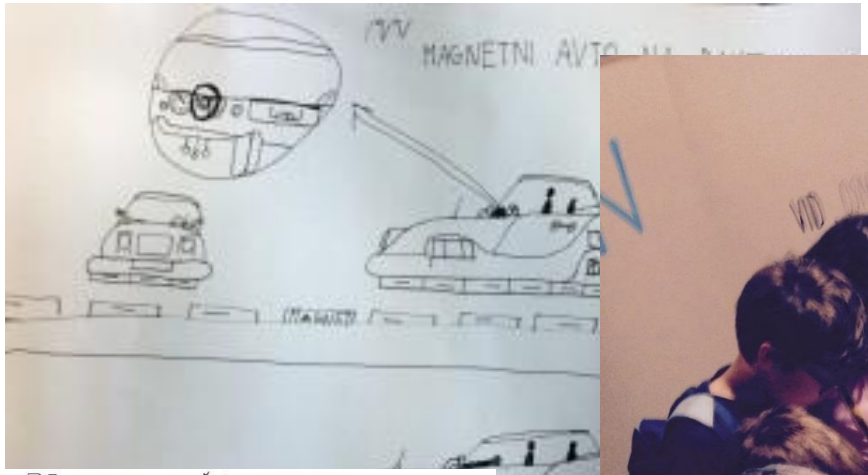


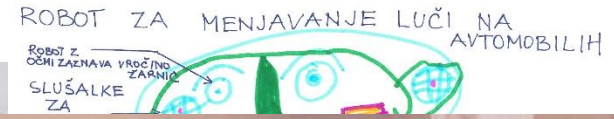

06770
Maybe at European Commission office?
Enough about Ninja House
Can we talk about the concept 'general photosynthesis'?
Ok
general photosynthesis:
General photosynthesis requires an autotroph playing the role of "bodily doer".
General photosynthesis requires a microscopic object playing the role of "moving object".
Ok
General photosynthesis requires [sort] playing the role of "bodily doer".
I don't know
Nothing else
Write here...
Enough about general photo
Don : the Salvation Army is headed by John Major.

http://www.ouslovenia.net

Slovenian Academic Channel

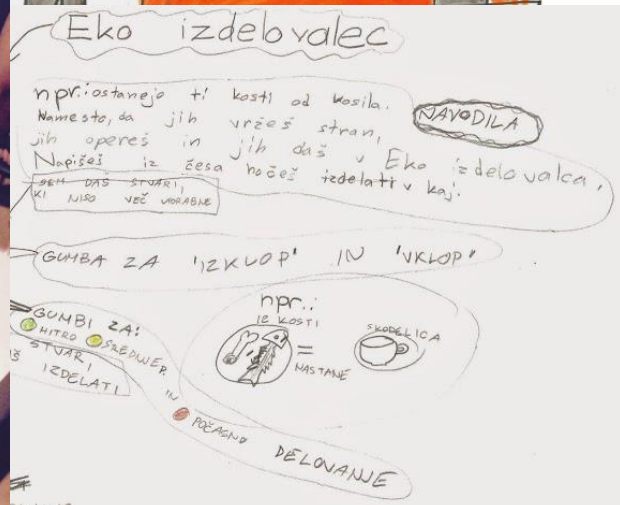
MyMachine

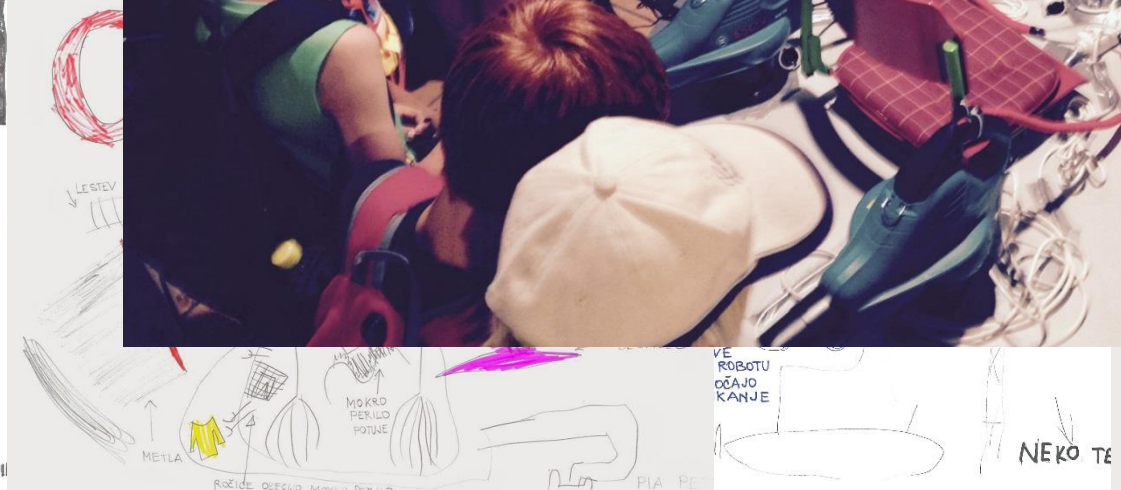

MAGNETNI AVTO


ROBOT ZA MENJAVANJE LUČI NA AVTOMOBILIH
ROBOT Z OČMI ZAZNAVA VROČINO ZARNIC
SLUŠALKE ZA

TOPLOTA GRE IZ STROJA

PREMIKAJOČA TELEVIZIJA
GUMB ZA ROČNI VKLOP ALI IZKLOP
ZVOČNIK, KI NAPOVE IZBIRO PROGRAMA
DALJINSKI UPRAVLJAČ
TELEVIZIJA IMA NOGE, KI JI OMOGOČAJO PREMIKANJE IZ PROSTORA V PROSTOR. DELUJE NA DALJINSKO UPRAVLJANJE.


Eko izdelovalec
npr. ostanejo ti kosti od kosila.
Namesto, da jih vržeš stran, jih opereš in jih daš v Eko izdelovalca, Napišeš iz česa hočeš izdelati v kaj.
NAVODILA
GUMBA ZA 'IZKLOP' IN 'VKLOP'
GUMBI ZA:
HITRO
SREDNJE
POČASNO
DELOVANJE


LESTEV
METLA
MOKRO PERILO POTUJE
VE ROBOTU OČAJO KANJE
NEKO TE

Open school

športno igrišče

idge, idge, idge

umetniško ustvarjanje, razigranje idej

Policy adaptation entry points

- Universities
  - Majority of content is internal and unedited, non-copyrighted, and is therefore restricted to the general public.
  - Teacher/Professor has no incentive or benefit in sharing, open licensing content for the public good. Answer - changing national criteria for habilitation.
  - HEI financing system does not stimulate the preparation and implementation of open courses (MOOC) or OER. Answer - launch projects that would encourage this practice.
- Schools and kindergartens
  - Establishment of online educational portal for kindergartens, primary schools and secondary schools, where they would publish educational content for teachers, pupils and parents.
  - Provide teachers with modern teaching methods and to educate them for skillful application of ICT in the classroom.
  - Establish a reward system for teachers to support open education.
- Quality Assurance agency
  - Preparation of criteria for evaluating e-learning and open learning in the processes of accreditation and external evaluation of both higher education institutions and study programs
  - Preparation of guidelines for students, mentors, tutors who participate in open education
  - Preparation of guidelines and organization and delivery of training courses for professionals of the QA agency
  - Guidelines for self-evaluation of e-learning and open learning
- Chamber of Commerce
  - Rules and regulation as obstacles; Public education vs. Market driven education
  - Forecasting scenarios. How will OuS impact the education market?
  - CoC to systematically monitor the needs of employers and ICT equipment of employers to access knowledge - funding issues.

What have we achieved so far?

First nation-wide initiative

32 running projects

Strategic commitment of Slovenian government

First policy initiatives

EC and UNESCO awareness and support

First EOI from potential investors

Followers knocking

Creative, open and enjoyable atmosphere

Current challenges

- Use technology to make OER appealing
- Mechanisms to make teachers secure and motivated
  - Easy use, 7/24 help, fewer rules and regulations
- Holistic and kids/student centered approach
  - Growing up the citizen of the world
- Mechanisms and added value models to involve businesses (publishers)
- Dynamic policies, regulations – co-creation?
- Mechanisms and models for quality assurance
- Streamline incentives
- Experiment at academia, implement to kindergardens
  - Same fears, same rejection models, very similar incentive models
- OER DNA

Associated institutions

- **Austria:** Facult
- **Belgium:** Depa
- **Croatia:** Unive
- **Estonia:** Institu
- **France:** Univer
- **Greece:** Singul
- **Italy:** Internati rto Calza Bini" , Università deg Science, University Udi
- **Germany:** Karl
- **Lithuania:** Viln
- **Netherlands:**
- **Poland:** Lublin
- **Portugal:** Facu
- **Slovenia:** Kars nian institute for Adult Educatic
- **Spain:** Madrid
- **Turkey:** Depar
- **United Kingdom:** The Open University UK, University College London, University of Manchester
- **United States:** OpenCourseWare Consortium, Opencast Matterhorn, MIT, Stanford, Carnegie Mellon University

Links and additional information

- http://www.ouslovenia.net
- http://ailab.ijs.si
- http://videolectures.net, http://opencast.org/matterhorn/
- http://scienceatlas.si
- http://qminer.ijs.si
- http://eventregistry.org, http://enrycher.ijs.si, http://newsfeed.ijs.si
- http://www.cyc.com,
- iDiveriNews on App Store
- Curious Cat on GooglePlay

- mitja.jermol@ijs.si

Supplemental slides

Guidelines in adopting OER

Key point in adopting OER

- What will you gain with OER?
  - Save money in producing materials
  - Comply with new trends, positively enforced by EC via H2020, Marie Curie
  - Gain visibility and create new learning environments
  - Adopt new, global, unprecedented audience
  - Make local, regional, global impact
  - Create public good from public investment
- At your institution you will have to:
  - Make the Case to Higher Administration
  - Make the Case to the Mid-Level Administration
  - Make the Case to the Faculty
  - Make the Case to the IT Team

Key point in adopting OER

- Determine what course websites and course management systems are in use on your campus.
  - This impacts your content import/export strategy, and defines the infrastructure required to collect, build, and manage course content.
  - Create standards for structure and presentation of content on your OER website
  - Standardization helps reduce cost, improve usability of the Web site and streamline the publication process.
  - Evaluate the content delivery infrastructure needs of your OpenCourseWare initiative
  - Worldwide distribution of end-users, use of video, anticipated peak/average loads, and other factors determine your metadata strategy.

OER resistance

- Attendance
  - “My students won’t come to class if the lectures are online”
- Cost
  - Depends on the number of courses rate, pre-existing resources can be shared with the OER project, and how (and by whom) the flow of work is directed
- Drain on Faculty Time
  - Projects generally employ staff or students to vet materials for Intellectual Property issues and to format them for online use.
  - Erosion of Distance Education Revenue
  - OER sites provide students with an important pathway into for-credit coursework (for distant learning universities, programes)

OER resistance

- Faculty Resistance to Sharing
  - Value of course materials actually increases as those materials are given away.
  - Have a core group of supportive faculty
- Intellectual Property
  - Addressing Intellectual Policy issues is complicated
  - but it often is more a matter of good record keeping than anything
- Undermining Potential Publication for Profit
  - Most faculty are realistic about royalties from their published works.
  - Evidence that OER publication in fact promotes the sale of related faculty publications, as it both widens the market for those publications, increases name recognition and demonstrates uses to which those publications might be put in the classroom

Before getting into

- What are the most significant aspects of your institution's mission and culture?
- What are your institution's explicit short and long-term goals?
- What are your institution's explicit concerns?
- What OER-relevant processes does your institution already have in place?
- What is likely to be the most effective scope of an OCW project at your institution?
- What are likely to be the "pain points" for your institution?

Before getting into

- Assemble an Information Packet about your proposed initiative
- Get to know other people at your institution who are involved with developments in education and educational technology
- Promote increased use of Open Educational Resources at your institution
- Review available evaluation tools for compiling statistics about your site; its number of hits, where users are coming from
- Talk with us about formal partnerships.

Evaluation and Metrics

- Start with a clear conception of what you want to measure, and why.
  - Help to crystallize your evaluation strategy and methodology.
- Measure Access, Use, Impact
  - who is visiting, from where, and their profiles
  - what they are using it for, and how
  - and what difference is makes
  - Tracking the usefulness and usability of OER, and the efficiency of your publication process will make your OER relevant over time
  - Measuring the use and demonstrating the impact of an OER helps ensure continued engagement of key stakeholders.
- Internally, measure process efficiency and faculty satisfaction.

Relating OER to Pedagogy

- Information specifically intended to help users get the most out of their learning experience. How will you articulate expectations, goals, and learning outcomes?
  - How will you encourage active engagement?
  - How will you encourage users to have an enjoyable and meaningful experience of using OER?
  - How will you provide opportunities for useful reflection on what users have learned?
  - What tools can help users assess their prior experience and knowledge to help them select the most appropriate OER material and direct their learning activities?
  - How will you encourage users to link their learning with OER to their own professional or personal circumstances?
  - How will you encourage users to learn in a community?

Maintaining Intellectual Property

- Intellectual Property (IP) Management is one of the most serious concerns faced by those seeking to start an OER project.
- Questions you should ask your institution's legal team
  - Does your institution consider faculty teaching materials to be the property of the faculty member or of the institution?
  - What process does your institution want you to follow in your use of institution-owned content?
  - How concerned is your institution with its own branding and/or the appearance of endorsement?
  - What is your institution's stance on fair use in the classroom? Outside the classroom?
  - What types of legal language does your institution want you to use in license requests?
  - To what types of privacy laws is your institution subject?