2nd World Congress on Open Educational Resources

Ljubljana, 20 Sept.2017, 09.00 – 10.45 Cankarjev dom, Hall: **M3**

KEN Workshop on OER and University Didactics

Introduction

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Chairman, KEN Board of Directors;
Professor DOBA; Senior Adviser Slovenian Innovation Hub

Introducing the Panelists

-- Prof.Emeritus ddr. **Barica MARENTIĆ**; University of Ljubljana

-- Mr**.Marko SELAKOVIĆ**, on behalf of Hamdan Bin Mohammed Smart University, Dubai - UAE

-- Dr. **Marko DIVJAK**, DOBA Faculty of Business and Applied Social Studies, Maribor

-- **Prof.dr.Jelena STANISAVLJEVIĆ**, University of Belgrade, Dept.of Biology

-- Prof.dr.**Boris CIZELJ**, Chairman KEN Network, Professor DOBA Faculty, Senior Adviser Slovenian Innovation Hub,

Our Goals:

Raise key questions and exchange views & experiences on how more systematic use of OER can help us to successfully answer the challenges faced ba universities today.

- Assess the conditions at present and future labour market in terms of competencies and skills of graduates;
- Why universities respond slowly and what they are missing?
- Full appreciation of the potential of OER for universities to prepare next generations for the quickly changing world.
- Provide some recommendations to universities and policy makers.
- Provide some orientation among the numerous (est.over 3,300) OERs.

Knowledge Economy Network's ID

-- created in 2011 in Brussels – a non-profit association;

-- Mission: creating awareness on Knowledge Economy/Society, linking members, promoting their achievements, advising and evaluating members' project ideas;

-- Key activities: publishing Weekly Briefs, Monthly Bulletin, organising Fora, Workshops and Policy Dialogues, KEN Awards, consulting services to members;

-- Covering: education, R&D, innovation, and entrepreneurship;

-- 76 Full and Associate Partners and members from 19 countries;

-- Selected el.publications are disseminated to close to 5,000 recipients of the Global Impact group in about 60 countries;

Emerging new Paradigms
The World of Work in next 10-20 years

-- AI, ICT & social networks – making traditional **3 sectors economy - irrelevant**: ITC-based services dominant – servitisation -- emphasis on innovative bus.models.

-- Key players in global economy will not be the big industrial corporations, but companies operating through innovative business models (utilising ICT):
- **UBER** owns no cars, but already the biggest provider of taxi services;
- **AIRbnb** owns no hotel, but already the biggest provider of hotel services;

-- About **70-80% of present jobs to disappear**: Lawyers (except specialists) becoming redundant (IBM Watson super-computer free solutions in seconds, 90% precision) – robots doing anything programmable and requesting precision beyond human capacity.

-- Average **working time** to be **reduced**, about **50% people** -- **self-employed;**

-- **Khan Academy Programme** is already **including all what a normal child should learn** before entering university – totally different role of educators (mentoring, coaching) – **LLL** will be practiced by **all adult population** (today between 20 and 60%).

Econ.& techn. changes – require new skills

-- Growing sophistication of production require different human skills – from physial force to knowledge, creativity and innovation – just in 300 years !!

- 1712 First Industrial revolution: steem engine starting to replace human physical force;
- 1870 Second Ind.revolution: electricity allowing complex manufacturing;
- 1950 Third Industrial revolution: with nuclear power – liberation from energy sources, emphasis on clean energy, innovation & communication capacity
- 2000 Fourth (Digital revolution) - decoupling growth from resources, merging biological, physical & digital – virtual reality, starting to vary biological functionalities (genetical engineering) – human interaction contribute creative services.

-- New mindset, knowledge & skills needed to answer today's and tomorrow's ever more complex tasks:

- Ability to analyse issues at hand and find, develop and apply solutions to problems (predictive analytics and interdisciplinary approach, methodology, flexibility, creativity);
- Communication with colleagues of other professional profiles – to join and combine resources (social & emotional intelligence);
- Ability using sources of information & learn permanently (**LLL**) „No more Eternal truths!"
- Students nowadays already use ICT, expect professors to be at least equally skilled – otherwise reduced apraciation.

Who will be illiterate in the knowledge economy?

Alvin Toffler, world famous futurologist (died 2016) **made a prognosis in the 1980-ies that knowledge economy will replace our industrial civilisation.**

„**The illiterate in this century will not be the people who cannot read and write, but those unable to learn and un-learn (forget what they learnt), and learn something new instead.**"

Toffler also declared : „Knowledge is the most democratic source of power."

The present jungle (over 3,300) of OERs
Project: Global Open Library – GOL Platform

LRE -- The Learning Resource Exchange

Amazon Inspire -- allowing techers to upload and share their own resources

EdReNe -- Educational Repositories Network -- French Thematic Network

EduOER – a European project hosted by GEANT (metadata from OER repositaries;

OER World Map – project funded by Hewlett Foundation

GBA – Global Book Alliance, providing books to children

GOL – to become a trusted interface to high quality OERs (exp.in 2019) targets: end users; function: ease of access and oversight, quality check; collaboration among contributors (like PANOR initiative: The Partnership for Networking OER)

Knowledge Economy Network

Viktor ALDRIN, Centre for Pedagogical Development and Interactive Learning University of Gothenburg, Sweden:

(1) **Essence of Didactic Reasoning** (DR) = **upgrade university teachers as better instructors** in their own field through development of **didactic language** (with **subject dialects**),aiming at reasonable and reflective teaching – student-centred, outcome oriented.

(2) **Training the didactic voice** with **appreciation of „the teaching-other"** – person, to whom the instruction is dedicated. Establish **inter-personal communication** is essential. Legitimacy of the "other" -- respect and appreciation is necessary.

(3) **Functioning of Didactic Reasoning** – interdisciplinarity and meeting of different subjects – with full **appreciation of differences in views** – are generating interesting teaching/learning experiences in practice.

(4) **Experimenting, acceptance of risk and friendly relationships between academic colleagues** lead to collaboration between subjects and inter-disciplinary interaction, as well as new didactic approaches and methods.

Some Recommendations
for the 21st century university

- Stricter selection of professors, involving more experts from practice, adequate salaries, tenure only after full professorship , no life contracts - re-election based on quality of performance – incl. students' evaluation; **didactic skills precondition for quality teaching** !! As everywhere: carrot and stick are needed !!

- Inter-departmental courses, collaboration among Chairs, emphasis on trans-disciplinarity;

- Research to include students;

- Division of academic leadership and management functions;

- Networking with best universities;

- Organize training on didactics for your staff;

- Encourage professors to participate in international projects and publish their research results;

- Organisation of international conferences and participate at others.

The Future has already begun, let us be part of it !!

Upbringing and education of new generations – **ultimate task - calling**.

LLL as response to new conditions redefines curricula along the entire formal education experience – Harvard study: **39%** MOOCs attended by teachers/professors.

Demands on teachers and professors have never been bigger – the only way to respond to the challenge is for them to **accept that didactics is part of their professional responsibility**. Critical role of university leadership.

Using **OER is a conditio sine qua non** of good teaching, not only enriching contents, adding the graphic dimension (500 : 1 for verbal), actively involving students, also preparing them to use OER later by themselves.

All this is impossible unless the **professors accept their new role** in the education process: from instructor to mentor and coach !

Some readings

- **Aldrin** Victor (2015) „Didactic Reasoning in Academic Teacher Development: Towards a New Understanding of teacher Training for Academics" Pedagogical Essays, University of Gothenburg, Sept.2015, 1-14 pp.

- **Benner** D. (2005) „Allgemeine pedagogik – Eine systematisch problemgeschichtliche Einfuerung in die Grundstruktur pedagogischen Denkens und Handelnsbuch, Juventa, 5th edition.

- **Bering Keiding** Tina, **Qvortrup** Ane „The Didactics of Higher Education Didactics" Aarhus University, ECER, 2014, Porto.

- **Ebner**,M., **Schoen**, S., **Kumar**, S. (2016) „Guidelines for Leveraging University Didactics Centres to Support OER Uptake in German-Speaking Europe" Education Policy Analysis Archives, Special Issue on Models of Open Education in Higher Education, Arizona State University, Vol24, No.39 , 1-16 pp.

- **Eberchardt** Ulrike (Hrsg., 2010) „Neue Impulse in der Hochschuldidaktik" VS Verlag fur Socialwissenschaften – Springer Fachmedien.

Select Repository of OER (48)

OER by subject

- [Saylor guides by subject](#) These are OER guides by subject/class created for instructors building open courses. Excellent resource.

- [OER guides by subject](#) These are Google Docs made by Portland Community College librarians in response to requests for help from instructors.

- [Discipline-Specific OER from Virginia Tech](#) On this pages you will find openly licensed textbooks along with supplemental material, interactive simulations, and other resources.

- [Subject Resources from University of New Hampshire](#) A collection of resources divided into humanities, social science, and STEM categories.

- [Discipline-Specific Resources from VC/UHV Library](#) On this page, you will find the largest, most popular repositories of open educational resources separated by subject.

Open Access Books

- [OpenStax College](#) Rice Connexions is providing peer reviewed, quality open textbooks with interactive components. There are some amazing textbooks available here, with more in production.

- [College Open Textbooks](#) This effort funded by the Hewlett Foundation, seeks to drive adoption of open textbooks. Many of the books shared on this resources are reviewed.

- [Open Textbook Library](#) Hundreds of complete, open college-level textbooks collected by the University of Minnesota.

- [BC OpenEd](#) A curated collection of open textbooks, many reviewed by British Columbia faculty.

- [Boundless](#) Boundless works with experts to compile web-based openly available content into the same general arrangement of textbooks. You can actually search the ISBN for your current textbook and see what content Boundless would use to replace it.

- [Global Textbook Project](#) High-level texts hosted or created by the University of Georgia.

Open Access Books - 2

- [WikiBooks](#) A project of the Wikimedia Foundation, this collection of group written textbooks in a variety of sources follows rules similar to Wikipedia.

- [Project Gutenberg](#) Find the full text of classics and public domain works from the first massive ebook creating organization in existence. Nothing fancy here, just files with the full text.

- [Google Books](#) Some books presented in this mass conglomeration of scanned books are fully available, most are excerpted.

- [American Institute of Mathematics](#) A list of open textbooks in various subdisciplines of Mathematics approved by the AIM editorial board.

- [FreeBooks4Doctors](#) Free medical textbooks.

- [Bloomsbury Academic](#) Bloomsbury is a well-respected and long time UK publisher who has released some of their academic titles for open access/open education.

Large Repositories

- [Merlot](#) This repository is one of the biggest and more famous places to find and share teaching resources.

- [Connexions](#) Large repository of individual teachers' content, some courses and lots of modular writings about a variety of topics.

- [OER Commons](#) This resource seeks to collect and distribute a variety of OER at a variety of levels and subjects.

- [Orange Grove](#) Florida's collection of open ed sources.

- [Quantitative Undergraduate Biology Education and Synthesis (QUBES)](#) This repository contains learning materials, software, data, and models for teaching quantitative skills in undergraduate biology courses. QUBES is developed in part by faculty at the University of Pittsburgh.

- [Curriki](#) Open educational materials for K-12.

Large Repositories - 2

- [Edsitement!](#) Learning objects and lessons from the National Endowment for the Humanities. It offers a large collection of peer evaluated websites.

- [Jorum](#) The UK's largest repository for OER in a variety of subjects.

- [Community of Online Research Assignments](#) Open resource for faculty and librarians about Research Assignments. A research assignment is anything that requires students to engage with information resources in a critical or reflective way. This most often includes finding, retrieving, analyzing and evaluating, using and integrating, or organizing the information in order to produce new knowledge.

- [OpenCulture](#) This blog formatted repository seeks to bring together free resources on culture and education. The list of movies here is impressive.

- [Open Scout](#) UK based database of business skills teaching resources. Includes articles, tutorials, video and much more in a variety of languages.

- [AMSER](#) Materials in the Applied Math and Science Educational Repository are free for use and adaptation. Most resources are at the high school and community college levels.

Complete Courses

- [Academic Earth](#) Find lectures and videos from some of the most respected instructors in the world.

- [Bridge to Success](#) Materials, mostly study skills, to support students transitioning to college.

- [Coursera](#) Large library of MOOCs, some of which have material freely licensed for re-use.

- [EdX](#) Library of college-level courses from a variety of high-profile universities. Some course materials are freely licensed for reuse.

- [LearningSpace from Open University](#) All of the learning materials presented on this site are CC licensed, but don't confuse "Learning Spaces" with the full Open University- their licensing/copyrights are different.

- [Open2Study](#) MOOC provider from Open Universities Australia. Some content is openly licensed.

Complete Courses - 2

- Open Courseware An independent search engine that indexes open education classes from places like MIT, Yale and UMass.

- Saylor.org Saylor offers full courses online. It can be really helpful to use the reading lists from Saylor to find and organize your courses.

- Open Learning Initiative Complete courses from Carnegie Mellon University.

- Noba - Psychology Modules A series of modules in the field of Psychology from Introductory courses to more advanced topics.

- Open Course Library The WA Open Course Library project offers 81 of Washington's most enrolled courses.

Multimedia

- [TED](#) Inspiring thinkers on a range of subjects present big ideas and lectures on a regular basis- completely CC licensed.

- [Khan Academy](#) **Hundreds of short educational videos covering many subjects; especially strong collections in science and math.**

- [PhET Science Simulations](#) These interactive tools from the University of Colorado at Boulder are mostly CC licensed.

- [Wikimedia Commons](#) The thinkers behind Wikipedia bring you images, video and music all openly licensed or in the public domain.

- [CLIP Information Literacy Tutorials](#) Find great tutorials on information and research competencies.

- [HippoCampus](#) HippoCampus, a project of the Monterey Institute of Technology and Education (MITE), is full of high-quality resources in a variety of subjects. It is aimed at high school and college level users.

- [Vimeo](#) A social network of video producers. This is a great place to look for a wide variety of content- some completely open for redistribution, some is open access.

- [Critical Commons](#) A community of people who seek to promote the use of media in teaching. The materials posted here are mostly presented using Fair Use guidelines.

List of 100 Free softwares for students

Note Taking

One Note
Microsoft's note taking software

Libre Office
Docs, spreadsheets, presentations and more

Open Office
Another great alternative to Microsoft Office

AbiWord
Microsoft Word replacement

Citations

Zotero
Collect, organize, cite and share your sources

MindMaps

VUE
Concept mapping tool to build and share presentations

Mindnode
Easy mind mapping for Mac

Reading

Adobe Acrobat Reader
PDF Document Reader

ReadCube
Read and annote PDF files

Skim
PDF reader & note taker for OS X.

WinDjView
DjVu document viewer

Writing Papers

LaTex
High quality writing system for research papers

Jabref
Graphical bibliography reference manager for LaTex

Lyx
Document processor based on LaTex

Diagrams

Microsoft Visio
Create and share professional diagrams to simplify information

Lucidchart
Collaborate and work with groups to create diagrams online

Screen Recorder

IceCream Apps
Record, capture and take screenshots

Flascards

Anki
Cross plataform flashcard software with spaced repetition system

File Management

PDF Creator
Convert any printable document to PDF format

DarkRoom
Full screen and distraction free writing program

Scribus
Desktop publishing software

Study Groups

Slack
Team communication tool

Basecamp
Project management web app

Mendeley
Manage and share research papers with your group

Etherpad
Edit documents collaboratively in real time

TeamViewer
Desktop sharing, file transfer, online meeting & more.

PanDoc
Convert docs from HTML, LaTex to XML, PDF, ePUB and more

PDF SAM
Merge, split, rotate, mix, edit and sign PDF files

ClipX
Clipboard manager that stores your clipboard history

Snipping Tool ++
Take screenshots, annotate and export them in your chosen format

Stuffit Expander
File extractor and decompression tool

7zip
Compress and decompress heavy files

WinDirStat
Scans your disk to show you where is space being wasted

Duplicate Finder
Search duplicate files and remove them

USB Reminder
Helps you remember to plug off your USB Flash Drive

Presentations

Prezi
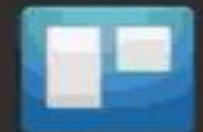Web based app to make presentations

Slideshow Maker
IceCream's software to make slideshows with multimedia

Organization Tools

Todoist
Cross plataform tool for managing tasks

Trello
Visual collaboration tool for planning tasks and projects
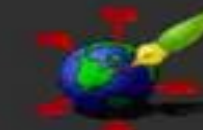
TreeSheets
Note manager structured like a tree

The Guide
Organize information and ideas in a tree-like structure

SeoNotes
Keeps all your information organized in a single file

ZimWiki
A wiki-style notebook that uses local file storage

CloneZilla
Back up and restore your hard drive

Email & Web

ThunderBird
Manage and access your email from your desktop

Tor
Surf the web securely and anonymously

Music

Spotify
Digital music service with access to millions of songs

Video Editing

OpenShot
Open source non-linear video editing software

KdenLive
Intuitive, powerful and up-to-date multi-track video editor

Password

Keepass
Manage all your passwords in a secure way

Password Safe
Make a secured & encrypted username/password list

Time Management

ColdTurkey
Block yourself from popular sites, games and more

Rachota
Portable time tracking application for projects

AutoHotKey
Create shortcuts, macros and automate repetitive tasks

Health

f.lux
Adjusts display settings according to location & time

RedShift
Like f.lux, it reduces eye strain and improves your sleep

Lightworks
Professional video editor used in popular movies

Audio & Composition

Audacity
Cross-platform software for multi-track recording and editing

Ardour
Digital audio workstation for musicians

MuseScore
Notate, compose and print music scores

MediaInfo
Displays technical and tag information for audio and video files

FreeRip
Convert your CDs to mp3 for music listening

Design & Animation

AutoDesk
Free 3D design software, learning tools and programs

Photos & Images

InksScape
Vector graphics editor similar to Adobe Illustrator

Paint.net
Fully featured photo editor, great alternative to MS Paint

Gimp
Photo manipulation tool similar to Adobe PhotoShop

Draw.io
Online app for flowcharts, diagrams and more

Google Photos
Back up, organize, label and share your photos

Google Nik Collection
Bundle of tools to enhance photo editing work

Infarview
Simple image viewer, editor, and converter software

Jet Screenshot
Take a screenshot, edit it quickly and share it online

Blender
3D Modeling, animation, rendering, video editing, game creation & more

Scratch
Easily create interactive stories, animations and games

Pencil 2D
Easy, intuitive tool to make 2D hand-drawn animations

PTC Creo
Powerful & versatile CAD software free for students only

Programming

Notepad ++
Source code & text editor with support for various languages

Zeal
Offline documentation browser

Soap UI
API & Web Service testing tool

DVD-CD

Virtual Clone Drive
Run CD/DVD applications without a physical drive

Media Players

VLC
Play media from your computer or stream it from the web

Open Broadcaster
Video recording and live sreaming

XviD
Expand the number of playable video formats on your computer

Web Design

NVU
Easy to use web editor for beginners

Math

SageMath
Alternative to Mathematica and Mapple

Octave
Computational program compatible with MatLab

Virtual Box
Virtualization software for various operating Systems

JetBrains
Free IDEs & developer tools for students

Security

ZoneAlarm
Free antifirewall to protect your computer

Malwarebytes
Find and remove malware

Avira
Antivirus to protect your PC, privacy, and files

Panda USB Vaccine
Keep your USB Flash Drive free from malware

Eraser
Completely remove sensitive data from your computer

Microsoft Math Add-in
Graph and solve equations in Word and OneNote

Data & Statistics

R
Software environment for statistical computing & graphs

Tableu
Create beautiful and appealing reports, charts, graphs and more

Career Tools

JobTabs
Simple resume builder & editor

Career Igniter
Fill out your info & export your resume in PDF/Word

Storage

DropBox
2GB of free online storage

Finances

GNU Cash
Personal and small business financial accounting program