

WEB 2.0 Y LA MEJORA DE LA COMPETITIVIDAD

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RESUMEN: Este artículo muestra la puesta en marcha de un modelo de aprendizaje potenciado por la tecnología en el entorno de la Universidad. Se presenta un desarrollo de la Identidad Digital Positiva sobre la nube Web2.0. Las personas crean sus propios portafolios –Personal Learning Portfolio y Personal Credit Portfolio. Por otra parte, estas propuestas representan la generalización de metodologías que son útiles para mejorar la competitividad de estudiantes, pedagogos, científicos, pero también de las instituciones, así como de las actividades de aprendizaje a lo largo de la vida.

PALABRAS CLAVE: Web2.0; Modelo de Aprendizaje potenciado por la Tecnología; Identidad Digital Positiva; Red Personal de Aprendizaje; Portfolio Personal de Aprendizaje; Personal Credit Portfolio; Motivación Intrínseca; Integración de Herramientas Web2.0; Evaluación.

1. INTRODUCTION

Acceptance of revolutionary changes powered by technology is – within all fields of human activities including university education – postponed because of 2 reasons at least. The first one absence of knowledge and skills is, being fightable fairly though. The second reason is really danger pulling people and the whole institutions against the stream. Its basis is on the contrary good knowledge of topic. They know very well the consequences of the changes have a harmful effect on a hierarchic power arrangement because the power of the technologies equalizes those: The cards of puissance are sharing again and again within structured revolutionary changed environment – net (not hierarchical). Natural demonstration of the fear inside current business model is artificial impeding of the changes. So called gatekeepers like publishers, magazines and professional periodicals editors, promoting agencies managers etc. are significantly active as Tapscot, 2008. To postpone these changes there is perfect knowledge of marketing, publish relation etc. used. This knowled-

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ABSTRACT: Article shows implementation of A Model of Learning Powered by Technology at university environment. A Positive Digital Identity development on Web2.0 cloud is presented. People are creating their own portfolios – Personal Learning Portfolio and Personal Credit Portfolio. The part of it such proposals are generalizing methodologies to be useful to improve competitiveness of students, pedagogues, scientists but also institutions as well as anybody of lifelong learning activities.

KEY WORDS: Web2.0; A Model of Learning Powered by Technology; A Positive Digital Identity; Personal Learning Network; Personal Learning Portfolio; Personal Credit Portfolio; Intrinsic Motivation; Integration of Web2.0 Tools; Assessment.

ge can deform the threats in such way people identify with them. The aim of this activity is to keep authority positions being not compatible with the model where "The World is Flat" as Friedman, 2005. To increase competitiveness of labor force in global knowledge-based economy it is necessary to accept new paradigm of the world and of education as well, i.e. to *move out of the box* – whether it's the little red school house or the learning management system.

The objective of the contribution is to support an acquiring the competences relevant to 21st century; competences of future graduates as well as pedagogues and scientists and thus to contribute to their higher competitiveness and credit. The article shows the options of *openness, sharing and cooperation*. The aim is to point out and prevent a little flexibility of academic institutions when going through the changes from the model of education with excessive concentration on already prepared content to the model of its continual creation through the *end-users' net connection* – teachers and learners.

2. NET STRUCTURE AND 21ST-CENTURY COMPETENCES

Innovative model of learning is the process of *net creation*. For 20 years Keith Ferrazzi shares such an idea that anything such "a secret of success" today does not exist. On the contrary, if you want to become successful you have to share your ideas with anybody willing to listen to you. When you are able to encourage anybody for your idea the doors to business world are opened for you as Ferrazzi, 2005.

Net structure, distributed environment, openness and sharing bring fear. Each bundle demands the same respect, impacts quality content acquiring, shares a motivation to keep content etc. It is an environment full of *challenges* and new resolutions with opportunity to belong to more than one group. But anybody can at any time fall into net toils and lose solid ground - *without crutches of hierarchic work structure*. Shall we entrust to spider web? Pedagogues are not willing to do so but surprisingly *neither the students* - the Czech ones nor Erasmus students from many European countries.

New model of learning brings state-of-the-art technology into learning enabling, motivating and inspiring all students to achieve the goals. It leverages the power of technology to provide personalized learning and enable continuous and lifelong learning. New model brings *the 21st-century competencies* and such expertise as: (a) critical thinking, (b) complex problem solving, (c) collaboration and (d) multimedia communication.

3. PERSONAL CREDIT PORTFOLIO

Competence to stay current is as a key aim of learning. We will explore the idea of learning powered by technology where the learners are using Web2.0 tools and creating his/her personal learning and professional - credit - portfolio. U.S. National Educational Technology Plan understands electronic learning portfolios as a part of a persistent learning record. Personal portfolios and social networks are used in education (a) to store outputs and share experiences, (b) to reflect on learning, (c) to take feedback for improvement, (d) to showcase achievements and accomplishments and (e) to facilitate accountability and employment searches.

Principal goal of the model is learning and *positive digital identity development*. Students or other end-users are working (= are learning) in communities and contexts where their chosen problem is being addressed. Students have the opportunity to gather with the group of the same interest and similar background. The aim of this community is to acquire the most quality response to self-learning *by constructive feedback* rather than by an authority's judgment. Intellectual property is *shared* and the content of the course is *common community's outputs*. To *communicate* among them there is web space offered, which they can connect with their own learning space. When self-learning they use freely accessible web tools being impacted by the community as well as by pedagogue. The course is *one of many hubs* of designed and facilitated learning objects and activities.

The course activities are linked to an established social network of students and professionals, who explore the same content and activities, as Fig. 1 shows. Accompanying element in online course is continual designing of Personal Learning Portfolio. Learning activities systematically penetrate the structured Personal Credit Portfolio. Students' activities transcend the limited course space and time! Students are challenged by curriculum of study subject working on their Personal Learning Portfolio being supported and lead by pedagogue and surroundings' feedback.

Every work starts with the potential to be a paper that might be read by millions. "I am responsible for building my resume or portfolio from my first day in college" as Handley, 2007. Students and pedagogues by the open communication increase their accountability and employment. Personal portfolios penetrate and together with web space of online course increase the subject's credit. Meaning no credit as the number but value of what I can learn. The part of it such proposals are generalizing methodologies to be useful when improving competitiveness of the students, pedagogues, scientists but also institutions as well as anybody of lifelong learning activities. Networking goes further. Course's value together with students' credits support accountability and credit of pedagogue. Teachers and institutions as well would like to keep and display their students work as evidence of their own teaching.

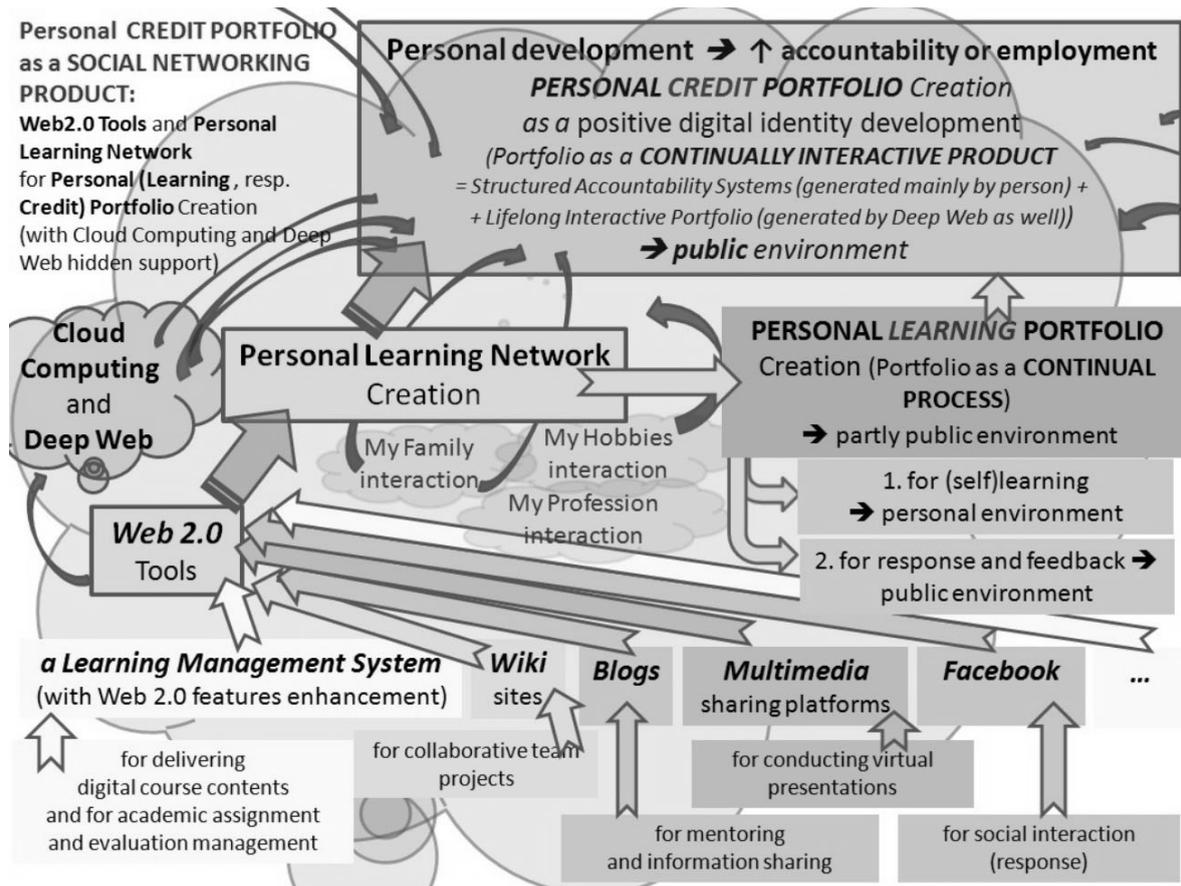


Figura 1. Personal Credit Portfolios as social networking products are created continually. Students are encouraged to make their learning visible. Activities in the course of study subjects are the part of Personal Portfolio and are accessible any time. Accountability and employment of the course participants including teacher is continually increasing.

4. METHODOLOGICAL GENERALIZATION

The methodological part will discuss particular actions by which a traditional stiff performance of a pedagogue can be disburdened. On the other hand we will point out the situations where we shall concentrate on supporting student's active participation in the center of (academic) education. The Web2.0 opportunities follow the methodological recommendations how to pass to new model of learning and self-learning.

PLNs are great way to widen knowledge and learning beyond won as Richardson, 2008. To *extend relevant connection* of those who are learning with those of the

same interest and knowledge can fulfill specifics of their needs. PLNs provide with an access to significant personalities and experts worldwide. Those form the communities around them, to which others have access. Everyone has opportunity to get the sources and knowledge, which would be inaccessible *behind the school walls*. Individual learners create their personal learning network.

The man has to be equipped with *literacy* i.e. how to *access the community or to build it*, how to find people and sources being trusted. It is more complex process than to sit in the class; it is more independent overreaching curriculum of the subject. New complications occur when new wide activities have to go back into the class, into

institutional evaluation of the individual (credit to close the subject).

New role is hard for both students and pedagogues. Teacher has to be prepared for his students' activities, also for the danger resulting from the fact students can go anywhere and speak with anybody to fulfill their ambitions. Pedagogue is able to manage the students to *active safely and effectively* in a way socially demanded. Active approach of the pedagogue to educational process demands to be equipped with ability to *open conversation*, which is the base of continual connection, providing and receiving feedback. Literacy to PLN creation can be acquired step by step and the advices of predecessors can be used as well.

5. THE WAY FROM PLN 1.0 TO PLN 2.0

To develop their personality students get ideas how to start with building their own PLNs. There exist many recommendations but all have one thing the same - to proceed by two phases from PLN 1.0 to PLN 2.0.

1. The best way to enter the new world is to become consumer first, i.e. to acquire the skills to work at reader level. The aim of this phase is PLN 1.0. It is the mark overtaken from the term Web 1.0, whose basis is the "reading on the Internet" (*Read Web* alias Web 1.0).
2. Then the personality's development towards 2.0 skills is able. Students and pedagogue can go towards creator role. Individual starts to be active. PLE 2.0 is analogical extension of the term Web 2.0 where it is about not only reading but also about "active writing" (*Read-Write Web* alias Web 2.0).

Above mentioned two steps are applied gradually to the process of acquiring the knowledge to work with others and others web tools suitable for interaction and reflexion. We can integrate Web 2.0 tools into (university) course delivery. The following points can be dealt with: (a) Blogs for mentoring and information sharing as well as for the creation of personal reflective journals, (b) Wiki sites for cooperation, for collaborative group projects, for information sharing, and for time and assessment management, (c) Facebook and Twitter for social networking and men-

toring, for reflection, and for connecting and data sharing, (d) Many other tools such as Google Search, Google Docs, Delicious, RSS, Google Reader, Google Books, Google Translator etc., (e) Multimedia sharing platforms such as YouTube, Picasa and Google Sites for artefact creation and for conducting virtual presentations, (f) A Learning Management System support partly for delivering digital course contents and mainly for individual assignment and for academic assessment management.

One of the possibilities is using widely integrated tools of Google as an environment enabling easier integration of partial tools while logged only ones. In this case it is suitable to create an account at Google and to create own iGoogle. Gradually it can be supplemented by some other selected tool beyond Google group. Entering the new and new fields can be repeated in the model from 1.0 to 2.0.

6. BUILDING OF STUDENT'S, PEDAGOGUE'S, RESEARCHER'S, UNIVERSITY'S CREDIT

This article follows with methodological recommendations to pass to new model of learning and self-learning. In the subjects being thought the students proceed by the following steps. They use many Web2.0 applications as mentioned above. After basic knowledge of tools possibilities active creation follows: (1) Students write their own notes out of information acquired to their PLN at different spaces on the Internet. (2) They watch the work of their colleagues as for topic and discuss it. (3) By teacher's support they achieve agreement in so far work. (4) They create and publish own material for the community of study subject's online course. (5) They write comments to colleagues' materials. (6) They achieve solutions and results by cooperative work.

Students develop their present Personal Network. At the university they go further and further from the closest surroundings to general audience. (1) When entering the university the students are managed to build their own portfolio in such way to be seen by their schoolmates, potential members of working teams and their teachers. (2) Later on their openness and outputs sharing should expand through grades as well as universities. (3) And finally their portfolios become opened to the general public.

In the research area the support of individuality and institution through Web 2.0 is even more uncommon. Researchers are tired of not ending results reporting by the databases to be filled with data because of insufficient integration and systems' inability to generate such data to be used by different views and purposes. Practically there is no such a research being interactively supported by portfolios development enabling the author to invite the others to the space to give feedback or collaborate.

7. ASSESSMENT

The new net structure of educational activities under social computing demands new approaches to the *evaluation* of students' achievements. We should discuss the *methods* of the *assessment* of students' work, their outputs and competences achieved. It has to be considered the fact that net structure cannot be under strict control. Deciding fact when evaluating the outputs is not classical examination but evaluation whether students' *expectations have been fulfilled* being connected with their exercising on the labor market.

Principle goal of the new form of education *is learning, not classifying or sorting!* Pedagogue becomes more and more the manager of educational process. One managerial true cannot be forgotten that being obsessed by control disallows progress. The evaluation of student's (researcher's) work in new model corresponds to the evaluation of their Personal Portfolio building. Priority is not to create the outputs to be evaluated but to learn. Pedagogue has to be able to recognize the value in the student's trace of self-learning.

Institutional education cannot function without classical evaluation so far. Attention being paid to this necessary part of educational process seems to decrease the fear of it, as it was, a chaotic net structure. Students may become

helpless because of not acquiring the feeling that they achieve their goals even when putting effort in it. It is so because tasks often appear in new and new net positions. And in this way they appear rather as the challenges than the explicitly achievable tasks. Not even pedagogues are able to transfer activities connected through the net into explicit academic evaluation. To make this process easier, demand should be determined in advance: (1) What achieved competences should the participant's work demonstrate (i.e. portfolio of his/her results supported by portfolio of his/her self-learning)? (2) What standards or criteria are relevant to competences determined? (3) What work aspects supply a record of those criteria fulfillment? Clear determination of above mentioned points helps significantly to decrease the fear of net ordering of the educational processes. Everything is clearer and cleaner. Individual – student or pedagogue – becomes more solid, learns to exist inside not ending net.

8. RESULTS AND CONCLUSIONS

Students are drifted by their own *positive digital identity* development on *Web2.0 cloud*. They explore that learning starts to be the natural omnipresent part of their lives, change their life quality and *improve their accountability or employment*. Real development of their personalities is an indisputable fact – on web2.0 clouds. It is *impossible* to distinguish a *workspace* from a *showcase* part of Personal Portfolio building. Personal credit is built *continually* with the *deep web* support, i.e. not only manually by person himself. The ability to create one's own Personal Learning Network and to display Personal Learning and *Personal Credit* Portfolios is very useful for lifelong learning and employability support. A Model of Learning Powered by Technology enables, motivates and inspires all students to leverage *the power of technology*. Experiences in how to provide *personalized* learning and enable continuous and *lifelong learning* can be transferred further.

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