

# Special Journal Issue on Creativity and Open Educational Resources (OER)

## INTRODUCTION

### Fostering and Sustaining a Democratic Perspective on Creativity and Open Educational Resources in Digital Learning Designs

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Standardized curricula, learning paths, and assessment criteria have dominated the educational tradition since the theocratic middle ages, where the truth were known and absolute and only had to be learned, and culminating in the very real need for specific and well-defined skills and competencies in the industrial age. In the post-industrial, digitized and globalized present age, ongoing political and strategic attempts at maintaining high levels of standardization however well meant are in contradiction of societal and individual needs, and also with modern knowledge of individual and social learning processes. As time progresses, researchers and practitioners, from each of their perspectives, are still struggling to grasp and understand the implications for education, and mobilise – in holistic and integrated ways – the latent potential of the new educational paradigm in order to enhance and make processes of learning through technology genuine, joyful, meaningful, social and engaging.

Which theoretical horizons does research so far suggest as having proved generally promising in terms of providing fruitful inspiration and insights with the aim of ‘promoting creative learning through and with digital media? While the term ‘learning’ as well as research in learning have gone through their stages of evolution, the insights achieved in this respect, for example within the research fields of both Computer-Supported Collaborative learning (CSCL) - integrating in its perspective a marriage between learning theory, pedagogy, languages, communication, cognition, informatics and design (Dillenbourg et al., 1995)<sup>1</sup> - and Open and Distance Learning (ODL) (Tait, 2003)<sup>2</sup>, should be also noted.

Today, the pedagogical and psychological sciences are pointing to the need to address that different learners have different learning styles, while at the same time digital media have made it possible to learn or access the same content in a multitude of different ways. Furthermore creativity has been highlighted by a number of eminent researchers in the field as a key digital literacy skill that is needed by today’s and future learners and teachers.

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<sup>1</sup> Dillenbourg, P., Baker, M., Blaye, A., O’Malley, C. (1995) The Evolution of Research on Collaborative Learning. In Reimann, P., Spada, H. (eds.) *Learning in human and machines. Towards an interdisciplinary learning science*, London: Pergamon, pp. 189-211

<sup>2</sup> Tait, A. (2003). Managing Student Support in Distance Education. In S. Panda (Ed.), *The Management of Distance Education*, London, Kogan Page

Creativity is a concept capturing a wide range of theoretical positions and perspectives. These may be conceptualized as placed in different positions in a continuum distended between, on the one hand, a cognitive view of creativity as a cognitive individual phenomenon given by birth and separated from context – and, on the other hand, a distributed view of creativity as a social phenomenon residing in the relation between people and inextricably related to context.

A widely agreed perspective sees the notion of creativity as a phenomenon representing a valuable contribution to the community of practice within a certain domain (Tanggaard, 2008)<sup>3</sup>. What is creative is that which is recognized as something new and which represents a value to the community in question. It follows that something is not viewed to be creative, only because it has not been seen before. If something new is created totally separated from its social context, it is not viewed to be creative. Nothing comes from nothing - creativity builds on social traditions and communities. Creativity is a process in which one uses cultural resources in new and valuable ways.

The other end of the continuum, mentioned above, resides a notion of creativity as a social construct – creativity as a social process (Brinkmann, 2010)<sup>4</sup>. Creativity as our ability to create social life in a wide sense. As human beings we are continuously acting to re-create the social – we are engaging into “cultural improvisation”<sup>5</sup> (Hallam & Ingold, 2007). These authors also arrived at the insight that there is no script for social life. We make it up as we go along. This is a key insight for Dewey and characteristic within the philosophical tradition of “pragmatism”, the ontological foundation for his works. Humans and their actions are per default creative. We are constantly in the creative process of re-creating new social relations, and the ability to pursue social life in democratically educating directions is all about “social creativity”.

To promote creativity is not just about increasing the income of innovative companies or supporting the development of the individual. Creativity is a social process, which is preconditioned by influence and recognition from other people and – observed through the optic of pragmatism – essentially the foundation of a democratic society. Democracy has creativity as its precondition as well as its goal (Dewey, 1916)<sup>6</sup>.

An anthropologist might claim that social worlds only exist to the extent that they are practiced. As such, the social dimension is fundamentally performative (Brinkmann, 2010). One might say that it is born within the context of human actions. Thus, any recreation of the social dimension appears to be a creative and improvised process, for which we are responsible. In viewing democracy as a way of life, Dewey describes this “Creative Democracy”. Democracy is the belief that the process is more important than the product, as it will support the continued process between the process of experience, democracy as a way of life, and creativity. It is also the belief that the process of experience is so much more important that what is

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<sup>3</sup>Tanggaard, L. (2008): *Kreativitet skal læres. Når talent bliver til innovation*. Aalborg, Danmark: Aalborg Universitetsforlag. ISBN 978-87-7307-942-3

<sup>4</sup> Brinkmann, S. (2010): *Social kreativitet*. Danskernes Akademi.

[http://www.dr.dk/DR2/Danskernes%20akademi/Kommunikation/Medier/Social\\_Kreativitet.htm](http://www.dr.dk/DR2/Danskernes%20akademi/Kommunikation/Medier/Social_Kreativitet.htm)

<sup>5</sup> Hallam, E. & Ingold, T. 2007, *Creativity and Cultural Improvisation* Berg, Oxford.

<sup>6</sup> Dewey, J. (1916). *Democracy and Education. An Introduction to the Philosophy of Education*.

achieved. For Dewey the process of experience is synonymous to the social, which needs to be re-created.

Regardless of the involvement of genius, there is always a social background, a social course of ones genial abilities. They are preconditioned upon social conduct. Moreover, a social context is necessary in order for creative reifications to be recognized as creative.

Open Educational Resources (OER) may offer enormous potential in supporting the development of creativity, as they can be used and reused by teachers and learners in a range of contexts; contexts of both formal, non-formal and informal learning, as well as contexts of both individual and collaborative learning in relation to both *product* and *process*:

*Fortunately there are theories specifically of creative potential which lend themselves to practical application (Helson, 1996; Runco, 2003; Smith, 1999). Consider, for example, the idea that creative thinking reflects the original interpretation of experience (Runco, 1996). Each of us has the capacity to construct original interpretations, and if it is a useful and original interpretation, it qualifies as "creative." That is how creativity is typically defined, as both useful and original (Barron, 1955; Runco, 1988). [Such view] should apply to interpretations and ideas, just as it does to observable products. There may be no manifest product with such a focus on interpretations, but what is important is to define creativity such that it is independent of a product. (...) [A process view of] creativity focuses on the mechanism which underlies all creative things, and it reflects an important potential. (Runco 2008: 98)<sup>7</sup>*

In this special issue we are interested in exploring in more depth the nature of *creativity* and how this might be understood and used to better harness the potential of OER. In related work we have explored how alternative theoretical perspectives such as drama might influence our imagination in relation to how we use OER (Sorensen 2010)<sup>8</sup>, and how the use of collaborative pedagogical patterns might be used to support use of OER in collaborative learning contexts (Conole et al. 2010)<sup>9</sup>.

The very premises and nature of creativity needs to be assessed in order to work for sustainable learning designs for our future teaching and learning society.

*The idea of core competence reveals a traditional industrial mindset that builds on Adam Smith's idea of increasing specialisation as the key to the wealth of nations. [But:] The idea of competing on competence requires that competence can be monopolised long enough for the investments in special competence to pay off with a profit. In a society where the cost of access to new information approaches zero, this investment strategy becomes problematic to maintain. What organisations and individuals can survive on, are creativity and innovation. This turns the entire concept of competence on its head. Competencies may actually turn out to be the most important barrier to original thought. (Kupferberg 2003:n.p.)<sup>10</sup>*

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<sup>7</sup> Runco, M. A. (2008). Creativity and Education. *New Horizons in Education*, Vol.56, No.1, May 2008

<sup>8</sup> Sorensen, E. K. (2009), A Framework for Designing Online Education for Global, Democratic Citizenship: Promoting Intercultural Dialogue and Collaboration. In M. Hellsten & A. Reid (Eds.), *Researching International Pedagogies. Sustainable Practice for Teaching and Learning in Higher Education*. Springer Verlag. (pp. 277-293). ISBN: 978-1-4020-8857-5

<sup>9</sup> Conole, McAndrew, and Dimitriadis (2010). The role of CSCL pedagogical patterns as mediating artefacts for repurposing Open Educational Resources. In: Pozzi, Francesca and Persico, Donatella eds. *Techniques for Fostering Collaboration in Online Learning Communities: Theoretical and Practical Perspectives*. Hershey, USA: IGI Global. Available online at <http://oro.open.ac.uk/23040/>.

<sup>10</sup> Kupferberg, Feiwel (2003): Creativity is more Important than Competence. In *Fremtidsorientering 4/2003* (originally brought in Asterisk 11/2003), Copenhagen Institute for Futures Studies 2003, <http://www.cifs.dk/scripts/artikel.asp?id=912&lng=2> (05-15-2010)

*A concern for scientific rigor has directed most recent research on creativity towards the study of unambiguous expressions of talent. This is problematic for educators and anyone else who is interested in children's creative potential. (...) Creative potential should be the primary concern for educators. Theories of and methods used for enhancing creativity which focus on actual performance are misleading and may not help with the fulfillment of potential. (...) Potential is not always obvious, but educators and others (...) should consider defining creativity in literal terms, as thinking or problem solving that involves the construction of new meaning. This in turn relies on personal interpretations. These are personal and new for the individual, not on any larger scale. This approach is consistent with the educational premise "to understand is to invent," and it allows educators to target students' self-expression. The emphasis is thus on the individual, the self. Equally significant for educators is that this view posits that creativity is widely distributed. Virtually every individual has the mental capacity to construct the personal interpretations that are involved. (Runco 2008:97)<sup>1</sup>*

Present-day attempts at maintaining standardization by means of heavy emphasis on competencies, curricular canons, and extensive testing seem to be a lost cause, attempting to revise an educational tradition that in the end does not meet the demands of the globalized and digital age. Skills that were learned last year may be obsolete today, and competencies that are necessary tomorrow may be learned today. The question: "Why must I learn that – I'll never have any use for it?" has attained a certain amount of merit.

The processes we, the editors, envision for learners deny the necessity for boredom and insist on educational situations, activities, and learning architectures, which invite and sustain creative processes based on the use of OER. They should not only be relevant and "educating" with respect to the development of democratic values and skills. They should also, in holistic ways, be conducive to genuine (Colaizzi, 1978)<sup>11</sup>, meaningful (Jonassen, et al., 1999)<sup>12</sup> and soulful learning (Sorensen & Ó Murchú, 2005)<sup>13</sup>, while cultivating motivation, initiative, ownership, joyful engagement (Wenger, 1998<sup>14</sup> & 2002<sup>15</sup>) and creativity as part of their methodological considerations – the when, where, what, and how:

"For to miss the joy is to miss all. The mystic sense of hidden meaning (...) the glow of meaning and purpose hidden inside everyone." (Wilson, 1998, p. 203)<sup>16</sup>

How can we envision the marriage between creativity and OER? How may the concept of OER be tackled to work for design of learning through technology? What might potentially become the next subtle insight related to creativity and OER, for educators and designers of education to uncover – or discover – and explore?

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<sup>11</sup> Colaizzi, P.F. (1978) Learning and existence. R. Valle & M. King (Eds.) (1978). Existential-phenomenological alternatives for psychology, (pp. 119-135). New York: Oxford University Press.

<sup>12</sup> Jonassen, D.H., Peck, K.L., & Wilson, B.G. (1999). *Learning with Technology: A Constructivist Perspective*. Upper Saddle River, NJ: Merrill Publishing.

<sup>13</sup> Sorensen, E.K. & Ó Murchú, D. (2004). Designing Online Learning Communities of Practice: A Democratic Perspective. *Journal of Educational Multimedia*. Vol 29, Issue 3.

<sup>14</sup> Wenger, E. (1998). *Communities of Practice. Learning, Meaning and Identity*. Cambridge. UK: Cambridge University Press

<sup>15</sup> Wenger, E., McDermott, R., Snyder, W. (2002). *Cultivating communities of practice. A guide to managing knowledge*. Cambridge, Massachusetts: Harvard Business School Press

<sup>16</sup> Wilson, C. (1998). *The Books of my Life*. Charlottesville: Hampton Roads Publishing Company, Inc.

In our call for chapters for the book, we have invited and challenged the authors, in the presentation of their research, to look at this match between creativity and OER as resources for teaching and learning designs. Based on their own experiences and insights, we asked them to write for the future, and to challenge others to engage in the battle to finding vital future pathways of sustaining the marriage between creativity and OER to become a fruitful paths to pursue in digital processes of teaching and learning in the future.

Paper 1:

*Helms, N.H. & Heilesen, S.:* Framing Creativity. User-Driven Innovation in Changing Contexts

This article outlines a way of understanding and modelling how it is possible to design for creative processes. The processes in question involve user-driven didactic design in a Danish project for developing e-learning designs to be used at small and medium sized enterprises (the ELYK-project). After briefly discussing the concepts of creativity and innovation, the article outlines three levels of analysis. On a meta-level, a new model of quadruple helix innovation is introduced, providing a framework for interrelations between enterprise, government, knowledge institutions, and users (learners). On a meso-level, a four-field model is introduced. It is an operational model for user involvement in creativity and innovation processes, depicting and demarcating the changing roles of users and developers at different stages of the design process. On a micro-level, the design practise of running workshops as "communities of ideas" is discussed. Some examples of the practical application of the model are discussed. It is concluded that creativity and innovation are the outcomes of multidisciplinary collaboration where different rationalities and competences become articulated.

Paper 2:

*McAndrew, Patrick:* Inspiring creativity in organisations, teachers and learner through Open Educational Resources

The design of educational material has a history of allowing people to present an individual expert view (the researcher as academic teacher) and a published base of knowledge (the academic teacher as text book writer). As learning has moved online and has now become more open a new dynamic of communication is emerging from the teacher to the learner, from the teacher to the teacher, and from the organisation to the world. In exploiting these new dynamics there are changes in motivations for creating and designing materials, but are there also chances to embrace a new creativity? In this paper we use an activity theoretic approach to look at three sources of evidence for impact from taking an open approach to learning resources. First impact on an organisation to identify its role as an enabler for creativity and change. Second on the educator and the way reuse of content allows selection of new patterns of design. Third impact is on the learner as open educational resources blends content with social. The cases present evidence that seeing open resources as change agents can lead to the release of creativity for organisations, for teachers and for learners.

Paper 3:

*Tosato, P., Bodi, G.:* Collaborative Environments to Foster Creativity, Reuse and Sharing of OER

The popularity of ICT within teachers has operated a shift between an individual way of producing resources to be used in class and a social way of doing it. Nowadays teachers do not have to be passive users, but reflective practitioners. To do so it is necessary to foster collaboration between teachers and find a way to improve the circulation of knowledge. We believe that Online Community of Practice could be a place in which, not only teachers can share their knowledge on their professional domain, they can also work collaboratively to create-reuse-remix-share Open Educational Resources (OER) to be used by everyone. Furthermore, Online Communities of Practice are the perfect place where the individual creativity and the social creativity can dialogue and give life to new Best Practices. This paper present a project called CREA.ti in which the individual dimension of each teacher is linked to the social dimension of its practice.

Paper 4:

*Kop, R., Carroll, F.:* Cloud Computing and Creativity: Learning on a Massive Open Online Course

This paper explores cloud computing and how it might advance learning and teaching, particularly in terms of social creativity and collaborative learning. We present a study of a Massive Open Online Course (MOOC) – a semi-autonomous learning environment mainly distributed on the cloud – in which Open Educational Resources were produced, researched and shared by participants worldwide. The objective of this research was to explore the level of importance of creativity for learning and then to closely investigate how this creativity might be fostered in such a 'vast' educational setting and what factors might be of importance to enhance creativity in open networked learning. Through the participants' experiences, we discuss the various dynamics and profiles of the participants as they move from being consumers on the environment to becoming 'producers' and take creative steps in their learning. More importantly, we identify the elements of the course that need to be in place to encourage and support this move towards more effective creativity and learning. Finally further discussions and conclusions are presented.

Paper 5:

*Kalalahti, J.:* Experiences about the Peer Production Process of Open Wiki Material from the Viewpoint of Expertise

This article describes peer production process of a guide material about wikis in an extensive Finnish project ('Avoimet verkostot oppimiseen' – AVO, in English 'Open Networks for learning'). The material was produced in Wikibooks, which is a part of Wikimedia Foundation's open content production platforms, and a sister project to Wikipedia. Peer production and collaborative learning will at its best enhance the production of innovative material and also enables learning from other participants during the production process. Basic knowledge and expertise from multiple domain areas will make the production process efficient and worthwhile. Wiki material production process required producers to learn new, more developed ways of action, which was not be easy. Resourcing the process, groundwork for the process, selecting the working methods and tools carefully, coordination and responsibility of the process, and closure of the process and evaluation were considered to be essential elements of the model developed. Since the production process takes place in network or community, attention has to be paid to the social aspects like the atmosphere, trust between the actors.

Paper 6:

*Ferrari, C.:* Exploring OER: Internet information Literacy, Problem Solving and Analogical Thinking

In adult learning education contexts, the Internet Information Literacy (IIL) process comprises not only of fundraising for its immediate use, but in particular conditions it also requires to "shed light" on a problematic condition using open educational resources (OER) that incorporate analogical thinking into professional problem solving. This paper presents a model to apply analogy in problem solving (PS). Based on studies, on experimental evidence found in specific literature, and on empirical data obtained from a case study, the model focuses on the awareness level that professional adults engaged in learning activities have in applying this thinking process. Their use of the web and of OER serves multiple purposes: for self-guided training, to plan educational activities, to solve problems or to express their creativity. Field experience conducted during three annual editions of teaching IIL in the specialisation *course Social software and Web 2.0 for didactics and education* highlighted the importance of setting up online, problem oriented activities which focus on analogical thinking and a creative use of OER.

Paper 7:

*Pérez-Mateo, M., Maina, Marcelo F., Guitert, Montse, Romero, Marc:* Learner generated content: quality criteria in online collaborative learning

This study focuses on quality in a Learner Generated Content (LGC). The main objective is to

identify and describe the criteria supporting the quality of the creation of content by those learners working together in an online environment. Contrasting a literature review and learners' perception, we propose a quality criteria framework for LGC organized in three clusters: content, format and process. Emphasis on both process and end product highlights the LGC's twofold intention of being useful as a creative new pedagogical strategy and as a way to share educational resources imbued with the learner's voice and perception.

**Paper 8:**

*Keegan, H., Bell, F.:* YouTube as a repository: The creative practice of students as producers of Open Educational Resources

In this paper we present an alternative view of Open Educational Resources (OERs). Rather than focusing on open media resources produced by expert practitioners for use by peers and learners, we examine the practice of learners as active agents, producing open media resources using the devices in their pockets: their mobile phones. In this study, students are the producers and operate simultaneously as legitimate members of the YouTube community and producers of educational content for future cohorts. Taking an Action Research approach we investigated how student's engagement with open media resources related to their creativity. Using Kleiman's framework of five conceptual themes which emerged from academics experiences of creativity (constraint, process, product, transformation, fulfillment), we found that these themes revealed the opportunities designed into the assessed task and provided a useful lens with which to view students' authentic creative experiences. Students' experience of creativity mapped on to Kleiman's framework, and was affected by assessment. Dimensions of openness changed across platforms, although the impact of authenticity and publication on creativity was evident, and the production of open media resources that have a dual function as OERs has clear benefits in terms of knowledge sharing and community participation. The transformational impacts for students were evident in the short term but would merit a longitudinal study. A series of conclusions are drawn to inform future practice and research.

With online educational environments, social software, different digital representations, and new assessment forms and possibilities, the educational tradition has the opportunity to be renewed and meet the needs and trends of the present day. Research supports the view that creativity and innovation may be supported by strong flexibility and diversity. Media use, social software, and group structures in web-based communities offer new ways of learning that support development of creative skills, and portfolio structures and social software offer new ways of networking and self representation.

December 19, 2011

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