

มิถุนายน 2559

1.Title [Technology Support for Discussion Based Learning: From Computer Supported Collaborative Learning to the Future of Massive Open Online Courses](#)

Author Carolyn Penstein Rosé | Oliver Ferschke

Journal International Journal of Artificial Intelligence in Education June 2016, Volume 26, Issue 2,

Abstract This article offers a vision for technology supported collaborative and discussion-based learning at scale. It begins with historical work in the area of tutorial dialogue systems. It traces the history of that area of the field of Artificial Intelligence in Education as it has made an impact on the field of Computer-Supported Collaborative Learning through the creation of forms of dynamic support for collaborative learning, and makes an argument for the importance of advances in the field of Language Technologies for this work. In particular, this support has been enabled by an integration of text mining and conversational agents to form a novel type of micro-script support for productive discussion processes. This research from the early part of the century has paved the way for emerging technologies that support discussion-based learning at scale in Massive Open Online Courses (MOOCs). In the next 25 years, we expect to see this early, emerging work in MOOC contexts grow into ubiquitously available social learning approaches in free online learning environments like MOOCs, or what comes next in the online learning space. These ambitious social learning approaches include Problem Based Learning, Team Project Based Learning, and Collaborative Reflection. We expect to see the capability of drawing in and effectively supporting learners of all walks of life, especially impacting currently under-served learners. To that end, we describe the current exploratory efforts to deploy technology supported collaborative and discussion-based learning in MOOCs and offer a vision for work going forward into the next decade, where we envision learning communities and open collaborative work communities coming together as persistent technology supported and enhanced communities of practice.

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2.Title [Performance and Perception in the Flipped Learning Model: An Initial Approach to Evaluate the Effectiveness of a New Teaching Methodology in a General Science Classroom](#)

Author David González-Gómez | Jin Su Jeong | Diego Airado Rodríguez, Florentina Cañada-Cañada

Journal Journal of Science Education and Technology
June 2016, Volume 25, Issue 3

Abstract “Flipped classroom” teaching methodology is a type of blended learning in which the traditional class setting is inverted. Lecture is shifted outside of class, while the classroom time is employed to solve problems or doing practical works through the discussion/peer collaboration of students and instructors. This relatively new instructional methodology claims that flipping your classroom engages more effectively students with the learning process, achieving better teaching results. Thus, this research aimed to evaluate the effects of the flipped classroom on the students’ performance and perception of this new methodology. This study was conducted in a general science course, sophomore of the Primary Education bachelor degree in the Training Teaching School of the University of Extremadura (Spain) during the course 2014/2015. In order to assess the suitability of the proposed methodology, the class was divided in two groups. For the first group, a traditional methodology was followed, and it was used as control. On the other hand, the “flipped classroom” methodology was used in the second group, where the students were given diverse materials, such as video lessons and reading materials, before the class to be revised at home by them. Online questionnaires were as well provided to assess the progress of the students before the class. Finally, the results were compared in terms of students’ achievements and a post-task survey was also conducted to know the students’ perceptions. A statistically significant difference was found on all assessments with the flipped class students performing higher on average. In addition, most students had a favorable perception about the flipped classroom noting the ability to pause, rewind and review lectures, as well as increased individualized learning and increased teacher availability.

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3.Title [Letting Artificial Intelligence in Education Out of the Box: Educational Cobots and Smart Classrooms](#)

Author Michael J Timms

Journal International Journal of Artificial Intelligence in Education June 2016, Volume 26, Issue 2

Abstract This paper proposes that the field of AIED is now mature enough to break away from being delivered mainly through computers and pads so that it can engage with students in new ways and help teachers to teach more effectively. Mostly, the intelligent systems that AIED has delivered so far have used computers and other devices that were essentially designed for businesses or personal use, and not specifically for education. The future holds the promise of creating technologies designed specifically for learning and teaching by combining the power of AIED with advances in the field of robotics and in the increasing use of sensor devices to monitor our surroundings and actions. The paper assumes that “schools” (i.e., a place where children will gather to learn) will still exist in some shape or form in 25 years and that teachers will continue to oversee and promote learning among the

students. It proposes that there will be educational cobots assisting teachers in the classrooms of tomorrow and provides examples from current work in robotics. It also envisions smart classrooms that make use of sensors to support learning and illustrates how they might be used in new ways if AIED applications are embedded into them.

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4.Title [The effects of room design on computer-supported collaborative learning in a multi-touch classroom](#)

Author Emma M. Mercier | Steven E. Higgins | Andrew Joyce-Gibbons

Journal Interactive Learning Environments Volume 24, Issue 3, 2016

Abstract While research indicates that technology can be useful for supporting learning and collaboration, there is still relatively little uptake or widespread implementation of these technologies in classrooms. In this paper, we explore one aspect of the development of a multi-touch classroom, looking at two different designs of the classroom environment to explore how classroom layout may influence group interaction and learning. Three classes of students working in groups of four were taught in the traditional forward-facing room condition, while three classes worked in a centered room condition. Our results indicate that while the outcomes on tasks were similar across conditions, groups engaged in more talk (but not more off-task talk) in a centered room layout, than in a traditional forward-facing room. These results suggest that the use of technology in the classroom may be influenced by the location of the technology, both in terms of the learning outcomes and the interaction behaviors of students. The findings highlight the importance of considering the learning environment when designing technology to support learning, and ensuring that integration of technology into formal learning environments is done with attention to how the technology may disrupt, or contribute to, the classroom interaction practices.

Database Taylor & Francis

5.Title [Creative and playful learning on technology-enriched playgrounds: an international investigation](#)

Author Justus J. Randolph | Marjaana Kangas | Heli Ruokamo | Pirkko Hyvönen

Journal Interactive Learning Environments Volume 24, Issue 3, 2016

Abstract The purpose of this quasi-experimental study was to determine the degree that creative and playful learning (CPL) in a technology-enriched playground influences academic achievement of students and what factors are responsible for successes. The participants were 276 students from 12 elementary classrooms in the Netherlands and Finland. The research used a pretest–posttest, without control design. The dependent variable was academic achievement on teacher-created tests; the independent variable was participation in the

intervention; and the control variables were pretest scores, gender, academic subjects previously studied, age, satisfaction with schooling, country of the school, and classroom within the school. The results showed that there were significant gains in academic achievement and that the pretest was the only significant predictor of posttest achievement. Other variables, including gender, academic subjects studied, age, satisfaction with schooling, country of school, and classroom, were not statistically significant predictors of posttest scores. While students' academic achievements are only one measure of progress in the current debate about learning in the education system, this article provides insight on education through analyses of the relationships among the integration of curriculum-based learning, CPL practices, and outdoor playgrounds.

Database Taylor & Francis

6.Title [Charting the development of technology-enhanced learning developments across the UK higher education sector: a longitudinal perspective \(2001–2012\)](#)

Author Richard Walker | Julie Voce | Martin Jenkins

Journal Interactive Learning Environments Volume 24, Issue 3, 2016

Abstract This article reviews key findings from six surveys of technology-enhanced learning (TEL) across the UK higher education (HE) sector, conducted by Universities and Colleges Information Systems Association in association with Jisc. Updating the findings presented by Jenkins, Browne, Walker, and Hewitt [2010. The development of technology enhanced learning: Findings from a 2008 survey of UK higher education institutions, Interactive Learning Environments. First published on: 22 January 2010 (iFirst)], the article reports on the emerging and planned patterns of TEL across the UK HE sector over the last decade. Our analysis shows that against the backdrop of Higher Education Funding Council for England capital funding, institutions have made considerable investments in technology and infrastructure to support learning and teaching – specifically in the domain of learning management and assessment systems. While the drivers for TEL development have consistently focused on enhancing teaching and learning over the years, the subject of this investment has been directed to the implementation of enterprise-wide systems to manage and control learning processes, delivering efficiencies of scale and standardised learning experiences through centrally managed solutions, rather than support for student-controlled tools. In contrast, the diffusion of technologies supporting collaborative learning and knowledge sharing has been more a feature of local TEL provision, as evidenced through the informal learning practice of students and departmental projects. The evolution of course delivery models and pedagogic developments supported through the use of technology have been noticeably much slower to realise; growth in “web-dependent” rather than “supplementary” course design models has been quite limited across the sector and we have

observed negligible growth in distance learning provision over this period. The evidence suggests that challenges remain in developing course delivery models which focus on active student learning, maximising the opportunities that web and mobile technologies now offer for interactive student-centred learning design. We speculate that the recent upsurge of interest in Massive Open Online Courses may act as a catalyst in this respect, in driving campus-based courses to embrace new learning models supported by TEL tools.

Database Taylor & Francis

7.Title [Export Market Diversification and Firm Productivity: Evidence from a Large Developing Country](#)

Author Qian Xuefeng | Mahmut Yaşar

Journal World Development Volume 82, June 2016

Abstract This paper first provides information on the distribution of Chinese firms' export destinations. It then examines the relationship between firms' export market diversification and their productivity by using trade and production data from the Customs Trade Statistics and the Annual Survey of Industrial Firms in China from the years 2000 to 2006. We check the robustness of the results by controlling for potential endogeneity and estimating various specifications. We find that there is a U-shaped relationship between the diversification of export markets and firm productivity. As firms begin to export, they face higher costs (and thus lower productivity) initially because they lack the knowledge and experience. Eventually, as diversification of the export market moves beyond a threshold level and investments cumulate, export market expansion results in lower long-run average costs and thus higher productivity owing to the learning curve and economies of scope, as well as economies of scale. This U-shaped relationship, however, is less pronounced for firms with higher share of intermediate products in total exports, for firms engaged in processing trade, and for firms exporting to Hong Kong. The results have significant implications for firm export dynamics and behavior, and can help target policies that will boost the performance of the firms. They are significant for policy makers who have emphasized the importance of export diversification for mitigating the impact of global shocks.

Database ScienceDirect

8.Title [Economic Growth and the Optimal Level of Entrepreneurship](#)

Author James E. Priefer | Catherine Bampoky | Luisa R. Blanco | Aolong Liu

Journal World Development Volume 82, June 2016,

Abstract Using data from the Global Entrepreneurship Monitor (GEM), we examine data from developed and developing countries to estimate the “growth penalty” over 2003–11 when a country’s entrepreneurship deviates from its optimal level. We account for heterogeneity among countries in the optimal entrepreneurship rate, in the growth penalty from deviating from that optimum, and in other factors affecting growth. Notwithstanding that developing countries have more of their population running nascent small firms than in developed countries, a marginal increase in the entrepreneurship rate in developing countries has a positive effect on growth. On the contrary, in developed countries, there is no evident growth penalty. Supplemental results suggest that is because in developed countries as a whole, entrepreneurship is now close to its optimal level, whereas in developing countries the optimal rates of entrepreneurship are much higher. We also explore how the growth penalty varies with characteristics of the country, allowing us to test theories regarding the relationship between entrepreneurship and growth. We show that higher levels of R&D capability decrease the growth penalty of having too few entrepreneurs, suggesting that entrepreneurship and R&D are substitutes. Availability of venture capital also increases the growth penalty, but only in developing countries, where our data on venture capital best proxy its availability to start-ups.

Database ScienceDirect

9.Title [Exploring undergraduates' perspectives and flipped learning readiness in their flipped classrooms](#)

Author Yungwei Hao

Journal Computers in Human Behavior Volume 59, June 2016

Abstract This study surveyed 84 undergraduate students, majoring in education, in order to gather their perspectives regarding flipped classrooms and investigate their readiness levels for flipped learning. After the implementation of flipped learning for an entire semester, surveys were distributed in two flipped classrooms that were taught by the same instructor. Students showed particular preferences for the “Bring Your Own Device” and the Instant Response System features of the flipped classroom. Approximately 60% agreed with the idea of flipped classrooms, but only 39% agreed that the flipped classrooms met their learning needs. Their readiness levels for flipped learning were moderately above the average levels, and males or juniors (compared with freshmen), felt more prepared for flipped learning. In general, course grades, self-directed learning readiness, and group work preference can predict the different readiness dimensions. The findings may enhance educators' understanding in how to apply the flipped learning model in ways that are most beneficial for their own students.

Database ScienceDirect

10.Title [Competition and strategy in higher education: Managing complexity and uncertainty](#)

Author Francesca Pucciarelli | Andreas Kaplan

Journal Business Horizons

Volume 59, Issue 3, May–June 2016

Abstract Like several other nonprofit and for-profit industries, the higher education sector has been subject to a series of fundamental challenges in the past decade. Education used to be considered a public good, provided by nonprofit organizations that were unexposed to market pressure and had clear societal missions. Now, education is becoming a global service delivered by quasi-companies in an ever-more complex and competitive knowledge marketplace. To cope with these challenges, higher education institutions need an appropriate strategy, a necessity reflected in numerous calls for research on strategy in the higher education sector. This article's purpose is to contribute to this discussion by providing prescriptive guidance to higher education managers and policy makers. To this end, it proposes a SWOT (strengths, weaknesses, opportunities, threats) analysis illustrating eight key trends that will impact higher education and academia in the short-to-medium term. Drawing from these trends, three core challenges are identified that higher education institutions will face and that have fundamental implications for research and practice: (1) the need to enhance prestige and market share; (2) the need to embrace an entrepreneurial mindset; and (3) the need to expand interactions and value co-creation with key stakeholders.

Database ScienceDirect

11.Title [Research Universities and The American Recovery and Reinvestment Act: Competition, Resource Concentration, and the 'Great Recession' in the United States](#)

Author Barrett J Taylor | Brendan

Journal Higher Education Policy June 2016, Volume 29, Issue 2

Abstract This paper conceptualizes the US federal government's response to the 'Great Recession' as a 'natural experiment' whose broad emphasis on counter-cyclical spending contrasts with the tendency towards stratification within the quasi-market for academic research support. Regression results indicate that resources tended to flow towards a few already-advantaged universities, but also supported universities with lower levels of investment in research equipment and smaller bases of support from business and industry. Because the extent to which these results describe quasi-market mechanisms generally or merely reflect the peculiarities of the US system is unclear, the paper concludes with propositions that could be critiqued and refined through studies in other national contexts.

Database SpringerLink

12.Title [The Hurdles to Being World Class: Narrative Analysis of the World-Class University Project in Korea](#)

Author Deok-Ho Jang | Kiung Ryu | Pilnam Yi | Daniel A Craig

Journal Higher Education Policy June 2016, Volume 29, Issue 2

Abstract This study examines the Korean Government's policy scheme of setting up the World-Class University (WCU) Project by investigating the perceptions of major actors, including WCU scholars and government officials. In-depth interviews were held with 18 WCU scholars and three government officials. Our findings suggest that the limits of the governmental scheme have marginalized the organizational capacity of the selected departments, and that most of the limits have stemmed from strong institutional pressure on the departments. In institutional environments, such as the governmental guidelines for micro-management, there is a conflict between regulation from the Government and universities. Moreover, harmful political dynamics between the Korean Ministry of Education, Science, and Technology and other audit and finance-related governmental institutions have worked against the selected departments. Common observations throughout the study indicate that the objective of the project is not sufficiently focused on the global definition of the WCUs, and that the strategy and regulation of the project are some way from representing an optimal form of world-class work.

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