Learning wine thanks to powerful MOOC emulation

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Abstract:

Purpose - MOOCs (Massive Open Online Courses) have gained popularity for e-learning purposes. Effectiveness depends on platform interface design and management which should create student cohesiveness and optimize collaboration.

Design/methodology/approach - A MOOC prototype is developed and E-learning applications pilot-tested for one semester with French business school graduate students.

Findings - Students use a mobile supported e-learning environment and report their experiences through writing a synthesis, building a Content Management System (CMS) and elaboration of a content curation system.

Practical implications - Students evaluate learning experience using a self-determination scale to measure the effectiveness of a prototype MOOC to learn wine marketing basics.

Keywords: MOOC, wine, social learning, mobile learning, self-determination

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1. INTRODUCTION

The “Learning For All” movement is stimulating active debates in the education space around the world (Pelet *et al*., 2015). In this crowded area, schools are competing to become leaders in viticulture and winemaking education. Current and future professionals across a wide range of disciplines worldwide want to study wine, increasingly using MOOCs, while pursuing first-hand experience in the wine industry, The reasons to use a MOOC vary and include 1) cutting costs, 2) having control of time 3) obtaining credit within a university or in business 4) building a social network rapidly. As the wine industry continues to grow and transform, MOOCs on wine represent an emerging way of learning and have the potential to become a global leader in research and education about the business of wine.

Since the emergence of diverse online supports, MOOCs can be very interactive and allow students who are not sitting in the physical class, which is a large part of instruction and testing in current non-university certificate programs, to experience a dynamic presentation. Further, aligning university credit with a MOOC keeps students focused on completion. In the European Union, students pursue MOOC courses through ECTS (European Credits Transfer System), which validates courses for degree credits. MOOCs are also credit-worthy in other international academic degree programs. In the wine industry, there are multiple examples of online supports for MOOC and e-learning through social media, RSS feeds, video, discussion, podcasts and testing examples in wine marketing that engage the learner through interactivity. While some offer industry accreditation, few include university credit. (See Appendix A for a review).

With wine as a fast-growing industry, as well as a social pleasure, there is an important need for specialized classes on wine at the bachelor and master levels for students who want to be part of the wine industry (viticulture, enology, sales and marketing, business administration, logistics, economics, law, science etc.). Such classes also appeal to stakeholders in the wine industry and wine lovers seeking continuing education. With the wide range of wine programs available, we don't know if the students get better results because of their work or their own-learning capacity when they are alone or just because some online programs might be of better quality. In order to better understand this phenomenon, a survey will begin in September/October 2015 based on a MOOC that is in progress.

Even if some wine regions “urgently need to improve the business and management skills of its professionals at the background of profound changes impacting the global higher education industry” according to Zalan & Lewis (2014), academic references are relatively scarce.

This paper questions what needs to be taken into consideration to build and implement a new learning environment, like a MOOC, leading to creating and expanding the pool of professionals in the wine ecosystem. In order to discover the interest for such a learning format, a MOOC on the marketing of wine has been realized, integrating the main assets of a MOOC (social media, RSS feeds…). In order to evaluate whether learners have appreciated the way they have learned through the MOOC, the Self-Determination Theory (SDT) has

been initiated. It is a motivation theory concerned with supporting our natural or intrinsic tendencies to behave in effective and healthy ways (SDT, 2015).

This article gives an overview of the development and application of MOOCs. It integrates social media and curation tools as a hot topic in e-learning with the use of electronic devices and free Internet tools. The paper focuses on learning as a collaborative process embracing one of the primary characteristics of MOOCs: collaborative development and constructivist learning situations. Constructivist learning is based on students' active participation in problem-solving and critical thinking regarding a learning activity which they find relevant and engaging. They are "constructing" their own knowledge by testing ideas and approaches based on their prior knowledge and experience, applying these to a new situation, and integrating the new knowledge gained with pre-existing intellectual constructs (Usero, 2012).

Collaborative learning has gained a worldwide role in educational strategies. Computer-supported collaborative learning (CSCL) is a pedagogical approach within learning that takes place via social interaction using a computer or through the Internet (Zheng *et al*., 2014). Many emerging technologies offer new ways of teaching and learning, such as ubiquitous learning technologies, gesture-based computing, augmented reality technology, and learning analytics. Indeed, collaborative learning aims to promote students' individual cognition, group cognition and community cognition through the use of appealing, easy-to-use and instantaneous tools, which are making learners more experiential, interactive, social, multitaskers, structured, relevant, and technology immersed (Zheng *et al*., 2014).

Accompanying CSCL, e-learning is a notion that is a pertinent factor in today's education (Pelet & Papadopoulou, 2013 and Pelet, 2013). Eurostat data from 2012 consistently suggests that mobile devices will be increasingly used in educational institutions. We are in the process of hybridization as disruptive, ubiquitous technologies continue to forge new models of popular education. The instruction of the masses via e-learning is essentially "knocking down the walls" of university campuses (Lewin, 2012).

In response to the crucial problem of high tuition fees (Bowen, 2012), a technological shift towards digital learning environments is a partial solution. MOOCs, which are part of a global open education initiative or a for-profit education model, may be a catalyst in the process of re-imagining higher education or re-enchanting e-learning. There is, however, substantial criticism and skepticism concerning their low completion rates and their unsustainable current structures.

2. REVIEW OF LITERATURE

2.1. *MOOCS: PRESENTATION AND DEFINITION*

MOOCs can be defined as aggregate classes from multiple organizations, universities and schools, offered on a single digital platform and delivered to thousands of recipients simultaneously. There are many courses on a wide array of themes and topics available on MOOCs, most of them for free or at a very low cost. MOOCs offer two approaches to instructional design: 1) peer-review, group collaborations through "crowd sourcing" or 2)

automated feedback and self-assessments (Kop, 2011). One of the problems encountered by students is the rather limited possibility of interacting with other students (Rivard, 2013a) and the lack of a teacher-student relationship.

2.2. E-LEARNING

Design of an e-learning platform is of paramount importance for influencing learner interaction and behavior as well as the overall success of the learning experience. Shapira & Youtie (2001) state that teachers can use technology to encourage or force students to prepare for class and use the contact hours to co-construct knowledge rather than to deliver it.

2.3. MOBILE LEARNING (M-LEARNING)

Wireless mobile devices should be considered complementary to portable computers. The reasoning behind this logic is simple, wireless mobile devices are excellent tools for collaborative learning on the go, but their smaller screen sizes and type displays make them less effective tools for prolonged educational sessions. It is the natural evolution for institutions that have already integrated e-learning into their educational practices.

Wireless communication is in the process of transforming learning environments and allowing students to optimize their down time. One of the most interesting aspects of M-learning is that users have the capacity to make documentations while they are in the field thus bridging the gap between theoretical and practical knowledge (Setaro, 2001; Stone et al., 2002). The M-Learning environment offers interactive settings in which students can communicate synchronously or asynchronously without temporal-spatial boundaries. Interactive social tools have broken the barrier between the academic and private spheres, and learners have higher retention rates when they enjoy taking part in the online *learning game* (Pelet 2013). The potential for integrating this technology into learning environments intensifies despite limitations of handheld devices. Studies reveal that students are generally satisfied with M-Learning systems and consider them as a potentially useful learning tool of the future (Motiwalla, 2007).

2.4. SOCIAL MEDIA AND E-LEARNING

Universities are expanding their e-learning capabilities to serve larger populations of students whose expectations embrace modern technology and who expect, perhaps even demand, a modernized educational experience built on the latest technology and 'social networks', according to Liebowitz and Frank (2011). Social networks such as Facebook have potentially positive benefits to teaching and learning, particularly with the development of educational micro-communities (Bosch, 2009). Certain studies show that the integration of micro-blogging into the educative experience successfully promoted active and continual feedback from students (Pelet & Papadopoulou, 2013).

As traditional teaching approaches hybridize towards digital integration, educational systems will continuously adapt courses to student behavior and use of social media outside the class.

In the cycle of expansive learning, the discovery of new technological usages leads to the development of new capacities that foster lifelong learning.

The digital age has fostered new relationships between teachers and learners: rather than passively and traditionally digesting and memorizing information, students are interested in education that corresponds with individualized information needs (Peters, 2007). Social media applications represent a form of emerging social constructivist e-learning tools (Cochrane, 2006): The consumption of social media has become an informal learning habit in the cycle of expansive learning. With a little organizational structure, social media applications can easily evolve towards becoming venues where formal educative processes take place.

2.5. SELF-DETERMINATION THEORY

In Self-Determination Theory, Deci & Ryan (1985, 2000) distinguish different types of motivation based on the different reasons or goals that give rise to an action. The most basic distinction is between intrinsic motivation, which refers to doing something because it is inherently interesting or enjoyable, and extrinsic motivation, which refers to doing something because it leads to a separable outcome. Over three decades of research has shown that the quality of experience and performance can be very different when one is behaving for intrinsic versus extrinsic reasons. Intrinsic motivation has emerged as an important phenomenon for educators because it results in high-quality learning and creativity; it is especially important to detail the factors and forces that engender versus undermine it (Amabile *et al*., 1976). The latest developments about extrinsic motivation highlight that extrinsic motivation is argued to vary considerably in its relative autonomy and thus can either reflect external control or true self-regulation. Understanding these different types of extrinsic motivation, and what fosters each of them, is an important issue for educators who cannot always rely on intrinsic motivation to foster learning (Ryan & Deci, 2000).

3. METHODOLOGY

In order to measure the efficiency of the MOOC, a MOOC on wine marketing has been created on a Wordpress platform, linked to social media and other widgets enabling the student to know exactly what he/she is doing and time remaining before submitting his work. The learner can chat with his peers and consult the literature as well as read any comments made by colleagues on the platform. It is available here: http://kmcms.net/moocwine.

A link to a questionnaire containing the self-esteem measures is available, once the course is conducted, in order to assess the quality of the course, as well as variables embedded in the questionnaire. The questionnaire that will be used contains the following:

Perceived autonomy Support enables to know how people have felt about the experience and the relationship with instructors. Example:

My instructor made sure I really understood the goals of the course and what I need to do

1	2	3	4	5	6	7
Strongly disagree			Nor agree, nor disagree			Strongly agree

Treatment Self-Regulation Questionnaire (TSRQ) assesses the degree to which a person's motivation for a particular behavior or set of behaviors is relatively autonomous or self determined. This scale has 15 items: six that assess autonomous motivation, six that assess controlled motivation, and three that assess a motivation. It enables easy comparison of different reasons for doing something and to measure how each sentence is true.

4. RESULTS OF THE EXPLORATORY STUDY

Results will be presented during the conference but we can already posit that the fact that CMS supported by mobile devices is a pertinent factor in the success of this educational initiative. Its ubiquitous form and the responsive design of the websites offer an easy-to-read interface which facilitates the memorization of content. It also enables students to find and share information, ask questions and get responses easily, without temporal-spatial barriers.

Our post-course survey provides results on student satisfaction and overall experience using the MOOC interface and its social media components. As shown in Table 1, students overall gave positive feedback based on previous research conducted by Pelet *et al*., (2015). The highest satisfaction was related to ease-of-use and learning compared to other courses. Results indicated that 58% of the students who participated in this digital educational setting agreed or strongly agreed that it was an accessible form of pedagogy and that it was a satisfactory experience. Student productivity was enhanced due to the flexible nature of the courses. We will compare the results of this new research to the ones obtained with previous research.

Table 1: Questions/answers related to the student's satisfaction and overall experience using the MOOC interface and its social media components

Student feedback	N	Mean *	Std. Dev	Min	Max
Did this form of teaching appear accessible for you	19	3.7	0.7	3	5
Documents submitted and teaching materials were satisfactory	19	3.1	1.1	2	5
The number of exercises and illustrative examples supporting the course was sufficient	19	2.7	1.1	1	5
Do you feel that the workload was reasonable	19	3.7	0.9	2	5
According to you, your level of involvement in this course (homework, participation...) was enough	19	3.9	1.0	2	5
Do you consider that your prerequisites were sufficient	19	2.9	1.0	2	5
Ease of use and learning compared to other courses	19	4.0	0.9	2	5
Was the course adequate in relation to professional practice	19	3.9	0.6	3	5
Was this form of learning accessible for you	19	3.7	0.7	3	5
In general, did you find this form of education satisfactory	19	3.7	0.9	2	5

*1 = strongly disagree to 5 = strongly agree

5. DISCUSSION AND CONCLUSIONS

This paper presented an exploratory analysis around the use of a MOOC for learning wine marketing and M-Learning with strong implementation of social media content creation tools in the context of university business school courses. As social media usage increases, we find that it is in the best interests of students to integrate M-Learning situations into traditional higher education. Our study shows that the use of a mobile supported MOOC facilitated mobile knowledge management, and created a flexible and effective learning environment.

Students who were more fluent in the operation of the various development mechanisms provided support to the others as tech-savvy “technological stewards”. This type of leader-oriented behavior is typical in the digital learning environment; it empowered students with a sense of gratification and motivation while fostering a sense of a united academic micro-community. Paradoxically, students developed autonomous working habits, as well as community oriented collaborative working skills.

In the continuously evolving educational sphere of the 21st century, institutions and educators are in a situation where they must adapt to the widespread use of ICT and unbound themselves from the constraints of strict traditional education. Social media and mobile Internet technologies reinforce the potential for effective communication. The computer-mediated setting facilitates the creation of visual representations of information, reducing cognitive workload required by learners to understand knowledge in a more expedient manner. The implementation of digitized learning is reciprocally beneficial to teachers as evaluation processes become increasingly automated and visual. It's a win-win situation! Furthermore, only efficient universities will survive: MOOCS can be a tool dedicated to the optimization of the physical size of a campus or in other words to limit physical expansion, which could highly contribute to the increase of the profitability and from a sustainable point of view, avoid building new facilities while increasing the number of students.

6. FUTURE RESEARCH

Future research will be very interesting for educators and thought leaders who are intrigued by MOOCs, but who have not committed to implementing them in their own educational curriculums. Future research will help to shed light on the uncertainties surrounding MOOCs and embrace their potential to be a transformative educational innovation of the 21st century.

Results from this exploratory study demonstrate that success can be achieved with the use of MOOCs in combination with social media constructivist tools (i.e. website development and content curation applications) in a mobile-supported format. Additional research is to be conducted with the objective of identifying motivating factors behind student commitments and overall success in e-learning and M-learning environments. Future research will also strengthen the external validity of our preliminary results, which indicated a successful outcome with the use of social media constructivist tools for the purpose of knowledge management in a mobile supported MOOC scenario.

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APPENDIX A

Sample: Certificate, Institution	**MOOC/e-Learning**	**URL**
Internationally recognized		
INTL/UK_Wine & Spirit Education Trust http://www.wset.co.uk	Yes	http://www.wsetschool.com/which-course/online-2
INTL/UK_Institute of Masters of Wine http://www.mastersofwine.org		
Universities		
AU_University of Adelaide http://www.agwine.adelaide.edu.au	No	
AU_University of Melbourne http://www.unimelb.edu.au/	Yes	https://www.coursera.org/unimelb
AU_Charles Sturt University http://www.csu.edu.au	Yes	http://www.csu.edu.au/distance-education
CA_Brock University http://www.brocku.ca/ccovi	No	
CA_George Brown College http://coned.georgebrown.ca	Yes	http://coned.georgebrown.ca/courses-and-certificates/distance-education/
DE_Geisenheim University http://www.hs-geisenheim.de/	No	
FR_Bordeaux University / ISVV http://www.oenologie.u-bordeaux2.fr/	No	

FR_Burgundy School of Wine & Spirits Business http://www.swsb.eu	No	
FR_Kedge Business School http://www.kedgebs.com	No	
FR_University of Montpellier http://www.univ-montp1.fr	No	
NZ_Eastern Institute of Technology http://www.eit.ac.nz 501	Yes	http://eitonline.eit.ac.nz/course/index.php
UK_Plumpton College http://www.plumpton.ac.uk	No	
UK_Royal Agricultural University http://www.rau.ac.uk	No	
US_University of California Davis http://wineserver.ucdavis.edu	No	
US_University of California Fresno http://www.fresnostate.edu/jcast	No	
US_Cornell University http://www.nysaes.cornell.edu/	No	
US_Sonoma State University Wine Business Institute http://www.sonoma.edu/sbe/winebiz	No	
US_Johnson & Wales University http://www.jwu.edu.edu	Yes	https://online.jwu.edu/

*Source: http://www.jancisrobinson.com/learn/wine-courses