Reshaping teachers' professional identity for the digital era: Teachers' role and responsibilities in MOOCs

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Abstract. How do we want to teach in MOOCs? This position paper takes a closer look at teachers' role in MOOCs. There is a consensus that teachers' professional identity and beliefs greatly contribute to shaping the students' learning environment. Teachers' professional identity has been forged by centuries of traditional school and university values, which nowadays seem to clash with the imposing needs for digitalization in Education. Digital learning environments pose different challenges from campus teaching and a paradigm shift in how teachers perceive their role and responsibilities in online courses like MOOC is sorely needed. The article addresses this topic by introducing the strategy chosen by a MOOC working group at NTNU where we try to encourage a connectivist approach to understand teaching and learning dynamics in digital network learning environments. Teachers can reconceive their role in digital learning environments as "narrators" whose voice accompanies the course participants on their learning paths by focusing on digital storytelling and on building a collaborative narrative frame around each course, across disciplines' specialization and regardless of modus docendi (full-instructed or self-directed courses). In this way the teacher/narrator's voice remains in the background while actively encouraging course participants to collectively reflect upon and negotiate knowledge among themselves, fostering independent collaborative learning.

Keywords: Digital Learning Environments, Teacher Professional Identity, Connectivism, Collaborative Learning.

1   Introduction

Most of the debate around MOOC learning environments has consistently been focusing around the intrinsic differences between cMOOC and xMOOC [1]. A fringe of the debate has touched upon the role of the instructor in MOOCs, but the topic has often been reduced to discussing the presence of the teacher either as an omniscient "talking head" infused with transferable knowledge or as a set of automated processes with minimal or none involvement from the instructor [2]. The dichotomy cMOOC

versus xMOOC, however, has been proven susceptible to critique by an increasing number of studies [1, 2, 3, 4], and so does the somewhat simplistic categorization of the teacher's role in MOOCs. The intention of this paper is to bypass these sides of the debate and rather to elaborate on the role of the teacher by choosing a connectivist approach to understand teaching and learning dynamics in digital learning environments. Within this context, principles of Digital Story Telling will be discussed as a way to actualize better pedagogical practices and redefine teachers' identity, role and responsibilities in the new generation of hybrid MOOCs.

2 Hybridizations

As MOOC technology evolves, thanks to platform integration of newer convergent technologies, so does the underlying pedagogical approaches to learning design in MOOCs. A new generation of so-called hybrid MOOCs (hMOOCs) have been implemented and set to prove in the attempt to overcome frustrating low completion rates (average 10%) in traditional MOOCs [3].

hMOOCs combine characteristics of xMOOCs and cMOOCs. In hMOOCs, the traditional teacher's resource and instruction-based learning design extensively used in xMOOCs is combined with the informal, self-driven, web 2.0-based social learning model typical of cMOOCs [5]. The underlying pedagogical continuum in such MOOCs spans widely from cognitive behaviourist through social constructivist to connectivist approaches to teaching and learning [6, 7]. Not surprisingly, the inconsistent definition and redefinition of the MOOC debate so far affects how teachers perceive and define their role in MOOCs and ultimately decide how to design their courses and teach in such learning environments. Teachers' professional identity seems to be torn between centuries of acquired academic legacy and modern digital learners' needs. The result of such an identity crisis is 1) an array of MOOCs of highly variable pedagogical quality [4] and 2) a question open to further debate: What role and responsibilities should teachers have in MOOCs?

3 Digital learning environments and teacher's identity

Digital Learning Environments (DLEs) in MOOCs, especially with the advent of Web 2.0 convergent technologies, have challenged the traditional classroom teaching paradigm in that they offer flexible solutions in time and space, tailored learner-centered curricula and the possibility to establish personal learning networks to foster life-long learning beyond the traditional educational frames. To meet the different needs of DLEs, teachers and course developers have introduced different learning design models. However, as a consequence of technology imposing itself on pedagogical approaches, new linguistic and personal structures of identities have also emerged from digitally mediated communication [7, 8, 9]. When people occupy digital spaces they also reconstruct language according to the possibilities and constrains of

the digital platforms they use, and because language is a cultural identity bearer, they also modify or adapt their identities [7, 8, 9]. This can be said for all digital users, learners and teachers alike. However, teachers seem to struggle between two identities, the academic or professional one forged by traditional university studies and the one of digital users trying to survive in ever new emerging digital environments [2].

4   Connectivism, Digital Storytelling and the teacher as "narrator"

To deepen the understanding of how technology affects learning and teaching and essentially change our behavior as learners and teachers, the MOOC working group established in 2016 at NTNU has developed MOOC courses, assisted HE-educators and conducted research on MOOC production with the scope of defining a line of work and research that can deliver high quality DLEs.

In our experience, the presence of an instructor in MOOCs, either as a physically present teacher in fully tutored courses or as a digital presence and narrative voice in self-directed courses, is paramount to the creation and deployment of a sustainable ecosystem in DLEs [10]. However, we need to redefine teachers' professional identity and their role and responsibilities in DLEs in order to meet the needs of 21st century learners. We believe that a connectivist approach to understand learning and teaching dynamics in DLEs [11] and the implementation of Digital Storytelling (DST) in hMOOCs can open the way for the establishment of higher quality DLEs.

Digital Storytelling (DST) transcends classic semiotic boundaries and lies at the very heart of MOOCs learning design as it is regarded as an activity that can both enrich the teaching practices and foster learners' active behaviour in DLEs [12, 13, 14]. Within the bespoke narrative frame of a MOOC, DST allows multi personal narratives to coexist, the teacher being just but one of the narrators, whose presence is clearly discernible and recognizable, yet just as a discrete voice in the background guiding learners along the course's different learning paths rather than pushing them through the curriculum. The teacher's personal narrative doesn't prevail over the learners', rather *all* are collaborating in creating, defining and modifying the common learning environment by bringing in personal experiences which reflect the individual's interconnectedness with the world [13, 14]. In this aspect lies the reference to Connectivism as a useful theoretical frame to better understand how learning happens in open DLEs as the ones in MOOCs. In such environments it becomes increasingly difficult to define learning solely as an individual process that results in acquired knowledge about something after either the modification of behaviours, the cognitive understanding and searching for meaning of the individual, or the individual's interpretation of social constructs. Connectivism rethinks the concepts of learning and knowledge and defines learning as *actionable knowledge*, not as a process for the retaining of information. Actionable knowledge is found in the way individuals relate and react to the continuous shifting of digital information landscapes. As Siemens puts it: "Decision-making is itself a learning process. Choosing what to learn and the

meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision." [11]. Knowledge is not necessarily directly deriving from individual's learning anymore. Consequently, knowledge can't any longer be understood and defined as the individual's retaining of previous notions, as these can reside in any constellations of *knowledge flow* where "people, groups, systems, nodes, entities can be connected to create an integrated whole. Alterations within the network have ripple effects on the whole." [11]. Hence, it is not sustainable to understand knowledge as an artifact anymore, as something you can transfer directly from the teacher to the learner by following specific didactical practices. Knowledge and the learning process that leads to it are rather negotiable *knowhows*, debatable values in a shifting context of meaning and purpose [15] where, on a personal level, it is increasingly difficult to discern the learner from the teacher.

Still, the teacher has an important role to play.

4.1   Everybody likes a good story: The narrative role of the teacher

A good teacher is a good storyteller. A good storyteller can turn the driest of the academic subjects into a fascinating and exciting novel. When the subject is mediated by a screen in a digital learning environment, as in the case of MOOCs, a good story teller will have to turn the course subject into the best of film scripts. At the core of DST are the personal narratives of the individuals creating the story. In our chosen line of work for learning design in MOOCs, the teacher is just one of the personal narratives conveying his or her side of a story - the course subject. For learning to occur and knowledge to be acquired, the personal narratives of the learners have to agree on the story which has been told. This is true of any story regardless of the subject or modus docendi of the MOOC. This process is never easy and no one can ever have control on how it develops and ends. It is however possible to create learning environments that can facilitate the way in which the story is presented and the way learners can interact with and act upon it.

Among the traditional seven elements of DST [16], three key elements are a) *a dramatic question* to introduce the plot of the story, or the subject of the course, and initiate a reflection process in the course participants, b) *an emotional content* that speaks to the ones sharing the story in a personal and powerful way and c) *a personal voice* to tailor the story to help the audience understand the context [16, 17]. To these elements, we add the underlying importance of *a good narrative language* that can lighten up a weighted academic jargon by writing texts in an engaging way using the narrative elements of literary fiction. In the digital learning environment in MOOCs, the teacher's major responsibility is to tell his or her story by designing a good narrative frame that opens up for interactivity in both course resources and assignments. That means for instance including variation in the narrative structure between video and audio resources containing interactivity elements like the ones present in videogaming, and exercises which allows the learners to express their own side of the story by blogging, video-sharing and using other media elements. In this way the learners

become an integral part of the learning design and contribute to negotiate the part of the story which is most relevant to them. Exercises and assignments should also include variation and provide both formal and informal assessment. In fully instructed courses, this means variation between mentoring and peer-to-peer dialogue, and between close, staff evaluated exercises and open peer reviewed exercises. In self-directed courses, peer assessment will necessarily be the most important form of evaluation, but the teacher should also include automated assessed exercises. The challenge here is to create exercises with enough interactivity elements to avoid the humdrum of repetition.

Dialogue is then pivotal. There is better learning when there is an open dialogue between teachers and learners. In open DLEs like the ones in MOOCs the openness of dialogue can reach far outside the boundaries of the course to include the personal networks of all participants. It is the teacher's responsibility to design a narrative frame which facilitates *knowledge flow* through an apparatus of well-designed discussion fora, meta reflection exercises and interactive assignments which can involve the learners as a creative force in conveying a shared story. Learners' personal narratives can then draw upon knowledge resources which are not necessarily provided by the teacher on the course but are rather a part of the individual's personal learning networks. This way, learners are not merely recipients of knowledge anymore, and learning becomes a collective process involving negotiation of meaning and purpose.

5   Discussion and conclusion

The debate around MOOCs and which kind of pedagogical approaches are most suitable to MOOC's DLEs will certainly continue and evolve along with the integration of new technologies. This paper introduced just but one of the possible theoretical angles and implementation practices in the field. By focusing on network learning and how technology changes individuals' learning approaches, we believe on one hand that Connectivism can offer a useful theoretical frame to understand learning and teaching dynamics in open and scalable DLEs like the ones in MOOCs. On the other hand, the practical application of principles of DST in MOOC's learning design opens up for a redefinition of teachers' identity, role and responsibilities in the narrative frame they share with their learners. The two elements combined can foster sustainable ecosystems of collaborative learning and knowledge exchange that enrich all kind of narrators, teachers and learners alike.

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