Voicing the unvoiced : potential of offline MOOCs e-content to cater for non-digitally-fluent students

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Abstract

In a fast and ever-growing digitized world, 21st century individuals, be they students or teachers, are to command high-order digital skills to be able to function expeditiously and hence thrive in their academic or professional pursuits. Nevertheless, not all students are digitally fluent which is why I wrote this reflective piece in an attempt to shed some light on this minority – specifically but not limited to English foreign language university students in Algeria – especially in this dicey period of a worldwide pandemic where both actors are to navigate the ocean of a mandated e-only-environment. An e-solution is proposed based on an alternative avenue of re-using MOOC-based e-pedagogical-materials and how existing e-communities can assist in the dissemination process of these very materials to non-digitally-fluent learners who evolved to being partly-digitally-tethered ones.

Keywords 1
digital skills, e-content, e-communities, MOOC

1. Introduction

These pandemic reflections have emerged against the backdrop of more than many attempts to looking for e-avenues to assist English foreign language Algerian students in the province of Mostaganem, in their learning process in this time of need and even way before this arduous period be it at tertiary or secondary level. Yet, in each venture, no matter how fruitful the e-experience is, there is always a minority of students who fail to complete an assignment, miss online an lecture, or do not attend at all. This boundary-crossing to the virtual world seems so easier for most of the students, but what about the minority ?

Equally noticeable in research papers, the highlights are, in the vast majority, focused on how well their e-teaching journey was and what benefits it yielded their respective students, and if they do, in few cases, mention the pitfalls regarding the marginalized students who live in remote areas and /or are not fully-accustomed with the digital practices, they are barely on the footnotes or the sidelines especially in third world countries.

That being the case, reflecting on the itches and twitches of the unforeseen and unexpected yields of studies is the task of any researcher, to lean onto and go into the little parts that did not work and making it the by-line of the coming research. Ergo, they have a moral obligation to all categories of students no matter their background as each one of them deserves to have equal and equitable opportunities to pursue his/her academic endeavors regardless of the socio-economic factor. This last, most frequently, put them in a closed box, that, in turn, obstruct and thwart their educational path.

In this context, a categorization of the tertiary students' digital skills is drawn to position the targeted minority and thus better serve and assist them. These students are described to be non-digitally fluent and a corresponding alternative e-solution is put forward through the use of high-quality MOOC-based materials for teachers to leverage in helping these very students during these tough times of covid-19 global pandemic. Additionally, due to general lockdown students overall found shelter in social media networks to stay in touch, connect, share and collaborate online with their peers. This prompt and abrupt burgeoning of over-utilizing social networking sites and phone applications gave birth to different e-communities of practice that grouped and bonded students, for social purposes and, in the same vein, gathered teachers with students for educational ends. This context added a new characteristic to this minority which is being or start become partly-digitally-tethered as they were obliged, to some degrees, to enter the social media-realm to keep up and adjust to the new normal. Containing all categories of students, these e-communities have the potential to have a catalyst effect in the process of circulating MOOC-based e-content to non-digitally fluent students specifically and overall students as well. In this paper, a tentative alternative e-route will be set forth that can benefit university teachers and students alike. It is noteworthy to mention that re-using offline materials is not a novel practice but leveraging their potential in a customized e-solution for the current context is not.

2. Not so 21-st century students

In this technologically developed world, the millennial views technology as a part of their lives contrary to the past ones. For them, these high-tech tools are perceived as a simple commodity and not as a sophisticated apparatus. They use it every day of their life, they connect, work, collaborate and exchange in the virtual world. This targeted population goes by many names, one of them is the digital natives as Tapscott [1] labeled them. They are the young generation who grew up with technology. Cheese [2] refers to them as: *top young performers*, *highly technological savvy*, *relationship-oriented*, *use a wide range of media and technology to connect with others*, *hungry … for knowledge*, and *have fun at work*. All these adjectives refer to different denominations that 21st century students gained in this modern era because of the tight relationship they have with the technological apparatus they use in their day-to-day lives.

On the flip side of the coin, these generative descriptions of our 21st century students who belong to this technologized era do not, to some extent, portray a full picture of a minority of economically and socially disadvantaged students who are not, fully or partially, accustomed with 21st century, basic or advanced, technologized gadgets. This dearth of contact with the digital world made them ill-acquainted with primary tech-oriented mechanisms and thus impede and obstruct them to hone and sharpen their digital skills. Sarnou [3] attests that :

> many Algerian learners in rural areas and those who are financially incapable of buying these electronic devices cannot be viewed as generation Z, thousands of young learners in most regions of the country do belong to this generation.

Having taught for several years in the rural sector as a secondary school teacher, I join her claims as I experienced, in many instances, similar situations where students, be they girls or boys, did not own hand-held devices, which could limit, to a certain extent, the application of a hybridized learning environment. These learners are not responsible for the non-digital environment they have been brought into nor should they bear the burden of having limited digital skills. Proceeding with this line of thoughts, this liability, without a shadow of a doubt, falls onto education stake-holders be they at the top of the food chain as policy and decision-makers or inside the class as teachers and educators. For this reason, instructors need to re-calibrate and re-adjust their teaching practices to bridge this divide.

3. 21st century teachers

From a philosophical perspective, teachers' approach and belief in teaching and learning will have a significant impact on how effective technology will be used [4]. Put differently, if the instructor is an advocate for integrating technology in the classroom and can actually see the potential it has on positively influencing the teaching-learning process, there is no doubt that this vision is to shape

favorably the use of these devices and vice-versa. Being well-accustomed with technology also echoes that an inventive and creative use of this very technology is required to cater for the whole students' wide backgrounds' spectrum whether they are from high/regular-income or otherwise. In other words, 21st-century instructors are required to have a certain savoir-faire which includes, in particular, being digitally-literate for them to be able to properly instruct 21st-century technophile and not-that technophile beings, as it turns out, it is equally challenging, at times even more, to cater for students who are deprived of tech-appliances but do live in a world full of them.

In such authentic situations, students will operate in a highly customized learning environment that prompts their engagement, self-awareness and above all a sense of control over their learning process. These merits implicate the teacher to wear a different hat than the one worn in traditional settings. The teacher will be a coach that directs and guides students toward self-reliance, a mentor that can inspire them to be better and a material-designer who spurred them upward to reach their full potential regardless of the different contexts they involuntarily belong to. Further, blaming the students is not an option and standing still is not enough, because as teachers, we cannot allow setbacks to set us back, on the contrary, we need to pull through and make the extra effort to dig in and look for novel ways to meet all our students' needs and bring them to full blossom.

4. Digital skills

In a fast and ever-growing digitized world, 21st century individuals, be they students or teachers, are to command high-order digital skills to be able to function expeditiously and hence thrive in their academic or professional pursuits. More than ever before, these digital skills are to be a gear and a life-jacket needed to navigate the ocean of a mandated e-only-environment that learners and teachers are to operate in during this dicey period of the global outbreak. These e-skills, consequently, became momentous to master both by instructors as well as learners. The former ones are to scheme, design and produce high-quality e-content and then deliver it digitally in a well-rounded and well-crafted fashion so that each student can take full benefit of these e-pedagogical materials. Equally relevant, the latter are to be equipped with enough digital competencies to access, review and analyze the e-material at-hand to complete the given assignment. As such, Demir and Odabasi [5] argue that digital competencies have taken place among the basic skills required to function effectively and efficiently in an ever-changing ICT-driven world.

These e-literacies are often connotated most commonly as digital fluency or digital literacy. Resnick [6] explains that digital fluency is quite analogous with foreign language fluency in that if students know enough phrases to understand a menu it will not hold a candle with being able to speak it fluently, one must be able to express and generate complex ideas. Similarly, being digitally fluent entails not only the ability to manipulate tech-devices but *knowing how to construct things of significance with those tools* [6] [7]. Put differently, digital fluency is *an ability to reliably achieve desired outcomes through use of technology* [8]. In fact, National Research Council [9] declared that the term digital fluency is favored over digital literacy as it *captures the cross-cutting, transecting nature of the skills required to meet the challenge of critical engagement with online information* [8].

Figure 1 : Digital skills categorization [10]

Çelik and Kokoç [10] make a clear cut delineation between the two concepts and resultantly draws a three-facet typology of the digital skills where individuals either belong to *no digital skills* category that encompasses individuals who have no experience in, or a potential to develop knowledge of, technology [8]. The second category targets persons who have basic digital skills whereas the last one - *digital fluency* - comprehend individuals with high-order digital skills which, in turn, revolves around

having a broad range of e-skills to be able to have fully functional and operational activity in the digital realm. Dissecting and categorizing these digital skills is of paramount significance as it enables us to position the category of students this written piece is about. Therefore, they will be referred to, initially, as non-digitally fluent students as they fall either in the first or the second category of [10] framework.

A more in-depth description of this type of learners and the way the brusque diffusion of the pandemic worldwide favored a pivotal shift in their new-becoming is to be explored in the next section. As far as Algerian EFL instructors are concerned, there is a dearth in the literature in this regard but Ghounane [11] identifies a specific category of old instructors who are technophobic and do not favor using technology. They are, hence, identified as non-digitally-fluent. What's more, Haddad [12] explains that despite the digital-handicap and the lack of mastery of techno-educational software(s), university teachers collaborated and cooperated together to co-produce educational e-content for their respective students. Consequently, this category of instructors appear to be digitally-literate. This last can, without a hitch, apply the e-solution that is proposed in this paper. A more general worldwide categorization of students' and teachers' digital skills is outside the scope of our study but for reference, a considerable number of studies have been conducted in this respect [13, 14, 15, 16] . A general consensus is extremely challenging to attain as each study tackles digital competency from a different aspect in a succinct study-related context.

4.1. Non-digitally fluent but partly-digitally-tethered

After the initial placement of targeted students' category on Çelik and M. Kokoç's [10] framework and thus describing them as non-digitally-fluent students comes another aspect highlighted by Savin-Baden [17] regarding the implications of digital connectivity on the educational landscape overall. She, therefore, introduced a new concept describing 21st century and tech-savvy students as being *digitally-tethered* which is *generally associated with carrying, wearing or holding a device that enables one to be constantly and continually in touch with digital media of whatever kind* or being *tethered to other people through the medium of technology.* Howbeit her attempt to draw a fully-fledged account on the students' profile does not portray the full picture, for this reason, Falconer [18] comments that :

> we need to be careful that we do not assume that all young people are digitally tethered. Some are strongly tethered, some are not tethered at all, and amongst those who are tethered there is no reliable way to estimate the length of the 'rope'.

For this reason, a more in-depth categorization is needed to identify and position each type of student in the purpose of catering to their respective needs. With this in mind, the unplanned and unanticipated rapid spread of Covid-19 pandemic worldwide thrusted students to steer the focus toward the digital world as it was the only pathway through which they could get in contact with their peers, colleagues and friends. By projection, Niranjana [19] eloquently describes what the new normal look-like during a pandemic context and how the online window became our only harbor and the unique way of showcasing our existence, by stating that

> The outside, instead of being a place where you showed yourself to the world, is now where you can only appear masked. The inside, instead of being a place where you retreated from the world, is now the only place in and from which you show yourself to the world. (p. 477)

These circumstances pushed students worldwide, irrespective of their degree of digital skills, to be massively present in social media in particular as case in point, in Algeria, 80% of the whole population was on Facebook during the lockdown period [20]. So individuals would have a Facebook account even if they do not have a mobile phone and they log in whenever they have a chance to. This succinct situation forced all students around the world, and the targeted minority, to some extent, to become partly-digitally-tethered as operating online became the only avenue wherein one can show visibility in this composite globalized and glocalized world. This new trait can also be possibly applied to instructors, as they, too, joined their respective students on social media.

5. MOOCs as e-libraries

Within the movement of open educational resources in 2008, The concept of Massive Open Online Courses (MOOC) was introduced by Siemens and Downes when they devised an online course entitled *Connectivism and Connective Knowledge* [21]. Years later, its inception along with its related connectivism theory served as the basis upon which MOOC-providers build their foundation. Initially, most of them were open online courses available to any students regardless of their educational, social or economical background without any paywall whatsoever. However, many MOOC providers transitioned from non-profit -providing full free access to students- to for-profit organizations that limit, to some extent, the content for non-paying participants [22]. The with-held content is mainly related to the assessment part of the e-courses as those who pay need this type of online evaluation to get a form of e-certificate [23]. That is why some scholars lauded MOOCs for they have the potential to widen and enlarge access to the global population [24] or their counterpart who reproach MOOCs provides of favoring monetization over instruction [25]. Even with this minor limitation, no one can contest or deny the fact that MOOCs proffer high-quality content materials that are devised and designed by well-renowned and prestigious universities worldwide [26] [27]. For all intent and purposes, no web-based platforms on the world wide web afford the educational sphere with such first-rate e-pedagogical-materials showcased in different multi-media format content ranging from text, image and audio to video. As a matter of fact, Littenberg-Tobias and Reich [23] point out that MOOC-based programs are of professional quality. Jones [28] asserts that this attribute enables students to acquire :

> *well-developed, comprehensive and readily recalled domain knowledge, the capacity to scrutinize both the well-articulated and tacitly held basis for their decision making and action and an attitude of systematic enquiry and knowledge building to improve their theory of practice.*

In this regard, a huge body of literature attests to the benefits MOOCs yielded when integrated with traditional modes of instruction [29] mainly because of the wide array of advantages they provide learners with alongside the diversified materials in the e-courses. Despite these merits, not all students possess the required e-skills to take full advantage of these online resources, so in what way can this e-content exploited by instructors to cater for this minority ?

5.1. Offline-resources

Whilst the breadth of e-learning gap can be challenging to partly-digitally-tethered learners, it also signals that need for e-instructors to address it with regard to e-materials selection and, on a subsequent level, sorting out what format can be this very e-content best delivered so that this minority of students can benefit, to a large extent from its merits.

In this perspective, MOOCs can reverse the narrative as they provide a well-rounded and burden-free e-solution for the teaching community overall and that of the developing countries in particular - as it is in my case.

What is particular about MOOCs is that in addition to the broad range of high quality materials they proffer, for each available e-course is the related offline materials for it. That is to say that each video can be downloaded, even better, students can download the transcript of that very video. What is more, a whole unit or module can be exported as data package to be dealt with offline and then, s/he can log in, to complete the assignments. A tremendous amount of work is required to achieve this result.

As such, it is hard to do justice to the professional digitally fluent community that plan, design, create and co-create e-content in its different format and modalities in MOOC-based courses to cater for any student, or teachers for that matter, with limited to acceptable digital skills. Overall, this multiplicity in e-content could lead to greater accessibility, openness and fluidity -the constant change of learning due to digital technologies [5]- in learning.

The main issue is that MOOC content is copyright protected, depending on the platform, and hence, limit to some extent the re-usability of the e-content in a place other than the platform it is offered in. Atenas [26] urges MOOC providers to liberate MOOC content for the teaching community to be used as open educational resources, which means it can be re-used, revised, remixed and redistributed to avail a larger academic community. She even proposes a framework (figure 2) within which she puts

forward three strategies to open up MOOC contents: 1. *to deposit the materials in repositories of OER (ROER) as individual object*s, 2. *to archive them in ROER in data packages as learning units* or 3. *to convert them into Open Course Ware (OCW) as self-taught courses* [26]. Fortunately, a new movement of decolonizing and democratizing MOOCs content has seen the light in edX, on the MOOC-leading-providers, through the called Digital Assets for Reuse in Teaching (DART) initiative [30]. Her vision came to light a couple of years later, and what is even more interesting is that these platforms are pre-disposed to open their resources to be hybridized for a tailor-made learning experience, for the same students that MOOCs were created for to help and attend to in the first place. The two first stages of [26] framework are easy to achieve and the third aspect is yet to be executed.

With such affordance of high-quality MOOC e-content at teachers' disposal, curating materials for students in general and partly-digitally-tethered in particular would lead, to a large extent, to unburdening instructors from devising whole new materials from scratch and even with that effort, they will not be, in all likeliness, as well-designed and well-crafted as MOOCs are. Once gathered, modified and re-adjusted where can they be best placed for this minority of students to take full advantage of ?
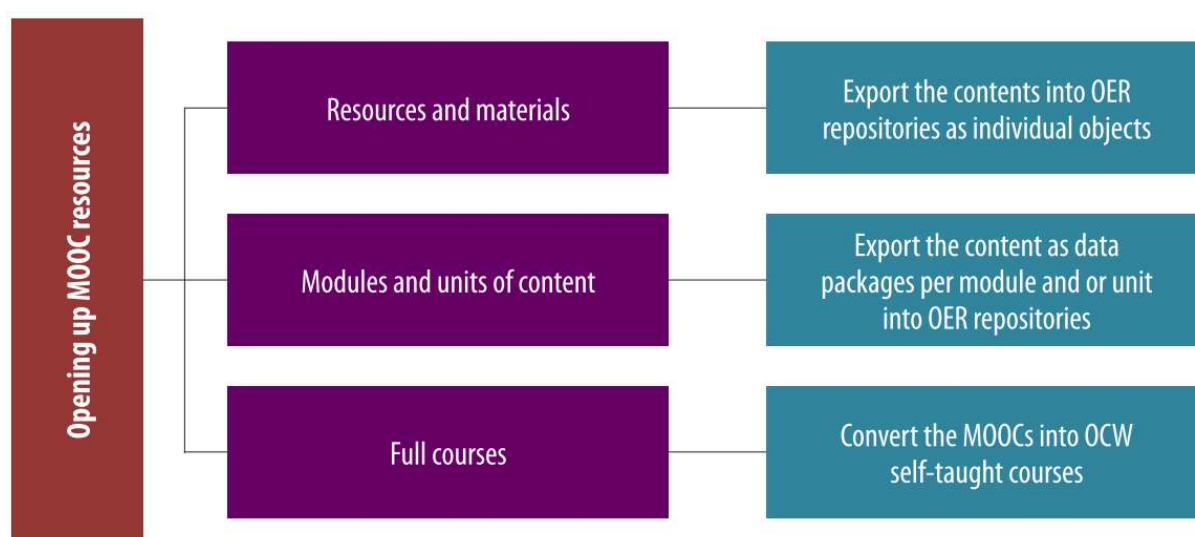

Figure 2. Three strategies to open up MOOC contents [26].

6. Role of existing e-communities in e-content distribution

On the one side of the pendulum, This critical situation of covid-19 pandemic caused a liminal inversion in polarity from physical to a fully-online setting that led to the appearance of, in the first phase, e-communities of students on social media albeit some of them were created before. These online social groups had the aim to gather students so that they can keep in touch with each other especially in the lockdown period. Even the ones with limited digital literacy knowledge were forced to adhere and join these e-communities and particularly because of the fact that the three dominant telecommunication companies in Algeria namely Ooredoo, Djezzy and Algerie Telecom, offered the option to use Facebook, for instance, for free and even without internet bandwidth like Facebook Flex which allows Facebook users to send text messages and see texts online but not videos or pictures [31]. These non-paying, flexible and marketing-driven solutions were designed to amass as many users as possible, and they rendered, to some extent, the non-digitally-fluent students partly-digitally-tethered as they had an e-presence as 80% of the whole Algerian population used Facebook during the lockdown period [32] although in January 2020 the internet penetration rate was 52% and Social media penetration reached 51% [20]. Further, he adds on to mention that *the number of mobile connections in Algeria in January 2020 was equivalent to 114% of the total population*. If these numbers indicate anything at all, it's the mere fact that if a student possesses or knows someone who possesses a hand-held device, be they relatives or otherwise, they can have internet access however limited it is. These factors combined

led to the significant e-presence of this minority of newly-becoming partly-digitally-tethered students on social media, in general, and Facebook in particular.

At the other end of the pendulum, the proposed platform by the Algerian ministry of higher education and scientific research *Moodle* [33] was fractionally adopted by Algerian students and their corresponding instructors at tertiary level [11]. One of the reasons is that educational platforms in general and Moodle in particular are not made for social interactions but social media are designed for exchange and communication through a multitude of features like comment, like and so forth [12]. Further, unlike these social-media-networks students are not well-familiar with Moodle platform as they are not, to a considerable extent, used to operating in and with it. This fact impelled teachers to look for other e-avenues to palliate this issue [34] and thus join their students in these e-communities to be able to continue instructing them online [12]. That is to say that teachers were able to retain contact with their students through these online communities of practice. Many instances in the literature point out to different online locations where both parties would interact, exchange and delve into the give and take of the online teaching-learning process be it on Facebook, [12, 23, 35, 36] or similar networked-platforms like Twitter or WhatsApp [12, 37]. Evidently, these e-communities can be an excellent conduit through which teachers can disseminate the re-adjusted e-content, be it retrieved from MOOCs or else. Framed upon these sequence of thoughts, text or images-format materials of the e-lesson can be easily grouped in one light-weight documents that can, in turn, be readily shared to the target population through the e-communities they belong to so they can be accessed, at a later time, offline. On this account, it's high time we re-shifted the debate from online to both on and offline content rhetoric, during the pandemic, about harnessing e-pedagogies to satisfy the wide array of student's needs regardless of their e-skills.

7. The alternative e-solution

In this reflection, an alternative e-solution is proposed for instructors to leverage that is foregrounded on three main elements. The first one regards the positionality and categorization of this target population's digital skills. This category of non-digitally fluent students has gained, to a large extent, a new trait during the critical pandemic period of being partly-digitally-tethered as they are present on social media through a tech-device, be it their own or one of their close relatives- as an attempt to acclimate to the new normal. Second, this e-presence of students makes it less challenging for instructors to get not only in touch with them but also to ensure continuity of their education. In other words, these newly emerged communities of practice can be considered as the optimal online platform where teachers can e-teach and learners can e-learn. Lastly, because of the limited to low internet access of these students, instructors can, henceforth, even if they are not fully-digitally fluent, assist, guide and provide format-personalized e-MOOC-content, that can be complemented by e-content from other sources, that can be downloaded from the e-communities and used, at a later time, offline. This e-instructional modality can enable instructors to ensure that every student has equitable and equal chances of getting the education they require during and post covid-19 pandemic.

8. Conclusion

This minimally-invasive and free-of-charge mode of e-instruction of curating offline MOOC-based e-content has the potential to provide partly-digitally-tethered students in general and EFL Algerian ones in particular, with the appropriate assistance and support that enables them to get through the hoops and hurdles of operating in an e-only-environment during this global on-going covid-19 pandemic.

This reflective piece does not stipulate particular approaches nor does it constitute an official regulatory guidance but it is merely intended to raise awareness on alternative e-solutions that are beneficial and serviceable for students and teachers alike. Further, this paper can pave a pathway for future studies in this niche and conceivably test this alternative e-solution and study in-depth its implications on academia.

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