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6 The Architectonics of Language MOOCs

Abstract: Widespread access to the web is common these days for people; the Web 2.0 is a part of most people's lives and it is used for a variety of functions from searching for information, communicating with family, friends or colleagues, and ever more often learning. The difficulty with such learning, however, is delimiting what resources should actually be used, being able to access them both on an individual basis and collaboratively, and structuring the entire process. Massive open online courses (or MOOCs) appear to offer a solution to this problem, since they combine free unrestricted access with the benefits of structured courses. Language MOOCs are argued to combine the best of both formal and informal learning, bringing structured educational course content and activities together with appropriate social media tools and technologies. They appear to hold enormous potential for developing language competences, especially the productive and interactive ones, when compared to closed conventional online courses. However, part of the difficulty with designing and developing effective LMOOCs lies in selecting an appropriate MOOC platform (or philosophy, xMOOC or cMOOC) and associated tool set, and preparing the most effective resources and activities for the course. In this chapter an analysis is undertaken of the architectural questions related to developing LMOOCs and some recommendations are made about how such courses should be built.

Keywords: Language MOOCs, LMOOCs, MOOC Platform, Architecture

6.1 Introduction

For the majority of people fortunate enough to live in a technologically-advanced society, living without access to Internet, is unthinkable¹¹. It doesn't matter whether we use it to get up to the minute news, read about things that interest us (there are probably few, if any, areas of knowledge that are not treated somewhere online), or use it to communicate with our family, friends or colleagues, use it we do. While Internet is the network we use, instead of referring to it, we talk about a functional abstraction that runs on top of it, namely the Web, referring to its current instance, the Web 2.0, or more likely, social media, or even the particular tool(s) that we use on a regular basis. The tools and technologies of the Web have become almost a ubiquitous part

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of our daily lives (McBride, 2009; Wang & Vasquez, 2012), especially with the widespread availability of these technologies. Warschauer & Grimes (2007) note that millions of people use social media to interact, collaborate, network and entertain via blogs, wikis, social networking sites and multiplayer games. People do not merely read and retrieve information but also curate, modify and share it (Lomicka & Lord, 2009). In fact, when we talked about Web 1.0, we did so in terms of technology and the new functionality of some tool or other, but when we talk about the Web 2.0, we talk about people and what they do with it. You no longer have to be a specialist or techno-geek to add new content, only someone with something to say.

Given this context, it is not surprising that people want to use the Web as part of their education. If, for example, we participate in some online forum about something that interests us, then by participating, we are learning more about the subject matter covered there. Furthermore, as we interact in a Web 2.0 environment, we become familiar with the tools we find there and are hence more interested in re-applying these tools for other tasks, for example, our learning. The problem, however, is that given the great variety of online sites and tools available that can be used for these purposes, then as Clarebout & Elen (2006) argue, students don't often make adequate choices for their learning processes, and may not use these resources in the most appropriate ways. Learning online is not a new activity, and has existed long before the Web 2.0 became popular. Many educational institutions have had their eLearning platforms or Virtual Learning Environments (henceforth, VLEs) like Moodle, Sakai, or aLF for many years, and regularly handle hundreds of thousands of students with them. In one study of higher education institutions (Weller, 2006), 86% of students reported that they used their institution's VLE. However, arguably the difference between these courses and the learning undertaken in a Web 2.0 context is that of formal vs. informal learning (McLoughlin & Lee, 2007). The former is undertaken in closed environments where only paying students can access the materials and activities, the results of which are typically rewarded with some kind of certificate or qualification, and the latter occurs in open environments, where more emphasis is given to competence development than certification (Kalz, 2014). As Fini (2009) notes, the latter does not depend upon a given platform but integrates multiple and heterogeneous environments and tools: blogs, wiki, social networks, message systems, etc. This open learning is also taking place in the area of languages, whereas it has been argued (Firth & Wagner, 1997; Block, 2003; Johnson, 2003; Wang & Vasquez, 2012), that second language learning (henceforth, SLL) has been changing since the end of the last century, moving from being an essentially individual process to a more social one, where the cognitive acquisition metaphor is being replaced by one of interactive development.

However, a difficulty with undertaking learning in this open unrestricted fashion is delimiting what should actually be learned, and structuring how it should be done. This is precisely one of the strong points in favour of courses run on VLEs, where the course designer structures the learning and provides all the relevant resources

and the scaffolding required by the students. One of the weak points, however, is the cost associated with undertaking these courses, where potentially large numbers of students of such courses are unable to sign up and participate in them for various reasons (including high cost, complex registration procedure, inflexible access conditions, limited course numbers, etc.). When massive open online courses (henceforth, MOOCs) appeared, they seemed to offer a solution to this problem, since they combine the benefits of structured courses with free unrestricted access. The social dynamics of such courses, that is to say, large student numbers with no direct teacher or tutor present, foster peer interaction which, if undertaken in the second language, is important for the development of the relevant competences, although they are certainly challenging for students who are not used to studying in such an autonomous manner. As the typically high registration numbers show, students are motivated to take part in these courses, partially for the reasons that Belanger & Thornton (2013) highlight: namely, that MOOCs support lifelong learning and are fun, entertaining, and convenient to do, potentially overcome traditional barriers (such as course fees, geographical location, etc.), and provide an opportunity for many less fortunate people to access education. Yuan & Powell (2013) argue that the appeal of these courses come from the current globalisation and momentum for internationalisation in higher education. It is estimated that by 2020, there will be almost 120 million students (many with limited economic resources) demanding education, together with changing learner demographics and an increasing number of adults also looking to improve/update their capabilities.

6.2 Language MOOCs

As the title of this book indicates, there is a new generation of MOOCs for SLL beginning to appear, or what can be called Language MOOCs (henceforth, LMOOCs). It can be appreciated that LMOOCs could be attractive for both language students and teachers, if they combined the best of both formal and informal learning, bringing structured educational course content and activities together with appropriate social media tools and technologies. The possibilities they hold for developing language competences, especially the productive and interactive ones, arguably go way beyond what is available in small student-number online courses. The relation of structure to interaction depends on both the course designer and also the underlying MOOC platform and tools available, if one is being used at all. While there are a lot of MOOC platforms and technologies available at the moment, and an ever-increasing collection of language courses on them, the actual freedom that a teacher has when designing a given course, and conceiving what resources, activities and tools should be used, is not always obvious.

As was noted above, VLEs have housed the majority of online courses before MOOCs appeared. This is particularly the case in distance education, where the

institutions have finely tuned their eLearning systems where student learning takes place. In general, as Weller (2006) notes, VLEs are content focussed, with no strong pedagogy, and follow an online version of the traditional teacher-classroom model. They contain average tools and are not specifically geared up to meeting the needs of different subjects. As such, they have received criticism (e.g., Crick & Wilson, 2005) and other more flexible or personalised learning environments have been suggested (Attwell, 2007).

As an example of the way VLEs are used, two of the largest distance education universities can be considered: UNED in Spain and The Open University in the UK, both with around 270,000 students. In the former, a platform was developed over a period of years based upon dotLRN/OpenACS (Pastor et al., 2009). It started out as a community platform oriented to forums and basic document sharing and over time the additional functionality included the incorporation of a wiki, a new document management system, a sophisticated test system, and a system for virtual attendance (Read et al., 2011). In the latter, as Weller (2006) notes, in 2004 the main platform tools were: authentication, discussion and conferencing, template-driven content delivery, blogging, audio conferencing, assignment handling, and assessment. Since then, as he notes, the university has moved toward a service-oriented architecture, where different tools and systems have been joined to complement the platform in a seamless fashion with an overall uniform look and feel.

As the Web 2.0 came into general use, it wasn't long before its potential for learning became evident. Hence, it is based upon a set of principles that describe a philosophical and functional framework (O'Reilly, 2005; Mason & Rennie, 2007):

- The Web is itself a platform, where online tools are used in the same way that software installed locally on a user's computer might have been used previously.
- "Collective intelligence" arises out the interaction of the users of the online software, i.e., the sum of the interaction is greater than its individual parts. Value-added resources appear online where many users have contributed relatively little information and/or comment to some resource, generally shaping and polishing it.
- The Web software is in a permanent beta version. The standard software development model several years ago consisted of the generation of programs that were distributed on disks or optical media from commercial outlets. This process was slow and meant that updates took considerable time to reach users. As the Web became more established, companies started to use online distribution as a way of getting updates to users quicker. Recently, with the advent of online software stores, it is even possible to buy the software directly there. Even though these distribution changes make it a lot easier for new versions of software to be sold and updated, the development cycle is still slow and limits how new functions are introduced into software as updates. Referring to the Web as a series of tools in permanent beta refers to the fluidity in which functions are added. As limitations

are identified they are addressed and new functions can appear from one day to the next.

- The data of the Web sites are monitored in real time. The interaction of the users with a particular online tool or service leaves data on the site where it is located. Analysis of these data shows the ways that the users actually interact on the site and can be used to modify, improve and extend its software.

However, as Wang & Vasquez (2012) argue, it is difficult to define what the Web 2.0 actually is, as different authors refer to different aspects. Zhang (2009) sees it as a rather loose concept rather than a set of technologies in rapid development. However, there is less controversy in noting its potential for SLL (e.g., Warschauer & Grimes, 2007; Sturm et al., 2009; Wang & Vasquez, 2012). From the foundation that the Web 2.0 provided, arose the notion of social media (Mayfield, 2008; Smith, 2009; Asur & Huberman, 2010), which is one of the applications that allows the generation and interchange of user generated content. Its characteristics, following Mayfield (2008), are participation, openness, conversation, community and connectedness. For educational purposes, de Waard (2012) presents the way in which some of these tools can be used for educational purposes:

- Idea and content sharing via microblogging can be undertaken using Twitter (sharing short messages), which can be used for meetings or discussions. A given hashtag (#) can be used to keep track of specific topics
- Social networking can be undertaken on Facebook, Google+ or LinkedIn (users can add to the knowledge creation of the learner), which can be used for interacting with people with a common interest.
- Social bookmarking can be done with Delicious or Diigo (find and share bookmarked items related to the topic), useful for organizing relevant online resources.
- Multimedia sharing can be done with YouTube or Vimeo (audio and/or videos can be recorded and shared), useful for storing and sharing recordings for and between the students.
- Blogs can be made with Word-press, Blogger or Posterous (users can write about what they are doing as a log), useful for keeping track of resources related to what someone is doing or showing evidence of learning.
- Virtual meetings can be undertaken with Skype, Google Hangouts, Big Blue Button (for synchronous communication), useful for meetings, discussions/brainstorming or, in the context of SLL, practising oral production/comprehension competences.
- Sharing presentations can be done using Slideshare or Prezi (an immediate way of sharing knowledge on a certain subject), useful for preparing activities, presentations for assignments, etc.
- Collaborative reference managers such as Zotero or Mendeley (building reference lists, or literature reviews), are useful as knowledge base for a project or as bibliography for a collaborative report.

Other social media tools include aggregation/curation systems like Storify and Pinterest, which are useful for collecting and organising course content. Given the widespread use of mobile devices, it is not surprising that social media has been adapted for use there. Kaplan (2012) introduces the notion of mobile social media and defines four types:

- Space-timers (location and time sensitive), with Facebook Places or Foursquare, useful for interchanging messages that are relevant for a specific location at one specific point in time.
- Space-locators (only location sensitive), with Yelp or Qype, useful for interchanging messages that are relevant for one specific location, and are tagged as such to be read later by others at the same location.
- Quick-timers (only time sensitive), with Twitter or Facebook updates, useful for increasing immediacy.
- Slow-timers (neither location, nor time sensitive), with a YouTube video or a Wikipedia entry, useful for transferring traditional social media applications to mobile devices.

Carlson et al. (2012) note that in general the most commonly used social media tools within education are blogs and wikis, followed by podcasts and social networking tools. Previously, Clarebout & Elen (2004) had presented a finer-grained classification of all computer tools that can be useful in general for education: information resources (text documents, graphics, video, Web sites), cognitive tools (concept maps, simulations), knowledge modelling tools (semantic networks), performance support tools (calculator, databases), information gathering tools (to help students seek information), conversation and collaboration tools (email, videoconferencing) and elaboration tools (to give access to reviews, exercises, practices). Wang & Vasquez (2012) note that, in general, there is little research on the application of these technologies for SLL, where the most studied area is second language writing. They summarise the pros and cons of the inclusion of these tools in learning environments as follows: firstly, the pros, that they help to create learning environments that are comfortable, collaboration-oriented and community-based (thereby improving student interaction, as well as facilitating output in the target language, and leading to favourable attitudes toward learning). Secondly, the cons, that the tools can lead to frustration due to inability to differentiate between standard and non-standard forms of the target language. Students focus on meaning when blogging, and not on language accuracy. Many need to be prepared by teachers for interaction and they often see their blogs as being private.

Some of the most common social media tools, such as wiki and blogs, have become available in most VLEs. While this may give the illusion of facilitating networked learning, the essentially closed nature of these platforms greatly limit the possibilities for interaction with people not from the course, something that is very important for developing SLL competences. In essence, the Web 2.0 philosophy is not

just about being able to use tools like wikis and blogs with the closed circle of course peers but more about being able to use the tools you want, where you want, with other people that are doing similar things, because they have similar interests.

Arguably, the first MOOC undertaken, Connectivism and Connective Knowledge Online Course (Cormier, 2008) was put together around Web 2.0/social media tools using an RSS motor to keep participants up to date on course novelties and progress (Downes, 2010). Obviously, this was possible because the course was a cMOOC and not an xMOOC. The former uses many different platforms and follows a Connectivist approach (see below). The latter reflects more standard online courses found in institutional VLEs that have a structure which follows classroom-based instruction. So, for any teacher interested in running an LMOOC, there are some questions that need to be answered before starting to develop the course, regarding the environment where the course will be run and the tools available for it. Firstly, does an LMOOC require a different platform than any other MOOC? Secondly, is it really necessary to use a dedicated MOOC platform? Thirdly, if there are already similar courses on institutional VLEs, wouldn't it just be a question of removing the access restrictions to the particular course to make it a viable LMOOC platform?

In order to answer the first question, it is necessary to establish the optimal pedagogic framework for SLL in an online context, and as such, which tools and types of interaction are necessary. Such an analysis goes beyond the objectives of this chapter. What is possible here is to contemplate a course environment that permits an integrated use of instructivist learning techniques (e.g., Mesh [2010] points out that instruction is useful to provide beginners with basic language structures, lexicon and pronunciation) and constructivist learning techniques (e.g., Laurillard [2007] identifies discursive processes [dialogue, concept exchange], interactive processes [task-based experimentation, meaningful feedback], adaptive processes [linking or adapting ideas from theory to practice] and reflective processes [thinking about the interactive process and feedback to achieve task objectives]). Therefore, if a given MOOC platform and its tools permit such techniques to be used, then it could be applied to an LMOOC course as well. The major differences with other MOOCs are the tools required for the oral competences.

To answer the second question, for a platform to be suitable for MOOCs, as well as its ability to provide the functions required for the pedagogic framework (as noted above), there are also questions regarding its scalability and robustness for a potentially large number of students interacting in different ways. As any tech-savvy educationalist is aware, it is very easy to download a platform like Moodle to our office computer and set it up and have it running in a question of minutes. However, we would be deluded if we thought that it could be possible to host a course in that environment for a large number of students. MOOCs, as their name suggests, may have such numbers. When these students try to access a given platform, to login, use course resources, interchange messages, etc., they are placing a load on the computer architecture underpinning the platform: network capacity, the memory present in the

platform server, processor capability, database access, etc. All of these factors can lead to delays in responding to a user's activity within the platform: in the best case, making the course interaction slower than desired, and in the worst, causing the platform to crash or lose a user's data. Hence, a given VLE that is already being used for other courses at a particular institution, if it fulfils the pedagogic requirements, could be used for MOOCs¹². Some authors, such as Yuan & Powell (2013), actually state that MOOCs are just an extension of existing online learning approaches in terms of open access to courses and scalability.

The potentially very high student numbers which these courses sometimes attract (up to tens of thousands) usually cause educational institutions to set up separate platforms to prevent them from negatively impacting upon the functionality of their paid courses. Furthermore, organisations with no previous VLE or private companies dedicated to MOOC production, typically opt for using a dedicated platform. In which case, it is easier for them to start from the beginning with a specific MOOC platform, rather than adapting another VLE. To say that it is possible to use a VLE for LMOOCs is to ignore what has been said previously about the importance of Web 2.0, both its philosophy and tools, since almost all VLEs do not really enable it to be applied. Just opening up access to a given SLL course on a VLE could in theory make it possible to use it as a MOOC, answering question three. However, the pedagogic differences (normally there are active teachers or tutors in closed online courses) and functional tool differences would limit the effectiveness of the course. These aspects would have to be adapted and the result would probably be quite mediocre.

As Fini (2009) notes, the transition from Open Educational Resources (henceforth, OERs) to open online courses, or MOOCs, represent a shift from a content-centred model towards "socialization as information objects". He calls students involved in this process "networked lifelong learners". Furthermore, some authors give emphasis to the importance of the learning community in relation to the educational resources a platform might have, and explicitly contemplate the use of a social network engine with (or instead of) a standard VLE (Montes et al., 2013; Teixeira & Mota, 2013). Such an approach follows Digman (2008), who notes that social media represents a gradual decentralisation of content and online contact, where VLEs force content and people to be organised hierarchically, whereas social networks enable users to establish such associations on their own.

¹² It should be noted that the direct application of a given VLE to MOOCs almost always requires some kind of modification, since there are usually slight differences in the tools present that make them unsuitable for these courses; for example, most forum tools in VLEs don't include a Karma or voting system for the messages that are so useful in MOOCs.

6.3 Language CMOOCS vs. XMOOCS

When considering what type of platform (and tools) is appropriate for LMOOCs, it is also necessary to take into account the differences between the MOOC models that exist. While several are identified in the literature, the two most common ones are cMOOCs and xMOOCs (Downes, 2008; Cormier & Siemens, 2010; Daniel, 2012). As Yuan & Powell (2013) note, the former explore pedagogies and emphasise connectedness, collaborative learning, and the latter, extend standard classroom inspired institutional educational models. Such connectedness is argued by Mesh (2010) to be related to SLL contexts where peers establish connections to generate knowledge and discourse. Such a view is compatible with that of Downes (2007), who views learning as part of a wider environment of conversation and interaction, thereby creating a learning network that reshapes itself based upon the conversations and considers learners not only as the subjects of learning, but also its source (Downes, 2010). The great majority of MOOC are xMOOCs because they are a continuation of other types of eLearning courses that institutions have undertaken, and are hence familiar and easy to run and manage. The very loosely coupled nature of cMOOCs make them difficult to control from an institutional perspective, and more importantly, the majority of the content developed in the course and its related social interaction would not be on the institution's platform, and therefore, not under its control, or for that matter, under the supervision of any course moderators, facilitators or curators, something that can be seen as potentially dangerous for student development (Brennan, 2014). In the literature, xMOOCs and cMOOCs have been compared many times. Macness (2013), for example, summarises the key differences between them as follows:

- cMOOCs do not run on a single platform (but are distributed across many).
- xMOOCs promote participant diversity, in the sense of transmitting the same message to thousands, whereas cMOOCs focus more on the diversity of approaches and resources, developed and distributed in many different ways.
- Original cMOOCs are based upon open education and OERs. Copyrights prevent content from being locked into any particular platform or individual.
- cMOOCs promote immersion and are more disruptive than xMOOCs. They are not designed to serve the mission of a given institution.
- Participants of cMOOCs have to be selective because of the large amounts of complex learning resources generated in the course. Since the distributed course environment is constantly changing, they have to be self-organising.
- Key activities in cMOOCs include the remixing, repurposing and co-creation of content and interaction.

Yeager et al. (2013) identify four types of activities key to the success of students in cMOOCs: aggregation/curation (bringing together links to existing resources), remixing (documentation, blogging, etc.), repurposing/constructivism (where users arguably build their own internal connections) and feeding forward (sharing new content,

resources, summaries, etc., with others). When considering LMOOCs, learning a language requires the development of competences related to four different kinds of language activities (Council of Europe, 2001): reception (listening and reading), production (spoken and written), interaction (spoken and written), and mediation (translating and interpreting). In face-to-face classroom situations these competences can be trained by activities and tasks directly. In online courses tools are required to compensate for the separation between the students. SLL revolves around oral and written comprehension and production. Historically, more resources and tools have been available for written skill development since it is much easier to read and write online, and share the textual results with other people, than it is for the oral counterparts. As technology has improved over the years, the tools have included newer functions for (amongst other things) shared writing, the possibility of adding comments, etc. GoogleDrive and its word processor is a good example of this kind of tool. The online development of oral skills had to wait for network bandwidths and speeds to improve to such an extent that audio and video could be distributed online in real time. Since then, research has shown how effective audio/video conferencing is in online language courses (e.g., Hampel & Hauck, 2004).

When considering LMOOCs, the lack of a teaching team to give feedback or guide the students with activities that can be modified following the students' progress, or as the result of encountered difficulties or questions, requires the careful selection of tools that can be used to facilitate the types of interactions that will compensate, to some extent, for this lack. If the author of a particular LMOOC uses a standard xMOOC platform, then the actual set of tools available will be limited and typically include:

- Different types of reading materials: these can include Web pages, structured PDF files or URLs to content outside of the platform. Some documentation can be designed to read from within the course and other to work as hand-outs, which can be downloaded for later offline study.
- Audio/video recordings: these are typically developed and stored away from the platform, using video cameras, microphones, etc., or even Webcams or the cameras available in smartphones or tablets. The resulting recording is then uploaded to a social video site such as YouTube or Vimeo. What is included in the course is a URL to the recording. In order to make such a recording accessible for people with handicaps, transcripts can be included.
- Activities and exercises: the basic evaluation mechanism here are closed multiple-choice tests. For questions with open answers, any that require free writing cannot be automatically checked (very easily) so typically the answers are provided for the students to check after having answered. Alternatively, some peer-to-peer (henceforth, P2P) correction options are possible or even the use of natural language processing and artificial intelligence techniques to undertake

automatic correction. Some platforms, like edX¹³ for example, also permit more sophisticated activity types such as those related to circuit schemas, the drag-n-drop of object or images, math expressions, etc.

- Forums: they are a key component in these courses since they do only provide a way for people to participate in discussions but also, thanks to the voting and karma system (EDUCAUSE, 2012), providing a valuable mechanism for students to help each other and answer doubts that their peers might have.

As can be appreciated, this set of tools is far from optimal for the development of SLL competences. For oral and written comprehension, having access to textual material and audio/video recordings is a useful starting point for developing understanding. However, interactive activities, arguably of a social nature, are needed to enable the students to internalise the meaning and truly integrate the new vocabulary, syntactic structures, etc., into what they already have. Following the SLL literature, once a minimum foundation of theory has been established, a communicative approach is widely accepted to be the most appropriate (Knight, 2003), as it involves aspects of social constructivist theory where, for example, the role of a language teacher could be replaced by that of a facilitator of communication (cf. facilitator in a MOOC) (Mesh, 2010). Hence, if a course is designed to harness the necessary resources and activities, such a constructivist approach can provide the conditions for the development of communicative abilities (following, for example, Warschauer, 1998; Roed, 2003; Compton, 2004). Furthermore, scaffolding should be provided in order to support the learner as s/he participates in new and increasingly more complex activities (Aljaafreh & Lantolf, 1994; Chapelle, 2001). While a standard xMOOC platform provides ways of including tasks and exercises, there is a problem of granularity, where a block of text or a single recording is typically followed by a highly structured activity. This does not provide a student with the communicative opportunity to use what has just been seen/heard in an open and flexible way, obtaining fine-grained feedback of different and complementary types, depending on what s/he has produced. A similar yet larger problem exists for language production. Written production can be undertaken with ease since it involves the same tools that are used for virtually anything one does online. Oral skills are harder to practice. In some cases a platform will have a tool that enables small audio/video recordings to be made and uploaded, whereupon students can comment on them as part of a P2P activity. However, this is not the norm, and in a similar way to the previously commented interaction regarding the materials provided in an xMOOC for comprehension, the granularity and flexibility of the oral interaction here is very restricted.

13 http://ca.readthedocs.org/en/latest/problems_tools/advanced_problems.html

6.4 Conclusion

In this chapter, it has been argued that social media offer a way for SLL competences to be developed because they provide a familiar, rich, flexible and easy to use set of tools that can facilitate the interaction between people. Such interaction promotes real communication and enables students to explore both production and comprehension in the target language in a meaningful and enjoyable way. This would appear to support the use of cMOOCs. However, as Brennan (2014) notes, Connectivism as the learning theory underlying cMOOCs, does not take into account a student's prior knowledge, the cognitive load of materials or resources (or the sheer volume of information, number of tweets, posts, etc.), the difficulty of activities (with no sequencing nor guidance on how to undertake them), the need to work across several different platforms (where the information can be found is not always clear, the sensation of never having enough information, etc.), or any of the many different issues related to the needs of novices (e.g., the feeling that the others are all connecting and learning and that you are not). Even though there are few cMOOCs for SLL, the limitation of the connectivist method for learning languages can be highlighted by the fact that the Web contains vast amounts of resources and social media developed specifically for this purpose. For example, a search on Google for "learn English online" gives almost 1.5 billion results, and yet there are very few people who are capable of becoming proficient users of a second language that way. As was noted above, following Clarebout & Elen (2006), students presented with an overly large set of learning resources and tools don't often make the most adequate choices regarding how to structure their learning.

Hence, the fundamental question for LMOOC authors and designers is how to produce a course that can overcome the limitations of both cMOOCs and xMOOC platforms. As in every aspect of life, balance is essential. Experience appears to show that while structure is fundamental, the benefits of Connectivism cannot be overlooked. A middle ground is required that enables a hybrid-xMOOC to be designed, including cMOOC features, such as external social media tools, and the like, going beyond the limitations of the basic tools provided in the platform to provide a finer grained level of interaction. This is not just a question of linking in Twitter and/or Facebook to an existent LMOOC, and including some activities that makes use of them, but more of a fundamental restructuring of the course to move the emphasis of study away from working in the platform by watching a series of video recordings, undertaking superficial activities and doing automatically corrected tests, toward a semi-distributed cMOOC-like structure, where the students undertake a lot of their own content curation and productive skill development off the platform, and then come back to share with the group what has been happening and prepare for the next step in the learning process. To this end, as well as the second language resources that make up the course, an LMOOC should also contain basic information on how to use the external social media tools for the intended SLL, and then use an iterative spiral approach

for the course, where the students work within the platform, then spiral out to other platforms to use relevant social media (interacting with other people not necessarily on the course), and then come back to share the results in the main course, again and again. It seems to be the case that this approach would include the benefits of a cMOOC and avoid its many problems for novice SLL students, and as such, should be explored in the next generation of language MOOCs.

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