

Towards the use of institutional MOOC

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Commandant Alain FAIVRE

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While online self-study courses are in vogue and abound on the web, the question of the use of MOOC for the benefit of military training arises. Institutional MOOCs could usefully complement the current training offer, provided that they are piloted by indispensable trainers whose missions would then be redefined.

MOOCs have made their appearance on the web with courses from prestigious American universities being put online for the benefit of the general public. This innovative initiative was quickly followed by other European universities and then by various training organizations that adopted this new concept of online training. The recent craze for MOOCs on the web raises the question of the Army's interest in developing this mode of teaching as part of military training.

Recently emerging as a popular style of e-learning, MOOCs could help to evolve the digital training offer being developed by the "NEF project". Being aware of the strengths as well as the limitations of this new learning model, it would be interesting to consider a thoughtful adaptation of MOOCs to institutional training methods. MOOCs integrated into a wide range of distance training tools could thus render eminent services, provided, however, that they are piloted by indispensable trainers whose missions would then necessarily be redefined.

A popular style of e-learning...

The principle of a MOOC is simple: it is an online course accessible for a fixed period of six to seven weeks, with videos, interactive exercises and forums for students and teachers to exchange ideas. The MOOC that can be found on the Internet today is called "massive" because there are no prerequisites for access and the number of enrolments is potentially very large. It is also "open", which means that registration is free and open to everyone. Finally, it is "online", meaning that all courses and exercises are available online. Beyond their common features, MOOCs are classified by distinctive currents.

The xMOOC, or transmissive MOOC, is the closest to the pedagogy of distance education as it has existed for more than twenty years. Strongly marked by the academic model, it offers only limited interactivity and generally limited to the exchanges offered by discussion forums. The xMOOC is thus similar to the classic online system, which is better accessible thanks to responsive sites with a new look and trendy designs.

cMOOC, known as "connectivist" MOOC, calls for collaborative work. In a cMOOC, the teacher does not transmit knowledge, but facilitates exchanges between participants around a piece of knowledge. In this way, cMOOC does not simply offer self-service content, but applies an innovative pedagogy in which knowledge is partly self-generated.

There is another category of MOOC dedicated to a restricted and private group of users sharing the same knowledge and training space. This is the SPOC, which could be the type of MOOC best suited to military training purposes. As Intradef is a restricted dissemination network, the massive and open adjectives of the original acronym also seem inappropriate to describe a digital learning mode targeting the military community. However, since this semantic differentiation is as unknown as it is ancillary, the term MOOC remains the most intelligible when referring to this new e-learning model.

As the average age of the Army is now 32 years old, the entire military community can now be described as "digital native". This reality invites us to take advantage of the ease, or even the appetite, of managers and soldiers for ICTs by offering them, in the field of training, attractive, effective tools similar to those they are accustomed to finding and using on the Internet.

The study of web-based MOOCs shows that these new online courses now have a distinctive structure. The ergonomics of the different sites remain eclectic, but the modular organization and the types of material offered respect a distinctive format. Video is invariably the most frequently used medium within a MOOC, and the recurrent use of self-assessment allows the learner to assess his or her level of progress. In addition to the interest of the content offered, it is therefore this "MOOC format" that is today the most popular, which arouses the enthusiasm of Internet users and maintains the model's worldwide success.

...likely to render eminent services...

A priority objective of the "In Touch" project, the employability of Army personnel is translated into "mission readiness". To this end, the NEF project aims to win the battle of skills over time. To this end, it maintains a digital service offering, with the aim of guaranteeing a skills base such as reactive knowledge updating. Thus, the NEF already provides, through the digital portal Form@t, an access to knowledge that could gradually integrate courses in MOOC format. These new tools could contribute in particular to the maintenance of skills, the acquisition of prerequisites, preparation for competitions and examinations and the training continuum.

By definition, since a MOOC is designed to deliver online courses to a wider audience, its use would be particularly suited to the delivery of training targeted at the military community at large. It could thus allow for the sharing of resources without redundancy to ensure that a common core of skills is maintained. MOOCs dealing with "core" skills common to all military personnel could be drawn up by the referents of the fields studied. According to this principle, the development of the official MOOC dealing, for example, with ISTC would thus be the exclusive responsibility of the infantry school.

A MOOC would also be a suitable tool for assimilating and evaluating pre-requisites

before entering training, and would be perfectly suited to providing refresher training. Indeed, the results obtained in MOOC evaluations would facilitate the selection of candidates and the prevention of failures, especially before expensive training courses. The development of full MOOCs as an alternative to the curricular and adaptation training provided in schools today seems neither conceivable nor desirable. However, the implementation of mixed courses, combining MOOC and traditional teaching, would make it possible to optimize the duration of certain courses. For example, the MOOC follow-up of theoretical, generalist or introductory modules of a subject would make it possible to shorten the trainee's time away from his or her unit and to reduce the cost of the training course.

In the context of preparation for military competitive examinations and tests, courses and homework marked by correspondence could usefully be replaced by MOOCs. MOOCs would make it easier to consult the course, complete assignments and interact with a tutor who could, for example, comment on the course and guide the candidate more easily.

Throughout their career, soldiers could finally have recourse to thematic MOOCs that would maintain and complement the skills acquired. This more fluid access to continuing education would promote everyone's autonomy and offer, anywhere and anytime, a reactive updating of knowledge.

...piloted by trainers with redefined missions

It is essential to be able to count on the support of trainers whenever the ambition is to offer an online training course. The MOOC would not replace the trainer, but it would broaden his or her field of competence. It would extend his or her functions as a teacher to those of guide and tutor by significantly modifying the nature of his or her missions. The trainer's mastery of the video tool is a major challenge. A MOOC's videos are real "catchy media", capturing the learner's attention. A video illustrating a concrete operational situation, for example, will arouse even more interest. It will encourage, through the game of intellectual immersion in a realistic situation, the continued use of the other media proposed in the MOOC.

The trainer will therefore endeavour to produce attractive videos integrating quality narrations in order to strengthen the learners' attention span. However, the attractiveness generated by the video tool has a cost. The investment made in video editing will only pay off in the long term and for MOOCs aimed at a wide audience. While the attractiveness of a MOOC can generate a surge of interest, this must be maintained through interactions that can sustain the user's motivation.

Indeed, even for an enthusiastic learner, the use of a MOOC requires continuous attention, which can gradually lead to weariness. The major pitfall of MOOCs lies in the drop-out rate, which can reach 95%. Although the spaces of exchange offered by the MOOC generate some interactions that contribute to lowering the feeling of isolation, these virtual exchanges on the forums do not replace direct human relations such as those that can be established within a class. The trainer's role will therefore be to lead the discussion forums, to answer questions asked online, but also to conduct additional virtual classroom sessions, during which it will be possible to see each other and exchange ideas in real time. The quality of the support is a decisive factor for success.

In addition to tutoring the E@D trainees, the trainers will continue to provide traditional in-school courses. Thanks to MOOCs, new pedagogical methods could be implemented such as the reverse class. The trainee learns about the course beforehand with the help of MOOC and then, in the classroom, carries out application exercises. In this way, the class becomes a time for exchanges between trainees and with the trainer and places the learner in an active learning process.

The budgetary context and staff reductions are forcing the training field to improve the effectiveness of its systems. A pragmatic introduction of MOOC within a panel of digital training tools would prove pedagogically sound and, in the short term, economical for the Army. In addition, trainers should be supported in experimenting with this new way of teaching and in implementing mixed training combining MOOC and traditional courses.

Regardless of the form in which teaching is delivered, its effectiveness would be derisory if learners had no learning techniques at their disposal. The rise of cognitive science is now shedding light on the very way our brains learn. Learning how to learn better thus becomes a guarantee of success.

Mastery of assimilation techniques and memorization tools would enhance the combined use of a whole range of training tools. The quality and performance of our officers and soldiers, and therefore the success of our weapons, are closely linked to the development of these new tools, which are obviously destined for a bright future.

ANALAT mechanic officer from the EMIA "Captain Biancamaria" promotion (2001-2003), Commander FAIVRE commanded the helicopter maintenance squadron of EALAT Dax before taking command of the Tiger courseware development centre. Winner of the technical diploma competition, he is currently studying at the DT information systems within the school of signals.

Title :	Commandant Alain FAIVRE
Author (s) :	Commandant Alain FAIVRE
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