

## **Fostering Research and e-Learning-Communities' Integration: a MOOC on the project DETECT**

**Jan Baetens, Roberta Pireddu, Frederik Truyen**  
Department of Literary Studies, KU Leuven, Belgium.

---

### ***Abstract***

*This paper provides an overview of the methodologies and infrastructures used to build a MOOC based on the European Union's funded project DETECT. Despite the many advances in terms of course architecture and improvement of the learning tools, the question around the right methods and approaches to design humanities-oriented MOOCs is still very debated. This research project aims to open up the traditional implementation of e-learning environments, which are often based on the use of conventional educational approaches and tools, through the combination of a multi-layer, research-oriented learning platform and blended pedagogical approaches.*

**Keywords:** *Massive Online Open Course (MOOC); e-learning; teachers; learners; education.*

---

## **1. Introduction**

This paper aims to explore the current development of a specific MOOC concept that interprets the research outcomes and educational goals of the project DETECT - Detecting Transcultural Identity in European Popular Crime Narratives (<https://www.detect-project.eu/>), funded by European Union's Horizon 2020. The intention is to build an e-learning environment that challenges and overcomes the traditional, lecture-focused e-learning setting commonly implemented by the leading MOOC platforms.

Despite MOOCs' opening up to new alternatives within the creation of more subject-shaped and interactive learning environments, their still predominantly textbook structure represents nowadays a challenge for the designing of highly interactive settings, needed for instance by humanities/literature-based MOOCs (Peng 2016). In particular, in the framework of this project, the educational approaches offered by the edX platform, on which the MOOC on the DETECT project is based, presented several discrepancies with our original educational targets posing a challenge on the pursuing of our goals. This points on the creation of an interaction between the public and the DETECT research community as well as between educators and learners.

The model presented in the context of this research paper focuses on the creation of a MOOC that questions the e-learning and e-teaching tools offered by the edX platform. These are generally anchored on the use of a unique platform and a traditional -limited set of activities. On the contrary, our purpose is to go beyond these fixed elements and to develop a multifaced environment that connects better with the actual research practices and environment to upgrade learner's engagement and interactivity while strengthening the DETECT learning community.

## **2. Creating a MOOC on literature and media: the DETECT project**

DETECT - Detecting Transcultural Identity in European Popular Crime Narratives (<https://www.detect-project.eu/>) is a large collaborative project funded by the European Union Horizon 2020 Research & Innovation Program. Grounded on the cooperation between top researchers and professionals from eighteen different European universities and institutions, the project aims to draw public attention to the role played by European crime narratives in the creation and representation of a European cultural identity. Through the investigation of a selected corpus of literary and media crime narratives produced in different European countries from 1989 to the present, the main goal of DETECT is to investigate how the dissemination of the European popular culture was influenced by media and literary co-production, serialization, translation, adaptation, or distribution. The core of the project is represented by the diffusion of the acquired knowledge through a rich program of cultural, learning, and public initiatives.

Among the multiple initiatives developed by the project, DETECT has the purpose to bring its research outcomes to a larger audience and broaden its online learning community through the creation of a MOOC on European crime fiction called “Euro Noir: Transcultural Identities in European Popular Crime Narratives”. This will be addressed both to users with an academic background and crime fiction enthusiasts. Developed by teachers from six universities (KU Leuven, University of Bologna, University of Limoges, University of Debrecen, University of Bucharest, University of Aalborg) of the eighteen partner institutions that are part of the project, the MOOC aims to lead the students to the discovery of crime fiction features and influences in several European countries. For this purpose, the MOOC was not only conceived as the result of a highly collaborative environment among the educators, but also as an interactive, non-static ecosystem built on a combination of different levels with the main goal to support the users’ learning engagement and knowledge construction .

The MOOC development process is currently managed by KU Leuven. As a longstanding partner of the edX consortium, KU Leuven will host the MOOC on its edX platform “KULeuvenX” (<https://www.edx.org/school/kuleuvenx>). The creation of this edX course required not only the contribution of the six university partners, which were involved in the creation of their module and their teaching material, but also a specialized development team that comprehends experts in ICT e-learning platforms, scenario writers, video artists, educational professionals, and support staff.

### **3. Overcoming the traditional MOOC models: challenges and methodologies**

One of the primary challenges related to the creation of a MOOC lies in the necessity of creating and designing a learning environment that is capable of having a positive and effective impact on the distance learning process (Phan 2018).

Besides, it should succeed in enriching the students with solid expertise on the topics explored in the course (Mullen and Milechin 2018). Although the development of a high variety of MOOC models and the distinction of two different main approaches (the connectivist model applied the cMOOC and the behaviorist model applied to the xMOOC) tend to offer more versatility in terms of learning design (Mary Queen and Vel Murugan 2020), there continues to be a lack in terms of pedagogical flexibility when it comes to shaping the learning approach in accordance to the subject on which the course is based (Peng 2016). For instance, none of them seem either to discern between humanities and scientific-pedagogical approaches or to recognize the necessity of adopting this distinction (Peng 2016).

This tends to limit the possibilities of offering a more pedagogically structured environment centered on the teaching and learning of a humanities subject (Peng 2016). In this framework,

further critics are related to the lack of equilibrium between MOOCs' pedagogic, technological and organizational dimensions, as well as to the fixed nature of the MOOC environment which limits the course's interactivity (Atiaja and Guerrero-Proenza 2016).

To overcome these challenges, and going beyond the staticity offered by edX as a platform we developed a new formula combining two different strategies:

1. Adoption of the KU Leuven methodology for the designing and building of MOOCs, based on centered and robust pedagogical support. This resulted essential in the creation of an environment shaped on the educational goals and the subject explored by DETECT.
2. The integration on the same edX platform of aspects belonging both to the xMOOC and the cMOOC. This enabled the creation of a flexible environment where the traditional education structure is blended with openness, connectivism, and participatory teaching.

The combination of these two methodologies was once again shaped to create a sort of synergy between the MOOC public and the DETECT environment on one side and among teachers and learners on the other side.

### ***3.1 Learner's Approach***

Students' engagement in the e-learning platform context has represented the core point of many research studies since the spread of the MOOC as an educational concept (Xing et al 2020). Some of the elements that distinguish the MOOC -such as the independent remote learning, the student's background and culture disparity, limited student/teacher interaction - have often been considered a limitation to the effective delivery of the traditional educational objectives (Phan 2018). This debate is certainly still open especially as far as the effectiveness and quality of humanities-based MOOC is concerned and whether they can represent a good space for developing and practicing critical thinking, speaking, and writing skills (Peng 2016).

The question around the best way to leverage the many potentialities of the online environment, offering a learning experience that could go beyond the traditional -platform-based- space offered by edX, was also at the base of the building process of the edX course on European Crime Fiction. The purpose was not only to successfully convey the research outcomes of the DETECT project but also to ensure the learner's knowledge construction and elaboration.

For this reason, we chose to challenge the main tendency to employ edX as a unique e-learning platform for the users. Instead, we adopted a multi-layer ecosystem which includes

as part of the learning package, the combination of the MOOC platform together with several external environments developed for the DETECT project:

- The DETECT Portal: it is conceived not only to contain research outcomes of the project but to be the core of the learning community. Through the portal it is possible to access the research data, further learning material in form of videos, articles, interviews, etc., as well as the DETECT web app.
- The DETECT Atlas: a consultable analytical atlas of European crime fiction. It contains multiple interactive graphs realized using tools ( e.g. Gephi and Tableau), which help understand crime fiction transmediality throughout Europe.

The combination of different environments has not only the purpose to integrate and support the MOOC educational structure but also to upgrade the learning process with further interactive elements. This structure is strengthened from a pedagogical point of view by the use of Digital Humanities tools to support students' engagement within the online course.

### ***3.2. Teacher's Approach***

Although their role in the context of the MOOC development and design still results partially underrated, teachers' contribution is essential to the process of knowledge construction and creation (Ross et al 2016). Educators and learning designers do not only have to create a coherent educational framework but they also have to make it suitable for the e-learning and individual learning context (Ross et al 2016). In this process, an essential element is further represented by the collaboration between the teachers.

For this purpose, within the framework of the MOOC development based on the DETECT project, it was created a Moodle instance linked to the main DETECT platform (<https://www.detect-project.eu/portal/learning/>). The Moodle is conceived as a content repository for the unique use of the teachers involved in the project, and developed as a testbed platform for the final use of the MOOC platform. In the last two years, the Moodle platform was continuously enriched with content that would be re-shaped and re-elaborated, and used as learning material.

Such a setting would guarantee preliminary testing of the interaction between the students and the content, as well as the communication for the educators in terms of design and refinement of their learning approach and modules structure. This represented an essential element not only to ensure a smooth collaboration among the educators as far as the design process of the course was concerned but also to rely on an external environment that could serve for the preparation of the learning material.

Chief in this regard was the management of the intercultural and multilingual features of the consortium. Although the theme of "Euro-Noir" is a truly European given (there are no EU countries that do not participate in this new "brand" of crime fiction) and although many

works, be it books, TV series or movies, easily migrate from one country to another, the huge presence as well as the wide circulation of this material reveal both the emergence of a common cultural space in Europe and the importance of strong local (national, regional, and even subregional) traditions, habits, preferences, uses and creative reuses of the non-local “import”. “Euro-Noir” is a good example of glocalization, yet in a very particular way. Given the production and commercialization costs of most works, certainly in the audiovisual sector but also in the literary domain “Euro-Noir” productions need to be sold abroad, and therefore local producers (be it a television station in Denmark, a publisher in Bucharest or a film company in Berlin) try to cater to local as well as the global (EU and non-EU) audiences, yet not by wiping out the local characteristics (as was done for many years in, for instance, Belgian comics), but on the contrary by dramatically highlighting these local features. However, the success of this glocalizing strategies which link a “universal” theme (crime) with highly local features, does not involve that all products are received by all audiences, and even less that they are interpreted in similar ways: there remain a lot of cultural and linguistic barriers, that make that not all “Euro-Noir” works are the same. In order to tackle these issues in a creative manner, the DETECT MOOC has not only focused on the international success stories but also made room for productions that have difficulties in crossing regional, national, and linguistic borders. Moreover, the MOOC also demonstrated the differences within each of these two categories: the success of *The Bridge* TV series is not that of the Montalbano brand, while the reasons that prevent female Flemish authors to be read abroad are not the same as the one that limits the audience of certain Eastern-European writers. It was the international composition of the DETECT consortium, but also the already existing collaboration between most of their members and the long-standing tradition of student and teaching exchange that allowed the project not to skip these differences and to convert them into a central focus of the learning experience.

#### **4. Conclusions**

The strategies described in this paper and adopted for the still ongoing development of a MOOC on “European crime fiction” based on the project DETECT, want to represent a possible way to confront the many challenges and- at the same time - emphasize the opportunities that e-teaching and e-learning humanities pose. With this research project, we aimed to highlight on the one hand the relevance and necessity to enhance the dialogue between the research and learning community, fostering the accessibility of the academic research. On the other hand, we expect to offer an example of how alternatives in the expansion of the “traditional” MOOC formula could promote the aperture to new educational solutions within the MOOC concept. Although the project is currently in progress and therefore the lack of data does not allow yet to fully evaluate the outcomes of these investigation, we expect to find in the limitation of the edX platform and especially in the

difficulty of establishing fluid discussions and participations through the internal forum, the main obstacle to the adoption of a social network approach that should ease the creation of a learning community. However, at the same time a comparison with the already completed MOOC on “Creating a Digital Cultural Heritage Community” created with the same educational methodologies and approaches developed for the MOOC based on DETECT, it is already possible to predict a positive response from the students in the engagement, interaction and involvement with the learning content both inside and outside the platform.

The future phase of this research will consist in the analysis of the edX learning analytics as well as in the creation of a final survey. These intend to investigate students’ behavior and engagement and will represent the natural following step of this study.

## Acknowledgments

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 770151.

The views and opinions expressed in this publication are the sole responsibility of the author(s) and do not necessarily reflect the views of the European Commission.

## References

- Atiaja, L., Guerrero-Proenza, R. S. (2016). The MOOCs: origin, characterization, principal problems and challenges in Higher Education. *Journal of E-Learning and Knowledge Society*. 12: 65-76. doi:10.20368/1971-8829/1093.
- DETECT, Detecting Transcultural Identity in European Crime Narratives. (2018-2021) <https://www.detect-project.eu/>
- Mamman, B., Yusof, A., Abuhassna, H., Aly, H., Alahmadi, T.S., Atan, N.A., Harun, J., Said, M., Ismail, Z., Yahaya, N., & Khair, F. (2017). Design and Learning Strategies Applied in Mooc: A Meta-Analysis. doi:10.11113/SH.V9N1-4.1127
- Murugan, P. & Queen, V. (2020). MOOCs as a Digital Learning Platform. *International Journal of Multidisciplinary Research Review*. 3. 28-37. doi: 10.1080/02763869.2014.866490.
- Mullen, J., Filinger, W., Milechin, L., & Henty, D. (2019). The Impact of MOOC Methodology on the Scalability, Accessibility and Development of HPC Education and Training. *The Journal of Computational Science Education*. 10. 67-73. 10.22369/issn.2153-4136/10/1/11.
- Peng, W. (2016) How can MOOC providers create an interactive learning experience in the arts, Carnegie Mellon University, Pittsburgh, 1–13.
- Phan, T. (2018). Instructional strategies that respond to global learners’ needs in massive open online courses. *Online Learning*, 22(2), 95-118. doi:10.24059/olj.v22i2.1160.

- Ross, J., Sinclair, C., Knox, J., Bayne, S., & Macleod, H. (2014). Teacher experiences and academic identity: The missing components of MOOC pedagogy. *MERLOT Journal of Online Learning and Teaching*, 10(1), 56-68.
- Xing, L., Xing Wie, L., & Wie, Z. (2020). Diversities of learners' interactions in different MOOC courses: How these diversities affects communication in learning, *Computers & Education*, 151: 1-11. <https://doi.org/10.1016/j.compedu.2020.103873>.