

## How to develop a mooc step by step in the context of higher education. The TOX-OER project experience

Laura VICENTE-VICENTE<sup>1,2,3</sup>, Marta PRIETO<sup>1,2,3</sup>, Moisés PESCADOR<sup>1,2</sup>,  
Alfredo Ginés CASANOVA<sup>1,2,3</sup>, María Teresa HERNÁNDEZ-SÁNCHEZ<sup>1,2,3</sup>,  
Stefano GIROTTI<sup>4</sup>, Fernando REMIÃO<sup>5</sup> and Ana Isabel MORALES<sup>1,2,3</sup>

<sup>1</sup>Toxicology Unit, University of Salamanca, Spain. <sup>2</sup>Translational Research on Renal and Cardiovascular Diseases (TRECARD), University of Salamanca, Spain. <sup>3</sup>Instituto de Investigación Biomédica de Salamanca (IBSAL), Hospital Universitario de Salamanca, Spain. <sup>4</sup>Department of Pharmacy and Biotechnology, University of Bologna, Italy. <sup>5</sup>Laboratory of Toxicology of Faculty of Pharmacy, UCIBIO/REQUIMTE, University of Porto, Portugal

\* [lauravicente@usal.es](mailto:lauravicente@usal.es)

### **Abstract:**

In the field of Toxicology, a massive open online course (MOOC) called TOX-OER (Learning Toxicology through Open Educational Resources) has been developed, implemented under the Erasmus+ program. This project, led by the University of Salamanca, has been carried out by a consortium of professionals of very different expertises (Toxicology, Chemistry, New Technologies, Pedagogy, etc.) belonging to 7 countries. Its development has involved the use of pedagogical, technical and scientific resources. For this reason, and after its completion, it was proposed to write a book (Spanish-English edition) to share a personal vision that could serve as a guide for others.

The book entitled “Challenges in Open Educational Resources: The case of TOX-OER MOOC” begins with a global vision of Toxicology as an emerging science and the need to promote knowledge through online learning. The pedagogical bases of this type of courses are explained, the term of Open Educational Resources, the use of Creative Commons licenses, and the basic requirements to develop a MOOC. It also details how Moodle was the platform chosen in this project. For the pedagogical scripts, a guide of the available tools, on the variety of resources and activities that can be implemented is included. In the visualization of a MOOC it is exposed from the simple edition of a video, to the use of the YouTube channel. Another issue addressed is the recognition of learning acquired via MOOC. Finally, the bases of Quality Control in this type of courses are considered. This book is available at: <https://toxoyer.com/intellectual-outputs/>

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