

# Chapter 8

## Organizing Digital Production in a Classic Higher Education Institution: The Case of the University of Salamanca

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### ABSTRACT

*The aim of this chapter is to explain one model of organizational unit within universities committed to taking full advantage of the opportunities provided by digital technologies. The correct management of resources for digital innovation and content production is important for Higher Education Institutions in three spheres of activity: digital learning, institutional communications and digital marketing. Here, the implementation of the model in the case of the University of Salamanca is described. The chapter also explores the particular features that the Chief Digital Officer (CDO) role should have in Higher Education Institutions and a description of the process of digital innovation carried out at the MediaLab of the university. Lastly, some important research questions are raised around the phenomenon of the digital transformation of universities.*

### INTRODUCTION

Higher Education Institutions (HEI) are facing pressure caused by several global trends linked to digitalization. These are affecting their activities and could even have an impact on their essence. Some authors believe we are facing a disruptive type of change that brings about core challenges for higher education institutions, which may even threaten their existence. One of the drivers of change is technological innovation. The rise of social networks, the spread of devices that enable users to be connected at all times and the full availability of video content on the Internet are creating a new global landscape for universities. This chapter aims to propose a model for the organization of the production of digital

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content in Higher Education Institutions and will go on to explain its implementation at the University of Salamanca (USAL) in Spain.

The recent experience of Higher Education Institutions with MOOCs (Massive Open Online Courses) has very much brought to the fore the issue of their digital production capabilities. One of the characteristics of the MOOC model is the intensive use of different types of videos (Seaton et.al, 2014). This is clearly a reflection of a major trend within digitization: the enrichment of digital materials and the prevalence of video as the most widely-used format. Universities need to equip themselves with organizational units focused on digital content production. Many universities have mastered the production of paper textbooks but in the present context, they ought to incorporate the capacity for producing teaching videos, ebooks, interactive instructional materials, digital marketing content, and so forth. MOOCs can be analyzed within the *open movement* framework. Open educational resources (OER) were defined at UNESCO's 2002 Forum on Open Courseware as "teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions". In its manifold forms OER are causing a sort of democratization of knowledge. The growth of the open movement has led to the MOOC giving millions of people access to courses offered by elite universities (Yuan, L. and Powell, 2015). Educational content is made available to students on the web and this is bringing about a change of role with regard to the teaching function. The teacher has ceased to be the only holder of knowledge and has subsequently become a guide and facilitator of the learning process. The student profile has also changed; *Millennials* are distinguished by the fact they consider technology as being a natural part of their lives and are permanently connected. It is a generation more focused on action and collaborative work than its predecessors (Howe & Strauss, 2003).

What's more, the development of new digital technologies is providing increasing opportunities for educational applications. The generalization of mobile devices which one can use to access the Internet (tablets and smartphones) has led to the possibility of ubiquitous learning, understood as the learning approach in which ubiquitous computing is used to support students in the right way and in the right place at the right time, taking into account their real world personal and environmental contexts (Hwang& Wong 2014). The recent emergence of wearable devices, such as Google Glass, is opening up a new world of potential educational applications (Nooriafshar 2013). Google Glass is defined as a small computer that can be worn like glasses. The wearer can access its interface and communicate with the Glass by voice command so it offers hands-free operation features and countless possibilities. Potential applications range from the provision of supplementary information during lectures to the capturing of video clips for storage or sharing purposes as part of a subject. Other emerging digital technologies, like 3D printing, have proven to have multiple possibilities in the most diverse educational environments. 3D printing refers to the set of technologies that enable the construction of physical objects from three-dimensional digital content such as computer-aided design (CAD), computer assisted tomography (CAT) or X-ray crystallography (Johnson, et al., 2013). Higher education applications range from making models of fragile objects like fossils for its manipulation by Geology students, to the reproduction of three-dimensional anatomical models that help Medical students understand the right decisions in surgical operations. All these technologies have costs that tend to fall over time, which is facilitating their rapid spread.

Within this context of educational transformation, innovation should be considered as being a continuum, not an isolated event. It should be viewed as an essential part of educational activity. As a consequence, universities should create permanent spaces and establish well-defined procedures to encourage experimentation with new digital technologies and, ultimately, their application to teaching

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