

## **ARTICLES**



## **GEOGRAPHY AND MOOC. ANALYSING THE STATE OF THE ART**

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Different tools are applied to transmit Geography by universities, schools, and professionals... Nowadays, the university teaching is in a process of reflexion and evaluation about concrete pedagogical guidelines, which help to innovate and understand the actual exigencies of the information society. The use of TICs and the new methods in E-Learning are essentials, and for the Geography cannot be indifferent. This discipline was reconverted with the application of Moodle platforms or Webs 2.0. during the last decade, for example, to teach Geographical Information Systems (GIS) or dense topics like Political Geography.

Despite the relative novelty of MOOC (*Massively Open Online Courses*) in the virtual academic world, today this tool represents a great achievement for the virtual and real time learning. COURSERA, EDX, FUTURE LEARN, IVERSITY, LYNDIA, MOOC-Advisor Beta, OPEN2Study, SAYLOR.ORG and UDACITY are examples of international platforms, which work to design and prepare only specific courses. On the other hand, some Spanish MOOC platforms are AbiertaUGR, MiriadaX, REDUNX, UNED COMA and Unimooc. Furthermore, there are available courses about Geography (associated direct or indirectly). The creation of different topics with audio-visual materials and interesting elaborated texts, along three or four weeks (depend of course), free access and without economic costs are some characteristics of the MOOC.

Of this form, the objectives of this study are: a) to analyse if the MOOC are helping to defund the Geography on Spain and the rest of the world; b) to observe

the different proposals and the trend of the topics; c) the applicability of the courses for the professionals of the Geography in the actual job market (land management, elaboration of cartography...) and the students.

In this study, a description of the search is carried out on the MOOC related concretely to Geography in the main virtual platforms existing in Spanish and other languages, followed by a comparative analysis of the results in terms of presence and principal topics, mainly. Geography, geographical or similar words and topics (GIS, land management...) should be at the titles of the courses to consider in this study about MOOC of geographical thematic. Furthermore, other important aspects also are taken into account such as the need of interdisciplinary approaches in order to offer interesting topics and contents, as well as the importance and the potentials of geographical instrumental knowledge (e. g., GIS) in the current society. A continuation, several tables of the concrete characteristics are designed with different information to compare and analyse: name of the course, platform, duration, language, objectives, topics, methodologies, type of evaluation, requirements and pre-requirements on the profile of the admitted students and observations.

After that, in the light of the results of the courses analysis, some considerations about strengths, weaknesses, opportunities, and threats are proposed using a SWOT. This useful tool is applied fundamentally for marketing analysis, but also was noted the effectiveness for studies of Didactic of Geography.

Some of the main results from the SWOT are the following:

Related to Weaknesses:

- Very general topics from Descriptive Geography (lack of practical application)
- Orientation towards a knowledge from a traditional and geographical limited approach
- Titles are unattractive and too general
- Little or no description of the methods of final evaluation (e.g., Final exam, reviews...)
- The found courses are offered only in one language
- As, they are organized to be carried out by internet and massively, its structure is rigid, hence there are limitations in adapting Geography courses

Related to Threats:

- They can be unattractive to potential participants for their little applicability
- The widespread ignorance of the work of professional Geography

- The contents of geography or some instruments used in the discipline (e.g., Remote sensing and GIS) can be difficult for certain group of students who do not have the skills or knowledge required beforehand
- They promote building new educational spaces and using different tools that promote communication and collaboration, but leaving out the fieldwork (so important in the Teaching of Geography)

Related to Strengths:

- They can have a wide application in key areas of knowledge and management of the world by its territorial applicability (e.g., planning)
- They present topical issues such as climate change and the management of water resources, which by its holistic nature, may also provide new insights from a more global level
- They do not require complicated software installations, for which students can access the data without any problem
- In the MOOC platform, you can share different multimedia resources of Geography (video, internet links, files of different types, etc.). This promotes awareness and dissemination of geographic information.

Related to Opportunities:

- It can mean a great opportunity to learn about the geographical discipline to other scientists, entrepreneurs and other people interested in research or teaching
- Geographers can access a lot of MOOC thanks to its versatility and breadth of knowledge
- The courses offered on geographical tools, such as GIS, mean an interesting and powerful topic for geographers and experts from other disciplines
- They promote the collaboration in multidisciplinary teams
- They promote the sharing of knowledge and experience between scientists or teachers from different regions, countries and branches of knowledge, and encourage the exchange through digital resources (blogs, learning communities), etc.
- They can help in the creation of new information in the field of spatial planning, environment, digital mapping, among others
- The open access mapping software (GIS) can use these platforms to promote and improve their products

Through this study, as a main result, it is worthy to point out the limited presence of the Geography in this kind of courses. Furthermore, important aspects should also be taken into account such as the need of interdisciplinary approaches in order to offer interesting topics and contents, as well as the importance and the potentials of geographical instrumental knowledge (e. g., GIS) in the current society.