



The Academic Revolution in the Cyberspace: the IPSA Portal goes MOOCs

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fter Plato, transmission of know-how in the higher learning environment has been made through a mix of two media: written material and instructions for its use, which in academic parlance has been commonly understood as teaching. In the cyberspace, both media have undergone a major transformation. The first one has concerned the learning and research material at large, with books, journals, data banks and all sorts of archives turned into electronic sources. The second has taken more time to develop, yet it is hitting the university world with the force and speed of a disruptive revolution. Over the last three years, MOOCs, an acronym which stands for Massive Open Online Courses, have enrolled more than 50 million students to open access courses offered by a growing number of high ranking universities worldwide. Stirring a spirited debate about the consequences for the transformation, if not survival, of the university system.

In this paper, we shall present two projects that have been developed to understand, interact and cope with the new frontier of electronic studying. Both projects have an experimental focus. That is, while they rely on intensive background research, their main aim is to provide services and tools that may help the academic community to make a better use of the tremendous opportunities offered by the new cyber environment. For purposes of diffusion and communication, both projects have found a valuable hub at the International Political Science Association, thus resulting in a joint-venture between IPSA and the University of Naples Federico II, where they have been developed and funded.

Due to space constraints, we shall provide only a brief presentation of the projects' main features, which shall be introduced by an overview of the key changes occurring in the larger electronic scholarly universe where both IPSAPortal and IP-SAMOOCs are positioned.

IPSAPortal: a PS Gateway to the Electronic Alexandria

Through its past 2.5 millennia of glorious progress and diffusion, text has suffered from two major limitations: accumulation and access. Written text was bulky and, though things had greatly improved from scrolls to paperbacks, the amount of text available to the individual reader had strong space constraints. As a consequence of accumulation limits, easy access was available only in specialized sites. All through the Middle Ages, monasteries were the privileged depositories of written culture. Large cities added locations. However, a huge collection of books would still remain inaccessible if no consistent guide were provided to its contents and disposition. Catalogues soon became the indispensable companions to any larger library. Yet, browsing through authors, titles and subjects offered but a minimum insight into the hidden maze of pages ordered by bookbinding. You could search for a single book. Not for a single page or sentence, let alone individual words. The written universe remained, to a large extent, unexplored territory.

In the new reading environment created by the Web, the limitations of accumulation and access have disappeared. On a screen we now have immediately available the whole world of electronic publishing, one that is fast outgrowing the volume of all text written or printed throughout the previous 25 centuries. This universal library without walls can be browsed at the speed of light through any of the last generation all-powerful search engines.

The new electronic Alexandrias are making books, articles, official documents, research activities accessible to larger and larger sections of the world population. A tremendous chance for mass intellectual progress which can only be compared to the birth and diffusion of printed books. Yet, it is not just a question of a lot more knowledge for a lot more people. Well beyond quantity, there is a quality leap at stakes in this process of electronic mass access to knowledge. A discontinuity in the scholarly brainframe, to use Derrick de Kerckhove's paradigm about human understanding.

The International Political Science Association has developed IPSAPortal as a contribution to help scholars worldwide make the best of this new frontier, by selecting, reviewing and introducing extraordinary wealth and variety of sources that can now be accessed on the Web as a "library without walls".

Aim of IPSAPortal, an IPSA official publications, is to foster on-line research, providing authoritative guidance to students and scholars worldwide. With a special concern for political scientists from developing countries, where access to electronic sources can become a formidable substitute for the lack of adequate libraries.

In its present format, the Portal hosts over 300 relevant reference sites for on-line research in political science. Each site is listed under one subcategory of five main headings and is provided with a short abstract, a link to its actual location and an indepth site evaluation. A quick look at IPSAPortal classification offers a preliminary insight into the variety and scope of online sources:

Access services. An Access Reference Service provides access to specialized data banks for third parties, on the basis of a special agreement with the publishers.

- *Library Catalogues*: The Library Online Public Access Catalogues or OPAC are integrated databases provided with their own search engines.
- *Indexes and Abstracts*: are reference services providing access to specialized data banks containing brief descriptions of journal articles or table of contents, with links in many cases to the original full text source.
- Articles and Books: are reference services providing access to specialized data banks containing full-text journal articles, books and book reviews.
- *Encyclopedia*: refers to online reference and information services providing proprietary content in the format of simple and concise information in the various fields of knowledge.

DATA BANKS. Data Banks are perhaps the fastest expanding category in the universe of electronic text. They offer direct access to a variety of sources: from newspaper articles to juridical archives, from statistical publications to polling records.

- Official records: are databanks that contain governmental outputs as laws, statutes, regulations and court opinions at various levels of the political system (from congress to courts and beyond).
- *Media Sources*: refer to online access to newspapers, magazines, wire services and electronic media. Thousands of worldwide newspapers, magazines, journals, financial data, public and legislative records are accessible via these databanks websites.
- Statistical and Data Archives: offer access to a variety of demographic, economic, political and social statistics.
- *Special Collections*: are websites collecting highly specialized materials in different formats.

Institutions. This category presents here an overview of how Political Science organizations conceive their own presence within the web environment.

- Associations: lists a sample of professional transnational, national and subnational Political Science associations.
- Schools and departments: presents a selection of faculties, schools and departments more active in the online presentation and management –of Political Science teaching and research activities.

THEMATIC SITES. We have grouped under this heading websites reflecting a core research focus, relating to an institutional centre or an individual scholar. In many cases, thematic sites develop as/into networks of people/organizations sharing a common interest.

- *Research Institutes*: are research structures inside or outside of universities focusing on a specific field of activity.
- *Thematic networks*: are joint undertakings of institutions and/or persons sharing research projects and activities.

E-LEARNING. e-Learning has rapidly achieved a prominent position in all major universities, with online teaching and distant education becoming a standard feature of university degrees curricula.

- *Comprehensive*: This sub-category refers to major educational institutions active in providing e-learning courses/degree as well as information about on-line teaching methodologies and technological platforms.
- Courseware: Under this label are syllabi and other electronic teaching materials provided by individual scholars and/or faculties/departments to be used as e-learning objects.
- *Videolectures*: This section deals with the multimedia developments in scholarly environment: lessons, lectures, seminars in video format.

The MOOCs Challenge

Much as the electronic Alexandria may offer tremendous opportunities for cultural advancement worldwide, there has been a missing link for a full-fledged use of open access scholarly sources. This link is authoritative guidance. Projects as IPSAPortal may contribute to popularizing what is available on the Web, and how to find one's own way through such an unlimited maze. However, the century old formula of higher learning calls for a more structured path for selecting and sharing education: the path of university teaching. After two decades of controversial experimentation of various e-learning platforms, the academic electronic environment seems to have at last found a successful format, by bridging the delivery of top quality content with the huge numbers of students made available through the Web 2.0 social networking. The format is MOOC, Massive Open Online Courses.

Although the first MOOCs experiments date back to 2008, it was in 2012, with the development of bespoke MOOCs platforms that the phenomenon gained momentum prompting the New York Times to dub it the year of the MOOC. MOOCs are a new way of delivering open access, online courses that can be scaled up to reach potentially limitless numbers of users, crossing geographical boundaries to offer quality learning content to the global market. MOOCs are offering great opportunities to improve teaching and learning methods as well as a new environment for cooperative efforts to generate and spread knowledge around the world. While different positions on the nature and outcomes of such transformation have been presented in the public debate, many among the most authoritative US and European universities are investing a significant amount of financial and organizational resources to take up the new weblearning challenge.

The International Political Science Association has recently launched a pilot set of PS courses in cooperation with Federica Web-learning, the portal of the University of Naples Federico II, with an established record of 300 e-learning courses and over 5000 lessons. The IPSAMOOCs program will benefit from previous Ipsa projects, such as IPSAPortal, the IPSA official publication dedicated to the retrieval and evaluation of web sources for Political Science. The launch of IPSAMOOCs is scheduled for late Spring 2015, with two courses already in an advanced production stage: Comparative Political Systems by Gianfranco Pasquino and Comparative research designs and comparative methods by Dirk Berg-Schlosser.

In IPSAMOOCs, each course will follow a common format to enhance user experience across different PS subdisciplinary areas. Special attention will be devoted to the integration of traditional video and audio material with an intensive use of web

sources. With an innovative interface, the portal will offer interactive classes to students, with no geographical constraints. The platform will also include a tool to analyze data from students' online activities to provide a better understanding of teaching and learning political science in a digital environment.

In a first step IPSAMOOCs will cover the basic skills and "conceptual maps" of studying political science, followed by a high-quality (core) curriculum of political science as a second step. The "basics" include:

- basic introduction into the subfields of political science, in particular into comparative politics, public policy, international relations, and political theory (afterwards, particular MOOCS on parties, NGOs, parliaments, public administration etc. can follow for all branches of political science);
- basics of epistemology and methodology of political science (from concept formation and operationalization to data collection and data analysis, and from there to theory building (could later be easily connected with IPSA summer schools);
- introduction into the art of finding books, articles, data, relevant websites etc. (into which could be integrated the present IPSAPortal).

The audience of IPSAMOOCs may include European and North American scholars or their well-trained graduate students, but the primary targets are political scientists in the global south and students in their first years of academic education. Therefore, MOOCs need to be clear and easily understandable. The standard IPSAMOOC format shall consist of:

- short video lectures by the author, made especially for use in MOOCs (no "real life lectures"). These should be starters for each MOOC, sometimes even for each part of the MOOC. Authors should note that videos cannot be updated as easily as texts and diagrams, and therefore should be limited to general and lasting issues;
- PowerPoint slides which accompany the video lectures and contain the core of the essential information. It is important to include hyperlinks to relevant websites (sources, data, illustrations, videos / audio clips, websites, further readings, etc.) in these "slides", because this makes the exuberant information in the internet available for well-directed teaching;
- audio clips that accompany and explain illustrations, pictures, diagrams, tables In general, audio clips are preferable to video clips, since users are inclined to listen while looking at additional items, but not to watch the same speaker for more than a few minutes;
- a list of further readings, (ideally referring to texts available on the internet or as e-books);
- exercises, based on the information provided by MOOC materials.

The first MOOCs shall be in English, while in the course of the whole enterprise MOOCs in French and Spanish might be produced as well, including translations of already existing MOOCs.

A Moving Frontier

Electronic work comes as no news for the contemporary scholar. We now take for granted that most if not all of our writing takes place in front of a computer, as well as a large amount of our reading. Not to count the ever expanding mass of emailing, with their endless feedbacks and attachments. To the extent that our mind, à la Pierce, is but an extension of our means of expression, we are all becoming electronic thinkers. Yet, when it comes to teaching, the classroom has remained a stronghold of traditional face-to-face interaction between the students and their professors. With the advent of MOOCs, teaching too seems to be due for its own cybertransformation.

IPSAPortal and IPSAMOOCs offer an integrated platform for experimenting, interacting and sharing this new challenging environment. It is open to the political science community and beyond, to all citizens with a quest for understanding how the study of politics can improve their own lives. Welcome aboard.