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Digitalization and Political Science in Belgium

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1 Introduction

For the last twenty years, political scientists in French-speaking Belgium have been federated under the French-speaking Belgium Political Science Association (ABSP) which is the IPSA representative for Belgium and heir of the once unitary Belgian Institute for Political Science. ABSP just celebrated its 20th anniversary and published a book in French that offers the state of the discipline in terms of teaching, research, and service: *L'ABSP: 20 ans de science politique en Belgique francophone* (Reuchamps et al. 2017). No fewer than 43 political scientists from all Belgian French-speaking universities and from the different fields in the discipline contributed to this edited volume. In this chapter, we build on these insights to present the state of political science in French-speaking Belgium in regards to the digital (r)evolution. Based on longitudinal data and perspectives about teaching, research, and service, we seek to assess how political science evolves in our – small – part of the world, with a special focus on how it has embraced (or not) the digitalization trend in the discipline.

2 Teaching and learning

2.3 Main trends

Four main trends can help describe the evolution of education in the field of political science in French-speaking Belgium[1]: growth, specialization, autonomy, and internationalization. These four trends have been made possible by the digitalization of the discipline, which makes teaching and learning much less dependent on the territory in which it is organized.

The first trend is without doubt "growth", which can be measured by two indicators. First, there has been an important growth in the number of students enrolled in a political science curriculum. This trend affects all disciplines at the university: since 1996, there

[1] Because this article focuses on political science in French-speaking Belgium, and as a consequence of the Belgian federal structure, the article deals with the reforms adopted by the Government of the French-speaking Community in Belgium, responsible for education in French-speaking Belgium.

has been a global 50 % rise of the total number of students enrolled at university. Among other rationales, this can be explained by the so-called "Bologna" reform (in reference to the pan-European Bologna agreement), thanks to which a bachelor program now lasts three years instead of two, and this throughout Europe. But when it comes to political science, the growth is much more important: the total number of enrolled students grew by 84.3 % in the last 20 years (Paye, Pilet & Reuchamps 2017). The other specificity of the discipline is the higher than average percentage of students enrolled at the master level. This specificity can be explained by the fact that many students are opting for a master's degree in political science after having studied for their bachelor in another discipline. Secondly, there is a growing range of available master programs. If there is still only one bachelor's in political science, there are now plenty of different master programs available: European studies, public policy, democratic innovations and transformations, comparative politics, international relations, etc. This trend is growing, for instance with the creation of an inter-university master program in gender and politics.

Moreover, this growing number of master programs also testifies to another trend. It mirrors the gradual specialization of the discipline, also observable when it comes to political science research (e. g. an increasing number of specific working groups and specialized journals, see below). Students are indeed asked earlier to choose a specific field of specialization, either a regional field or a more precise subject of research. This early orientation is made possible by the diversification of courses during the bachelor, even if all students still receive at least an introductory course in each subfield. Students can now choose from a large spectrum of subjects, such as European studies, international relations, or public policy already at the bachelor level.

The third trend is the growing autonomy of the discipline. Twenty years ago, and with the reform of 1996–1997, political science became a distinct field of studies. Before the reform, political science was part of broader programs in social sciences, economics, or law. Consequently, the course offer at the bachelor level today includes more courses from the discipline and less courses from related disciplines such as history, sociology, psychology, or law. Twenty years ago, political science constituted around 10 % of the total amount of courses. Now, this proportion sits around 30 %. These specializations and this strengthened autonomy also reflect in the growing number of political science textbooks designed for a teaching purpose (e. g. Balzac et al. 2014, Delwit 2018) and in the development of an expanding online offer in political science designed by Belgian political scientists (see below for details on MOOCSs and SPOCs).

The last trend is internationalization. On the one hand, the programs increasingly include courses taught in English, to the point that it is sometimes even possible to follow an entire curriculum in English. On the other hand, the profile of the enrolled students is a strong sign of internationalization. Approximately 25 % of the students enrolled in a political science degree in Belgian French-speaking universities do not have the Belgian nationality (Paye, Pilet & Reuchamps 2017). Compared to the average number of international students in other disciplines, this rate is quite high. However, these rates vary from one university to the other. For instance, at the *Université libre de Bruxelles* (ULB), the average rate of international students is higher (around 26 %) in all curricula compared to the five other universities. The proportion of international students enrolled in political science is even higher and averages to 39 %. The picture is quite different at the *Université de Liège* (ULiège), where the rate of foreign students enrolled in political science compared to all curricula are quite similar (around 12 %). The EU enlargements, the vibrant success of the Erasmus program, the Bologna process that standardized the political science curricula for all universities, but also the availability of online information for future students wherever they might be based, all facilitate the circulation of students, de-territorialization and internationalization.

2.2 Digitalization of education

During the last decade, Belgian universities gradually started to use the Internet, numerical and digital innovations as tools to help them reach their educational goals: to stimulate the creation and the diffusion of knowledge. These so-called "tools" are more commonly associated with the broader concept of e-learning devices. The European Commission (2001) defines e-learning as the use of new ICT and the Internet to improve the quality of the learning process by making the access to resources and services easier, and also by facilitating distance collaborations and exchanges. This broad definition usually encompasses a great range of tools, such as online platforms, podcasts, video-conferences, MOOCs (Massive open online courses), SPOCs (Small private online course), televoting and free online publications of scientific articles.

A major e-learning tool used by Belgian French-speaking universities is the online platforms. These are also sometimes called "online campuses", which exactly pictures what one can find on those platforms. It is broadly speaking a virtual desk where students can retrieve all necessary information regarding their courses, reading material, homework, the teacher's contact information, etc. These online platforms began to develop in the 2000s and were shortly after followed by other innovations. Already in 2009, the ULiège and the ULB for instance recorded some courses in order to make them available even for students who were not able to attend classes. These podcasts, recordings of the courses, are made available on the online platform. The *Université de Mons* (UMONS), at approximately the same period, began to develop a system of video conferences to let students take part in the class even if they could not physically attend. The main advantage of such devices is to make teaching more flexible and more accessible to all students. More recently, all the universities have been pressing to make not only the course material but also scientific publications accessible to the greatest number people possible, for free. Two laws ('decrees' of the Parliament of the French-speaking Community) have been passed: one on the obligation to offer all teaching material to the first-year students (and later on for all students) for free and the other one fostering open access. Therefore, universities are steadily developing tools to allow (or even compel) the authors to publish their articles and books on an online platform where these could be downloaded for free in an open both education and research perspective. In 2016–2017, the ULB launched a project of electronic, interactive syllabus. This new digital tool allows students to edit and enrich or personalize the content of the course material provided by the teacher. Teachers can add videos, links or notes as well to their own course material. This new tool is designed in the perspective of co-constructing a course content, and as a way to adapt the course content throughout the semester. At the individual level, an increasing number of professors make use of televoting, and sometimes also chats, in their classroom. These tools are designed to maintain the attention levels of students and to enhance interactions in large classrooms, which are widespread in French-speaking Belgium.

Some other innovations are following this principle of greater accessibility, but also include additional advantages. These are for instance the MOOCs and SPOCs. A MOOC, as its name indicates, is an online course open to everyone for free. Basically, these combine *ex cathedra* courses (basically a video of teachers giving their course, either in the classroom or in another -more dynamic- setting) and interactive forums where students can ask questions to one another and to the teaching staff and discuss about the course, do practical exercises, tests, etc. Students eventually obtain a certificate, although without any juridical value. This is exactly what makes a SPOC different from a MOOC. The former is only open to a small number of enrolled participants, who therefore get more attention and personalized follow-up by the teacher and, in the end, get a certificate, that can be valued on a résumé. The *Université catholique de Louvain* (UCL) has developed so far two

SPOCs in political science, focusing both on international relations. They offer online certificates in international relations and conflict analysis, and in geopolitical analysis of major powers. These are curricula embodying four different courses with a personalized follow-up, readings, power-point presentations, etc. These curricula lead to a certificate, that can be valued on the labor market and, more recently, can lead to a full online master's degree.

Since their launch in 2007, the MOOCs' popularity has not stopped growing. In 2017, there were 81,000,000 subscribers in the world (all disciplines, courses and platforms taken together). Besides, to respond to the growing demand, more and more courses are developed (1,800 new courses only for the year 2015, 6,850 in 2016 and 9,400 in 2017)[2]. These online courses are now covering the whole spectrum of research fields, from computer science to humanities.

In Belgium, the UCL was the first university to integrate these online tools, in 2014. Soon after, other universities followed (ULB, ULiège). In the first year, the UCL's political science MOOC gathered a great success among both UCL students and international subscribers, as 52,765 people enrolled, according to two distinct profiles of learners: students registered for a course in which attendance to the MOOC sessions are compulsory, and anyone who is interested in the subject of the course.

When it comes to political science, the three largest Belgian French-speaking universities have integrated a MOOC in their political science curricula. The UCL has developed a MOOC, "Discovering political science", dedicated especially to 1st year bachelor students, who have to complete the MOOC as part of one of their "traditional" (class-based) courses. The ULiège has also developed its own MOOC about international migrations and their impact on society. This MOOC is dedicated to master students who chose the "Population and development" option. The ULB also has its own MOOC ("Poll and survey methods"), which can be followed by all students in social sciences, because it regards methods more than content.

Another innovative digital tool that can be used by university teachers to make their courses more interactive is televoting devices. These can take the form of either voting boxes in the auditorium or online platforms allowing votes and comments on a question asked to the assembly, using a computer, a smartphone, or a tablet. These tools are also used during other events, such as public lectures, for instance.

What exactly are the main advantages of these digital tools for teaching political science? First, they allow the teacher to be not only a mere information provider, but rather a person with whom to exchange, discuss, debate and go deeper in the course material during class hours. This is made possible by the fact that the raw course material can be made available to students online – thanks to the MOOCs or Podcasts, for instance – so that when they come to class, they can discuss with their teacher, whose role is thus transformed (Masters 2011) if teachers take the opportunity of using these digital tools to organize a flipped class. A second advantage is the flexibility. With online podcasts and MOOCs, it is possible for students to access the course material whenever and wherever they want (Adamopoulos 2013). Also, their online availability makes it possible to watch the videos over and over again until the material is understood. Even if they demand a huge volume of work to the teachers in charge, MOOCs allow these teachers to think about their course, to change and improve them. Online courses also allow the knowledge produced in our universities to reach all regions of the world for free, to make it available for people who otherwise would not have had the opportunity to take such courses.

[2] Data available at: https://www.class-central.com/report/mooc-stats-2017/ and https://www.class-central.com/report/mooc-stats-2016/, accessed on 03-19-2018.

However, four elements come in the way of achieving a genuine large-scale participation in MOOCs. Firstly, the great majority of students enrolling in MOOCs worldwide and in Belgium is composed of people in their late twenties or early thirties. They also often hold at least a bachelor's degree and work full-time (Baudewyns et al. 2017). If diversity in terms of socio-economic background remains a challenge, the findings regarding diversity of geographical origin are more optimistic. Indeed, on the EdX platform for instance (the one used to host UCL's MOOCs), one can find students coming from at least 150 countries (De Boeck, 2014, Delwit, 2015).

Secondly, the great number of registered students is balanced off by the high average dropout rate associated with MOOCs. Only approximately 5 to 10 % of the people initially enrolled manage to obtain the final certificate at the end of the course (Anderson 2013). This low retention rate can be explained by the fact that a MOOC can only be completed for several weeks (from 4 to 10, usually). The high dropout rate could also be explained by the fact that most students enrolling in the courses are motivated by an interest in the subject of the course, i. e. in acquiring more knowledge (Schiffino et al. 2015). In a way, they do not care about getting the certificate, either because they are still 'regular' students at the home university of the MOOC or that they already graduated from somewhere else and do not feel the need of getting a certificate.

Thirdly, in addition to this low success rate, another element mitigates the hopes raised by MOOCs in terms of knowledge spreading among people who would never have set foot in a university without these tools: it is the typical profile of the students eventually getting the certificate. Active learners who reach the end of the program and get the final certificate are people in their late twenties or early thirties, educated and employed (Breslow 2016).

Fourthly, if there is a great diversity in terms of geographical origin, MOOCs often fail to penetrate in less developed African countries, for instance, mainly because the Internet connection is often not good enough in these areas of the world. The digital divide is therefore a crucial element that has to be worked on in order to help the MOOCs reach their goal of openness and spreading of knowledge worldwide. Another challenge faced by these digital tools is that some teachers and students have to make extra efforts to be able to use those technologies, it can sometimes take a lot of time and energy. Also, platforms and courses are often taught in English[3], although some MOOCs offered by Belgian French-speaking universities are offered in French. Based on all these elements, the "massive" and "open" nature of MOOCs and Podcasts can be put at risk.

The potential offered by digital tools is also endangered by two other elements linked to the quality of the knowledge made available. On the one hand, MOOCs and Podcasts are sometimes said to trigger a movement towards a greater uniformity and standardization of knowledge, as students around the world follow the same courses given by the same teachers and produced by the same universities, with the same content (Durance, Boullier & Kaplan 2014). This risk is for now balanced by the not so "massive" character of these tools (see above).

On the other hand, teaching with a MOOC or Podcast requires specific skills from the teachers, who are most of the time not trained for this purpose. We might be missing the pedagogical opportunities and potential that MOOCs can offer because teachers simply lack the training and the competencies to fully make use of these new digital tools (Durance, Boullier & Kaplan 2014).

[3] 75 % of the available courses (all countries, disciplines and platforms taken together) were in English in 2015: Data available at https://www.edsurge.com/news/2015-12-28-moocs-in-2015-breaking-down-the-numbers.

Overall thus, all universities have been in the process of implementing new tools in the form of virtual campuses, virtual syllabuses, televoting and chats in the classroom, and podcasts and MOOCS. Universities have dedicated resources to set up TIC-learning teams that encourage the teaching staff to introduce these digital tools as part of pedagogical innovations. On top of the impetus from the universities, the French-speaking Community has also introduced two pieces of legislation that are pushing for more use of digital tools in the classroom (as already indicated, one regarding the availability of course material to all students, and one on open access of publications).

These factors have led to a fast-growing use of digital tools in the teaching *methods*. It is striking to see, however, that digitalization has not fully reached significantly the teaching *contents* so far. The traditional political science programs do not offer specific courses on the matter in French-speaking Belgian universities, beyond the classic 'political communication' courses. The extent to which digitalization is covered highly depends on the nature of the course and the willingness of the teacher to integrate these issues in his or her course. No distinct professorships or chairs have been created on the topic.

3 Research

Research in political science has faced the same trends as teaching, partly thanks to the digitalization of research: growing autonomy from other fields and specialization. The digitalization is mainly used as a facilitating tool and has contributed to enhance the visibility of the research output[4]. As for teaching, digitalization as a topic has not fully reached the research output and content produced in French-speaking Belgium.

3.1 PhD

Growing autonomy and specialization can be observed when it comes to PhD training. First, a growing number of PhD diplomas have been delivered between 1990 and 2016 (see Figure 1). These numbers were rather stable until the early 2000s and then rose drastically in the mid-2000s. The highest number of PhD diplomas delivered was reached in the years 2013–2014. This trend is part of a more general trend that can be observed in most European countries and the United States or Japan.

[4] Research in political science in Belgium is mostly done inside universities and independent research centers. Most researchers and PhD students maintain a tie with a university. Yet these are not the only sources of funding. In French-speaking Belgium, the Fonds de la Recherche Scientifique-FNRS (F.R.S.-FNRS) supports researchers and plays an important role in shaping the structure and the development of fundamental research. This is of course not the only source of funding available for researchers. Other structures also play an important role in supporting fundamental or applied research. These are for instance the European Union, the Walloon Region, the Brussels Region or the universities themselves.

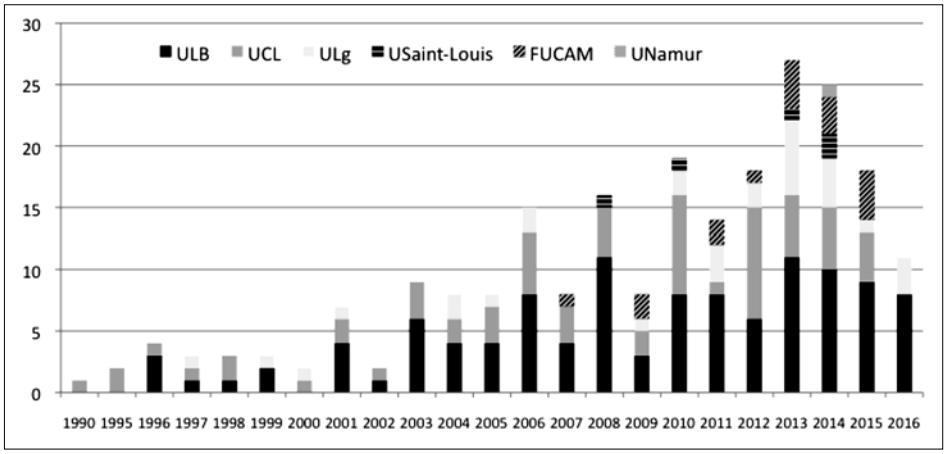

Figure 1: Number of PhD diplomas delivered by Belgian French-speaking universities between 1990 and 2016[5]
Source: Van Haute & Van Ingelgom (2017)

Second, the profile of PhD researchers has changed and has internationalized. PhD students in French-speaking Belgium increasingly choose to write their dissertation in English rather than in French. It can be due to the fact that their knowledge of English is better than their mastering of French, since we observe that many PhD students are not native French speakers. It can also illustrate the fact that the academic world is more and more dominated by English (Laponce 2004). It is indeed the language used when communicating results to international colleagues or when publishing in international journals.

Third, the profile of PhD researchers has become more feminized. The absolute and relative number of dissertations written by women has grown steadily these last 10 years. Between 1995 and 2005, only 27 % of the dissertations were written by women. Between 2006 and 2016, this rate reached 46 %. This trend is, of course, not only affecting Belgian PhDs. At the U. S./European level, the number and proportion of female PhD students are also growing at approximately the same speed[6].

3.2 Visibility

Digitalization has clearly enhanced the visibility of the research output in French-speaking Belgium. We investigate three indicators to measure this visibility: the number of papers published, the number of citations on Google scholar, and the presence of researchers at the main international conferences of the discipline. Here, the data only relies on members of the ABSP, which can be considered as a representative sample of the network of political scientists in Belgian French-speaking institutions.

5 In 2017, ULg became ULiège and, in 2011, FUCAM merged with UCL and became UCL-Mons.
6 Eurostat: Students enrolled in tertiary education by education level, program orientation, sex and age [educ_uoe_enrt02].

3.2.1 Publications

The greater visibility of political scientists in Belgian French-speaking institutions can be measured by their publications in international journals. Three trends illustrate the evolution in this field. First, the number of publications of the ABSP members per year has been constantly growing since 1995. The total number has shifted from around 20 publications per year in 1995, to 50 at the end of the 2000s, and it now exceeds 100 publications a year. Second, among the 32 journals in which there were at least 5 publications of ABSP members, 11 publish in French and the others do so in English, which clearly shows the dual nature of the ABSP, a French-speaking association open to the international. This pattern is rather stable, even if there are other signs of internationalization. Third, publications diversify, thereby illustrating the diversity of fields covered by the members of the ABSP. Aside from some generalist journals, political scientists also publish more and more in specialized journals dedicated to their sub-field. This also reflects the general trend towards specialization of political science. The ABSP, of course, follows this trend by making the creation of working groups possible. There are now 12 different working groups: democracy; elections, political parties and public opinion; Europe; federalism, regionalism and decentralization; gender and politics; migration, cultural diversity and politics; international relations; political theory; public policy; research methodology; social issues/social conflicts; globalization, international governance and mutations of state and nations (REGIMEN). None of these working groups so far focuses directly on the digital in political science. However, these aspects are indirectly part of existing working groups, such as the one on elections, parties and public opinion; and democracy. Our analyses of the publication output do not reveal the emergence of a sub-field on digital aspects in specialized journals.

3.2.2 Google scholar citations

Google scholar gives an overview of the visibility of the political scientists in Belgian French-speaking institutions. On average, in August 2016, ABSP members owning a Google scholar account have 440 citations. Nevertheless, there are strong fluctuations around this mean between junior and more senior members (6 senior members do indeed have more than 1,000 citations). This can be explained by the simple fact that the senior members and the junior members are at different stages of their career. Also, it can be noticed that there has been a growing number of citations of ABSP members having an account on Google scholar between 1996 and 2015, which probably testifies to a real growing number of citations but also to the fact that these are more systematically recorded online – what obviously strengthens researchers' profile as they can use these figures when applying for a new job, for instance. Digitalization can thus become an asset on the job market.

3.2.3 International conferences

The visibility of political scientists in Belgian French-speaking institutions can finally be measured thanks to the number of ABSP members present at the international conferences, using the activities of the European Consortium for Political Research (ECPR) as a benchmark. The number of ABSP members taking part in those conferences was quite small from 1995 until the mid 2000s. However, since 2010, the situation has drastically changed. Indeed, in 2011, 47 members out of over 150 took part in the ECPR conferences. Beyond online networking and information spread, this shows that physically attending a scientific conference remains a way through which research outputs are shared and discussed.

3.3 Digitalization of the research

These last 20 years, new ICT tools have penetrated academic research, affecting the work of scholars, their publication strategies, as well as their interactions with colleagues or audience. French-speaking Belgium follows that global trend. The main goals behind building and using digital tools are the same as the ones behind the creation of journals in the 17th century. These tools aim at making knowledge more easily available for a greater number of readers, inside and outside the academic world. Secondly, they aim at building a better and more effective science creation process. This pattern makes it increasingly important for researchers to develop new skills to be able to benefit from such devices. It also reinforces the ongoing trend towards an English-speaking community of scholars, where English is now more than ever the *lingua franca* of scientific research.

3.3.1 Publication process and access

The first major trend affecting scholars' professional life is their growing presence on the Internet and their increasing use of it to get access to resources and data as well as to publish articles. This trend encompasses a strengthened use of Google and Google scholar to find publications or data (Ware 2009), a growing availability of data online, and an increasing availability of publications online. Even if scholars are historically reluctant to share their data (because of competition or lack of time, for instance), some institutions are now compelling them to upload their findings online to make them available for other researchers. This is often the case for statistical data (e. g. survey data) as well as for official texts from institutions (laws, statutes, etc.).

Publications also appear often, if not exclusively, online in addition to or as a substitute for printed journals. When it comes to political science, 1,403 journals are now available in the world, online and in their printed version. 193 are only available online. Among those, 179 are free journals, which testifies of the increasingly important movement towards open access. Open access indeed means that the articles are entirely available for free online. Open access publications can be classified in two different categories, depending on whether they take the "gold route" or the "green route" (Harnard 2008). The "gold route" includes publications put online by institutions or publishers for free (therefore, institutions or publishers have to cover those costs by themselves). The articles are available in their final version, which is not the case for publications following the "green route". This way of making articles available for free is used by scholars to put their publications (even if they were not yet peer reviewed or written as a final version) directly online. This can be a voluntary action or something compulsory: the institution scholars belong to can compel them to publish their research online, as detailed earlier for the Belgian case. Nonetheless, political science still rests a lot on books and less on journal articles compared to other disciplines. Therefore, political science's knowledge is less available online because a big rate of works produced is still made available through books and not through journal articles that could then be published online. Yet, a trend towards making book chapters accessible in an online version is growing, and even sometimes entire e-versions of books (either on the long-term or temporarily at the time when the book is published so as to enhance readers' reactivity).

There are many advantages to the use of online tools by scholars. Firstly, online publication allows having a faster progress in research. Indeed, more and more articles are first published online, in order not to have to wait for a long process of editing and printing to make their work available. Also, academics now work in international teams, which make it possible to edit a paper from the other side of the world without having to be physically in contact with it. Therefore, the writing and publishing processes are going much fast-

er (Nentwich 2008). Second, online publication makes the researchers and their work more visible inside and outside the academic community (Calise et al. 2010). Also, it opens the path for more interdisciplinary research: now, a scholar can indeed very easily have access to data and publications outside its own field. Moreover, online publications make possible to add extra content in addition to the article or book itself, most often additional documents or the data used for this research. But some publishers' websites or scholar blogs are now offering more than that and invite researchers to create podcasts, for instance. These are short videos summarizing and commenting on the article they refer to. Finally, abandoning the printing system also allows to get rid of time and space constraints. Once a paper is published online, it can be read from every corner of the world at any time and will be available "forever", which is not the case for a book that once sold out has to be reprinted to be distributed again.

One distinctive feature of scientific publications is, of course, the process of peer review. This tradition is not likely to disappear any time soon, as scholars still seem very attached to this procedure. However, many critics claim that online open access publications could threaten the quality of publications. This criticism is based on the fact that some publishers are tempted to raise their profits at the expense of the quality of the papers they publish. Some publishers following the "gold route" are funded by fees paid by the authors to have their articles published. Therefore, it is easy to suspect some of them to be willing to increase their revenue by lowering the quality of slow and demanding peer review processes. This process indeed restricts the publishing of high quality articles and can therefore consist of a loss of revenue for publishers relying on authors' fees (Beall 2012). However, some elements can nuance these findings. First, the quality of a paper is indeed medium-independent (Nentwich 2008), because the peer review process is still used, even for online publications (but maybe not for the ones following the so-called "green route"). Second, the Internet, rather than hindering the quality and quality assessment of papers, allows for new ways of rating and commenting, which can be used in addition to the classic peer review system to assess the quality of a paper. These are for instance comment areas where readers can comment on the paper they just read, or rating systems allowing readers to give a note to the paper.

3.3.2 Socialization among researchers

Changes in the way science is produced today not only has to do with the changing production of publications. It also has a lot to do with how academics interact with each other and with their audience. A handful of new devices are now available to allow scholars to better communicate and exchange data, resources, and publications, as well as to increase their visibility.

There are for instance a growing number of academics using blogs to post their work and interact with readers. The ABSP has launched its own blog in March 2018 in order to broadly disseminate the findings of Belgian researchers in the French-speaking community[7]. By posting short summaries of research outputs in French, the blog constitutes a tool to make their research output again available to the public despite the shift of academic research to English. Another tool serving the development of interactions and content sharing among scholars is, of course, the use of social media by scientists. Aside from more mainstream social media like Facebook or Twitter that are sometimes neglected because of their "socialization" and "non-professional" character (Ware 2009), there are now more and more specialized social networking platforms serving professional purposes (Aca-

[7] Available at: https://absp.be/Blog/.

demia.edu or ResearchGate for instance, which are widely used by political scientists). Scholars also use the social bookmarking. This system is basically a library of Internet bookmarks and scientific references scholars can have to build a catalogue of references they can categorize thanks to "tags" and then share with their colleagues. This system allows scholars working on the same project to share one single bibliography and offers them the possibility to discover new literature.

Finally, the use of wikis is more and more frequent inside the academic world. Even if websites like Wikipedia are commonly claimed not to be very scientific, some scholars use quick Wikipedia visits when they have to discover a brand-new field or when they have to make a quick reference to an element of a field they are very familiar with. Aside from Wikipedia, every field of research now has its own wiki, following the same spirit as the original Wikipedia: authors can freely add and remove content from the page. Nevertheless, some of these wikis do have a restricted access policy, which means that only some scholars are allowed to edit it.

Despite the proliferation of new digital tools in the academic world, some scholars are still reluctant to use them in their daily activities. This can mainly be explained by the lack of time and incentives for researchers to use these new devices. Scientists indeed do not all see why spending time (which they already lack) to learn how to use tools that may prove to be good, but not necessarily better than the tools they already use and master well. This pattern is reinforced by the fact that there are often many options serving the same purpose: this can create a sense of competition and dissemination. Also, it makes it difficult for potential users to compare and choose among them. These constitute barriers for scholars to use these new tools. These new ICT are only making their first steps. In a few years, open competition will possibly leave only some platforms to survive, and the benefits associated with these devices may be more perceivable than they are now.

4 Service

The third traditional mission of universities is to deliver service to the society. In Belgium, this mission has gradually been emphasized by public authorities. The idea is that political scientists allow the broader public to have access to expert knowledge and to the required tools to understand today's societal and political issues (Damay & al. 2011). These so-called "service mission" can mainly – but not only – take three forms: interventions in the media, permanent education activities and North-South cooperation.

4.1 Media

For more than 40 years, the Belgian public has been used to seeing political scientists on television and hearing them on the radio on election days. In the last 20 years, the presence of political scientists in the media has become more and more salient and extensive. They are mobilized by traditional media to intervene and comment on current news subjects. Political scientists have always been more solicited in times of elections or of political crisis. However, nowadays, political issues become more technical and difficult to understand for the public and journalists themselves. That is why political scientists have been more and more solicited these last two decades in order to provide the necessary keys for people to understand what they read or see in the media. In-depth interviews have been conducted with seven political scientists who often to appear in the media. Increasingly,

digital tools are used in parallel of traditional media to provide service. An increasing number of researchers are using blogs and online social networks to disseminate their research findings. However, the challenges of online and offline media have so far proven highly similar.

If there is no doubt that political scientists are increasingly solicited, what makes them accept these invitations or be proactive? What motivations do they have to appear in the media? First, they are conscious that it is part of the service mission of universities: making the knowledge available for everyone outside the academic world where it is produced. They also see in these interventions a way to increase their personal popularity and stay in touch with the real world and people outside the academic sphere. Finally, sometimes universities urge their academic staff to make regular interventions in the media to increase their visibility and the one of their academic staff (Sinardet 2009).

Intervening in the (digital) media is not an easy and natural task for political scientists. In other words, this does not go without challenges and fundamental interrogations on the role of a political scientist. It is first important that political scientists, when appearing in the media, pay attention not to overly simplify the issues they are writing or talking about. Sometimes, the vulgarization asked by the media format does not allow to make the necessary nuances. Fortunately, some formats allow to display a greater scientific accuracy (chronicles, press dossiers, etc.).

Political science also has to adapt to new channels of communication. The traditional electoral broadcasting nights still exist and are followed by a great deal of the population, but social networks are becoming increasingly important as well. These social networks allow political scientists to directly publish their work and share their views outside of the traditional news media. They can do so either directly or through an institutional account such as their research center or university account. The ABSP also publicizes its members' research outputs and appearances in the media. Social media, blogs, and the Internet in general have their own codes, and political scientists have to adapt to these codes if they do not want to be absent from these ever more important communication networks.

A third challenge, which can be linked to the development of Internet media, is that everyone can claim to be an expert on a given subject and enter in a debate with academic experts about it. Sometimes, these self-proclaimed experts give the debates a more polemical tone, which can undermine the critical and ethical aspects of deliberation. In this case, political scientists become actors of the debate and step outside their role of information and analysis providers. Nevertheless, the question remains open: should political scientists be involved in debates or should they remain purely neutral? Moreover, it is increasingly difficult to draw the red line between clear analysis interventions and position statements. What's more, ethnic minorities and women are still underrepresented among political scientists regularly appearing in the media. To foster some changes, new networks are created[8] and sometimes new voices make themselves heard and gradually penetrate traditional media.

4.2 Permanent education

Permanent education is also an important part of the service mission of political scientists. This can take the forms of scientific vulgarization, public conferences, training courses, or debates. Political scientists, when they take part in such activities, are in contact with the associative world and the larger public.

[8] See *Expertalia*, http://www.expertalia.be/.

In French-speaking Belgium more specifically, the Centre of socio-political research and information (CRISP) plays an important and particular role in this field. It was founded in 1958 outside the political cleavages that divided the Belgian society at the time. Now, it is still independent from the political world and from the universities. Its general mission is to act as a research center and information provider for the larger public, in order to develop its critical spirit and the engagement of the citizens. Therefore, its members are present in the press (i. a. through electoral nights on television since the 1970s) and give conferences in Wallonia and in Brussels. Permanent education too is subject to an increasing digitalization. Here, for instance, the CRISP makes its podcasts of interviews available via its Facebook or Twitter accounts, created in 2013. Some short analyses are also published online on the research center's website[9] and allow for a quick dissemination on social networks or through other digital means. Nevertheless, face-to-face contact remains important: people attending CRISP conferences enjoy benefitting from a direct contact with political scientists, especially if they have heard of them or read the articles they wrote in the press.

4.3 North-South cooperation

North-South cooperation can take two different forms. On the one hand, Belgian political scientists create partnerships with their southern colleagues through projects that support education and research. These partnerships are, of course, inter-university contacts, but the goal is also to strengthen the societal impact of colleagues from the South as actors of local development. Thanks to such cooperation, southern political scientists can also benefit from research and education stays in Belgian French-speaking universities (e. g. in the form of doctoral studies). Also, these partnerships allow them to publish and make their work known in Belgium.

On the other hand, Belgian political scientists conduct research that could help define or execute cooperation policies in Belgium. The goal of these programs is to stimulate the interactions between researchers and political actors to inform the latter via expert knowledge on the orientations the government could take in the field of cooperation policy.

4.4 Political scientists in society

With regards to these elements, it seems that political scientists hold a particular place, quite different from scientists working in other fields. Indeed, political science not only sheds light upon political and societal choices on a technical aspect (like policy advice for decision-making). The main object of political science is decision-making itself. Therefore, interventions of political scientists in the media, the associative world or next to some decision-makers make them adopt a critical stance on the decision-making process, and consequently on democratic challenges. The service mission of political scientists therefore uniquely offers critical views on the democratic system. This can partly explain the great number of invitations political scientists receive to appear in the media or cooperate with associations, and hence the need for political science to be available to the public by all means, including the modern online tools.

[9] See *Les @nalyses du CRISP* en ligne, http://www.crisp.be/category/analyses/.

5 Conclusion

The main aspects depicting the evolution of political science in French-speaking Belgium over the last 20 years have been emphasized in this article. More specifically, the first section of this paper addressed the main trends characterizing the evolution of teaching in the field of political science. The second section highlighted the main evolutions affecting research. In both topics, a special attention was given to "digitalization", in other words, the use of new technologies to improve the education and research functions in political science. The third and final section focused on the service mission of political scientists. More generally, this article highlighted how political science these last 20 years has been portrayed as following two simultaneous movements: an inward movement and an outward movement.

On the one hand, political science has been relentlessly reinventing itself in an inward movement characterized by autonomy, specialization, growth and modernization. When it comes to teaching, political science has now become an autonomous curriculum, detached from the other curricula it once was attached to. The field has also become more complex, leading to the emergence of many specialized sub-fields. Students can now choose among a great range of specialized courses covering all types of areas or topics. This evolution is also to be seen in research, where the growing number of specialized journals and networks demonstrates the increasing specialization of the field. This inward movement of political science in terms of research and teaching is sustained by a growing number of enrolled students and of PhD dissertations.

The strengthening of political science as an autonomous, specialized and growing field is accompanied by a modernization trend, which also takes place in French-speaking Belgium. It is illustrated by the use of digital tools, for teaching as well as for research purposes. Emails, online peer-reviewing, online professional networks and easier access to online databases are a few digital devices helping scholars to make their research progress faster. When it comes to teaching, this modernization is especially visible in the use of online campus platforms, electronic syllabus, MOOCs and SPOCs, or televoting devices, which completely transform traditional teaching methods, the roles of the teachers and of the students, the way they learn, interact and are evaluated.

On the other hand, political science is also characterized by an outward movement. The discipline is indeed more than ever thriving towards greater openness. This openness encompasses internationalization and a desire to open universities to the non-academic world. This article has emphasized three elements when it comes to the internationalization of the discipline. First, Belgian French-speaking universities are welcoming more and more international students. Secondly, this internationalization is also marked by the increased use of English in political science courses, PhD dissertations, and publications. Third, political scientists are involved in various North-South cooperation activities. These can take the shape of programs supporting researchers from the South to achieve better research and make their works known in Western countries. Also, they can act as advisers of the Belgian Government in the field of cooperation policies. As we have seen, digital tools are often depicted as enhancers of this internationalization by doing research and teaching outputs available for people who would not otherwise have had access to it. However, this benefit might be overestimated for two reasons: first, students and researchers from the South often experience difficult access to a proper Internet connection that could allow them to use these tools at their full potential. Secondly, if open access publishing is on the rise, and even urged by political decision makers, only a portion of it is entirely free, thereby maintaining a strong obstacle to the greater availability of knowledge.

When it comes to opening universities to the outside world, we have stressed three crucial elements. First, Belgian political scientists are increasingly appearing in all types of

media, and not only on election nights. As political issues and the political system get more complex, political scientists are more than ever asked to shed light on these multifaceted phenomena. Aside from the media, political scientists use permanent education activities to spread their research findings outside the university. In order to achieve this, they participate in conferences, start a blog, publish their work in open access, participate in debates on online forums and social media, etc.

The role of these digital tools in spreading knowledge outside European universities might have been overrated. Indeed, as discussed in this contribution, scholars often prefer to stick to existing tools to carry out their research and teaching activities. New devices, if they theoretically offer great opportunities in terms of knowledge dissemination, are indeed sometimes difficult to adapt to, from some political scientists' perspective. The new codes of communication one finds on social media, the novelty of professional networking platforms, are often perceived as the costs exceed the benefits of getting familiar with these tools. Also, the digital divide has not completely disappeared yet, making the spreading of digitalization outside Western countries more difficult. In conclusion, we might have overstated the potential of digital devices to make university-produced knowledge penetrate the real world. However, reducing the competition among the (too many) existing tools and a support to southern countries to facilitate their access to these tools might be some encouraging ways to help digital tools deliver their full potential.

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