

“[Cartography of Political Science in France](#)” : how a digital “library tool” can objectivate the shape of a discipline and its academic disparities.

Michaël Goudoux¹ and Anne L'Hôte²
Sciences Po Paris, France

*IPSA International Conference ‘Political Science in the Digital Age’
Hannover 4-6 December 2017
Panel Assessing the Structure of Political Science Using Online Tools*

Second Draft Version

Abstract

Sciences Po library has published the “Cartography of Political Science in France” website (<http://cartosciencepolitique.sciencespo.fr/#/>) which gather, in a unique tool, relevant information about research centers in the discipline. Originally designed as an application for libraries, it’s an opportunity to question the state of Political Science as a discipline introducing new data to the debate.

This paper discusses at the same time the methodology to elaborate such a tool through collaborative work of computer programmers, librarians and researchers and the first results which can emphasize the academic disparities in Political Science research institutions and staff in France and can give an overview of the research topics.

Keywords : *website, cartography, online tools, JSON, data, political science, higher education, research centers, disciplines, disparities, information, library, AFSP, France.*

¹ Political Science Reference Librarian, Sciences Po Paris (michael.goudoux@sciencespo.fr)

² Digital Project Manager, Sciences Po Paris (anne.lhote@sciencespo.fr)

Introduction

Sciences Po library has recently published the “Cartography of Political Science in France” website (<http://cartosciencepolitique.sciencespo.fr/#/>). This project, supported by the French Ministry of Education and Research, aims to gather, in a unique tool, relevant information about research centers in the discipline. Collecting data of several categories - official information, academic staff, doctoral schools, research subjects, publications, libraries & resources - provides an overview of the current state of the discipline in France which can be useful for various users.

Since the end of 2014, Sciences Po library has been developing this service for the benefit of research. Traditionally quite distant from these publics, it tries to adapt its practices and to find new methodologies to match in a reliable and efficient manner researchers needs. This project is part of the *CollEx* institutional infrastructure (*Collections of Excellence for Research*), a recently reformed national documentation cooperation system. In this research service approach, Sciences Po library therefore proposed the development of this cartography as a prototype project. Capturing the "community" of researchers in Political Science is seen as a prerequisite in our effort to adapt and develop tools and services for this public.

The practical dimension of this tool can also be an opportunity to question the state of Political Science as an institutionalized discipline introducing new data inside the debate of previous academic works (Boncourt, 2007, 2015, Deloye, Mayer, 2008).

The qualitative data collection conducted on 61 research centers is mapping the distribution of research centers and their orientations in terms of research topics. We can observe that Political Science in France is clearly uneven at a geographical level and regarding academic staff. The data provide information in terms of research subjects areas. As we could expect, topics on Political Philosophy or Constitutional Law occur less than topics on Political Sociology or International Relations. Moreover, multidisciplinary topics, as Gender studies or Public policies analysis - urban, health or environmental policies - are well represented. The proportion of those “new” topics is particularly increasing in project-based fundings. Some disparities appear also in publications and scientific information & documentation means.

From a methodological point of view, such a project requires the synchronized collaboration of computer programmers, librarians and researchers. Each of them must participate from the initial stages in order to create the data model and the future usage of these data. The data should regularly be saved in order to provide the possibility for diachronic analysis. Librarians here are seen as information managers.

In this paper, we propose to discuss both the methodology to elaborate such a tool through collaborative work of computer programmers, librarians and researchers and the first results which can emphasize the academic disparities in Political Science research institutions and staff in France and can give an overview

of the research topics. This communication offers, through the example of the cartography of research centers in Political Science in France, to draw up an assessment of this project, experimental for the library both in terms of mobilized tools and in terms of management.

From the construction of the data to the first analysis and intermediate reports of an ongoing project, we will detail how a documentary object becomes a research object.

To do this, we will first expose the framework and the reasons that led us to undertake this project. Then we will detail the data contained in the cartography, their characteristics and their modes of collection. From there, we will draw up a first analysis, still intermediate, that will identify major trends. Finally, we will come back to the feedbacks and plans for future developments of this tool.

1. Why such project has been undertaken ?

- Objectives and particularities of this project

Our first objective is to identify the research centers of the discipline. In a segmented French academic institutional landscape - between the *Ministère de l'Éducation Nationale de l'Enseignement Supérieur et de la Recherche* (MENESR, the Ministry of National Education, Higher Education and Research) and the *Centre National de la Recherche Scientifique* (CNRS, National Center for Scientific Research)³ or between Universities and Institutes of Political Studies (IEP or Sciences Po) - there was no common tool for identifying research centers in the Political Science field. In our effort to establish such a list we faced several problems and difficult decisions. We will detail further in the methodological part the continuous work of adjustment that has been necessary and which is continuing.

In addition to identifying the centers, it is also a question of identifying individuals and staff (research center directors, doctoral school directors, research libraries and resource center staff). It aims to facilitate the flow of information and networking. And to assess the size of each research center.

Identifying the research themes is a central element of this work for the benefit of the largest number of users interested in Political Science. It is also a strategic element as far as a library and information resources project is concerned. These qualitative data collected are intended to help to develop a library policy in keeping with the current topics of research. Some acquisitions of resources already take into account emerging research themes. Once completed and regularly updated, it can help to pilot subscriptions to digital resources.

³ Created in 1939, CNRS is a publicly-founded “body of full-time researchers, with a large autonomy”, and permanent employment without affiliation to a particular University (Deloye and Mayer, 2008, pp. 282).

This mapping includes an important information and documentation component aimed at identifying the resources and librarian practices within the research centers. This will help to better identify documentation needs and deploy appropriate services to the research community. This dimension is explained by the context that initiated this project.

This project is part of the [CollEx](#) institutional infrastructure (*Collections of Excellence for Research*), a national documentation cooperation system, born from the need to renovate the *Centers for Acquisition and Dissemination of Scientific and Technical Information* (CADIST) which have structured the information centers network of higher education and research for 30 years, in connection with the strong evolution of the scientific and technical information landscape.

The SciencesPo Library was a CADIST in political science since 1982. As such, its mission was to acquire, preserve and disseminate documentation in this discipline (research-level documents, french and foreign, on all media).

Since 2014, the basic allocation usually received for the acquisition has been partially replaced by a project allocation. These projects must go beyond the acquisition mission by also becoming part of a research services approach. The SciencesPo library therefore put forward the development of this mapping as an initial project. Capturing the "community" of researchers in the discipline is seen as a priority so that we can adapt our tools to the needs of this public.

Since 2017, SciencesPo library has been officially designated as "CollEx" library reference agent for Political Science. Part of its mission is to build and consolidate a research libraries network in France.

- Scope and methods of data collection

One of the main difficulties was the construction of the list of research centers. The plural nature of Political Science is materialized even in spelling. For example, plural is used for *SciencesPo* (*FNSP, Fondation Nationale des Sciences Politiques*). On the other hand, when we talk about the discipline, the singular is preferred. It is also the result of an intellectual and institutional construction that has distinguished itself from other disciplines (History, Law, and even more recently Philosophy) associated with an inscription more and more important in Sociology and Social Sciences in general (Favre, 1989, 1998 ; Blondiaux and Deloye, 2007 ; Deloye and Mayer, 2008 ; Boncourt, 2015). The object of the discipline is therefore not obvious and this is reflected both in the research themes but also in the difficulties in setting the boundaries of the discipline including those set by institutions. Taken both in a multidisciplinary logic and in the development of sub-disciplines of Political Science (International Relations, Public Policies, Gender Studies, etc.), it is not surprising that it is difficult to establish the outline of the discipline.

Moreover, recently, many reforms have profoundly changed the institutional landscape of research and higher education in France. This has notably resulted in the grouping of universities and *grandes écoles* within federations (COMUE - *Communautés d'universités et d'établissement*). In parallel, for French Political Science, several consequences have taken place at the level of the research centers also following regroupings and merges in order to create interdisciplinary and bigger units. (Boncourt, 2015)

Some research units were recently created by merging research units centers including both Political Science and Law (VIP in 2008⁴), or more frequently Political Science and Sociology (CESSP⁵ and CESPRA⁶ in 2010). Others display a multidisciplinary new appellation (SAGE⁷ in 2013, LIPHA⁸ in 2015)

There have been - and there still are- many changes, including those that took place after the data collection started. The modifications are often only about the names of the center so as to reinforce the identity and visibility of the research centers, without institutional changes.⁹

When we set up the cartography project for research centers in Political Science, our greatest difficulty consisted in defining which centers belonged to the discipline. When collecting data, some centers declared themselves outside of the discipline. Despite the "objective" criteria we have sought to use, the definition is subjective (or intersubjective).

To establish the list of centers to be treated, we cross-checked official directories which pre-existed :

- the list of Research Units, with political science as "main discipline" in the "Directory of Doctoral Training and Research Units" of the Ministry of National Education, Higher Education and Research

⁴ *Versailles Saint-Quentin Institutions Publiques* (VIP), created in 2008, federates within the same research unit all professors-researchers attached to Law School.

⁵ *Centre européen de sociologie et de Science politique* (CESSP-Paris) was created in 2010 from the merge of *Centre de sociologie européenne* (CSE-Paris) and *Centre de recherches politiques de la Sorbonne* (CRPS-Paris)

⁶ *Centre d'Études Sociologiques et Politiques Raymond Aron*, CESPRA, was created in 2010 from the merge of *Centre d'études sociologiques du travail et des arts* (CESTA) and *Centre de recherches politiques Raymond Aron* (CRPRA).

⁷ *Sociétés, Acteurs, Gouvernement en Europe* (SAGE), was created in 2013, from the merge of four research units : *Groupe de Sociologie Politique Européenne* (GSPE), *Centre de Recherche et d'Étude en Sciences Sociales* (CRESS), *Laboratoire d'Épistémologie des Sciences de la Vie et de la Santé* (LESVS), *Centre du Droit de l'Environnement de Strasbourg* (CDES).

⁸ *Laboratoire interdisciplinaire d'étude du politique - Hannah Arendt - Paris-Est* (LIPHA Paris-Est) was created in 2015, from the merge of *Laboratoire de recherche sur la gouvernance -territoires et communication-* (LARGOTEC) and *Laboratoire Éthique et politique* (EEP) - *Institut Hannah Arendt*.

⁹ In 2017, "CRAPE" is now named "arènes"

<https://appliweb.dgri.education.fr/annuaire/ListeEntite.jsp?entite=ur&sd=35&ordre=dep&prov=ListeSd>

Associated with the more recent "National Directory of Research Structures (RNSR)":

<https://appliweb.dgri.education.fr/rnsr/ChoixCriteres.jsp?PUBLIC=OK>

- the research centers of section 40 "Politics, Power, Organization" of the CNRS "Directory of Laboratories and Personnel"

<https://annuaire.cnrs.fr/l3c/owa/annuaire.recherche/index.html>

- the list extracted from the CNRS "Directory of Laboratories and Personnel" for research centers which have a thematic indexing which contains: "SC.HS - SCIENCES POLITIQUES"

<https://annuaire.cnrs.fr/l3c/owa/annuaire.recherche/index.html>

Finally, we processed more than 80 centers to retain only 61 in this first version. The non-integrated centers and those in process in 2017 are detailed on [Le projet](#) page of the website. Another 48 centers are processed at the moment (to retain only 31). The next full version of the website will integrate the secondary list the "Directory of doctoral training and research units" of the Ministry of National Education, Higher Education and Research. That is, those with Political Science as "secondary discipline".

<https://appliweb.dgri.education.fr/annuaire/ListeEntite.jsp?entite=ur&sd=35&ordre=dep&prov=ListeSd>

French centers abroad have not been retained. The cartography focuses only on centers in France. Centers that did not wish to appear or were not considered relevant in Political Science have not been retained as well.

This list is obviously likely to evolve. It is also possible that we may integrate or withdraw centers that request it. We are currently considering the establishment of a scientific committee representing variety of institutions and issues in Political Science which will be specifically devoted to defining perimeters of the centers treated in the cartography.

Data collection was conducted successively by three PhDs or PhD students in Political Science following the same method.

Charlotte Dolez, Associate Professor in Political Science at Sciences Po Lyon, who had already worked on a previous [project](#) of the French Political Science Association (AFSP) in 2013 was the first to start collecting data. Most of the data collection over the past two years has been driven by Faustin Armel Youbi, PhD student in Political Science at Université Paris Ouest Nanterre La Défense. He is the most interested in the project as his thesis is about Political Science as a discipline in the French-speaking world.

The preference given to specialized profiles in Political Science rather than documentation was a deliberate choice. Even though they had to be receptive to

library and documentation issues, their training in political science proved to be essential in capturing the specificities of this social sector and in being able to grasp the subtleties of this field and criticisms emanating from the investigation.

From the pre-established list, two complementary techniques made it possible to collect more or less complete and detailed information: first set of data is collected in dedicated websites and then the verification is done by telephone interviews or in person, when this was possible. Indeed, it is regrettable that our approach (and particularly the solicitation of interviews) has not always received a favorable reception. The publication of the website created a new dynamic and a greater openness to the project.

In order to establish the detailed data sheet of each center on the five axes (administrative description, doctoral schools, research themes, publications, information resources), the collection began with the systematic analysis of the websites of the research centers. These collected data were then supplemented, where possible, by a set of references and elements available either on the virtual reference space of the Research Unit on the Ministry directory, or on the CNRS directory.

It is only at the end of this first part of the process, essential to the structuring of an informed discourse, that an interview with one of the resource persons of the research center was solicited - usually but not exclusively its director. The verification of the collected data and the collection of the missing data were the objectives of this second moment of our approach.

All requests for interview were made by sending e-mail (once or several times in certain cases) around three points: first the presentation of the project; then the object of the interview; and finally the interest of such an approach. Sometimes we have been redirected to other resource staff than those originally contacted. Generally, the motivations of this reorientation are summarized by one's qualification or by the legitimacy to express oneself on this subject. To cover all the themes of the data required, it has often been necessary to interview two or three different people. Thus, the information on the Doctoral Schools was obtained from specific sources. The same for data regarding information resources: when the center has a resources center, its manager has been systematically contacted on these questions.

Conversely, we were silenced by many people contacted: either by a lack of response, or by the expression of a desire not to participate in the survey. In the interest of transparency, when a data is missing, we opted for an identification of the deliberate silence of the interlocutors in our collection by the mention "NC" (Not communicated). This in order to distinguish it from the total absence of information, symbolized by "X".

2. From data to website, how to share what we collected ?

During the data collecting step, we gather everything in a Google Drive Spreadsheet. And from there we decided to build the web site.

- Data collect

As a referent in Political Science, we knew what kind of data we wanted to collect. But we had to face many difficulties. Some data were missing on the websites. So we asked for it in our emails or during phone calls. But sometimes our contact refused to communicate about it or even was not able to give it to us.

After the collect, we had to write all the data together in a file. We chose to store it in a Google Drive Spreadsheet because it was easy to access and to let multiple users write on it. So we first had to decide how to cast each data to enforce that type, to make sure that all the data are homogeneous. And then we cleaned the data to fit the type that we chose (markdown, multi-values, integer, city...).

We sorted the data in 5 parts : city, institution, keywords, national sections.

From there we wanted to build the interface to let our users play with the data. But the question was : what kind of interface could we offer to our users to let them search this huge and complex amount of data ?

So our first challenge was to convert this complex data sheet into a computer readable format. We chose the JSON format based first on the centers national identifiers and second on the 5 parts of the research centers. And to transform this sheet in JSON, we used a NodeJS script. That way, we decide when to synchronize data collected and data exposed on the website.

- The website

From these data in a JSON file, we aim to build a website. Our goal was to expose the data to make our users comfortable with the data. We knew that we collected some geographical information about the research centers. We decided to create a map to underline the geographical distances between those research centers. From there we knew that we had to aggregate the data by facets like a general description, the PhD schools, thematics, publications and documentation. This way we were sure to expose the complete data that we collected. And to make it more searchable, we added some facets that we chose among all the data (city, institution, keywords, national sections).

We synchronize the search and the data displayed as list and as map.

But as any research project we also wanted to explain our methodology ie to explain how we built the data. And finally to be really complete we added the functionality to download the data.

- Qualitative vs. quantitative

We have chosen for this project to place ourselves in a qualitative approach both in the choice of data types and in the choice of harvesting methods. This is obviously possible because of the relatively small size of the corpus studied. Other projects, for example [scanR](#)¹⁰, have made different choices, with methods in terms of "Big data", on much larger scales and looking for automated collection methods. These certainly different approaches can however be complementary. Our project and scanR are interoperable and point to each other for the research centers present in both tools.

The largely qualitative data present in the Cartography of Research Centers in Political Science and the possibility of downloading them (as a whole or based on selection) then allow different types of analysis, including quantitative analysis : network analysis on the Internet, semantic analysis, cartographic analysis...

3. Analysis

We are not academics and it is not our role to do a scientific analysis of the data. And especially since the tool is not yet complete because the data of near 30 centers, currently being processed, have to be added at the beginning of 2018. We can still detail here the trends that emerge by raw analysis of these data.

- Geographic disparities.

What is most glaring in the analysis of administrative data is that Political Science in France is clearly uneven at geographical level. And especially the predominant place of Paris.

The phenomenon is easy to observe from the main addresses of research centers and their geolocations. 31 centers out of a total of 61 have their main address in the Paris area. This materialized visually on the Paris cluster on the map of the centers (44 geolocations out of a total of 85). So there is about half of the research centers in Political Science which are located in Paris. It's also obvious in observing the map of the geographical repartition on french regions by the number of permanent academic staff (figure1).

¹⁰ scanR is a search engine and web application to help characterize the public structures of all research and innovation in France (nearly 35,000 actors). It indexes a large number of sources (public data, publications and theses, patents, ...).

Permanent academic staff by region

Personnels permanents par région

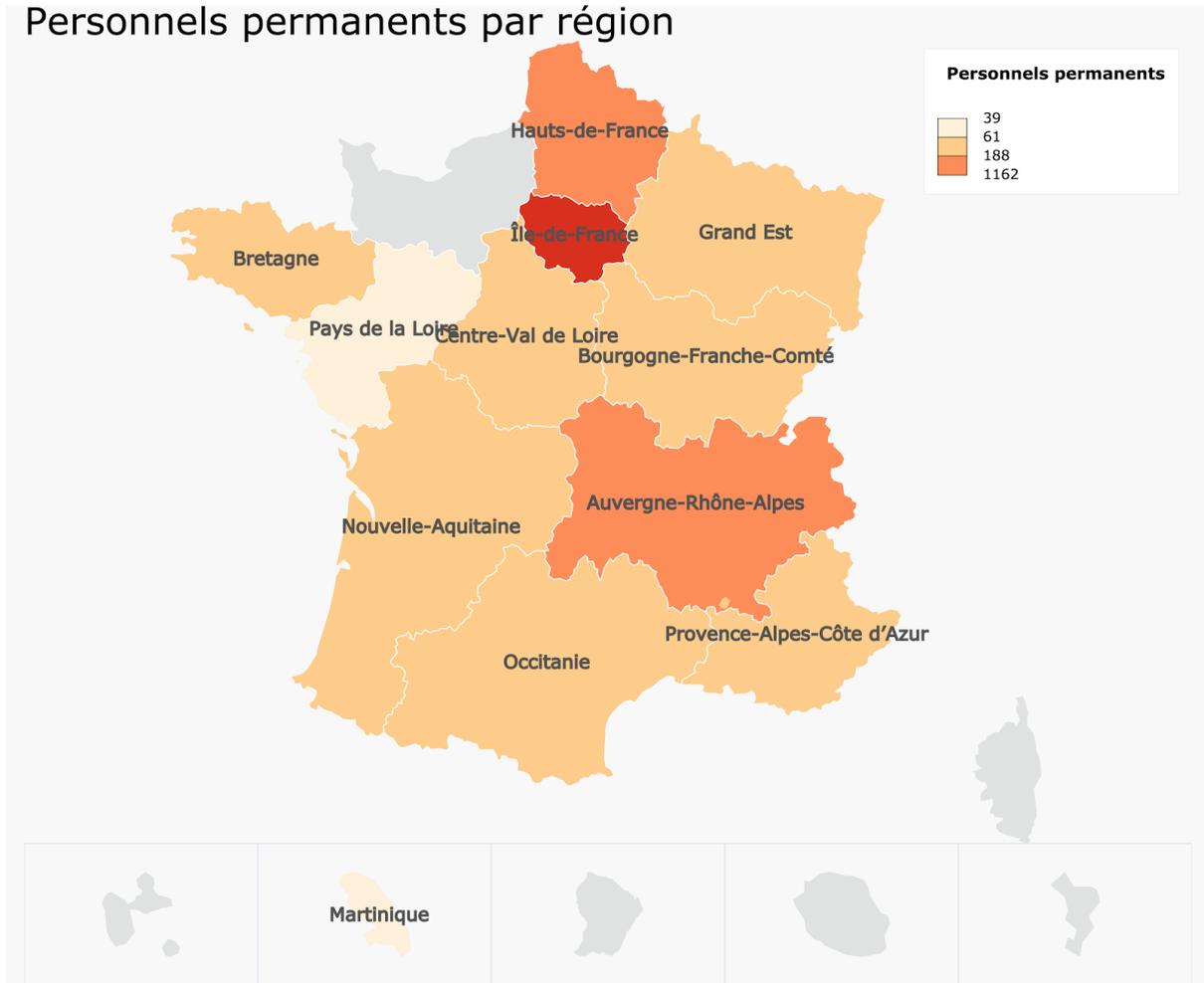


Figure 1 : [Cartographie de la science politique en France.](#)

This situation can be explained historically, in particular by the place occupied in the institutionalization of Political Science in France by the weight of SciencesPo, (the Fondation Nationale des Sciences Politiques - FNSP) and the Political Science department of Paris1 Panthéon-Sorbonne university. Even though a downward trend is noticeable in the weight of Parisian researchers in the discipline in the last years, we observe that the center of gravity of the discipline remains strongly marked.

- Academic staff

Regarding the personnel, three figures are indicated on the site: the total workforce, number of permanent staff and number of non-permanent staff. We have

chosen not to take into account the many different statuses of permanent staff in France (associate professors, CNRS research directors, FNSP, etc) and to keep only the variable "permanent / non-permanent".

When the total number of centers is summed, a total of 6,854 is obtained. It can be noted that the total number includes only a minority share of permanent staff. 2,662 permanent staff and 4,161 non-permanent staff.¹¹

Even if the data do not allow us to grasp diachronic evolutions (not yet for this first year of data), there is reason to believe that the development of project-based funding, which are temporary research funding increase the proportion of non-permanent positions (in particular Phd grants or post-doctoral fellowships).

There are very large differences in the size of the research centers. Although the various mergers increase the number of staff in each center, we observe huge disparities between the very large centers (which sometimes themselves merge) and the small centers that mechanically struggle for visibility.

The total figure of 6,854 researchers for Political Science may seem exaggerated for well-informed observers. Indeed, even if there are many centers turned almost exclusively to Political Science (sometimes with small staff), other centers are often more around other disciplines (such as Law) or are multidisciplinary. In those last cases, researchers in Political Science occupy only a marginal place in terms of numbers at least.

To evaluate the presence of Political Science within the centers, we have included in the data the number of PhD students in Political Science and the total number of PhD students. The total number of PhD students seems reliable (3,072 PhD students). For the number of doctoral students in Political Science, we obtain only a total of 321. This is mainly due to the fact that the number of PhD students in Political Science has not always been provided. Which does not allow to draw from conclusion. And we are entitled to think that discipline represents more than 10%.

We must emphasize here that we were disappointed by the lack of information available in certain centers on their own doctoral students. If we did not manage to find direct contacts within the Doctoral Schools it was difficult to obtain reliable and up-to-date figures.

Despite these data gaps, it is still useful to have an order of magnitude to quantify the "academic community". This is useful at least for the library because it enables us to negotiate with the scientific publishers for possible acquisitions of digital resources useful to "academic community".

- Research themes

This part is clearly central in our approach and we tried to detail it as much as possible. On the "official" lines of research, we have recovered those established by

¹¹ The sum of permanent and non-permanent is lower than the total effective because sometimes we were able to harvest only the total number without obtaining the detail "permanent / non-permanent".

- Publishing and resources disparities

As part of a tool for libraries, the information on publications and available documentary resource is obviously crucial. But we will not detail them precisely here. This could be the subject of another paper.

In few words, regarding publications, disparities appear on the capacities of major research centers to have their own book editor series or journals and to promote open access publications. Like in the case of archiving research data -very new in France- this clearly states the digital divide.

About libraries and resources, we therefore collected information on the libraries usage, the digital resources available to researchers, and -when there is one -information on resource centre : its name, the nature of its documentary collection, its documentary policy, training sessions available to researchers and its documentary collaborations.

It should be noted that, in addition to the large disparities in terms of size and resources between the different research centers -taking into account that data on documentary resources is based almost exclusively on interviews- there is a strong imbalance in the information collected. It was easier when we met librarians for the interviews. It is clear that often, either we lacked interlocutors, or those we had in resource centres were sometimes not very sensitive or very familiar with information issues. Unequal scientific information & documentation means help us draw the following conclusion : only few major research centers have their own resource centre with the appropriate staff.

4. Publication and future developments

- Communication and reactions

The communication during the publication of the site was an essential dimension in order to make the project known, to promote its diffusion and to stimulate reactions to improve the tool.

At first, we met the partners and the institutional actors of the discipline. We presented the site directly to the Ministry of National Education, Higher Education and Research, who insisted on the need for interoperability and cost evaluation so that this prototype could be applied to other disciplines . The French Political Science Association (AFSP) has been associated upstream. The cartography was very favorably received and was also published on AFSP's own website¹². We are currently in the process of establishing a long-term partnership on this project (which will be discussed at the end of this section). We also met representatives of IPSA,

¹² <http://www.afsp.info/discipline/cartographie-de-la-discipline/> accessed 10.10.2017

and section 40 of CNRS and section 04 of CNU (*Conseil National des Universités* in charge of career management of teacher-researchers).

We launched the digital communication plan by sending emails to all the directors of the centers concerned. Those already present in the cartography and those still being processed. We also contacted by email the institutional representatives of the discipline. Simultaneously, we distributed the information on the specialized mailing lists of the discipline. And the information was broadcasted on social networks (Twitter, LinkedIn).

This communication has been addressed directly to the public on specific occasions.. In particular, we communicated in a timely manner during the Political Science *Agrégation*¹³ ceremony. We also participated in the last AFSP congress on July. We held a booth in entrance hall (creating a poster for the occasion). We were able to present the project to several participants and conduct live data collection or updates. A few suggestions for changes have also been proposed. Last participation in date, the one that concerns us here for the IPSA conference in December.

The publication of the website has given rise to dozens of reactions. For the larger part, these reactions have been positive. As expected, several researchers interested in Political Science as a discipline have manifested their intention to include the data in their work. We also received eight reactions from research centers who wondered why they were not already on the website. With the exception of one, these were centers of the "secondary list" which are currently being processed. Two reactions were quite negative. A teacher-researcher has criticized us for having built our cartography at the research center's scale instead of taking into account the researcher's scale. We were also reproached, it seems to us unfair, for not having considered Political Science "beyond the 7th *arrondissement*" (administrative district of Paris where SciencesPo is located). And this even as we try to build a network and put resources at the common disposal. But this reaction is also indicative of tensions over the unequal distribution of resources in national scale.

In the end, we are satisfied with the fact that information has circulated. This facilitates the work of remaining collection and updating data.

- Updating data

The issue of updating data is a strategic issue for this kind of tool. If the site is not updated at least once a year, it will quickly become obsolete.

In the short term, the first evolution is the integration of the centers of the "secondary list" of the ministry directory which are currently being processed (see above). This year, we are collecting from fifty-three research centers with Political Science as a

¹³ Competitive examination every two years which grants the rank of full professor to successful candidates.

"secondary discipline". After a pre-analysis of data being collected and initial interviews, we should finally keep only thirty four.

In addition to a year-by-year update of data, we have considered not fully overwriting data during updates but adding data for each year. Only the updated data remains posted on the website but we will provide the possibility of downloading the data archives for each year. This would give a diachronic dimension to the cartography by making it possible to show the evolution over the time for precise items.

- BackOffice

To facilitate this update we are currently elaborating a backoffice interface based on a sustainable database that can be powered by filling in a form. The research centers could thus update their data autonomously.

The French Political Science Association (AFSP) has expressed the wish, on our proposal, to participate in updating work of the website when it will have a backoffice fed by forms to complete. The AFSP will be one of the website administrators and will thus be able to play a mediating role in the management of the tool. It should be accompanied by a probable Scientific Advisory Board - still to be created - which could then arbitrate possible litigations. Other institutional organizations that have shown interest in associating themselves to this project could also play a mediating role in this updating process. We incite the actors themselves to get involved with the empowerment of the tool.

As a main criteria of sustainability, we need to keep our data as accurate as possible. That means adding new research centers if needed and modify the existing ones if the director changes by example. To do so we need other people to help us like the AFSP. The previous system with the Google Drive Spreadsheet is not efficient anymore, we need something more open and collaborative. In a word : a real backoffice interface. We are now working on it, creating a backoffice where everybody would be able to update the information of any research center and even create a new one. Obviously, each modification will be validated by an administrator to be published on the website. With this new functionalities we aim to have an easier process to update the information on the website and to make our users really implicated in the building of knowledge through our web service.

- Scientific Advisory Board

Given the evolution of this project, it seems important to us at this stage to set up a scientific advisory board in the short or medium term. The latter will be able to guide choices in terms of research centers to be included in the cartography (the boundaries of the discipline being, as we have seen, very subjective). But also to determine relevant developments, highlight the types of data to harvest that can be

added, adjust methodology, evaluate the relevance of the data and its updating and archiving. It could initiate and animate a scientific valorization, providing research directions (call for proposals, conferences, publications on the website, etc)

This board will need to be composed of at least 5 different teacher-researcher profiles (according to criteria of status, institutions of attachment, major sub-disciplines and locations), a representative of the AFSP, Sciences Po library director and a technical representative of the project.

It is only once this SAB has been constituted that the second version of the website will be able to develop. Among related to evolutions suggested to us by various interlocutors, one could integrate data concerning the university courses in political science (bachelor and master). Another development that creates a repository of controlled keywords for research topics could also be of great help. Beyond the provision of structured information facilitating navigation on the map, this would allow to identify recurrences and make more refined analyzes. Finally, even if this map was first conceived about the research centers, we could consider to include the network of libraries that have a collection in Political Science.

And last but not least, it would be very useful to provide an English version of the website.

Conclusion

This work is the result of a close collaboration between the different corporate bodies of the Digital Humanities. 8 people participated directly to this prototype: 1 project manager, librarian, 2 computer scientists, 2 developers, 3 researchers in the field. Many people have been solicited from time to time (on the cleaning of data, communication around the project or the ergonomics of the website).

This project allowed the library to collaborate with many researchers, laboratories and research institutions. And therefore to go beyond its traditional logics of documentation while drawing many lessons on its own questions. New methods of work have been identified. It is now a question of fixing them and testing if they are operative on other disciplines.

We have seen that this tool provides a lot of information on research topics, academic staff and doctoral schools as well as on information resource and publications. The diversity of Political Science, multifaceted discipline, appears clearly here. But beyond diversity, it seems that we are also able to observe many disparities, including geographical. And it is also possible to analyze the consequences of recent developments of project-based research, both on staff and on "new" research topics. It is obvious that, in the absence of complete data, these reports and analysis can only be intermediary and partial. This would require to be their framing by the upcoming Scientific Advisory Board.

At this stage of the project, it is therefore necessary to perpetuate this tool and allow

the actors of the discipline to seize it.

In an evolving context of French higher education landscape, this open access digital tool provides a clearer and more accessible information. Such an objectivation can be a way to promote Political Science and its institutionalization. As every tool it can be used on both ways, by accelerating concentration and increasing disparities. Now, like all publications, it no longer belongs to its authors. We hope that others will also grasp it and make good use of it.

References :

- Blondiaux, L., Deloye, Y. (2007). "The State of Political Science in France". In: *The State of Political Science in Western Europe*, H.-D. Klingemann (ed.), Opladen: Barbara Budrich.
- Boncourt, T. (2015). "A Discipline on the Edge. An Overview of the History and Current State of Political Science in France". In *Political science in Europe at the beginning of the 21st century*, B. Krauz-Mozer, M. Kulakowska, P. Borowiec, P. Scigaj (eds). Cracow: Jagiellonian University Press, pp. 107-146.
- Carbone, P. (2014). "Documentation numérique et réseaux documentaires". *Arabesques* [en ligne], n°74, pp. 4-5.
<<http://www.abes.fr/Arabesques/Arabesques-n-74>> (accessed 10.10.2017).
- Cavalier, F. (2015). "Des Cadist à Collex : des dispositifs nationaux pour valoriser les collections". *Arabesques* [en ligne], n°80, pp. 4-5.
<<http://www.abes.fr/Arabesques/Arabesques-n-80>> (accessed 10.10.2017).
- De Kok, V. (2016). "De la nécessaire rénovation du réseau des Cadist". *Arabesques* [en ligne], n°74, pp. 6-7. <<http://www.abes.fr/Arabesques/Arabesques-n-74>>. accessed 10.10.2017)
- Deloye, Y. (2002). *Faire de la science politique. Pour une analyse socio-historique du politique*. Paris: Belin.
- Deloye, Y, Mayer N. (2008). "French Political Science at a Turning Point". *French Politics*, Vol. 6, pp. 280-301.
- Favre, P. (1989). *Naissances de la science politique en France 1870-1914*. Paris: Fayard.
- Favre, P., Legavre, J-B. (1998). *Enseigner la science politique*. Paris: l'Harmattan.
- Lagroye, J. (1993). *L'enseignement de la science politique dans les universités*. Paris: Centre de recherches politiques de la Sorbonne.
- "Pour une socio-histoire de la science politique", *Revue française de science politique*, Vol. 67, 2017/1,

Useful links :

Annuaire des Écoles Doctorales de l'ANCMSP :

<http://ancmsp.com/annuaire-des-ecoles-doctorales-en> (accessed 10.10.2017).

Annuaire des formations doctorales et des unités de recherche du Ministère de l'éducation nationale, de l'enseignement supérieur et de la recherche

<https://appliweb.dgri.education.fr/annuaire/ListeEntite.jsp?entite=ur&sd=35&ordre=dep&prov=ListeSd> (accessed 10.10.2017).

Annuaire des laboratoires de l'ANCMSP :

<http://ancmsp.com/annuaire-des-laboratoires-en> (accessed 10.10.2017).

Annuaire des laboratoires et des personnels du CNRS :

<https://annuaire.cnrs.fr/l3c/owa/annuaire.recherche/index.html> (accessed 10.10.2017).

Annuaire des politistes de l'ANCMSP :

<http://ancmsp.com/annuaire-politistes> (accessed 10.10.2017).

Cartographie de la Science Politique en France :

<http://cartosciencepolitique.sciencespo.fr/#/> (accessed 10.10.2017).

Cartographie des bibliothèques de France CCFr :

http://ccfr.bnf.fr/portailccfr/jsp/public/index.jsp?action=public_formsearch_repeertoire (accessed 10.10.2017).

Répertoire National des Structures de Recherche (RNSR) :

<https://appliweb.dgri.education.fr/rnsr/ChoixCriteres.jsp?PUBLIC=OK> (accessed 10.10.2017).

ScanR, moteur de la recherche et de l'innovation :

<https://scanr.enseignementsup-recherche.gouv.fr/> (accessed 10.10.2017).

The Global Study on the Development of Political Science (GSPS) :

<http://www.rc33ipsa-globalpolitical.science/> (accessed 10.10.2017).