Call for applications for predefined PhD contract

Big data, algorithms and the industrialization of culture

The present call for a doctoral contract focuses on the topic of big data, algorithms and the industrialization of culture.

The development of big data and algorithms, viewed through the lens of the industrialization of culture, is a central issue in the work carried out within the "Cultural, educational and creative industries" field at the *Laboratoire des Sciences de l'Information et de la Communication* (Information and Communication Sciences Laboratory, or LabSIC). This issue pertains to the key strategic focus of this field: digital platforms. Platforms are indeed central to the development of big data technologies.

Various studies are currently under way examining these issues, including within the Laboratory of Excellence *Industries Culturelles et Création Artistique* (Cultural Industries and Artistic Creation, or Labex ICCA) (Thullas and Wiart, 2019; Ithurbide, 2019; Bouquillion, 2019). In order to extend this research in a direction formerly overlooked, the LabSIC suggests that the Université Sorbonne Paris Nord open a doctoral position focusing on the issues raised by big data and algorithmic systems in connection with the industrialization of culture.

This subject matter is highly topical. For the last decade or so, big data and algorithmic systems have been presented as a revolution for various economic fields, including culture, and for social and political life as a whole (Cardon, 2015). Experts and promoters of these technologies entertain high hopes. Combined with platforms, such technologies would render former modes of intermediation obsolete. They would provide customers with the goods and services they expect (Drumond, Coutant et Millerand, 2018), including when these expectations are not expressed. As a result, many studies are now looking to assess the reliability of such technologies, especially in terms of cultural content recommendation (Beuscart, Coavoux, Maillard, 2019). They may also generate massive new sources of income. Other research has pointed to the hazards of big data, stressing the dangers of policing cultural uses and informational practices, as well as the threat posed to private life or democracy (Pariser, 2011). The advent of a surveillance society is hence a concern (Mattelart, 2008).

While taking these approaches into account and examining how and to what degree they make up a form of storytelling generating self-fulfilling prophecies that influence the development of big data, this PhD project will focus more specifically on the issues pertaining to the industrialization of culture. It could hence focus on the various shifts affecting different levels of the cultural industries. All cultural sectors are affected by the development of such technologies, be it the cultural industries (books, recorded music, cinema and visual media, press and information, video games) or less industrialized fields such as performance arts, fine arts, heritage sites and museums (Bullich, 2016).

Leading up to these industries, what are the issues at stake for creation and production? One of the questions brought up touches upon the replacement of human labour by big data and algorithmic systems in terms of content design (Joux and Bassoni, 2018; Bullich, 2018). How do they create and produce the massive amount of "short" or low-cost content which platform operators require? Furthermore, how do they sort out contents – especially user-generated content – to make them legally available on platforms, in keeping with intellectual property (Bullich and Guignard, 2014)? How does the constant renewal of the pool of artistic and

creative talents (a key historical constant in the cultural sector) now rely on technologies based on algorithms and mass data production? Who are the actors at the centre of these new forms of renewal beyond social networks such as Facebook, whose role has already been partially explored (Creton, 2018)? For example, how do talent agencies or brands – among others – make use of big data? What are the issues at stake for creators, especially in terms of the noncultural skills they must master in order to position themselves within this new economy? In this regard, issues of gender and diversity also come under scrutiny. What strategies do these technologies use to make products and creators more visible, based on the creator's gender and origin? Another approach for research focusing on content producers may be to analyse how these technologies attract such producers onto platforms.

Research focusing on marketing and distribution may explore the consequences of recommendation systems. Do they lead to the dissemination of a wider variety of goods and therefore to broader cultural consumption? The economics of arts and culture have always been characterised by limited dissemination, compared to the variety of goods on offer. Without trying to assess their reliability, do recommendation systems serve as a quality guarantee for consumers? How do they affect competition between different providers? Research projects may also examine how these technologies contribute to the actual creation of added value, and therefore what issues may arise when different actors seek to capture this added value. Do creators and content producers benefit more widely from these systems than those who distribute on – and sometimes own – these platforms? In short, do big data technologies strengthen the position of communication industries (Internet professionals, electronics professionals, e-commerce, telecommunications) against cultural industries (Farchy, Méadel and Anciaux, 2017)? Or, conversely, do they provide new opportunities to culture professionals and cultural industries against communication industries?

Proposals may also be concerned with public policies and regulation issues. How do these technologies fit in public policies and regulation policies? Industrial actors have always tried to bypass regulatory restrictions; they are quick to point out that, in their view, the policies implemented until now are rendered obsolete by these technologies – particularly in countries which have established a "cultural exception" policy, such as France. In the age of big data, these technologies could "naturally" ensure cultural diversity, including by defending national or local producers.

Big data and algorithmic systems therefore raise various questions, as they are now fully incorporated within cultural activities. However, the main focus of the PhD project must be related to issues pertaining to the industrialization of culture and build on existing research in information and communication sciences, as well as studies in the field of culture industry theory – including those conducted within LabSIC. The proposals must also take into consideration existing studies conducted by ICCA Labex.

The PhD thesis will be supervised at LabSIC by Philippe Bouquillion, whose research specialises in the cultural and creative industries.

The successful applicant will be included in the LabSIC team and will therefore take part in the scientific activities organised by laboratory members, such as seminars. They will benefit from PhD training and take part in the seminars organised by ICCA Labex (of which LabSIC is a founding member). These activities include ICCA's "summer university". The scientific interactions between PhD students, post-doctoral students and professors/researchers specialising in ICCA's various areas of research will focus on ongoing ICCA theses, and will be extremely valuable for the student.

A workspace will also be made available in the offices allocated to LabSIC in Campus Condorcet. In addition to the quality of its research environment, Campus Condorcet offers

further opportunities for scientific interaction, especially with LabSIC partners who are based there.

The required documents for the application must be sent as a single PDF file (text font in Arial 11). The file must include:
– a cover letter detailing your career plan
– a resume (two pages maximum)
– a presentation of your thesis project (15,000 characters at most)
If the applicant is currently in the process of completing their master's degree, they must provide a statement from the research supervisor certifying that their degree is advancing well. The student must defend their dissertation before June 24, 2020. Master's results (grades and final results) must be sent to the Erasme doctoral school's secretariat by June 26 at noon.
Applicants are invited to contact Philippe Bouquillion (p.bouquillion@free.fr); the final application must be sent by **May 20 at noon** to: kamissoko@univ-paris13.fr.
Applicants will be interviewed by the laboratory on **May 25 (interviews will take place in the morning)**.
After being selected by the laboratory, the applicant will be interviewed by the Erasme post-doctoral school's committee **on July 1, 2020**.