

INNOVATION IN BUSINESS LIBRARIANSHIP'S TRAINING WITH ICT: HOW DO WE WANT TO WORK TOMORROW?

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Abstract

Information communication technologies (ICT) are changing the way knowledge is acquired and/or disseminated as well as the ways of perceiving and thinking about teacher-trainer-learner relationships in the digital age. These technologies are impacting the labor market's expectations and needs for training too. The following paper tries to shed light on these issues by focusing on an ongoing innovative academic project in business librarianship's training carried out in Clermont-Ferrand, France. It takes into account the viewpoints of a group of stakeholders such as academics, students, practitioners, employees and job seekers and tries to see what they think about these issues and whether they want to work together or not. It examines the drivers of change that encourage or constrain innovative pedagogic practices using ICT, relying on the findings of two online surveys that ascertain the changing perceptions and determine what approach should be adopted for future academic training. It also shows that training should be done collaboratively for greater efficiency.

Introduction

Innovation in French higher education seems indispensable because students are changing, and teachers have to acquire new skills to capture their attention and deliver added value training. Obviously, students become more self-sufficient as they commonly use the Internet and search engines to find information and quick answers (Weiler, 2005), but the amount of information available on the Internet is greater than what any student could keep up with. They need support to retrieve the relevant information and understand societal and economic challenges (Sider, 2009). Thus teachers have to use dynamic and flexible teaching styles to guide students mastering the knowledge that exponentially grows in a changing world in order to train them to have a spirit of analysis and synthesis and take a step back (Assude, Bessiers, & Combrouze, 2010). They also need to know how to renew their practices to adapt to change and educate students to learn how to learn.

Besides, the multiplicity of information sources and the explosion of storage and transmission media have significantly altered the information specialists' practices. Their role is to deliver useful and accurate services and resources in business. They are trained to understand the challenges and provide relevant information to the right person in the right place and at the right time (Ertzscheid, 2013; Lamouroux & Ferchaud, 2006). Except that now, the information is both fragmentary and highly fragmented (Ackoff, as cited by Detrick, 2002). That is why information governance known under the term *IT*

governance (Peterson, 2004; Willson & Pollard, 2009) represents a key challenge for companies today that enables them to gain in terms of reliability, efficiency and rigor (traceability, compliance with laws, standards and regulations). How could information specialists continue to play a key role in this area while information has been steadily increasing? And how could they be trained to meet companies' expectations and needs? The issue of whether learned skills in teacher training in business librarianship are adaptable to the observed changes needs also to be addressed.

Based on this theoretical framework and the resulting questioning, it is assumed that the knowledge of each one's perception to change as well as the sharing of expertise and constraints are the key factors of success in the implementation of an innovative training in business librarianship.

This paper deals with these hypotheses. First, it gives a general overview about innovation in education in France. Second, it examines its viability through the findings of two online surveys started in 2017 that concern a group of Francophone stakeholders (academics, students, practitioners, employees and job seekers) who are involved and/or affected by training in business librarianship.

Literature Review

The observation is clear and without call: ICT are ubiquitous (Watson, 2006), and digital is present in all teaching situations (Scallon, 2015). In France, teachers have been encouraged to deploy them in primary, secondary and higher education in order to promote the acquisition of digital skills for all and to combat inequalities. ICT are seen as a central vector for collaborative learning. The process of its integration in higher education was rapid.

At the beginning, ICT were used to solve some practical problems of mass education and reduce the digital divide (Sidir, 2009). Quickly, students were encouraged to use digital resources to search information and write texts. Then social media have been gradually introduced in class to encourage students' collaboration and help reduce the digital divide of the most disadvantaged social groups.

The objective of this policy was to foster the exchange of one with the other in learning and creativity and to allow the acquisition of technological skills (Pinte, 2011). Therefore, many useful networks for the sector of business librarianship are available such as Netvibes, YouTube, Flickr, Pinterest, Instagram, etc. (Ertzscheid, 2009). These networks, which support business intelligence, are now taught in universities. Besides, it has also increased the number of distance education programs and assistance given to teachers to integrate ICT into their teaching and introduce them into the classroom.

In fact, the online course offerings increase and permit access to training anytime and anywhere. For example, social language learning networks such as Babbel or fr.bab.la dominate the market. In addition, there is a rapid generalization of digital reading tools, including multimedia tablets, smartphones and dedicated readers that encourage teachers to innovate in order to continue supporting learners in their learning (Biancarosa & Griffiths, 2012).

But, the most known solution developed all over the world is the MOOC, Massive Open Online Course that gathers people from different horizons willing to collaborate. It offers a new pedagogical format in learning, teaching and training. In France, MOOCs began between 2013 and 2014 (Landry, 2014). Today, there are more than 1.4 million registered and more than 150 online courses.

Accordingly, ICT are transforming how we learn and how we come to interpret learning (Säljö, 2010) and have challenged teachers to work differently to continue practicing their trade. Many studies show that teachers' professional practices are changing because of the use of digital media, as young people in favor of digital technology increasingly abandon paper. But a review of the literature demonstrates that it is mainly the policies that strengthen ICT development to propose dynamic approach of teaching (Walder, 2014).

This literature reviews different attitudes toward these changes in France: progressions, regressions and stagnation in terms of techno-pedagogical innovation (Develotte, 2011). For some, ICT represent an insurmountable challenge for teaching because they are difficult to integrate into the professional practices of teachers and are not exploited as they should be (Poyet, 2015). Researchers observe that teachers' preparation, design and educational engineering activities are considerably expanded upstream but still lag behind the changing expectations in innovation. For others, it was noted that on the Internet, there is the best and the worst, raising the question of the teachers' teaching methods.

It stems from the above that the reforms conducted in France are moving faster than the adoption and adaptation of new technologies by teachers. So, what evolution in innovation arouses the most interest at present? And what do stakeholders think about this? The following section examines the drivers of change that encourage or constrain innovative pedagogic practices using ICT relying on the findings of two online surveys started in 2017 that ascertain the changing perceptions and determine what approach to adopt for future academic training that should be done collaboratively in business librarianship training.

Ideas for the Development of an Innovative Training Offer: A Case Study

In this section, we will describe how the actors directly involved and/or affected by changes in higher education interact with the technical-pedagogical devices. We focus on business librarian' training and we study the francophone context. The objective of the study is twofold: (a) to explore how actors take ownership of the training offer as a new reality, and (b) to describe how they are doing it to give a clean intelligibility to this reality.

Thus, we proceeded step by step. First, answers were given to the following questions: What are the goals of the survey? How long will it take to achieve the survey purpose? And whom do we want to address? Second, we determined some specific criteria. These included:

1. The socio-professional category (students in initial training, students in continuing education, teachers and professionals).
2. A selection of heterogeneous cases (those who are involved in a training program, those who are interested in training).
3. The last criterion is logistical: we wanted to reach the highest number of people. Thus, the study was based on two online surveys.

The objective of the first survey was to study the feasibility of implementing a new university degree in business library and to identify the needs in terms of contents and type of training. It was a web-based survey conducted through the SurveyMonkey application from January 5 to March 5, 2017. The sample was previously identified: employees in a company, community, association or research laboratory, jobseekers, retraining professionals and students. The survey was conducted via an online questionnaire to which 150 people replied. The survey consisted mainly of fourteen closed questions amenable to quantitative analysis. It included also an open ended question and a comments section.

For the second survey, which started in February 2017 and was broadcast on the networks, 221 people responded. We used the same application, and we kept mostly the same respondents' profiles -- students, employers and people in retraining. But, we added in the sample, both teachers who transmit their knowledge, concepts and theories in their classes to students and independent consultant trainers who shared their knowledge, practical experiences and competencies in the fields of documents with trainees who paid for the training. The objective of this second survey was to see whether all stakeholders were ready to work together despite the difference in interests and objectives, how exactly they consider collaborative working in innovation with ICT and if they proposed alternative means. This survey consisted of 35 questions: 23 closed questions, 10 semi-closed questions and 2 open questions.

A quick summary of the findings showed that for both surveys, almost three-quarters of respondents were women between forty and fifty-years old. They were mostly professionals of the book chain and multi-media. Based on the survey, those libraries trades are the most representative. Of respondents, 70% came from France in both surveys. Tunisia, Belgium and Canada were also represented but very weakly in the second survey (see Figure 1).

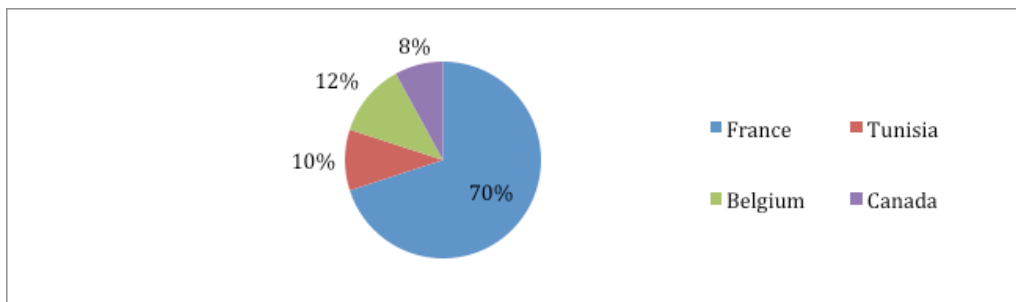


Figure 1. Respondents' country of origin.

Main Findings

About Innovation and ICTs in Training

Although many respondents talk about innovation and are motivated for its implementation (see Figure 2), only (10%) know how to make it happen (see Figure 3). They consider that clear ideas about creating materials and skills must be developed and tested before implementing innovative training.

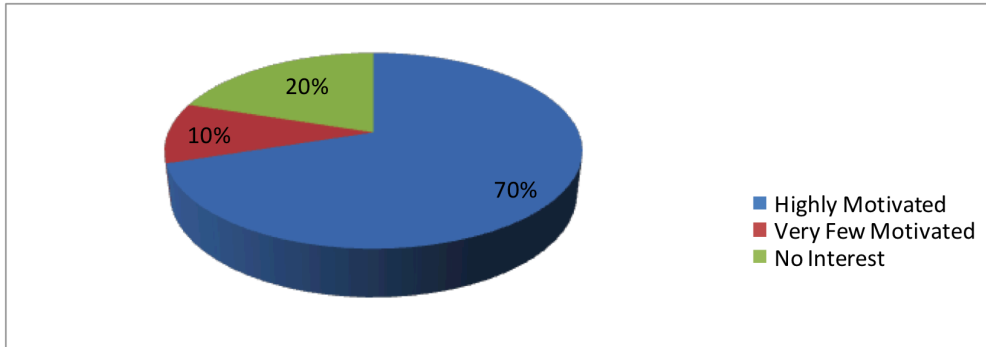


Figure 2. Are you motivated to innovate your training practice?

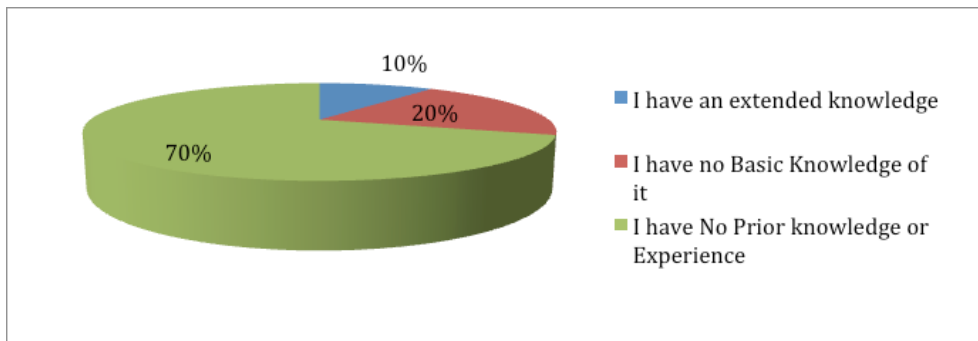


Figure 3. Knowledge about innovation.

To the question why use technology in training? There is a general agreement that “technology is useful and must be applied to facilitate classroom activities; and to assess learning inside the classroom or online.” All respondents agreed about the fact that technology supports them in finding, creating, and sharing content between them. However, the findings reveal some differences. In fact, respondents classify their priorities differently. For example, 35% of them consider that using technology enables them to enhance their activities, lectures and presentations while 44% believe that technology makes it easier than ever to share contents in different formats. For the remaining 21%, technology represents essentially a facilitator in class activities.

Besides, the survey reveals that teachers took into account other key areas: 38% of the respondents think that ICT get students more involved in course creation and 62% believe that it supports their current practice. However, all of the responding teachers consider that ICT must support what they do every day. So, before carrying it, it is fundamental to identify teaching and learning needs. One of the respondents said, “We can't put the cart before the horse! It is unrealistic and improper!”

Meeting Stakeholders' Needs and Expectations

Most respondents are interested in the new offer for three main reasons, which have been prioritized as: (a) to deepen the knowledge and skills already acquired elsewhere (47.73%), (b) to obtain professional recognition by validating a university degree (27.7%) and (c) to acquire new knowledge and skills (22.73%). The remaining 2.27% intend to follow this training to get promoted or to search for a business position.

To the question “what is the ideal offer for you?” the majority of the respondents plead for a training program resulting from the work of a collaborative community that exchanges and shares around pedagogical activities and crossed knowledge. Meanwhile, they classify their priorities for access to training differently: 65% of respondents require access to training in a mobility situation. Another 25% favor a flexible combination of security and access management activities. For them, the major challenge is to define the rules and processes in terms of access to services and pedagogical activities that will be available for users. For the remaining 10%, the security and the simplification of the modes of access are the leitmotiv that will determine their choice.

Regarding who can undertake and participate in the establishment of the new training offer, all respondents prefer that the courses be taught by professionals (52%) and teachers (38%). They consider that only students who are at the end of the training year could participate (20%) in the new innovative training program (see Figure 4).

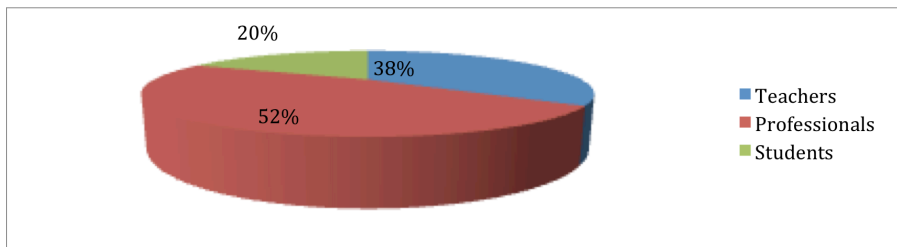


Figure 4. Who can participate in the innovative training offer?

Furthermore, 64% opt for face-to-face interviews between the trainer and the learner, compared to 46% who prefer group discussions to promote collaborative work and knowledge sharing (see Figure 5).

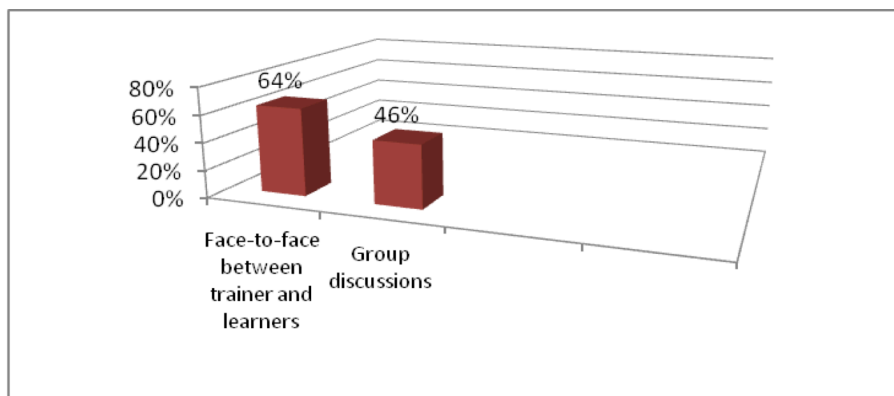


Figure 5. What do you prefer in the innovative training offer?

In addition, the idea of offering training that is accessible to all, whether they are students, professionals or simply curious participants, seduces most of the respondents. It seems always awesome! – 55% of respondents would like to have training that follows the needs of learners and gives them the opportunity to have access to information and training about traditional occupations, as well as other professional areas related to digital. However, 45% of the respondents seek more freedom in learning. They want the new training programs to enable everyone to modify courses and add items such as images and text boxes in order to enhance lectures and presentation with technology.

Opinions About the New Training Framework in Business Librarianship.

Concerning the offer's content, the existence of a shared interest may simply be observed (see Figure 6). The findings reveal that most respondents interested in this training are librarians, or information officers or else students in information and communication sciences. Booksellers (5%) and publishers (10%) are interested in this training, too.

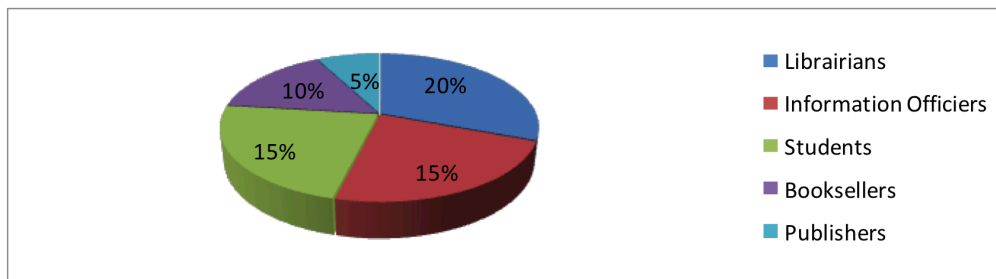


Figure 6. Who is interested in this offer?

Concerning teaching modules, the results of the two surveys show that the most popular courses, concern the mastery of collaborative tools, strategic intelligence, IT governance, KM and collective intelligence exercise.

However, respondents have shown their interest in other content such as:

- The learning of languages other than French
- Pedagogical innovation
- Writing on the Web
- The management of time in the digital age
- Communication and information on social networks

Furthermore, all the respondents want rich and scalable content following news from the business world that could analyze the issues of information literacy in organizations and could provide information on the specifics of each country including legal and administrative plans. According to all the respondents, the ideal for them is to have a theoretical knowledge part and another part dedicated to specific cases with techniques. However, some respondents stress the idea of have training adapted to the needs of students who are different from that offered to professionals with distinct approaches and contents.

Concerning teaching methods, all the respondents believe that face-to-face and online courses are complementary. But they do not agree on the importance accorded to each. Indeed, 72% of respondents consider that the hourly volume

devoted to face-to-face training must be more important than that of online courses. Training must focus on the practical case study that requires face-to-face training with trainers and immediate and concrete answers. They add that everyone should be given the opportunity to move at his/her own pace; thus, it could be useful to utilize online courses.

Regarding innovative tools in training, there is a general agreement about the MOOC: the MOOC is a very attractive solution because it is accessible and digital for 77% of the respondents. The other 23% of them think that it is the multiplicity of the conditions of its use (use alone or in group) that makes it attractive. Most respondents assume that the MOOC should have two components, a paid component that offers training only to subscribers, and an open space that provides free access to general information and offers short videos dealing with the profession of business librarians, their activities and the reality of this profession. Meanwhile, 92% of respondents believe that MOOCs meet a specific and urgent need such as taking a new position or participating in a competition or even looking for a job. It must therefore be specific and not general. Besides, 71% of respondents believe that MOOCs should be open access and should complement face-to-face classes. For the remaining 29%, courses must be paid for. They find that users will pay more than 50 Euros for access while others think that such access must be between 20 and 50 Euros.

Finally, it should also be noted that the respondents have put forward several obstacles to the implementation of real collaborative work: 67% highlight the complexity of this project, which underlies the fact that they do not know how to go about it. They consider that further collaborative work dealing with different aspects (such as technology, changes in human behavior, legal evolutions, and new practices in work processes...) should be studied before the conception of the framework.

Conclusion

The findings confirm the research hypotheses that have been presented in the paper. It is clear that innovation has a positive impact on almost all stakeholders, regardless of their socio-professional groups. They do not want ICT to radically change teaching methods. They did wish that training should be carried out by instructors who have a strong foundation in the form of knowledge and valuable experience in business librarianship.

The findings show that almost all the respondents are willing to change their habits but they don't know how to choose the right application or tool, that's why they remain cautious. They require further information about its applications and benefits.

In addition, the findings underline a problem of disparity between the expected objectives and the real needs. There is a certain consensus regarding innovation by ICT in training that gives us a little more information about the aspects that should be analyzed before setting down our innovative academic project in business librarianship's training. So, continuous sharing of

knowledge and best practices will facilitate the intelligent and appropriate use of ICT in the new offer of training.

The study confirms the substantive gap between the requirements and expectations as well as the reality on the ground. The observed distrust affirms the need to continue to communicate more between different actors to establish a successful collaborative project. Otherwise, the project would risk losing focus through the development of a framework that would be too large and disparate. In doing so, there would be no need to follow the procedure if the difference of perceptions is important.

The paper shows that despite the motivation for innovation by ICT, we should be more careful as it demands further time and willingness to deal with it. We have to undertake more ambitious research that deal with three main aspects:

- Describe and apprehend digital practices of all stakeholders in order to accommodate individual needs and differences.
- Gather these actors around the project to define what is meant by “innovation by ICT.”
- Getting them involved in the development of the pedagogic device and framework design.

In conclusion, the results that have been obtained from the quantitative research are very significant as they provide a general view of the situation and permit us to determine those who want to participate in the project. The quality of the data is lacking and we must deepen our research knowledge. Until now, it remains a work in progress but we are only just at the beginning of this process. A qualitative survey will give depth and better understanding about the academic digital pedagogy in Business Librarianship. This survey where data will be gathered by means of interviews will lead to extracting concrete ideas and suggestions for the project.

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