OVERVIEW ON DIGITAL EDUCATION IN FRANCE

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ABSTRACT

After writing and printing, digital seems to become the third social revolution. Nowadays, an increasing competition settles between world powers in this area. According to international statistics, France is not among the holders of a "digital society" label. Trying to "catch up" the delay, the country demonstrates a proactive policy in order to accelerate digital usage in both society and school. Equipment of schools, continuing training for teachers or attractive digital activities for students, are just some measures in this direction. Initiatives proposed for the future are ambitious: create a "Digital France" label, change the image of the digital jobs and develop a data security and privacy policy. However, the major challenges of the education system will be media education and actions to mitigate the risks of Internet use.

KEYWORDS: France, digital education, media literacy.

RESUME

Après l'écriture et l'imprimerie, le numérique semble devenir la troisième révolution sociétale. De nos jours, une concurrence de plus en plus acerbe entre les puissances mondiales s'installe à cet égard. Selon les statistiques internationales, la France ne figure pas parmi les porteurs d'une « *société numérique* ». En essayant de « *rattraper le retard* », le gouvernement manifeste une politique volontariste de faire pénétrer le numérique tant dans la société que dans l'école. Équipement des établissements scolaires, formation continue des enseignants ou activités numériques attrayantes pour les élèves, ne sont que quelques mesures prises dans ce sens. Les initiatives proposées pour l'avenir sont ambitieuses : création d'un label « France Numérique », changement d'image des métiers du numérique ou mise au point de la politique de sécurité des données. Néanmoins, les défis majeurs pour l'enseignement demeurent l'éducation aux médias et les actions entreprises pour pallier les risques encourus par l'utilisation de l'internet.

MOTS-CLES: France, numérique éducatif, éducation aux médias.

SOMMAIRE

1. General contexte

The digital penetrates the human societies and our everyday life. Actually, school is not immune to this increasingly influence. The human being is called to manage in an active and responsible manner this "digital revolution" in order to acquire appropriate knowledge and relevant skills. If people are able to draw the best lessons of this digital movement, the future will tell us. For the moment, all around the world, a "competition" between countries is taking place. A major world power, France seems to be behind some countries and, for that reason, efforts to catch up this offset are intensifying. What is the place of France among its competitors and how would we describe the current landscape and the future prospects of French digital education?

In the present article, we propose an analysis of the digital education strategies developed in France. For this purpose, we will proceed in two stages. Firstly, we will present some aspects of international and European digital education so as to better position the place occupied by France. Secondly, we will expose a few relevant French experiences in digital education and also the proposals for a future strategy in digital field. We shall conclude on both opportunities and challenges of digital development in the education area.

2. Digital Education around the World

Educational context has been changing its face the last decades given that the educational upheaval that have appeared in the national and international landscape is nowadays amplified by the digital's penetration in the private and public life. The objective of the educational partners lies in the appropriate support for students so that they succeed in their studies. New technologies are promoted as "educational hinge", invested to overcome failure and educational inequalities. Let us see what is the reality at the international, European and French level in the field of digital education.

2.1. International and European panoramas

It is necessary to mention that there are great disparities between countries concerning the digital education. Nevertheless, new technologies have made their entry into the education systems, being more and more present among pedagogical resources. Even if there are a lot of comparisons directed on several items – number of computers by students; number of interactive whiteboard or projectors in schools; use of iPad in the pedagogical activities or replacement of textbook by digital textbooks –, the digital landscape is quite complex.

Researchers stress the point that digital resources should complete and no replace traditional resources.

At the international level, digital skills become one of the core skills for lifelong learning. In this respect, the Unesco and the IITE – Unesco Institute for Information Technologies in Education – defined in 2011 the digital literacy and the basic information and communication technologies (ICT) to be appropriated for all leaners. In the context of this work,

ICT user skills are those that should be learnt by all citizens of the knowledge society in order to:
  • select and apply ICT systems and devices effectively;
  • utilize common generic software tools in their private lives;
  • use specialized tools for work;
  • flexibly adapt to changes in infrastructure and applications (Karpati, 2011, p. 3).

Focused on lifelong learning policies, Unesco supports the integration of digital skills into the core skills and also the use of new technologies in adult education. Passing from political to practical level, some countries have implemented strategies for digital education. For example, the US and Canada have conducted research concerning the use of the iPad in school. In Singapore, the IPad has replaced many textbooks involved in the scholar processes whilst in Thailand, the project One Tablet Per Child (OTPC) aims to replace paper textbooks in digital format for five core disciplines. Moreover, after having digitalized entire textbooks, South Korea is seeking solutions in order to diminish risk exposure due to on screen work (eyes fatigue or decreased vision).

At the European level, the European Union proposed in 2006 a list with several core competencies for lifelong learning. Among the eight competencies listed, the digital skill is defined as following:

Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet (European Union, 2006, p. 6).

The digital competence is more and more nested to other core competencies like communication in the mother tongue and in foreign languages, but also mathematical and technological skills. Thereby, in Europe, Switzerland is extremely interested in media literacy, responsible use and media risks whereas Belgian students use interactive tablets. In the UK several programmes like *London Grid for Learning* promote the integration of the news technologies in the pedagogical activities (Ministry of National Education, p. 2) and the students prepare their homework through handhelds. Nordic countries seem to be the most invested on the use of ICT in the teaching and learning acts. But, the situation of France it is not the one desired by policy makers.

2.2.   The Education Landscape and the Place of France

From an education point of view, France has been confronted with a lot of issues. For example, according to the PISA's results in 2012, the country presents a great discrepancy between the most and the less performant students (OECD, 2012), which reveals an equity divided of its educational system. There are several main facts to be put into light:

- socioeconomic origin of students is strongly interconnected with scholar performances;
- boys forestall girls in mathematics who are less confident concerning this discipline;
- immigrant children are twice susceptive to be counted by the less performers;
- 11% of French students consider school a waste of time;
- commitment and motivation for school is decreasingly and consequently almost one in three students arrive in late and one in five miss classes at school;
- participation in kindergarten and mathematical competencies are linked (OECD, 2012).

Thereby, French education system is bound to find solutions in order to become more inclusive, equitable and performant.

School is a large "human laboratory" supposed to give to every student the opportunity to succeed in life. But the French education system has needed an improvement for several decades now. Bourdieu and Passeron (1970) drew attention to the social and implicitly, scholar "reproduction". Nowadays, statistics from CEREQ show the lack of efficiency and equity of educational opportunities facing the dropouts. Each year, some 140,000 students leave school with no qualifications "which penalizes them considerably in terms of access to the workplace" (Bouvier, 2014, p. 5). Thus, public actors and educational partnerships are invited to alleviate the effects of non-school success in order to enable a better future for French citizens.

On the other side, Michel Serres (2012) noted that a societal upheaval and a "disruptive technology", similar to the invention of writing or printing in the past, are happening before our eyes. Apparently, this digital revolution could be profitable for the education system. In order to fight against early school dropout, policy makers sustain that it is necessary to put the digital tools to the benefit of differentiated / individualized education, addressed to all kind of students and learners. It would seem that new technologies are the sought solution for dropout, inequity and inequality at school, and also for refinement of school results.

3. Digital Education in France: Present and Future

It is said that digital movement is the third technical revolution for the humanity' history after writing and printing revolution. We saw that France is currently confronted to several educational issues that, as claimed by the policy makers, could be solved thanks to digital technologies. In this part of the article, we will analyse firstly, the current characteristics of digital education in France and secondly, proposals for a digital education policy.

3.1.   Current Characteristics of Digital Education in France

The OECD's recent TALIS study shows that digital technologies are not regularly used by French teachers in the education process. If the international average is located to almost 40%, in France only 23% of teachers use new technologies[4].

The 2013 Ministerial Report "The structuring of digital education sector: an educational and industrial challenge" highlights a proactive attitude for the transition to the digital school. Inspired by the Fourgous' Report entitled "Success the digital school" and launched in 2011, but also by the second Report from 2012 "Learning otherwise in the digital era", subsequent measures in digital matters concern mainly:

- appropriate digital equipment;
- development of digital work space – ENT (*Espace numérique de travail*);
- training teachers and creating pedagogical innovate resources.

In order to reach these objectives, France has proposed to put into practice a real policy on digital education promoting economical (iPad for 100 euros), pedagogical (initial and lifelong training for teachers) and juridical (copyrighting and data protection) aspects. Thus, on 8 July 2013 was adopted the Law concerning the Re-foundation of the Republic's School – *Loi pour la refondation de l'École de la République* – which established the Public Service of digital education. This Service is responsible for sharing good practices and digital productions between teachers so as to reduce social and scholar inequality and to create an "*educational networking*" by means of digital technologies. Several services have been organised already in order to accompany both the learning and the schooling processes.

On one hand, proposals for teachers concern predominantly the following:

- "*Fundamentals for teaching in primary school*" (animations to explain how to teach different disciplines);
- "*English for school*" (English teaching);
- "*M@gistère*" (tools for continuing learning);
- "*Eduthèque*" (digital library);
- "*D'Col*" (for priority education) and

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[4] Average is not relevant: for example, in Finland – which has one of the best educational system all around the world –, average in this sense is less than 10%.

- "*Prep'exam*" (preparing for brevets and baccalaureate).

On the other hand, in order to promote a better teaching, a few programs were developed, such as:

- "Reading, one year for reading literacy" – *Lire, une année d'apprentissage de la lecture* (to help teachers and parents to help students on literacy);
- "My internship online" – *Mon stage en ligne*;
- "My second chance" – *Ma seconde chance*;
- "My industry" – *Mon industrie* (geo-localization of institutions for students in dropout situation).

Thus, policy makers fixed the objective to pass to the "digital school" in France.

Moreover, for the beginning of the academic year 2016, a new Reform will be implemented. The center of this reform is the implementation of the Common Core Skills, five competence related education fields. Within the "Common Core Skills" we may find "communication and learning" competencies, but also "methods and tools for learning", with explicit reference to the use of digital tools for the educational process. Learning to learn, learning to properly use research tools, including Internet, and learning to make use in a relevant way of digital technologies.

3.2. Future proposals for the French digital education

Even if the ethical and juridical issues of the use of new technologies in school are still not well mastered, France aims at all costs to become a "lighthouse" nation in terms of digital education. According to the White Book "Digital, an opportunity to catch up by France" – *Le numérique, une chance à saisir pour la France* - the country is positioned only 26th in the annual ranking of the World Economic Forum in terms its capability to take advantage of the information technologies. Socio-economical barriers seem to be at the origin of the gap between France and the more performing digital countries like China, India, Korea, Israel, Nordic countries or the Unites States. As stated by forecasts, in the next ten years, 65% of present day students will exercise jobs not yet invented and 9 of 10 jobs will need digital skills. Currently, the digital sector of the economy lacks almost 50,000 collaborators; so if the digital sector will be completely deployed, it will contribute 1,000 milliard euros to the French economy by 2025 (CGI, 2015). The Digital National Council – *Conseil national du numérique* - is responsible for coordinating these different initiatives in the field of information and communication technologies.

Apparently, according to the CGI's Report, French girls are less motivated for digital job and consequently, some initiatives like Educalab were put into practice in order to raise the attractiveness for this kind of job. Digital learning seems to become a priority for the country. Given that digital skills must be appropriated by learners – from primary school –, students beneficiate of the programme "Usual Technics of Information and Communication" –

Techniques Usuelles de l'Information et de la Communication. Different digital programmes are sanctioned by IT patent or certificate of competencies. New digital resources such as rapid learning or social learning are more and more encouraged. Moreover, following the model of the option "Informatics and Digital's Sciences" in place since 2012, a new spinneret, entitled "Digital humanities" will be created for general baccalaureate.

Ultimately, CGI's Report lists 33 proposals for the digital French. Among these, the most important for our research are:

- the creation of a label "Digital France" – *France Numérique*;
- the reinforcement of the lifelong training or professional reconversion towards the digital field;
- the change of perception of digital jobs, particularly by women;
- the launching of a national platform dedicated to the digital training;
- the development of "smart cities" and of French e-safety;
- the creation of the right to anonymity on Internet;
- the reinforcement of the privacy of personal data / permission to access to one's personal data and the creation of a Safety Policy in Information Systems.

No doubt, big data processing and cyber-attacks remain the biggest challenges for the respect of private life. We presented only the most relevant proposals in order to provide our Anglophone readers with some elements concerning the French digital landscape.

4. Conclusions

Beyond these political and pedagogical measures, there are a great challenge for the future, not only in France, but all around the world. How to put into practice media literacy and in what manner could students and users be aware of the safe use of Internet and social networks like Facebook? Could they have a responsive, critical use of data provided by the World Wide Web? Described as "*the ability to access the media, to understand and to critically evaluate different aspects of the media*" (European Union, 2007, art. 2), media literacy will be more influent and useful in the future because learners of all ages need to use responsively the new technologies.

In sum, there are several big challenges for the future on digital education in France, that is to say: media education, cyber-attacks, big data processing and privacy of personal data. The following table schematizes the most important elements in this respect:

Challenges for digital policy in France			
Media education	Privacy of personal data	Cyber-attacks	Big data processing

Table 1: Challenges for digital policy in France

In this direction, as part of the European Union, France must pay more attention to media skills which maybe will be integrated into the list of European key competencies for lifelong learning (European Union, 2009, Recommendations I.3). As we saw in the present article, France shows a strong willingness to improve digital education in order to compete the other global powers. Of course, the big challenge remains to counteract the risks of a passive use of Internet and also the protection of personal data. For that reason, media literacy must become, from our point of view, a priority for the future digital skills.

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