Pupils and knowledges in the digital era: crossed looks

Coordinated by Cédric FLUCKIGER and Renaud HETIER

Summary of articles

- **LAURENCE LE DOUARIN**
  
  A sociology of the practices of ICTS in the test of free time: the case of the high school students during the year of the high school diploma

  What’s sociological though to understand the use of ICT by students of final year? It says that they are the "Google generation" which raises problems (literacy, internet risks, etc.). We would understand their digital uses for homework, by studying the social contexts of use and how they articulate school work and leisure.

- **ELISABETH SCHNEIDER**
  
  How digital writing modifies the concept of the youth subject and leads to define a geography of writing

  The social, individual and cultural youth’s life, all the activities, are indeniably related to digital tools. Writing is always present because it’s a transversal technique- places, activities, supports, materials- which affords to question the adolescent subject. The theorycal tools of geography, information sciences and ethnography are involved in making sense of the youth’s use. A two years’ survey with teenagers in highschool, at home, in transport, and boardingschool, leads to analyse teens’ writing in a new way. We’ll examine the interest to think by cases to really see what the youth do when they write in the different contexts, across the media. Finally we try to see what a geography of writing could be.

- **MICHEL MAROCCIA, HASSAN ATIFI & NADIA GAUDUCHEAU**
  
  Construction of relationship to others in teenagers discussion forums and academic learning. The point of view of interaction analysis

  Through the analysis of a corpus of on-line interactions (a sample of discursive exchanges from the discussion forum Ados.fr), this paper shows the benefits and the limits of an interactionist approach for understanding the “digital learning subject”. With this point of view, this subject is an “interacting subject” who builds his relationship to others thanks to and in the on-line discursive interactions. This paper permits to describe finely the way complex and paradoxical interpersonal relationships are built: intimate and weakly interpersonal, cooperative and unequal, fun and aggressive. This paper proposes also some remarks about the effects of extra-school digital practices on situations of online learning.

- **ANNE CORDIER**
  
  The construction of the school subject in research in Information-Documentation

  How to understand the « digital learning subject », i.e. the young student- information investigator in the research of information and Communication Science ? The epistemological difficulties to address this issue are numerous : the generational approach stigmatizes this audience, while the
user information approach is very normalizing. Information and Communication Science have yet much to part to understand this regard in all its complexity. We propose a link between information practices, attitudes and perceptions of operators, taking into account the social, material and symbolic spaces in which these practices register. To do this, it is necessary to affirm the formality of all information practices, the result of an encounter between individual and social logic through an ecological approach to information.

CEDRIC FLUCKIGER & YVES REUTER

Computer science contents and their reconstruction by CM2 pupils. Didactics study

Within this issue of the Journal "Recherches en Éducation" dedicated to the different ways research deals with students in the digital ages, we focus in this article on relations between students at the end of primary school and computer science “contents”, organized within the B2i. This article, included in disciplines didactics, aims at characterizing these teaching contents and at drawing some facts of this relationship. Invoking the concept of “disciplinary consciousness”, we try to determine how students imagine these contents, rebuild an image of the contents, their utility or purposes. Students are therefore conceived here as didactic subjects, ie “computer science learners”. We first detail our question’s didactics inscription, then we question the disciplinary status of computer science related contents. Then we examine how students answer a questionnaire in order to study how they “rebuild” and “live” these contents.

ANDRE TRICOT

The cognitive subject of learning

When using ICT to learn, humans perform a complex task that is difficult to study. Researches on this topic encountered several problems. Three are discussed here: a) Is it possible to describe, within the same framework, implicit and explicit learning with ICT, academic and non-academic learning with ICT? b) Do ICT involve different learning processes? c) What is the motivation to use ICT and does motivation has an effect on learning with ICT? To address these problems, a renewed learning approach can help. This approach considers the cognitive subject of learning as being able to learn in very different ways depending on whether there is an adaptive or non-adaptive issue. This approach also considers that the human subject mobilizes very different learning processes, involving that the tasks and tools that support these learning processes are necessarily very different. Finally, this approach considers that human subject’s knowledge on her/himself and his/her learning goals have a significant effect.

GEORGES-LOUIS BARON

Pupils, learning and "digital technology": retrospective and perspective

From audio visual aids to digital online resources, in the last 50 years, a series of waves have broken upon the educational system and then recessed. Each one has had its own characteristics, its own aims. The main focus has been upon substituting devices to teachers, individualizing teaching, sparking collaboration between learners, educating a generation of citizens able to take into account the stakes of those new technologies. Something has however remained constant: in France, the discussion about what represented those new technological waves has turned about whether they were rather teaching objects or tools for teaching, these two orientations leading to different organizational consequences. The following text studies this tension first from a historical and then a prospective point of view. It first presents the evolution of the great theoretical visions produced by research on educational technology and then discusses the current tendencies regarding installing new curricula.

STEPHANE SIMONIAN

Man’s rehabilitate with technology

The tension between a functionalist and phenomenological approach artifacts suggests two conceptions of technology. The first one, functionalist approach or “utilitarian”, aims at knowing what an artifact can do; the second to an artifact can understand. This double issue will be developed in a philosophical approach, relying in particular on the thought of Simondon (1958). In this perspective the debate deals with the look worn by men over men in the introduction or use of technology. Is it possible to reduce man to a “technical person”? The technology enable to enhance the "phenomenological" dimension of men? These central questions are a special place in the
educational and formative sector which attempts to introduce technology are always delicate animating often heated debates between supporters and technophobic. It this article, we puprose a “unifying” approach to the relationship between man and technology considering technology as a way to enoble the human in that it has more specific (to interpret, understand, remedy of error, etc.), to release certain functional requirements to enable it being to the world and in the world. One consequence is to change point of view about technology, for example, recognizing that train teachers, students, technology is also to form them without technology.

JEAN-LUC RINAUDO

*Interest and limits of the psychoanalytical approach for research on ICT in education*

The purpose of this paper is to show how the clinical approach with a psychoanalytical perspective can be applied to analyze the use of information and computer technology (ICT) in the field of education and teaching. In the first section of this paper, the characteristics of this approach will be elucidated. Then, we shall see how computer practices and educational practices, taken in their broader sense, can be understood through the prism of the myths and the desires that underlie them. With the help of an example from our research work, we shall study how computer practices in education combine psychological aspects around the concept of the negative and those of the construction or reinforcement of links, for both the group and its individuals. In conclusion, we shall point out the scope as well as the limitations of this approach to knowledge production.

RENAUD HETIER

*Attachment to the Digital and Detachment from the Body*

Digital devices, being permanently available, authorizing ourselves to be linked with other connected users, alter our vision of time and space. Extended to the network level, this experiment finds its place in space, and, making every moment equally important, detemporalizes itself. As they allow an almost continual presence, digital devices ask for a permanent availability of our individual bodies. School, also impacted by this networking, strengthens its tendency towards individualization (each pupil being busy with its own tablet) and may not develop an ability of bound-together learning. The virtualization of present time, activity, violence is part of the humanization process as states Pierre Levy. But digital commitments of the young generation are to be analyzed on the game level, understood as a virtualization of the game (playing with language, playing with technique). This twofold mediation (game + virtualization) makes it easy to mix game and violence, the last being avoided by a deliberate distance and by fictionalization. As the borderline is not experienced (by destruction, by experiencing vulnerability), the necessity of an agreement virtualizing violence may not be felt. Indeed, not everything can be virtualized, and the body-to-body experiment needs to be anticipated to learn how to live together. The temptation of getting rid of one’s body (for a lighter life ?) must be worked on. Moreover, school, thought as a space where to share one’s living, is a space (of working, of knowing) only when it is shared and inhabited.

Varia

JEAN-MARIE BOUDARD & FABIENNE BRIERE-GUENOUN

*Practices of didactic regulation in physical education : two contrasted case studies*

The article focuses on the practices of didactic regulation of teachers in physical education. The research proposes to identify communications of two experienced teachers to identify learning objects, terms of regulation and what determines. The method is based on video recording and interview. We show that their practices regulations, in the study context, are very different quantitatively and qualitatively. This observation is the starting point for an inquiry into what determines these contrasts.
**ERIC FARDET**

*Current pop musics and jazz vocal polyphonic teaching*

In France, the articulation between the specific model of "conservatoires" (establishments recovering from Ministry of Culture) and art education dispensed by Ministry of National Education remains to specify in particular for teaching of current vocal practice. The actual implementation of decentralization, the reorganization of higher artistic education and the development of amateur practice is an opportunity to examine cultural policies, particularly the effective place of vocal jazz groups in current practice, by promoting synergies between various protagonists, associations, Regions and State.

**MARYVONNE MERRI & SYLVIANE VEILLETTE**

*From the boat to the vocational school: working representations of learning and teaching of maritime technology teachers*

One of the missions of the French Maritime Schools is to train future fishermen. Among the teachers at the Maritime School, most of them are former fishermen and/or merchant sailors who have made the transition into teaching. The aim of this paper is to describe the representations of learning and teaching of maritime technology teachers, as well as to further understand the foundation of their representations based on their career, the conditions of their previous apprenticeships (through family, at school, or on the boat), the circumstances surrounding their "migration" towards teaching and the characteristics of their current students. To do so, we gathered the stories of seven former sailors who became maritime technology and navigation teachers. They revealed the conditions of their learning and of their job on the ship, as well as teaching at the Maritime School, which are the circumstances of their consequential career orientation. The maritime technology teachers revealed the main purposes of their activity: to train sailors who follow maritime regulation and acquire maritime knowledge. While often faced with students who have a difficult relationship with school and are occasionally considered as "landsmen", the teachers implement various tools to encourage students to acquire a certain appreciation of the maritime environment, as well as to integrate the various restrictions presented by this environment in the learning process.

**JOËLLE MORRISSETTE & GREGOIRE COMPAORE**

*Interactive Formative Assessment Strategies According to Various School Forms: Regular, Kindergarten and Physical Education Classes*

As in many OECD countries, Quebec opted for a curriculum revision based on a competency approach since 2001. One of the main problems stemming from this approach is the operationalization of the competency assessment for teachers. In the context of this article, we expose and discuss the interactive formative assessment strategies (non-instrumented) of preschool and primary school teachers mobilized as part of this approach. These strategies are examined with respect to the various "school forms" (Vincent, 1980) that characterize the work environment of teachers. The analysis conducted identifies strategies common to the three school forms and outlines more specifically unique characteristics, namely the prevalence of a normative perspective in a regular class, of accountability in a physical education class and of differentiation in a kindergarten class. In this respect, some contexts seem to be more favourable for formative competency assessment.

**YANN VACHER**

*Referent Teachers: evolution of intentions and logics of action during a training*

Teacher training has undergone profound reforms which lead to rethink its contents and methods. The Masters system and the change of structures of the internship year have, as such, produced a revolution in the training practices. The increased use of Referent Teachers (RT) is a significant phenomena. The present article gives the results of a research conducted on the impact of a particular use of this tool during RT training session, teachers who are most of the time appointed on the basis of their expertise in teaching. The research, and the present article, focuses on the effect of training whose objective is to bring the PR in the professionalization process that allows them to overcome this only expertise in teaching. The particular use of Néopass platform that is
suggested aims at making RTs aware of the multiplicity of tutoring situation and therefore of the potential profiles of intervention. This article highlights this shift in representation from an expertise in teaching (content) to an expertise on training (méta) but also the necessary conditions to operate this transition to a reflective practice in particular through a structured and perennial training.