Teenagers' information practices in academic settings: What relevance for a transliteracy-based approach?

Karine Aillerie

Aillerie K. (2017). “Teenagers’ information and media practices in academic settings: what relevance for a transliteracy based approach? “, *Journal of Librarianship & Information Science*, 1(9) DOI:10.1177/0961000617742463

Teenagers’ information practices in academic settings: what relevance for a transliteracy based approach?

Introduction

We will not dwell here on the digital transformation discussed by many researchers but we would like to emphasize that the means of obtaining information have been radically restructured, rather than being replaced, by connected technologies. As Jenkins argues, the current media landscape is being shaped by individual everyday-life uses and by an expected direct interaction for users with knowledge and contents (Jenkins, 2006). Other points we are interested in are the social dimension of current practices, especially *via* social networking sites (SNS), and the fact that daily digital uses could blur the borders between contexts (Broadbent, 2015). Moreover we keep in mind that the required “21st century skills” level has considerably increased or become more complex (Voogt & Roblin, 2012). Teenagers are the first group affected by these requirements while their individual information habits are “complex and fascinating” (boyd, 2014) and deeply heterogeneous. We examine here the possible relevance of a transliteracy-based approach to better understand high school students’ information uses and the way they produce content within academic situations.

Teenagers’ media and information practices have been extensively studied by researchers, especially in the context of personal context, perhaps less so in the school environment. Their media uses are multifaceted, mixing social and recreational activities with educational obligations, etc. What is important here is to broaden the focus, to understand these practices at school *and* at home rather than at school *or* at home, especially when the schools' requirements increase the need to work out of school. Moreover, these uses have until now been considered mainly from a digital perspective. But we consider it important to describe the richness of everyday life uses taking into account the current plethora of information means, media and tools, available online *and* offline. “Holistic in nature” (Megwalu, 2014), an approach based on transliteracy, as originally defined by Sue Thomas and colleagues and then theoretically developed by many scholars, seems intrinsically relevant. Even though it originally came from a study of literacy as such which was outside the field of library and information science (LIS) itself, transliteracy, that we will define more precisely in this paper,

has joined the ongoing studies into Information Literacy (IL), the overhaul of education guidelines and the possible introduction of new or different perspectives required by the current socio-technological context (Aillerie 2015).

Proceeding from a program funded by the French national research agency (ANR Translit[1]), our research questions are:

- What can a transliteracy based approach tell us about the observed information uses?
- How could a transliteracy-based approach be constructive for research into teenagers' information uses?

We begin with a definition of transliteracy compared with multimodal media literacy and metaliteracy, prior to giving the reasons why we have chosen transliteracy as the basis of our investigation. Based on an ethnographic methodology including observations of existing situations at school and interviews, our findings will then focus on the possible aspects of transliteracy in action, i.e. how students manage information with all the media and tools at their disposal, individually as well as collectively, in order to produce the required outputs.

What is transliteracy?

The idea of transliteracy comes from academic work undertaken in the early 2000s in the fields of communication and cultural studies. Initially, researchers aimed to shed light on the relationship between digital media and reading and writing practices. The article "Transliteracy: Crossing divides" by Sue Thomas and colleagues, set out the operational definition of transliteracy as "the ability to read, write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and films, to digital social networks" (Thomas et al., 2007). Transliteracy does not come directly from the field of LIS but extends and broadens the notion of IL. It emphasizes the need to encompass different literacies, not only those related to recent new technologies but all means of information and communication currently available, on- and off-line (Ipri, 2010, Sukovic, 2017). Thus, transliteracy, initially understood as a field of expertise, is currently contributing to the development of a theoretical approach which matches the fast-changing information world and real users' practices. We here specifically choose to base our investigation on this perspective and will explain below the epistemological and methodological reasons that lead

[1] http://www.agence-nationale-recherche.fr/?Projet=ANR-12-CULT-0004

us to this choice. However, let us consider transliteracy with regard to other similar approaches in order to better understand what makes it specific.

From digital literacy to transliteracy

We focus here firstly on digital literacy, as transliteracy can be misunderstood to refer to digital media and online information uses only. Initially, the concept of "literacy" basically refers to the "ability to understand and employ printed information in daily activities, at home, at work and in the community – to achieve one's goals, and to develop one's knowledge and potential" (OECD, 2000). Developed in the context of the pre-eminence of printed and textual formats, this concept is nevertheless fundamentally linked to the medium to which it relates and to the social contexts in which it develops. Over the last few decades, capabilities and behaviors have become increasingly important in an era of media, technological, economic and cultural convergence. Thus, the concept of "digital literacy" has become established since the late 1990s, initially introduced by Gilster as "the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers" (Gilster, 1997). The most important elements of digital literacy are the ability to understand and use information from various digital sources; the basic ability to read and write in a technological world, and above all, the ability to use critical thinking. In line with this definition, Peters and Gervais describe three main principles of digital literacy: the use of computers, software programs and the Web; the understanding and critical thinking the user is able to have on the retrieved information; and creativity (Peters & Gervais, 2016). Therefore, digital literacy is really specific. However, while there is a close relationship between information and digital literacies, they are not entirely the same thing (ALA, 2013). One reads, writes, gets information, and produces content with digital tools, but not only those. Information uses are therefore likely to be considered relevant to every media or information channel currently available, from books and websites to SNS and even word of mouth. To manage this complexity, authors therefore proposed overarching approaches: namely multimodal media literacy and metaliteracy, which are both similar to transliteracy. Distinct from cumulative or hierarchical approaches, these initiatives work within a revised theoretical paradigm and toward its incorporation into the field of education.

Transliteracy and similar approaches

Multimodal media literacy (MML) is a concept inherited from the concept of multiliteracies (Cazden et al., 1996) which highlighted the diversity of communication means in globalized

societies and the need for a suitable pedagogy. The current media landscape requires skills able to combine different modes (linguistic, visual, and auditive) usually within the same medium and the same content (Lacelle, Lebrun & Boutin, 2012). MML defines the specific skills relating to the reading, analysis and evaluation of the various media, both printed and electronic, which gradually bring to an end the boundary between the reader and the writer. Three basic domains of MML are presented in the literature: information proficiency, aiming to define effective seeking strategies and to analyze, organize and review information sources especially on the Internet; technological proficiency, centered on the adoption of tools; and multimodal proficiency, relating to the ability to read and communicate effectively by combining writing, image and audio in a variety of media (Lebrun, Lacelle & Boutin, 2012).

For its part, the metaliteracy model was developed within the field of LIS (Mackey & Jacobson, 2014). The challenge was not to add other literacies but rather to propose a theoretical and practical overarching framework able to unify the many aspects of IL. The model aims to train students not only to search effectively for information but also to understand and modify their own information habits. This model is thus intended to be part of a complete institutional training project, to be incorporated into the curriculum and to close the gap between daily habits or abilities and information-communication skills. To effectively apply metaliteracy in practice, the model is presented through a visual diagram that outlines IL basics enriched by four skill areas: collaboration, sharing, participation, use, incorporation and production.

Transliteracy and why we choose this approach

The word “transliterate” etymologically originates from the passage from one alphabet to another. Liquète highlighted three main domains of meaning for the prefix “trans” (Liquète, 2012). In the first place, the most explicit aspect mirrors a deep interaction among literacies as Ipri already demonstrated: “Transliteracy is concerned with mapping meaning across different media and not with developing particular literacies about various media” (Ipri, 2010, p. 532). Transliteracy is not only a matter of being aware of one media in a particular situation, but of being able to shift from one to another. It is this flexibility and openness, a kind of informational or media eclecticism, which gives transliteracy its uniqueness.

Furthermore, according to Liquète's analysis, the prefix “trans” also refers to the possible links between different settings. Uses mature in different contexts but also in the connections as well as in the gaps between them. Indeed, research findings have already showed that, far

from the “digital natives” myth, a strong heterogeneity characterizes individual teenagers’ information uses. Some students make their daily digital uses scholastically profitable whereas others could have personal practices competing with the demands of school (Robinson, 2015). Sukovic precisely describes the essence of transliteracy as a fluid “movement across” a range of contexts (Sukovic, 2017). But this question of possibly connected settings must be seen within the context of individual practices and not be valued only as a theoretical idea: this is about moving physically but also and above all symbolically, allowing the possible transfer of uses and knowledge from one context to another, either from personal environments to school situations, or *vice versa*, re-using skills acquired at school for personal purposes. This mobility refers to a set of abilities that are likely to be unequal and dividing (Cailly, 2007).

The prefix “trans” can also highlight the collective nature of existing information uses. Original information-seeking models, such as the ELIS (everyday-life information-seeking) model have already identified “others” as a privileged source of information (Savolainen, 1995). Other authors have stressed that information can be found through “others”, especially for teenagers (Agosto & Hughes-Hassell, 2006; Shah, 2014). Today the social nature of information uses is substantial: to seek and access but also to validate or characterize information (comments, tags etc.). It is also crucial to include here the organizational dimension of information seeking and processing which can be done collectively, especially at school (Leeder & Shah, 2016).

It is because of these aspects and their heuristic potentialities that we choose transliteracy as the basis of our inquiry. The common challenge in the proposals presented (multimodal media literacy, metaliteracy and transliteracy) is to think holistically about the complexity the term literacy encompasses today and to challenge it with what research results tell us about information uses. We anticipate that transliteracy, the broadest of these three approaches, could be the most valuable to describe and understand youth information practices and the possible symmetry with scholastic requirements they must meet.

Methodology

This work is based on 13 *in situ* observations (a session of 3 hours every week over a semester) and 7 semi-structured interviews, conducted by an LIS researcher and included in a broader research program (ANR Translit). The interviews were carried out with 4 individual

teachers and with 3 groups of students. The observations took place between November 2013 and March 2015, in a French high school during specific activities called MID (Inter Disciplinary Modules) organized for tenth grade (15-16 years old) students (2 classes of around 30 pupils each). The high school is located on the outskirts of an average French city (about 600 pupils and 90 teachers). Since 2013, a school-level digital project has been developed: teachers and pupils are provided with personal digital devices. Based on project-based teaching, MIDs are similar to "supervised personal works" (TPE[2]), a compulsory education in the French eleventh and twelfth grades. Students must collectively (in teams of 3 or 4 members) search and collect information in order to produce several types of outputs during the two MIDs they follow in a school year: a radio clip, a slide show, a blog and a video.

The observations were based on an ethnographic methodology using the "situated" and "distributed" cognition approach (Conein & Jacopin, 1994). Relying on an observation and analysis grid common to the 4 Translit project's fields of investigation, we collected as much evidence as possible: audio capture and photos of the classes, pupils' drafts, organizational documents and outputs, guidelines provided by teachers, discussions on Facebook, online collaborative documents, etc.

Findings

First of all, let us note that the point here is obviously not to demonstrate again previous findings about students' digital uses or information-seeking behavior or collaboration in the school context as such. What makes our approach significant is the transliteracy angle we choose to have on the observed situations, and what this perspective is able to shed light on. We focus therefore on the possible diversity of media and tools employed, on the ways of and reasons for switching from one to another, on how these different media and tools are distributed within contexts, according to the academic requirements and tasks individually and collectively performed by the students.

Transliteracy at school

Observed situations took place not only in the information center, in a classroom and in a computer room but also in the high school's building more widely (when pupils had, for instance, to film their videos). Generally, we should point out the high multi media dimension of these situations. Despite the great emphasis placed on digital technology in this school,

[2] Travaux Personnels encadrés (TPE) : http://www.education.gouv.fr/bo/2005/41/MENE0502330N.htm

multiple media and resources are still present both physically and symbolically. Students' desks are cluttered with notes taken on sheets of paper (often snapped with smartphones), books, newspapers and magazines, side by side with websites added to bookmarks and organization documents on Google Docs and Facebook, etc. Blackboards, books and textbooks coexist with the high school's computers and school and/or personal mobile devices (tablets, phones, music players). Symbolically this variety is also very apparent in the requirements formulated by teachers. Indeed, the interviewed teachers insisted on the importance of using multiple media rather than giving priority to digital resources. This strong learning goal is then presented as a habit that students do not yet have, a skill they must gain. Teachers insist on the requirement that pupils' work should be based on as wide a range of resources as possible. This is included in the evaluation criteria in order that students "(…) do not focus on a single media type… because, quite simply, it's too easy. Otherwise they all tend just to choose the Internet and I really think that this is not the solution. Our role is also to broaden their vision at this level so that they can try a bit of everything". Thus, during the observed situations, the teachers continually checked and reminded the pupils to be aware of the sources they were using, not only regarding their documentary quality but also regarding their diversity.

The practical dimension of transliteracy

Teachers and pupils describe the materials and resources of all kinds used to carry out their work in terms of its accumulation in which both digital and other media intertwine. From that perspective, our approach highlights the strong physical, temporal and spatial nature of the observed teaching and learning situations and the management skills that this multiplicity requires for both pupils and teachers.

The teachers' interviews show a recurrence of the very real necessity to manage the students' movements in time and space as well as resources and documents. As a teacher comments: "In this respect, freedom, in terms of time, action, movement ... in space ... that's what really changed". This logistical dimension applies to class space and lesson time but also to what happens outside the class. In this respect, teachers emphasize the freedom of organization left to the pupils at the same time as the management effort that they have to use to monitor and complete the work. This is often described in logistical and "trial and error" terms: "We know that it is not right but we do it anyway because it works, but afterwards we adjust using the evaluation grids". Here, we see a physical and symbolic mix which is not always obvious between the pedagogical tools promoted by the institution and teachers, integrated into the

evaluation criteria, and the real day-to-day practices of both pupils and teachers. Indeed, the high school makes available everything necessary to store the work: the computer network is organized in such a way that files are sharable between the pupils themselves and between pupils and teachers. These files are organized according to the progress with the work: draft files, validation files, archives and so on. But students and teachers still use Google, Dropbox and Facebook, as well as physical media (usb, cd etc.). It is in fact efficient and technically compatible with their omnipresent mobile devices. Above all, it is in line with their daily social practices combined with the need felt by the pupils to work outside school time. Pupils are however always required to organize themselves, to "figure it out on their own", so that their work is always available on the high school network's files. This organizational point is a core part of the evaluation criteria. Apart from this obligation to use the school network, teachers do not give particular instructions on the tools to be used. The students thus demonstrate very real difficulties (loss of files, insufficient connectivity, compatibility problems, etc.). Less tangible difficulties might delay the collective organization and the progress of the work such as the choice of one tool rather than another and the transition from one tool, especially personal, to another.

Regarding the physical organization of space, we observe that it can sometimes be obstructed by the presence of multiple documents and devices (space occupied by a computer on a narrow desktop, layout of computers in blocks, for instance). They can also hinder the interactions between students. They must work in groups but the spatial organization observed is often individually designed. In that respect, a teacher mentions the need to organize learning spaces according to the diversity of resources used by the students. She talks about a "lack of perspective to see how one can organize the space with all that". This teacher regrets that because of material constraints, students are obliged to choose one media rather than another, but not in an "investigative approach": "The lack of space prevents the use of magazines, books and paper... so we will use the tablet because it takes up less space".

Collective outputs

Two aspects remain to be considered, incorporating the MID as this pedagogical activity had been designed: the collective search for information and the production of the required outputs.

The observed situations show a monitoring of group activity by the teachers formulated in terms of injunction and referring to the spontaneity of the students at the same time: "You

must be organized within the group"; "Organization counts"; "Here you should share your work". Students form their own groups and decide amongst themselves on the spaces and tools that will allow them to work together. Thus a teacher recounts: "They are left free, because I think it is up to them to organize and ... well, we can sometimes give them some recommendations but overall, it is they who created their spaces, they sorted them out". Regarding the organization within the groups, SNS and collaborative tools play a central role, face-to-face and remotely, as a student explains: "We are there all the time (...) We can answer directly, discuss, etc, so ... (...) As soon as there is any high school project, where we are in small groups, we're straight onto Facebook". Collaborative documents are also created (especially with Google Docs) to organize group ideas, share the work, and memorize useful resources. During observations as well as within the interviews, we notice that some teachers' instructions insist on the necessity for students to distribute the tasks mainly according to the different media or searching tools during the information-seeking stage (one pupil searching the Web, another searching the library database, yet another reading a novel related to the topic, for instance). Likewise, students without this kind of advice divide the work according to the media and searching tool types.

From the teachers' point of view, the focus is very strongly on the final output. The requested level is relatively high but in line with the national expectations regarding this level of schooling. Regarding the production itself, one of the specific features of this high school is that pupils are provided once a week with Information and Communication Technologies in Education and Media (TICEM) courses. Focusing on digital culture (e.g. critical thinking and intellectual property) as well as technical training (e.g. how to edit a video, create a blog), these courses directly support pedagogical activities such as MID. Teachers who are not in charge of these courses seem to have totally based the technical part of the expected outputs on TICEM lessons. During the interviews, they report their incompetence in the matter. Even if they regularly mention the "technical" difficulties of many pupils, they consider at the same time the pupils in general to be very independent and proficient. If the order to produce, in a thoughtful or even creative way is strong, pupils'statements contradict explicitly these representations: they highlight numerous problems they have to struggle with. They are likely to report modest information and digital proficiencies. Describing the difficulties they have had to overcome, they refer frequently to their daily habits, the skills they say they have acquired by themselves, the equipment available at home, and the ability of their parents or friends to help them.

Students sort things out

Students are aware of the freedom they are given and the challenging requirements that go with it. For students, "sorting things out" is an integral part of high school life, differing quite radically from what they were used to in middle school: "(…) here it is really... (...) it requires... it is more complicated, it requires organization (...) there is much more freedom and it is up to us, ourselves, to set limits, for ourselves, to organize ourselves, to set the timetable (…)". Observations and interviews show that the time allowed for production was not sufficient for most groups. It is the production itself and also the logistical and collective organization that are affected by this work outside school time and the mobilization of adequate resources and tools. Teachers claim that they plan in such a way that students do not have to work outside the appointed time. However, they are aware of these heavy demands: "We asked a lot in a very short time...". For the interviewed teachers, having to work outside the stipulated hours is either a problem of organization within the group or something inevitable that students must eventually learn to handle.

Organizing collectively, especially outside classes and school, during breaks, personal time or even holidays, can be complicated for some groups. The lack of time and the constraints of organization are related to the expected requirements but also to the number of tools they use and the time needed for reflection. During interviews students state explicitly that it is indeed not enough to have an effective means at their disposal for the organization of the group to be achieved efficiently. The fundamental need for this unavoidable and prerequisite reflective dimension was underlined by a pupil: "In fact digital tools take time to set up; once they are it goes much faster, but the setting up is very long and in fact, there, we did not really have enough time to reflect, to think about what means we will use". The wide range of media and tools and how they articulate with each other, the choice of a particular tool for a particular task and the distribution of work within the group refer to expert and crucial skills which remain quite implicit. Thus the comment from a teacher that echoes the last student's comment: "(...) they have to get to work but neither we nor they have considered what can be used, how one can use it and why. It means that sometimes the documents are too abundant and we do not use them or we always use the same resources".

The real work of organization can be done internally within the group. The students hand in only what they decide to put in the files that they make accessible to their teacher: "The server is where the teachers have to go to watch while Hangout is really just for the setting up". All the drafts, the documents shared between them and the discussions, while not secret or

intentionally hidden remain in the domain of their internal organization, of no interest, according to them, for teachers.

Discussion

It has been already theoretically demonstrated that transliteracy can make it possible to consider holistically the three fields of information literacy, media literacy and computing literacy (Delamotte, Liquète & Frau-Meigs, 2014). But Thomas and colleagues pointed out that the nature of transliteracy as such remains to be clarified: "we have not decided whether it is a practice, or a way of analyzing practice, or both" (Thomas et al, 2007). The authors call for the notion to be put into practice in empirical studies. Here, we deal with transliteracy as a horizon, a way of seeing, a clearly exploratory inductive approach likely to "give meaning" to raw data (Blais & Martineau, 2006). The participants of our study obviously do not speak of "Transliteracy". This term does not appear as such, either in the instructions or in the pedagogical documents. Moreover, the high school where our investigation took place does not completely correspond to the norm in France. However, this distinctiveness does not totally prevent our results from questioning what happens more widely at school. Our investigation took place in an innovative high school during specific educational activities. This study field is largely in line with the ambitions of public policies in digital equipment and media education. It is for this reason that it seems interesting to question these kinds of situations and to draw useful lessons for the observation of more standard circumstances (Aillerie, 2017). Our conclusions are in fact complementary with those established by researchers who have analyzed average high schools. In particular the recent work coordinated by Cottier and Burban (Cottier & Burban, 2016), which underscores that core information requirements in terms of organization of work and project management are not equally mastered by the students nor taught as such at school.

Our presented findings relate to the three dimensions of transliteracy explained above (Liquète, 2012). (1) We stressed the variety of media used by pupils and required by teachers, and the coexistence of these different media in the uses and changeovers from one medium, or tool, to another. We have also highlighted the very real difficulties that this multiplicity entails on a daily basis, and the educational challenges it implies for pupils and for teachers. (2) Our results showed how this "agility" is linked to the continuation of school work outside the timetable and to the locations available to do it. (3) This diversity of contexts, as well as

the challenging transitions from one to another, are also closely linked to the collective dimension of the information uses presented here.

Digital tools are ubiquitous in this school and integrated into the overall educational school project, but they do not replace traditional media. This is a useful point to keep in mind when observing average situations. From a transliteracy basis, analysis of the collected research material illustrates the complex and permanent links between digital tools and media and traditional media and resources in school work, in the smallest details of the creative process, in the distribution of work beyond what is visible, and in the collective dimension of the executed work. Thus we have observed learning and teaching situations that both in practice and symbolically refer to transliteracy, that is the ability to use different media being considered here as a key learning goal and an assessable ability. In the areas of information seeking, collective organization and production, students spontaneously use a multitude of media, resources and tools, in both school and personal contexts. On the other hand, these transliteracy-related uses are also the subject of a requirement formulated by teachers in terms of instructions and evaluation criteria. We must therefore clearly distinguish between transliteracy as a potentially achievable and observable requirement and the everyday life transliteracy into action, hard to see, uncertain and ubiquitous. This observation (using multiple media on a daily basis, some specifically designed for education, others not) can also be done for high school students in general. This has been demonstrated with respect to SNS for they play a great role in youth sociability but can also include academic purposes (Lamp et al., 2011; Aillerie & McNicol, 2016). It is an important part of school time as well as everyday life that should be included in education.

Transliteracy considers digital media along with other existing media. Regarding France, this position seems quite relevant and truly useful from an educational point of view. It can actually help to reduce the supremacy of digital material within the debate about the role that technologies should have in education today. Furthermore, assuming that technology is able to impact positively or negatively on learning and teaching practices is still very common. Plantard uses the expression “magical tablet effect” to refer to the massive provision of French schools with the latest technology as a response to educational problems which go beyond even the question of technologies (Plantard, 2015). This idea fails to take into account the many factors, including the technological environment, which together contribute to the transformation or not of teaching practices and learning (Amadieu & Tricot, 2014). A

transliteracy-based approach contributes then to the consideration of digital media in both historical (intellectual technologies) and social (role of interactions, matching between digital and social divides) perspectives. Moreover, a strong dichotomy between digital and traditional media prevents the perception of the abundance and the complexity of real uses that are mixed and built both online and offline. In this sense, methodological and epistemological initiatives critiqued how Internet and digital tools had been understood as only distinctly specific (Leander & McKim, 2003; Pastinelli, 2011). Likewise, our perspective contributes to show that teenagers' information uses are not to be understood solely from the point of view of their digital habits but in a continuum of interwoven uses. This has been demonstrated regarding their social uses by boyd's findings about the correlation between friendships at school and interactions on SNS (boyd, 2014). Digital technology does not determine practices, interactions or ways of working on its own. This kind of analysis is far from being entirely new but a transliteracy-based approach can help to take into account this complexity. In this perspective, transliteracy meets other proposals such as the emerging socio-critical approach of digital technology in education (Nelwyn, 2010; Collin, Guichon & Ntébutsé, 2015).

Thomas and colleagues depict transliteracy by means of a picture of Al Gore in his office surrounded by a mountain of media. They thus demonstrate the omnipresence of information devices and the intellectual virtuosity required to master simultaneously their multiple affordances. Far from the idea of immediacy and facilitation being associated with connected technologies, a transliteracy-based approach contributes to describe the very real and material nature of such uses: the time-consuming necessity for pupils and teachers to deal with different materials, different formats and several tools at their disposal. It also highlights that the required and demanding time for reflection, planning and metacognition is not fully included in the working time provided within school and hence tends to transfer to the personal part of the students' life. And what transliteracy is all about is also precisely what is outside the frame: the sound of a possible radio channel, those with whom Gore interacts remotely, what he will continue to work on when he leaves his office etc. From a methodological point of view, one of the main issues of an ethnographic observation is this difficulty of perceiving what happens before and after the observed situation. Methodological solutions have been suggested, for instance in the field of organizational communication such as Grosjean's work (Grosjean, 2013). We state that online and offline practices are interlinked and school uses are not just those that are observed in the classroom. Learning dimensions, very directly linked to IL such as collective organization or information processing, remain

still very implicit here. More generally, our approach makes it possible to bring to light the implicit part of the work that pupils undertake to meet academic demands, that is the activities that take place behind the scenes of their individual and collective organizations. Within these can be found the aspects which they do not show to their teachers, specifically the difficulties they encounter and the strategies they develop, to find, process and store information, to choose and use tools, to go from one to the other, etc. This is where we can perceive the gap between what is required at school and the production of work in these "intermediate spaces" (Cottier & Burban, 2016) between school and personal life. That is to say, even in a privileged situation such as the one we observed, pupils encounter difficulties and it is necessary to shape them explicitly to the demands of the current media and technological world.

It is especially in these blind spots that the educational stakes of transliteracy, as well as the mediation that they imply, are played out. In this way, in the students' and their teachers' practices and in what they say about those practices, we can perceive a real tension between expertise as a goal and everyday life tactics. At the core of the academic demands as well as pupils' endeavor, we discern this willingness to investigate the media and information field, to build an individual and collective learning path and to become aware of it: to genuinely choose this or that media, a particular tool, a particular resource according to specific objectives and motivations, to be able to acknowledge their complementarity and not only merely multiply them. Our results also illustrate the collective dimension of information practices in school situations and, more broadly, the collective dimension of learning in the current media landscape. Founding models of IL such as those elaborated by Kuhlthau have tended to think of IL as an individual and collective inquiry process (Kuhlthau, Maniotes, & Caspari, 2012). Our findings suggest that this collective dimension of information uses has still largely yet to be described for young people of school age. This implies that the design of workspaces also needs to tangibly incorporate this multiplicity of media and collective work.

Conclusion

In light of our findings, transliteracy is valuable as a means to capture teenagers' daily uses in different contexts, to grasp the observable but also the hidden part of their uses and of academic requirements. Our results contribute in turn to enrich the notion of transliteracy itself. Information literacy, known as the internationally recognized Information and Media Literacy (Moscow declaration, 2012), is now at the heart of the requirements defined by educational systems. At the same time, according to 21st century skills, there is an

institutional and social imperative to use media and digital tools at school. These challenges call for a new research approach able to take into account the reality of teachers' and pupils' practices, on the ground. This question is as valid for decision-makers and for trainers as it is for researchers, because the precise understanding of real uses requires an in-depth epistemological and methodological study, for which transliteracy is able to contribute.

Références

Agosto DE and Hughes-Hassell S (2006) Toward a Model of the Everyday Life Information Needs of Urban Teenagers, Part 1: Theoretical Model. *Journal of the American Society for Information Science* 57(10): 1394-1403.

Aillerie K (2015) Vers une orientation translittératique des modèles d'Information Literacy ? *Documentation & Bibliothèques*, 61(4): 137-147.

Aillerie K and McNicol S (2016) Are Social Networking Sites information sources: Informational purposes of high-school students in using SNS?. *Journal of Librarianship & Information Science* 1(12): 2-12.

Aillerie K. (2017). [forthcoming] « Le « numérique éducatif » à l'épreuve des pratiques scolaires : petits arrangements avec le marché », *Hermès*

Amadieu F and Tricot A (2014) *Apprendre avec le numérique : Mythes et réalités*. Retz.

American Library Association (2013) *Digital literacy, libraries, and public policy: Report of the Office for Information Technology Policy's Digital Literacy Task Force*. January.

Blais M. and Martineau, S (2006). L'analyse inductive générale : description d'une démarche visant à donner un sens à des données brutes. *Recherches qualitatives* 26(2): 1-18.

boyd d (2014) *It's complicated: the social lives of networked teenagers*. New Haven & London: Yale University Press.

Broadbent S (2015) *Intimacy at Work: How Digital Media Bring Private Life to the Workplace*. Walnut Creek: Left Coast Press Inc.

Cailly L (2007) Capital spatial, stratégies résidentielles et processus d'individualisation. *Annales de géographie* 2(654): 169-187.

Cazden C, Cope B, Fairclough N, Gee J (1996) A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review* 66 (1): 60-92.

Collin S, Guichon N and Ntébutsé JG (2015) Une approche sociocritique des usages numériques en éducation, *Sticef* 22: 89-117.

Conein, B and Jacopin, E (1994) Action située et cognition : le savoir en place, *Sociologie du Travail*, 36(4): 475-500.

Cottier P and Burban F (Eds) (2016) *Le Lycée en régime numérique : Usages et recomposition des acteurs*. Toulouse : Octares

Delamotte E, Liquète V and Frau-Meigs D (2014) La translittératie, à la convergence des cultures de l'information : supports, contexte et modalités. *Spirale* 53: 145-156.

Gilster P (1997) *Digital Literacy*. New York: John Wiley & Sons.

Grosjean S (2013) Une approche microethnographique et multi-située en organisation : Double mouvement de « zoom avant/arrière » sur l'activité d'arpentage. *Revue internationale de psychosociologie et de gestion des comportements organisationnels* Supplément (HS) : 155-177.

Ipri T (2010) Introducing Transliteracy: What does it mean to academic libraries? *College and Research Libraries News* November: 532-567.

Jenkins J (2006) *Convergence Culture: Where Old and New Media Collide.* NYU Press.

Kuhlthau C, Maniotes L and Caspari K (2012) *Guided Inquiry Design: A Framework for Inquiry in Your School*. Libraries Unlimited.

Lampe C, Wohn DY, Vitak J, Ellison N and Wash R (2011) Student use of Facebook for organizing collaborative classroom activities. *International Journal of Computer-Supported Collaborative Learning* 6(3): 329-347.

Leander KM and McKim K (2003) Tracing the Everyday 'Sitings' of Adolescents on the Internet: a strategic adaptation of ethnography across online and offline spaces. *Education, Communication & Information* 3(2): 212-240.

Lebrun M, Lacelle N and Boutin JF (2012) Genèse et essor du concept de littératie médiatique multimodale. Mémoires du livre / Studies in Book Culture 3(2).

Leeder C and Shah C (2016) Strategies, obstacles, and attitudes: student collaboration in information seeking and synthesis projects. *Information Research* 21(3).

Liu A (2012) Translitteraties : le big bang de la lecture en ligne. In Frau-Meigs D, Bruillard E and Delamotte E (Eds) L'éducation aux cultures de l'information. *E-dossiers de l'audiovisuel* http://www.ina-expert.com/e-dossier-de-l-audiovisuel-l-education-aux-cultures-de-l-information/translitteraties-le-big-bang-de-la-lecture-en-ligne.html

Liquète V (2012) Can one speak of an "Information Transliteracy"?. Paper presented at the Conference Media and Information Literacy for knowledge societies, Moscow. https://hal.archives-ouvertes.fr/hal-00841948/document

Mackey TP and Jacobson TE (2014) *Metaliteracy: Reinventing Information Literacy to Empower Learners*. Chicago: Neal-Schuman Publishers.

Megwalu A (2014) Transliteracy: A Holistic and Purposeful Learning. *The Reference Librarian* 55(4): 381-384.

Organisation for Economic Co-operation and Development (OECD) (2000) *Literacy in the Information Age: final report of the international adult literacy survey.* Paris: OECD Publications.

Pastinelli M (2011) Pour en finir avec l'ethnographie du virtuel ! Des enjeux méthodologiques de l'enquête de terrain en ligne. *Anthropologie et Sociétés* 35(1-2): 35-52.

Peters M. and Gervais S (2016) Littératies et créacollage numérique. *Language and Literacy* 18(2): 62-78.

Plantard P (2015) Contre la « fracture numérique », pas de coup de tablette magique !. *Revue Projet* 2(345): 23-30.

Robinson L (2015) Digital inequalities and why they matter. Information, *Communication & Society* 18(5): 569-582.

Savolainen R (1995) Everyday life information seeking: Approaching information seeking in the context of "way of life". *Library & information science research* 17(3): 259-294.

Selwyn N (2010) Looking beyond learning: Notes towards the critical study of educational technology. *Journal of Computer Assisted Learning* 26(1): 65-73

Shah C (2014) Collaborative information seeking. *Journal of the Association for Information Science and Technology 65*(2): 215-236.

Sukovic S (2017) *Transliteracy in Complex Information Environments*. Chandos Publishing

Thomas S, Joseph C, Lacetti J, Mason, B, Mills S, Perril S and Pullinger K (2007) Transliteracy: Crossing divides. *First Monday* (12)3. http://firstmonday.org/article/view/2060/1908

Voogt J and Pareja Roblin N (2012) A comparative analysis of international frame-works for 21st century competences: Implications for national curriculum policies. *Journal of Curriculum Studies* 44(3): 299-321.