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'Switched-on' teenagers

One suspects that the spectacular rise enjoyed by the media over the last thirty years is no more than a stepping stone in the dramatic developments currently occurring in this information society. Of course, the destabilisation and major renewal factor is new, and has seen extraordinary growth over the last ten years or so. The Internet has revolutionised the home and more specifically the teenage population segment on a universal scale.

We decided to reconstruct the journey that led to this extraordinary relationship between the Internet and the new generation, which seems to be referred to (in the studies that we propose for your information) as the "teenage digital culture".

This culture involves numerous new practices and habits, and ways of connecting with one's peers, communicating and "chatting". It has been adopted by a generation whose identity is built around different concepts of belonging and exclusion.

Within this current dynamic of exchange, contact and communication tools (which in turn have interfered with the traditional time/space references), the young generation is opening up a new and radically different route to awareness and knowledge of the different schools of thought and canonical models (research and studies via the Internet), representing a far cry from traditional transmission approaches (i.e. the school system). The reality of contemporary schooling seems to strike this teenage digital culture as increasingly foreign and obsolete. It no longer seems to make sense or indeed ring true.

It is therefore becoming increasingly urgent that the following questions are answered: how should one teach teenagers in France, Europe or elsewhere, considering that the school system is no longer the only reference, and no longer represents, for the teenager, the primary place of exchange, sharing knowledge and investing in projects for the future? Have the new media revolutionised educational practices? What has happened to the much-announced renewal of the school system? Are schools taking into account or even aware of the favoured social tools offered by the Internet?

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The teenage digital culture

Some key figures

According to a survey carried out in France in January 2006 by Médiamétrie, [Génération Internet](#) : *la place et l'usage du web chez les jeunes* (*The Internet Generation: the web's role and usages vis-à-vis young people*), which offers an explanation vis-à-vis young people's behaviour on the Internet, 80% of teenagers between the ages of 13-17 have at least one computer at home, and 60% connect to the Internet on a daily basis. Furthermore, 50.5% of the French population over the age of 11 frequently use the Internet for long periods of time.

On March 14, 2006, the *Journal du Net* ran the headline [La France bascule dans la société Internet](#) (*France switches to the Internet Society*), showing that a symbolic landmark was reached in 2005: more than 50% of the French population uses the Internet and one in four make on-line purchases. The two types of web usage showing the strongest growth are instant messaging and "blogs". It seems that young people are moving en masse into the world of blogs; the 11-15 year-old segment represents 35% of all bloggers and the 16-24 year-old segment 47%. The wikis are also extremely popular. The Wikipedia encyclopaedia service saw its number of visitors reach 2.4 million last December, representing exponential growth of 256%.

François Xavier-Husscherr, director of the Internet department and of new media at Médiamétrie, outlined the major trends observed in 2005, the Year of the Internet, in [Internet 2.0.0.5 : la prise de pouvoir des internautes](#) (*Internet 2.0.0.5: Internet users take control*) on the basis of four themes: France goes beyond 50 %, the Web 2.0, the Mobile Internet user and the NetGeneration.

A [study](#) by the European Interactive Advertising Association (EIAA) shows that the 15-24 year-old segment is using the Internet more and more for a broad variety of uses. According to another study published on June 27, 2005, [Internet gagne du terrain face à la télévision et la radio chez les jeunes européens](#) (ARTESI) (*The Internet gains ground on TV and radio with young Europeans*), young Europeans aged between 15 and 24 spend less and less time watching television or listening to the radio, and are using the Internet instead. Indeed, nearly half of the 15-24 year-old segment (46 %) watch less television and prefer to browse on the Web, whilst 22% state that they spend less time listening to the radio. Throughout Europe, more time (out of the total amount time of time devoted to the media) is spent by the 15-24 year-old segment on the Internet

(24%) than is spent reading the written press (10%) or magazines (8%). The survey by the EIAA also shows that the majority of young people prefer to communicate and chat with their friends via the Internet, as opposed to using the telephone. According to Amanda Lenhart, editorial co-ordinator for the [Pew Internet & American Life Report](#), in her study [Reports: Family, Friends & Community](#) "Teen content creators and consumers" published on November 2, 2005, on the subject of youth and the usage of the Internet, 57% of American teenagers create on-line content: through a "blog", sharing photos or films etc.

These different figures show that a rise in the number of people equipped with the Internet, as well as in the different ways in which the Internet is used, is clearly apparent. It is also clear that this growth is especially attributable to young people, who are particularly receptive to the Internet.

Teenage social life

In his study [Le pouce et la souris](#) (*the thumb and the mouse*), the sociologist Pascal Lardellier proposes a guide to shed light on the ins and outs of this "ground-swell" seen within the 10-18 year-old population segment.

Whilst he describes Jérémie (a fictional character who symbolises this generation) as a mutant, "never without his *I-Pod* and *USB key*, which hangs around his neck like an amulet and which he displays like a trophy", he condemns the "tyranny of fashion". For Pascal Lardellier this reality, a marriage of the micro-chip and the mouse, consists of numerous inventions and codes, which confuse parents and merely "bring home the scale of their ignorance". To list but just a few of these codes and inventions: USB, MP3, ADSL, WWW, chat, MMS, MSN, peer to peer, MMORPG and PS. This study is far more than a mere simple description. From the very introduction, one is able to appreciate that teenagers' cultural references can be considered as **new representations**, which go well beyond the sphere of 'otherness' and touch on the very core of relationships.

The concepts of identity, culture, language, civility, relationship with one's body, time and space have been turned upside down by the digital revolution. This culture is above all based around a set of actions and terms that express to what extent technical ingeniousness has become second nature: "Self-expression" (chat and blogs), downloading (P2P), "simple fun" (MSN), research and learning (Google), playing (*on-line*), adding to and forwarding. *All these verbs represent a culture underpinned by embodiment in a material form, where the tools are not purely functional but are technologies that create a dynamic relationship, or something even deeper: they refer to values shared by members of the teenage community*".

What is disconcerting about this new digital culture is that it is moving extremely fast and that even the most recent innovations quickly become obsolete. Technological products have a very short shelf-life and some come and go in a flash (Napster, for example). The reason for the success of the ICT with young people lies in the attraction of anything new, in the illusion of never being alone, in the act of 'speaking without saying anything'. Mimicry is often evoked to explain this desperation to keep up with technological developments in the ICT sector. The need for connection, identification and differentiation are met by the providential technologies that offer a feeling of belonging and recognition, which in turn help to eliminate the identity-related crises that are typical of the teenage years.

The teenage digital culture is fun, personalised, dynamic, fast-moving and reticular, replies Pascal Lardellier. Fun: on the Net, as part of a network, sending SMS, MMS or just chatting. One is merely playing, whether directly or indirectly. Personalised: one rarely lends one's mobile telephone. It has become an actual extension of one's own body and a personal memory (directory) of memories and personal emotions.

Dynamic: unlike a book, which is stable and unchanging, the Net offers the advantage of being so flexible. Fast-moving: this culture abolishes the functions of time and space and creates a degree of generational impatience. No waiting, inertia or frustration can be tolerated.

Reticular: it operates within a network.

Of all the different types of usage of the Net, it is **interpersonal communication** that plays the most important role in the daily life of teenagers, who are going through a period of **intense socialisation**. This "Communicational web" is increasingly taking the form of instant messaging, which has become the most popular form of communication with young Canadians. A series of articles sheds some interesting light on this, notably [Les enfants du cyberspace \(1\) La génération internet](#) (*The cyberspace children – The Internet Generation*) (Cauchy, 2005), which shows that 99 % of 12-17 year-olds use the web and have a "group approach to communication". [Luc Giroux](#) draws a portrait of young people from levels I to V in the Canadian secondary system (young people between the ages of 12 and 17 in Quebec) in a report entitled [Les jeunes québécois et Internet](#) (*Young Quebecers and the Internet*). He observes that young people only use a "specific area of the Internet", i.e. for socialisation.

Anne-Claire Orban carried out a study in January-March 2005 for the [CLEMI](#), entitled "I blog, you blog, we blog" ([Orban](#), 2005). Her conclusions illustrate that, for young people, "blogging is primarily a community-based approach". Young people tend to express themselves more personally and more emotionally about their lives and above all their passions, whilst adults tend to express their opinions and focus more on the informative dimension of written columns. The teenage approach to blogging is essentially social. It is undoubtedly a community (virtual) approach but one should understand that young bloggers "essentially blog with their friends from school or the sports' club". In short, they are extending their 'real' day via these moments of 'virtual' exchange. At the same time, just beneath the surface, we can observe a frenetic attitude in this connectivity and that the phatic nature of the exchanges actually highlights a relational sluggishness, i.e. one talks for the sake of talking and one joins in the forums just to make sure that other people are there too.

Olivier Trédan (2005) expresses the same idea when he refers to this network of acquaintances, friends or family (cousins, brothers and sisters) as "tribes". A 'blog' can be created to keep in touch, simply through a desire to communicate. In the issue number 6-2005 of the *Cahier de Recherche Marsouin* (Armorican research group on the Internet society and Internet usages), "Weblogs in inner-city residential estates: a mix between a quest between peers and an assertion of identity", he analyses teenagers customs and habits. Teenage weblogs represent a medium through which they can assert this "between-each-other" approach", i.e. this inter-subjectivity between the members of the community.

The key point about this **teenage culture** is that it is underpinned by a dual understanding of belonging to an identifiable community and excluding those who don't embrace it. The Internet offers a means for teenagers to build themselves a world of relational independence within the family as opposed to a **horizontal social approach**. The [presentation](#) made by Céline Metton, a sociologist at the EHESS (prestigious social sciences university), during the *First Seminars on Young People in Europe and in the Mediterranean Regions* (*Premières rencontres Jeunes et Sociétés en Europe et autour de la Méditerranée*), (October 22-24, 2003), highlights this renewal of the different forms of teenage sociability and socialisation.

There are numerous studies that highlight this critical and pessimistic, if not to say alarming, situation, which consequently treat these new technologies as terrifying cultural and relational strategies. They refer to cyber-addictions, Net-related diseases that affect teenagers, exclusive passions that break down healthy structures, digital incivilities and activities that compete with family life. These activities are referred to essentially as phatic, amnesic and time-consuming. The major problems often evoked are the de-socialisation that they cause and the lack of sensitivity to violence that they generate. We should look at the work by Serge Tisseron, Sylvain Missonnier, Michael Stora and François Marty in their [special report](#) *Le virtuel, les nouvelles technologies de l'information et de la communication (NTIC) et la santé mentale (The virtual, new information and communication technologies [NICT] and mental health)* and the [article](#) (2005) by Jean-Yves Hayez (Catholic University of Louvain), which outlines the modalities and shortcomings of multimedia practices and this risk of a social withdrawal.

There are varying points of view with regard to the impact of these new media on young people. One can note that scientific writers draw attention to the educational value of these media and that the benefits for teenagers outweigh the disadvantages, providing the youngsters are accompanied by their parents, and made aware of the risks thanks to recommendations made by their doctor. This was the observation made in June 2003 in volume 8, issue 5 of *Paediatr Child Health*, in a [list of principles](#) produced by the Canadian paediatrics society (*Comite de la pédiatrie psychosociale de la SCP*), entitled: "Les répercussions de l'usage des médias sur les enfants et les adolescents" (The repercussions of using new media on children and teenagers).

The Internet's social tools for teenagers

A [study](#) carried out by the French Institute of Public Opinion (Institut Français d'Opinion Publique -IFOP) in September 2005, on *Les usages d'Internet par les adolescents (2^e vague)* (*The usage of the Internet by teenagers – 2nd wave*), reinforces the dominant role played by the Internet in the Media sector for young people between the ages of 12 and 17. The study observes that teenagers experienced in searching for information (the first activity mentioned), sending E-mails (the second function mentioned), or participating in chats, downloading content and playing network games, declared that they more often use the Internet at home, "a claim corroborated by parents, who identified the home as the place most frequently used". Teenagers agreed that they prefer a room where they can be alone when going on-line, in other words the office (a quarter of all connections) or the bedroom (a quarter of all connections).

NetEco, in its [article](#) "Médiamétrie se penche sur le web 2.0 (2006)" (Médiamétrie examines web 2.0 - 2006), draws attention to the phenomenon of transformation via the Web and highlights the rise of **platforms capable of promoting "collective intelligence"**: 11 million visitors per month communicate with each other via an instant messaging service. "In our studies on communication modes, it transpired that young people give more priority to the Messenger than a face to face meeting. Instant messaging is used in addition to other communication modes such as the telephone". 76% of this Messenger generation have a computer, 86% are connected to the Internet, and 49% have MP3 players and use "blogs" or voice over IP to communicate with their peers without leaving their parents' home.

And how about the young generations? How do they approach media? Is the Internet the focus of all attention? Issue number 139, (March-April 2006) of the journal [Le Débat](#), entitled "Penser la société des médias II" (Analysing the media society II), highlights these issues, which are currently treated as urgent in the news. The second section is devoted to outlining social and technical changes and looks at the relationship between the media and the new generation, and the confluence with new technologies.

The social Internet is enjoying a similar degree of popularity on the other side of the Atlantic. The first thing a teenager does when connecting to MySpace is to create a "profile", which he uses to share with the community his desires, favourite musicians and friends who are also users (with links to their pages). Clips, videos, music and photos are added to the page, which, to a certain extent, resembles Skyblog as it has a special "teenage bedroom" type atmosphere. It is very popular with American teenagers and is the second most visited site in the world (behind Yahoo but in front of Google and MSN) with 22 billion pages visited in February 2006 and 250,000 new members per day. **MySpace** is a genuine phenomenon with the young American generation, to such an extent in fact that it has very recently been the subject of various sociological studies. [Dana Boyd](#), an Information Sciences researcher at the University of Berkeley, has published several essays, and notably those of February 19, 2006 [Identity Production in a Networked Culture: Why Youth Heart MySpace](#) and of March 21, 2006 [Friendster lost steam. Is MySpace just a fad?](#) She shows that this site reflects teenagers' primary concerns: the lack of mobility and access to centres of interest for young people. MySpace compensates for this shortage of suitable places to meet friends and also enables the American youth to define its own rules and to participate in "cultural development".

On the subject of social technologies, it is also interesting to visit the Transnets blog published by Francis Pisani (based in Silicon Valley), which analyses the MySpace phenomenon in the United States in three sections (2006): "[MySpace, mes potes, mon identité](#)" (*MySpace, my friends and my identity*), "[MySpace remplace l'absence d'espaces jeunes dans le monde réel](#)" (*MySpace replaces the lack of meeting places for young people in the real world*) "[MySpace : les mauvaises raisons de ceux qui ont peur](#)" (*MySpace: the poor reasoning adopted by those who are afraid*)

A generational split

Pupils get bored in school, whether in France, Europe or indeed on an international scale. This is the paradoxical conclusion drawn by a survey entitled [Regards sur l'éducation](#) (*A closer look at education*) carried out by the OCDE in 2005 on 17 million teenagers in 32 countries, as part of its international programme for monitoring pupils' achievements (PISA). It seems that despite the fact they say they are bored, with record levels in Germany (67%), Greece and Spain (66%), pupils nevertheless consider that school is a place where they can easily make friends (82%). Only 14% of them feel unhappy and alone. This survey also shows that teachers have trouble controlling their classes. It seems discipline is difficult to maintain in Greek, Norwegian and Brazilian schools. However, discipline is strict in Russian, Latvian and Polish classrooms.

In Quebec, motivation problems in school are nothing new (Gadbois, 1989, quoted by T. Karsenti) and the **debate over the role of the ICT and their necessary integration into the school environment in order to stimulate motivation** (notably for boys) is a problem that is covered by numerous publications. For several researchers, the benefits of integrating the ICT into educational systems are numerous as these technologies are flexible and accessible, offer better communication and interaction possibilities and provide varied learning and teaching approaches. It is also interesting to look at the work of [Thierry Karsenti](#), who holds the research chair on ICT in Canada. Two of his articles caught our attention. The first, entitled

[Favoriser la motivation et la réussite en contexte scolaire: les TIC feront-elles mouche ?](#) (*Favouring motivation and success in the school environment: are ICT now all the rage?* - 2003), looks at the impact of ICT on motivation and success at school, and outlines the viewpoints of specialists ([Tardif, 2000](#); [Pouts-Lajus, 1998](#); [Ungerleider, 2002](#); [R.M. Ryan, 2000](#)) vis-à-vis the controversial debate over the extent to which ICT can be seen as a cure for poor motivation. In the second article, entitled [Plus captivantes qu'un tableau noir: L'impact des nouvelles technologies sur la motivation à l'école](#) (*More captivating than a blackboard: the impact of new technologies on motivation at school*) (2003), he looks at this idea that ICT can stimulate pupils' motivation at school. He does not in any way advocate the usage of ICT as "miracle cures" but rather as "aids" to help teachers meet the challenge of "learning, teaching, instructing and educating".

Issue number 4 (January-March 2003) of *Éducation Aujourd'hui*, a newsletter produced by the Unesco educational sector, carried the evocative headline, [Enseigner aux adolescents](#) (*Teaching teenagers*), and highlighted the problems of overloaded classrooms full of teenagers from different socio-cultural backgrounds, teachers rushed off their feet and bored pupils. This document is full of personal accounts by pupils and teachers from different sectors, but one factor remains constant: "There is a misunderstanding between the schools and the teachers". An ever-broadening gap between school institutions and teenagers, and between teachers' expectations and teenagers' demands. "Teenagers do not share our moral values, such as hard work, respect for other people and most importantly, they lack curiosity. Interesting them is a real challenge", the teachers observe. As for the teenagers, their expectations can be summarised by the following comment: "Just because they are teaching us doesn't mean they have the right to humiliate us. The respect should be mutual".

This competition between sociability at school, which is seen as difficult, and the more attractive option of socialising outside school, is the subject of numerous reports that essentially focuses on highlighting a **generational split**. It is interesting to look at issue number 3 of the *Bulletin des bibliothèques de France* (the French libraries newsletter) (2003), the section devoted to [Les adolescents](#) (*Teenagers*) and notably the article by Jean-François Hersent (from the Book and Reading Department), entitled "[Les pratiques culturelles adolescentes](#): France, début du troisième millénaire" ("*Teenagers' cultural practises*: France at the beginning of the third millennium"). With regard to the teenage relationship with culture, Jean-François Hersent stresses that three factors seem to be essential: **the indisputable decline seen by established culture** ("legitimate" and "humanist") together with a certain form of **pronounced anti-intellectualism** shown by teenagers; the **diversity of the information available together with the value attributed to eclecticism** (predominance of scientific and technical culture and massive access to the Internet), and the growth of the media/advertising economy. This article sheds light on the question of usage by teenagers outside school time, highlights the importance of sociability between peers and provides information about the 15-19 year-old segment.

With regard to the issue of the role now played by the new media in one's social life, and more specifically that of a teenager's social life (including the impact on young people's school life), [Dominique Pasquier](#), a sociologist in culture and media at the EHESS, observes in her latest work, *Cultures lycéennes: la tyrannie de la majorité* (*Secondary school cultures: the tyranny of the majority*) ([Pasquier, 2005](#)), that the cultivated culture is no longer the overall reference. A new culture is emerging, constructed from excerpts of films, radio, television and above all the Internet. This youth culture is seen to be taking over as a "tyranny of the majority" at secondary high schools; a viewpoint shared by parents. One can quote Bruno Devauchelle in his publication of March 15, 2005 in [Editorial n° 60](#), which is essentially dedicated to the work of Dominique Pasquier and is entitled "[Enseignants, Adultes, Lycéens, le choc des cultures](#)" (*Teachers, Adults and Teenagers – the culture shock*): "Schools are continuing to promote, in spite of numerous internal hitches, a "cultivated culture". Furthermore, as far as pupils are concerned, this culture makes even less sense and is even less acceptable given the fact that the adults themselves no longer give it credit".

There is one fundamental, recurring question in the studies that we have looked at. It concerns the traditional family, and the economic, inter-citizen and educational relationships that have been transformed with the advent of these virtual networks, and have been somewhat turned upside down by the new representations of youth. "The institutions have all been affected by this ground-swell, and none of them will remain intact", declares Pascal Lardellier. What about the school institution? Is it managing to resist this **adolescent diktat**? Is it finally giving way to teenage pressure and integrating young people's favourite media?

How should teenagers be taught?

Disillusions of ICT in school

In the [presentation](#) published in issue n° 15 of the journal *Éducation et sociétés*, entitled [La société de la connaissance et l'école](#) (*The society of knowledge and school* - 2005/1), Alexandre Léné and Danilo Martuccelli evoke "the progressive end of the school's legitimate monopoly as an institution for the transmission – and certification – of knowledge" amidst a context where the educational system is more than ever a theatre of conflict between different educational concepts.

The dream of transforming the schooling system through technology seems to be coming up against stumbling blocks. In his article entitled [Le télé-enseignement: une révolution de la forme scolaire ?](#) (*Teaching using ICT – a revolution in the schooling approach* - published in the same issue), Alain Chaptal analyses this issue, comparing the French and American approaches. He draws several conclusions:

- the public policies initiated in 1996-1997 on both sides of the Atlantic have undoubtedly considerably developed the school infrastructure in terms of ICT but have terribly suffered from a lack of monitoring and a general lack of resources. Seven years later, in spite of the local aids and associations, the strategic projects have failed;
- the gap between the efforts made to provide equipment and the slow growth in the usage of this equipment is a genuine cause for concern. On both sides of the Atlantic, usage in the presence of pupils remains modest, even if the teachers, who are well equipped on a personal level, are more used to using ICT for researching educational resources;
- the United States were keen to monitor and analyse the introduction of ICT into schools via numerous official studies and reports. The reality in the field, however, does not live up to the optimistic literature concerning the potential of the ICT. The impact of ICT on teaching has turned out to be limited;
- in France, various reports have drawn somewhat unenthusiastic conclusions with regard to usage of ICT in the social environment. [The in-depth audit](#) (2004) carried out by the Educational Authorities in the schools of Caen and Clermont is a prime example of this. An exception to the almost unanimous viewpoint in this debate, however, is the [evaluation memo](#)

produced by the National Ministry of Education (2003), which concludes by promoting a widespread integration of ICT in the school system;

- ICT no longer seem to be an educational priority, if the [report](#) by the two Educational Authorities of February 2003 on the training of teachers is anything to go by, or indeed given its minor role in the national schooling debate.

What has happened to the educational revolution, triggered by new educational technologies? What has happened to the announced replacement of traditional reading with these new approaches?

It appears that the results published in the United States could be transposed into the French system. The report entitled [Retrospective on Twenty Years of Educational Technology Policy](#) (October 2003) indicates that teachers enrich their approach on the basis of proven solutions, which they are accustomed to using. The expected changes and innovations, based on constructivist practices, only affect a tiny minority of teachers.

Claude Raymond ([AQUOPS](#)) draws attention to a significant slowdown in the investments granted between 1996 and 2001 in Quebec. Four years later, no commitments have been made with regard to equipping schools with ICT. The lack of technical support is combined with limited usage in the secondary system. Only a quarter of the teachers in Quebec regularly use information and communication technologies as teaching aids for their pupils, according to a study carried out in 2004 (this study, however, only targeted teachers in the primary teaching system). **Schools are "disconnected"**: i.e. absent as far as usage of the Internet is concerned. Antiquated computers, poorly trained teachers and resistance to change seem to be the problematic factors... One thing is clear, however: usage of the Internet and its derivatives (such as "Internet chatting" or E-mail for example) is by no means widespread. "*the Internet does not see much usage in schools*", declares [Christian-Marie Pons](#) (University of Sherbrooke).

It seems that the Internet is not capable of providing meaning or education. These authors argue that teachers prefer to send their pupils to pre-selected sites rather than look for information in cyberspace. "*It's the best way of being sure that young people are not put in a position where they have to make decisions, develop a critical evaluation of information quality or improve the efficiency of the research procedure*", observes the educationalist [François Larose](#), highlighting a difficulty in the teacher/pupil relationship. He notes that society requires, above all, that teachers should teach French, Maths and Science. The Internet is not included.

The role played by the school system in instructing young people as to how to use the Internet is unsatisfactory: only one out of four pupils has taken the B2I course, five years after its introduction, whereas three out of four pupils surf on the Internet on a daily basis. In their [report](#), entitled *Le fonctionnement du brevet informatique et Internet au collège (The function of the Computer certificate and the Internet at junior high school)* (2005), Régine Gentil and Jean-François Lévy draw attention to inequalities in the way the B2I course is implemented from one school to the next. The course exists in well-equipped junior high schools, where the school head is involved and the school's approach has been structured to integrate TIC. Furthermore, the B2I course does not integrate the disciplinary approach that is a component of standard teaching practices. A group of Canadian adolescents questioned on their usage of TIC at school regret the lack of commitment shown by teachers towards the Internet. These pupils would like to see "*a weekly challenge to find information on the Internet*", stresses Thierry Karsenti in his report entitled [Les futurs enseignants du Québec sont-ils bien préparés à intégrer les TICE ? \(Are future teachers in Quebec sufficiently prepared for integrating the ICT? - 2004\)](#). At the same time, Yvon Côté notes that "*teenagers are not necessarily "technos"*", in an [article](#), which shows that secondary pupils do not fully appreciate the scale of the technological revolution in progress and its vast potential.

The usage of technologies in the school environment can be the subject of passionate debates between its supporters and detractors. Numerous studies show that merely the fact that one has access to computers and the Internet is not sufficient for guaranteeing that information technologies are efficiently used as learning resources (Ertl, Heidi and Plante, 2004). According to the authors of an article published in *Educause Review*, "[Connectivity and learning in Canada's schools](#)", connectivity is essential if the usage of IT in class is to be efficient. The term "connectivity", must represent the capacity of teachers and students to approach educational content from an innovative perspective. Technological tools, from traditional teaching software to web sites dedicated to lessons and forums, blogs and wikis, transform the classroom into a more stimulating and enriching learning environment; they favour multi-directional interaction, and stimulate dialogue and 'one-to-one' exchanges (E-mail, instant messaging etc), 'one-to-several' exchanges (Powerpoint presentations, forums etc) or 'several-to-several' (wikis, web-videos etc).

The article entitled [La connectivité : la clé d'un usage efficace des TI en classe \(Connectivity: the key to efficient usage of IT in class\)](#) published on September, 23 2005 by [Catherine Lamy \(CEFRIQ\)](#), illustrates how to make the most of IT, with references to the article quoted above, published in *Educause Review* (2004). Connectivity must be expressed in five dimensions: **communication, collaboration, motivation, integration and finally creativity**.

In his [editorial](#) for the *Café Pédagogique* on June 25, 2006 Bruno Devauchelle moves away from the standard debate over the slow progress made by ICT in being integrated into the school system (vis-à-vis teachers' resistance or incapacity to change, and the "versatility" of the technologies). Instead, he re-opens the debate, with a question that challenges the existing articles on the question of ICT: "*And if the ICT were developing in a direction that was radically opposed to the school system, could one not consider that they have less and less of a role to play in this school system?*" The editorialist also raises the following issue: **is the development of ICT compatible with the school system?** The school is a place of **mediation** 'par excellence' and is being **challenged** by the **inter-mediation** proposed by the technological possibilities accessible: interactivity, inter-individual communication and collaboration are values promoted by the "social web", which conflict with the canonical "school system". The school system is progressively being "isolated" from this relational movement, notes Bruno Devauchelle, and this form of communication "*goes well beyond the walls of schools or family homes*", and offers open access to "*the world, information and knowledge without mediation*". Furthermore, the divide is increasing between the school system (which is belittled) and young people: **the educational system represents, for the pupils, nothing more than a secondary function**, a place of "*technical familiarisation for the most underprivileged*".

For more information on connectivism as a learning theory, see the article [Connectivism : a Learning Theory for the Digital Age](#), published in December 2004 by [Georges Siemens](#).

It is also interesting to read the [column](#) of January 21, 2006 published by the *Café Pédagogique*, entitled "*À la Une: L'école en déphasage avec la société de l'information*" (Front page news: The school system out of phase with the information society) and notably the speeches by Georges-Louis Baron and Michelle Harrari at the [SIF Conference](#) (2005), which highlight a **hiatus between what is happening at school and what is happening in society**.

Blogs in school

The April 2006 issue of the *Bulletin Collégial des technologies de l'Information et des Communications (CLIC Bulletin)*, entitled [Blogues et éducation : Tour d'horizon](#) (*Blogs and education: an overview*) summarises blogs' potential as educational applications. What can they offer in educational terms? There are numerous personal accounts by educational authors in favour of blogs, and Brigitte Vanda draws our attention to the most eloquent texts that highlight blogs as **interactive teaching areas**, and as places for individual and group dialogue (interview with Barbara Juzwiak Dieu, a teacher in Brasil, [Les blogs, nouvel outil pour la classe](#) – *Blogs, a new tool for the classroom*).

Blogs enable teachers to develop an area for consultation and educational monitoring. This is the conclusion that can be drawn from the [Interview](#) with Mario Tomé, the administrator of [Fle net](#). Blogs represent a place where young people can experiment and learn about the issues involved with publication; they enable pupils to better understand themselves in terms of learning individuals. This is the message that come across in the article entitled [La pratique des blogues en classe : une expérience positive qui sert bien les apprentissages](#) (The usage of blogs in class: a positive experience that serves as a teaching aid (Asselin, 2006).

In addition to this meta-cognitive aspect, there is also the possibility of an **intercultural enrichment**. Finally, this tool offers a means of updating problems such as respect for copyright, the security of on-line information and the quality of texts to be published ([Vernetto](#), 2006). Philippe Martin (2006) has assembled a series of links to classroom blogs. This will interest educational professionals who are looking for concrete examples of the application of blogs in the education sector.

In fact, blogs offer numerous educational usages, i.e. blogs for the teacher and blogs for the classroom. The teacher's blog can be used for both personal purposes and in the classroom, it offers educational resources, provides food for thought vis-à-vis their professional approach, enables the monitoring of research work or a project, offers practical information on the course in question, and makes it possible to both add to the work carried out in the classroom and propose educational activities. As far as the classroom blog (the result of collaborative work between peers) is concerned, it offers a medium for carrying out a school project, communicating with pupils (for the teacher) and communicating with both peers and the outside world (for pupils). At the end of this [Bulletin](#), the question addressed to the teachers suggests that ICT should be integrated into the teaching of the subject: *"Why not take advantage of a phenomenon which students clearly enjoy and which, furthermore, encourages them to express themselves in writing, position themselves, evaluate themselves, think and enrich their knowledge?"*

According to the report entitled [Pratiques du multimédia : les blogs](#) (*Multimedia practises: blogs*) published by *Franc-parler*, an increasing number of teachers are taking advantage of young people's interest in blogs and exploiting this educational potential by providing their pupils with motivational tools. This does not involve figures or statistics but rather educational applications on the basis of a thematic approach: "for the teacher", "for the classroom", "for the learner", "blogs and evaluation" and "the limits of blogs". It also includes personal accounts by teachers and a [webography](#) on the subject of blogs as a teaching aid. There is an abundant amount of literature on this topic, ranging from reports to articles and specialist journals. Readers might be interested to look at the report [Blogs / Carnets Web](#) (2005). Following a definition of terms such as "weblogs", and "blogs", Mario Tomé looks at the way this new media is used as a teaching aid. Readers should also look at the article by the National Ministry of Education on the Educnet site, entitled [Les blogs sous le feu de l'actualité](#) (*Blogs currently in the spotlight*) and notably the paragraph on "blogs in teaching".

According to David Huffaker, of the [Children's Digital Media Center](#) at the University of Georgetown, the way in which one measures success in the digital era depends on two variables: verbal skills (reading and writing as the foundations of education) and digital capabilities (degree of comfort when using technologies). Blogs offer an ideal format for encouraging these skills, thanks to their resemblance to a personal journal, their multi-disciplinary nature, propensity to create collaborative communities and user-friendliness.

With regard to a blog's contribution to education, the [column of February, 2005](#) by Serge Pouts-Lajus in the *Café Pédagogique* is particularly interesting. He highlights the obvious appeal for educational practises: *"In addition to its duty to transmit knowledge, the school system must enable every pupil to acquire self-expression skills in his own language, in other languages, orally, written, via imagery or music, and be involved in the process"*

Future prospects

It should be noted that teenagers have not only integrated the Internet (which has in fact become totally common-place), but have also entered a **new era of the representation of educational relationships**. The article entitled [Les enfants du cyberspace \(3\) L'âge butineur](#) (*Cyberspace children (3) - The age of multi-sourcing - 2005*), sub-titled **"Les jeunes internautes carburent "au multitâche" (Young Internet users feed on a 'multi-tasking' approach)**, establishes that Internet users, and notably the young ones, tend to carry out several tasks at the same time, i.e. what is commonly known as "multi-tasking". Activities such as listening to MP3 files, chatting and searching for Internet sites whilst doing one's homework (with the television on in the background) have become common practises for teenagers, who search for general information on the Internet as well as turning to documents or books when their needs are more specific. Christian Marie-Pons and Luc Giroux have explored the way in which the volume and diversity of information on the Internet modifies the way young people carry out their searches and influences knowledge learning modes. *"The idea of organising information into a hierarchy is more vague. Google makes no selection and provides everything in bulk"*, declares Christian Marie-Pons.

It seems, therefore, that these researchers acknowledge that Internet users require a certain degree of information literacy. With regard to these issues, readers should refer to the section on "information literacy" in [Newsletter N° 17 \(April 2006\)](#) produced by the VST, which notably indicates the upsets currently occurring amidst a society that is seeing dramatic change. The issue of adopting new educational approaches to remove the hiatus between the school system and Internet users is raised in the section *"Moving towards a new theoretical learning framework"*. The concept of promoting new learning strategies, which rely on *"a collective social construction, rather than on knowledge transmitted by the teacher"* is also covered.

In a presentation entitled [Tous les adolescents ont goûté à Internet](#) (*All teenagers have tried out the Internet*) produced by [Jacques Piette](#), Christian-Marie Pons and Luc Giroux in 2001, pupils demanded that the school should play a greater role in terms of initiation to TIC. This requirement formulated by teenagers continues today. Young people feel the need to be better prepared in terms of using the Internet. *"School curricula have not taken into account usage of the new media"*, observes Jacques Piette (2005). In addition, however, to this demand for greater information literacy, there is an urgent and categoric-

cal demand on the part of the new generation of teenagers, with regard to **a more dynamic and fun approach to the relationship with teaching**. The article [Engage me or enrage me: What today's learners demand](#) (2005), published by [Marc Prensky](#), sheds some more light on this generational change. He notes that teenagers today, unlike those that the author mixed with in 1960 in New York City's East Harlem (when he was beginning his career as an instructor), enjoy activities on the Internet, which keep them busy and absorbed outside school hours, and also make them impatient. "On the Internet, you can play games, you can check your mail, you can talk to your friends, you can buy things and you can look up things you really like". **The school system needs to initiate radical change**. What is proposed to teenagers at school seems to be devoid of interest and dull in relation to the possibilities offered by the net.

Six years after the survey carried out by the CLEMI on pupils aged between 12 and 18 in Belgium, Spain, France, Italy, Portugal, Quebec and Switzerland, entitled [Les jeunes et Internet](#) (Young people and the Internet), a similar sample was used in a study on **the appropriation of new media by young people**, which has just been published. This EU survey, entitled [The Appropriation of New Media by Youth](#), carried out between January 2005 and June 2006, was constructed around four themes: young people's multimedia environment, communicational and social knowledge and skills, psycho-social dynamics and the democratic future and issues at stake. The survey concludes that there is a real **gulf between the usage of the Internet at home and at school**. All the functions important to young people exist outside school, as well as most of the learning (albeit self-teaching or peer learning).

It is interesting to refer to the [summary](#), produced by Evelyne Bevort and Isabelle Bréda (CLEMI), who draw attention to the situation in Europe. In all the countries, including Quebec, the **Internet** sees by far the most usage **at home**. Young people communicate via the net and also use it for their school-work when they are at home. Whilst the home is widely used for different functions and for appropriation, the usage of the **Internet at school remains very limited and restricted** throughout Europe. Young Europeans (22%) declare that they have never used the Internet during school time and 30% say that it is rare.

What is the Internet used for at school? The answer is almost exclusively for documentary research during technology lessons. This qualitative English survey (survey carried out on the basis of individual interviews) shows that young people tend not to be very enthusiastic about discussing their school-work with peers, whereas they love to talk about messaging, games, music and other home practises. Interaction between young Europeans and the school system with regard to Internet issues is limited. A high percentage of young people stress that they never speak about the Internet with their teachers. At the same time, schools restrict access and ban certain practices that aren't strictly necessary, are unable to understand the communicational function of the Internet and fail to develop documentary search and creative skills.

Whilst academic literature devotes a great deal of time to discussing the creative potential of the new media, the observation made by pupils is that new skills, which could be developed, tend to be ignored. It seems that **schools are not exploring the educational potential of these new usages**. Throughout Europe, schools are refusing to adopt these teaching aids. Instead they prefer to regulate and to restrict. The educational potential of electronic games is ignored in real-life situations.

The development of new educational technologies is currently focused around young people's leisure activities. A few different avenues have already been explored on the other side of the Atlantic, where the phenomenon of "teaching by podcasting" has become a reality. Audio blogs are becoming more and more popular. In the United States, **more than 22 million Americans own an iPod or an MP3 player, and 29 % subscribe to podcasts**, according to the [Pew Internet and American Life Project](#). Initiatives concerning the introduction of new technologies into the education sector are announced in the Internet news journals. As a result, the University of Duke provided all its new arrivals with iPods in 2004.

Educational audioblogs and videoblogs are seeing an increasing level of success in the US. The American portal Landmarcks for school lists the Internet sites dedicated to education, and proposes a new service: [The education podcast network](#). Here, professionals share their educational resources together with their own personal experiences or teaching media in audio format.

In her article [Trend: Podcasting in Academic and Corporate Learning](#), Eva Kaplan lists seven ways to use podcasting ("Implications for learning"): assisting auditory learners (pupils who prefer to take in information aurally), providing another channel for material review, assisting non-native speakers, providing feedback to learners, enabling instructors to review training or lectures, replacing full classroom or online sessions when content simply requires delivery and providing supplementary content or being part of a blended solution (via RSS).

"[Serious games](#)" could also be taken into account as interactive communication media in XXIst century teaching methods. Similar to educational games in terms of their educational and instructive capabilities, these "serious games" are video games that propose simulations, which give the user the impression of participating in a game, whilst imitating real events or procedures. Jean-Paul Pinte reminds us in his [column of June 21, 2006](#) of the usefulness of these games and provides a selection of links.

There is another line of questioning that deserves an in-depth study. This concerns the psychology of learners in the digital era. Whilst adopting teenagers' own approaches to help teach them seems to be an essential means of reconciling youth with school, taking into account the overall expectations and future requirements of the same teenagers would also seem to be useful. [Diana G. Oblinger](#) (Educause) and James L. Oblinger (North Carolina State University) have explored this issue by examining the intentions of the Net generation. This was the object of the survey in Chapter 2, "Is It Age or IT: First Steps Toward Understanding the Net Generation", of the electronic book published in 2005 and entitled [Educating the Net Generation](#). An observation: the Net Generation has grown up with the Internet technology. Teenagers are more skilled than their elders in developing digital skills. They acknowledge that they have never lived without the Internet and talk of their ability to carry out hypertext searches or gather information from multiple sources. They also suggest that other differences should also be noted: they describe themselves as born, intuitive and visual "communicators". They have strong visual and spatial capacities, undoubtedly supported by the time they devote to video games. They prefer to learn by experimenting rather than following a teaching programme, and they move easily from one activity to the next when they lose interest. They reply with vivacity to questions, and demand a rapid response in return. A few words to describe the profile of a typical young Internet user: interactivity, interaction, active visualisation, kinesthesia and immediateness.

Prensky estimates that young people today aged 21 have spent three times as much time playing video games as they have spent reading books. The Net Generation is more visual than preceding generations, and more at ease in environments rich in images than in those that merely favour text. It is interesting to read the article published in December 2005, [Adopt and Adapt- School Technology for the 21st Century](#) (Edutopia), which looks at the resistances and innovations linked to new educational technologies.

Bibliographie

- Bouvier Pierre (2005). *Le lien social*. Paris : Gallimard.
- Boyd Danah (2006). « Frierster lost steam: Is MySpace just a fad? ». En ligne : <<http://www.danah.org/papers/FrienderMySpaceEssay.html>> (consulté le 29 juin 2006).
- Boyd Danah (2006). « Identity Production in a Networked Culture: Why Youth Heart MySpace ? ». En ligne : <<http://www.danah.org/papers/AAAS2006.html>> (consulté le 29 juin 2006).
- Breton Philippe (2001). *Le culte d'Internet*. Paris : La Découverte.
- Côté Yvon (2004). « De beaux ados pas forcément technos ». En ligne : <http://www.viepedagogique.gouv.qc.ca/numeros/132/vp132_8-11.pdf> (consulté le 29 juin 2006).
- Clerget Stéphane (2002). *Ils n'ont d'yeux que pour elle: les enfants de la télé*. Paris : Fayard.
- De Rosnay Joël & Caro Revelli (2006). *La révolte du pronétariat : des mass médias aux médias de masse*. Paris : Fayard.
- Deci E.L. & Ryan R.M. (2000). « Self -Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and well-Being ». *American Psychologist*.
- Fize Michel (1994). *Le peuple adolescent*. Paris : Julliard.
- Fize Michel (2002). *Les adolescents*. Paris : Le cavalier bleu.
- Gauchet Marcel & Nora Pierre. (2006). « Penser la société des médias II ». *Le débat*, vol. 139.
- Hersent Jean-François. (2003). « Les pratiques adolescentes ». *BBF*, vol. 3, n° 48.
- Jaureguiberry Francis (2003). *Les branchés du portable*. Paris : Presses Universitaires de France.
- Karsenti Thierry (2003). « Plus captivantes qu'un tableau noir ». En ligne : <http://karsenti.scedu.umontreal.ca/pdf/publications/2003/rfsp_6_24.pdf> (consulté le 29 juin 2006).
- Karsenti Thierry. (2003). « Favoriser la motivation et la réussite scolaire en contexte scolaire : les TIC feront-elles mouche ? ». *Vie pédagogique*, vol. 127.
- Kerdellant Christine & Gresillon Gabriel (2003). *Les Enfants-Puce : comment internet et les jeux vidéos fabriquent les adultes de demain ?* Paris : Denoël.
- Lamontagne Denys (2003). « Écoles branchées mais cours débranchés ». *Thot*, En ligne : <http://thot.cursus.edu/archive.asp?page=27&query=&rubrique=6&nb=&depuis=&type=&champs=&pays=&nom=&s=1> (consulté le 29 juin 2006).
- Lardellier Pascal (2006). *Le pouce et la souris : enquête sur la culture numérique des ados*. Paris : Fayard.
- Lebovici Serge & Missonnier Sylvain. (2003). « Le virtuel, les nouvelles technologies de l'information et de la communication NTIC et la santé mentale ». *Carnets/PSY*.
- Mace Eric & Maigret Eric (2005). *Penser les médiacultures: nouvelles pratiques et nouvelles approches de la représentation du monde*. Paris : Armand Colin.
- Metton Céline (2003). « Le rôle des nouveaux outils de communication dans le renouvellement des formes de sociabilité et de socialisation des préadolescents ». En ligne : <<http://jeunes-et-societes.cereq.fr/PDF/Metton.pdf>> (consulté le 29 juin 2006).
- Metton Céline. (2004). « Les usages de l'Internet par les collégiens: Explorer les mondes sociaux depuis le domicile ». *Réseaux*, vol. 123, n° 22.
- Moatti Michel (2002). *La vie cachée d'Internet : Réseaux, accros, tribus*. Paris : Éditions Imago.
- Urban Anne-Claire (2005). « Je blogue, tu blogues, nous bloguons ». *Cleml*, En ligne : <http://www.cleml.org/medias_scolaires/blogs/article_blog_ACO.rtf> (consulté le 29 juin 2006).
- Pasquier Dominique (2005). *Cultures lycéennes : la tyrannie de la majorité*. Paris : Autrement.
- Piette Jacques, Pons Christian-Marie, Giroux Luc & Millerand Florence (2001). *Les jeunes et Internet (représentation, utilisation et appropriation)*. Gouvernement du Québec, ministère de la Culture et des Communications.
- Piette Jacques, Pons Christian-Marie, Giroux Luc & Millerand Florence (2001). *Les jeunes et Internet*. Ministère de la Culture et des Communications.

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