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Digital Literacy and Spelling in Teenagers' Writing: Possible Conflicts among Written Varieties

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Digital reading and writing practices, which appeared at the very end of the 1990s, are inflationary among today's teenagers and digital literacy is now a part of the knowledge and skills that children and adults of the 21st century must have. The fact remains that people's perception of "the digital natives" is often tainted with disquiet, as if they were threatened by digital technology. The risks include the negative impact of the frequent use of e-writing on writing skills, spelling in particular, which is known to be hard to master and, at the same time, socially valued. The present article proposes a contribution to this debate by providing the first results of a comparison of written papers from the same exam with an interval of 15 years, i.e. just before the advent of digital technology and today. The analysis tends first to place the alarmist discourse of public opinion about the impact of e-writing in a less dramatic perspective by showing an absence of specific digital procedures in the more recent papers. It also invites us to be cautious. Since 1996, the increase in expressiveness and problems of segmentation question the findings of linguists, which may be too optimistic.

Les pratiques de lecture-écriture électronique, apparues à la fin des années quatre-vingt-dix, sont « inflationnistes » chez les adolescents d'aujourd'hui. Reste que le regard porté sur les « digital natives » que sont ces jeunes est souvent teinté d'inquiétude, comme si le numérique leur faisait courir des dangers, au premier rang desquels serait l'effritement de leur maîtrise du français et tout particulièrement de l'orthographe. L'analyse menée sur des copies d'un même examen recueillies pour les unes juste avant l'irruption du numérique, en 1996 et, pour les autres, quinze ans plus tard, en 2011, ne confirme

certes pas les prises de position alarmistes mais, dans le même temps, établit un lien probable entre la montée en puissance de certains écarts orthographiques et la littératie numérique.

The practice of electronic reading and writing that emerged at the end of the nineties has been spreading quickly among teenagers today. Digital technology is at the heart of teenagers' lives inasmuch as "their activities, their relationship with the world, their culture, their ways of communication and their ways of getting and spreading information are linked to digital tools to varying degrees" (Schneider, 2014, p. 27). Moreover, now that digital writing coexists with traditional writing, digital literacy has undeniably a "place in the skills children and adults must acquire in the 21st century" (Gerbault, 2010, p. 112).

However, the fact that today's teenagers have become "digital natives" is often considered worrying, as if they were putting themselves at risk by using digital technology (Livingstone & Haddon 2010, quoted by Fluckiger & Hétier, 2014, p. 2). In the eyes of French speakers, this threat exists in the form of a negative impact on the mastery of standard French, and more particularly on spelling, which is notoriously difficult to acquire but is at the same time highly valued socially. Recent media coverage has provided us with many examples of this recurring problem: "is the French language being threatened by Text Messaging?" is one question found in an article from the magazine *Pour la science* (Liénard, 2014), and a programme that was recently broadcast on France Inter radio had this question in its title: "Is Text Messaging re-inventing the French language?" (Devillers S., 2014).

This chapter proposes a contribution to the debate by looking at the extent to which frequent use of electronic writing in a language somewhat removed from standard French usage is likely to affect a teenager's mastery of standard French and its spelling. We will first focus on certain points about how teenagers view electronic writing. We will then give a description of the variety of French they use in their electronic writing and acquire as part of their repertoire. In order to measure the impact of this new variety of writing on French spelling, we will then compare today's examination papers with those taken 15 years ago—just before digital writing appeared.

1. A New Kind of Teenage Writer

Because our aim is to pinpoint an evolution of practice, we will present a few points that enable us to grasp what sort of a writing world today's teenagers live in compared to teenagers at the end of the nineties, before the age of digital technology. We will discuss the different changes that affect writing

itself, as well as correspondence relationships and the evolution of teenagers' personal writing practices.

1.1. The Act of Writing in a Digital Context

Fully equipped with mobile phones and laptops, teenagers today become familiar from childhood with digital technology. It occupies a large part of their time spent at school as well as outside school. Here are three examples of the changes digital technology has made on the act of writing in today's young generation compared to the nineties:

The first change is due to the wider range of media, tools and communication contexts. Teenagers have to go from one information and communication technique to another, either directly or remotely, in real or in delayed time, or with one correspondent or a whole group of "contacts." (Liénard, 2014, p. 32)

Digital technology changes the very static rapport that people have had with writing up to now: "Digital technology has enabled the development of writing practices in times and situations that formerly excluded or at least hampered them: writing while walking, writing standing in a bus, writing to one another from one end of the tram to the other, writing love messages to each other seated on different rows." (Schneider, 2014, p. 32)

It is important to underline how much the potential for diversification of message receivers has created a range of richer and more complex interpersonal relationships than with hard copy writing. In particular, a form of correspondence is being developed in teenage discussion forums that is at the same time intimate and faintly interpersonal, involving relationships that are paradoxically cooperative and unequal, fun-based and aggressive. (Marcozzia et al., 2014)

1.2. Teenagers' Personal Practices of Writing in the Digital Era.

If we now turn to the nature of the personal practices of writing occurring outside school, performed voluntarily and encompassing a wide range of genres (anything teenagers write of their own free will when they are not forced to do so), to grasp their evolution, we can focus on two studies that were carried out in our laboratory¹ with a gap of 15 years between them. The

first one (Penloup, 1999) was carried out in 1997, before the onset of digital technology, on 1800 secondary school students² (11–15 year-olds) in the Rouen academy in Normandy, of which 375 were 15-year-old students; the second study, performed in 2012 by R. Joannidès as part of her doctoral thesis, was carried out on 479 15-year-old students. We were particularly interested in the responses given by the 15-year-old students at a 15-year interval, given that the studies, even though they were not identical, were nonetheless comparable because they were both based on samples with cross-referencing parameters such as the students' achievement at school, the schools' location and the families' socio-professional characteristics. The same eight writing practices were analyzed in the form of a questionnaire in both studies: they included writing on cards about favorite topics, making up lists, writing letters, photo captions, and personal journals as well as inventing song lyrics, poems, or stories (the term “invent” allows us here to make a distinction between creative writing and copy writing). The two questionnaires presented the subjects with a yes/no choice of answers to the question “Do you write . . .” (. . . lists, songs, etc.): The results therefore did not indicate actual practices but were in the form of reports of practices, which only gave the general trend in terms of writing genres and priorities. In the 2012 questionnaire, the items were duplicated as “Do you hand-write?” or “Do you write on a computer?” and further questions were added to the eight original ones in order to target writing practices that were specifically linked to digital technology.

The comparison of the responses collected in the 1997 and the 2012 questionnaires—for the latter only including the questions “Do you hand-write?”—is summarized in Table 8.1 (see Appendix). We observe that there are fewer students today who resort to handwriting for any written genre. The hierarchy between the different writing practices has hardly changed, except for the writing of letters, which has understandably been overtaken by email writing and other means of digital communication. As for the rest, what comes out more importantly from the various responses is that handwriting practice has not receded but has been maintained at a surprising and significant level, probably involving aesthetic and corporal dimensions in the rapport between writing and the chosen genre, but we will not discuss this point here. If we now compare (see appendix 2) the 1997 handwriting practices with both handwriting and digital writing in 2012, we observe that, even if the number of affirmative responses is on the rise, there are fewer students today who use handwriting. This observation is true for all the handwriting genres listed, except for photo captions which have become very common practice in the digital era and in media such as Facebook. To have a more complete picture of the situation and not come to a hasty conclusion about these practices, we

have to add, for 2012, the practices that are specifically electronic and did not exist in 1997, and that a great majority of students today report (appendix 3).

Therefore, the decrease in what we could call “traditional” practice has to be seen in the context of an explosion of specific electronic writing practices that have become omnipresent. With digital technology, teenagers are certainly more prone to a personal kind of writing, and this shows a democratization of the writing process. But the nature of this written production is not the same. The comparison of the results obtained shows in particular a decrease in the positive responses for narratives and poetic writing. Does this mean the number of practices that are purely communicative has increased to the detriment of literary practice? Or is the practice now more commonly found in blogs and no longer identified as literary? The collected data does not allow us to answer these queries but we can emphasize the need to do further research to find out whether what we called the “temptation of the literary genre” at the end of the nineties is still true among teenagers today and if so where it is found. In any case, the developments that we have discussed, and the massive implication of teenagers in the digital culture, which, as we have seen, has changed their rapport towards writing and the nature of their personal writing practices, has had an impact on their way of writing in French. This is what we would like to develop now.

2. Digital Writing

2.1. Digital French: An Accumulation of Processes Leading to a More or Less Stabilized Variety.

A new way of writing French, very different from standard French, appeared with digital writing and has since the beginning of the 21st century been a subject of study. J. Anis (2001, p. 32) described it as a “melting script,” because it is a combination of heterogeneous symbols and writing processes. It mixes letters from the alphabet, numbers, logos, punctuation symbols and different systems (or languages). In addition, at a different level of analysis, we can observe an accumulation of different processes overlaying fundamental characteristics identified by the different linguists that have studied them (Anis, 2004, Fairon et al., 2006, Véronis & Guimier de Neef, 2006, Panckurst, 2009). For our part we used F. Liénard’s typology (2007), summarized in appendix 4.

The most interesting characteristic in F. Liénard’s analysis is that it attempts to explain why non-standard writing processes are resorted to, classifying them according to their functions: simplification, specialization and expressiveness. The processes that he describes in the “simplification” category

are used to ease the technical constraints that are inherent to the media devices used (keyboard, screen). The “specialization” process allows the writer to specify an expertise, to play with the language, or to create a link and a linguistic community. And the last function of digital writing is to display emotions despite the physical absence of the communicators, their intonation and their gestures; this is what the author calls “expressiveness” or “extraversion.”

What is most important about this analysis is that resorting to digital writing cannot be explained only by technical constraints, and that its vitality goes beyond the progress in technology. It is also important to point out that none of the processes described is specific to digital writing inasmuch as they existed before it developed. For instance, truncation and abbreviation processes have been used since Antiquity in order to compensate for the lack of space on tablets, papyrus and parchments, and have since been re-used by telegraphers, small ad writers, stenographers and later on texters and on-line chatters (David et Goncalves, 2007, p. 45). If, however, we can talk about “digital writing” or “text messaging,” it means that the different processes are accumulating in an original and sufficiently stabilized manner.

2.2. The Co-Existence of Two Written Varieties in Many Young Writers’ Repertoires

Most teenagers today have a written repertoire with two varieties: a standard variety and a digital variety characterized by an accumulation of processes that are relatively stabilized. In each writing situation, just as bilingual or multilingual speakers would draw from their languages according to the communication situation, teenage writers will on different occasions resort to the digital variety. This variety is expected and relevant when they are writing on Facebook or on their blog. However, its use is forbidden in schools where students are expected to write standard French.

We need to know therefore whether these teenagers have perfect mastery of the two varieties and know exactly how to gauge the quantity of digital writing they want to inject into a piece of writing or whether, on the contrary, the digital variety “contaminates” (we use the medical metaphor deliberately) standard French without their knowledge. This is a new question in the area of writing practices, but well-known in the one of speaking practices with the risk of contamination of the standard register by the familiar or the teenage register which is generation and identity-dependent. This question is all the more legitimate in the case of writing where, rather than an expected strict partition, a sort of porousness can be observed between digital French and the French used in personal hardcopy writing. For instance, in the journals

used by teenagers to write down the work to be done for school and which they use quite readily for other, more personal purposes (declarations of love or friendship, thoughts for the day, poem or song excerpts, etc.), we can find on hard copy all the different processes described earlier as deriving from a “digital” type of French. The journal excerpt below is an illustration of this.

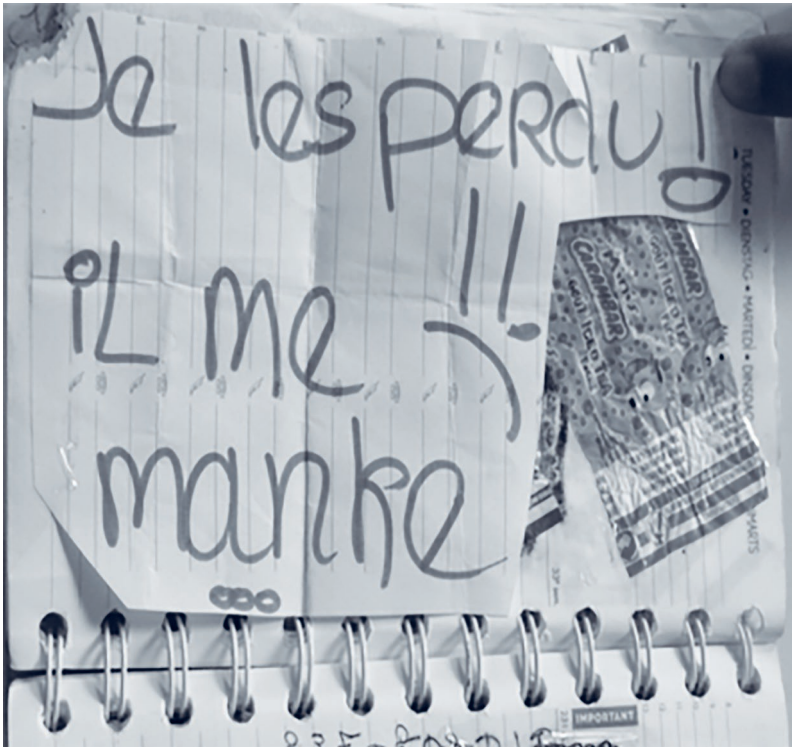


Figure 8.1 Diary Excerpt

Is this proliferation of processes—linked to digital writing and partly originating from technical constraints—towards hard copy writing where these constraints no longer exist a conscious and mastered phenomenon? And if it is not, is it not then likely that in the medium-term we will see an impact on writing forms that require the standard norm?

2.3. A Potential Threat to the Acquisition of Spelling?

The hypothesis that there is a correlation between the decline of the level of spelling observed in teenagers (Manesse et al., 2007) and the rise of digital writing has often been discussed. It has been discussed in the media—as mentioned in the introduction—but also by researchers. B. Ameka (2006,

p. 22) talks about a possible loss of the meaning of spelling even when the current graphic system enables important semantic distinctions. R. Jalabert (2006) highlights the potential toxicity of digital writing in the learning phase, where children and teenagers are insufficiently literate to “differentiate between ‘writing’ and ‘texting’” The teenagers R. Joannidès investigated demonstrated that they themselves were similarly concerned and were convinced that their intensive digital practice gave them “bad writing habits.”

Because Linguistics is by essence a descriptive and not a prescriptive science, the linguists who are asked the question tend not to feel concerned. Some underline the fact that spelling did not wait for the digital era to become a source of problems (Walter, 2006); others prefer to focus on the creativity of text messaging (Fairon, 2005, Panckhurst, 2014 during a France Inter radio talk-show mentioned earlier); and others insist on the fact that mastering standard French is a pre-requisite for being able to play with the digital variety. This point of view can be found in the work by N. Marty (2005), S. Pétilion (2006) or J. David & H. Goncalves: “Our studies show that the students who have not yet mastered conventional spelling (David, 2003) do not resort to these written simplifications or inventions, simply because the processes used are based on a spelling pattern that has already become established” (David, Goncalves, 2007, p. 45). We might therefore witness the emergence of digraphia, which will put the excessive influence of spelling norms into perspective, without jeopardizing spelling: “Alongside spelling in its Sunday best and reserved for academic usage,” says J.-P. Jaffré, “less constrictive and more efficient graphic forms will appear for every day communication” (Jaffré, 2004, p. 22).

However nice and appealing this may sound, it is nonetheless an indisputable fact that spelling in its “Sunday best” is becoming undermined. It seems important to us to go further by trying to determine what part the development of digital writing plays in this trend.

3. Data that Shed Light on the Debate Concerning the Threat to French Standard Spelling

The different points of view that were discussed above are based on scientific hypotheses and not so much on effective research. Actual studies have been endowed with a variety of methodologies on different scales, summarized in a recent article by J. Bernicot and colleagues (Bernicot et al., 2014) who carried out and presented some substantial research on the topic. After having given 19 students aged 11–12 years a mobile phone each, a device they had never owned before, every month and for one year the research team

collected a certain number of text messages that the students were ready to share. The analysis, comprising 4524 messages, concerned the emergence and the density of “textisms” (specific processes in digital writing) and the potential evolution of the level of spelling of the students that were given a phone compared to the control group who did not have a phone and whose level of spelling was the same at the start. “Textisms” themselves were differentiated according to whether they were in agreement with the traditional code (e.g. “mé” for mais) or went against it (e.g. “bsx” for bisous).

On the whole it appeared that the spelling levels of the students, whether they used text messaging or not, did not change, and that the density of textisms in their messages was not linked to their level in spelling: “On the whole, students who were good or bad at traditional writing at the beginning of the data collection remained the same over the year whatever their text messaging practices (density and types of textism)” (Bernicot, 2013, pp. 3-4).

This research was carried out over a one-year period and used digital writing excerpts. As for R. Joannidès, she chose to compare French examination papers with a 15-year interval: 81 essays from students taking their DNB exams in 1996 (Diplôme National du Brevet taken at year 10, when the students were 15 years of age) and 98 essays from 2011. These were also written by 15-year-old students in the same school, in a rural location, and whose parents came from an underprivileged socio-professional category.³ (For more information, see R. Joannidès’ thesis that was completed in October 2014.)

In order to pinpoint the evolutions that might be imputed to outside-school digital writing practices, all the items found in the essays that were different from the norm were collected. They were then classified in an analysis grid along the same lines as C. Gruaz’s analysis (1985) and V. Lucci & A. Millet’s analysis (1994). A comparison was then drawn between the 1996 and 2011 sessions. Three of our results are discussed below.

3.1. Absence of Most of the Emblematic Processes.

We first observed that most of the emblematic processes in digital writing practices were absent from the 2011 students’ examination papers, despite a great number of spelling mistakes. We could not find for instance any examples of consonant skeletons or emoticons. Even if there were certain deviations from the norm, it was obvious that the accumulation of processes discussed earlier, stemming from digital types of writing such as text messaging and found even in school journal writing, was not apparent in the examination papers.

This observation, which coincides with the results found by J. David and H. Goncalves (2007), corroborates the hypotheses discussed earlier and goes

against the alarmist view that written French has been invaded by digital French writing processes. On the contrary, if we look at the differences in the manner of writing of the students from one writing context to another, it would rather seem that they have a good mastery of the two varieties, that is to say, they are conscious of what they are doing to the norm, of the differences between the varieties in their repertoire, and of the need to adapt them to the different writing situations.

3.2. More Frequent Symbols of Expressiveness

Having said that, we also observed (appendix 5) a clear increase in 2011 of what F. Liénard calls repetition of punctuation symbols, as well as resorting to words entirely written in capital letters, a phenomenon that is linked to the question of expressiveness.

The repetition of punctuation symbols appeared twice in the 1996 corpus and six times in 2011 (three times more frequently). As for the use of capital letters, we could not find any occurrences for 1996 but there were 7 in 2011. This increase leads us to consider the probable influence of digital writing practices. However, this fact cannot be established with certainty inasmuch as none of the processes is specific to digital writing. Moreover, the quantitative comparison should be considered carefully because these examples occurred in fragments of direct discourse, to which the 2011 exam subject lends itself more easily than the 1996 exam subject which had fewer opportunities for direct discourse.

3.3. The Case of Segmentations

In this chapter we also focused on a type of non-standard form that originates from “segmentation” errors or, to use C. Gruaz’s terminology (1986), “cutting-up” errors. It concerns more particularly the problem of graphic blank omissions, which occurred 90 times in 1996, but 222 times in the 2011 examination papers (nearly 2.5 times more).

Below are listed some of the many types of segmentation errors:

- Logographic errors in the sense that they generate a confusion between homophones, i.e. between two standard forms (appendix 6). In particular, we observed 2 cases of blank omission on the spelling of “la” and “ma” in 1996 against 51 in 2011, i.e. 25.5 times more. The segmentation errors on “ta” and “tes,” absent in 1996, numbered 8 in 2011.
- Morphographic errors, i.e. on blanks that are used to cut up the graphic chain into morphemes (appendix 7). This time the form obtained

does not have a standard existence. There were 12 cases of blank omissions in 1996 without any accumulation with other mistakes and there were 27 in 2011 (2.25 times more).

In the case of blank omissions accumulated with other mistake types (appendix 8), there were 5 in 1996 but 27 in 2011 (5.4 times more). Finally, only one case of substitution, corresponding to a blank placed wrongly or to non-differentiation of the words, was found in 1996 whereas there were 7 occurrences in 2011 (appendix 9).

The increase of these errors poses a question. It is true that segmentation has always been a problem to writers and more particularly to children in the learning phase. How can we explain this increase? We have to seriously consider the hypothesis of a correlation with a digital writing practice that uses what F. Liénard (2007) calls “*écrasement de signes*” (lexical short cuts whereby certain signs and symbols are “crushed” or omitted) and this also covers segmentation.

4. Conclusion: A Probable Influence on the Evolution of Digital French Spelling

Our analysis, by showing the absence of digital writing in the examination papers of 15-year-old teenagers, confirms that fact that young writers do not confuse the digital variety with the standard norm. It does not, however, remove the question of the potential correlation between the development of a widely used digital variety (including some hard-copy writing) and the deterioration of spelling among French teenagers. On the contrary, the data gathered give a certain number of clues that suggest a link. This possible link does not imply confusion between varieties, but could have a negative impact on the mastery of spelling norms, i.e. on the maintenance of spelling in its “Sunday Best.” If this hypothesis were to be true, we should then stop denying the fact and, according to how much importance we attach or not to this decline, consider appropriate didactic forms for handling the problem.

Notes

1. The DySoLa Laboratory (Dynamique Sociale Langagière) (Social linguistic Dynamics) is made up of sociologists and linguists. Studies include socio-linguistics, linguistics and didactics.
2. The fourth year of secondary school, called “troisième” in France.
3. Examination papers are usually destroyed every year and former exam papers were kept only in one school. It was therefore impossible to find a corpus that was representative of the diversity of the parents' socio-professional backgrounds.

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Appendices

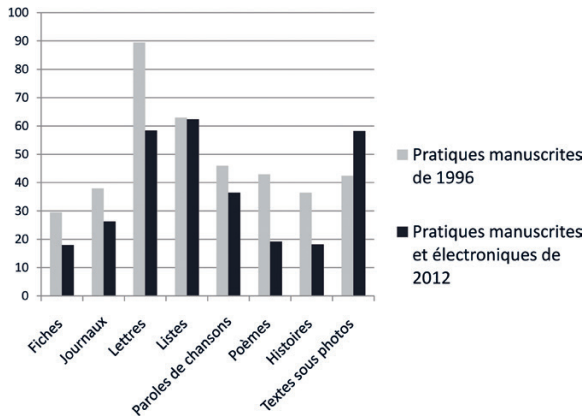
Two questions concerned lists in 1997, one on “useful” lists and the other on lists of favorite words. An average of the obtained responses is given in the following tables to compare it with the 2012 responses to the single question that grouped all the possible list practices.

Appendix 1: Comparison of the positive responses for “Do you hand-write?”

Handwriting usage: students concerned (in %)	1997 n=375	2012 n=479	Difference (in points)
File cards	29.5	9.8	19.7
Diaries	38.0	25.1	12.9
Letters	89.5	47	42.5
Lists	63.0	55.5	7.5
Lyrics	46.0	25.1	20.9
Poems	43.0	13.2	29.8
Stories	36.5	11.1	25.4
Photo captions	42.5	35.7	6.8

Appendix 2: Handwriting usage in 1997 handwriting and digital writing usage combined in 2012

Handwriting and digital writing usage: students concerned (in %)	1997	2012	Difference (in points)
File cards	29.5	18.0	11.5
Diaries	38.0	26.3	11.7
Letters	89.5	58.5	31
Lists	63.0	62.4	0.6
Lyrics	46.0	36.5	9.5
Poems	43.0	19.2	23.8
Stories	36.5	18.2	18.3
Photo captions	42.5	58.2	-15.7



Appendix 3: Writing usage that is exclusively digital in 2012

Digital writing usage: students concerned (in %)	Number	%
Text messages	452	94.4
Search engines	427	89.1
Online chatting	399	83.3
Word processing	377	78.7
Copy and Paste	369	77.0
Emails	328	68.5
Blogs	197	41.1
Online games	190	39.7
Forums	129	26.9

Appendix 4: F. Liénard's typology for the different digital writing processes (2007)

Simplification	Consonant skeletons	Bjr (bonjour), slt (salut)
	Truncations	Ciné (cinema), net (internet), oneur (honneur), ariver (arriver)
	Elision of semiotic elements	Accents, capital letters, articles, etc.
	Acronyms	mdr (mort de rire)
Specialization	Semiotic-phonological notation	Réso (réseau), vil 1 (villain), 6t (cité)
	Anglicisms	Now, F2F (face-to-face)
	Lexical short cuts	Kestufé (qu'est-ce que tu fais)
Extraversion	Emoticons	
	Grapheme or symbol repetitions	Ta di koi??! c la finn

Appendix 5: An increase in the symbols for expressiveness

	Répétitions
	QUI, !?
1996 (81)	2
	aimeriez-vous que l'n sache tout de votre vie ?! Comment tu as fait pour rentrer ici ? (DD)
2011 (98)	13
	500 ans ?! (DD) Ma maman ! LA personne la plus chère à mes yeux ; mais QUOI ??! (DD) ; tu me demande d'oublier ma mère ?! va le cherché !! (DD) Aahh (DD) TERMINER les sorties ! ?! (DD) JULIE c'est quoi !!! (DD) NON, NON et NON (DD)

Appendix 6: The case of logographic segmentation errors

	1996	2011
"la" vs "l'a" and "ma" vs "m'a"	2	51
"ta" vs "tu as" or "t'a" and "tes" vs "t'es"	0	8

Appendix 7: The case of morphographic segmentation errors

1996	2011
enfait (en fait), biensûr (bien sûr), quelquechose*7 (quelque chose), parcequ'ils (parce qu'ils) parcontre (par contre) Vanina nosa pas (n'osa)	enfait (en fait), biensûr*2 (bien sûr), quelquechose (quelque chose), parceque*2 (parce que) aurevoir (au revoir), cest (c'est), jai (j'ai), jusquà (jusqu'à), dépusement (d'épuisement), jespère (j'espère), derien*2 (de rien), dutout*3 (du tout), ducoup (du coup), demmenager (d'emménager), daccord*2 (d'accord), nimporte quoi (n'importe), men (m'en), sexcuser (s'excuser), vasy (vas-y)

Appendix 8: The case of blank omissions combined with other types of errors

1996	2011
apar (à part), allèce (à l'aise), enrevoirs (au revoir) nettais (n'était), s'en- naye (s'en aille)	apart*2 (à part), appart (à part), allaise (à l'aise), orevoir (au revoir) tamieux (tant mieux), plutard*2 (plus tard), touleten (tout le temps), jusqua (jusqu'à), tempis (tant pis), qu'esqu'il (qu'est-ce qu'il), bien- sur*4 (bien sûr), doucoup (du coup), mauvais (m'avais), esque (est-ce que), desculsion (d'exclusion), mettonnera (m'étonnera), qavant (qu'avant), enfaite*3 (en fait), quesqu'il (qu'est-ce qu'il), impeu (un peu)

Appendix 9: The case of substitutions

1996	2011
l'aveill (la veille)	la rédécar*3, la rèdeçar (l'arrêt des cars) qu'esqu'il (qu'est-ce qu'il) j'usquau (jusqu'au), j'usqua (jusqu'à)