

Girls, identities and agency in adolescents' digital literacy practices

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Abstract: This paper focuses on the ways girls use digital environments, like Word, PowerPoint and chatting programmes, for writing and communication purposes. By combining quantitative and qualitative methods of analysis and by adopting a critical discourse framework, we will explore the relationship between girls and new media, especially the ones related to digital writing, in terms of three interconnected variables. The first one is related to the role of the two most important socialisation institutions, home and school, at the present historical juncture, characterised by intense mobility and an expansion of traditional forms of literacy. The strategic choices of the girls' families and their schools' teaching practices contributed significantly to the formulation of their digital writing practices. The second variable is gender. Our data clearly show that a substantial number of girls were more inclined than their male peers to use word-processing and presentation software, performing, thus, the school discourses of 'diligent students'. The third key variable concerns the personality of the girls who filtered in their own unique ways their social experiences, overcame limitations, took initiatives and appropriated technologically-mediated writing media for personally meaningful ends that enhanced their school and/or entertainment Discourses.

Keywords: girls & digital literacy practices, digital writing & identity, Discourses, social structures & agency, critical discourse studies



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1. Introduction

Major technological and other wider changes during recent decades have transformed textual and communication practices. This new reality has stimulated interest in language, literacy and language teaching studies (e.g. Coiro, Knobel, Lankshear & Leu, 2008; Cope & Kalantzis, 2000; Crystal, 2001). Lewis (2007), focusing on writing, compares recent developments in writing research with the ones that occurred in the beginning of 1970s, when Emig (1971) altered the research focus from the final written product to the study of the writing process, a catalytic shift in the theory and practice of writing. Lewis remarks: "I would argue that it is necessary at this time to 're-make' the discipline of literacy studies, and that these moves – to reflect, describe, categorize, document, and differentiate – are part of the generative act of re-envisioning writing in digital times" (2007, p.230).

In this context of digital or new literacies (Coiro et al., 2008), gender is an important dynamic, socio-cultural category which has been the focal point of a number of research projects. However, there are few studies on gender and new literacies from non-Anglo cultures. Moreover, there is a tendency to treat gender independently of other economic and sociocultural variables. In this way, no proper attention has been given to the contexts which may lead to contradictions and discontinuities in gendered practices and behaviours. Added to this, little attention has been paid to issues of identity construction in female and male computer mediated communication.

This paper explores how female students use information and communication technologies (ICTs) in their in and out-of-school writing practices. The data originate from a large-scale research project (4174 questionnaires, 77 interviews) on adolescents' digital literacy practices conducted during 2006 in Greece (Koutsogiannis, 2007, 2011). More specifically, the paper focuses on the ways girls use digital environments like word-processing (e.g. Word), presentation software (e.g. PowerPoint) and chatting programmes, for writing and communication purposes. Their digital writing practices are seen as connected with their identities and discussed along with other social variables, such as type of school and class. Our attempt to put the female experience at the centre of analysis aims to inform new questions, and to provide what Kramarae describes as "fresh approaches to old questions" (1988, p.7).

We begin with an overview of the literature pertaining to the relationship between gender and new technologies which provides a context for our own theoretical framework. In the two sections following we present our research data, analysed both quantitatively and qualitatively. The final section of this paper discusses the implications of our analysis.

2. Literature review and theoretical framework

2.1 Literature Review

2.1.1 Gender digital divide

International, quantitatively-oriented research on gender and ICTs, mainly from the 1980s and 1990s, has concentrated, to a large extent, on the so-called 'gender digital divide' or 'gender gap', according to which males have greater access to computers and, therefore, are more experienced and better users than females (e.g. American Association of University Women [AAUW], 1998; Cooper & Weaver, 2003). This discourse in the gender and ICT schooling literature is also identified as the 'dominant liberal equity discourse' (Abbiss, 2008), which is expressed in terms of male domination in computing activities and proposes reforms that will remedy gender inequalities.

This type of research claims that the gender digital divide has a variety of manifestations: female underrepresentation in computer ownership, use, education and careers, as well as computer anxiety for girls and women. Computer anxiety results from gender stereotypes, such as the supposed 'natural' affinity with technology by the male gender. These influence parents' and teachers' gendered attribution of success and failure at computers, and contribute to girls developing negative attitudes towards computers that have impact on their performance (Cooper, 2006).

This anxiety, it is argued, takes the form of digital reticence or disenchantment for girls, who appear to be greatly affected by the cliché of the male, isolated, anti-social 'computer geek', and express the "we can, but don't want to" tenet, according to which they are not willing to participate in this machine-oriented culture (AAUW, 2000). In this discourse, computing is described as a purely male domain, supported by a masculine computer culture, which is reinforced by teachers' attitudes and actions, as well as by the computer gaming industry (Abbiss, 2008). Within this culture, it is suggested that girls are disadvantaged due to their inequitable access to computers and are, therefore, economically and socially marginalised.

More recent research, centering on the gender digital divide, supports the view that this divide has been successfully bridged in developed countries, but still lingers in developing countries (Dholakia, 2006; United Nations Development Programme [UNDP]/ United Nations Development Fund for Women [UNIFEM], 2004). However, there are recent research papers highlighting persistent gender inequities in computer access and use, even in European countries [Brandtzaeg, 2005 (Norway); Castaño, 2009 (Spain); Observatory for the Greek information society, 2011 (Greece)].

The main limitations of the studies concentrating on the gender digital divide are the following: a) they essentialise gender, approaching it as stable and unitary (Chandler-Olcott & Mahar, 2003); b) they resort to binarism (male vs female); c) they overrate male computer knowledge and practices and ignore or marginalise female digital practices (Abbiss, 2008); d) they construct ICTs as a decontextualised, autonomous entity; e) they give attention to the 'operational dimension' of the uses of

digital media (Honan, 2006), underestimating their 'cultural' and 'critical dimensions' (Lankshear, Snyder, & Green, 2000); f) they have overlooked socialisation experiences linked with gender differences, and g) they have paid little attention to issues of identity construction and agency. As Chandler-Olcott & Mahar (2003) acutely remark: "Studies in this area have tended to focus on how technological tools are used to complete various tasks, not how community membership influences this tool use or how tool use relates to individuals' construction of selfhood" (pp. 363-4).

There is a need to reconceptualise the digital divide as primarily a social, rather than simply a technical or economic issue (Selwyn & Facer, 2007; Warschauer, 2004). Both our quantitative and qualitative analyses (see section 4) reveal that the gender digital divide has a complex interrelationship with wider economic and sociocultural variables.

2.1.2 Gender multiple literacy practices

More recent research, based mainly within the New Literacies Studies (term coined by Gee, 2010) tradition (e.g. Facer, Furlong J., Furlong R., & Sutherland 2003; Ito et al., 2008; Marshall, 2008; Snyder, Wise, North, & Bulfin, 2008), approaches gender and new technologies on the basis of potential multiple literacy practices. The main findings are that, on the one hand, boys have been using the Internet longer, they spend more time on high-tech activities (e.g. programming) (Looker & Thiessen, 2003) and they use ICTs for entertainment, especially for playing games (e.g. Facer et al., 2003; Marshall, 2008; Ofcom, 2010; Snyder et al., 2008). On the other hand, girls are more involved in social, communicative (such as email and chatting), school-type practices (Livingstone & Bober, 2005; Ofcom, 2010; Snyder et al., 2008) and social networking activities (Herring, Kouper, Scheidt, & Wright, 2004; Ofcom, 2010).

In research within the new literacies frame, the focus of attention has shifted from the gender digital divide discourse towards the different digital literacy practices in which girls and boys are engaged. This shift has resulted from the realisation that the issues involved in the gender gap discourse arise from an overemphasis on technical topics (Pietrass, 2007), whereas the emphasis on communication issues (writing, social networking) yields different outcomes. In general, research belonging to this paradigm has made a significant contribution to the enhanced understanding of the different gendered digital literacy practices and to the refutation of gender digital divide findings, which have been couched in absolute terms.

In this line of thought the technologically-mediated literacy practices of adolescents are studied in terms of multiple social variables such as age, school grade, socioeconomic environment and gender. Youth online practices are examined broadly and, within this framework, certain aspects pertaining to gender are investigated. However, directing the attention to gender and, more particularly, to girls, is essential. Interestingly, there is a scarcity of research studies relating gender and ICT use with other social variables, such as the family's socioeconomic status. In general terms, there have been limited inquiries into the role of the girls' literate habitus and its relationship

with sociocultural and economic variables (for examples of such inquiries see Marsh, 2006; Snyder, Angus, & Sutherland-Smith, 2004).

Our present study lays particular stress on the interrelation between gender, ICTs and other social variables. Furthermore, special emphasis is placed on gender and identity, an issue largely ignored by this kind of research.

2.1.3 Cybergirls

Research concentrating exclusively on the online practices of girls, without explicitly discussing the differences with the practices of their male peers, has emerged during the last decade. Having postmodern theories as their starting point, studies of this type approach the Internet as a supportive space which provides girls with the resources for the development of their agency and for the (re) construction of their multiple, female identities (e.g. Chandler-Olcott & Mahar, 2003; Gómez, 2010; Lam, 2009; McGinnis, Goodstein-Stolzenberg, & Saliani, 2007; Thomas, 2004). These studies take for granted female teenagers' participation in new media and underscore the importance of the adolescent girls' membership in online communities for the exploration, performance and (re) invention of their literate and feminine identities. For example, Gómez (2010) investigates how British and Spanish female teenagers enact their feminine identities using blogs; Thomas (2004) explores how 'cybergirls' construct their virtual selves verbally (cybertalk) and visually (avatars) in the context of an online chatting environment, and Chandler-Olcott and Mahar (2003) examine how two girls' out-of-school use of digital tools, such as personal webpages and electronic mailing lists, shapes and is shaped by their gendered identities.

All these contributions underline the fact that online environments offer the opportunity for participation in practices which transcend time, space and physical barriers, and facilitate socialisation in cyberspace. This new world is purported to be quite different from the traditional one and to have a new "cyberspatial-postindustrial' mindset" as a prerequisite for full participation in it (Knobel & Lankshear, 2007, p. 10).

Nevertheless, these inquiries usually focus on specific cases of skilled female users with inadequate reference to their socio-cultural contexts. Therefore, their analyses tend to 'exoticize' the object of study (Herring, 2008), since they tend to show a fascination with the empowering potential of new technologies at the expense of the communicative needs of young people. This discourse on the liberating power of technology underestimates the fact that (gender/social) inequalities cannot be resolved by technology itself. Such an unquestionable faith in the benign aspects of technology shares many of the component parts of 'the new literacy thesis' that "leads to a downgrading of complex socio-cultural realities" (Koutsogiannis, 2007, p.220).

Another issue that needs to be addressed is the emphasis of such studies on the disembodied, free-of-corporeal-experience, digital worlds, which appear to be disconnected from the real, offline world. With some notable exceptions (e.g. Chandler-Olcott & Mahar, 2003; Gómez, 2010), there are few studies which make a conscious effort to establish continuity between embodied and disembodied practices.

In addition, any such projects are usually small-scale studies. Consequently, their speculations are on the basis of limited, locally-situated data which, though useful, cannot inform broader observations about adolescent girls' online writing practices within a global context.

In the exploration of the digital literacy practices of tech-savvy female adolescents, creativity and agency are linked mainly with informal practices, that is, with practices beyond those approved of in formal academic contexts. School is constructed as an out-of-date institution whose practices are inferior to students' uses of technology. Therefore, there has been limited investigation of the possible continuity between young people's out-of-school and school practices and of the important role of school literacy practices in the affirmation and possible extension of youth's personal interests and recreational uses of ICTs.

Finally, what is missing from the research focusing on cybergirls and their online practices is the historical perspective. Rarely can one find studies of school students directed specifically to gender which venture to read their digital practices within the context of the new international reality (economic, social, cultural) and its dialectics with locality (for exceptions see Hawisher, Selfe, Guo, & Liu, 2006; Hull & Stornaiuolo, 2010). That is, rarely do studies probe into the way social protagonists filter the new developments in literacy, their reactions, their strategies and the consequences for their literate identities (Koutsogiannis, 2007, 2011).

2.2 Theoretical and methodological framework

It has been aptly stressed that the exploration of new literacies demands a novel theoretical and methodological framework (Coiro et al., 2008; Gee, 2010; Knobel & Lankshear, 2007). Any research within this field, like our own, cannot have as its starting point an immediately applicable, ready-made and indisputable 'grand theory' (Wodak & Weiss, 2005). We began from certain fundamental theoretical principles, some of which emerged from our critique of the relevant literature (see 2.1.1, 2.1.2, 2.1.3); we further specified these principles in order to interpret our data. In what follows, we will underscore the keystones of our study leading to the particular research design and theoretical framework adopted.

The research design involves collecting both qualitative and quantitative data. This combination facilitated our attempt to delve into the social structures and the differentiated socialisation of the girls involved, as well as into their role in the post-typographic and networked writing practices of these female teenagers. It is not accidental, therefore, that we utilise the data from a considerable number of students attending privileged private schools. We believe that the survey of digital media and youth cannot ignore their 'social identity' (Fairclough, 2003), which is directly linked with the socialisation institutions and the diverse social roles enacted by adolescents.

Apart from pre-given social structures, we also emphasise the role of each student's personality and agency. This emphasis explains our utilisation of extensive qualitative data. From these data, two indicative examples are analysed in the present paper. By

stressing the role of agency, we foreground the students' personal identity, that is, their capacity to act as reflexive social agents who do potentially creative and innovative things with the new virtual environments. In other words, we adopt both personal and social aspects of identity (Fairclough, 2003) – which are inextricably intertwined – so that we can approach adolescent digital literacy practices as the outcome of a tension between agency and structures.

We agree with the observation that in our era the content of literacy has been restructured (Coiro et al., 2008; Cope & Kalantzis, 2000; Gee, 2010). This means that the social protagonists adopt a more active attitude in order to meet the requirements of these new developments, since access to new literacies becomes a source of power in itself. However, there are few inquiries regarding the resulting mobility of the social protagonists, especially the parents of teenagers. In our attempt to pinpoint the initiatives and the mobility of the social protagonists during this transitional period, we employ the term 'strategy' (Fairclough, Jessop, & Sayer, 2004). By using this term, Fairclough et al. (2004) consider social subjects as conscious social agents capable of creating things and contributing to social change through reflexivity and (intentional, habitual or intuitive) design (Kress, 2010).

Our discussion so far has elucidated the centrality of the issues of identity and agency for our paper. We intend to contribute to the conceptual development of this field of research by connecting youth digital literacy practices with their identities, following a critical discourse theoretical framework.

A justifiable query is whether our data would be considered current because, arguably, many changes have occurred in the new media used by teenagers since 2006 when we collected the data. If we uncritically adopted the view of constantly changing technologies, then it would be proper to talk about researching a continually shifting, almost elusive, field. Although we believe in the dynamic nature of digital media and literacies, our present text constitutes an attempt to approach them from a critical perspective. In other words, we focus on broader issues such as structure and agency, Discourses, identities and strategies in relation to digital writing through technologies, like word-processing and presentation software, as well as chatting programmes, which have undergone minor modifications during the last decade. We believe that such an approach is more likely to avoid the 'instrumentalist' (Koutsogiannis, 2009) or 'technocentric' (Papert, 1987) discourse.

At an initial level, our analysis has revealed that girls adopt and adapt technological tools as means of reading, writing, communication and entertainment, in both formal and informal settings, to fit their multiple feminine, socially-situated identities (Gee, 2005). At a further level, we have consciously attempted to generalise our findings, searching for specific, more global social characters (Fairclough, 2003) that may lead us to broader observations and distance us from the relativity of the locally-situated identities. By employing Gee's (2005) theoretical framework, we argue that, according to our data, girls' identification (Fairclough, 2003) with regard to new media can be comprehended in terms of the Discourses (with an uppercase *D*) performed by them.

'Big D' Discourses contain not only language but also "actions, beliefs, emotions, values, interactions, people, objects, tools and technologies" (Gee, 2005, p.29) that help us in the process of being recognised as members of a social group. We have traced two relevant types of Discourses: the ones related to school practices (school Ds) and the ones related to entertainment practices (entertainment Ds).

Making a distinction between education and entertainment is problematic given recent attempts to bridge students' formal schooling practices and their out-of-school, social media practices through the potential educational implications of social networking (Greenhow & Robelia, 2009; Hull & Stornaiuolo, 2010). Moreover, the exclusive research focus on the domestic or school space within the context of contemporary societies, characterised by intense mobility and expansion of borders, is equally contested (Leander, Philips, & Headrick Taylor, 2010).

In our paper we approach this state of flux from a different perspective. It is acknowledged that what is referred to as 'schooled literacy' (Collins, 1996; Cook-Gumperz, 1986) has undergone various alterations, primarily for historical reasons (Rampton, 2006). One of these mutations is related to the efforts made by educational systems to integrate ICTs into teaching, revising, thus, the content and context of schooled literacy. In recent years, there have been such efforts in Greece: state schools seem to be more slow-moving, whereas private schools try to keep pace with developments in the educational exploitation of new technologies. We aim to show how the changing nature of school literacy aligns with the relevant pursuits of social protagonists (parents and students) in a period marked by profound changes and fluidity.

More specifically, we aim to understand the complex new media practices of female teenagers through the lens of the constantly redefined schooled literacy and its connection with their parents' strategies and with issues of power and identity/ies. Such a critical perspective consciously eschews certain 'relativistic' views concerning the relationship between in and out-of-school literacy that belong to the ethnographic tradition. Collins and Blot (2003), in their relevant critique of such views, state: "We suggest that key to such an account [i.e. why literacy matters in the way that it does in the modern West] will be the question of power in literacy and the ethnographic tradition falls short on just this question" (p. 65). In order to emphasise this power in literacy, we direct our attention to the school-based digital literacy practices of adolescents and their entertainment practices, which comprise activities with the elements of personal interests and self-expression. By posing questions pertaining to educational and recreational practices (see 4.1, Tables 4, 5, 6, 7 & 8 following), we seek to demonstrate the degree of mobility traced both in schools and in teenagers in terms of the utilisation of digital media as environments for writing and communication purposes.

Our approach does not lay stress on contemporary research papers which either emphasise the crossing of boundaries between in and out-of-school practices or view schools as outdated, static constructs that resist the functional and technological

affordances of digital resources and, subsequently, fall short of their students' rich out-of-school use of new technologies [the latter is known as the new version of the 'home-school mismatch hypothesis' (Koutsogiannis, 2009; Luke, 2004)]¹. Instead, social protagonists (children and parents) are perceived as agentive (with a historical perspective), while schools are depicted as dynamic institutions that make efforts to meet the requirements/challenges posited by rapid and continuous processes of social change. Hopefully, our theoretical and methodological framework will prove to be productive and extend our understanding of the relationship between girls, new media and the mobility of social agents.

3. Presentation of the research data

3.1 Sample

The quantitative data presented in this paper originate from a survey conducted in 2006 among students (stratified sample of 4174 students: 2118 girls, 2056 boys) 14-16 years old. This age group was deliberately selected because it represented one of the first generations in Greece to develop rapidly a wide variety of new literacy practices. Out of the total sample, 2337 were students attending state schools in the two biggest urban centres, Athens and Thessaloniki, while 1078 students came from provincial areas and towns (in total, 3415 state school students: 1737 girls, 1678 boys). The selection of state schools from the two biggest urban centres was based upon geographical criteria (which are also social), so that schools of all regions are equally represented (centre, north, west suburbs etc.). The selection of provincial schools was based upon size, geographical and socio-cultural criteria.

It was crucial to include in the sample students attending private schools of the two biggest cities, Athens and Thessaloniki. Therefore, 759 students (381 girls, 378 boys) come from well-known private schools with high fees. Parents belonging mostly to middle and upper social classes usually send their children to such schools. Through available infrastructure (science, computer and foreign languages' labs), meaningful and extensive use of ICTs, and use of English in instruction, private schools fulfil, to a great extent, the notion of engaging in multi-literacies (Cope & Kalantzis, 2000)².

We endeavoured to create a sample that fulfils two important prerequisites. First, it had to be representative in terms of state schools, despite the fact that, as already mentioned, our relevant selection was based upon geographical rather than strictly statistical criteria. The state school sample comprised students belonging to diverse social classes. Second, we aimed to have a smaller sample of high-income students. Our basic intention has been to construct a sample which can demonstrate the contrasts in the Greek social body (perhaps even the different strategies of social protagonists in a period of intense mobility) and would also allow the connection of these contrasts with the students' literacy practices. It was a choice which proved to be very useful.

In the current study we consider the type of school attended by teenagers as a variable of utmost importance for our analysis, since the privileged private schools of our sample are attended not only by students from higher socioeconomic status families but also by students whose parents may have a different conceptualisation of the content of literacy today and a different vision for the future of their children. We believe that the characteristics of this particular social group are instrumental in our understanding of the role of diverse social variables in girls' digital literacy practices.

3.2 Questionnaires

The questionnaires were administered to students by their classroom teachers in the presence of one researcher and were completed anonymously during lesson time (approximately 50 minutes). The actual number of students who answered the relevant questions included in the distributed questionnaire is indicated by the total numbers ($n=$) incorporated in all tables; this explains the variation of these totals in the tables presented in this paper.

Students had already been given information about the purpose of the study, instructions regarding completion of the questionnaires and assurances about confidentiality. It should be noted that: a) schools (and parents of the students) had already granted permission for their students' participation in all phases of the research, and b) the survey was conducted with the permission of the Greek Pedagogical Institute.

The questionnaires included 59 questions (a variety of multiple-choice and binary-choice questions, multiple response and open questions, as well as items requiring rank order responses) that pertained to a wide range of topics concerning new technology use [such as digital writing environments, Internet, e-mail, instant messaging, gaming etc. (see tables in section 4 for a sample of questionnaire items)]. The statistical analyses of students' responses were conducted using the statistical package SPSS. Level of significance was set at 0.001.

3.3 Interviews

Our quantitative data consist of 77 interviews with adolescents attending schools in which the questionnaires had been distributed. In total, 43 girls and 34 boys were interviewed. The content of these semi-structured interviews was parallel to the content of the questionnaire; their duration was approximately 45-60 minutes.

For the analysis of the material we have applied critical discourse analysis theories, mainly Gee (2005). We have also attempted to trace various intertextual links (Abell & Myers, 2008) among interviews, to discover the strategies and Discourses permeating our material.

4. Findings

4.1 Quantitative data: Gender, digital writing practices and social identities

4.1.1 A gendered digital divide?

In this section, we undertake, based upon our quantitative data, to refute the widespread gender digital divide concept and provide an alternative framework, in which the digital literacy practices of both genders, girls in particular, are linked with other social variables, mainly their social identity (-ies).

Our findings provide another view of the gender gap and computer use. We have already discussed (see 2.1.1) how research on the gender digital divide concentrates on issues of computer access and connection to the Internet. In Tables 1 and 2 we present our statistical data regarding computer ownership and Internet connectivity. These tables show that, when gender is viewed in relation to other social variables, such as the type of school in our case, an interesting shift takes place: we move away from the gender divide and towards the important role of socio-economic variables.

Table 1. Computer ownership: “Do you have a computer at home?”

| | State schools (n=3397) | | | Private Schools (n=758) | | |
|---------|------------------------|------------------|-------------------|-------------------------|-----------------|------------------|
| | Girls (n=1733) | Boys (n=1664) | Total (n=3397) | Girls (n=381) | Boys (n=377) | Total (n=758) |
| Yes (%) | 75.9 | 82.5 | 79.1 | 98.7 | 98.1 | 98.4 |
| No (%) | 24.1 | 17.5 | 20.9 | 1.3 | 1.9 | 1.6 |

Note: The difference between the girls and boys of state schools is statistically significant ($\chi^2 = 22.17$, $df = 1$, $p < .001$).

Table 2. Internet connectivity: “Do you have Internet connection?”

| | State schools (n=3215) | | | Private Schools (n=747) | | |
|---------|------------------------|------------------|-------------------|-------------------------|-----------------|------------------|
| | Girls (n=1628) | Boys (n=1587) | Total (n=3215) | Girls (n=377) | Boys (n=370) | Total (n=747) |
| Yes (%) | 49.4 | 58.0 | 53.7 | 87.8 | 86.8 | 87.3 |
| No (%) | 50.6 | 42.0 | 46.3 | 12.2 | 13.2 | 12.7 |

Note: The difference between the girls and boys of state schools is statistically significant ($\chi^2 = 23.48$, $df = 1$, $p < .001$).

In terms of computer ownership (Table 1), more boys (82.5%) than girls (75.9%) attending state schools had their own computer. This was not the case with students attending expensive private schools, where girls (98.7%) slightly surpassed boys

(98.1%). The picture is the same with regard to Internet connectivity (Table 2). More state school boys (58.0%) reported an Internet connection than their female peers (49.4%), a finding reversed in private schools as slightly more girls (87.8%) than boys (86.8%) were connected to the Internet. It is noteworthy that all the above gender differences among state school students are statistically significant.

Table 3 shows the Internet experience reported by the students. Boys, regardless of the type of school they attend, started using the Internet at a younger age (≤ 10 years old, 21.4% from state schools and 48.3% from private ones) than girls (9.7% and 38.7%, respectively). Apart from this gender difference, it is notable that students attending private schools had used the Internet longer than their state school peers. More specifically, 78.8% of private school students had already been using the Internet by the age of 12, whereas only 48.2% of state school students had had Internet experience by that age.

Table 3. Internet experience: "Since when have you started using the Internet?"

| | State schools (n=3149) | | | Private Schools (n=719) | | |
|-------------------------|------------------------|------------------|-------------------|-------------------------|-----------------|------------------|
| | Girls (n=1589) | Boys (n=1560) | Total (n=3149) | Girls (n=359) | Boys (n=360) | Total (n=719) |
| ≤ 10 years old (%) | 9.7 | 21.4 | 15.5 | 38.7 | 48.3 | 43.5 |
| 11-12 years old (%) | 31.0 | 34.4 | 32.7 | 36.8 | 33.9 | 35.3 |
| 13-16 years old (%) | 59.3 | 44.2 | 51.8 | 24.5 | 17.8 | 21.1 |

Note: The difference between the girls and boys of state schools is statistically significant ($\chi^2 = 10.37$, $df = 2$, $p < .001$).

Tables 1, 2 and 3 demonstrate the complexity of the issue. The conclusion from the initial quantitative data is that we cannot explain the gender digital divide unless we attach the necessary importance to social, economic and cultural variables. The data above suggest that the parents sending their children to privileged private schools in Greece seem to understand that the content of literacy that would prove quite useful for their children's future is constantly evolving and expanding, and includes ICTs and English as a global language (see Koutsogiannis, 2011). Consequently, their choice of immersion of their children, irrespective of their gender, in new literacy practices (through computer purchase and provision of an Internet connection) was associated with their choice of the type of school for their children.

Additionally, these parents, through their strategies, which were identified through the interviews with the female students attending private schools, created a supportive environment for their girls' computer learning and use, in which new literacies are taken for granted. Therefore, it could be argued that new literacies are incorporated in the primary literate Discourses (Gee, 1996) or the primary social identities (Fairclough, 2003) of the girls from more privileged social classes as an essential element of their acquired literacy.

4.1.2 School-type digital literacy practices (Word, PowerPoint) and girls: gender does matter

In the previous section we illustrated that the girls' involvement with new literacies cannot be interpreted adequately unless viewed from a socio-cultural perspective that includes the strategies of their parents. In the present section we will closely examine the girls' writing practices with digital media by directing our attention to two particularly important environments in post-typographic writing: word-processing and PowerPoint. Our objective is to extend our inferences so far and focus on the in and out-of-school exploitation of these two digital environments by girls.

Our data show gender as an important variable in the study of digital writing practices. In our study, more girls (77.0%) than boys (67.6%) wrote texts in Word ($\chi^2 = 45.73$, $df = 1$, $p < .001$). In Table 4 we have grouped the percentages of girls and boys writing personal and school texts in Word (outside school). We followed the same procedure for PowerPoint (see Table 5).

Table 4. Writing of personal and school texts in Word among girls and boys

| Frequency | Writing personal texts | | | Writing school texts | | |
|-----------|----------------------------|---------------------------|----------------------------|----------------------------|---------------------------|----------------------------|
| | Girls (<i>n</i> =1537) | Boys (<i>n</i> =1285) | Total (<i>n</i> =2822) | Girls (<i>n</i> =1595) | Boys (<i>n</i> =1340) | Total (<i>n</i> =2935) |
| Often (%) | 34.7 | 21.5 | 28.7 | 67.0 | 51.2 | 59.8 |
| Rarely(%) | 33.7 | 34.8 | 34.2 | 26.5 | 38.3 | 31.9 |
| Never (%) | 31.6 | 43.7 | 37.1 | 6.6 | 10.5 | 8.4 |

Note: In all cases the differences among boys and girls are statistically significant: writing personal texts: $\chi^2 = 70.43$, $df = 2$, $p < .001$ / writing school texts: $\chi^2 = 75.73$, $df = 2$, $p < .001$

Table 5. Writing of personal and school texts in PowerPoint among girls and boys

| Frequency | Writing personal texts | | | Writing school texts | | |
|------------|---------------------------|--------------------------|----------------------------|---------------------------|--------------------------|----------------------------|
| | Girls (<i>n</i> =844) | Boys (<i>n</i> =849) | Total (<i>n</i> =1693) | Girls (<i>n</i> =865) | Boys (<i>n</i> =854) | Total (<i>n</i> =1719) |
| Often (%) | 40.8 | 32.7 | 36.7 | 42.8 | 38.5 | 40.7 |
| Rarely (%) | 32.1 | 38.9 | 35.5 | 38.5 | 36.8 | 37.6 |
| Never (%) | 27.1 | 28.4 | 27.8 | 18.7 | 24.7 | 21.7 |

Note: The differences among boys and girls are statistically significant in the case of writing personal texts ($\chi^2 = 13.08$, $df = 2$, $p = .001$).

A substantial number of girls –more than their male peers– used word processing and presentation software (Word and PowerPoint) for personal and school texts. More

specifically, girls used Word for personal (34.7%) and school use (67.0%) more often than boys (21.5% and 51.2%, respectively, see Table 4). PowerPoint use was similar: female students utilised presentation software for private (40.8%) and school purposes (42.8%) more than their male classmates did (32.7% and 38.5%, respectively). The differences between boys and girls in all cases were statistically significant.

Tables 4 and 5 demonstrate that female adolescents tended to use Word and PowerPoint more for texts whether related or not to school. Therefore, apart from the crucial role of social variables (see 4.1.1) the data presented in this section support the view that gender does matter. They also provide further corroborative evidence in the relevant discussion (e.g. Gilbert & Rowe, 1989) around female school achievement in school-type literacy practices (as contrasted to the boys' so-called under-achievement), resulting from their successful performance of the school Discourses of 'diligent students'.

One of the most intriguing findings in our attempt to explore the range of the girls' technology-mediated writing has been the detection of a within-group variation, a fact usually ignored in research focusing exclusively on gender differences (Orellanna, 1995, as cited in Chandler-Olcott & Mahar, 2003). The following tables illustrate an important differentiation among girls: state school girls tended to use Word and PowerPoint for personal texts, whereas private school girls showed a propensity to employ them for school homework.

Table 6. Writing of personal and school texts in Word among female students in state and private schools

| Frequency | Writing personal texts | | | Writing school texts | | |
|-----------|--------------------------------|---------------------------------|-------------------|--------------------------------|---------------------------------|-------------------|
| | State school girls (n=1229) | Private school girls (n=308) | Total (n=1537) | State school girls (n=1267) | Private school girls (n=328) | Total (n=1595) |
| Often(%) | 38.8 | 18.2 | 34.7 | 63.1 | 82.0 | 67.0 |
| Rarely(%) | 33.2 | 35.7 | 33.7 | 29.0 | 16.8 | 26.5 |
| Never(%) | 28.0 | 46.1 | 31.6 | 8.0 | 1.2 | 6.6 |

Note: The differences among girls from state and private schools are statistically significant in both cases: writing personal texts in Word: $\chi^2 = 56.24$, $df = 2$, $p < .001$ / writing school texts in Word: $\chi^2 = 46.66$, $df = 2$, $p < .001$

Table 7. Writing of personal and school texts in PowerPoint among female students in state and private schools

| Frequency | Writing personal texts | | | Writing school texts | | |
|-----------|-------------------------------|---------------------------------|------------------|-------------------------------|---------------------------------|------------------|
| | State school girls (n=611) | Private school girls (n=233) | Total (n=844) | State school girls (n=620) | Private school girls (n=245) | Total (n=865) |
| Often (%) | 46.0 | 27.0 | 40.8 | 38.1 | 54.7 | 42.8 |
| Rarely(%) | 32.7 | 30.5 | 32.1 | 40.0 | 34.7 | 38.5 |
| Never (%) | 21.3 | 42.5 | 27.1 | 21.9 | 10.6 | 18.7 |

Note: The differences among girls from state and private schools are statistically significant in both cases: writing personal texts in PowerPoint: $\chi^2 = 43.10$, $df = 2$, $p < .001$ / writing school texts in PowerPoint: $\chi^2 = 24.65$, $df = 2$, $p < .001$

Table 6 shows the use of Word for the production of school and personal texts. State school girls utilised word-processing software more frequently for writing personal texts (38.8%) than private school girls (18.2%). This orientation of state school girls towards more private texts was also evident in their repeated use of PowerPoint for such purposes (46.0%), which was in contrast to the frequency of the relevant PowerPoint writing practices (and orientation) of private school girls (27.0%) (see Table 7). The latter showed a stronger preference for using Word (82.0%) and PowerPoint (54.7%) more often for writing their school assignments than their state school peers (63.1% and 38.1%, respectively). Notably, the differences between state and private school girls in all the above cases were statistically significant.

The data in Tables 6 and 7 provide a concrete example of the general observation that girls are more involved in social, communicative and school-type practices (see 2.1.2). The role of the secondary socialisation of students is vital in this aspect. We have already argued that the choice of private schools, which make extensive use of ICTs and English in their curriculum, is part of the strategies developed by the parents of more privileged social strata. Their choice is reflected in the school practices of their children in that these children develop more powerful school-type digitally-literate Discourses.

Interestingly, Tables 6 and 7 show that state school girls, that is, students of less privileged social classes, were engaged in personal, agentive pursuit of their interests and, thus, cultivated strong out-of-school, entertainment digitally-literate Discourses. In conclusion, we suggest that our survey data point to the fact that different socialisation in the two most important institutions directs girls towards different Discourses. On the one hand, there are school-type Discourses containing ICT practices; on the other hand, there are entertainment Discourses characterised by the element of personal pursuit.

4.1.3 Entertainment digital literacy practices (chatting)

One of the girls' online literacy practices is chatting, which is considered 'risky' in discourses about youth and ICTs, especially for girls, who are constructed as particularly vulnerable. In contrast to these discourses of risk and danger, some of the participating girls stated that they chatted with classmates and friends and, sometimes, even with strangers, without being afraid. These online communication spaces are not approached as merely dangerous places, but as agentic means of maintaining and developing friendships and social networks (Gannon, 2008).

Despite the fact that boys (especially those from state schools) chatted more and more frequently than girls, the latter chatted more on specific issues of particular interest to them. Girls preferred to chat about general topics (57.2%), music (45.0%) and entertainment (22.8%). The relevant percentages for boys were 34.7 % (general topics), 31.1 % (music) and 16.7% (entertainment). The differences in all cases are statistically significant.

We now focus on the chatting practices of the girls belonging to the two different social groups, that is, to private and state schools. In the questionnaire distributed to students, there were questions regarding their chatting practices. Three are of particular interest. In the first, participating girls and boys had to choose the topics they preferred to discuss in chatrooms [general content discussions-exchange of views, sports, music, entertainment (in general), flirting]; in the second question they had to state whether they used their real data or not and in the third one they had to write down whether they participated in Greek, English or other language chatrooms. They also had to specify whether they participated in internet communities or, according to Gee's terminology (2003), 'affinity groups', that is, groups formed primarily through participants' shared interests, practices and endeavours.

Table 8. Girls and chatting practices (topics, data used, participation in various types of chatrooms)

| | Type of school | Statistical significance |
|---|--------------------|------------------------------------|
| General content-exchange of views | Private | $\chi^2 = 24.82, df = 1, p < .001$ |
| Flirting | State | $\chi^2 = 12.85, df = 1, p < .001$ |
| Data used (real, false, depending on the circumstances) | State (false data) | $\chi^2 = 39.54, df = 2, p < .001$ |
| Participation in Greek chatrooms | State | $\chi^2 = 65.93, df = 1, p < .001$ |
| Participation in English chatrooms | Private | $\chi^2 = 96.63, df = 1, p < .001$ |
| Participation in online communities | Private | $\chi^2 = 18.27, df = 1, p < .001$ |

In Table 8 we group the statistically significant differences with regard to the girls' chatting practices and the type of school they attend. This table attests to the considerable disparity in the chatting practices of the girls from the two different social groups, and to the significant role of the socialisation institutions, family and school, in fashioning not only school but entertainment practices, as well. State school girls were involved in more risk-taking practices, such as flirting. Therefore, it is not accidental that they did not use their real data, a tendency also related to the fact that these girls appeared to be more influenced by mass media discourses of internet gendered risk. In addition, their conversations were more locally-oriented, because they participated mostly in Greek chatrooms and they were more reluctant to take part in international online communities. On the other hand, private school girls were engaged in more extroverted and cosmopolitan chatting practices, such as the participation in globally-oriented English chatrooms and internet communities. They took part in more 'interest-driven' (Ito et al., 2008) practices and they discussed topics which moved beyond local boundaries and concerns.

To sum up, the analysis of our quantitative data contests the gender digital divide discourse, as it proves to be invalid for more privileged social classes. Our analysis also sheds light on the digital writing practices of adolescents, especially girls. There are gender differences emerging out of our data. Girls, as opposed to boys, oriented themselves towards more school-type digital writing practices, a finding that confirms the results of previous research studies (see 2.1.2).

Arising from our analysis is the role of socio-cultural structures and, in particular, the strategies employed by the social protagonists in constantly shifting times. It appears that the parents from upper social classes are more conscious of the changing nature of today's literacy and can afford to offer their children, female or male, opportunities for speedy immersion in digital literacy practices. Their choices have had an effect on the type and range of Discourses performed by the girls in their school and out-of-school technologically-mediated practices.

On the other hand, girls of less privileged social groups developed initiatives through which they attempted to overcome the lack of parental and school strategies concerning new literacies and the subsequent influence on the kind and breadth of their literate Discourses.

Although different socialisation milieus can be discernible in different school and out-of-school Discourses, our qualitative analysis in the next section will show that these Discourses are not static or immutable but depend also on the girls' personality and individual agency.

4.2 Qualitative data: the emergence of personal identities - agency in female digital textual practices

The analysis of our qualitative data reinforces and adds new dimensions to the findings from the survey data. An interesting aspect that emerges from our analysis is the

reconfiguration of the girls' relationship with technology. They did not lack self-esteem or confidence regarding computer technology. On the contrary, they successfully integrated computers into particular in and out-of-school literacy practices. As we have already noted from the quantitative analysis, their exploitation of ICTs in their writing practices is associated with the range of their performed Discourses. This range depends to a large extent on the two pivotal socialisation institutions, family and school, as well as on each child's personality.

To amplify the findings from the quantitative data and re(address) issues of structure and agency, the digital writing practices in which girls from private and state schools engaged are presented through two case studies (pseudonyms are used for the two female adolescents to assure anonymity).

4.2.1 Eleni

Eleni was a 16 year-old student from a private school. She belonged to the middle class –her father was an architect and her mother an accountant– and lived in the second largest city in Greece (Thessaloniki). She had very good grades. Eleni had a computer in her own room (with an Internet connection) which had been bought because she wanted it and, also, because of the fact that her parents, though not digitally literate themselves, realised the necessity of new technology, regardless of their child's gender. As she pointed out: "I have asked for it [a PC] but my parents agreed because they think that computers have become a necessity; they [computers] have replaced lots of other media" (214) ³. Such a realisation on the part of university-educated parents, with middle and high socioeconomic status, coupled with their sending their children to a private school, leads to the overcoming of the gender digital divide in this type of school (see Tables 1, 2 and 3). Eleni learned how to use her PC and the Internet by herself and with the help of friends. She had a very positive outlook towards computer technology; she actually expressed her 'love' for her computer, which was on all day long ('twenty-four seven').

However, she was able to reflect critically on her digital practices and acknowledge the fact that she was addicted and that people should do other things, such as going out for a walk and being close to nature. This tendency to distance herself from circulating discourses, take a critical stance and formulate her own opinion was one of her characteristics which had been cultivated by her family and school, as she claimed in the following extract: "[...] the teachers mainly say it. And my parents say: "You won't sit and just listen to what others say, will you?" I have to think about it [what others say]. In general, the people that I appreciate in my environment tend to hold these views. And I hold them as well, since I was very young, these views have been passed on to me" (112).

Her ability to reflect in depth and her advanced digital skills allowed Eleni to substitute conventional Windows programmes or Internet browsers (which were, in her opinion, "slow, full of advertisements and RAM-consuming") with similar ones downloaded from Internet sites. She also downloaded multimedia software in order to

watch films, listen to music, process photos and videos, and play games. It is evident that she was an 'insider' (Lankshear & Knobel, 2003) of new technologies, carefully thinking about their characteristics and use, transcending their technical dimension and adapting them to fit her interests.

In terms of her digital writing practices, Eleni reported that she used word-processing software for school assignments, a practice favoured by her school: "I have used it [Word] a lot this year, because we have had too many assignments and our teachers prefer them in computer, since they are more well-written and better processed..." (272).

One of our questions asked to students was whether they knew how to use Word and PowerPoint and in which school and extracurricular literacy practices they used them. In their answers, state school students linked their use with the IT class, whereas their private school peers connected their use (mainly Word) with the completion of different school projects. The answers reveal two diverse uses of these programmes: in the first instance, the 'operational' dimension, identified with the IT lesson, is prevalent; in the second, the 'cultural' dimension (Lankshear et al., 2000) is prominent through the apparent diffusion of ICTs in a wide range of teaching practices.

Therefore, Eleni, like many students attending private schools, connected the word-processing programme with the undertaking of school assignments. Her extensive use of Word in her school routine could, thus, be attributed to her school's teaching practices. In other words, she used Word as an essential element in the performance of her school Discourses. She did not exploit Word simply for school purposes, but also as a constituent part of her recreational / entertainment Discourses: she utilised Word for writing poems in English. The extracurricular use of English was one of Eleni's language learning practices and was also linked with her school's practices. She also used Word for copying song lyrics that she found on the Internet, a practice reflecting her love of music.

Eleni found Word quite appealing as a digital environment because of its tools for checking spelling and grammar, and the thesaurus (provision of synonyms), which make texts more "beautiful". She also knew, on a technical level, how to create multimodal texts by incorporating photos and diagrams in word-processing documents. When she wrote a text for school purposes, she did not resort to the common 'copy-paste' strategy of online texts, so popular among students, since she was very well aware of the possible dangers and disadvantages of this practice (plagiarism and lack of personal voice). Instead, she exploited Internet resources creatively by employing a number of writing strategies such as comparing, editing, summarising, simplifying, enriching, paraphrasing and translating from/into Greek existing texts. Her ultimate goal through this whole process was to project her own personal identity. She underscored this objective in her interview: "In general, I would like my essay to have personality. This is what I mean. In other words, when other people read it, I would like them to say that this essay has been written by Eleni" (427).

These writing practices were beyond the (cognitive and material) framework provided by her school for the exploitation of digital media. She took initiatives that surpassed her teachers' preference for "well-written and better processed" (see quote 272) school assignments in Word. It is as if her practices unconsciously incorporated modern theories on language learning strategies and writing with the digital media. By constantly editing and 'remixing' online resources, she was involved in the process of rewriting her social identities in an attempt of self-affirmation. It was also evident that she could distance herself from the practice in which she was engaged.

Although she perceived word-processing as a digital literacy environment and she exploited it originally in school and entertainment practices, the case is not the same with PowerPoint. Eleni had to use this programme once for a mandatory school assignment in the Technology class. Although she believed that the presentation software "is not particularly useful", she was very well aware of one of the appropriate contexts for its use: she would prepare a PowerPoint presentation for a school celebration (such as the commemoration of a historical event), as, for her, it was the perfect means for keeping everyone's attention and being memorable through multimedia applications (sound, image, text). Through this statement, it was obvious that, she, like the majority of students, approached PowerPoint as a merely show-off technology, focusing merely on its technical dimension and ignoring its potential for in and out-of-school use. Her approach can be explained by her school experience in terms of the exploitation of this environment: it was mostly employed on special occasions at school and not necessarily meaningfully integrated in school subjects and assignments, like Word.

Eleni's conceptualisation of word-processing and presentation software as appropriate only for school projects was highly influenced by her school, and the type of the 'diligent student' identity desired by this type of school. This becomes evident from the following quotation coming from her interview: "Windows programmes are more appropriate for school work, later for the job [...] I don't think that a student will write in Word in his free time. It is not interesting. Perhaps he [sic] will play a game, listen to music" (335). Once again the practices and literate Discourses promoted by Eleni's school structured her taken-for-granted assumptions about the 'typical' nature, function and use of these digital writing environments.

As we have already noted, these espoused beliefs were also gender specific, as they formed an integral part of the private school girls' orientation towards the exploitation of these digital environments for writing school texts (see Tables 6 and 7). Nevertheless, the contradiction at this point is obvious: Eleni actually utilised Word for out-of-school entertainment practices that reflected her personal interests (copying song lyrics, writing poems).

Chatting was another entertainment practice for Eleni, despite her mother's related discourse of danger. She used MSN messenger in order to chat with her friends and classmates. Like other private school girls (see Table 8), she was a member of an online international community, discussing with people from around the world topics

concerning aspects of everyday life, human relationships, religion, multiculturalism, women's downgraded social status (especially in Arab countries). She said the following about her membership in such online communities: "What I like most is to talk about human relationships [...] why people behave in certain ways or how they think or what they think and act like that... I enjoy this type of conversation, psyching people out, I really enjoy doing it" (385) / "Basically, when I chat with people from other countries, I am mainly interested in their everyday life, comparing and asking things..." (363) / "[...] when you talk to someone, he [sic] gives you a ... because for him it is his daily life, he gives you a very objective view, because he is not trying to promote his country, like travel agencies do" (389).

Her participation in such communities and the discussion of such topics revealed that Eleni had a global orientation and that she was an experienced, mature and extrovert user of chat, as well as illustrating a possible continuity between her online and offline (media) literacy practices. On her mother's advice, she was watching TV programmes centred on social issues and human relationships; she was also very fond of reading literature (authors such as Hemingway, Poe, Alente), a pastime nurtured by her mother. Through chatting she defied the vulnerable female identity inherent in her mother's discourse of gendered Internet risk, and she tried to foster her reflexivity and her personal interest in human relationships and social issues. Therefore, chat rooms were not approached by her as hazardous, but rather as empowering, creative and agentic online spaces within which she could actively engage in a variety of cyberpractices, such as exchanging views and maintaining friendships and social networks.

Overall, Eleni was a very competent computer user, having advanced technical and critical digital literacy skills, including high awareness of the context for digital media use. She shared quite a few of the characteristics of private school girls (and students, in general) discussed in the quantitative analysis from the survey. The role of family and school was quite important in the formulation of her social identity. Her parents, through strategic choices (computer purchase, immersion in specific literacy practices, private school), provided her with the opportunity not only to familiarise herself early on with new technologies but also with specific 'ways with words' (Heath, 1983). Her school, though not systematic in the exploitation of new media, encouraged her to use digital writing environments for assignments. Its contribution was decisive for her school-type digital writing practices and the cultivation of her socially-situated identity of 'diligent student'. Apart from her social identity, her personality was conducive to the interpretation of her digital literacy practices. She used ICTs purposefully, meaningfully and productively, in ways which enhanced both her school and entertainment Discourses.

By consciously reworking existing online content, she was acutely aware of the nature of authorship in digital times, a realisation recognised as of great importance by researchers on youth and digital media:

In my opinion, the most striking insight to be gained from the research on adolescents' remixing of multimodal content to create new texts is this: Those who create online content recognize that authorship is neither a solitary nor completely original enterprise. Remixing is basic to how young people go about creating 'new' texts (Alvermann, 2008, p.17).

Eleni was a tech-savvy teenager, showing reflexivity, self-confidence, creativity, extroversion and a risk-taking attitude. She was always willing to learn and discover new things.

4.2.2 Marina

Marina was a 16 year-old teenager who came from Russia. At the time of the interview she had been in Greece with her mother and sister for 3 years. Her father, with whom they had no contact, stayed in Russia. She attended a state school and she had a satisfactory performance. She lived in Thessaloniki and came from a less privileged socio-economic environment (her mother did the dishwashing in restaurants). She did not have a PC of her own; however, she mentioned that it was her mother's intention to buy her one in the near future. Her lack of access to computer technology was, unfortunately, common for a considerable percentage of state school girls (24.1%, see Table 1) and testified to the lingering existence of a gender digital divide in Greek state schools.

She learned how to use ICTs through her school and Internet cafés, with the help of her friends. Her knowledge and limited use of digital writing tools (only for school assignments) were determined solely by the IT lessons at her school. Unlike Eleni, who actively employed digital environments for school projects and out-of-school practices, Marina, mainly due to her differentiated school experience, conceived of such environments as merely a part of the IT class's syllabus. Her answer to the researcher's question regarding her familiarity with presentation software is enlightening: "I think we've done it [PowerPoint]" (486).

The verb 'do', as any other word or phrase, has a socially situated meaning, that is, it has a different meaning depending on the contexts of use (Gee, 2005). In private schools (see Eleni's analysis) it was linked with the undertaking of school projects ('do assignments'). In the context of the digital literacy practices of the state school ('do Word/PowerPoint') it referred to the technical knowledge of new media acquired by students through the IT class. Although grammatically in subject position, Marina and her classmates were actually the objects or recipients of her school's teaching practices which were quite different from the ones we have discussed in our previous analysis (Eleni). The main assumption underlying these practices was that digital writing environments constituted a part (units) of a subject for study over a period of time leading to an examination. In this conceptualisation of digital writing software there was hardly any consideration of the social practices of these environments, the demands they meet and their role in the changing media and digital literacy landscape.

Marina was clearly affected by her school's emphasis on the operational dimension of digital media, since she approached digital writing environments as software or a set of skills to be taught and learned within the school context, without being able to move beyond their technical dimension, grasp them as digital literacy tools and proceed to take relevant initiatives. Her approach also helps explain her view that ICTs were not necessary for other school subjects apart from the IT class. As opposed to Eleni, she was not critical of her own and her school's practices nor adapt ICTs to fit her interests.

She used Word only in school, in the computer lab, for an assignment and not for any out-of-school, recreational practices. Thus, her limited (and limiting) school experience did not allow her to use technologically-mediated writing media in a productive, personally meaningful and critically aware manner. To paraphrase Gee (2005), her school provided her with a Discourse map that restricted her understanding of the potential of new writing media in formal and informal academic settings.

Despite her weak school digital literacy Discourses, her strong adolescent-entertainment digital Discourses, that are a trait of state school girls (see relevant discussion in 4.1.2), were performed through the informal digital writing practice of chatting. Once a week she visited an internet café –which is a meeting place for teenagers, especially boys, and a space for internet familiarisation– in order to chat. She used to do that on a daily basis, but she was influenced, to a certain extent, by her mother's technophobic discourse. Such an influence can be traced in her own views about computers and the internet: "...I believe that all she said was true, about the computer, that it affects..." (772).

There is a very interesting inconsistency between her views about the negative role of the new media and the resulting fear for loss of communication, and her actual use of chat rooms for communication purposes. Chat rooms constituted discursive digital spaces in which she could interact with people she had already known or with strangers. In her interview she explained that in her communication with her friends in Russia she employed her mother tongue and made arrangements with them before their chatting sessions: "Before I log in, I tell them that I will log in with that name and they tell me with which name they will log in and this is how we chat" (660).

In her online interactions with Greeks, Marina admitted that she was not afraid to chat even with strangers, using false data and fabrications, a strategy common among state school girls, who were involved in more risk-taking chatting practices (see Table 8): "I am curious, I am not afraid, because I am not telling them my real name, where I come from, all that. Nothing. I lie" (706).

Whenever she was exposed to offensive remarks, she immediately deleted them, without feeling threatened or being discouraged. This means that she was capable of dealing independently with any online harassment. Like Eleni, Marina was involved in a kind of chat which was "relational and comfortable, part of everyday life for girls in a globalised world where those you can't see, and those who are not in your immediate vicinity, are not always strangers who are after you" (Gannon, 2008, p.368). Both girls shared this digital literacy practice that proved to be meaningful to them.

However, there were many differences between the chatting practices of the two girls. In contrast to Eleni, Marina was not a member in any online international communities. She participated solely in Russian and Greek chatrooms, the latter being a characteristic mainly of state school girls (see Table 8). Her chatting practices can be more comprehensible in terms of her priority to become proficient in Greek for future career purposes in the host country and her desire to maintain contact with her motherland. The focal point of her chatting sessions conformed to the 'here and now' principle (that is, she was oriented towards the discussion of what was currently happening in her own and her friends' everyday lives and their personal experiences), which was unlike the discussion of more sophisticated topics by Eleni, which were more 'interest-driven' (Ito et al., 2008) and demanded reflexivity of one's practices and distancing from local or national contexts (see 4.2.1). The role of Marina's family and school and their insufficient support / stimuli were crucial at this point.

Another reason for the disparity in these two girls' chatting practices was Marina's strong lifestyle identity materialised in both her offline and online practices. Her offline practices consisted of reading magazines for teenage girls and watching gossip news on TV. Her online practices included visits of teenage and reality TV shows' (Russian Fame Story) websites and participation in relevant online voting and exchange of views. There is obviously continuity in her real-life and virtual practices, which we have also observed in Eleni's analysis. In Marina's case, all these practices were manifestations of her teenage, lifestyle Discourse, which was omnipresent in her digital literacy practices.

Chatting enabled her to maintain her network of friends across time and space limits, as well as practise her mother tongue, which was gradually fading away. This online space allowed her to have her own voice, to enact her dual identity (Russian-Greek) and to preserve bonds to her mother country. Such online communication sites are used by transnational youth in order to perform socially-situated identities, one of them being that of an immigrant with ongoing affiliations with two nations (Mc Ginnis et al., 2007). Through her chatting (participation in Russian chatrooms), media (watching Russian TV channels via satellite with her mother) and speech practices (speaking with her mother in their native language), Marina was trying to perform 'simultaneity', a notion emerging from research on transnational migration (for a relevant discussion of the term, see Lam, 2009, p.379). In other words, along with her daily practices in the host country, she attempted to maintain and affirm her transnational identity by incorporating activities and asserting affiliations that connected her to her homeland.

In general, Marina used ICTs primarily for entertainment practices related to her adolescent-entertainment Discourses. Through her online practices she positioned herself within popular youth culture, projecting a lifestyle identity. Chatting with her Russian friends allowed her to develop her transnational identity. The lack of family strategies, because of socio-economic factors and digital illiteracy, and the restricted exploitation of new technologies in her school contributed to the formulation of her own views and uses of digital writing environments, which were identified exclusively

with the IT class. However, she tried to overcome these limitations by developing her own initiatives: she compensated for the lack of PC at home by visiting Internet cafés and she participated in diverse out-of-school, recreational digital practices involving writing, despite her limited school practices.

5. Conclusions and discussion

In the literature review section we have drawn a distinction between three types of research which analyse the relationship between girls and new literacies. Having a different theoretical and methodological starting point, it would not be difficult for us to support with specific data any of these research directions.

If our main aim were to confirm the existence of a gender digital divide, we would concentrate exclusively on our quantitative data concerning state schools –more specifically on Tables 1, 2 and 3– and our research questions would stress the importance of the availability of computers and connectivity, ignoring the social embeddedness of technology. In that case, we would partially touch upon the issue, but we would not be able to shed light on its complexity, since the gender digital divide is a much more complicated concept which is connected with social, economic and cultural variables.

If our objective were to show the gender differences in digital literacy practices, we would focus once again on our quantitative analysis, especially on Tables 4 and 5. However, we would lose sight of existing inequalities and creativity in youth's writing with new media. More importantly, we would fail to acknowledge and delve into the detected in-group variation (see Tables 6, 7 and 8) that existed in how state and private school girls used digital environments for writing and communication purposes.

If our goal were to emphasize the 'new ethos' and creativity characterising the generation of the new technologies' insiders, and girls' online practices in particular, we would centre upon our qualitative analysis. Nevertheless, we would project an idealised picture of their technology-mediated literacy practices and make overgeneralisations on the basis of limited data.

However, our own theoretical and methodological departure point is disparate in its approach. Our intention has been to take into consideration the findings and observations of the relevant literature, while making an effort to bring to the surface the potential mobility of Greek society in a transitional period. It could be said that we have undertaken to develop a historically sensitive and critical approach (Koutsogiannis, 2007). Therefore, we have partly adopted contemporary theories having agency as their focal point and combined them with more traditional approaches underscoring the role of social structures.

Our analysis brings to the fore three diverse but interconnected variables which have proved to be instrumental in grasping more thoroughly the relationship between girls and new media, especially the ones related to digital writing. The first one addresses the role of two crucial socialisation institutions: home and school. The

present paper, as well as a broader analysis of our data (Koutsogiannis, 2011), demonstrate that certain social groups have a more profound understanding of the protean nature of literacy, which is nowadays enriched with new elements, such as the personally and/or socially meaningful use of ICTs. These social classes have the financial resources, the knowledge and the willingness to develop strategies which will facilitate their children's initiation into the world of new literacies, irrespective of their gender. The main constituents of their careful and conscious planning for their children's early familiarisation and best exploitation of new technologies are the provision of appropriate hardware and software at home and the selection of a school that will fulfil this vision for their children's future. As we have seen in our qualitative analysis, these choices can be traced in the range of school/literate and entertainment Discourses performed by the girls.

The second important variable is gender. In this paper we have questioned the notion that females are less experienced, inadequate or reluctant users of new technologies. Our analysis showed that girls prefer more school-type digital literacy practices, such as writing personal and school texts by employing digital writing environments (word-processing and presentation software). Another aspect of their gendered interaction with computer and information technologies was their agentic participation and use of chat, defying, in this way, the dominant vulnerability discourses around girlhood and online communication applications.

The third crucial variable is connected with the personality of the children, who filter in their own unique ways their social experience, as well as the new literacy reality. We have studied 43 interviews of girls and we have discovered their creativity in the manipulation of the new digital writing media. In our data no girl was involved in the same digital literacy practices as another. As we have already discussed in our qualitative analysis, this creativity has been traceable in the relevant practices of the two girls (Eleni & Marina) who participated in our research. Despite their parents' rather technophobic discourse and their schools' one-dimensional or limiting practices, they took initiatives and chose to appropriate technologically-mediated writing media for personally meaningful ends which enhanced their school and/or entertainment Discourses. Both girls succeeded in reconstructing their engagement with technology as a site of girlhood agency. The notion of agency is central from a critical and a feminist perspective as it offers "hope and the possibility for engaging with and challenging structural, determined inequalities" (The London Feminist Salon Collective, 2004, p.30). In general, ICTs were not an end in themselves for the girls taking part in our study but signal ways of writing and communicating through new channels, and agentic means of projecting their (gendered) identities in formal and informal settings.

The combination of quantitative and qualitative methods in our analysis has yielded very useful insights into the dialectical relationship between the two primary socialisation milieus and girls' personal identity (-ies), which has been largely ignored by research on youth and digital media. Future research needs to address this tension between structure and agency in the continually evolving female and male digital

literacy practices with the accompanying awareness that there are no fixed answers to gender issues.

Notes

1. The continuity (or not) between in and out-of-school practices has been a complex and controversial issue, approached in a heterogeneous manner. For example, Bernstein's (1996) interesting analysis accentuated the disparate nature of school (vertical) and out-of-school (horizontal) discourse.
2. For more information on private education in Greece, see Euridice (2009/10) and Mamoucha (2009).
3. All the questions and answers of the interviews have been numbered. The numbers used in our qualitative analysis correspond to particular fragments of the girls' interviews.

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