# 'Greeklish':

# Transliteration Practice and Discourse in the Context of Computer-Mediated Digraphia

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# Introduction

'Greeklish' or Latin-alphabet Greek – that is, the representation of the Greek language with the Latin script – has been a feature of the Greek-speaking internet from the start.<sup>1</sup> 'Greeklish' became widely known in the 1990s, was read as a 'danger' to the Greek language at the turn of the century, but is still widely used today, in transnational communication as well as within Greece, even though technological developments have largely abolished the conditions that necessitated its spread. Example 1, which offers our first sample of 'Greeklish' spelling, resonates with findings on 'ASCII-ized Arabic'<sup>2</sup> in an important respect: script choice in computer-mediated discourse may be turned from a technical constraint into a symbol of the medium in which it occurs:

# Example 1

Oi perissoteroi xrhstes sthn ellada exoun pleon th dynatothta na grafoun me ellhnikous xarakthres, kanonika. Omws, elaxistoi einai ekeinoi pou exontas th dynatothta afth thn aksiopoioun, kai oi perissoteroi akolouthoun thn palia methodo grafhs, xwris na yparxei kapoios profanhs logos. [...] H dikh mou ekdoxh einai pws to e-mail antimetwpizetai apo tous perissoterous ws ksexwristo meso epikoinwnias, me dika tou symvola kai kwdikous, kai enas ap' aftous einai h xrhsimopoihsh twn latinikwn xarakthrwn.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> The terms 'Latin/Latinization' are preferred to 'Roman/Romanization' – cf. Coulmas (2003) 32 and Coulmas (1996) – because they are used in Greek linguistics and Greek public discourse: cf. Moschonas (2004). 'Greeklish' and Latin-alphabet Greek (or LAG) are used interchangeably in this chapter, the former usually in inverted commas to signal its non-technical origin.

<sup>&</sup>lt;sup>2</sup> Cf. Palfreyman and al Khalil (2003).

<sup>&</sup>lt;sup>3</sup> Personal communication, (1998).

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Most users in Greece have now the option of writing normally, with Greek characters. But only few are taking advantage of this option, and most are following the old writing method without an obvious reason. [...] My own view is that e-mail is viewed by most users as a distinctive mode of communication with its own symbols and codes, one of these being the use of Latin characters.

This chapter approaches Latin-alphabet Greek (henceforth also LAG) from a sociolinguistic and discourse-analytic perspective. It offers an overview of its development and contemporary use, and examines its linguistic hallmark, namely spelling variation, and the way this is constructed in the discourse of internet users and the wider Greek speech community. Moreover, it aims at drawing wider implications for the sociolinguistics of orthography in the age of computer-mediated communication. For the purposes of my argument, I shall draw on the distinction between 'autonomous' and 'ideological' approaches to orthography, on the sociolinguistic notions of digraphia and focusing, and on the distinction between transliteration as an abstract system and as individual practice.

In the first place, the notion of digraphia<sup>4</sup> will provide a conceptual frame for this chapter. In particular, the term 'computer-mediated digraphia' is coined for the simultaneous use of both the native Greek and the Latin script in computermediated interaction. The characteristics of Greek computer-mediated digraphia include: a lack of stability and societal agreement on the use of LAG; its persistence in transnational communication; the lack of a widely known transliteration standard, which results in a wide range of variability in transliteration practice; the emergence of metalinguistic discourses among internet users as well as in nationwide media; and the importance of technological developments for the shifting patterns of LAG use and evaluation.

Within this frame, transliteration practices and discourses on 'Greeklish' will be examined in terms of 'ideological' and 'autonomous' approaches to orthography.<sup>5</sup> Briefly, an autonomous approach views orthography as a 'neutral' technology for the representation of spoken language. In contrast, an ideological approach views orthography as a set of social practices in specific social and cultural contexts. From this perspective:

orthography can be seen as the site of potentially intense struggles over identity and power, in which issues like the purpose of literacy and the status of languages are central, and orthographic characters [...] may be imbued with a symbolic meaning that makes their phonemic symbolism and learnability of secondary importance.<sup>6</sup>

Rather than being a mere matter of technological necessity, as an autonomous approach would assume, 'Greeklish' is a rich site of aesthetic and ideological conflict. This holds true for both its relationship to the Greek script and the relationship between different versions of Greek-to-Latin transliteration. An

<sup>&</sup>lt;sup>4</sup> See Coulmas (2003), Grivelet (2001a).

<sup>&</sup>lt;sup>5</sup> Cf. Street (1984), Sebba (1998), (2000), (2003), (forthcoming).

<sup>&</sup>lt;sup>6</sup> Sebba (1998) 20.

ideological approach to orthography allows us to understand how writers' spelling choices and metalinguistic assumptions are shaped by the symbolic and aesthetic meanings they attach to alternative schemes of transliteration.<sup>7</sup> On the other hand, the distinction between ideological and autonomous approaches to orthography will be used as an analytical tool in order to reveal that the opinions and arguments expressed for and against 'Greeklish' are sometimes 'autonomous' and sometimes 'ideological' in nature.

The variability of 'Greeklish' spelling is due to the fact that Greek-to-Latin transliteration is not acknowledged within the Greek educational system. With transliteration standards hardly known outside expert circles, Greek internet users have developed a range of informal transliteration schemes, appropriating the Latin script in innovative ways. The distinction between transliteration as an abstract system and individual style, along with the notion of focusing,<sup>8</sup> will be used to examine how individual regularity and 'local' norms emerge in a normative vacuum, in which choices of Latinized spelling are neither prescribed nor sanctioned. I shall reconstruct two main transliteration schemes, 'phonetic' and 'orthographic', and argue that they are relevant orientation points for both transliteration practice and discourse. Moreover, I shall draw on the notion of 'focusing' to examine how the range of transliteration alternatives is reduced as individual spelling styles converge towards 'local', group-related norms.

# 'Greeklish', past and present

Popular terms such as *Fragolevantinika* and *Fragochiotika* allude to the use of LAG in the nineteenth and early twentieth centuries, notably by Greek traders from the island of Chios and (ethnically non-Greek) Levantine traders in Smyrna, Asia Minor. Sporadic evidence suggests that the Latin script had already been used in the Early Modern era, notbly for folk poetry or catechism, in Greek areas under Venetian rule or with some other Catholic presence.<sup>9</sup> These early, albeit poorly documented, instances of script change clearly differ from contemporary 'Greeklish' in terms of their political context, social spread and communicative purposes; however, they display a typical feature of digraphia, in that they emerge in a situation of interethnic and intercultural contact.<sup>10</sup>

The intercultural and transnational dimension of script choice is also manifest in proposals for Greek orthographic reform in the inter-war era of the twentieth century. Its advocates argued for the simplification of the historical orthography of Greek as a measure against 'the plague of illiteracy', and proposed the adoption of the Latin script in order to avoid confusion between different spellings of the same

<sup>&</sup>lt;sup>7</sup> Cf. ibid. 36, 40.

<sup>&</sup>lt;sup>8</sup> Cf. Le Page and Tabouret-Keller (1985); Sebba (2003), (forthcoming).

<sup>&</sup>lt;sup>9</sup> See the articles in Filintas (1980) and Zachos-Papazachariou (1999). Wikipedia (2006) points out a wider tendency for 'script to follow creed' in the Balkans, which also encompasses the use of the Greek script for the Turkish language: Clogg (1999).

<sup>&</sup>lt;sup>10</sup> Cf. Coulmas (1996) 130.

word in the historical and the proposed phonetic orthography.<sup>11</sup> Script change was also seen as a source of potential economic benefits (especially in the context of typewriting, printing and publishing) and as a symbolic alignment with the 'civilized nations' of the West. The reformist voices of this time explicitly challenged the implicit assumption that script change would amount to a loss of national identity, pointing to the precedent of the Turkish script reform. Thus, although the main reformist arguments were 'autonomous' in nature, their proponents clearly recognized that the ideological dimension of Greek orthography, in the shape of its national symbolic value, would be their main obstacle. Significantly, Latinization and phonetic spelling were implicitly equated in this reformist discourse; what is referred to below as 'visual transliteration' was presumably inconceivable at this time.

Latin-alphabet Greek remained a minor issue in the first post-war decades, with its appearance restricted to telegrams to or from abroad, cash register receipts, and, allegedly, early broadcasts by *EMY*, the national weather-report service.<sup>12</sup> It resurfaced with the emergence of the internet in the late 1960s. The early internet operated on the seven-bit ASCII character encoding set (first published in 1967), which provided for the encoding of 128 characters based on the English alphabet, and therefore excluded the representation of languages with non-Latin script.<sup>13</sup> 'Greeklish' was presumably 'reinvented' in those early internet days, perhaps among Greek-speaking students and researchers at universities in the USA. To judge from sporadic references in mailing lists and on websites, it was apparently already in use in 'Arpanet', the computer network that preceded the internet; the 'visual' transliteration scheme with its peculiar letter-to-number correspondences seems to have been an innovation of that time.

Latinization was presumably the only option available to the few Greek-speaking internet users, in Greece or abroad, throughout the 1980s. Since the early 1990s, the gradual development of the unicode character-encoding standard has made the representation of symbols from a wide variety of writing systems possible on computer screens, and during the 1990s, as a result, the use of Greek script on the internet became an increasing technical possibility. However, its actual availability to individual users was still limited by their access to hardware and software facilities. This gap between technical possibility and individual availability led to the persistence of LAG as the lowest common denominator throughout the 1990s. In an e-mail survey I conducted in 1999,<sup>14</sup> sixty-nine per cent of residents of Greece and eighty per cent of residents abroad reported using LAG in more than half their e-mails. Data from that period suggest that LAG was used for a

<sup>&</sup>lt;sup>11</sup> See documentation in the volume Φωνητική Γραφή ('Phonetic Writing'), which comprises essays by linguists and intellectuals published between 1929 and 1931 in the journals Nέα Εστία and Πρωτοπορία: Filindas et al. (1980).

<sup>&</sup>lt;sup>12</sup> Cf. Zavras (n.d.), Wikipedia (2006).

<sup>&</sup>lt;sup>13</sup> Information on computer-related terms such as Unicode, ASCII and Arpanet is provided by the respective Wikipedia entries (see links below, p. 000).

<sup>&</sup>lt;sup>14</sup> See p. 000 below.

variety of public purposes in Greece, such as commercial newsletters and even formal announcements within universities:

# Example 2

H Sygklhtos sthn ar. [000/000] synedriash ths, apofasise na sas parakalesei na enhmerwsete ta melh DEP tou Tmhmatos sas oti, basei ths isxyousas nomo8esias, den einai nomimh h ana8esh autodynamou didaktikou ergou se metaptyxiakous foithtes `h ypokatastash tous apo tous en logw foithtes sta didaktika tous ka8hkonta.<sup>15</sup>

In its nr. [000/000] meeting, the Senate decided to ask you to inform members of staff in your department that on the basis of current legislation, the assignment of independent teaching to postgraduate students or the substitution of staff by such students for teaching duties is not allowed.

While such usage is probably extinct by now, 'Greeklish' is still technically necessary in a number of settings abroad, such as university or internet café computers where Greek fonts are unavailable. In contexts of transnational communication, such as mailing lists with worldwide-dispersed members, 'Greeklish' has ensured, and still does ensure, that even the few users without access to the Greek script will be able to participate. In sum, even though an increasing number of Greek internet users had access to the Greek script by the late 1990s, LAG was so firmly established among early adopters of computer-mediated communication that it was referred to as the 'old writing method', as in Example 1. One might suspect that it was in this transitional period, when both scripts were available to an increasing number of users, that symbolic values of LAG such as the 'code of the internet' or the 'code of the e-mail' (Example 1 again) were established.

With the spread of computer-mediated communication (CMC) across Greek society, it was only a matter of time before 'Greeklish' emerged as a matter of public discourse. In 1996, acro, a typography magazine from Thessalonica, published on its back cover this question: etsi tha grafetai i glossa mas apo do ke bros? ('Is this how our language will be written from now on?'). This anticipated a wider debate in the years to come, a debate based on the synecdochic relationship of language use in CMC to 'our language' as a whole. Although press reports of 'Greeklish' have been attested since 1995, they remained sporadic until the issue in January 2001 of an open letter by the Athens Academy, which warned against a possible substitution of the Greek by the Latin alphabet as a consequence of LAG use on the internet; an excerpt is given in Example 3. Clearly based on an ideological approach to orthography, in which the Greek script is viewed as a paramount national symbol, the Academy open letter proclaimed a 'phobia of Latinization'.<sup>16</sup> It positioned 'Greeklish' as the descendant of earlier uses under foreign rule, and constructed it, notably through religious allusion and metaphor, as a foreign threat to national identity:

<sup>&</sup>lt;sup>15</sup> University circular mail, 1998.

<sup>&</sup>lt;sup>16</sup> Cf. Moschonas (2004).

# Example 3

Θεωφούμε ανόσια αλλά και ανόητη κάθε πφοσπάθεια να αντικατασταθή η ελληνική γφαφή στο λίκνο της. [...] Όπως και επί Ενετών, όταν αυτοί στα μέφη που κυφιαφχούσαν πφοσπάθησαν να αντικαταστήσουν στα ελληνικά κείμενα τους ελληνικούς χαφακτήφες, έτσι και τώφα θα αντισταθούμε, καλώντας όλους τους συνέλληνες να αντιδφάσουν για την πφόφφιζα εξαφάνιση των ανίεφων αυτών σχεδίων.<sup>17</sup>

We consider unholy, but also senseless, any attempt to replace the Greek script in its own birth-place [...] Just as during Venetian rule, when the rulers attempted to replace the Greek alphabet in Greek texts, we will resist now too, calling on all fellow Greeks to respond and ensure that these unholy plans are destroyed, root and branch.

The Academy statement sparked a lively public debate, which displayed all the signs of a 'moral panic', with a rapid build-up of public concern and a minor issue identified as a threat to a community's values.<sup>18</sup> Aspects of this debate are critically examined by Koutsogiannis and Mitsikopoulou who identify three main trends in a corpus of fifty-six newspaper articles.<sup>19</sup> The 'retrospective trend', developed in more than half of their corpus, aligns itself with the phobia of Latinization that the Academy open letter evoked. Equating LAG with a supposed national threat, it draws on metaphors of military attack on the Greek language, and metaphors of resistance to that attack. The 'prospective trend' challenges this line of thought and adopts a positive stance towards technology, by, for instance, discussing the software problems that led to the use of 'Greeklish'. It also includes traces of a sociolinguistic discourse, by identifying Greeklish as a 'new jargon' or 'language variety'. The 'resistive trend' combines the technology-friendly discourse of the prospective trend with a linguistic critique of globalization, thereby foregrounding the promotion of linguistic diversity in the information age. Koutsogiannis and Mitsikopoulou suggest that these trends are reminiscent of past debates on the Greek 'language issue': the retrospective trend is reminiscent of ideas once used in support of katharevousa, whereas the prospective and resistive trends echo ideas used in support of demotic.<sup>20</sup>

Even though 'Greeklish' is not an issue of great concern in the Greek media at present, its use still persists, despite official protestations to the contrary.

#### Computer-mediated digraphia

Digraphia is defined as the use of two different scripts for the representation of the same language.<sup>21</sup> Although the term is reminiscent of diglossia,<sup>22</sup> theoretical

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<sup>&</sup>lt;sup>17</sup> Open letter by the Athens Academy, 2001.

<sup>&</sup>lt;sup>18</sup> Moschonas (2004).

<sup>&</sup>lt;sup>19</sup> Koutsogiannis and Mitsikopoulou (2003).

<sup>&</sup>lt;sup>20</sup> Ibid..

<sup>&</sup>lt;sup>21</sup> Cf. Grivelet (2001b); Coulmas (1996) 129–30, (2003) 231–4; Unseth (2005) 36–7.

<sup>&</sup>lt;sup>22</sup> See Romaine (1995), ch. 2, for a comprehensive discussion of diglossia and Li (2000) for a collection of influential early papers.

attempts to deduce features of digraphia from diglossia are fraught with difficulties. For instance, while the scripts involved in a digraphic situation will usually display a functional distribution to different societal domains, they are not necessarily stratified in terms of prestige in a collectively accepted way. It is therefore more useful to treat diglossia and digraphia as conceptually unrelated, and to elaborate the notion of digraphia based on inductive examination of particular digraphic situations.<sup>23</sup>

Specialist discussions of digraphia do not focus on CMC, but refer to it as a side issue (notably in the case of Chinese).<sup>24</sup> Nevertheless, the notion is used in passing by Tseliga with respect to 'Greeklish' and discussed in more detail by Palfreyman and al Khalil with respect to 'ASCII-ized Arabic'.25 Building on these observations, I propose that 'Greeklish' be examined as an instance of computer-mediated digraphia, broadly defined as the simultaneous use of native and Latin script for the same language in computer-mediated communication. As the preceding discussion has shown. Greek has witnessed instances of digraphia in the past. As is the case for other languages with a non-Latin script, certain uses of digraphia have been institutionalized by the Modern Greek state for purposes of international communication (with road signs and passports the most obvious examples). However, what is peculiar to computer-mediated digraphia is the active use of Latin-alphabet Greek by considerable portions of the population in conjunction with an even wider passive awareness. Internet penetration in Greece reached one million users in 2000, and in 2005 an estimated 3,800,000 users (33.7 per cent of the population).<sup>26</sup> We may therefore assume that the majority of the younger population are actively or passively familiar with 'Greeklish', not least because of its continuous presence on web discussion boards. Media reports, meanwhile, have spread this awareness to many non-internet users.

Within CMC, Greek/Latin digraphia is generally restricted to contexts of computer-mediated *interaction*.<sup>27</sup> These might be further specified in terms of residency and communication technologies. Latin-alphabet Greek is widely used in transnational exchanges, both within the Greek diaspora and between Greece and abroad. For instance, it is the default choice in a number of diaspora mailing lists, newsgroups and discussion boards that I am personally aware of, whether because of technical constraints or other reasons, such as convenience, convention, audience considerations or literacy competence.<sup>28</sup> Within Greece, LAG is used

<sup>&</sup>lt;sup>23</sup> Cf. Grivelet (2001b); Coulmas (1996), (2003).

<sup>&</sup>lt;sup>24</sup> Cf. the papers in Grivelet (2001a).

<sup>&</sup>lt;sup>25</sup> Tseliga (forthcoming); Palfreyman and al Khalil (2003).

<sup>&</sup>lt;sup>26</sup> See http://www.internetworldstats.com/eu/gr.htm, accessed on 22 February 2007.

 $<sup>^{27}</sup>$  LAG is generally not used for edited content (weblogs, websites), except as an emblem of IRC culture (e.g. on irczone.gr).

<sup>&</sup>lt;sup>28</sup> These issues must be examined separately for each environment. For instance, technical constraints still hold true for a transnational mailing list for Greek draft evaders; but in discussion boards for second-generation Greeks in Germany (see Androutsopoulos, forthcoming) LAG is the default choice, even though it is technically possible to use the Greek script.

by default, owing to technical constraints, in internet Relay Chat (a separate environment that preceded the web), and within Instant Messenger systems.<sup>29</sup> However, it is optional in web-based chat environments and on discussion boards. In sum, although LAG has a functional specialization with respect to the native Greek script in that it affects only one particular area of written language (computer-mediated interaction, as opposed to edited website content), there is a lack of domain exclusivity, as native and Latin script are both used in the same environments. However, the domain specialization of LAG does not rule out its occasional appearance in off-line public discourse directed at a Greek audience. This resonates with findings by Palfreyman and al Khalil, who note the occasional use of 'ASCII-ized Arabic' in private off-line literacy practices.<sup>30</sup> I suggest that such 'domain transgression' may be understood as metaphorical 'script-switching', in which LAG evokes symbolic values of CMC, such as future orientation, technological competence, and an international outlook, outside its 'proper' domain.

Two examples from the turn of the century will illustrate this point. The first is the headline of a bank advertisement in the form of an e-mail address: epithesistomellon@geniki.gr(that is, 'attackingthefuture@geniki.gr', genikibeing the bank's name). Script choice is embedded here in genre choice: the advertisement headline appropriates the e-mail format, which inevitably comes in Latin-alphabet Greek. Both genre and script transfer the connotations of technological competence and future orientation to the advertised bank. The second example comes from a restaurant review in a lifestyle magazine. It includes a script-switch not only for the English word *Wallpaper*, but for parts of the Greek text as well (italicized in the translation): Οι Αθηναίοι έγιναν πολίτες του Cosmou. Trone sto Kreas, που τους θυμίζει την (αν)αισθητική του Wallpaper ('Athenians have become citizens of the World. They dine at Kreas, which reminds them of the (non) aesthetics of Wallpaper'). The switch is locally motivated by the restaurant's own choice of the Latin script for a common Greek word (*Kreas*, 'meat') and contextualizes, perhaps not without a certain irony, the restaurant's supposed cosmopolitan character. In both examples, the cultural semantics of script choice is strengthened by lexical choice ('future', 'citizens of the world').

These examples suggest that the awareness of LAG in Greek society is so widespread that media discourse may occasionally exploit its symbolic potential for particular purposes. Interestingly, both examples draw not on the 'orthographic' transliteration that is the true innovation of the Greek-speaking web, but on a more traditional 'phonetic' representation. It is transliteration schemes we now turn to.

<sup>&</sup>lt;sup>29</sup> Cf. Wikipedia (2006).

<sup>&</sup>lt;sup>30</sup> Cf. Palfreyman and al Khalil (2003).

# Spelling variation in Latin-alphabet Greek: schemes, styles, norms and attitudes

Spelling variation is the most noticeable linguistic feature of Latin-alphabet Greek.<sup>31</sup> This is independently confirmed by Palfreyman and al Khalil, who point out that "ASCI-ized" "orthographies" do not typically have the consistency characteristic of other orthographic systems'.<sup>32</sup> Against the backdrop of the preceding discussion, we might say that 'Greeklish' is lacking in consistency, because it is neither acquired through the normative mechanisms of the educational system nor controlled by norm-enforcing authorities. Greek-to-Latin transliteration standards do exist, of course, notably the ISO/ELOT standard, as well as a variety of philological transliteration schemes.<sup>33</sup> However, none of these are taught in primary or secondary education.

# Data

We turn now to vernacular responses to the transliteration problem.<sup>34</sup> The findings reported here are based on research that was carried out between 1997 and 2000, involving three sources of data. First, a small, non-systematic sample of e-mails from various sources was examined in order to assess the range of transliteration variation and to reconstruct transliteration schemes. Secondly, a case study of personal e-mails by six individuals examined the relationship between transliteration schemes, transliteration styles, and socio-professional milieus. Thirdly, in early 1999 an e-mail questionnaire was sent to various mailing lists and individual users. The questionnaire was returned by seventy-six participants (thirty-one female, fortyfive male), who were almost equally divided between residents of Greece (fiftyone per cent) and abroad (forty-nine per cent). In terms of age, thirty per cent of the respondents were under twenty-four, forty-two per cent were between twentyfive and thirty-four, and twenty-eight per cent were over thirty-five. In terms of occupation, the sample included university students, language professionals such as translators and journalists, linguists and other university staff, IT professionals and members of other occupations. Most respondents were members of four mailing lists: thirteen belonged to GreekWeb, twelve to EEXI ('Hellenic Association of Internet Users'), fourteen to Hellas, and sixteen to a mailing list for Greek students at King's College London. Members of Greek Web and EEXI were mostly residents of Greece, whereas Hellas attracted a diasporic audience. To these were added five staff members of the English Department at the Aristotle University of Thessalonica, and a miscellaneous group of sixteen individual respondents.

The first part of the questionnaire included questions on the use and evaluation of LAG. In the second part, respondents were presented with two Latin-alphabet

<sup>&</sup>lt;sup>31</sup> See Androutsopoulos (1998).

<sup>&</sup>lt;sup>32</sup> Cf. Palfreyman and al Khalil (2003) 12.

<sup>&</sup>lt;sup>33</sup> See Table 1 on p. 000 below, as well as Coulmas (1996) and (2003) and Zikmund (1996).

<sup>&</sup>lt;sup>34</sup> The following account draws on findings published for the first time in English here, but previously published in Greek: Androutsopoulos (1998), (1999), (2000), (2001).

variants of a Greek sentence and asked to estimate which one they would expect to receive from different sorts of interlocutors. The third part consisted of a transliteration task, in which respondents were asked to translate into Greek four English sentences which were constructed in such a way that their expected Greek versions included letters that in practice engender several alternative Latin spellings.<sup>35</sup> Premised on the assumption that users would follow the transliteration style they used in everyday practice, this task elicited a controlled. self-initiated sample of 'Greeklish' spelling that can be analysed in a language variation framework. Specifically, Greek graphemes that received two or more alternative Latin realizations were considered to be linguistic variables. A case in point is the Greek grapheme  $\langle \omega \rangle$  omega, which may be represented by any of the Latin graphemes <w>, <o> or <v>.<sup>36</sup> These alternatives were not divided into standard and vernacular variants, as would have been the case in traditional variationist sociolinguistics, but were grouped together in the transliteration schemes presented below. This procedure allowed me to examine the relationship between transliteration schemes and individual transliteration styles, as well as the relationship of these styles to users' demographic characteristics and their responses concerning language attitudes in the questionnaire.

# Transliteration schemes

At first glance, Latin-alphabet Greek is extremely heterogeneous. While thirteen graphemes of the Greek script are always transliterated with a single Latin grapheme in my data, the remaining graphemes (including digraphs and diphthongs) receive two, three or even more Latin equivalents.<sup>37</sup> Some of these correspond to official or academic transliteration norms; others diverge from these norms, but are widespread in vernacular practice; still others are rare or idiosyncratic. The heterogeneity of transliteration practice becomes obvious with particular words that are 'difficult' by the standards of Greek orthography. For example, the transliteration task elicited twenty-three different Latin-alphabet versions of the word  $\delta\iota\epsilon \upsilon\theta\upsilon\upsilon\sigma\eta$  ('address'), which differed in the representation of the Greek graphemes < $\varepsilon\upsilon$ , < $\Theta$ , < $\upsilon$ , < $\upsilon$ > and < $\eta$ >. Only three of these were employed by seven or more users (*diefthinsi*,

<sup>&</sup>lt;sup>35</sup> The sentences, with their expected Greek equivalents, are: (1) 'I love my wife Eleni like my own life' ('Αγαπώ τη γυναίκα μου την Ελένη σαν την ίδια μου τη ζωή'), (2) 'I will go there next week' ('Θα πάω εκεί την επόμενη εβδομάδα'), (3) 'Yesterday I woke up very early' ('Χθες ξύπνησα πολύ νωǫίς'), (4) 'Sorry, I forgot his address' ('Συγνώμμη, ξέχασα τη διευθυνσή του'). In the Greek versions, omega <ω> occurs e.g. in the words αγαπώ, όπως, ζωή, πάω, νωǫίς, συγνώμμη; eta <η> and upsilon <υ> occur in e.g. ξύπνησα, διεύθυνση; theta <θ> in θα, διεύθυνση, χθες; and so on.

<sup>&</sup>lt;sup>36</sup> By convention, orthographic representations are enclosed in angle brackets < >; phonemic representations are enclosed in slashes / /. Greek graphemes are also represented by their Latin names.

<sup>&</sup>lt;sup>37</sup> These are: three vowels  $\langle \eta, \upsilon, \omega \rangle$ ; eight consonants,  $\langle \beta, \gamma, \delta, \upsilon, \pi, \varrho, \xi, \chi \rangle$ ; five digraphs  $\langle \alpha \iota, \varepsilon \iota, \circ \iota, \circ \upsilon, \mu \pi, \nu \tau \rangle$ ; and the diphthongs  $\langle \alpha \upsilon, \varepsilon \upsilon \rangle$ . The invariant graphemes are  $\langle \alpha, \varepsilon, \zeta, \iota, \kappa, \lambda, \mu, o, \sigma, \varsigma, \tau, \phi, \psi \rangle$ .

*diey8ynsh*, *dieuthinsi*), while thirteen versions appeared only once each, including forms such as *dieu0unsh*, *dieu8uvsn*, *dievthinsi* and *dief8hnsh*.

The case of  $\delta\iota\epsilon\dot{\upsilon}\theta\upsilon\nu\sigma\eta$  is indicative of the popular belief that Latin-alphabet Greek has 'no rules' and that people transliterate 'as they please'. However, my findings suggest that notwithstanding any individual inconsistencies, users tend towards either a 'phonetic' or an 'orthographic' transliteration scheme, which can be reconstructed on the basis of inductive generalization and by taking into account users' metalinguistic awareness. Table 1 displays the schemes, illustrated by a selection of Greek graphemes, and adds the ISO/ELOT standard for reference,<sup>38</sup> while Examples 4-6 provide a typical instantiation of each scheme:<sup>39</sup>

# Table 1

Creat			'Greeklish' transliteration					
Greek	phonemic value	ISO/ELOT standard	phonetic	orthograp				
grapheme	value	standard		keyboard-based	visual			
η	/i/	i	i	h	n			
υ	/i/	у	i	у	u			
ει, οι	/i/	ei, oi	i	ei, oi	ei, oi			
ω	/o/	о	0	v	w			
ου	/u/	ou	u	oy	ou			
β	/v/	v	v	b	b			
θ	/th/	th	th	u	8, 0, 9			
ξ	/ks/	х	Х	j	3			
x	/x/	ch	ch, h	Х	х			

Transliteration schemes, illustrated by a grapheme selection

# Example 4: phonetic transliteration

Ta siberasmata tou vivliou dialioun tin paramorfomeni ikona pou epikrati simera se merida akadimaikon i opii sindeoun tin epifilaktiki stasi ton Arheon Ellinon apenanti sto erota me tous sihronous provlimatismous mas shetika me to sex, ton erota ke tin ikogenia.

# Example 5: keyboard-based transliteration

Oi Kybernografoi, poy dianyoyn ton deytero kyklo ekdoshs toys, einai pleon h apolyth phgh lifestyle plhroforishs sto Internet [...] to periodiko einai diathesimo dwrean, ejyphretwntas to diafhmistiko apolyto, afoy ta eksoda toy kalyptwntai plhrws apo tis diafhmiseis toy.

<sup>&</sup>lt;sup>38</sup> ISO 8859–7 / ELOT–928: cf. Wikipedia (2006).

<sup>&</sup>lt;sup>39</sup> Translations are omitted, since the propositional content of the examples is not relevant to the discussion. Examples 4–6 belong, respectively, to a newsletter of 1998, a newsletter of 1997, and a mailing list post of 1998.

### Example 6: visual transliteration

Pote dev eipa sigoura dev 8a 3ava-agapisw pote mou egw de distasa apo tnv arxn v' arxisw Kai va pou bgeika aln8ivos kai n tuxn ntav mazi mou nr8es kai eida eutuxos v' allazei n zwn mou.

Phonetic transliteration is based on correspondences between Greek phonemes and Latin graphemes. It therefore includes elements of transcription,<sup>40</sup> and inevitably results in a simplification of historical Greek orthography. A consistent phonetic transliteration will use Latin <i> for all six Greek graphemes representing the /i/ sound,  $<\iota, \eta, \upsilon, o\iota, \varepsilon\iota, \upsilon\iota>$ ; it will also employ Latin <o> for both <o> omicron and  $<\omega>$  omega, and <u> for the digraph  $<\circ\upsilon>$ . By contrast, the premise of orthographic transliteration is the preservation of Greek orthography. The correspondence between the two scripts is achieved in two different ways, represented here as sub-cases of the orthographic scheme.<sup>41</sup> In the keyboard-based scheme, users type on their keyboard as though typing in Greek script; as a result,  $<\eta>$  *eta* becomes <h>, < $\xi$ > xi becomes <j> and < $\omega$ > omega becomes <v>. The visual scheme aims at simulating the shape of Greek letters with Latin characters as closely as possible. Widespread solutions include  $\langle w \rangle$  for  $\langle \omega \rangle$  and the use of similar-looking numerals for letters without a visually similar Latin grapheme, as with  $\langle 8 \rangle$  for  $\langle \theta \rangle$  theta and <3> for  $<\xi>xi$ . These numerals are 'graphemicized': they are treated as distinctive units of visual transliteration. Less common visual variants in my data include <n> for  $\langle \pi \rangle$  pi,  $\langle v \rangle$  for  $\langle v \rangle$  nu and  $\langle p \rangle$  for  $\langle \rho \rangle$  rho (compare Example 6). Thus a comprehensive visual transliteration eventually amounts to a radical restructuring of the inherited graph-to-graph correspondences between the Greek and the Latin script.

While the phonetic scheme is closer to conventional transliteration standards and offers readability to non-native or even non-speakers of Greek, it still involves a new orthography that must be learned separately. By contrast, both sub-cases of orthographic transliteration radically diverge from conventional transliteration standards. They are entirely dependent on the native script for decoding and are therefore unreadable without prior knowledge of Greek orthography or keyboard layout: compare and contrast phonetic *zoi*, keyboard-based *zvh*, and visual *zwh* or *zwn*, for the word  $\zeta \omega \eta / zo'i/$  'life'. Keyboard-based transliteration is the most convenient from a user's perspective, but occasionally results in word-forms that are neither phonetically accurate nor visually similar: thus  $\xi \alpha v \theta \delta \zeta$  ('blond') is

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<sup>&</sup>lt;sup>40</sup> I maintain a distinction between transcription as a scientific procedure for the written representation of spoken discourse and transliteration as the conversion of graphemes from one script to another: cf. Coulmas (2003) 31.

<sup>&</sup>lt;sup>41</sup> Other researchers favour a tripartite classification, e.g. sound-, glyph- and keyboard-based (Zavras n.d.) or positional, visual and phonetic transliteration (Dimoliatis 2000). I treat keyboard-based and visual transliteration as sub-cases of the orthographic scheme because they both aim at retaining the Greek orthography, and because the realization of a purely visual scheme seems quite rare in practice; a keyboard-based style with some additional visual equivalents is much more common.

rendered as <januov>. Visual transliteration offers a maximum of iconicity, though at the expense of convenient key correspondences. And while the keyboard-based scheme provides a fixed set of graphemic correspondences, the visual scheme promotes individual linguistic creativity and allows for a large number of variants, as engaged users seek ever better visual equivalents. For instance, in early 2006 I came across a hitherto unnoticed variant for upper-case  $pi <\Pi$ , formed from a double Latin <T>: thus <TTap8evwv> for  $\Pi \alpha \rho \theta \varepsilon v \omega v$  ('Parthenon'). If we arrange these schemes across a 'globalness/localness' continuum,<sup>42</sup> phonetic transliteration is clearly the 'globally oriented' solution, while visual transliteration has the most distinctive 'local feel'.

# From schemes to styles

In the absence of institutional acquisition and control of transliteration norms, the relationship between schemes and individual practice is not clear-cut, because transliteration schemes are orientation models that allow for internal variation. For example, under a phonetic orientation, individual variation may occur through the use of certain homophone digraphs which encode grammatical distinctions.<sup>43</sup> Visually oriented users, again, differ in terms of how radically they restructure the traditional script correspondences: the spellings <Par8enwn>, <Par8evwv> and <TTap8evwv>, for instance, are all based on the same visual logic. Other users operate on a keyboard-based scheme, thereby adding variation between a few visual equivalents. Even so, transliteration schemes remain determinative for individual practice. The evidence for this is both 'etic' (available through a linguistic reconstruction of users' preferences) and 'emic' (available through the users' own awareness).

Emic evidence is provided by questionnaire comments such as Examples 7–10. The authors of Examples 7 and 8 point out that they are trying to imitate the historic orthography of Greek or to follow an 'orthographic' and not an 'auditory' representation. By contrast, the authors of Examples 9 and 10 declare they are following 'the sound' and not 'the look'. Example 10 reveals an awareness of Greek-to-Latin grapheme correspondences in the phonetic scheme, and points to the fact that transliteration schemes are acquired informally:<sup>44</sup>

<sup>&</sup>lt;sup>42</sup> Cf. Koutsogiannis and Mitsikopoulou (2003).

<sup>&</sup>lt;sup>43</sup> For instance, <oi> as plural masculine determiner or noun marker, or <ei> as third-person, present-indicative marker.

<sup>&</sup>lt;sup>44</sup> Example 9 indicates another source of transliteration variance not discussed in this paper: a user's second language. For example, > for the Greek voiced dental fricative  $<\delta>$  (delta) is used only by speakers whose second language is English.

# Example 7

Akolou8w to "susthma" pou blepete th stigmh auth, prospa8wntas na mimh8w oso ginetai kalutera thn ellhnikh istorikh or8ografia!

I follow the "system" you are looking at right now, trying to imitate historic Hellenic orthography as well as possible!

# Example 8

prospa8o na akoloy8o thn kata to dynato pisth or8ografikh kai oxi akoystikh apodosh.

I try and follow the orthographic and not the auditory rendering as faithfully as possible.

#### Example 9

Vasika grafo simfona me to pos akougonte ta ellinika stin aggliki. Den kitao toso to na miazoun i lexis stis 2 glosses optikos.

Basically I write according to how Greek sounds in English. I am not so much concerned about the words being visually similar in the two languages.

#### Example 10

Xmmm nai, xrhsimopoio kapoio sistima alla epeidi to ematha ... grafontas, mou einai diskolo na to perigrapso me rules. Pantos:

- to psi einai 'ps' kai to theta 'th' (k.o.k.)

- akolouthoume tous ixous (fthoggous?)

- DEN akolouthoume to "pos fainetai" opos aftoi pou grafoun to theta me '8' kai to omega me 'w'

- h orthgrafia aplopoieitai .. ligo (isa isa gia na diabazetai pio efkola to keimeno .. px ta omega sinithos ginontai omikron) (EX11)

Hm, yes, I do use a system, but because I learnt it . . . by writing, it is difficult for me to describe it with rules. At any rate:

- Psi is 'ps' and theta is 'th' (etc.)

- We follow the sounds (phthongs?)

- Orthography is simplified . . . a bit (just to make the text easier to read . . . e.g. omega is usually turned into omicron)

Further evidence for the practical relevance of transliteration schemes is provided by frequency analyses based on the questionnaire's transliteration task. In a completely random situation, every single spelling alternative for a given Greek grapheme would have the same chance of appearing. Table 2 suggests that this is not the case. The numerous Latin variants are not equally important in actual usage: *eta* and *omega* have two main variants each, which make up more than eighty-five per cent of the respective total, while other variants such as visual <n> for *eta* and

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keyboard-based <v> for omega are quite rare, as is inconsistent transliteration of a grapheme by the same user (see the variants separated by a slash in Table 2). *Theta* has one main variant, , followed by the numeral <8> and then other numerals with smaller frequency. *Upsilon* has three main competing variants and a number of less frequent alternatives.

# Table 2

Latin variants for four Greek graphemes (based on transliteration task)

Н	%	Ω	%	Θ	%	Y	%
i	45.7	0	48.6	th	62.9	Y	35.7
h	41.4	w	47.1	8	22.9	Ι	24.3
n	4.3	v	1.4	0	5.7	U	22.9
i/h	8.6	o/w	1.4	Q,q	2.9	i/y	10
		o/v	1.4	other*	5.6	u/y	5.7
						i/u/y	1.4

[\* Four variants with a frequency of 1.4 % each, partly distinguishing between upper and lower case: <9>, <U, u>, <th, u>, <O, 0>.]

Moreover, spellings from the same scheme systematically occur together in practice. Table 3 displays the frequency of such co-occurrence between the Latin variants of a Greek grapheme. The cross-tabulation of variants for *omega* and *eta* suggests that most users who prefer a phonetic transliteration of *eta* also do so for *omega*, and *vice versa*. More than eighty-four per cent of <i> occurs together with <o>; a similar frequency holds good for <h> and <w>; but combinations of <h> and <o> occur much less often. In practice, then, people write *Agapo tin Eleni* (phonetic) or *Agapw thn Elenh* (orthographic) but hardly *Agapw tin Eleni*. The cross-tabulation of *omega* and *theta* yields a similar picture. Most people who choose for *theta* also use <o> for *omega*, and all other numerals for *theta* are combined only with <w> in the data.

# Table 3

Ω	н				$\Omega^*$	Θ						
			Н					Θ				
			i	h				th	8	0	q	9
Ω	•	Ν	27	2	Ω	•	N	31	2			
32	0	%	84.4	6.9	32	0	%	70.5	12.5			
		N	5	24			Ν	12	13	4	2	1
	w	%	15.6	82.8		w	%	27.3	81.3	100	100	100

Combinatory occurrence of variants (based on transliteration task)\*  $\Omega * \Theta$ 

[\*Excluding values for  $<\!\omega\!>$  :  $<\!v\!>$  and  $<\!\eta\!>$  :  $<\!n\!>$  as well as for intra-personal variation.]

The transliteration of Greek graphemes such as  $\langle \omega \rangle$  omega,  $\langle \eta \rangle$  eta and  $\langle \xi \rangle$ xi emerges from this analysis as a key diagnostic feature for a user's preferred transliteration scheme: a preference for  $\langle h \rangle$  for will probably coincide with  $\langle w \rangle$ , and  $\langle 3 \rangle$  for xi will probably occur together with other visual variants. But graphemes such as  $\langle \chi \rangle$  and  $\langle o \psi \rangle$  are less useful 'predictors', because their most frequent Latin variants occur in both predominantly phonetic and predominantly visual transliteration styles.

# From styles to local norms

The discussion so far suggests that individual transliteration styles display schemebased consistency without categorically excluding scheme mixing and idiosyncrasy. However, this tells us little about inter-user similarities; individual regularity does not by itself amount to societal homogeneity. In fact, one could argue that such homogeneity is by definition impossible in the absence of institutionally transmitted and controlled orthographic norms. However, such a view cannot explain, for example, the spread and popularity of visual transliteration, which must be seen as part of an implicit norm when used in institutional e-mails (as in Example 2).

The emergence of vernacular transliteration norms is illuminated by the sociolinguistic notion of focusing, originally developed by Le Page and specifically applied to orthography by Sebba.<sup>45</sup> Focusing refers to the process by which a community of speakers 'orient towards a linguistic norm'. Focusing is the effect of individual 'acts of identity': speakers adopt a certain way of using language to the extent that they identify with a group, a leader, or a point of view. The social prerequisites for focusing include regular interaction with the members of the target group and support from educational institutions and the mass media. Its linguistic outcome is a reduction of variability: the range of linguistic variation that is used and tolerated by the speakers is reduced. Importantly, focusing does not imply standardization; in other words, the norm acknowledged by a community is not necessarily a standard language variety nor, in our case, a standard orthography. Focused non-standard norms are quite possible in theory and in practice.<sup>46</sup>

Applying the notion of focusing to 'Greeklish' suggests that transliteration norms will emerge not at the level of the Greek internet-user population as a whole, but in particular social networks. My findings suggest that such 'local' transliteration focusing may develop in both socio-professional groups and 'online communities' – meaning by that phrase networks of computer-mediated communication that are formed around a common interest or cause.

A small sample of personal e-mails was used to examine the transliteration styles of members of two distinct professional groups, linguists and media professionals.<sup>47</sup>

<sup>&</sup>lt;sup>45</sup> Cf. Le Page and Tabouret-Keller (1985); Sebba (2003), (forthcoming). The sources of Examples 7–10 are, respectively, 02.HE, 09.EX, 04.AU, 11.EX, in Androutsopoulos (2001); for the abbreviations, see Table 5 (p. 000 below).

<sup>&</sup>lt;sup>46</sup> Cf. Sebba (2003).

<sup>&</sup>lt;sup>47</sup> See Androutsopoulos (1998).

The data consists of e-mails by three female linguists and three male media professionals. Despite the obvious limitations of this sample in terms of size and intervening social variables, the findings (shown in Table 4) are instructive with respect to the relationship between transliteration schemes and individual practice:

# Table 4

	f	female lingu	lists	male media professionals				
	А	В	С	А	В	С		
ω	0	0	о	w	0	w, o		
η	i	i	i	h, i	h, i	i		
ει	i	ei	i	ei	i	ei		
υ	i	i	i	У	y, i	у		
γ	gh / y	g	gh	g	g	g		
x	kh / h	ch	ch / x	х	Х	х		

Transliteration styles in two groups

Although no two users spell identically, both groups display an orientation towards a particular scheme *and* a similarity to users from the same group. The linguists clearly follow a phonetic scheme. In vowels, they all (with one exception) simplify Greek graphemes for the /i/ sound to <i> and use <o> for *omega*. In consonants, two out of three choose different Latin equivalents for Greek < $\gamma$ > and < $\chi$ > in order to represent allophones (separated by slash in Table 4).<sup>48</sup> Media professionals follow an orthographic scheme, although there is more inconsistency in their spelling. They all choose the same variants for *chi* <x> and *gamma* <g>, and two out of the three use visual equivalents for vowels.

The next set of findings belongs to the transliteration task. Table 5 charts the individual choices of fifty-seven users for five graphemes. The columns on the left show phonetically oriented transliterations, those on the right visually oriented transliterations. The label at the beginning of each row identifies the relevant user group. On the left, there is a quite consistent occurrence of variants for *omega*, *eta* and *theta*, with some variation for *xi* and *chi*. The right side displays an equally consistent occurrence of variants for *omega*, *eta* and *chi*, with some variation for the other two graphemes. More than half of these users prefer a numeral for *theta* and somewhat less than half for *xi* as well. Three users towards the bottom of the right side (04.HE, 69.RE and 66.RE) use the 'radical' visual variant <n> for  $<\eta>$  *eta*.

The bottom rows on both sides, separated from the main block by a blank row, might be classified as 'exceptions', in the shape of combinations of phonetic and orthographic variants. At the bottom left, three users add a <w> to their otherwise

<sup>&</sup>lt;sup>48</sup> For example, linguist A transliterates  $\langle \gamma \rangle$  as  $\langle y \rangle$  for the glide (e.g. in Yanni) and as  $\langle gh \rangle$  for the voiced velar fricative (e.g. aghia, ligha). For  $\langle \chi \rangle$ , linguist C uses  $\langle ch \rangle$  for its allophonic realization as a voiceless palatal fricative [c] (e.g. echo, mechri), and  $\langle x \rangle$  for the voiceless velar fricative [x] before front vowel (e.g. xereto).

phonetic style, and one user combines  $\langle o \rangle$  and  $\langle i \rangle$  with visual variants. At the bottom right are placed two visual transliterators who select an  $\langle i \rangle$  for *eta*, and one keyboard-style transliterator. However, these cases are few, compared to the users who follow a scheme more consistently.

# Table 5

	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$									v	
User	Ω	H i	Θ th		<u>X</u>			H h	<u></u>		X
61.RE	0		th	х	ch	51.			th	х	X
06.HE	0	i	th	х	h	31.		h	th	X	ch
49.KC	0	i	th	х	h	20.0	1	h	th	ks	х
50.KC	0	i	th	х	h	26.0		h	th	ks	х
56.AU	0	i	th	х	h	34.		h	th	ks	х
59.AU	0	i	th	х	h	55.1		h	th	ks	х
75.RE	0	i	th	х	h	70.		h	th	ks	х
76.RE	0	i	th	х	h	18.0		h	th	kc	х
46.KC	0	i	th	ks	h	13.1		h	8	ks	х
47.KC	0	i	th	ks	h	21.0		h	8	ks	х
53.KC	0	i	th	ks	h	43.	1	h	8	ks	х
57.AU	0	i	th	ks	h	45.		h	8	ks	х
15.GW	0	i	th	ks	х	52.1	KC w	h	8	ks	х
22.GW	0	i	th	ks	х	07.1	HE w	h	q	ks	х
25.GW	0	i	th	ks	х	12.1		h	q	ks	x
35.EX	0	i	th	ks	х	02.1	HE w	h	8	3	x
48.KC	0	i	th	ks	х	03.1		h	8	3	x
63.RE	0	i	th	ks	х	05.1	HE w	h	8	3	x
64.RE	0	i	th	ks	х	40.1	KC w	h	8	3	х
65.RE	0	i	th	ks	х	62.	RE w	h	8	3	x
68.RE	0	i	th	ks	х	09.1	HE w	h	0	3	x
24.GW	0	i/h	th	ks	х	14.]	HE w	h	0	3	x
38.EX	0	i/h	th	ks	х	10.1	HE w	h	9	3	x
72.RE	0	i/h	th	ks	х	04.1	HE w	n	0	3	x
						69.1	RE w	n	0	3	x
41.KC	w	i	th	ks	х	66.	RE w	n	8	3	x
42.KC	w	i	th	ks	х						
58.AU	w	i	th	ks	х	74.]	RE w	i	8	3	x
						01.1	HE w	i	8	х	x
28.EX	0	i/h	8	3	х						
						37.1	EX v	h	u	j	x

Transliteration styles of 57 users (based on transliteration task)

[Key to user groups: AU = Staff members of English Department of AUTH; EX = EEXI (Greek Internet Users Association) mailing list; GW= GreekWeb mailing list; HE = Hellas mailing list; KC = Greek students at King's College London mailing list; RE = other responses.]

On this basis, we may now consider whether members of the same user group transliterate in a similar way. In fact, this is *not* the case for members of GreekWeb. EEXI and the King's College mailing list. However, three out of four English Department staff members are situated on the left side, and most members of the Hellas mailing list display impressively similar transliteration styles: eleven out of twelve Hellas members charted here have a clear visual orientation (the exception is located at the bottom right). Overall, seventy per cent of Hellas members transliterate theta with a numeral, the mean value of this choice in the sample being just thirty per cent; ninety-two per cent transliterate omega with <w> (sample mean value: forty-seven per cent), and seventy-five per cent select <h> for eta (sample mean value: forty-one per cent). Seven Hellas members use a characteristic grapheme combination, which turns out to be a sort of 'trademark' for this group: <w> for omega, <h> for eta, a numeral <8, 9, 0> for theta, <3> for xi, and  $\langle x \rangle$  for chi. Questionnaire comments suggest that participants are quite aware of this consistency. It is only Hellas members who, when asked whether they follow a particular 'transliteration system', pointed to group norms, as in Examples 11 and 12 (from 03.HE and 14.HE, respectively):

# Example 11

# PROSPA8W NA XRHSIPOIW TOYS XARAKTHRES POY XRHSIMOPOIOYN H PLEIOPSHFIA TWN AN8RWPWN POY GRAFOYN S' AYTH TH LISTA

I try to use the characters used by the majority of people who contribute to this list

### Example 12

ena mallon koino systhma opws exei diamorfw0ei sthn Hellas, me kana-dyo prwsopikes diafores

a rather common system as shaped at Hellas, with a couple of personal peculiarities

These findings lend support to the hypothesis that transliteration norms of limited range may emerge from individuals who regularly interact within a professional or a 'virtual' community, who wish to identify with that community, and who adjust their spelling to the community's prevailing style. Among professional groups that regularly use e-mail, adopting a particular transliteration style may become part of the group's professional habitus or, notably in the linguists' case, may reflect such a habitus. The case of Hellas suggests that focusing may occur even in the absence of off-line interaction. The identification of users with this long-standing on-line community leads to a convergence of their spelling styles, which is analytically evident by their clustering. The fact that individual transliteration styles are not completely identical is no contradiction. As normative sanctions are suspended, users create idiosyncratic variants without giving up their common orientation.

# Attitudes, aesthetics and activism

The awareness of focusing by the members of an online community is just one aspect of internet users' practice-based knowledge about Latin-alphabet Greek. This knowledge, which may also extend to different transliteration schemes as well as to the historical predecessors of 'Greeklish', is evident in the metalinguistic discourse that unfolds in private and public settings of computer-mediated interaction. This discourse presumably existed long before 'Greeklish' became a media issue in the late 1990s and, not surprisingly, differs from the mass media agenda on the subject in important respects.

Fragments of this practice-based knowledge and discourse were elicited in individual correspondence with experienced internet users as well as through the questionnaire, which included seven attitudinal statements on 'Greeklish' with a binary 'yes/no' response option. The findings suggest a predominantly pragmatic stance on the part of the users, and contradict the assumptions behind the 'moral panic' of that time.<sup>49</sup> In particular, eighty-two per cent of users agree with the statement that 'Greeklish' is 'just an instrument'; sixty-seven per cent consider it a 'necessary evil'; fifty-three per cent agree it is 'ugly, not elegant'; but only twentyfour per cent view 'Greeklish' as a 'problem' or 'threat' to the Greek language. However, twenty-eight per cent of respondents believe 'Greeklish' is 'difficult to read', and forty-six per cent consider it 'difficult to write'. Both the reported reading and writing difficulties and the perception of 'Greeklish' as a 'problem or threat' rise with age, the latter ranging from only fourteen per cent, among those less than twenty-four years old, to thirty per cent for those aged between thirtyfive and forty-four, and fifty per cent for the forty-five to fifty-four age group.. Responses also vary by gender, with forty per cent of female users responding that 'Greeklish' is 'ugly', as opposed to sixty per cent of male users, and seventeen per cent of female users endorsing the 'threat' statement, as opposed to twenty-eight per cent of male respondents.

Questionnaire data and subsequent correspondence with selected respondents suggest that the preference for a particular transliteration scheme affects users' aesthetic evaluations as well as their occasional linguistic activism. Thus some visual transliterators called phonetic Greeklish 'anglicized' (*angloprepi*) or 'misspelt' (*anorthografa*) – a critique that reveals how lay notions of orthography go beyond script choice. Some phonetic transliterators accused the visual transliterators of a 'vain attempt' to replicate Greek orthography, while one of them called visual Greeklish 'monstrous' (*teratomorfa*).

Lay orthographic activism by phonetic transliterators tends to follow an 'autonomous' approach to Latinized spelling, while that of visual transliterators favours an 'ideological' approach. For instance, some visual transliterators clearly attached an aesthetic value to attempts to maximize the visual similarity of 'Greeklish' to its Greek model. One user provided me with an example of what

<sup>&</sup>lt;sup>49</sup> This is discussed in detail in Androutsopoulos (2000).

he judged to be a 'beautiful' (*omorfi*) transliteration (Example 13). Another user provided a complete transliteration scheme created by a friend of his (Example 14), which he called *To pio prosegmevo kai omorfo optiko protupo pou exw dei* ('the most careful and beautiful visual standard I have ever seen'). Both examples include a number of rare visual variants, including <n> for lower case  $pi < \pi$ >, the numeral <5> for capital  $pi < \Pi$ >, Latin for *rho* <q> and <v> for lower case *nu*. The inherent dilemma of such visual schemes is overtly expressed in the commentary: as their potential users would have to learn a number of unusual grapheme matches, the cost of their 'beauty' is a loss of processing ease.

# Example 13

As npoc8ecw ki' egw oti ta teleutaia duo xpovia nou ekava Xpictougevva cthv Qeccalovikh ta mova naidia nou hp8av va mas nouv ta kallavta htav npocfugonoula, kopitcia cuvh8ws, ano thv Gewpgia; h mhtepa mou, gevvhmevh h idia kovta cta Bopeioavatolika napalia ths Mauphs Qalaccas, ecneuce va "enalh8eucei" thv katagwgh tous ... kai egw thv dikia ths :-)

Let me add that, the last two years, I spent Christmas in Thessaloniki; the only kids who came to sing me the Christmas songs were refugees, mostly girls, from Georgia; my mother, who was born near the North-Eastern coast of the Black sea, was quick to "verify" their origin . . . and I verified hers :-)

### Example 14

ABGDEZH0IKLMN3O5PSTYFX4Wabgdezh8iklmvjonpctufxyws

Prosnlwsn stnv optikn omoiotnta, ola ta kefalaia diaforetika apo ta mikra, diakrisn sigma ("c") kai sigma telikou ("s")!

Duskolo omws va to ma8ei kai va to suvn8isei kaveis, gi' auto, av kai to ektimw, exw suvn8isei se eva pio "sumbatiko" optiko sustnma.

Focus on visual similarity; all capitals are different from small letters, distinction between sigma ('c') and final sigma ('s')! It is, however, difficult to learn and get used to; therefore, although I appreciate it, I have got used to a more 'conventional' visual system.

By contrast, phonetic transliterators who actively engaged in the 'Greeklish' discourse at the time of my survey resisted the 'chaos' and 'confusion' of visual transliteration and proposed ways to improve the efficiency of LAG as a communication system. A case in point is *Spyros M*. who circulated his views though mailing lists and personal e-mails. To the *teratomorfa greeklish* he opposed his own *logiki kai sugkrotimeni proseggisi pou sevetai tis rizes tis glossas mas* ('logical and organized approach that respects the roots of our language'), in the form of a transliteration scheme he called 'Inter-Greek', which was basically a slightly modified version of the ISO/ELOT standard. A second case of 'autonomous' orthographic activism is an academic (though not a linguist) who used a university Computer Centre newsletter to propagate his views.<sup>50</sup> He criticized the 'deformation' of Greek by visual transliteration, which he considered to be a practice 'without principles', riddled with the 'inherited tyranny of the image of the letter'. To this he opposed a phonemically based transliteration scheme. While neither of these proposals has had any wider impact, the fact remains that attitudes towards 'Greeklish' at the turn of the century were structured along a distinction that passed completely unnoticed in the 'moral panic' of that time.

# 'Greeklish' revisited: digraphic literacy and discourse on contemporary web discussion boards

In the public debate that followed the Academy of Athens statement in 2001, the then Minister of Education, P. Efthymiou, was quoted as saying that 'Greeklish' was now a thing of the past, because Greek internet users were able to use the characters of the Greek language.<sup>51</sup> The Minister's statement reflects an 'autonomous' view of orthography, one based on the tacit assumption that the mere existence of a technological solution must by itself lead to the disappearance of script variation. Yet more than five years later, literacy practices in Greek cyberspace do not quite confirm that prediction. A cursory examination of about fifteen Greek web discussion forums in the spring of 2006 lends up-to-date support for the persistence of computer-mediated digraphia.

In a nutshell, LAG is present on discussion forums with constituencies as diverse as military personnel, online gamers, e-chat culture, guitar players, hip-hoppers and the leftist scene.<sup>52</sup> Its typical pattern of occurrence is in mixed-script discussion threads, in which some entries come in Greek script and others in Latin. Latin-alphabet posts generally seem less frequent than Greek-alphabet, though this varies by forum. Many users do not use LAG at all, some use it consistently, and others alternate between scripts across posts. Script-switching within a post is quite rare. Notable examples include quotations of media content in the Greek script, the user's commentary being in 'Greeklish', and metalinguistic discussions of script choice. Moreover, the script choice of the initial post of a thread does not seem to determine the script choice of subsequent posts, nor is script choice used as a contextualization device in the manner of code-switching (for instance, script-switching as a resource for underscoring disagreement to previous posts); an exception to this is once again debates on script choice.

Whether these usage patterns are different today from those at the turn of the century is impossible to determine without detailed diachronic comparisons that go beyond the scope of this chapter and are, in any case, difficult to carry out, given

<sup>&</sup>lt;sup>50</sup> Dimoliatis (2000).

<sup>&</sup>lt;sup>51</sup> See Maronitis (2001).

<sup>&</sup>lt;sup>52</sup> Instances of 'Greeklish' were attested on 14 April 2006 on the following discussion boards, randomly selected from the in.gr directory and/or the Greek Google: e-steki.com; remalia.com; forums. gr; greekarmy.net; apn.gr; kithara.gr; irczone.gr; hiphop.gr; athens.indymedia.org. No 'Greeklish' was found on gameplanet.gr or on e-magazino.gr.

that most contemporary Greek web discussion forums did not even exist at the turn of the century, and a large proportion of their members, now in their late teens and early twenties, were not yet online. What does seem to have changed, however, is overt evaluations of and policies directed against LAG. Wikipedia suggests that in 2004 'a hostile movement against Greeklish' was formed on some Greek discussion boards, and a web search for the phrase  $\delta \chi \iota$  *Greeklish* ( $\pi \alpha \rho \alpha \kappa \alpha \lambda \omega$ ) 'no Greeklish (please)' indicates that the 'movement' has spread to other forums since then.<sup>53</sup> To be sure, the Greek web landscape is in a state of flux in terms of script policy and choice. While an explicit ban on 'Greeklish' accompanies its thorough absence on some boards, its declared prohibition does not restrict its use on others; on still other boards, LAG produces no overt commentary. But my overall impression is that LAG is increasingly stigmatized among internet users themselves, an impression supported by the observation that using LAG 'for business purposes of business communication is considered as a lack of ability or respect, by some'.<sup>54</sup>

To illustrate these points, a lengthy thread from a musicians' discussion board will be examined in more detail.<sup>55</sup> Entitled  $E\lambda\lambda\eta\nu\iota\kappa\dot{\alpha}$   $\kappa\alpha\iota$   $\delta\chi\iota$  greeklish! ('Greek not greeklish!'), it extends over more than two years (January 2004 to May 2006) and comprises more than forty printed pages. These figures are telling with respect to the relevance of the topic, which is also underscored by the fact that the discussion thread is linked on the forum's front page. Contributions to this thread offer ample evidence that 'Greeklish' never ceased being in use, or being an issue;<sup>56</sup> they illustrate a wide range of arguments against and for 'Greeklish'; they reveal that its symbolic value as 'code of the internet' is still endorsed by some users who resist attempts to ban Latin-alphabet posts.

Here, I shall limit the discussion to views for and against 'Greeklish', and use the distinction between 'autonomous' and 'ideological' approaches to orthography to sub-classify these views. Some arguments on both sides are instrumental (processingor technology-related), others are aesthetically driven or identity-related. The most common instrumental objection to 'Greeklish' is readability: people complain it is hard to read, while some even claim they do not read Latin-alphabet posts at all. Others point out that Latinization impedes keyword search and that there is no necessity for 'Greeklish' whatsoever, since the board is completely localized. The technology-related counter-argument *for* 'Greeklish' – technical necessity – comes only from users who log in from abroad, and is overtly respected as such.

<sup>&</sup>lt;sup>53</sup> See Wikipedia (2006). A Google search for the phrase OXI Greeklish παρακαλώ yielded 111 entries from eight different boards, including awmn.net and adsl.gr, both mentioned in the Wikipedia article, as well as e-pcmag.gr and gameplanet.gr. A search for OXI Greeklish yielded a larger number of entries, including the discussion thread that is examined in this section.

<sup>&</sup>lt;sup>54</sup> Wikipedia (2006).

<sup>&</sup>lt;sup>55</sup> http://forum.kithara.gr

<sup>&</sup>lt;sup>56</sup> For instance, some participants frame their contribution with comments such as: Το κλασσικο πορβλημα ολων των Forum ('The classic problem on all forums'), Παλιο το θεμα αλλα παντα επικαιο. Και παντως για την ωρα αλυτο ('Old topic but always timely, and still unsolved'), or Σε ολα τα forum, το ιδιο ζητημα ('Same old issue on all forums').

A more commonly shared view, which is less an explicit argument for 'Greeklish' than a guess on the part of its opponents, is that 'Greeklish' is easier to type. This view, which is yet another parallel to 'ASCII-ized' Arabic, challenges my survey findings from the turn of the century, but confirms Tseliga's finding that 'Greeklish is considered more convenient, faster, easier and less demanding than Greek'.<sup>57</sup> The counter-argument to this, repeatedly put forward by users who claim to have used 'Greeklish' in the past, is that Greek orthography skills can be improved by continuous practice.

At the 'ideological' end of the debate, arguments *against* 'Greeklish' resonate with public discourse at the turn of the century. Some foreground aesthetic concerns, for instance by considering LAG  $\mu i\alpha \mu o\rho \phi \dot{\eta} \kappa \alpha \kappa o \pi o (\eta \sigma \eta \zeta \tau \eta \zeta \gamma \lambda \dot{\omega} \sigma \sigma \alpha \zeta$  ('a form of mistreatment of the language'). Others endorse an essential, timeless relationship between language and script:  $\eta \epsilon \lambda \lambda \eta \nu i \kappa \dot{\eta} \gamma \lambda \dot{\omega} \sigma \sigma \alpha \phi \tau i \dot{\alpha} \chi \tau \eta \kappa \epsilon \mu \epsilon \epsilon \lambda \lambda \eta \nu i \kappa \dot{\alpha} \lambda \phi \dot{\alpha} \beta \eta \tau \sigma \kappa \alpha i \alpha \nu \tau \dot{\sigma} \pi \rho \epsilon \pi \epsilon i \nu \alpha \chi \rho \eta \sigma i \mu \sigma \pi o i \nu \epsilon$  ('the Greek language came into being with the Greek alphabet, and this is the one we should be using'). Still others appeal to national pride:  $\Lambda i \gamma \eta \nu \pi \epsilon \rho \eta \phi \dot{\alpha} \nu \epsilon i \alpha \tau \eta \nu \gamma \lambda \dot{\omega} \sigma \sigma \alpha \mu \alpha \zeta !!!!!!!!!!!!!!!$ ('Some pride in our language!!!!!!!!!!!!)). Even though these statements are notunanimously shared, it seems that the 'nationalization' of script choice in publicdiscourse has had an impact on the language ideology of younger, more recentCMC users.

Ideological arguments *for* 'Greeklish', clearly in the minority in this thread, emphasize its medium-related symbolic value. In Example 15, the writer points out that his preference for 'Greeklish' is not instrumentally motivated (by speed of typing), but originates in his long internet experience. In a subsequent post, the same writer claims that using 'Greeklish' is *enas tropos ekdhlwshs ths diaforetikothtas ths proswpikothtas tou ka8enos* ('a way of expressing individuality'), a claim that is strongly rejected by others. In Example 16, the board's administrator uses scriptswitching to challenge this view:

# Example 15

den to kanw apo antidrash, apo synh8eia, h taxythta ... alla epeidh mou fainetai pio computer-related. osoi asxolountai arketa xronia me tous H/Y 8a katalaboun ti ennow ... gia na synopsisw, gia mena internet => Greeklish

I am not doing it as a reaction, because I am used to it or for its speed (...) but because it seems more computer-related. Those who have been using computers for several years will understand what I mean . . . To summarize, to me internet => Greeklish

<sup>&</sup>lt;sup>57</sup> Palfreyman and al Khalil (2003) 23; Tseliga (forthcoming) 17.

### Example 16

Το οτι τα greeklish δεν είναι πια λύση ανάγκης αλλά έχουν γίνει τρόπος έκφρασης, δεν το φανταζόμουν...

|30r0 ℰ g0 |\|@ E|<FR@\$T0 0P0\$ 8E|\_0?

I would never have envisaged greeklish not as a solution of exigency but as a mode of expression ...

May I too express myself as I please?

At the end of Example 16, the administrator strategically selects, not a usual LAG transliteration scheme, but a 'distorted', hardly legible spelling that is conventionally associated with the cracker and hacker subculture to reinforce the main instrumental argument against Latinization, that it impedes readability and therefore effective communication. Later on, the administrator again draws on script-switching to challenge the argument about ease of processing, while at the same time devaluing phonetic transliteration. His point is that Greeklish is not faster because 'you are hitting the same number of keys', unless one is simplifying diphthongs, which he illustrates like this: *ine kapii pu grafun griklis kapos etsi, ke den mu aresi ka8olu!* ('some are writing greeklish like this, and I don't like it at all!'). Yet another user, a native speaker of English, to demonstrate that using a different script for convenience goes against readability and, ultimately, against the purpose of the board.

Besides providing a forum for the exchange of views on Latin-alphabet Greek, this thread is also a stage for the administrator's script policy. Despite the fact that several participants support a tolerant position, a software script is included in the board software in order to filter out posts in 'Greeklish'. This measure has not met with general acceptance. 'Greeklish' advocates have demonstrated how to 'trick out' the script, others have complained about poor usability and abuse of administrative power, and a few active members have resigned from the board in protest.

# Conclusions

This chapter is a response to the lack of English-language publications on Latinalphabet Greek<sup>58</sup> as much as to a wider lack of research on informal Latinization on the internet. As such, its objective is twofold: to offer a comprehensive account of an important issue in the sociolinguistics of written Greek today, and to use the Greek case as a test-bed for the sociolinguistic theorizing of script choice and informal Latinized spelling in an era of computer-mediated communication. I have suggested that the notion of digraphia responds to the persistence and wide societal awareness of 'Greeklish', and that it allows us to theorize its shifting range and evaluations. I conclude by summarizing the characteristics of Greek computermediated digraphia and by sketching out some possible future developments.

<sup>&</sup>lt;sup>58</sup> But see Tseliga (forthcoming); Marinis, Papangeli and Tseliga (2005).

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The computer-mediated digraphia of Greek emerged as a response to a technology-induced necessity, to enable native language use on the internet. It is an instance of unstable, synchronic digraphic literacy, with its historical predecessors more important when discursively evoked than as guidelines for transliteration practice. Its functional distribution is restricted to one particular domain of written language use, in which a few stable niches of Latin script exclusivity are opposed to a larger number of environments in which both scripts are in competing use.

At the level of script choice, the dimension of social variability that must be emphasized is that of *space*. Transnational communication in the Greek diaspora was and still is a stronghold of 'Greeklish', whereas its use in inner-Greek CMC declined in recent years, because technical necessity is hardly an issue any more. Practice, policies and discourses in public CMC environments such as discussion boards will be decisive for the future of computer-mediated digraphia within Greece. But the possibility cannot be excluded that Greece and the Greek diaspora will follow different paths in this respect, with LAG eventually persisting as a specifically diasporic script choice.

At the level of spelling, the lack of institutional acquisition of transliteration norms has given rise to a situation of high linguistic variability. In my analysis, vernacular responses to the transliteration problem have been modelled on the basis of the relationship between transliteration schemes, individual transliteration styles and local norms. Depending on the scheme, these responses are seen to range from similarity to conventional norms to innovative correspondences between native and Latin script, as with the use of numerals; here there is a remarkable interlinguistic similarity between the Greek case and that of Russian or Arabic.<sup>59</sup> Transliteration schemes respond to the cognitive need for consistency by reducing the available range of variability. As a further step, they form the bottom line for processes of inter-user convergence. The phonetic/visual dichotomy shapes both practice, in the form of the patterns of consistency people create to cope with Latinization, and ideology. The logic behind phonetic transliteration is 'global', 'instrumental' and standardization-friendly. By contrast, orthographic and (in particular) visual transliteration ignores official and traditional representations of Greek by Latin characters. It is loyal to the native script, but rejects any convention beyond that.

Digraphia *in statu nascendi* generates a range of different metalinguistic discourses, from discussions among internet users to nationwide media reports. These discourses include both 'autonomous' and 'ideological' understandings of orthography, and are shaped by positions of control and resistance. In user discourse at the turn of the century, phonetic transliterators resisted uncontrolled visual variation and the 'tyranny of the written word', while visual transliterators resisted the idea of a new, separate norm of Latinized Greek orthography and engaged in a linguistic creativity that was aesthetically driven, its main aim being to add iconicity to the Greek alphabet. The mainstream view of the issue has contrasted 'Greeklish' and 'Greek', using the former as a 'stimulus' for debate over 'the shaping

<sup>&</sup>lt;sup>59</sup> Cf. Palfreyman and al Khalil (2003).

of modern Greek identity'.<sup>60</sup> Public discourse at the turn of the century controlled LAG by homogenizing it. It ignored its richness and diversity, the emic relevance of the dichotomy between phonetic and visual transliteration, the creativity or even 'beauty' of individual spelling solutions, and the group affiliations that spelling choices might indicate. This discourse has sometimes 'technologized' LAG, ignoring or downplaying its instrumental advantages or symbolic values for some users, or else has constructed it as a threatening 'exterior' within the 'interior' of the Greek language.<sup>61</sup> The ideological impact of public discourse seems evident in contemporary user debates and practices, in which aesthetic and identity-related arguments are used to legitimize attempts to ban LAG from discussion boards, and are resisted by challenges to the normative, essentialist articulation of script, language and national identity.

A lesson of the 'Greeklish' case is that in an era of computer-mediated communication, practices and ideologies of script choice and Latinized spelling are shifting along with technological developments, and indeed cannot be understood without taking the evolution and social spread of technology into account. Although LAG has been in use since the infancy of the internet, its medium-related symbolic meaning is a product of the spread of new technologies and the increasing availability of the native script to a growing user population in the 1990s. The last years have witnessed a decrease in the environments and the overall frequency of the Latin in favour of the native script, a development supported by the linguistic localization of the Web and actively promoted by actors with computer-mediated authority such as board administrators. The fact that many contemporary internet novices evidently use the Greek script for most purposes, and that old users change their script choice, does not deter 'Greeklish' followers from continuing to endorse its medium-related symbolic value, and possibly profiting from its alleged ease of processing. Whether the story will eventually result in the demise of Greek computer-mediated digraphia or instead in the persistence of a few stable digraphic niches, with LAG enjoying a new 'resistance' value that it lacked in the past, cannot, of course, be predicted.

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<sup>&</sup>lt;sup>60</sup> Koutsogiannis and Mitsikopoulou (2003).

<sup>&</sup>lt;sup>61</sup> Moschonas (2004).

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# Weblinks

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- http://en.wikipedia.org/wiki/ (keywords: Romanization; ISO 8859-7; Transliteration of Greek)