

Study Abroad and the Internet: Physical and Virtual Context in an Era of Expanding Telecommunications

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Introduction

No-one who has read her case study can forget Deirdre, the American student in France (Kinging 2008) who, isolated in her Montpellier apartment, homesick, and missing her boyfriend, found ‘daily solace in computer-mediated interactions’ (2008: 97). The ‘ready access to constant communication with friends and family at home, via the Internet’ meant that ‘in a sense, Deirdre stayed “home” during her semester abroad’ (2008: 97). Her linguistic progress in French was modest at best. Like Coleman (2006), who reflected on the clash between physical and virtual worlds during study abroad and coined the phrase ‘isolating communication technologies’ for the acronym ICT, Kinginger notes the way in which frequent links with home, both electronically and through visits from family, can impinge upon the study abroad experience whose outcomes are premised on immersion. She recalls Twombly’s (1995) students blocking out local sounds with their Walkman, and the host mothers in Knight and Schmidt-Rinehart’s study (2002: 192–193) who noticed that students who were in daily electronic contact with friends or family in the U.S. never completely entered the local culture. Deirdre’s case illustrates how easy it is for today’s study abroad participant to take semi-permanent refuge in computer-mediated communication, thus sidestepping any need to connect with local reality. (2008: 66)

One of Coleman’s (2009) criticisms of study abroad research is the tendency of some literature reviews to assume or imply that the ‘study abroad context’ is a single, identifiable, independent variable. Of course, it is none of these. The context is as individual as the participants’ identities and home cultures. Specifically, the context is located in space and time, and one respect in which both space and time can be highly significant relates to the possibilities for travel and communication. Given that, in a globalising world, easy, frequent and cheap Internet and

phone links with home can prove an obstacle to immersion, acculturation, and target language interactions—as in the case of Deirdre—this is a feature of the study abroad context which might usefully have received greater attention.

When the first author spent a year in France, in 1968–69, communication with friends and family in the U.K. was by letter. With correspondence taking a few days in each direction, obtaining an answer to a question could easily take a week or more. Telephoning meant queuing for an hour at the city Post Office, handing the desired number to an official at an elevated counter, and being directed to the designated wooden *cabine* (see Carmagnat 2002: 246). It was expensive, inconvenient, and hence rare. Travel between Besançon and Cardiff, using the means available on a student budget, namely trains and cross-Channel ferry, took more than 24 hours. British books and newspapers were expensive and difficult to get hold of. British radio reception was very poor, and television unavailable. There were no computers, no Internet, no public telephones in the street, no mobile phones, no faxes. Forty years ago, ‘abroad’ meant little contact with home. Times have changed. Today a U.S. study abroad guidance website advises that Internet access is absolutely essential during study abroad, partly for access to local and world information, but ‘most importantly, it’s the best way to connect to your friends and family back home.’

The present questionnaire study reports on U.K. graduates who, across two decades, had undertaken a work placement in Senegal, West Africa, during the penultimate academic year of their four-year degree in French. Data on Internet and telephone communications with home, as well as on homesickness and visits to and from home, illustrate the possibility of locating the study abroad experience in the context of available telecommunications in home and host country. The findings are seen as a necessary preliminary to exploring whether more immediate and frequent contacts with home and virtual social networks may impact upon the degree of integration and acculturation achieved during study abroad.

The Development of Telecommunications

For several years, questions have been asked about the impact of new technologies on human society and communication (e.g. Geser 2004), and there exists a huge literature on their use in education, not least language and intercultural learning. However, new technologies have not figured prominently in research on the domain of study abroad.

The history of point-to-point communication and the movement from letters sent by post to fixed and mobile telephony, and then to email and to VoIP (Voice over Internet Protocol) services like Skype is extremely complex, even for a country

as well documented as the United States (see e.g. Odlyzko 2001, Agar 2003), and concerns social and cultural change as much as technological innovation (Townsend 2000, Carmagnat 2002, Lacochee et al. 2003). The adoption of new technologies says a lot about the home and host countries' culture—their relative wealth and stage of development, but also their attachment to the new or traditional modes of communication. From a study abroad viewpoint, hard data on rates of adoption of telecommunications and the Internet within home and host countries would ideally be complemented by commentaries on their actual use within micro-cultures, but it is the former information which is much more easily available.

The first commercial cellular telephone system was launched in Tokyo in 1979. By the end of 1984, there were 300,000 users worldwide, as compared to 1.2 billion in 2009. The U.K. has had mobile phone networks since 1985. The world's first commercial SMS (text) message was sent from Cambridge in 1992. By 2000, more than half of the U.K. population owned a mobile (or cellular) phone. Parents might give a mobile to children going off to university, 'to cushion the child from the potentially traumatic experience of living in a foreign environment by enabling them to remain tightly connected to loved ones at home' (Lacochee et al, 2003: 206).

Societal reliance on technologies requires a certain level of market penetration and coverage. Both Internet and telephone access in the countries of sub-Saharan Africa have been growing rapidly, but penetration is slower than in Europe, and the pattern of use very different. Even today, only one in 700 Africans has access to the Internet, as compared to one in four Europeans (Chakraborty, 2008). In 2001, there were at most 2.5 million computers across the whole of sub-Saharan Africa, which explains the growth of Internet cafés. A lifeline for Europeans, by 2003 20 hours of online access still cost more than the average monthly wage for Africans. Between 2000 and the end of 2008, Internet users in Africa rose from 3 million to 32 million. Yet even in 2009, fewer than five per cent of Africans use the Internet, and fixed and mobile broadband penetration levels are negligible (ITU 2009). Senegal added a million Internet users between 2000 and 2008, and, thanks in part to its coastal location, leads Africa in international connectivity. One in twelve inhabitants now has a home computer, and a similar proportion now use the Internet (ITU 2009). Although 97% of Internet subscribers have broadband, fixed broadband access is very low at 0.3%, and mobile broadband is unavailable. The main location for Internet access is therefore still the cyber-café (Stork & Schmidt, 2009).

In Africa, since telephone monopolies began to be privatised in the mid-1990s (2001 in Senegal), and especially in the past five years, mobile phones have expanded in Africa much faster than landlines. Barely 1% of the population has

landline access. Although two-thirds (91,000) of Senegal's 140,000 fixed lines are in Dakar (Mbarika & Mbarika, 2006), this represents only one per twenty-five inhabitants, and lines are not evenly distributed—to say nothing of unreliability or the regular power cuts. The percentage of *Sénégalais* with landline access is below 2% and falling.

In contrast, the number of mobile subscribers in sub-Saharan Africa (excluding South Africa) increased from zero in 1994 to 3 million in 2000 and more than 82 million in late 2004, with a rate of growth for the whole of Africa of more than 58% per year (Mbarika & Mbarika, 2006). The annual growth rate in Senegal was over 300% per year (Mbarika & Mbarika, 2006). Between 2000 and 2006, the total number of mobile subscribers in sub-Saharan Africa rose from 10 million to 110 million (Buys et al., 2008). In 2007 alone, Africa added over 60 million new mobile subscribers, with mobile phones representing 90% of all telephone subscribers. The phenomenal growth continues: at the start of 2009, Africa had 246 million mobile subscriptions, and subscribers outnumber Internet users by eight to one (ITU 2009). An October 2009 United Nations report (UNCTAD 2009) confirms that Africa holds the record for increasing take-up, with a rise of 550% over five years. 42% of Senegalese now have a mobile phone subscription typically costing them 12% of monthly income (ITU 2009).

The International Telecommunication Union provides statistics for subscribers and users of Internet, fixed line and mobile telephones for every country for each year since 1998 (ITU 2009). Thus, in the United Kingdom, in 1998, 6.4% of people had an Internet subscription, and 13.7% were Internet users. Comparable figures for Senegal are 0.03% and 0.08% respectively. Table 1 shows how, in each country, landlines plateaued—albeit at very different levels—and then fell back as mobile phones became more widespread. Mobile usage took off in the U.K. at the turn of the century, and in Senegal more recently. Given the infrastructure of a developing country, the hard wiring necessary for Internet access is progressing very slowly in Senegal, unlike the U.K., where it is approaching complete coverage (the figures are per 100 inhabitants, not per household).

Subjective or anecdotal data on actual usage can complement such official figures. For example, the first author first used Internet communication professionally in the early 1990s, and was using real-time video-conferencing by the late 1990s. But he bought his first mobile phone in 2000, and took out home Internet access only in 2001, upgrading to broadband in 2003. Students adopted mobile phones much earlier, and as an age group seem to rely on them in preference to landlines: in the present study, of the 45 respondents (former students and former assistants), only five, when asked to provide a telephone number for an interview, gave a U.K. landline

Table 1: Subscribers per 100 inhabitants (source: International Telecommunications Union)

	U.K. fixed line	Senegal fixed line	U.K. mobile	Senegal mobile	U.K. Internet	Senegal Internet	U.K. broadband	Senegal broadband
1998	56.10	1.49	25.42	0.29	6.41	0.03	-	-
1999	57.95	1.72	46.31	0.91	12.61	0.04	-	-
2000	59.80	2.08	73.76	2.53	14.30	0.06	0.09	-
2001	58.47	2.33	78.26	2.97	19.21	0.07	0.56	-
2002	58.49	2.15	82.89	5.30	20.69	0.09	2.28	0.01
2003	57.91	2.14	90.93	7.31	24.20	0.14	5.22	0.02
2004	57.67	2.23	99.55	10.20	25.85	0.18	10.21	0.07
2005	56.54	2.36	108.65	15.34	27.08	0.18	16.43	0.16
2006	55.88	2.44	115.17	26.75	27.99	0.26	21.48	0.25
2007	55.53	2.26	120.24	30.53	29.75	0.33	25.63	0.32
2008	54.24	1.95	123.41	44.13	31.65	0.39	28.21	0.39

Context of the Questionnaire Study

The Senegalese capital Dakar has hosted one- and two-semester student work and study placements organised by Portsmouth University for over twenty years. Senegal is a stable democracy, with Islam the principal religion, and Wolof the principal language (though French also has official status). Senegal is among the 29 African states in the Least Developed Countries list. The contrast with the U.K. is very evident—culture, climate, religion, poverty, transport, infrastructure, language and ethnicity all pose challenges. U.K. applicants, drawn from specialist language degrees in French Studies (sometimes with a double specialism, for example in French and Spanish) are selected for the programme, and supported by a local link-person, an academic from the University of Dakar. A fuller description of the programme is in Coleman and Chafer (under review).

Method

The study described here is based on a questionnaire, although funding is being sought for follow-up interviews which will, it is hoped, provide more significant data on several aspects of the study abroad experience, in particular whether the regular communication with home and other social networks which telephony, the Internet and easy air travel now afford had an impact on the degree of integration and acculturation into the host community. The questionnaire draws on existing knowledge and, where available, on existing instruments, and was piloted and revised before administration. Once ethical and data protection approval had been obtained, an email with a questionnaire attachment was sent in June 2009 to a total of 57 students who had spent time on work placement in Senegal. Reminders were sent to non-responders.

By January 2010, responses had been received from 42 students (73.7% response rate). Three former English language assistants who worked under the aegis of the British Council at the British-Senegalese Institute in Dakar, also completed the questionnaire, but are excluded from quantitative analyses since their period abroad took place *after* graduation. Data from closed questionnaire items was entered into a PASW Statistics (formerly SPSS) 17 spreadsheet for analysis. Eight open questions elicited nearly 27,000 words of commentary. In this report, all names are pseudonymous, and all responses cited verbatim, ignoring any issues of spelling, style or syntax.

Respondents

There is a useful, albeit incomplete, spread of graduation years (see Table 2). The period abroad will normally take place during the preceding academic year,

e.g. 2002–03 for a 2004 graduate. The three intending to graduate in 2010 had just returned from Senegal. One respondent noted that she ‘was not an undergraduate at the time’.

Table 2: Respondents' year of graduation

1988: 2	1989: 1	1994: 2	1997: 1	1998: 1	1999: 1	2000: 8	2001: 1
2002: 4	2003: 3	2004: 6	2006: 2	2007: 2	2008: 2	2009: 2	2010: 3

Internet Use

It is obvious that telecommunications with countries where study abroad is undertaken have become easier, cheaper and more frequent since the first study abroad research was undertaken. Nonetheless, hard evidence that increased availability has been matched by increased use by study abroad participants has not yet been documented. Since the issue of ongoing links with home is highly relevant to the experience and impact of study abroad, the questionnaire included items about telephone and Internet communications with home.

Self-Assessment of Internet and Telephone Use

Because of concerns about the health risks of holding a mobile handset to the ear for long periods, the accuracy of user estimates of mobile phone use has been investigated, and found to be reasonably precise (Parslow et al. 2003). The questionnaire items, each offering four tick-boxes, asked:

Internet use: I would typically contact the U.K. by Internet

- Monthly at most weekly several times a week daily

Telephone: I would typically contact the U.K. by telephone

- Monthly at most weekly several times a week daily

In line with expectations, both quantitative and qualitative data (see Tables 3 and 4) show increased access to and use of telecommunications. As Table 3 shows, and as relevant graduates noted, in the 1980s and early 1990s (five cases) there was no Internet, and phoning was very expensive. No students graduating prior to 1997 used the Internet at all. The 1997 and 1998 graduates emailed monthly at most. When Coleman visited Dakar in December 1998, there were a few Internet cafés, but even university staff had no institutional access. Nonetheless, a majority of students in Senegal in 1998 (graduation year 2000) were in touch with home

one or more times each week. Since then, Internet cafés have proliferated, and electronic contact with home has become even more straightforward.

Of the 25 spending time in Dakar in the 2000s, 24 (96%) used Internet communication at least once a week. The sole exception, Fred, who graduated in 2004, was phoning weekly so had less need for the Internet. Seventeen (68%) used the Internet daily or several times a week. Electronic contact with home on one or more occasions each week has become the norm, despite some individual variation. For most of the 2006/07 (graduation year 2008) and subsequent cohorts, there is daily or near-daily Internet contact.

Table 3: Frequency of Internet contact with home country

Graduation Year	No Internet	Monthly at most	Weekly	Several times a week	Daily
1988	2				
1989	1				
1994	2				
1997		1			
1998		1			
1999			1		
2000		1	3	4	
2001				1	
2002			3	1	
2003				3	
2004		1	1	3	1
2006			1	1	
2007			1	1	
2008			1		1
2009				1	1
2010				2	1

As far as the telephone is concerned, in the early 1990s phoning home was a rare luxury, even though three respondents in this category had left a partner at home. By about 2000, students would typically take a mobile with them, and today, in 2009, all young Senegalese from the social classes with which visitors are likely to come into contact also have a mobile phone, although it remains an expensive way to link up.

As Table 4 shows, while the five earliest graduates phoned once a month at most (the 1997 graduate left this item blank), 26 (74.3%) of the 35 more recent sojourners phoned the U.K. at least once a week. Phone calls on a more frequent than weekly basis happen only in the late 2000s. No respondent phoned home every day, but for the latest cohorts technologies have converged, and the

widespread use of Skype or other VoIP means that separate questions on Internet and telephone no longer make sense. Globally, Skype alone has over 400million registered users, who spoke online for 65 billion minutes in 2008 (44 billion in 2007); VoIP in Africa is growing at over 100% a year.

Table 4: Frequency of telephone contact with home country

Graduation Year	Monthly at most	Weekly	Several times a week
1988	2		
1989	1		
1994	2		
1998		1	
1999	1		
2000	1	7	
2001		1	
2002	2	2	
2003	2	1	
2004	1	5	
2006		2	
2007	1	1	
2008		1	1
2009	1	1	
2010		2	1

In recent years, there is clear overlap between phone and Internet, with convenience of access or personal preference dictating the pattern. For example, Emily, who graduated in 2009, and who telephoned monthly at most, was in Internet contact daily, so had no need to telephone.

Qualitative data, in the form of individual responses to open-ended questions, begin to sketch the links between communications with home, affective factors, and drawing maximum benefit from study abroad. For example, Carole (graduated 2004) is well aware of the obstacle which a sustained umbilical cord can pose:

I wouldn't advise anyone to try and sustain a long distance relationship: The first few weeks in Dakar are going to be hard and I think people could easily cling to the person back home for comfort rather than getting stuck in.

Phoebe (graduated 2000) shares this view:

It was regrettable that I was conducting a long-distance relationship whilst living in Senegal as I think that it was to the detriment of my experience as I found it hard to assimilate.

It is significant that students themselves realise the potential threat to successful immersion and to achievement of study abroad objectives which is posed by ever more prevalent communication technologies.

Queenie, a language assistant in 2003/04, recognises the need to keep in touch with the familiar and the way in which talking can help make sense of the new experiences: “It was also important to be able to debrief with other western friends and to call friends and family at home.” Having visits from parents, sister and half a dozen friends also helped Queenie overcome any homesickness: “I really appreciated that and loved being able to show them the country I’d fallen in love with.”

The explosion in communications technologies over two decades is reflected in respondents’ open comments. Daniel (graduated 1989) underlines the lack of communication with home: “There was no internet or email when I was there so communication was by letter and occasional (expensive !) phone call.” Grace (graduated 1994) uses almost the same terms: “There was no internet in 1992 and phone calls were extremely expensive. I received monthly phone calls from my boyfriend; I was fortunate enough to receive these calls using my landlord’s home phone.”

Lorraine (graduated 1994) echoes the feeling of distance and isolation: Keeping in touch with home, back in 1992, was really difficult. I was reliant nearly wholly on the postal system which was pretty patchy, for the first month or so I hadn’t had anything much from home — particularly not from my sister who I was really close with, but found out later things they’d sent had gone missing.

Chris (graduated 1998) emphasises that, in line with the under-developed technologies, the culture of frequent virtual networking did not exist even in developed countries a decade or so ago: “Internet access was almost non-existent, and my typical usage of the internet prior to my trip was far far far lower than it is these days!”

Anna (graduated 2001) sums up the change: I think things have changed now and that distance would not seem as big because there are much better internet connections (aside from the power cuts!) in Senegal now and using Skype would mean calling home would much less of an issue. I think that was the biggest issue for me as it cost £1 a minute to call home and the same for people to call me so I had to really plan my weekly call and it would generally be pretty brief.

Jackie (graduated 2004) found communication much more straight forward:

I was in a long-term relationship at the time with a partner from university (still am in fact) who was going through final year at uni at the time, so it was a difficult time — I spent a lot of time on MSN messenger!

Tamsin (graduated 2004) likewise had no difficulty in touching base: I had excellent internet access at work and also used internet cafes in Dakar to keep in touch with family and friends back home, as well as phone calls every couple of weeks from my mobile or a phone booth, so never had any problems with homesickness.

By the time Imogen (graduated 2006) went to Senegal, the transition appears almost complete: “I e-mailed friends and family from time to time, and I often spoke to my parents on the phone.”

However, Rhiannon, an assistant for the British Council in 2004/05, noted changes during her year abroad, and underlines the danger of generalising: “At the beginning we had less access to the internet, and so the weekly mail through the BC was really important.”

Ursula (due to graduate in 2010) had Internet access in her apartment, and a boyfriend at home. She phoned and skyped several times a week, and only their respective work schedules prevented daily contact.

Homesickness and Other Links

It would be expected that telephone and Internet contact might be statistically related to missing people or being visited by people from home. And in this study, students reporting greatest homesickness were indeed the heaviest users of telecommunications. If the five pre-Internet cases are excluded, there is a correlation using Spearman’s ranking between initial homesickness and reported use of the Internet ($r_s = .408, p = .013$). The correlation between initial homesickness and reported telephone use ($r_s = .315, p = .061$) is, however, not statistically significant at the 0.05 level. Nor is there any measurable correlation between Internet use and phone use, or between either of these and sex, partner at home or visits from the U.K.. A large sample, ideally with a control group not undertaking study abroad, and with larger cohorts at each stage of telecommunications development, would allow more sophisticated exploration of the links between these factors, although high individual variation, one of the few constants of study abroad research, would also be expected.

Of those Dakar students who—like Deirdre—had left a partner in the U.K. (19 of 42), 15 or 78.9% had a visit from home. Of those who had not left a partner at home, only half as many (9 of 23 or 31.9%) were visited. The correlation is statistically

significant at the 0.01 level ($r_p = .400, p = .009$). The questionnaire did not specifically ask for the identity of the visitor(s), although answers to the open questions specified the boyfriend or girlfriend in seven cases. Only Ursula (in Senegal 2008–09) mentions returning to the U.K.; her flying home at both Christmas and Easter to be with her boyfriend reflects the fact that air transport too is cheaper and easier than in the recent past. It would have been desirable to include a specific question on trips home to further explore this relative ease of travel in recent years (during his 1968–69 assistantship in France, which is geographically much closer, Coleman managed only one visit to the U.K.) but this must wait for the qualitative study.

Despite the absence of statistical correlation between phone/Internet use and separation from a partner, nothing in the preliminary data challenges what administrative experience, previous research and intuition already suggest, namely that students who leave a partner to go abroad, or who feel homesick, may be more likely to maintain intensive virtual and/or physical connections with home. Whether they consequently find it more difficult to detach themselves in emotional, intellectual, linguistic and identity terms from the home environment requires further investigation.

Discussion

There was no attempt in the present questionnaire study to distinguish between successive forms of technological mediation, although it would be interesting to do so, especially now that email has been largely supplanted by a wealth of social networking applications, each of which offers much greater scope for identity (re-)construction, and that software such as Skype allows unlimited free Internet-based videoconferencing. This issue will be addressed with the same respondents if the interview phase obtains funding—all 42 former students and three former assistants have agreed to be interviewed. Of particular interest will be the use of asynchronous (email, more recently Facebook) as opposed to synchronous (e.g. Skype) technologies: the latter might be expected to make the home context even more present.

Was there a connection for these students between availability of the electronic umbilical cord and immersion into the local cultures? Grace, whose stay dates back to 1992–93, exemplifies the almost obligatory social immersion of pre-Internet days:

I have not kept in touch with the Senegalise people I became friendly with. However, this was a given bearing in mind the inferiority of the international communications at that time. In fact, rather than inhibit the quality of the friendships that I made, this acknowledgement of limited communication outside Senegal made relationships very strong and real.

Study abroad research has not typically explored whether the pattern of contacts with home, and the increasing frequency and ease of communication which technological developments have made possible over the past twenty years, have also had an impact on the degree of immersion, acculturation and integration which each student achieved with the target community. In this study, all informants reported cultural and intercultural learning, and all but one substantial gains in French and worthwhile gains in Wolof. Did Grace attain her learning objectives more fully because she had no choice but to immerse herself in the local culture? Was it easier to make progress in the target language when emailing, Facebooking or skypeing with home were simply not an option? Does pasting selected and edited digital photographs on Flickr concretise the experience of otherness, blocking off the openness and hampering the sense of liminality which allow experimentation with other languages, cultures and identities?

Our respondents' narratives allude to the familiar phenomenon of finding relief and security in speaking English with compatriots, but, once again, it will require better data to confirm or invalidate the impression that this reassurance predominantly allowed greater risk-taking, rather than a retreat from interaction with the local community. If the impact of electronic contact with home was to reduce the sense of isolation and of remoteness, did it also reduce the sense of immersion in the target culture, and thus hinder the achievement of linguistic, cultural and attitudinal outcomes? Did it affect identity (re)construction and the setting of cultural and linguistic reference points?

On a more positive note, easy telecommunications and travel probably mean that relationships and networks initiated during study abroad are more simply and durably maintained. Most of our respondents (25 of 45) are still in touch with people they met in Dakar, and a further 13 kept in touch after leaving, at least for a while. Seven have been back to Senegal, and 12 have visited in a third country friends they had made in Senegal. This is another issue which future research could usefully explore, both with these respondents and with other groups: to what extent does the technology-enabled maintenance of study-abroad social networks deepen and extend the impact of the sojourn on all the learning outcomes?

It would be wrong to exaggerate the role of telecommunications. They are just one of the contextual factors impacting upon the degree of exposure to and integration into local cultures. Actual social networks will, in all probability, prove more significant than virtual networks. Coleman and Chafer (under review) consider, within the limitations of questionnaire data, the three types of social network—with fellow-nationals, with other outsiders, and with locals—of

the Senegal study participants. However, only in-depth interviews can bring out the importance of evolving friendships, of leaving a partner behind (21 of the total 45 respondents), or of finding during the sojourn abroad a new partner who is either local (nine respondents) or non-local (twelve respondents).

In any event, the sample is too small to draw firm generalisations for study abroad, and the U.K.-Senegal pairing is just one instance, with highly contrasted home and host contexts. The pattern of communication will of course vary according to the speed of technology take-up in home and host countries. However, it seems inevitable that the extremely clear trend towards easier and more frequent—and more synchronous—contacts with home can only increase. One corollary will be an updating of the preparatory briefings and strategy training provided to intending sojourners.

In study abroad research, context is recognised as a key element both in Second Language Acquisition (not least in study abroad) and in broader education. But context is not just home and abroad. And context is not just geographical, it is also temporal. The study abroad student has a physical location in both space and time, and the time context, thanks to the spread and increasing use of communication technologies, can profoundly affect the extent of psychological immersion in the target country's language and culture. Coleman (2006) asserted that 'it is possible to be physically in the host country while psychologically and affectively back in one's own'. Without the challenge to one's social networks, cultural assumptions, reading and viewing habits—not to mention linguistic interactions—that immersion abroad is expected to bring, the outcomes cannot be the same. Deirdre exemplifies high reliance on links with home and withdrawal from the local context, but *any* communication with home is significant in a context where immersion in a new language and culture are the *raison d'être* of an exchange or study abroad programme.

Immersion, for early landmark studies such as Willis *et al.* (1977) or Dyson (1988), meant just that. Canonical studies such as DeKeyser (1991) or Milton and Meara (1995) concern a pre-Internet era. A detailed country-by-country survey such as is provided here may clearly not be necessary for every study abroad context, but it would nonetheless have been interesting to know, especially for the most widely cited studies from the 1990s and early 2000s, what telecommunications were available, and what use students made of them. It would be extremely valuable if, from now on, questionnaire-based study abroad research systematically included a question on links with home.

We would argue that the stage of development and adoption of telecommunications in home and host countries is a factor which should be, but often

is not, taken into account in comparing contemporary studies with some of the most widely cited study abroad publications. The question of Internet access is extremely date-sensitive. An obvious prerequisite is that published studies should make clear at what date the subjects undertook their sojourn abroad: yet even some of the most important studies, such as Freed (1995), Regan (1995) or Segalowitz and Freed (2004) do not mention the year to which the data refers. Literature reviews could also be more sensitive to the temporal aspect of context. It is conventional to cite studies which took place decades ago, when the 'study abroad context' was very different from today's simply because international communication through Internet or telephone was far more costly and less accessible. For example, in an article which finds that emailing and Internet surfing—whether in English or Japanese—correlate, sometimes significantly, with reduced Japanese vocabulary gain (Dewey 2008: 140–141), a single list of citations (Dewey 2008: 127) conflates studies located both in the pre-Internet world and the post-Internet world. Are these truly the same study abroad context, or two different contexts? The mental processes by which target language lexis is assimilated will of course be similar, but can they be one and the same when the learner's mental map of home and away, and the pattern of regular linguistic interactions, with all their cognitive and affective adjuncts, is so different?

It is a truism that the world is not the same since the advent of the Internet. Has the sense of distance evolved over recent decades? Undoubtedly. Study abroad is not a static phenomenon, not least because, thanks to telecommunications technologies, abroad is less abroad than it once was.

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