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Multilinguals and their linguistic practices in the digital arena

In this contribution I examine the online practices of multilingual university students. Based on interviews with students who are located and studying in Australia, Germany and the United Kingdom, the investigation explores how multilingual students engage with digital resources for social and learning purposes and what kind of linguistic practices dominate. The results reveal that these students are active online in their various languages, especially students with a heritage language. The latter's engagement with their heritage language has diversified and increased. The findings also suggest that their multilingual activities are mainly of a social and entertainment nature and that they seldom use the digital resources developed for language learning. In fact, they operate with a clear separation between their linguistic practices for social and for learning purposes. They seldom draw upon the multilingual richness of the internet to assist their language learning. Although the findings are based on a small sample, they do warrant further investigation to gauge the impact of this on the use of digital resources in formal language learning.

1 Living and learning in digital spaces: The pandemic experience

This paper explores the linguistic practices of multilingual students in digital spaces, both social and educational. It brings together three key elements that increasingly characterise and shape the language learning[1] scene in contemporary higher education settings: (1) the impact of the recent and current pandemic on our lives, particularly on our communicative practices, (2) the rapid expansion of digital modes of, and resources for language learning, (3) the increased presence and participation of multilingual students in university language study.

1.1 Communication in pandemic times

During the past two years the world has been affected by a health crisis, labelled COVID 19, of a scale never seen before. That this virus has been able to spread so rapidly is largely because we live in a world dependent on constant interglobal mobility of people, services, and goods. The main action to stop the spread of the virus was to limit severely all forms of people movement locally, nationally and internationally. Although the severity of this action differed across countries and regions, the impact on people's daily lives was not only to limit travel beyond one's local area but also to drastically reduce face-to-face contacts in almost all public settings: employment, health services, shopping for non-essential goods, the hospitality industry and education. Obtaining any kind of services or engaging in employment or education during major infection outbreaks (and sometimes beyond) have been largely reliant on access to digital "smart" technology including various forms of audio and video conferencing, synchronous and asynchronous digital communication, and an abundance of mobile applications. Examples include a spike in telehealth appointments for non-critical health conditions, an explosion in apps to obtain food and goods deliveries, online shopping sites, online theatre, music and other cultural performances often recorded in the artist's personal home, as well as a wealth of social media apps to maintain social networks. While these technologies have been (widely) available

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[1] In this paper the use of the term "language learning" will refer to the learning of a language other than the student's first, native or dominant language. The term "foreign language" and "foreign language learning" will be used interchangeably with "language" and "language learning".

for many years, their usage was more a question of personal preferences rather than a necessity. Communication practices for both social and transactional purposes have had to change considerably in light of movement restrictions and "social distancing". In many countries the (obligatory) wearing of face masks to limit the spread has further impeded verbal face-to-face communication so that resorting to technology-mediated communication modes became the "new normal" way of interacting, both professionally and socially. This has undoubtedly exacerbated further social differences between people who have ready access to, and familiarity with a multitude of digital modes and those with limited access to, or unfamiliar with such resources. A further distinction is age-based: while many young(er) people have grown up with various forms of media technologies and are in fact "digital natives", older people may still prefer non-technology mediated ways of interacting, especially for social contact. Although these movement restrictions are being eased in many parts of the world, time will tell if technology-mediated communication will remain the preferred or prevalent mode of communication in many contexts: are streaming services for entertainment and culture going to expand even further, is learning going to take place predominantly in virtual rather than physical classrooms, will social media apps become the norm for any form of socialisation? Of particular interest to this paper is the potential long-term impact of this possible shift on language and literacy acquisition, both of one's first language(s) and other languages.

2 Foreign language learning and technology: from language labs to avatars

The introduction of technology in the study of foreign/other languages in educational contexts has been earlier than for many other subjects in the humanities. In the 1950s and 1960s research findings into second and foreign language acquisition led to the installation of audio-labs where students could mimic the sounds and repeat the structures of the foreign language. A few decades later foreign language study embraced the use of computers to assist in the learning of sounds, grammatical structures, writing systems and even some communicative practices (e.g., Butler-Pascoe 2011). Computer-assisted language learning, or CALL, became quite popular during the late 1980s and into the 1990s, especially in the context of learning languages with different script systems, mainly Japanese and Chinese. In the early 2000s CALL was starting to make way for more sophisticated digital resources, thanks to the massive expansion of the internet, the development of various types of communication software, smart and mobile technologies (cf. Blake 2013; Evans 2009). Audio and video applications are no longer mainly receptive resources but have sophisticated interactive capabilities, allowing for both asynchronous and synchronous interaction between individuals as well as groups. Students can now connect with "native" speakers synchronously across vast distances and numerous time zones. They can immerse themselves in the foreign language country, community and culture without being there physically. They can connect with other language learners around the world. The online gaming industry has also enabled language learners to live and operate in virtual worlds creating their own foreign language-speaking avatars (e.g., Dressman / Sadler 2019; Peterson 2011). Most of these resources are now widely available to anyone with access to the internet and smart mobile devices. Their widespread availability (albeit not always free) has also led to an explosion in self-paced language learning applications with or without access to a teacher/ tutor to monitor progress. Today this online language learning industry has a revenue of more than $ 6 billion and is dominated by a handful of players with Duolingo being the most used and expanded platform (https://www.businessofapps.com/data/language-learning-app-market/). However, information about the use and integration of these resources into the school or university-based foreign language education is very scant. While there are numerous papers documenting experiments with such technologies in classrooms and some discussing students'

reactions to these, there has not yet been, to my knowledge, a systematic survey of their use. It would be helpful for such a survey to be conducted, given the changed learning modes and environments following the pandemic as well as the changing profile of foreign language learners.

3 Who participates in foreign language study?

3.1 Foreign language study: the domain of the "intellectual elite", "girls" and "the middle classes"?

Foreign language learning has been in school curricula for centuries, especially in the western-influenced world (cf. McLelland/Smith 2018). Not surprisingly, given its long history, it has gone through many changes, among them its status in the curriculum, the focus and purpose of learning, the range of languages taught, the modes of delivery and the type of students engaging in foreign language learning. When secondary and higher education was restricted to a small proportion of the school-aged population, "foreign" languages were typically the domain of the so-called intellectual elite. These students were most likely of the more advantaged social classes and were pursuing careers in the civil service (in Anglo-dominant environments), education and law. Once secondary education became more universal and higher education also opened its doors to a larger and more varied contingent of the student body, the profiles of students learning languages changed. Further, the status of foreign languages in schools influenced the extent to which student profiles changed. Where foreign language study was a compulsory part of the curriculum, the profiles of students studying foreign languages broadened in line with the general student population. However, where foreign language study had optional status, the diversity of language students was less rich. This is especially the case in English-speaking societies where (middle-class) girls tend to dominate in foreign language study as evidenced in the numerous surveys (e.g., https://www.britishcouncil.org/contact/press/new-report-reveals-stark-gender-gap-foreign-languages). This phenomenon is less marked in non-Anglo contexts due to the exceptional status of English as the foreign language to be studied *par excellence*. When it comes to language study at university, a similar profile emerges with women representing a greater proportion of students. For example, the UK Higher Education Statistics Agency noted that in 2017-2018, 72% of enrolments for languages were by women. In the English-speaking world this gender imbalance is even more pronounced for some languages (e.g., French, Italian, Japanese and Spanish) attracting many more women than men. To date there is very limited statistical information about the socio-economic AND the linguistic background of language students at university but smaller scale-surveys and anecdotal observations by teachers and researchers suggests that there is some shift away from the "typical" profile of a university language student, i.e., female, white, middle-class having grown up in a monolingual family where the home language is the national/official language of the country.

3.2 The impact of student mobility, widening participation and digital communication on foreign language study

This changing profile as mentioned in 3.1 leads to a greater presence of multilingual students on campus and in language classes. This greater participation of bi- and multilingual students in language study can be linked to two main developments: (1) a steady increase in international student mobility and (2) the increased participation of students from ethnolinguistically diverse and migrant backgrounds who have grown up in bi-and multilingual homes. Their presence has not only led to many more languages being heard on campus but also to a multitude of linguistic practices typical of multilingual environments (e.g., code-switching and code-mixing). Although only a small fraction of these multilingual students engages in foreign language study

at university, their presence is nevertheless changing the "typical" make-up of the foreign language classroom. They bring with them different language learning experiences, linguistic knowledge, and possibly linguistic practices. Furthermore, these students together with the more "traditional" participants in language classrooms are almost always "digital natives" engaging in various forms and modes of e-communication. Indeed, the majority of "millennials" has grown up around a plethora of digital resources and consider these to be their primary modes of communication for most aspects of their lives including socialisation, entertainment, information and learning. Digital natives also tend to be more image- rather than text-oriented: media that focus on imagery such as *Instagram, TikTok, Tumblr, Pinterest* are immensely popular among this generation pushing more text-based (social) media into a secondary role, e.g., Facebook, Twitter, SMS. For multilingual individuals these digital resources allow them to engage in multimodal communication practices involving their various languages and language varieties. In this paper I focus on this subgroup of language learners, i.e., students whose linguistic profile prior to university language study includes multiple languages. The aim is to investigate how these students communicate in digital spaces socially and educationally and to what extent their linguistic practices in these two contexts are linked or drawn upon each other.

4 Multilingual students engaging in foreign language study

4.1 Data collection: Interviews

The data for this project consist of in-depth interviews with multilingual students studying languages at university in three countries: Australia, England and Germany. These students were interviewed in 2018 and then again in early 2020. In addition, some of these students engaged in email exchanges with me in the interim period. The 2018 interviews were conducted mainly face to face whereas the 2020 ones were all conducted on-line via video or audio modes. Most 2018 interviews lasted about an hour and were constructed around a set of questions probing their online language practices with a differentiation between those relating to the language(s) they studied formally and those they used for social purposes (see 4.2). The 2020 interviews were usually briefer and mainly focused on possible changes in their online practices during the pandemic.

4.2 The participants

Fifteen participants form the basis of this paper[2]. All had participated in an online survey conducted in 2017-2018 that explored multilingual practices and attitudes towards multilingualism among university language students[3]. They were all volunteers and were fully informed about the project's ethical guidelines. The selection criteria for inclusion into this sub-study were

- to be engaged in the formal study of a language (other than the language of instruction) either as a major or a minor area of study for at least two semesters,
- to have prior knowledge of at least two languages irrespective of the level of proficiency in those languages or the way in which they were acquired,
- to have access to and engage in, various modes of digital communication.

Table 1 gives an overview of the 15 participants containing information about the country of residence (this may not be their country of birth), their languages, and their estimated proficiency in each of them. With regard to the languages listed, L1 refers to what the participants

[2] Although 30 participants have been interviewed twice to date, 20 are Australian participants due to my location during the pandemic. Hence this paper will only report on 15 participants, 5 from each country.

[3] A description of this project can be found at the website: https://www.soas.ac.uk/world-languages-institute/projects/mll/.

considered to be their dominant language or their first language (mother tongue), L2 tended to refer to their heritage or home language, L3 to a language learnt at school or acquired through some form of mobility, and L4 is the language they are studying at university. The estimated proficiency is based on the self-assessment tool of the CEFR (Common European Frame of Reference).

Table 1 Participants' language profile

ID	Country	L1 + CEFR level	L2 + CEFR	L3 + CEFR	L4 + CEFR
01	Australia	English – C2	Sicilian – A2	Italian – B2	Spanish – A2
02	Australia	English – C2	Greek – B1	French – A2	Japanese – A2
03	Australia	English – C1	Cantonese – B1	Mandarin – B2	Japanese – A2
04	Australia	English – C2	Ukrainian – A2	Russian – A2	French – A2
05	Australia	Spanish – C2	English – C1	French – B2	Mandarin – A1
06	Germany	German – C1	Tamazight – B1	English – C1	Arabic – B2
07	Germany	German – C2	Polish – B2	English – C1	Russian – A2
08	Germany	German – C2	Turkish – A2	English – B2	Arabic – A2
09	Germany	Estonian – C2	German – B2	English – C1	Russian – A2
10	Germany	German – C2	Croatian – B2	English – C1	Japanese – A1
11	U. Kingdom	English – C1	Farsi – B1	French – A2	Arabic – A2
12	U. Kingdom	English – C2	Bulgarian – B1	German – B1	Russian – B2
13	U. Kingdom	English – C2	Kurdish – B1	Turkish – B1	French – A2
14	U. Kingdom	English – C1	Polish – B2	German – B1	Russian – A2
15	U. Kingdom	English – C2	Punjabi – A1	Urdu – B1	Mandarin – A2

- The majority of students are 'residents' (nationals, long-term, permanent) in the country of study.
- Almost all claim the country's official/national language as their dominant or first language, with the exception of two international students.
- Most students have a heritage language background with regular exposure to that language, either at home, neighbourhood or through various social networks. Many belonged to the so-called second or third generation.
- No student was studying their heritage language at university.
- Most students had not been exposed to formal learning of their heritage language.
- The L3 category referred primarily to a language studied for a few years at school. In some cases, contact with L3 was due to other community contact or study abroad/in country immersion.
- L4 is the language they study: 4 students were studying the language as a major (ID04, 06, 12, 15) and the others as a minor (both compulsory and optional minor). Thirteen of the 15 students had studied the language for at least 4 semesters (2 years).

4.3 Digital resources and practices: some background information

Prior to questioning the students about their online language practices, I requested some basic information relating to their online "behaviour", i.e., time spent online, main online activities and preferred hardware. The average time the students spent daily in digital spaces was around 7 hours in the pre-pandemic days but increased to almost 12 to 13 hours a day during the pandemic. In pre-pandemic times 2 to 3 hours were devoted to learning activities of which only 30 to 45 minutes were linked to language learning activities. During the pandemic this increased to around 4 hours for learning and 60 to 90 minutes for language learning. While online learning time in pre-pandemic times was often additional to face-to-face learning, this was seldom the case in pandemic times. Instead, it was a replacement of face-to-face learning and was often made up of an online class and associated homework. Entertainment (mainly gaming, music and film) and social networking took up most of the remaining time spent online. Their preferred "hardware" for digital interaction tended to vary according to type of activity. While most used laptop computers or tablets for learning purposes, smart phones and tablets were preferred for all other activities. The amount of time they spend online and the type of activity they engage in is typical for people of that age (Buckingham 2002; Livingstone / Bovill 1999)

5 Multilingual practices in digital spaces

5.1 Questions about language use and language learning

Two sets of questions formed the basis of the interviews probing the students' language practices online. The first set explored the students' use of, and exposure to their languages for reasons other than language learning, i.e., entertainment, information, social networking. They included questions about the type of activity they engaged in when using their non-dominant language, the mode of use (speaking, listening, reading, writing or multimodal), the reason(s) for use. Although L4 was not excluded from these questions, the main focus was on the use of languages they did not study at university. The second set of questions were similar to the first set but specifically targeted their online practices to formal language learning (at university) – (L4 in Table 1). It also probed the relationship and crossover between these two types of language practices.

5.2 Multilingual online practices outside formal language learning

All participants in this small-scale study are truly multilingual: for most of them it is a result of growing up in migrant families. Three students – ID05, 09 and 11 – are international students.

It should not come as a surprise that multilingual students in this project spend most of their time watching, listening, playing, reading and writing materials in their dominant language (L1). The main reasons for this include their fluency in that language (all skills), the amount of resources/sites/software/apps available in it (especially if English is the L1). It is also often the preferred medium of communication among their online social networks.

> ID01: Let's face it… there is so much more available in English and with most of my contacts English would be the easiest language to use.
>
> ID08: I suppose most of what I do is in German or possibly English. There is so much that is in English, only in English, but for talking to my friends is mainly German.
>
> ID15: English definitely, for almost everything but I do watch a lot of Bollywood and that's in a mixture but still has English in it.

However, all participants said that they do access sites, networks and resources linked to their other languages. Those who are exposed to a heritage language at home or in the family, also access digital resources in that language. This is especially the case for ID02, 03,04 in Australia, ID07 and ID10 in Germany and ID12 and ID14 in the United Kingdom. In the cases of ID01 whose home language is Sicilian, and ID02 with Cantonese as home language, their online practices also focus on Italian and Mandarin respectively. In the case of German-based participants, all of them are also very active in English (usually listed as L3) given the abundance or dominance of English on the internet.

> ID10: I think we all spend a lot of time with English because there is so much of it and you really can't do without it. I don't mind, it is the most important language in the world.

The participants were also asked about their online use of the university language (i.e., L4) for social purposes. ID04, 06 and 14 mentioned that they use some French, Arabic and Russian respectively, in digital spaces. For ID04 and ID06 the main focus is on listening to songs in French/Arabic as they are fans of such music. ID14 had undertaken some volunteer work in Russia and still maintains some contact with Russian colleagues.

5.2.1 Modes of online multilingual language use

While multimodality probably characterises the prevalent means of online communication of digital natives, degrees of proficiency in their languages do affect their preferred mode of communication. All participants indicated that their online use of their non-dominant language(s) is primarily receptive, i.e., listening. Those who rated their language skills to be at CEFR B and above levels tend to watch videos and films (often without subtitles) or news programs via various streaming services. Those who rated their language skills as more basic still watch programs that are less demanding in terms of comprehension such as sports programs and game shows.

> ID02: I love Greek movies, you get so few of them here in Australia although SBS[4] is doing its best so I watch a lot on SBS on demand.
>
> ID08: There is quite a bit of Turkish TV here in Germany but my Turkish is not so good but I do watch the football quite a bit, you don't need so much Turkish to know what is going on, you just need to know about football.

Listening to music is probably the most frequent and popular contact that multilingual students have with their various languages. Heritage language speakers often listen to music in, or associated with the language and its culture(s). In fact, most such participants said that they know the song lyrics by heart and often sing along. Furthermore, they will use fragments of these in conversations with friends who share the heritage language. This often leads to various forms of code-mixing.

> ID15: I love Miss Pooja's music and watch her videos on *YouTube*. I know most of the lyrics and we often use bits of it with my friends: English, Punjabi, Hindi you know or Urdu you know… like in the movies.

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4 SBS refers the Special Broadcasting Service, an Australian TV & Radio channel that offers news, films etc. in a large number of languages.

When it comes to writing in any of their languages, this skill is practiced minimally online. Most participants felt that they have (very) limited writing skills in their heritage language(s) or in their other languages. Only participants who had attended heritage language classes (e.g., in ethnic, community language or complementary schools) or had been exposed to other forms of formal language learning engage in some simple or basic writing. For example, ID04 who speaks Cantonese at home and has gone to Chinese (Mandarin) language classes, mentioned writing some comments in Mandarin about Chinese *kung fu* films on video streaming platforms;

> ID04: You know… not much really [*author's note* – writing –] but I do post some comments in Chinese, you know, using Chinese characters on the *king fu* clips I see on *YouTube*.

The most popular media to stimulate basic writing in their other language(s) are social media apps such as *Instagram, TikTok, Tumblr and WhatsApp* (also *WeChat* for Asian students). Participants said that they use these mainly to post videos and photos but often add some comments or captions in one of their languages or a mixture of these languages[5].

> ID11: yeah, I'll sometimes add some text to it [*author's note – Instagram* –] you know like 'Happy Birthday'. I know a few such things in Persian either from my mum or from other people posting.

Only those with more advanced writing knowledge would send text messages in their other language(s).

> ID10: I'll send a text in Croatian to my mum as her German is not so good but mostly I just ring her and speak with her in Croatian, that's easier.

In terms of the other receptive skill, that of reading, participants mentioned that the type of reading they do in their non-dominant language(s) very much depends on the skill level, more so than for writing or speaking. Only those who self-assessed their proficiency at B2 and above engage in more substantive reading. This includes reading online news reports, stories, comments on discussion boards. Those below this level limit their reading to some short posts on *Facebook*, and simple information on various blogs or websites or on their social media apps. They also tend to rely on *Google Translate* to ensure that they have understood the text.

The use of oral communication in digital spaces is a more complex issue. The digital resources used by these participants tend to focus on the visual and the aural. Furthermore, many digital natives prefer texting or visual imagery to communicate socially. Spoken use of their other languages in digital spaces is more prevalent among those whose language repertoire includes a heritage language. These participants will use their heritage language on their mobile devices and apps such as *WhatsApp*, *WeChat*, *Viber*, *FaceTime*, etc. to speak to their relatives, often parents or older relatives who rely more heavily on that language for communication. Those based in Australia commented that they sometimes communicate with their local peer group friends from the same language background. However, they said that this use is marked by a constant switching between English and the heritage language.

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[5] For privacy reasons, I could not reproduce the participant's text and images illustrating this pattern.

> ID01: Well yes, I use some Sicilian when talking to my friends but it's like a bit of Sicilian mixed with Italian and a lot of English. They do the same, this is how we have always done it and that's how most of my Italian friends do it.

> IF04: I really don't really speak much Ukrainian with my friends but on the phone to my mum, it's mainly Ukrainian because she tells me I have to be able to speak to my cousins in the Ukraine but actually they always ask me to speak English to them and so we have some kind of mixed language: they try their English and I try to use some Ukrainian phrases. It's quite funny really but that's about it.

English and German participants engaged more frequently with their peer group friends both locally and internationally. In fact, ID07 and ID10 regularly talk to their friends and peer-aged relatives in the "home country" using the heritage language. Given the relative proximity of the countries, they also tend to travel regularly between the two countries and maintain physical contact with them. When questioned about the type of language they use with these interlocutors, they replied that it is mostly Polish or Croatian respectively, but that they sometimes use some English when they don't know something in the heritage language and their interlocutors know more English than German.

> ID07: Oh, mainly Polish when we WhatsApp; it's still easy for me and much easier for my Polish friends. They know quite a bit of English but really no German so it's sometimes a mixture of Polish and English, but mainly Polish I'd say.

5.2.2 Reasons for multilingual practices in digital spaces

Participants were also asked why they used their languages online and whether this had increased since the pandemic. All but three students (ID05, 09 and 11) had a heritage language in their repertoire which they used to varying degrees with family and friends outside the digital world. As documented earlier in this chapter, they also made use of their heritage language(s) online. A prevalent reason for their use is that the participants saw it as an intricate part of their linguistic and ethnocultural identity. Furthermore, many also mentioned that the digital world offered them opportunities to engage with part of their linguistic identity in ways that are more private, less threatening and more interesting than using the language in the "real world". This was especially prominent among the Australian participants whose spoken use of the heritage language was often limited to older generations.

> ID01: Actually, I feel that the internet has brought me closer to my Sicilian and Italian identity. Before, I thought of Sicilian and even Italian as an old people's language, you know what you speak to your *nonna* (*author's translation:* grandmother) *e zie* (aunts) [*author's note*: note the code switching]. Yeah, I have a few friends I speak Sic… well a mixture of English and Sicilian and Italian with but really very little. Now with the internet and apps like WhatsApp I really do much more in Italian like watch Italian music and games shows, I love them, and sometimes even some news. I even try to speak some Italian to my cousins in Sicily [*author's note*: using WhatsApp]. It's really cool because we sort of engage in bilingual conversations, like I'll use some Sicilian and they laugh because they say that only old people use that word or expression and then they say what they use but I'll make jokes about their English pronunciation but it's not harsh it's just quite fun and it's great to have more contact with Italians, even if they are Sicilian of my own age. So, I think that yeah, the internet has made a positive difference to me, like I use more Italian even to my mum and I feel more confident.

> ID04: I guess it's helped me overcome my reluctance to use Ukrainian, it's sort of complex, I am really proud of being a Ukrainian Australian and the language is important to me but I am really not good at it although I love languages that's why I studied some Russian and now French. I mean, I speak it sort of to my parents but often it is more English and my dad often says that I should speak proper Ukrainian. I don't like *Skyping* with my family in the Ukraine and as I feel that I am constantly judged about my poor Ukrainian. But online it's easier, I can watch movies and listen to music and sometimes I post a few words in the

> language and am not getting any bad feedback actually, they sometimes ask me about English. It's sort of helped me overcome my fear of using it. Not sure though if I'll start speaking more in Australia!

The heritage language speakers in Germany (ID06,07,08, 10) felt that their use of the heritage language had also expanded thanks to online resources. However, for them the overall engagement with the language had not increased a lot as they already made frequent use of their heritage language in their extended families. This was particularly the case for ID07 and 10 who were still immersed in a heritage language environment. For them the internet had opened up easy (free) access to music, films and games in their heritage language as well as cheap video and phone calls to friends in the homeland.

> ID07: I actually speak a lot of Polish still, although I have lived in Germany since I was five and my German is better than my Polish, we still speak Polish at home, go to Poland a lot and I have quite a few friends who are Polish. So, I am not sure if the internet has changed much, well I think it's made phone calls and so much cheaper actually free so I can now speak a lot with my friends in Poland. Oh… I suppose I now watch more Polish stuff, like the Polish football league and yes the political news because there is quite a difference between what is said on the German TV and the Polish one.

Most German participants did admit that they spend most of their time engaging with English on the internet, much more than with their heritage language "because it is so much more dominant and you can't really avoid it" (ID08).

The responses the UK participants ID13 and ID15 were almost identical to those given by the Australian participants quoted above. They highlighted the linguistic safety of the internet, i.e., the ability to engage with the heritage language in an easy and private way without being judged about one's degree of competence. The practices of the other English participants, i.e., ID12 and ID14, were more in line with those of the German participants, possibly given the relative ease of travel to the birth country.

5.2.3 Impact of pandemic on multilingual practices in digital spaces

In response to the question about increased use of the internet of their non-dominant language(s) during the pandemic, most participants said that this had made little difference in terms of receptive interactions, i.e., listening to music, watching movies, playing games. In terms of productive use, especially speaking, the pandemic had led to a greater use of video and audio-based resources to communicate with friends and family due to lockdowns and travel restrictions – local, national and international. This was particularly the case for participants ID07, 08, 10, 12 and 13 who travelled regularly to the homeland in pre-pandemic times and who use the heritage language with their friends locally. They now spend more time talking or interacting with friends at home and abroad through various social media.

5.2.4 "Languaging" and "translanguaging" as the dominant multilingual practices in digital spaces

The participants who had mentioned that they engage in oral and written communication online sometimes commented about the kind of linguistic practices that characterised their online interactions. Almost all of them said that with peer group friends, in chat rooms and blogs directed at their age group, they felt most comfortable using a *Mischmasch* (ID10), *language mix* (ID02). Those whose language competence was less advanced were pleased that this was an acceptable practice because this would shield them from criticism.

> ID08: I would not say that I can speak Croatian very well, actually I always use a sort of mixed language as do my friends, you know mainly German but still a lot of Croatian. I saw that on this blog about football they did the same so I was not worried about making comments in say… a *Mischung*. It seemed cool and it makes you feel good. But if Croats who don't live in Germany make comments they post in Croatian with some English and sometimes ask what this German word means. They also have expressions that I don't get but it's ok to ask. They love using *dude.*

Even those who were more proficient in speaking and writing in their heritage language(s) preferred to code-switch, code-mix between their dominant language and their other languages.

The only context in which they will try to "stick" to one language is when they communicate with elderly people, both locally and abroad because of the latter's minimal knowledge of the participant's dominant language.

> ID12: When I talk with my grandma in Bulgaria I try to speak only Bulgarian because she does not know English and it would be disrespectful to speak English to her. I am not very good but I understand quite a bit so I often just say *da* (*author's translation*; yes) or *znam* (I know) and other little phrases.

Overall, these participants' online multilingual practices can be best described as a form of "translanguaging" (e.g., Li Wei 2018) whereby they draw upon the resources of their various languages. This practice also marks their identity as bilinguals or multilinguals and creates solidarity with other multilinguals even if the latter do not share the same languages. This was very well expressed by ID02 when she says:

> ID02: You know speaking like that… using Greek and English together creates a kind of bond that you belong, that you can live in two worlds. It's not about I know Greek and I know English but about I know these two languages and I can speak mainly Greek with my relatives and pure English with my Anglo mates but I feel most at ease, myself, when using the two together because that's what I am and many of friends here and online feel the same way. It's not about using pure language, that's something you do when you study a language at school or uni but not when you speak with your buddies.

This extract also points to the distinction made by these multilingual students between language practices in informal settings and those appropriate or required in formal language study, including in the digital arena.

5.3 Online practices related to formal foreign language study

It is an interesting observation that the languages participants were studying at university languages had not been part of their pre-university linguistic repertoire. All 15 participants considered themselves to be complete beginners of the language studied at university. ID09 and 14 whose university language was Russian, mentioned that they had had some very minor (informal) contact with Russian, and ID06, 08 and 11 whose university language was Arabic, indicated that they had engaged in a few weeks of Arabic self-study, in preparation for the university course. By the time the participants were interviewed they had studied their university language for at least 2 years, so they were no longer total beginners. The participants were asked about their online use of the language studied at university, and about the extent to which there is a link between these practices and those associated with their other languages.

5.3.1 Online practices relating to formal language learning

In section 4.3 I stated that the participants devoted relatively little time to formal language learning activities online, and that most of this time was directly linked to tasks set by the teachers rather than additional to these. The main activities varied from language to language studied. Those studying Japanese and Mandarin focused on character practice for which there are a variety of programs. Those studying Russian said that they undertook mainly a range of grammatical exercises as well as some vocabulary exercises. The most varied activities were related to the French and Spanish languages where students created stories occasionally using avatars (sometimes with a spoken component) and writing reports around specific themes. Despite the increasing availability of sophisticated multimedia language learning resources, these university students seemed to have little contact with them. While they have knowledge of some, they claimed that their tutors tend to be dismissive of them, considering them only appropriate for school pupils.

> ID03: Actually, I think she is quite dismissive of these apps and games, not sure why but I think she is a more traditional teacher and probably does not know about them.

Although these participants gave the impression of being good language learners, eager and enthusiastic, their focus was almost entirely on achieving good results on tests and tasks. Yet few of them engaged in additional activities to strengthen their performance. In fact, only three participants – ID01, 03 and 10 said that they engage in extra-curricular online activities relating to their language. ID01 has become a fan of Spanish *telenovelas* (akin to "soap operas") and occasionally tries to watch them without subtitles. ID03 and 10 are *Manga* devotees and engage in some *Manga* related online activities (e.g., games, film clips). Although there is some difference in the proficiency levels gained by the students, this does not seem to have much impact on their language learning practices in the digital arena.

5.3.2 Relationship between online practices for social purposes and learning purposes

In the previous sections it became clear that these multilingual students are active users of their languages in the digital arena, with some even using all their languages and skills in multiple contexts. Their preferred practice when it comes to speaking and writing is that of translanguaging, drawing upon the resources of the various languages. Yet, it is this practice that may stop them from transferring some of their skills and knowledge to the language studied at university. In fact, most participants try to keep the practices associated with social interactions as separate as possible from those linked to formal language study. This is particularly the case for students with a heritage language background who claim that this may lead to bad practices affecting their performance.

> ID02: "oh no, you don't really want to do the same things when you study a language: in Greek I muck about, you play around with words, you mix-em up because that's what makes it interesting and that's what my friends do when they put Greek on their (*Instagram, author's note*) posts or when you text each other. But with French at school and now Japanese at uni, you don't want to do that. You are learning these languages because you want to be good at it so you can use them, you know in a useful… practical way. So I follow what the teacher tells us and she recommends like certain apps, to practice writing the characters. I suppose the only thing that I access other than what she recommends is *Google Translate* sometimes.

> ID13: yeah, it's ok to use a mixture when you are online or sending texts, I do it all the time, but I certainly would not do it for French. I am sometimes stuck for a word so will try to find another way to express myself and not just use an English word. When you learn a language like at university you need to try to be like a native speaker, as much as possible and not mix your languages. Sometimes it is quite hard because the French use a lot of English words now and then I don't know if it's okay.

> ID14: What's the point of studying a language at university if you don't keep your languages separate? It would lead to bad results, the whole point is to learn the language in a correct way, not play around with it like you do with your Polish friends. I want a good result, so I make sure that my Polish does not influence my Russian.
>
> ID05: you know, I don't mind using French and English together with my mother tongue because that is what we do – there are so many English words in Spanish and when you are online you meet people of different languages and you use a mixture, like a lot of English with some Spanish or French and Spanish. I do this too with my Spanish friends here, it's mainly English and Spanish. But you can't do that when you learn a language, you have to keep them separate so I make sure that I avoid when learning Mandarin. Actually, it's not that difficult because the languages are so different but my friend who studies Italian says the same and Spanish and Italian are so similar. Yet I know she uses a real mixture with her friends.

I also asked them whether there is a difference between the strategies they used when they did not know how to express something in the other language. Their responses confirmed the comments above. Whereas translanguaging or code-switching is the usual way to overcome this problem in social contexts, this strategy is to be avoided "at all costs" (ID10) when it comes to formal language study at the university. Here the usual strategies are to consult dictionaries or grammars or to try to find an alternative way to express the idea. Some said that they use automatic translations (e.g., *Google Translate)* "if really stuck" (ID12).

5.3.3 The dual lives of multilingual students in the digital arena

These multilingual participants have active online lives as could be expected of digital natives. They spend a considerable time of their day online via mobile devices and their associated apps, mainly for social networking and entertainment. There is no doubt that most of these online activities involve their dominant language, as well as English for those located in Germany. Yet, there is good evidence that they do engage in activities that involve their other languages, often a heritage language. Their preferred language practices in this context are best described as various iterations of translanguaging. This mode of communication is not only used with well-known friends and peers who share their "ethnolinguistic" backgrounds but also with others. This translanguaging practice acts as a code to demonstrate solidarity and to express one's multilingual identity. In some cases, it aids the users to overcome their linguistic insecurities when they have limited knowledge of their heritage language. In the context of social activities, these participants seem confident about their multilingual practices and do not express negative views about the mixed linguistic nature of these.

In relation to language learning activities, the participants present a (very) different profile. They spend little time devoted to explicit language learning activities and the time they do spend, is directly related to tasks or activities required by their teacher. The digital resources they draw upon in the context of formal language study are typical language aids, such as online dictionaries, grammatical exercises, programs to learn and practice characters and automatic translation. They seldom access other resources that could aid their learning. In fact, they tend to avoid activities and resources that they are familiar with in their social arena. They seem to make a clear distinction between fostering their multilingual selves in the social arena and their language learning selves in the context of study. In other words, these students who live multilingual lives – online and offline – seem to operate with a functional differentiation between language practices linked to their "everyday" activities and those linked to formal learning. Rather than draw upon their "everyday" multilingual practices to assist, inspire or enrich their formal language learning, they keep them separate. This seems to be linked to allocating different roles and aims for these languages: everyday multilingual practices are about connecting with friends and family and about identity. This is not about acquiring or improving linguistic proficiency in those languages. For languages learnt in formal settings, gaining proficiency and

fluency in a way that allows interaction with "native" speakers is the primary aim. This functional differentiation "guides" their digital language practices which therefore do not seem to overlap much.

This is also evident in their views on linguistic practices: mixing, switching, translanguaging are not only acceptable but even preferred practices in the social arena, whereas these are frowned upon and to be avoided "at all costs" in study contexts. In the latter context the emphasis is on correctness and linguistic purity in an attempt to emulate "native speakers" of the language. Translanguaging and drawing upon the resources of other languages are seen as signs of error and failure affecting performance. Thus, it seems that these multilingual participants have dual lives in relation to linguistic practices online.

6 Multilinguals and foreign language learning in digital spaces: Some concluding remarks

There is no question that the smallness of this sample would allow for any generalisations about the topic under investigation. However, the diversity of the sample in terms of the students' language background, their language repertoire, the languages studied and, indeed their location of study does "compensate" somewhat for its smallness. It is indeed remarkable that these very diverse multilingual students tend to engage in similar online practices with regard to their languages and that they hold similar views about the relationship between those used in the social arena and in a learning context. As such this small-scale exploration does offer some 'pointers' that warrant further investigation.

It seems somewhat surprising that students with multilingual "everyday" lives do not transfer any (or very few) of these practices to more formal contexts for language learning. Is this linked to the fact that they still subscribe to a view of academic language study that conforms to a linguistic ideology that stresses a clear separation between languages and an adherence to standard rules? In this ideology, mixing and merging linguistic systems are signs of non-learning or faulty learning. Yet, they also hold positive views about mixed language practices – online and offline – but limit them to non-learning contexts. If this view is more widespread among multilingual students, then this may have implications for the use of digital resources as well as pedagogical approaches to formal language study, especially the teaching of heritage languages. As mentioned earlier, there is now a great wealth of online resources available in multiple languages that are direct aids to language study. In addition, the digital world has enabled learners to have a rich virtual immersion into the respective language and the language community. The participants in this study do immerse themselves in this virtual multilingual world for social and entertainment purposes but do not engage with them for their learning. Perhaps their motivation to learn another language is driven by other needs and desires. If the primary motivation is instrumental, e.g., for employment purposes, then the digital resources beyond the typical aids may not be seen as relevant. If foreign language study is motivated by more integrative reasons, then the digital world may not seem that attractive. Instead, students want to immerse themselves in the real foreign language world, through travel and meeting people face to face, by living and working in that community rather than doing these things virtually. Furthermore, their views on the acceptability of translanguaging in the context of formal study are somewhat at odds with a more recent pedagogical ideology that is described as taking a multilingual turn in language education (e.g., Conteh / Meier 2014). It proposes a more heteroglossic approach to language instruction, in which translanguaging is a key element to assist the students' learning of another language. To date, this multilingual turn has been more focused on school rather than university-level language education but it is increasingly being promoted for the latter. If students at university level continue to see digital resources for language learning as peripheral to their learning AND hold views that stress the clear separation of languages, then university

educators are facing some dilemmas: abandon the use of digital resources or working with students to understand their reluctance to use such resources and reshaping them following this process. The question of linguistic ideologies is a more complex issue: it is clear from the participants' reports that many teachers still hold more traditional views about the place of code switching and translanguaging in the language classroom. Hence the participants' and their instructors' views are in line with each other. However, it is likely that the multilingual approach will become more dominant in the near future which collides with a puristic view of language education. This will need to be addressed to ensure that foreign language education remains viable in an increasingly multilingual world, both in real life and in digital spaces.

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