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***Digital Nativeness and translanguaging in Vojvodina:
Multilingualism, English language media, and Vojvodina
Hungarian linguistic practices***

PhD dissertation

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1. Rationale and theoretical background

The Autonomous Province of Vojvodina, located in the northernmost part of the Republic of Serbia, is a unique region that has been and continues to be shaped by its rich history and linguistic and cultural diversity (Belić 2014). Due to the multiethnic and multicultural nature of Vojvodina, bi- and multilingualism are very common and are frequently the result of mixed marriages (Göncz 2004). Initially, the early policy in the state was an assimilative one that explicitly gave preference to and promoted the Serbo-Croatian language (Göncz 2004; Szerbhorváth 2015), but later at the time of the Socialist Yugoslavia (SFRY) in 1974, minority languages including Romanian, Hungarian, Slovak, and Rusyn became recognized as official languages on the territory of Vojvodina (Szerbhorváth 2015). These changes allowed minorities to use their first language(s) in courts, public spaces (e.g., street names on signs), administrative offices, and also request documents to be printed both in the state language as well as their own first language (Szerbhorváth 2015). The presence of these numerous languages illustrates how highly multilingual the region is, where translanguaging is a day-to-day occurrence (Kostic 2025a, 2025b).

However, minority communities in Vojvodina continue to face challenges to this day despite these legal protections (Szerbhorváth 2015; Beretka 2016). Despite their official statuses in multiple municipalities, in most cases, these languages have specific purposes and distinct spaces of use when compared to the majority language, Serbian (Göncz 2004), which continues to dominate formal and public domains, further undermining the position of the other languages in the region (Göncz 2004; Beretka 2016). The linguistic situation of Vojvodina is often characterized by asymmetrical bilingualism (Szerbhorváth 2015) and functional and contextual linguistic practices (Kovács Rác 2011, 2024), in many cases due to the Serbian language replacing Hungarian in Vojvodina: these instances include “official governmental vocabulary, specialized vocabulary, the vocabulary of administrative and cultural life, public education, commerce, and health care” as well (Göncz and Vörös 2005: 198).

Due to these instances of imbalance (including the ongoing demographic decline since the 1990s), the maintenance of Hungarian is constantly challenged by Serbian’s socially and institutionally dominant status in public domains, including higher education and employment (Mirnics 1994; Gereben 2002), and for this reason, the Vojvodina Hungarians’ choice of language in daily life is a dynamic process that heavily depends on the various communicative situations, power relations, and the broader social context (Kovács Rác 2011, 2024). However, despite the societal, political, and linguistic pressures, the Hungarian community in Vojvodina continues to express their desire to maintain their ties to their culture and language to this day (Szabó et al. 2013; Székely 2018), with various support systems (e.g., the Hungarian Academic

Council in Vojvodina) for education, culture, and media too (Göncz and Vörös 2005; Ilić 2010; Csányi 2025). The Provincial Statute, Vojvodina's foundational legal document, also explicitly states that the region and its people must promote multiculturalism and multiconfessionalism, which foregrounds the importance of recognizing and nurturing diversity in practice and on paper as well (Belić 2014).

As discussed in earlier studies too, real life linguistic practices, whether online or in face-to-face contexts, often clash with rigid purist ideologies that demand languages to be strictly divided with clear boundaries (Cenoz and Gorter 2019). These ideologies tend to view any form of language blending as a sign of deficiency (cf. Aleksić and García 2022; Heltai and Tarsoly 2023). As Gal and Irvine (2019: 158) maintain, “[s]tandardization, race essentialisms, and European monolingual nationalisms are among the ideologies that create blockage,” which is also in part what prevents people from recognizing and accepting fluid multilingual communicative practices (cf. Heltai and Tarsoly 2023). To understand and analyze how and why these ideologies come to be, Gal and Irvine (2019) define three semiotic processes, mainly iconization or rhematization (i.e. making a direct link between a linguistic feature and a person's character, treating it as a trait instead of viewing linguistic practices as an activity), fractal recursivity (i.e. the reiteration of an ideologically constructed contrast to a different aspect of life or level), and erasure (i.e. certain set of aspects of a phenomenon – specific activities, interactions, linguistic practices, types of qualities and people – come to be erased or pushed to the background in order to make another aspect more pronounced), which all act as tools that people (actors) use in order to make sense of, and often simplify and categorize the world around them.

Given digitization's deep and ongoing impact on linguistic practices, and keeping in mind the reasons discussed above, it is increasingly important to examine the effects of these various factors and phenomena on minority languages due to the fact that speakers of minority and majority languages experience digital spaces in various different ways (Kelly-Holmes 2004; Lee 2014; Jongbloed-Faber et al. 2016). Digital presence has become an essential part of language revitalization and maintenance, and the hybrid nature of digital communication aligns seamlessly with translanguaging too, creating “breathing spaces” for minority languages (Belmar and Glass 2019: 3). For this reason, Belmar and Glass (2019) contend that digital spaces offer a much needed flexible and non-judgmental environment for minority language speakers where their languages can continue to be used, spread, and maintained in various ways. From this perspective, translanguaging, originally redefined from a pedagogical approach (Williams 1994; Baker 2001) to a linguistic theory by García and Li (2014), is “the deployment of a speaker's full linguistic repertoire without regard for watchful adherence to the socially

and politically defined boundaries of named (and usually national and state) languages” (Otheguy et al. 2015: 283). In the Vojvodina context specifically, translanguaging is understood not as a replacement for Vojvodina Hungarian, but as a vital resource for navigating a highly multilingual and multicultural environment both physically and digitally (Kostic 2025a, 2025b).

Multilingual practices and language mixing in digital spaces have been found not to occur randomly, but are functional, meaningful, context-dependent, and context-sensitive practices (Gardner-Chloros et al. 2005; Li 2011; García and Li 2014; Androutsopoulos 2015). Rather than suggesting linguistic deficiency, these voluntary practices reflect strategic and skilled use of bi- and multilingual individuals’ linguistic resources (Koutsogiannis and Mitsikopoulou 2007; Androutsopoulos 2015), through which, minority speakers (as well as anyone online) are more likely to bypass linguistic and spatial constraints, which in turn also allows them to express themselves flexibly and creatively using their entire linguistic repertoires, engage in translanguaging more freely, and rely on various multimodal sources that are available on the internet, but not so much in face-to-face contexts (cf. Androutsopoulos 2015; Cenoz and Gorter 2017; Ćorković 2019).

As Blommaert (2010: 1) observed, sociolinguistically speaking, the world has become a “tremendously complex web of villages, towns, neighbourhoods” and “settlements connected by material and symbolic ties in often unpredictable ways,” which underscores how deeply modern day mobility has impacted how we view and talk about multilingualism. Nevertheless, more prestigious and widely spoken languages like English, French, and German continue to dominate online platforms, and due to this, there is a risk that lesser-spoken languages may become further marginalized (Kelly-Holmes 2004; Sperlich 2005). For these reasons too, researching multilingual practices online requires the consideration of broader social, financial, and linguistic factors, which Lee illustrates in her 2014 study, where she describes the technobiography as a tool that is able to provide insight into a person’s “life story in relation to technologies” (2014: 94). This approach invites participants to tell their own story about the way they experience technology and language online in the present as well as the past (Lee 2014), revealing the various ways participants utilize multimodal resources online to convey personalized messages and perform their manifold identities.

Taking these into account, a crucial notion and phenomenon that also needs to be considered when discussing digital linguistic practices of any community relates to the users of the internet, which literature frequently refers to as Digital Nativeness (Hargittai 2010; Helsper and Eynon 2010; Teo 2013). Digital Nativeness has become accepted as a rather flexible concept over the years, leaving behind the sole original criterion of strict generational

boundaries (as defined by Prensky in 2001 and later challenged by Hargittai 2010; Correa 2016; Reid et al. 2023), and instead, shifting the focus onto connecting it with an array of socioeconomic and individual (often personal) factors as well as experience with and exposure to technology and the internet (Tapscott 1998; Helsper and Eynon 2010). Their findings demonstrated that birthyear alone cannot determine an individual's digital competence, emphasizing the presence of a multitude of other inter-related educational, social, and economic factors that need to be considered when using these concepts in a scholarly manner (Helsper and Eynon 2010; Teo 2013; Helsper 2021). In light of this, Digital Nativeness should be viewed as a continuum rather than a binary, an approach which the present dissertation also takes.

For these reasons discussed previously, research has started connecting Digital Nativeness and minority and endangered languages, often with the aim to reveal whether higher degrees of Digital Nativeness could strengthen digital communication among minority individuals and heighten the visibility and awareness of minority and endangered languages online (Galácz and Ságvári 2013), which could also potentially aid the process of documentation of these less visible languages digitally. Several studies have explored translanguaging among minority groups in Western Europe (Cenoz and Gorter 2017; Prošić-Santovac and Radović 2018; Ćorković 2019), and while some have also looked into Digital Nativeness (Helsper and Eynon 2010; Hargittai 2010; Correa 2016; Helsper 2021; Reid et al. 2023) and translanguaging (Tankosić and Litzenberg 2021; Dryden and Izadi 2023), the two perspectives are usually not combined. Because of this, research that specifically examines the intersection of these concepts is still scarce, and, especially in a Vojvodina Hungarian context, where various languages intersect, this has not been done at all.

In light of the above, one of the central aims of the present dissertation is to explore whether Digital Nativeness and engagement in translanguaging have the potential to empower speakers to withstand these external and assimilatory pressures that previous literature too addresses. The dissertation also addresses the question of language vitality in the digital age through assessing the digital linguistic practices and the degree to which the participants of the study are digitally present and active, which is especially relevant for Vojvodina Hungarians, bearing in mind the ongoing demographic decline that has been occurring for well over a decade in the Vojvodina region (Palusek 2024). Last but certainly not least, one of the central aims of the present dissertation is the description and the documentation of the Vojvodina Hungarian participants' digital linguistic practices. However, it also seeks to move beyond essentialist views of language mixing, and aims to foreground and present translanguaging as a vital and supportive resource for minority communication and identity, which is achieved through the analysis and presentation of authentic linguistic examples from the Vojvodina Hungarians' own

digital interactions, relying on Gal and Irvine's (2019) semiotic processes, with the aim to examine how the Vojvodina Hungarian participants ideologically justify and reconcile their multilingual practices. In light of these, the present dissertation aims to answer the following research questions:

Research Question 1: To what extent do Vojvodina Hungarians exhibit characteristics of Digital Nativeness?

Research Question 2: In what ways do higher degrees of Digital Nativeness impact language choices and attitudes towards translanguaging among Vojvodina Hungarians?

Research Question 3: For what purpose and how do Vojvodina Hungarians use their languages in digital spaces?

Research Question 4: What factors influence the linguistic practices of Vojvodina Hungarians in digital spaces, particularly in terms of language choices and translanguaging?

To answer these research questions and also ensure that the results and the collected data are as valid as possible, the study employs a research design that is based on method and data triangulation (cf. Campbell and Fiske 1959; Carter et al. 2014), combining qualitative and quantitative data collection methods to study the same phenomenon from a variety of perspectives. In light of this, the data was collected via a questionnaire (in part based on an adapted version of Helsper and Eynon's Digital Nativeness Test from 2010), semi-structured interviews (also in part based on an adapted version of Helsper and Eynon's Digital Nativeness Test from 2010 and in most part based on Lee's 2014 techno-biographical approach), and a dataset of translanguaging examples shared by the participants from their digital communication.

2. Methodology

2.1. Data collection

Before finalizing the methodology for the dissertation, the first research project, i.e. the preliminary study with 63 participants, was planned and conducted in 2023 to see what types of questions and topics would yield the most adequate and useful data on Vojvodina Hungarians' digital and linguistic practices in general. The preliminary study served as the foundational framework for the present dissertation and was exploratory in nature, and then

later led to the discovery and the inclusion of adapted versions of both Helsper and Eynon's 2010 Digital Nativeness test in a questionnaire, and Lee's 2014 techno-biography as one of the main sections and orientations of the interviews. While the adapted version of Helsper and Eynon's (2010) Digital Nativeness test contained a series of questions related to the digital practices of the participants, aiming to examine the level of integratedness of digital devices in their lives, the techno-biographical interview aimed to extend this data collected via the questionnaire and provide a more personal and individual insight into each participants' digital and linguistic reality, and digital communicative practices. These data collection methods were integrated into a questionnaire and a semi-structured interview, and the data was collected between mid- to late 2024 and early 2025. As mentioned in the previous section, the study employs a research design that is based on method and data triangulation (cf. Campbell and Fiske 1959; Carter et al. 2014), more specifically, a between-methods triangulation, considering that it involves both qualitative and quantitative approaches to study the same phenomenon (Denzin 1978). The main reason why triangulation is indispensable for the present study is because it deals with a complex phenomenon (i.e., the intersection of Digital Nativeness and multilingualism in a minority context) that has not yet been approached, especially not in the context of Vojvodina, which makes the data collection tools unreliable. While the questionnaire aimed to collect mainly quantitative data on Vojvodina Hungarians' digital and linguistic practices, the interviews were designed to enrich and extend the quantitative data with qualitative data through asking the participants questions that would elicit more individual life stories in relation to technology and language (i.e. techno-biographies adapted from Lee's 2014 study).

The structure of the interview followed that of the questionnaire, although it was meant to extend and enrich the data that was already shared by some of the same participants from the questionnaire of the preliminary study. In addition to the life stories of the participants, the interview sessions also invited participants to share screenshots of their own digital conversations during the interviews to also gather examples of authentic linguistic practices. A total of 16 screenshots were shared by the Vojvodina Hungarian participants and almost all of them were from private messages, as the participants did not generally write posts on Facebook aside from sharing photos and occasionally leaving comments under others' posts. This way, the participants had the chance to explain their chosen messages and the contextual background behind the screenshots, while also discussing the reasons they chose to engage in translanguaging in those situations. This would hopefully eliminate any potential misinterpretation from the side of the researcher as well as misunderstandings between the participants and the researcher. The interviews were done in 12 one-on-one sessions and one group interview with a group of 3 friends, who were also coworkers. All of the interviews were

conducted in Hungarian and, therefore, all quotes that appear in the discussion of the data and findings are provided in their original Hungarian form along with their English translations.

Like the questionnaire, the interview was divided into a few sections, where each section covered a different discussion topic. These included questions about the participant's general background (their age, gender, educational background, and employment status), linguistic background, attitudinal standpoints, digital and linguistic habits, and overall experience with linguistic practices and social media in the Vojvodina Hungarian setting. The goal of this session was for them to compare their experiences with technology and languages appearing and being used online in the past to the present to have a better understanding of digital and linguistic habits and preferences, as these might potentially point out certain connections between past experiences and preferences and standpoints in the present in terms of language and technology.

2.2. Hypotheses

Research Question 1: To what extent do Vojvodina Hungarians exhibit characteristics of Digital Nativeness?

Largely based on findings from previous studies carried out in various areas of the world as well as the preliminary study, younger groups (under 18, 18–25, 26–35) are expected to be more likely to exhibit characteristics of Digital Nativeness as defined by Helsper and Eynon (2010) due to their higher exposure to digital devices and digital spaces. The findings of other studies (Tapscott 1998; Helsper and Eynon 2010; Teo 2013; Savić et al. 2023; Csiszárík-Kocsir 2024) also suggest a similar outcome, namely, that Generation Z (born between mid- to late 1990s and the early 2010s, i.e., aged roughly between 15 and 30) and younger generations following it will exhibit stronger characteristics of Digital Nativeness than older generations. Although, at the same time, Digital Nativeness is not entirely expected to be solely determined by birthyear (Helsper and Eynon 2010; Hargittai 2010; Teo 2013; Correa 2016; Jarrahi and Eshraghi 2019; Reid et al. 2023). Instead, a variety of other factors (experience, personal preferences, and the nature and breadth of internet use) in combination with birthyear are expected to influence the degree of one's Digital Nativeness. In addition to these factors, two novel elements will also be considered: an individual's confidence in their internet and digital skills and their tendency to multitask (also in Ransdell et al. 2011; Teo 2013), as these are also strong indicators of whether an individual is digital oriented or prefers more traditional methods for seeking information or carrying out different tasks. Furthermore, consistent with Helsper's (2021) findings on digital inequalities, it is not assumed that all younger individuals will exhibit

these characteristics to the same degree, nor is the possibility that older generations could exhibit some degree of them excluded.

Research Question 2: In what ways do higher degrees of Digital Nativeness impact language choices and attitudes towards translanguaging among Vojvodina Hungarians?

In large part based on the findings of previous studies, and to some extent, the findings of the preliminary study, younger generations are expected to be more digital-oriented and digitally active in their day-to-day lives than the 46–55 and over 55 age groups, and are also expected to choose more English in digital settings as opposed to older generations. On the other hand, Hungarian is expected to be the primary choice of language for all generations in most settings, and overall, translanguaging is expected to be generally accepted by the participants. The findings of an earlier study by Nightingale and Safont (2019) also suggest that language choices and translanguaging practices in various online situations will be very intentional and goal-driven, instead of just occurring randomly. In light of these findings, those individuals, who exhibit higher degrees of Digital Nativeness will be more likely to choose English in digital settings more frequently, and they will also be more likely to engage in translanguaging with a specific purpose or goal in mind instead of just practicing it randomly.

Research Question 3: For what purpose and how do Vojvodina Hungarians use their languages in digital spaces?

Based on earlier studies (Paricio-Martín and Martínez-Cortés 2010; Cunliffe 2019), communication and community building are the most expected reasons influencing the Vojvodina Hungarians' language practices in the present dissertation. Combining these outcomes with the results of the preliminary study, aside from communicative purposes, Vojvodina Hungarians will most likely use their languages in digital spaces to maintain their cultural and local ties and to create a sense of community and belonging with their friends, family, and fellow Vojvodina Hungarians. Considering that in the preliminary study the Vojvodina Hungarian participants' general attitudes towards translanguaging ranged between neutral and positive, their online interactions are expected to include more of their spoken languages instead of just one (their first language). While Hungarian will most likely be the main choice in most contexts, English is expected to be more prevalent in the linguistic practices of younger generations as opposed to Serbian (also based on the outcomes of the preliminary study). Translanguaging is also highly expected to be characteristic of their digital linguistic practices, however, it is more likely to occur in informal private messages or group chats as

opposed to messages in more formal contexts. These expectations are partly based on the findings of previous studies (Canagarajah 2017; Aleksić and García 2022) that highlighted how translanguaging is still stigmatized in various public, formal, and multilingual contexts, but they are also based on the results of the preliminary study, which indicated that there might be a generational difference (older generations being less tolerant) when it comes to the acceptance and practice of language mixing in more professional settings. Nevertheless, neither is the idea of translanguaging being present in more professional settings excluded based on Räsänen's 2018 findings.

Research Question 4: What factors influence the linguistic practices of Vojvodina Hungarians in digital spaces, particularly in terms of language choices and translanguaging?

Based on the preliminary study, the linguistic practices of Vojvodina Hungarians are most likely influenced primarily by context and function. More precisely, the findings suggest that the language(s) encountered on websites will be the most decisive factor, while personal (linguistic and cultural) background might not be as influential. Their language choices and translanguaging practices will, however, most likely be context dependent. Based on the findings of previous studies (Kelly-Holmes 2004; Lee 2014; Androutsopoulos 2015; Belmar and Glass 2019), the most expected factors influencing their linguistic practices in digital spaces are personal, cultural, and linguistic. Because people have different goals, values, and interests, their linguistic practices might end up being influenced by entirely different factors. Their language choices and translanguaging practices might turn out to be the outcomes of multiple factors intersecting as well, which might include: the desire to express one's cultural and local identity (Kelly-Holmes 2004; Lee 2014; Androutsopoulos 2015; Belmar and Glass 2019), address a specific audience or exclude another, the desire to conform to worldwide trends and use the lingua franca (Durham 2007; Lee 2014), the topic of discussion or the language(s) appearing on the given platform (Li 2011; Androutsopoulos 2015; Aleksić and García 2022), the presumed linguistic repertoire of the interlocutor (Lee 2014), and even one's own perception of their competences in their languages leading them to choose the one(s) they think they speak the best (Durham 2007; Lee 2014), or the exact opposite: avoiding certain languages due to prior negative experiences. Looking at this list, the expectations are as follows: the linguistic practices of younger audiences will more likely be influenced by languages' popularity and the desire to follow worldwide trends (Durham 2007; Lee 2014), as opposed to older generations. Here, English is most certainly expected to be the choice of language in digital communication among younger generations of Vojvodina Hungarians. The language(s) of a website or topic,

as well as the desire to address a particular group or community of people are factors that will most likely be true for most of the Vojvodina Hungarians.

2.3. Data analysis and the Digital Nativeness Score

The four research questions were intended to be addressed in a linear manner, as each subsequent question relied on the findings of the one before it. Once the data was collected via interviews and the final questionnaire, the first step was to establish the extent of the participants' Digital Nativeness. To ensure that the adapted scale by Helsper and Eynon (2010) was valid for the present research, an Exploratory Factor Analysis (EFA) was first conducted on the 16 items of the Digital Nativeness Scale. The analysis confirmed that the data was suitable for factor analysis (Kaiser-Meyer-Olkin Measure = 0.664; Bartlett's Test significant at $p < 0.001$), and while it suggested multiple underlying dimensions, the decision was made to keep as close to the original (Helsper and Eynon 2010) for comparative purposes, as possible. These results were further supported by the scale's acceptable internal consistency, as Cronbach's Alpha (α) was 0.628. The Digital Nativeness Score was then created in SPSS 26, which involved calculating a composite score by summing the relevant variables from the questionnaire. Therefore, the final Digital Nativeness Score represented a composite score out of a possible 16 points which were chosen based on the findings and insights of previous studies that focused on exploring the characteristics of Digital Nativeness (Helsper and Eynon 2010; Ransdell et al. 2011; Teo 2013; Helsper 2021). In order to make a comparison, the continuous 16-point Digital Nativeness Score was divided into two groups using the median as the cut-off point. The median score was found to be 10.75, and therefore, based on the degree of digital engagement and involvement, those participants who scored 10.75 and above were classified into group 1 (DN1, N=327, 54.5%), which meant that they exhibited higher degrees of digital engagement (i.e., Digital Nativeness), and those who scored below 10.75 were classified into group 0 (DN0, N=273, 45.5%) for the sake of comparison. This new variable was then used as the grouping variable for the independent samples *t*-tests to compare mean differences across various demographic factors (i.e., age, educational level, employment status, gender), other digital habits related to social media, self-assessed language proficiency, attitudes towards translanguaging, and language choices in a variety of digital and face-to-face contexts to cover all possible areas where differences could arise. The two groups (DN1 and DN0) were also compared using Chi-Square tests of independence to examine the distribution of demographic and socioeconomic factors. Additionally, Pearson correlation analyses were conducted to explore potential connections between higher degrees of Digital Nativeness and language preferences and attitudes towards translanguaging. Lastly, the remainder of the questions that

could not be numerically expressed were individually analyzed and emergent themes were established per question and compared with the interview data where topics overlapped.

Once this score had been calculated and created, Research Question 1 could be addressed. Following this, independent samples *t*-tests and Pearson correlation analyses were done to explore potential connections between higher degrees of Digital Nativeness and language preferences and attitudes towards translanguaging. These analyses provided valuable insight into their habits and preferences, making it possible to answer Research Question 2 in detail. On the other hand, the qualitative data via interview transcripts and notes taken during the interviews not only provided valuable insight into the Vojvodina Hungarians' digital linguistic practices but also offered an analysis of specific instances where participants engaged in translanguaging knowingly. Lastly, Research Questions 3 and 4 could be addressed as an even deeper understanding of the participants' language choices and linguistic practices was gained through their shared personal anecdotes.

2.4. Participants

The questionnaire primarily reached the more educated and digitally active part of the Vojvodina Hungarian community, as the final dataset was a quota-based sample based on age and gender. Overall, a total of six age groups were established for comparative purposes: under 18, 18–25, 26–35, 36–45, 46–55, over 55. While 15 individuals (from the same group of participants of the preliminary study) gave an interview, the online questionnaire was filled out by a total of 693 Vojvodina Hungarians from a diverse range of age groups, occupational backgrounds, educational history, and genders, however, only 600 were selected and kept from the original total as some of the responses were incomplete, and the main goal with these was to ensure equal distribution among age groups as well as genders. In the end, the selected responses for analysis were those of 300 male and 300 female individuals. In each established age group there remained 100 participants, 50 male and 50 female. To control and reach this final number of participants per age group and gender, the social media posts about the questionnaire were re-shared multiple times asking for specific age groups and genders to fill it out. Information on both the place of birth as well as the participants' current place of residence was collected, which showed that 44% were born in the geographical region of Bačka/Bácska¹ and 36% were living in Bačka/Bácska at the moment of filling in the questionnaire. Regarding the geographical region of Banat/Bánát, 54% were born there, while

¹ All Vojvodina place names are given throughout the dissertation in their official, Serbian names as well as their traditional Hungarian names separated by a slash.

53% were still there. The majority (78%) of the Vojvodina Hungarian participants see themselves as Hungarian in terms of nationality, some as Serbian and Hungarian (21%), while the remainder (1%) selected Yugoslav, Serbian, and even Swiss. Regarding the participants' highest level of education at the time of filling out the questionnaire, of the 600 participants, 41% have a high school diploma, 21% have a bachelor's degree, and 21% have an elementary school diploma. Another 14% hold a master's degree or higher, and 3% have an associate degree. Additionally, their answers revealed their vocation and their current job status, which had the following results: 52% work a daytime job and regularly go to work, 12% of the participants work from home, 23% are still in school (this category includes the 100 participants from the first age group, i.e. those under the age of 18), 9% are retired, and 6% are unemployed or looking for a job.

3. Results and Discussion

The present section explores the findings of the dissertation, with each subsection addressing one of the four established research questions.

3.1. Research Question 1

To what extent do Vojvodina Hungarians exhibit characteristics of Digital Nativeness?

Overall, the questionnaire results show that those who engage in the most digital activities have the highest social media activity and the highest confidence in their own digital and internet skills among the Vojvodina Hungarians (i.e. those between the ages of 18–25, those under 18, and to some extent those between 25 and 35). These participants also have different language choices, and their translanguaging practices differ from those who are less digital oriented. The independent samples *t*-test has confirmed a statistically significant difference between the two groups, DN1 and DN0, and has demonstrated that the DN1 group was significantly younger, owned more digital devices, and reported much higher confidence in their internet and digital skills ($p < 0.001$). In addition to these results, the correlation analysis has shown a strong negative correlation between age and digital skills ($r = -0.673^{**}$, $p < 0.001$), which demonstrates that as age increases, digital skills and engagement decrease. Furthermore, the two oldest age groups (46–55 and over 55) have the least digital activity, the lowest averages on self-reported confidence in their digital and internet skills, and are the least likely to multitask despite being exposed to the internet and digital devices for the longest time. Similarly to the questionnaire results, the findings have also shown that the participants own and have constant access to digital devices, are all digitally connected with most spending up to 5–6 hours a day on the internet, and consider digital devices and the internet an integral part of their day-

to-day lives today as opposed to 10–15 (and some even 20–25) years ago. An analysis of their life stories has further revealed that a very noticeable shift has gradually taken place regarding digital spaces and the internet's role in the lives of the participants up to the point of their interviews, and they are very much aware of these changes. This shift also represents how alongside local news and information, Vojvodina Hungarians now have much more access to global sources and information than they used to in the past, which also means that they are exposed to a much broader range of both linguistic as well as cultural topics and contexts. The available languages on the internet have also changed over time: while all of the participants' spoken languages are now available on the internet, in the initial stages of them using the internet, English was predominantly the language of the internet (Seargeant et al. 2012).

Revisiting the hypotheses formulated at the beginning of the data collection, the results strongly support the initial assumption that younger Vojvodina Hungarians (under 18, 18–25, 26–35) would display the highest degrees of Digital Nativeness, especially when compared to the other established age groups (36–45, 46–55, and over 55). The assumption that age alone would not be the sole determining factor (Helsper and Eynon 2010; Hargittai 2010; Teo 2013; Correa 2016; Jarrahi and Eshraghi 2019; Reid et al. 2023) has also been confirmed, and the following intersecting factors can be named: age, socioeconomic factors (Tapscott 1998; Helsper and Eynon 2010; Csiszárík-Kocsir 2024), higher exposure to digital devices and digital spaces (Helsper and Eynon 2010; Helsper 2021), personal interests and preferences, experience, and the nature and breadth of internet use (Helsper and Eynon 2010), confidence in one's own internet and digital skills, and tendency to multitask (Ransdell et al. 2011; Teo 2013). What these findings also point to is that as times change, people's behaviors and relationships with technology also change, and along with it, the definition of Digital Nativeness.

3.2. Research Question 2

In what ways do higher degrees of Digital Nativeness impact language choices and attitudes towards translanguaging among Vojvodina Hungarians?

Based on the findings, it can be established that Digital Nativeness does have an effect on the language practices and language choices of youngest three age groups (under 18, 18–25, and 26–35), but also on their openness towards translanguaging. Although not focusing specifically on Digital Nativeness, Nightingale (2016) did find that digital engagement among generations has a close connection with their positive attitudes towards minority and foreign languages in general due to higher exposure to languages in question. Similar findings can be observed in the present dissertation as well when comparing these younger age groups to the

last two (46–55 and over 55), where the results show that Hungarian is the language the eldest of the participants encounter the most often, followed by Serbian. The Pearson correlation analysis using the Digital Nativeness Score (as the main independent variable) revealed a strong positive correlation between higher degrees of Digital Nativeness and increased contact with ($r = 0.456^{**}$, $p < 0.001$) and preference for English, along with self-perceived confidence in speaking English in person ($r = 0.448^{**}$, $p < 0.001$), and openness to translanguaging ($r = 0.242^{**}$, $p < 0.001$). Due to higher and more frequent exposure to digital media and a more diverse range of social media platforms, younger individuals also encounter much more English language media aside from Hungarian and Serbian, which could be behind their higher tolerance towards translanguaging, along with their high confidence in their digital skills.

At the same time, higher Digital Nativeness Scores have shown a moderate negative correlation with Hungarian language contact on social media ($r = -0.300^{**}$, $p < 0.001$) indicating that the higher one's Digital Nativeness Score is, the less likely they are to come across Hungarian on social media, especially when compared to English. These results have also demonstrated that those with higher degrees of Digital Nativeness are significantly less bothered by someone else's translanguaging, both when they know the language(s) used ($r = -0.095^{*}$, $p < 0.05$) and when they do not ($r = -0.240^{**}$, $p < 0.001$), indicating a higher tolerance towards linguistic fluidity. Although English plays a dominant role in the lives of these individuals, this does not seem to interfere with the use of Hungarian and their desire to choose Hungarian in a variety of settings consciously. Taking all of the findings into consideration, the overall results have shown that Hungarian is still the primary choice of language for the majority of the 615 participants, which is especially important in minority settings such as Vojvodina. Like previous studies have also found, the promotion of translanguaging among minority communities can yield positive outcomes (Cenoz and Gorter 2017; Prošić-Santovac and Radović 2018; Ćorković 2019), which could also contribute to language maintenance. However, as Cenoz and Gorter (2017: 910) highlighted, this can only be fruitful if translanguaging is taking place in contexts that are authentic to the reality of the minority. This way, the encouragement of translanguaging would ideally lead to the speakers realizing that there is a multitude of situations where their own language variety is needed to function and communicate and cannot be left behind.

In light of the above, the second set of hypotheses relating to the impact of Digital Nativeness on language choices and attitudes towards translanguaging has also been confirmed. In line with the findings of the preliminary study, the final results confirmed that younger generations (under 18, 18–25, and to some extent 26–35) are generally more digital-oriented and digitally active in their day-to-day lives when compared to the 46–55 and over 55 age

groups, and the findings also indicate a connection between higher degrees of Digital Nativeness and one's openness towards translanguaging, as was found by Nightingale and Safont (2019) too.

3.3. Research Question 3

For what purpose and how do Vojvodina Hungarians use their languages in digital spaces?

In a variety of online and offline contexts, the 15 Vojvodina Hungarians' language choices tend to lean towards Hungarian in most cases, and sometimes Serbian, however, younger individuals are more likely to choose English (or sometimes all three languages) on the internet and are also more open to the idea of translanguaging in contexts that they themselves consider to be appropriate, both digitally and in face-to-face situations as opposed to older generations. A total of 16 screenshots that were shared by the Vojvodina Hungarian participants have taken these results further and revealed that they tend to engage in translanguaging for a variety of practical and intentional reasons, as they themselves rationalize. In general, younger individuals frequently blend the three languages – Hungarian, English, and Serbian, or Hungarian and English, or Hungarian and Serbian – while older individuals most frequently blend Hungarian and Serbian instead of English based on their translanguaging examples and the answers they gave when asked about their linguistic practices in general. In some of the cases, translanguaging has been described by the participants to occur as either an unconscious habit or a practical linguistic practice driven by urgency and most frequently convenience. This could be seen in a few examples where participants instinctively turned to English and Serbian when they needed to express strong and difficult emotions to those close to them: as a sort of coping strategy. While the participants explained various cases of translanguaging as a result of habit, a deeper analysis showed that participants tend to rationalize these instances as “accidents” or “unconscious habits” to justify why they do not adhere to a single named language in communication. While participants claim that they use English and Serbian in stressful situations impulsively or unintentionally, these instances also reflect strategic linguistic practices, where the speaker is actually creating a digital ‘safe haven’ for themselves or is renegotiating their position and professional credibility in front of a colleague or friend. At other times, participants explained their translanguaging occurred due to its convenience in time-sensitive situations, or out of habit when participants were referring to specific terms related to the workplace or address terms within the family. Along the lines of Gal and Irvine's (2019) work, these practices and the participants' rationalizations in their quotes can be interpreted through the semiotic processes of iconization, fractal recursivity, and

erasure. In many cases, the participants negotiate the tension between their actual multilingual practices and the social expectations of monolingualism through justifying their language choices and translanguaging. Sometimes these justifications simplify and downplay their agency and the complexity of the situation. By dismissing these instances of translanguaging as accidents or habits, they are both protecting their social position and avoiding appearing like they are intentionally challenging the ideological ideal of the “pure” monolingual speaker. Some of these instances also illustrate iconization, where participants directly link specific qualities to linguistic practices, as well as fractal recursivity, where they, for example, project the region’s multilingual reality onto their own private familial circles and interactions, where each named language has a specific function.

However, there were also various cases where they confidently and explicitly stated that they engaged in translanguaging intentionally, as these instances were thought through strategic ways of ‘linguaging’ (Jørgensen 2008; Pennycook 2010) intended to carry much deeper meaning behind them than those instances of translanguaging that were understood as accidental or habitual. As expected, based on Nightingale and Safont’s (2019) findings, the analyzed online interactions shared by the Vojvodina Hungarians have indicated that language choices and translanguaging practices are not occurring randomly but are oftentimes intentional and goal-driven, and, notably, this is characteristic of all the interviewed Vojvodina Hungarians’ translanguaging practices regardless of their age. Most often, these messages including intentional translanguaging were meant to build, signal, or reinforce a sense of shared cultural and linguistic identity with fellow Vojvodina Hungarians, coworkers, or friends and family, which is in line with the findings of previous studies (Paricio-Martín and Martínez-Cortés 2010; Cunliffe 2019). Some of the participants also expressed that they feel a sense of pride when they get to express their Vojvodina Hungarian identities through language, and they often do so with the use of Hungarian and Serbian interchangeably, even in contexts where their entire audience might not understand what they are saying. Translanguaging has been described as an integral part of the Vojvodina Hungarians’ digital and face-to-face communication, and although older generations did mention that they tend to engage in translanguaging at times (both out of habit and intentionally), they seem to be more reserved and less likely to practice it in formal and serious situations as opposed to younger individuals, who even experience translanguaging as an integral part of their workplace communication, which is in line with Räsänen’s findings (2018).

3.3.1. Digital linguistic practices: Translanguaging in authentic contexts

To illustrate how Vojvodina Hungarians rely on translanguaging in a variety of contexts, two examples below show an anecdote from one of the participants, Emese², as well an example of translanguaging shared by another participant, Dorottya, in Figure 1. In everyday settings, Emese's experience illustrates how she can rely on these practices to negotiate her minority position in public spaces and also establish an equal standing between Hungarian and Serbian. In her example, she talks about her communicative practices in public spaces, specifically farmer's markets, where multiple languages and cultures intersect and speakers are described to adapt to their interlocutors for various reasons:

(1) *“Nálunk itt Vajdaságban az teljesen mindennapos dolog, hogy néha magyarul beszélünk, néha pedig szerbül szólalunk meg, de még az is, hogy néha össze vissza, kinek hogy sikerül vagy hogy a könnyebb. Valamilyik nap épp a zöldszíacon voltam és először szerbül szólaltam meg – ez is egy ilyen szokás nálunk, mert ugye több a szerb, és előfordul, hogy végig szerbül beszélünk a másikkal, aki egyébként szintén magyar, de hát így szoktuk meg és nincs ezzel semmi baj. De olyan is volt már, hogy én szerbül beszéltem valakivel akiről tudtam, hogy szerb volt, ő pedig magyarul válaszolt nekem vissza és az egész beszélgetésünk így folyt.”*

“Here in Vojvodina, it's quite an everyday thing that sometimes we speak Hungarian, sometimes we speak Serbian, but there are occasions where we continuously use both of the languages, and it really depends on what way of speaking is easier. The other day I was at the market and started speaking in Serbian out of habit. Considering that there are more Serbs, we sometimes tend to carry out whole conversation in Serbian even with people we don't know are Hungarians, but that's okay, this is what we are used to and there's nothing wrong with that. But there have also been times when I spoke Serbian with someone I knew was a Serb, and they answered me back in Hungarian, and the whole conversation went on like that.” (Emese)

From Emese's perspective, these interactions are a result of her and her community's linguistic habits (starting conversations in Serbian due to it being the majority language), or because it is easier for interlocutors to communicate in such multilingual ways. In these contexts, the socially expected linguistic practices are monolingual Serbian, which she also touches on when mentioning how the number of Serbian speakers surpasses speakers of Hungarian (and other minority languages) in the region, and this is something that also has an influence on which named language is going to be the primary choice of the speaker. While she claims that these

² All of the interviewees received pseudonyms to ensure their anonymity.

are most often instances of habit, Emese is strategically making her first language and minority identity more visible by fusing it with Serbian or making sure it appears alongside Serbian in public spaces. The socially constructed roles of a ‘dominant’ Serbian and a ‘subordinate’ Hungarian in the context of Vojvodina are also challenged by Emese and her interlocutors when they switch their positions, which highlights how they can flexibly (and continuously) renegotiate their social standing and go against the institutionally dominant view which erases (Gal and Irvine 2019) any degree of language mixing. As Schuchardt (1882: 868, as it appears in Gal and Irvine 2019: 268) contends, “[l]anguage is not an object, it is the product of an acting subject,” which is neatly demonstrated by Emese’s experience.

On the other hand, to demonstrate how translanguaging actually looks like and works in practice, Jana’s (Figure 1) screenshot of her messages to her colleague (who is also her close friend) below depicts how translanguaging might take place when speakers are experiencing emotional distress and pressure due to external factors. In these moments, instead of adhering to one named language, many of the participants rely on their entire linguistic repertoire to express how they feel. For Jana, stress seem to trigger this, which results in “more impulsive” messages such as “da mu ja proveravam izvwstaj [misspelling, the intended word: izveštaj] procenitelja???? 🤪 🤪 (the translation of the original message which was in Serbian: Am I seriously supposed to review an appraiser’s report for him???? 🤪 🤪) or her message “HELP” and “Dude I’m losing it frfr [for real],” as she perceives it.

Figure 1. Jana’s messages with Gábor: asking for help at work.

<p>HELP 12:27 ✓</p> <p>Dude im losing it frfr 12:27 ✓</p> <p>██████nak elment az esze 12:27 ✓</p> <p>Da mu ja proveravam izvwstaj procenitelja???? 🤪 🤪 12:28 ✓</p> <p>Ma daj bre ██████ 12:28 ✓</p> <p>Soha nem csinaltam ilyet azt se tudom mit nezzek benne 12:29 ✓</p> <p>Auuu 12:39 ✓</p> <p>Meddigre kell neki? 12:39 ✓</p> <p>Varhat negyed 2ig?? 12:40 ✓</p> <p>IGEN 12:41 ✓</p> <p>angyal vagy 🤪 🤪 12:41 ✓</p>	<p>Translation:</p> <p>Person A <u>HELP*</u> Dude I’m losing it for real, for real* [Our boss] has lost his mind** Am I seriously supposed to review an appraiser’s report for him???? 🤪 🤪*** Come on!*** I have never done that before**</p> <p>Person B Oof*** When does he need it?*** Can it wait till 1:15?***</p> <p>Person A YES** You’re an angel 🤪 🤪**</p>
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While she explains and rationalizes these instances where English or Serbian is fused into her messages as accidents or habit, looking at these examples more closely reveals that she

actually handles difficult situations such as the one above by engaging in translanguaging, however, her choice to translanguage might also be driven by an underlying desire to match her boss' social and professional standing or expectations, even if she is not directly addressing him. When she uses Serbian equivalents (names) of the tasks that she was asked to take care of, she is renegotiating their positions and perhaps trying to mitigate the fact that she does not feel too confident in herself to carry out the task at hand. In this context, relying on translanguaging, and especially on Serbian is what allows her to upkeep a professional image even despite feeling like she is incompetent. Additionally, by dismissing and simplifying (a form of erasure) these cases of translanguaging as accidents or habits, she is shielding herself from appearing like she is intentionally going against the ideologically constructed ideal of the "pure" monolingual speaker.

3.4. Research Question 4

What factors influence the linguistic practices of Vojvodina Hungarians in digital spaces, particularly in terms of language choices and translanguaging?

The assumptions formulated in 2.2 above have been largely confirmed, as the results of both the final questionnaire and the interviews pointed out that most often their language choices are influenced by the language they see comments, messages, or online content in, aside from the type or topic of the content. A very notable finding is that while a few of the participants have expressed their low confidence in some of their spoken languages (mainly Serbian and English), their insecurities did not prevent them from using those languages in written form online. Their bravery in some instances might be the result of a figurative protective shield that digital spaces seem to offer them. This sense of security can inspire them to use their languages more freely online than they would in person. Some of the translanguaging examples illustrate that intentional translanguaging does occur in the Vojvodina Hungarian context when the speaker's (or writer's) goal is to address a specific audience or exclude another, or when they wish to conform to worldwide trends and use the lingua franca (Durham 2007; Lee 2014), which is most likely to take place among younger individuals. Participants have also shown that they are consciously and intentionally switching between languages or deciding to reply in another language than that of the content, with the aim to express their linguistic, national, and cultural identities (in line with findings in Kelly-Holmes 2004; Lee 2014; Androutsopoulos 2015; Belmar and Glass 2019).

4. Overview of findings and their implications

Overall, the anecdotes and examples discussed in the previous section all indicate that the participants' language choices and desire to engage in translanguaging are very often influenced by a multitude of intersecting factors. While their linguistic practices are often deeply rooted in and influenced by their 'memberships' in specific communities or online groups (see also Lee 2014; Androutsopoulos 2015), the findings have also pointed out the complexity of these instances. The type of consumed content and content created, and even their own beliefs about their spoken languages as well as their confidence in those are all additional building blocks of one's online identity (see also Lee 2014) which are carefully and intentionally curated, whether online or in face-to-face situations. Similarly to previous studies researching translanguaging and exploring the ways in which its promotion could yield positive effects especially in minority settings (Cenoz and Gorter 2017, 2019), the participants in the present dissertation have expressed that translanguaging is something very unique to them, as they are able to understand one another on a deeper level and discuss topics that necessitate the use of their entire linguistic repertoire for mutual understanding and effective communication. The necessity for translanguaging in such instances is something that strengthens their membership in the Vojvodina Hungarian community, where the fact that they share the same languages, a mixture of cultures, and lived experience with fellow Vojvodina Hungarians is something that is to be valued and cherished. This provides great grounds for a supportive community, where the use of their Hungarian minority language (whether by translanguaging or not on its own) becomes a necessity, especially for discussing various topics that might not be possible without the use of Vojvodina Hungarian. Considering that Hungarian is their first language and the language they have the richest repertoire of, it is possible that group communication would not take place as effectively if this crucial condition was not met (Cenoz and Gorter 2017, 2019).

The present dissertation has a number of implications, particularly for minority language communities. As we could see, the findings have shown that translanguaging can and does have positive effects in minority settings, as it provides a flexible, creative, and effective way of communication. The study also aims to challenge traditional views of language mixing that have long been stigmatized, through the analysis of real examples of translanguaging among Vojvodina Hungarians. The linguistic examples not only demonstrate how individuals can communicate effectively by practicing translanguaging, but also demonstrate how multilingual speakers are able to creatively express themselves, convey their messages, and perform their identities in complex ways. Extending the findings of previous studies (cf. Cenoz and Gorter 2017, 2019), the examples and experiences related to linguistic and digital practices shared by the Vojvodina Hungarian participants in the present dissertation further strengthen the idea that

translanguaging and higher degrees of Digital Nativeness can positively impact digital communication, digital presence, and aid the process of language maintenance. Although the results clearly show how prominent the position of English is in the younger and, to some extent, the middle-aged Vojvodina Hungarians' lives in various digital and physical spaces, Hungarian is nevertheless their primary choice, which could also be seen in their private and personal digital communication, highlighting their desire and need for the maintenance of Hungarian even in the face of the widely spoken and encountered Serbian state language and the globally preferred English language. While it is not a guaranteed positive and discrimination-free environment, digital spaces can nevertheless offer a supportive, multimodal, and creative space for minority languages and speakers, who might also see it a necessity, as we could see in the preliminary study's results, especially in cases where a sense of community and security is absent in person. The findings might also be useful for purposes relating to education and language policy (Williams 1994, 1996; Baker 2001), as the study has demonstrated how young people effortlessly engage in translanguaging and view it as an integral part of their daily communicative practices. Instead of further supporting and applying monolingual norms in multilingual environments and viewing language mixing as a deficiency, it would be much more beneficial to embrace translanguaging and recognize it as a valuable communicative resource.

While the present study does fill a major gap in the study of digital linguistic practices within minority Hungarian communities by offering valuable and novel insight into the linguistic and digital practices of Vojvodina Hungarians in today's digital age, it is essential to acknowledge some of the constraints and limitations that were faced during the process of data collection and analysis. To begin with, although the preliminary study was not intended to provide generalizable insights on Vojvodina Hungarian linguistic and digital habits, one of its major limitations is nevertheless its small sample size. Another issue that was identified at that point in the research was that the initial focal points of the preliminary study were too broad, which also made the preliminary questionnaire longer and overly broad. However, this process was very necessary and highlighted some key aspects that needed to be modified in order to reach the final product and make the dissertation much more focused and goal driven.

5. Conclusion

The present dissertation has sought to explore the extent of Digital Nativeness among 615 Vojvodina Hungarians with an adapted version of the Digital Nativeness Test developed by Helsper and Eynon (2010). Simultaneously, it has also aimed to see whether Digital Nativeness influenced the participants' language choices and general attitudes towards translanguaging and

three languages in general, those of Hungarian, Serbian, and English, which are usually present in the Vojvodina Hungarian setting both online and in face-to-face situations. The overall results have revealed that in general, there are visible differences in digital activities and confidence in internet and digital skills among the six established age groups (under 18, 18–25, 26–35, 36–45, 46–55, over 55), also showing an effect on the participants' openness towards multilingual practices. As an extension of the quantitative data, the present dissertation has also looked at 15 Vojvodina Hungarians' digital habits and digital linguistic practices, specifically focusing on presenting and analyzing authentic instances of their digital translanguaging from a qualitative perspective. Semi-structured interviews were conducted with some of the same participants from the preliminary study, and the findings have shown that the Vojvodina Hungarian interviewees had very individual yet overlapping life stories in relation to technology (Lee 2014) as well as linguistic choices and linguistic habits in general.

Although these findings are not generalizable due to the limited number of participants and the individuality of their experiences, the qualitative approach has nevertheless allowed for more detailed and individualized data collection and analysis. Similarly to the questionnaire's results, the interview data have also revealed a high level of digital integration in the daily lives of the Vojvodina Hungarian participants, with substantial time spent online and a diverse range of online activities, which include social media use, information seeking, communication, and online errands of all sorts. The findings also highlight the crucial role of digital platforms in maintaining social connections within the Vojvodina Hungarian community that also foster and provide multimodal platforms for translanguaging practices that range from intentional, strategic 'languaging' to those described by the Vojvodina Hungarian participants as habits or practical choices to avoid the pressure of ideologically driven societal expectations of adhering to a single named language. In this sense, Digital Nativeness is not solely about possessing higher degrees of digital skills or being connected, but also about the agency that these skills and experiences are able to provide the internet user. In these spaces, participants are able to create 'safe havens' or turn to specific audiences where they can feel empowered to communicate with others relying on their entire linguistic repertoire. Based on the Vojvodina Hungarian participants' own examples and experiences, digital spaces minimize a variety of risks related to fluid linguistic practices that often cannot be avoided in face-to-face interactions in the physical world.

Their spoken and written interactions are characteristic of multilingual speech, where translanguaging plays a significant role in shaping their online identities and often takes place for the purpose of more efficient communication and getting one's message across in the easiest and most effective way possible. While their language choices are influenced by a combination

of contextual, social, and personal factors, in line with results of previous studies on related topics (Lee 2014; Androutsopoulos 2015), the maintenance of Hungarian in both digital and face-to-face contexts is not hindered, but is actually facilitated by digital presence and their willingness to engage in digital communication and engage with digital content in Hungarian.

The findings of the present dissertation on digital and linguistic practices of Vojvodina Hungarians point to several potential directions for future research. For one, attitudinal studies could be done across multiple minority Hungarian communities at the same time in Romania, Slovakia, Croatia, Ukraine, Serbia, and Austria (similarly to an earlier project by Fenyvesi 2005) to see how the degree and type of digital exposure, language practices, and attitudes vary and interact with each other in various contexts. Alternatively, they can also be done across different language groups in the same region, for example, by comparing attitudes of Slovakia Hungarians and the majority Slovak speakers to explore how attitudes towards translanguaging vary. However, a more thorough examination of active digital presence could also be done in minority Hungarian (and essentially any indigenous, migrant, and minority language) contexts, specifically focusing on multimodal digital communication and translanguaging instances on social media platforms, such as Reddit, TikTok, and Facebook among others. Studies could investigate how technical affordances of digital technology are creatively and strategically used (similarly to the 2011 study by Vaisman) to perform identities and convey messages with various overlapping and underlying meanings and purposes. Furthermore, future research could also investigate the linguistic landscape of the multilingual Vojvodina, which remains substantially under-researched (with the exception of Sikimić and Nomachi 2016; Sorescu-Marinković and Salamurović 2022). Studies in this field not only tend to document the visible presence of languages (e.g., public signs, advertisements, tombstones, etc.) but also examine how linguistic practices reflect the local power dynamics, language status, and linguistic rights of various communities (Sorescu-Marinković and Salamurović 2022).

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