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# Iranian EFL Learners' Preferences of Different Digital Technologies for Language Learning Beyond the Classroom

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**ABSTRACT**

In recent years, increasing availability of digital technologies and internet connection for the majority of global population has affected almost every aspect of modern life including education and language learning. As a result, the face of language learning is changing both inside and outside the classroom and there is an ever growing need to study various affordances of these new technologies in education and learners' and teachers' attitudes towards using them. To this end, the current study investigated Iranian EFL learners' preferences regarding the use of different digital technologies for language learning beyond the classroom and their beliefs on how these technologies augment their language skills. To collect participants' data, an online questionnaire was employed and responses from 114 Iranian EFL learners (50 males and 64 females) were obtained through a locally popular social media network. The results of the online survey revealed that participants use various media types and digital technologies for developing their language skills beyond the classroom, and electronic dictionaries, Internet sites, and films are among the highly employed multimedia types. Further statistical analysis (MANOVA) of data also revealed that despite some variation in frequency of use for various technology types among male and female participants, the two groups only have significant differences in using computer games and music. Findings of the study indicate that despite some imposed restrictions on social network and Internet use in Iran, most Iranian EFL learners are actively using them in their language learning beyond the classroom. On implication side, the paper discusses some benefits of using digital technologies for language learning and teaching.

**Key words:** Digital Technologies in Language Learning, Language Learning Beyond the Classroom, Technology Preferences in Language Learning, CALL

## INTRODUCTION

Digital technologies and the Internet have dramatically expanded the scope, nature and opportunities of out-of-class learning for language learners (Nunan & Richards, 2015). Their introduction and use in language teaching and learning has increased learners' motivation to learn (Stockwell, 2013), and they play a significant role in encouraging learner autonomy defined by Benson (2011) as the "capacity to take control over one's own learning" (p. 2). In fact, a unique feature of these technologies is their capability in displaying texts, images, sounds and videos in structures encoded in digital format (Kern, 2011) which makes it possible to share a variety of content and educational materials over the Internet. In recent years, with availability of smartphones, tablets, and social media networks for the majority of global population, there is an ever growing need to study various affordances of these new technologies in education (including language learning and teaching) and learners' and teachers' attitudes towards using them. As technologies develop, become more available, and being adapted for foreign language learning and teaching, instructors need to alter their teaching strategies and techniques or adjust their activities in order to utilize those resources effectively (Golonka, Bowles, Frank, Richardson, & Freynik, 2014). Moreover, knowing about learners' attitudes towards Computer Assisted Language Learning (CALL) techniques and materials is essential before implementing new technologies in schools and educational contexts (Jahromi & Salimi, 2013).

As a result of rapid developments and progresses in digital technologies, the area of CALL is undergoing fundamental changes, and new technologies and related innovations create opportunities to revisit previous findings and challenge established beliefs (Beatty, 2010). Arguably, "the rapid convergence of functionality across digital devices and our growing reliance on such devices for communication means that we may soon need to refer broadly to information and communication technologies rather than specifying to computers in our research" (Kern, 2006, p. 185). Given such a changing perspective on CALL in recent years, it has been defined in this paper as "learners learning any language in

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any context, with, through and around computer technologies" (Egbert, 2005, p. 4). This definition has the capacity to broaden the different types of relationships between computers and language learning (Kern, 2006) and also captures its changing and evolving nature.

In recent years, technological innovations and the use of English in social media networks, provided language learners with greater affordances for meaningful and authentic language use than are available in the classroom (Richards, 2015), and the idea of 'language learning beyond the classroom' has gained increased attention among language teachers and researchers. Godwin-Jones (2017) argues that the rise of smartphones alone has ushered a new era in human-machine relationship, which has a potential to fundamentally disrupt the education including second language learning. Stockwell (2013) also claims that the question of whether technologies can play a role in motivating learners has been discussed from early days of CALL and with increased sophistication and growing uses of technology in learners' daily lives, their motivating potential has enhanced. In this regard, White (2008) argues that there has been a sustained commitment within applied linguistics to find out how learners succeed in Independent language learning (ILL) environments and to find ways of enabling them to manage the challenges of language learning in those contexts.

According to Internet World Stats website, the number of Internet users in Iran has been increased significantly during the past few years (from 250000 individuals in 2000 to about 47 million users in 2015, and up to 56.7 million users in 2017) and around 40% of population in Iran are using internet regularly (Internet Usage in the Middle East, 2017). In coming years however, with the arrival of 3G and 4G networks, the number of internet users in Iran is going to rise significantly. These developments are also changing the face of language learning both inside and outside of the classroom for Iranian language learners. Previous studies investigating Iranian learners' and teachers' attitudes towards using CALL materials and their effectiveness have been concerned with institutional uses of those materials (e.g. Dashtestani, 2013; Hedayati & Marandi, 2014; Mokhtari, 2013), and there is a gap in existing literature regarding how language learners employ CALL materials and technological innovations for learning languages beyond the classroom. Moreover, most research in this area addressing learner factors such as age or gender in relationship to technology-mediated language learning has provided a variety of contradictory perspectives and arguments (Gee & Lee, 2016). However, current sociocultural perspective on education emphasizes the fact that individuals enact various aspects of their identities through their use of various tools including digital technologies (Wajcman, 2010). In this regard, digital technologies are likely to contribute to learners' access to online communities and provide them with different opportunities for language learning and practice (Gee & Lee, 2016). The current study aims to investigate Iranian EFL learners' preferences regarding the employment of different digital technologies for language learning beyond the classroom with an eye on possible gender differences, and also their beliefs on how these technologies augment their language skills. The findings of currents study contribute to broader literature in CALL, and can inform language teachers on learners' preferences of various technology types for language learning.

## REVIEW OF LITERATURE: DIGITAL TECHNOLOGIES IN LANGUAGE LEARNING

According to Godwin-Jones (2011), "as long as there have been portable audio-video and computing devices, there has been [an] interest in exploring their use in language learning" (p. 2). A number of studies in language teaching research have investigated how digital technologies and the Internet can facilitate different aspects of language learning. For example, Verdugo and Belmonte (2007) investigated whether Internet-based technologies could improve listening comprehension, Ducate and Lomicka (2009) studied the effects of using podcasts to improve second language learners' pronunciation, Wang and Smith (2013) examined the feasibility and limitations of developing English grammar and reading skills using the interface of mobile phones, Mompean and Fouz-González (2016) studied the use of Twitter as a language learning tool and its effectiveness for pronunciation teaching, Allen, Crossley, Snow and McNamara (2014) investigated the efficacy of game-based writing strategy tutoring system to improve second language students' writing performance, and Benson (2015) provided some evidence of language and intercultural learning in comments on YouTube videos.

Reinders and Wattana (2014) examined the effects of digital game play on learners' Willingness to Communicate (WTC) and concluded that game play has a potential of developing fluency, building confidence among students to communicate in English. Chik (2014) reports the results of an exploratory study investigating second language gaming and learning practices in young language learners' everyday lives and identified autonomy as one of the keys to facilitate second language learning through gaming. Furthermore, Allen et al. (2014) concluded that students were benefited from explicit writing strategy instruction within a game-based language learning environment, and learners' enjoyment was identified to be the key factor for their overall engagement, motivation and perceived performance.

Research also indicates that the use of social networks in language learning, increases learners' motivation and self-confidence; makes them more comfortable communicating with native speakers and they reported high levels of perceived progress (Lin, Warschauer, & Blake, 2016). Blattner and Lomicka (2012) investigated the use of social networking sites (SNSs) in a language course as well as the way students responded to them. This study was also intended to investigate the attitudes of language learners and teachers regarding the use of Facebook (FB) in an academic setting. The findings revealed that students reacted positively to the use of FB in their language classes, and also recognized it as a new platform where they can put their developing language skills into practice. They also described FB as 'casual' and 'pressure free' which made them comfortable practicing their written skills outside the classroom. In another study, Ota

(2011) examined the nature and extent of SNS communities available for second language learners of Japanese for learning this language outside the classroom by focusing on 'mixi' (a SNS created for Japanese with all instructions in Japanese language) and FB. According to findings, a beneficial aspect of SNSs for second language learning was the opportunities for expanding the learners' networks and the possibility of connecting with multiple partners at the same time. SNSs, also provided language learners in this study with a portal to access other information and sources as well as opportunities to organize face to face interaction.

With regard to the use of mobile phones in language learning, Stockwell (2010) examined the effects of the platform on vocabulary learning activities, and more specifically looked at any differences in scores achieved, time required to complete activity and improvement in speed and scores over time, when learners used PC or mobile platforms. Based on results, there were no consistent difference in scores achieved by two platforms, and learning through mobile phones took much longer time while no improvement was observed in speed and scores over time. Mobile interface and screen size were reported to be contributing factors for longer time needed for completing activities in this platform. One important implication of this study was that learners' perception of mobile phones and its patterns of usage as a learning tool, was subject to change over the three years of study. In another study however, using a mixed method approach, Saran, Seferoglu, and Cagıltay (2009) examined the potentials and effectiveness of using mobile phones and multimedia messages via mobile phones for improving language learners' pronunciation in Turkey. Findings of this study indicated that using mobile phones had positive effects on language learners' pronunciation and participants provided positive feedback on using mobile phones and applications for the purpose of language learning. Thornton and Houser (2005) also investigated the use of mobile phones in English education in Japan. In this study, short mini lessons were delivered to students' mobile phone as text materials (e-mails) three times a day, and participants also received video and web materials for teaching idioms in their mobile phones and PDAs. Students in this study evaluated materials designed for mobile phones positively and the results indicated that they were able to learn using this medium. Furthermore, participants in this study were comfortable reading text and viewing video on small screens.

More specifically in Iranian EFL contexts, some studies investigated learners' and teachers' attitudes towards using CALL materials in schools and universities. For example, Jahromi and Salimi (2013) investigated perceived usefulness, perceived ease of use, and user acceptance of information technology and computer-related attitudes and abilities among Iranian high school language teachers and students. They also compared the attitudes of language teachers and students towards CALL, cultural perceptions of the role of computers in education, computer competence, and computer access. The results indicated that most of the participants had positive attitudes towards CALL and they considered it relevant to the cultural context of Iran. In another study, Hedayati and Marandi (2014) examined the status quo of technology integration in Iranian EFL classes and investigated the obstacles, as perceived by the Iranian EFL teachers, toward implementing CALL in Iran. The results of this study revealed that Iranian EFL teachers do not usually integrate digital technologies into their classes. Researchers furthermore classified obstacles in implementing CALL in language classrooms into three categories of teacher, facility, and learner constraints. Mokhtari (2013) also reported that Iranian students are generally positive about the use of computer technology in language learning and are willing to accept the integration of computer technology resources into their language learning courses. Other studies in area of CALL in Iranian context, have investigated the use of different multimedia and technology types in teaching language skills and features (e.g., Ebrahimi, Eskandari, & Rahimi, 2013; Zaini & Mazdayasna, 2015; Saeidi & Yusef, 2012; Rassaei, 2017).

Published literature in this area in general suggests that technological innovations if used properly, can enhance learners' interests and motivation, facilitate students' access to target language input, provide them with more interaction opportunities and feedback, and also give the instructors the tools they need to organize course content (Golonka, Bowles, Frank, Richardson, & Freynik, 2014). As Lai and Gu (2011) argue, due to the various constraints of formal instructional contexts, classrooms are resistant to change and to use educational potentials of new technologies, and the true power of different technologies for language learning may be realized and maximized best outside the language classroom. Moreover, the process of learning an additional language is highly time consuming and requires large amounts of input and interaction (Blake, 2008), and opportunities for learning available in the language classroom tend to be quite restricted (Richards, 2015). In this regard, engaging language learners with and encouraging them to use new technologies beyond the walls of the classroom is both facilitating and important for successful language learning.

In a recent study, Szyszka (2015) investigated multimedia preferences of German, Polish, and Spanish English as Foreign Language learners for their autonomous out-of-class learning. Another purpose of this study was determining participants' views on how some selected multimedia (such as FB, electronic dictionaries, etc.) affect development of language skills (speaking, writing, reading, and listening) and pronunciation among them. Results of the study confirmed culture-specific preferences for different technologies and concluded that watching films and listening to music were reported to be most influential in developing respondents' language skills.

Despite considerable interest regarding issues such as age and gender in language teaching research, few studies have explored these issues in the context of technology-mediated learning environments (Gee & Lee, 2016). Gender differences in preferences for educational software and games have been documented in the related literature and studies in different countries provided conflicting evidence regarding boys' and girls' attitudes towards computers, aptitude or

computer literacy, and computer usage (Luik, 2011). Some evidence indicates that boys and girls are attracted to different aspects of Information and communications technology (ICT) (Volman, Eck, Heemskerk, & Kuiper, 2005), girls use ICT less at home and in schools, and have a less positive attitude towards computers (Young, 2000). On the other hand, there are studies that have not reported significant differences in attitudes and performances amongst gender groups (Ke & Grabowski, 2007; Liu, 2004). In the literature, one can find two theoretical perspectives for understanding gender differences in language acquisition: individual trait and sociocultural perspectives (Gee & Lee, 2016). Although individual trait perspective fails to provide conclusive evidence of gender-based variation in language learning (ibid.), in sociocultural perspective which considers social learning as one of its cornerstones (Warschauer, 2005), learning a new language is closely tied to learners' identities as they negotiate a complex social relationship which mediates their language learning beyond the classroom (Polat & Mahalingappa, 2010). In this regard, with the increasing availability of digital technologies for language learners and the fact that they spend considerable time in these new learning environments, SLA research needs to address how relations of power and identity influence learners' access to those technologies and shape their opportunities for language learning beyond the classroom.

In light of aforementioned discussion, the current study aims to fill a gap in existing literature regarding Iranian EFL learners' preferences of different digital technologies available for them for language learning beyond the classroom and possible effects of gender on their technology and media use. Furthermore, present study also examines the way Iranian EFL learners perceive effectiveness of various digital technology and media types in fostering different language skills. In order to meet these goals, following research questions have been proposed for this study:

1- What are the most and the least employed digital technology types among Iranian EFL learners for English language learning beyond the classroom?
2- Are there any differences among male and female participants in their technology use?
3- How do various technology types affect different language skills from respondents' perspective?

## METHOD

The present study adopted a survey design to find out about Iranian EFL learners' preferences for different digital technologies in language learning beyond the classroom. An online questionnaire was administered to a sample of English language learners in a private institute and obtained data was classified, analyzed, compared among gender groups, and interpreted to answer research questions.

### Participants

The participants of this study included 127 Iranian adult EFL learners (56 males and 71 females) selected based on convenient sampling procedure from a group of students learning English as a foreign language in a private language teaching institute in Tehran, Iran. Most of the participants were high school and university students with at least 4 years of English language education background. The mean age of the participants was 20 (ranging from 14 to 37), and in response to an item in questionnaire asking them to evaluate their own level of English language proficiency, 32.8% rated their level as excellent, 33.6% very good, 25.6% good, and 8% satisfactory.

### Instruments

An online questionnaire, originally developed by Szyszka (2015) was slightly modified and administered online using Google Forms to collect data from participants of the study (link to online questionnaire: https://goo.gl/forms/MkPsaEbJaA5aWSoy1). The first part of the questionnaire was intended to collect demographic data including gender, age, the age at which participants started learning English, and their evaluation of their own level of English. A question asking "How often do you use the following digital technologies when you learn English?" was used to investigate the frequency of use for different digital technologies including TV programs in English, Electronic Dictionaries, Skype, Facebook, E-mail, YouTube, Internet Sites, Computer Software, Music, Films, Audiobooks, and Computer Games. A 5-point Likert scale, where 1 indicated 'never' and 5—'very frequently' was used for responses in these questions. The next set of questions asked about participants' views on how different technologies (mentioned above) impact developments of their speaking, writing, listening, reading, pronunciation, grammar, and vocabulary. At these questions participants were asked to choose one the following options, 'not at all,' 'a little,' 'somewhat' or 'a lot', in order to specify the extent to which they believe these technologies influence their language development (Which digital technology makes you better at speaking/listening/reading/writing/pronunciation/grammar/vocabulary?).

### Procedures

An invitation to participate in research containing a link to online form, specific instructions on how to submit the online form, and researcher's contact information was sent to potential respondents in social media network Telegram® (Iran's instant messenger of choice). During this process, around 300 individuals were contacted in social media and 127 of them submitted online survey. In the invitation request for the current study, respondents were informed that participation in survey is not obligatory, there is no need to provide personal information for items in the questionnaire, and their responses are intended to be used for research purposes only. Participants' data were gathered from February 2017 to the April 2017.

### Data analysis

Obtained data from participants on their preferences of various digital technologies for English language learning were

computed by means of percentages, mean frequencies and standard deviations. Mean values were also calculated in order to investigate the views of the respondents on the influence of digital technologies on their language development. Moreover, using IBM SPSS Statistics (version 23), one-way between-groups multivariate analysis of variance (MANOVA) was performed to investigate gender differences in overall technology use.

## RESULTS

In this section, the summary of responses that participants of the study have provided for items in the questionnaire will be presented. Regarding the first research question for the most and the least employed digital technology types among Iranian EFL learners for English language learning beyond the classroom, Table 1 represents the mean values and standard deviations related to learners' declared use of different media types on a 5-point Likert scale where 1 indicates 'never' and 5 'very frequently'. The more frequent digital technologies employed by Iranian EFL learners for language learning beyond the classroom, based on respondents' reports, are Internet sites ($M$ = 3.95, $SD$ = 1.09), electronic dictionaries ($M$ = 3.91, $SD$ = 1.02), and films ($M$ = 3.71, $SD$ = 1.05). TV programs in English, E-mail, computer software, and music have mean values above 3 and employed frequently by participants, and finally other media types including, Skype, Facebook, YouTube, computer games, and Audiobooks could be considered as less employed media types among participants of this study.

Regarding the second research question; that is, gender differences in frequency of different technology use, as it is represented in Figure 1 and Tables 2, 3, and 4, there is no telling difference in overall results. However, male participants reported more frequent use of computer games ($M$ = 2.33) and YouTube ($M$= 2.45) compared to females ($M$ = 1.71 for computer games, and $M$= 2.12 for YouTube). On the other

**Table 1.** Descriptive statistics for learners' declared use of different media types

| | N | Mean | Standard deviation | Standard error | 95% Confidence interval for mean | |
|---|---|---|---|---|---|---|
| | | | | | Lower bound | Upper bound |
| TV programs in English | | | | | | |
| Male | 54 | 3.33 | 1.046 | 0.142 | 3.05 | 3.62 |
| Female | 67 | 3.28 | 1.042 | 0.127 | 3.03 | 3.54 |
| Total | 122 | 3.30 | 1.042 | 0.094 | 3.11 | 3.48 |
| Electronic dictionaries | | | | | | |
| Male | 51 | 3.86 | 1.132 | 0.158 | 3.54 | 4.18 |
| Female | 66 | 3.97 | 0.928 | 0.114 | 3.74 | 4.20 |
| Total | 118 | 3.91 | 1.029 | 0.095 | 3.72 | 4.09 |
| Skype | | | | | | |
| Male | 53 | 1.75 | 0.998 | 0.137 | 1.48 | 2.03 |
| Female | 65 | 1.60 | 0.965 | 0.120 | 1.36 | 1.84 |
| Total | 119 | 1.66 | 0.977 | 0.090 | 1.49 | 1.84 |
| Facebook | | | | | | |
| Male | 53 | 2.08 | 1.124 | 0.154 | 1.77 | 2.39 |
| Female | 66 | 2.17 | 1.131 | 0.139 | 1.89 | 2.44 |
| Total | 120 | 2.13 | 1.122 | 0.102 | 1.93 | 2.34 |
| Email | | | | | | |
| Male | 54 | 3.28 | 1.393 | 0.190 | 2.90 | 3.66 |
| Female | 66 | 3.27 | 1.210 | 0.149 | 2.98 | 3.57 |
| Total | 121 | 3.26 | 1.289 | 0.117 | 3.03 | 3.50 |
| YouTube | | | | | | |
| Male | 53 | 2.45 | 1.353 | 0.186 | 2.08 | 2.83 |
| Female | 66 | 2.12 | 1.157 | 0.142 | 1.84 | 2.41 |
| Total | 120 | 2.27 | 1.248 | 0.114 | 2.04 | 2.49 |
| Internet sites | | | | | | |
| Male | 54 | 3.89 | 1.022 | 0.139 | 3.61 | 4.17 |
| Female | 66 | 4.03 | 1.136 | 0.140 | 3.75 | 4.31 |
| Total | 121 | 3.95 | 1.094 | 0.099 | 3.75 | 4.15 |

*(Contd...)*

**Table 1.** (*Contiuned*)

| | N | Mean | Standard deviation | Standard error | 95% Confidence interval for mean | |
|---|---|---|---|---|---|---|
| | | | | | Lower bound | Upper bound |
| Computer software | | | | | | |
| Male | 53 | 3.26 | 1.163 | 0.160 | 2.94 | 3.58 |
| Female | 66 | 3.23 | 1.250 | 0.154 | 2.92 | 3.53 |
| Total | 120 | 3.23 | 1.207 | 0.110 | 3.02 | 3.45 |
| Music | | | | | | |
| Male | 53 | 2.87 | 1.241 | 0.170 | 2.53 | 3.21 |
| Female | 67 | 3.30 | 1.115 | 0.136 | 3.03 | 3.57 |
| Total | 120 | 3.11 | 1.187 | 0.108 | 2.89 | 3.32 |
| Films | | | | | | |
| Male | 54 | 3.70 | 1.160 | 0.158 | 3.39 | 4.02 |
| Female | 67 | 3.75 | 0.943 | 0.115 | 3.52 | 3.98 |
| Total | 122 | 3.71 | 1.048 | 0.095 | 3.53 | 3.90 |
| Audiobooks | | | | | | |
| Male | 54 | 2.74 | 1.200 | 0.163 | 2.41 | 3.07 |
| Female | 66 | 2.86 | 1.149 | 0.141 | 2.58 | 3.15 |
| Total | 121 | 2.79 | 1.176 | 0.107 | 2.58 | 3.00 |
| Computer games | | | | | | |
| Male | 52 | 2.33 | 1.200 | 0.166 | 1.99 | 2.66 |
| Female | 66 | 1.71 | 0.957 | 0.118 | 1.48 | 1.95 |
| Total | 119 | 1.98 | 1.105 | 0.101 | 1.78 | 2.18 |

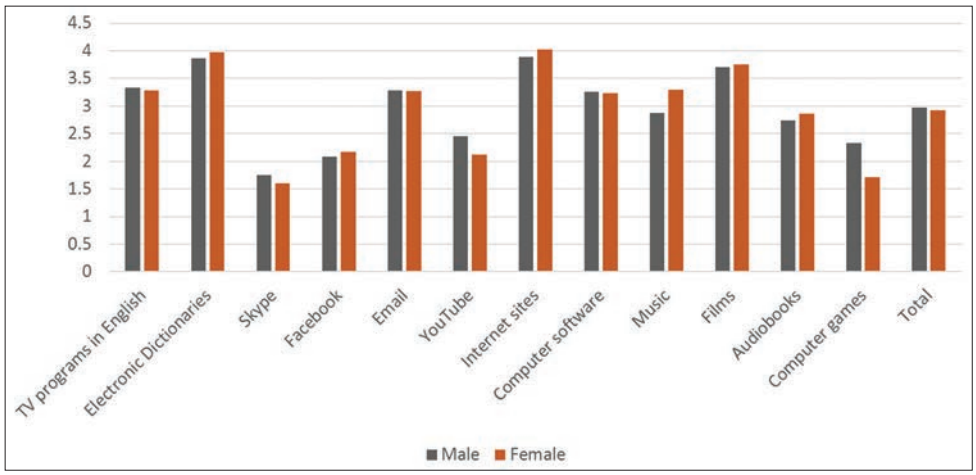


**Figure 1.** Gender differences and frequency of different media use (5 = very frequently, 1 = never)

hand, Music is more employed by females ($M$ = 3.30) than males ($M$ = 2.87).

A one-way between-groups multivariate analysis of variance (MANOVA) was performed to investigate gender differences in overall technology use. Twelve dependent variables were used (see Figure 1 for various technology types) and the independent variable was gender. Preliminary assumption testing was conducted to check normality, linearity, outliers, homogeneity of variance-covariance matrices, and multicollinearity, and no serious violation was noted (Tables 2, 3, and 4). There was a statistically significant difference between males and females on the combined dependent variables, F (12, 101) = 2.096, p = 0.024; Wilks' Lambda = 0.8; partial eta squared = 0.199 (Table 3). When the results for dependent variables were considered separately (Table 5), the only differences to reach statistical significance were music (F (1, 112) = 2.94, p = 0.039, partial eta squared = 0.026) and computer games (F (1, 112) = 8.62, p = 0.004, partial eta squared = 0.071). An inspection of mean scores indicated that females reported slightly higher levels of music use ($M$ = 3.3, $SD$ = 1.1) than males ($M$ = 2.87, $SD$ = 1.24) for language learning beyond the classroom, while male participants reported higher levels of computer games use ($M$ = 2.33, $SD$ = 1.2) than female participants ($M$ = 1.71, $SD$ = 0.95).

As for the third research question regarding perceived effects of selected digital technology types on Iranian EFL

learners' language skills, vocabulary, pronunciation, and grammar development, results are reported in Table 6.

**Table 2.** Box's test of equality of covariance matrices

| | |
|---|---|
| Box's M | 89.914 |
| F | 1.020 |
| df1 | 78 |
| df2 | 35071.756 |
| Sig. | 0.431 |

The values in this table represent the means and standard deviations of responses for items in questionnaire asking the following question for different language skills with a 4-item Likert scale in responses where 1 represents 'not at all' and 4 'a lot': Which digital technologies make you better at XXX (e.g. reading). Based on respondents' beliefs, electronic dictionaries and Internet sites make them better at reading ($M$ = 3.1, $SD$ =.84; $M$ = 3.2, $SD$ =.79) and writing ($M$ = 3.1, $SD$ =.85; $M$ = 3.1, $SD$ =.88); TV programs in English, music, films, and audiobooks make them better at

**Table 3.** Multivariate testsa

| Effect | Value | F | Hypothesis df | Error df | Sig. | Partial eta squared |
|---|---|---|---|---|---|---|
| Gender | | | | | | |
| Pillai's trace | 0.199 | 2.096b | 12.000 | 101.000 | 0.024 | 0.199 |
| Wilks' lambda | 0.801 | 2.096b | 12.000 | 101.000 | 0.024 | 0.199 |
| Hotelling's trace | 0.249 | 2.096b | 12.000 | 101.000 | 0.024 | 0.199 |
| Roy's lrgest root | 0.249 | 2.096b | 12.000 | 101.000 | 0.024 | 0.199 |

a. Design: Gender, b. Exact statistic

**Table 4.** Levene's test of equality of error variancesa

| | F | df1 | df2 | Sig. |
|---|---|---|---|---|
| TV programs in English | 0.116 | 1 | 112 | 0.734 |
| Electronic dictionary | 2.820 | 1 | 112 | 0.096 |
| Skype | 0.101 | 1 | 112 | 0.751 |
| FB | 0.003 | 1 | 112 | 0.959 |
| Email | 2.476 | 1 | 112 | 0.118 |
| YouTube | 1.530 | 1 | 112 | 0.219 |
| Internet sites | 2.132 | 1 | 112 | 0.147 |
| Computer software | 0.947 | 1 | 112 | 0.333 |
| Music | 0.092 | 1 | 112 | 0.762 |
| Films | 4.407 | 1 | 112 | 0.038 |
| Audiobooks | 0.711 | 1 | 112 | 0.401 |
| Computer games | 3.303 | 1 | 112 | 0.072 |

Tests the null hypothesis that the error variance of the dependent variable is equal across groups. a. Design: Gender

**Table 5.**Tests of between-subjects effects

| Source | Dependent variable | Type III sum of squares | df | Mean square | F | Sig. | Partial eta squared |
|---|---|---|---|---|---|---|---|
| Gender | TV programs in English | 0.288 | 1 | 0.288 | 0.283 | 0.596 | 0.003 |
| | Electronic dictionary | 0.359 | 1 | 0.359 | 0.342 | 0.560 | 0.003 |
| | Skype | 0.974 | 1 | 0.974 | 0.991 | 0.322 | 0.009 |
| | FB | 0.063 | 1 | 0.063 | 0.049 | 0.825 | 0.000 |
| | Email | 0.313 | 1 | 0.313 | 0.188 | 0.666 | 0.002 |
| | YouTube | 2.863 | 1 | 2.863 | 1.885 | 0.173 | 0.017 |
| | Internet sites | 0.516 | 1 | 0.516 | 0.424 | 0.516 | 0.004 |
| | Computer software | 0.185 | 1 | 0.185 | 0.125 | 0.724 | 0.001 |
| | Music | 3.895 | 1 | 3.895 | 2.936 | 0.039 | 0.026 |
| | Films | 0.010 | 1 | 0.010 | 0.009 | 0.926 | 0.000 |
| | Audiobooks | 0.753 | 1 | 0.753 | 0.543 | 0.463 | 0.005 |
| | Computer games | 10.147 | 1 | 10.147 | 8.622 | 0.004 | 0.071 |

**Table 6.** Perceived effects of digital technology types on participants' language skills

| | M (SD) | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Reading** | **Listening** | **Speaking** | **Writing** | **Pronunciation** | **Grammar** | **Vocabulary** |
| TV programs in English | 2.4 (0.98) | 3.5 (0.75) | 3.2 (0.95) | 2.3 (0.98) | 3.3 (0.81) | 2.7 (0.99) | 3.4 (0.83) |
| Electronic dictionary | 3.1 (0.84) | 2.9 (0.90) | 2.7 (0.88) | 3.1 (0.85) | 3.4 (0.76) | 3.0 (0.95) | 3.6 (0.68) |
| Skype | 1.3 (0.55) | 1.6 (0.84) | 1.8 (0.98) | 1.5 (0.72) | 1.5 (0.68) | 1.4 (0.65) | 1.7 (0.88) |
| Facebook | 1.9 (0.94) | 1.5 (0.68) | 1.6 (0.87) | 1.9 (0.94) | 1.5 (0.70) | 1.8 (0.92) | 2.1 (1.0) |
| Email | 2.6 (0.96) | 1.6 (0.80) | 1.9 (0.90) | 2.9 (1.0) | 1.8 (0.86) | 2.3 (1.0) | 2.6 (0.98) |
| YouTube | 1.7 (0.88) | 2.3 (1.1) | 2.0 (1.0) | 1.8 (0.90) | 2.0 (1.0) | 1.8 (0.90) | 2.2 (1.0) |
| Internet sites | 3.2 (0.79) | 2.5 (1.0) | 2.7 (0.96) | 3.1 (0.88) | 2.6 (0.92) | 3.2 (0.81) | 3.3 (0.81) |
| Computer software | 2.6 (0.93) | 2.7 (1.0) | 2.5 (1.0) | 2.5 (1.0) | 2.7 (1.0) | 2.7 (1.0) | 2.7 (1.0) |
| Music | 2.0 (0.90) | 3.3 (0.81) | 2.6 (1.0) | 1.9 (0.82) | 2.9 (0.96) | 2.0 (0.89) | 2.8 (0.96) |
| Films | 2.5 (1.0) | 3.7 (0.55) | 3.4 (0.79) | 2.3 (0.93) | 3.5 (0.72) | 2.7 (0.86) | 3.5 (0.71) |
| Audiobooks | 2.4 (1.0) | 3.3 (0.98) | 2.8 (1.0) | 2.2 (1.0) | 3.0 (1.0) | 2.7 (1.1) | 3.1 (0.98) |
| Computer games | 1.7 (0.86) | 1.9 (0.94) | 1.9 (1.0) | 1.7 (0.84) | 1.8 (0.90) | 1.7 (0.90) | 2.1 (1.1) |

listening ($M$ = 3.5, $SD$ =.75; $M$ = 3.3, $SD$ =.81; $M$ = 3.7, $SD$ =.55; $M$ = 3.3, $SD$ =.98); and TV programs in English and films are helpful in improving their speaking ($M$ = 3.2, $SD$ =.95; $M$ = 3.4, $SD$ =.79). Participants of this study also considered TV programs in English, electronic dictionaries, and films helpful in learning English pronunciation ($M$ = 3.3, $SD$ =.81; $M$ = 3.4, $SD$ =.76; $M$ = 3.5, $SD$ =.72), and vocabulary learning ($M$ = 3.4, $SD$ =.83; $M$ = 3.6, $SD$ =.68; $M$ = 3.5, $SD$ =.71) and considered Internet sites only helpful in learning grammar and vocabulary ($M$ = 3.2, $SD$ =.81; $M$ = 3.3, $SD$ =.81). Finally, Skype, Facebook, Email, YouTube, computer software and games are considered less helpful in developing language skills by respondents of current study.

## DISCUSSION AND CONCLUSION

The results of this study provided some insights on how Iranian EFL learners employ digital technologies for English language learning outside the classroom. Regarding the first research question, Electronic dictionaries, Internet sites, and films have been reported to be employed more frequently by participants of this research. Moreover, respondents also reported that they often use TV programs in English, E-mail, computer software, and music; and rarely or sometimes employ Skype, Facebook, YouTube, computer games and audiobooks for out-of-class English language learning. This general picture indicates that despite various restrictions on social networking in Iran (filtering of Facebook, Twitter, and YouTube), some Iranian EFL learners continue using them for language learning purposes. These findings are similar to results reported by Szyszka (2015) as films and Internet sites are also popular among Iranian language learners. But unlike Polish, German, and Spanish language learners, participants in this study reported lower frequencies of use for YouTube (M = 2.27), and also for music (M = 3.11). One reason for these differences in media use pattern might be the fact that Iranian language learners face some limitations in using globally popular social networks such as Facebook or YouTube. Although some users are able to go beyond these barriers by employing VPN or Proxy tools, these limitations have deprived some language learners from those valuable resources for language learning.

As for the second research question, the overall differences among males and females in their technology use were insignificant. Similar to Szyszka (2015), the current study also found a higher frequency of computer games use for males compared to females. Higher popularity of using computer games among male participants is also in line with previous research which indicates that boys use computers more frequently out of school, particularly for playing games (Colley & Comber, 2003). Moreover, males also reported to use YouTube more than females, but the differences were insignificant. The reported frequency of technology use for electronic dictionaries, Facebook, Internet sites, music, and audiobooks were slightly higher for females. The only significant difference among male and females were found on the use of music and computer games (Table 5) for language learning. According to Polat and Mahalingappa (2010), since learners' needs, beliefs, attitudes, identities, and socialization patterns vary based on their gender, in investigating the role of gender in language development there is a need to thoroughly analyze the influence of family members, and the sociocultural, political, historical, and economic realities of the society. In this regard, based on the findings of the current study, it seems that in Iranian EFL context which is under influence by various political and religious factors, female language learners have access to same materials as male students; and despite learning English in separated language classes in public schools or private institutes, their language learning beyond the classroom follows the same pattern as male students.

The third research question was about perceived effects of different technology types on participants' language skills. According to obtained responses, TV programs in English, electronic dictionaries, Internet sites, films, and audiobooks contributed more than other technology types to learners' language skills development. Music is reported to only improve participants' listening skill but other media types including

Skype, Facebook, YouTube, computer software, and computer games considered less effective in participants' views in augmenting their language skills. Taking into consideration the overall perceived effect of technology types on language skills development among participants, listening and vocabulary have the higher means; on the other hand, writing and reading skills, were considered less affected by these digital technologies. In examining these findings, it becomes clear that Iranian EFL learners don't use social media networks more effectively to improve their language skills. Previous research in this area clearly indicates that social media tools provide language learners with various opportunities for developing their language skills (Blattner & Fiori, 2009, 2011; Blattner & Lomicka, 2012; Lomicka & Lord, 2012; Mills, 2011). In order to use the opportunities of global social networking, Iranian language teachers can encourage their students to use and be active in those networks which have not been filtered by authorities (such as Google Plus and Instagram).

The current study has some implications for teaching different language skills both inside and outside the classroom. First, by understanding the way EFL learners employ digital technologies for learning languages outside the classroom, teachers can use those technology types preferred by learners in order to create higher levels of engagement and motivation and also foster learner autonomy among their students. As Hedayati and Marandi (2014) observed, Iranian EFL teachers do not usually integrate digital technologies into their classes due to various constraints and obstacles, and these factors make classrooms further resistant to change and use educational potentials of new technologies (Lai & Gu, 2011). According Benson (2007), the relationship between autonomy and language learning beyond the classroom is complex and related literature in this area suggests that teacher support is very important. In this regard, teachers' beliefs about the relationship between classroom and beyond the classroom language learning can influence students' learning; and when teachers are unaware of what their students do outside the classroom, they fail to take advantage of the knowledge and skills that the learners bring to the language classroom (Reinders & Benson, 2017). Furthermore, limitations of classroom-based learning such as unfavorable class-size, time limitations, inadequate teaching materials, limited proficiency of the English language teachers, and a test-driven curriculum make learning opportunities restricted for language learners (Richards, 2015). Technology-based approaches associated with the development of autonomy emphasize the independent interaction of learner with learning materials (Benson, 2011) and learners take more responsibility for and have more control over their own learning which reflect a paradigm shift from a teacher-centered pedagogy to a student-centered one (Lau, 2017). In this regard, some features of digital technologies and smartphones such as larger screen sizes and resolution, increased connectivity to web through 3G, 4G or Wi-Fi networks, and improved processing power of CPUs in those devices with higher capacity memory cards, enable language teachers to extend language learning beyond the classroom (Wang & Smith, 2013).

Second, despite some major developments in communication and ICT technologies in recent years and the fact they provide learners with considerable affordances to enhance their language learning both inside and outside the classroom (Demouy, Jones, Kan, Kukulska-Hulme, & Eardley, 2016), their active integration in language learning classrooms has remained peripheral and to a large extent limited (Burston, 2014; Chwo, Marek, & Wu, 2018; Liu, Lin, & Zhang, 2017). Language teachers can use learners' preferred technology types in order to teach some aspects of language which are either sensitive or when there is not enough time during the classes to pay sufficient attention to them. For example in teaching second language pronunciation, teachers need to consider affective considerations in mind as some students may resist a teacher's effort to change the way they pronounce words in the new language, which might be as a result of peer pressure or fear of rejection from classmates if their pronunciation begins to sound better than others in the room (Murphy, 2003). In this regard, mobile phones offer a great potential for out-of-class learning and their affordances provides a safe place for learners to practice their developing language skills such as pronunciation. There are some studies which investigated the use of mobile phones and social media networks for teaching pronunciation and the results indicate that the use of these new tools are helpful in improving learners' pronunciation (Xodabande, 2017). Furthermore, in most EFL classes students don't have sufficient time to practice their speaking skills and recent developments in areas such as social-networking sites (SNSs) and mobile learning, provide new opportunities for learners to practice their speaking English in a meaningful way (Sun, et al., 2017).

Third, technologies available for language learning beyond the classroom can benefit learners in other ways and prolonged exposure to extended texts such as films provides learners with valuable input which is essential for second language acquisition. In most EFL contexts, the classroom is the only place where learners are exposed to target language and globally produced materials employed by teachers are restricted and limited in some ways (including their insufficient attention to culture). Moreover, most grammar teaching in language classrooms are based on written forms of language and without accounting for spoken grammar, a speaking skill-based pedagogy is hardly adequate (McCarthy & Carter, 2001). According to McCarthy and O'Keeffe (2014), spoken grammar refers to the grammar employed by the majority of native and expert speakers of a language in most of their regular and repeated interactions. In this regard, by drawing upon more realistic models of language use, the use of authentic materials (such as films) for language teaching prepare learners to deal with real life problems outside the classroom more effectively (Hall, 2011).

The current study had some limitations that should be acknowledged. First, regarding sampling we were unable to randomly select individuals and invite them to participate in this study, but we posted the invitation to participate in this study in a locally popular social media network. According to Dörnyei and Taguchi (2010), the most serious problem

associated with this type of data gathering is that most of the time it is not possible to apply any systematic, purposive sampling. In this regard, we believe that trends and preferences for using digital technologies for language learning beyond the classroom might be different in other parts of the country based on participants' access to technology and the Internet. However, given the fact that the participants of the current study were from different language proficiency levels and social and educational backgrounds, it could be argued that they are to some extent a good representative of larger population in Iranian major cities. Furthermore, in order to fully understand and investigate trends and preferences in technology use among language learners, quantitative studies are limited and we still don't know why students use and prefer some technologies over the others. As new technologies become accessible for more language learners around the world in digital age, more focused and qualitative research is needed to focus on each technology type and the way language learners employ them. It seems that with growing attractiveness of digital technologies for language teaching profession, there is an ever growing need to conduct research in CALL to uncover new and unexplored frontiers.

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