

Interlanguage Pragmatics, Curricular Innovation, and Digital Technologies

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Abstract

Human interaction is fundamentally about shared understanding, created when interlocutors engage with one another around their own intended meaning and the intended meaning of others. Pragmatics is at the core of this interaction. The fields of computer-assisted language learning (CALL) and the teaching and learning of interlanguage pragmatics (ILP) have grown up together. These fields have sometimes been at odds, but, more often than not, they have drawn on synergies from one another to advance. Emerging digital tools have made notable innovations in the field of ILP development possible, and, simultaneously, the needs of ILP researchers and practitioners have led to technological innovation. This article explores these advancements through a synthesis of key research in the field of technology-mediated teaching and learning of ILP in five core areas—curricular materials, classroom interventions, telecollaboration, research methodologies, and expanding pragmatic practices.

KEYWORDS: INTERLANGUAGE PRAGMATICS, DIGITAL GAMES, TELECOLLABORATION, PRAGMATIC INSTRUCTION

Introduction

Hardly noticed when expectations are met between interlocutors, and highly salient in instances of miscommunication, pragmatic ability refers to one's capability to express communicative intentions and interpret the communicative intentions of others (Crystal, 1997; LoCastro, 2003; Yule, 1996). Often, this meaning exists outside of the literal words that are said. Take, for example, the common expression *Nice to meet you. Let's grab a coffee sometime.* The

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literal message is that of an invitation to drink a warm beverage. However, for most expert speakers of American English, more often than not, this expression does not serve as an actual invitation to coffee, but rather a pre-closer to indicate a positive first meeting. This mismatch between the literal meaning, or locutionary force, of the utterance and its intended meaning, or illocutionary force, can feel off-putting for a learner when the structure and words are understood but the pragmatic intention is misinterpreted as an invitation that is never realized. In addition, meaning is encoded in sequencing, turn taking, gesture, and tone, among other aspects of communication. For example, in some varieties of Spanish, an invitation does not become a truly sincere invitation until it is extended multiple times throughout the interaction. While complex in one's native language(s), interlanguage pragmatics (ILP), the ability to communicate and interpret meaning in a learned language, can be even more difficult, making it a fundamental component of language development (Bardovi-Harlig, 2001, 2017; Kasper & Rose, 2003; Sykes, 2016; Taguchi, 2015). Although still absent from most language classrooms, ILP abilities are teachable at all levels of instruction and can greatly benefit from digital resources for teaching and learning.

The field of teaching and learning of ILP parallels many developments in computer-assisted language learning (CALL). They often draw insights from one another or offer alternatives relevant to rethinking perspectives and conclusions. Advances range from new ways to access learning materials to the need for different types of pragmatic analysis and CALL tools to advance instruction. Similarly, the desire to add ILP to formal teaching and learning contexts has led to technological innovation. This article explores these advancements through a synthesis of key research in the field of technology-mediated teaching and learning of ILP. In an intentional effort to avoid a tool-centric approach, the discussion is framed by five areas of pedagogical and research innovation.

1. Increased availability of curricular materials via digital delivery mechanisms.
2. Empirically-validated classroom intervention(s).
3. Augmented focus on ILP in telecollaboration.
4. Extended research methodologies.
5. Expanded digital contexts for human-to-human interaction and pragmatic awareness.

Each section draws on previous work to highlight key findings and suggest ideas for the future.

Curricular Materials

Parallel to early advancements in CALL, much of the initial work related to digital technologies and ILP was focused on the design and delivery of stand-alone curricular materials and practice activities. Designed to fill the critical gap in resources and teacher training materials (Bardovi-Harlig, 2001; Bardovi-Harlig & Hartford, 2005; Kasper & Rose, 2003; Taguchi, 2015), these websites, many still in existence today, were designed to give teachers and learners access to digital pragmatic resources relevant to their language-learning experiences. Currently existing materials include pragmatic resources for ten languages (Arabic, Chinese, English, German, Japanese, Korean, Portuguese, Russian, Spanish, and Vietnamese) and range from activity sets for the classroom to online curricular sets designed specifically for learners themselves. While by no means comprehensive, each makes use of Internet technologies to facilitate the creation of dynamic content adept at dealing with the varied nature of pragmatic behavior (see Sykes 2016 for a list of the currently available curricular resources). The use of digital resources allows for widespread dissemination of the materials across learning contexts.

Empirical work examining best practices for the use of online content for the teaching and learning of ILP is limited, with only a handful of studies in the area, each of which suggests value in the use of digital materials for the teaching and learning of ILP in instructional contexts. In an evaluation of the impact of the use of the site *Dancing with Words: Strategies for Learning Pragmatics in Spanish* (http://carla.umn.edu/speechacts/sp_pragmatics/home.html), Sykes and Cohen (2006, 2008) and Cohen and Sykes (2012) report on the impact of the use of this website on learner's perceived strategic development in Spanish. The website, which contains ten modules, focuses on speech act functions (e.g., compliments, requests, apologies) and uses audio, video, and interactive activities to engage learners in a pedagogical process of observation, analysis, and reflection. A survey of ten participants, five male and five female, indicates perceived growth in the majority of learning, use, and metapragmatic strategies for learning Spanish pragmatics as a result of participation in a short introduction and three hours of interaction with the site.

Similar positive results were also found in the empirical investigation of two distinct websites focused on the learning of Japanese pragmatics. To investigate the impact of digital courseware, DiscourseWare for learning reactive tokens (i.e., short verbal and nonverbal cues that an interlocutor gives to indicate conversational involvement), Utashiro and Kawai (2009) employed an instructional series with a pre-/posttest design to measure the impact of instruction on learners' abilities to produce reactive tokens. Results indicate that the website was effective for learning reactive tokens, but that its use, in combination with teacher-led and peer-led instruction, was effective for the

majority of the learners. Similar results were reported in terms of the use of DiscourseWare for the learning of intonation to change the meaning of an utterance (Kawai & Utashiro, 2006). Extending accessibility to learning materials, Cohen and Ishihara built a website for the explicit learning of Japanese pragmatic strategies, *Strategies for Learning Speech Acts in Japanese* (<http://carla.umn.edu/speechacts/japanese/introtospeechacts/index.htm>). The website includes resources for teachers, students, and researchers as well as seven instructional modules focused on speech acts in Japanese (Introduction, Apologies, Compliments, Refusals, Requests, Thanks, and Strategies). A semester-long study of 22 intermediate learners of Japanese who used the website indicates an overall notable effect on the learning of Japanese pragmatics with results varying by speech act type (Cohen & Ishihara, 2005). The module on requests yielded the most impact, as measured by discourse completion tasks (DCTs) and email reflective journals.

Extending the number of studies focused on digital curricular materials available in Arabic, Ward, Escalante, Al Bayyari, and Solorio (2007) report findings of a study examining a digital instruction sequence for learning back-channeling cues in Arabic, indicating initial pilot data that demonstrates evidence of learning. More recently, Furniss (2016) reports on the creation of a corpus-based website for the teaching and learning of Russian pragmatics. In this study, 34 intermediate and advanced learners of Russian engaged in a series of modules from this online site. Findings from this study, which employed a pre-/post-/delayed posttest design for the learning of Russian routine formulae, showed a lasting effect of web-based instruction on the awareness of Russian routine formulae.

While by no means conclusive, this small set of studies indicates the usefulness of digital curricula to provide pragmatic learning materials that are dynamic in nature and, in most cases, widely accessible to learners in a variety of learning contexts. It should be noted that the content, in the majority of the sites, promotes a strong native speaker model frame that is not reflective of a more comprehensive approach to ILP development (see Sykes 2016 for further discussion of this point). However, the digital resources are a step in the right direction and offer significant inroads for making instructional material available for teachers and learners that would otherwise not be feasible, both in terms of content and scale. As technologies advance, it becomes more and more possible to take into account the robust set of global communities with an online presence, as well as the immense body of pragmatic behavior represented in online contexts, making the discourse both salient and accessible for ILP analysis and instruction. Future research endeavors would greatly benefit from more fine-tuned analysis of curricular use to better understand the ways in which digital courseware can and cannot be applied to ILP teaching and

learning. Such studies might include a focus on user behavior while using the site (e.g., eye tracking, click behavior analysis) in addition to learning outcomes.

Classroom Intervention(s)

Concurrent with the growth in curricular materials created and disseminated using digital technologies, the field of ILP teaching and learning has witnessed a myriad of emergent and transformational classroom intervention practices. Each is designed to bring ILP to formal instructional contexts, decrease barriers to ILP instruction, and transform the ways learners gain access to pragmatic material. This section synthesizes work focused on classroom intervention(s), offering both a review of the results as well as insight into the ways in which digital technologies have made it possible to complexify the pragmatic content to be taught by expanding from a focus on routine formulae and isolated speech acts to a more comprehensive approach which entails a focus on co-constructed interaction and the dynamic nature of pragmatic skills (see Sykes 2016 for further discussion). It should be noted that the work included here is limited to *intra*classroom interventions with a review of telecollaboration practices, or *inter*classroom interventions in the section that follows.

Initial innovation in classroom interventions examined the role of computer-mediated communication (CMC), operationalized here as synchronous (SCMC) or asynchronous (ACMC) interaction which can occur in written, spoken, or video format. As noted by Sykes (2009), a number of findings from CMC research demonstrate benefits for ILP teaching and learning. These benefits continue to emerge, pointing towards many valuable uses of SCMC and ACMC for ILP development. Table 1 expands Sykes's (2009) summary of SCMC to include ACMC and other recent advances.

Table 1
SCMC and Benefits for ILP Development (expanded from Sykes, 2009, p. 205)

Feature	References
Different and varied participant roles; the possibility of experimenting with pragmatic behavior from multiple vantage points; interactional emotion and sociopragmatic aspects of language	Abrams (2001); Böhlke (2003); Darhower (2002); Douglass (2009); González-Lloret (2016); Hung and Chen (2003); Lee and Hoadley (2007)
Opportunities to focus on different/multiple aspects of the language, including discourse functions, syntactic complexity, and co-constructed interaction, terms of address	Abrams (2006); Belz and Thorne (2005); Furstenberg, G., Levet, S., English, K., & Maillot, K. (2001); González-Lloret (2008); Sotillo (2000); Sykes (2005); Takamiya and Ishihara (2013); Uzum (2010); Vandergriff (2006)

Feature	References
Varied task type and occurrence of negotiation of meaning	Blake (2000); Fernández-García and Martín-Arbelaiz (2002); González-Lloret (2014); Smith (2004); Vick, R. M., Crosby, M. E., & Ashworth, D. E. (2000)
Lessened immediate pragmatic pressure and lowered cognitive load in interaction	García-Carbonell, A., Rising, B., Montero, B., & Watts, F. (2001); Payne and Ross (2005); Payne and Whitney (2002); Sykes (2005)
Multimodal Processing	Blake (2005); Chun and Plass (1996); Sykes (2005)
Effective, multilevel feedback with minimal instructor interference	Godwin-Jones (2004); Linder and Rochon (2003); Sotillo (2005)
Archiving of interaction for future analysis, feedback, and assessment	Belz (2003); Belz and Thorne (2005); Lamy and Goodfellow (1999)
Focusing on language variation and pragmatic awareness	Li (2013); von Compennolle and Pierozak (2009)

These benefits have been widely studied as related to second language acquisition and, more specifically, ILP development. SCMC has become a frequent practice in language classes and continues to be a significant tool in the design and implementation of classroom interventions directly targeted at ILP development (see, for example, González-Lloret, 2008, 2014, 2016; Sykes, 2005; Taguchi, 2015). Furthermore, the implementation of classroom interventions making use of ACMC technologies, more specifically blogs, for long-term analysis and reflection have also demonstrated an impact on gains in pragmatic awareness in Chinese (Li, 2013), pragmatic production in Japanese (Takamiya & Ishihara, 2013), sociopragmatic competence in French terms of address (Douglass, 2009), as well as, more broadly, intercultural communicative competence (Elola & Oskoz, 2011).

ILP development through immersive spaces (i.e., synthetic immersive environments, virtual worlds, and digital games) enables researchers and practitioners to focus on comprehensive ILP skills and strategies built into the instructional environment. Their use enables the creation of meaningful scenarios in which learners can experiment while getting individualized multi-level, environmental feedback at just the right moment (Bryant 2014; Gee, 2003, 2014; Holden & Sykes 2011, 2013; Sykes & Reinhardt 2012; Thorne, Black, & Sykes 2009) while also empowering learners to develop the necessary skills to express and interpret meaning across a variety of possible contexts and, simultaneously, with a focus on language variation (Sykes, 2016). As learners engage with non-player characters (i.e., simulated characters in the immersive space), they encounter a wide range of expectations and personalities. While systematic investigation remains relatively limited, results indicate

that digital games and synthetic immersive environments warrant additional empirical attention and can serve as valuable classroom intervention tools. For a theoretical discussion of potential benefits for ILP development, see Sykes and Reinhardt (2012), Taguchi and Sykes (2013), and Thorne, Black, and Sykes (2009).

In a series of studies investigating gameplay and ILP development, Sykes (2009, 2010, 2013, 2014) reports the findings of a large-scale project *Croquelandia*, the first three-dimensional, immersive space built specifically for the teaching and learning of ILP, more specifically for the learning of requests and apologies in Spanish. The player is asked to navigate a series of request and apology interactions with their host family, peers, and professors as part of a study abroad trip. The research project(s) draw(s) on a data set of 120 hours of in-game behavior data and 30 hours of interview data from 53 advanced learners of Spanish who participated in *Croquelandia* as part of their advanced level language and culture course. Findings were mixed in terms of learning outcomes and target design elements with minimal improvement shown in the production of requests and apologies, with apologies showing slightly more growth than requesting behavior. In addition to synthetic immersive environments for the learning of Spanish pragmatics, recent work utilizing digital simulations has been investigated to better understand their effect on learner's production and comprehension of formulaic sequences in Chinese. Taguchi, Li, and Tang (2017) analyzed pre-/post-/delayed posttest data from thirty learners of Chinese at varying proficiency levels to determine the impact of the use of digital simulations in Chinese on the learners' ability to produce and comprehend 28 formulaic sequences in Chinese. Results show gains for learners in both the immediate posttest and delayed posttest two weeks later, furthering support for additional attention to immersive simulations as productive sites for ILP teaching and learning.

In addition to digital environments, research on place-based, augmented reality (i.e., experiences which have a direct tie to a physical location and add a digital overlay to the real world) has also been observed to be an effective context for the teaching and learning of ILP. Place-based augmented reality games offer a means to use mobile devices to enhance experiences in the real world through narrative, connection to place, and scaffolded resources. In terms of ILP development, findings indicate that mobile games can aid in the growth of sociopragmatic skills through a profound connection to places (Holden & Sykes, 2011) and through a variety of feedback mechanisms—game feedback, peer feedback, and instructor feedback (Sykes & Holden, 2013). To investigate the impact of *Mentira* (mentira.org), the first mobile augmented reality game for the teaching and learning of Spanish pragmatic behaviors, Holden and Sykes (2011, 2013) engaged in an episodic mixed-method study

of 68 intermediate learners of Spanish across three iterations of implementation. Mentira leads learners through a series of interactions designed to make variation salient and noticeable through language variation, beyond varying pragmalinguistic structures. Learners begin by learning their family has been implicated in a murder and they must find clues in a physical neighborhood to clear their family name. The more pragmatically appropriate their choices, the better clues they get. Analysis of a robust set of data entailing gameplay behavior, survey data, and interview data indicate that place-based, augmented reality games are an effective tool for engaging learners with place and with sociopragmatic features of language. Much work remains to be done in order to better understand the impact of digital games and immersive spaces as classroom interventions. Understanding various design elements, implementation sequences, and evaluation measures will remain fundamental to our understanding of the role of technology in ILP teaching and learning.

Telecollaboration

Telecollaboration and ILP have an extensive history, especially when compared to research in other digitally-mediated contexts (see O'Dowd, 2016 for a comprehensive review of telecollaboration and language learning as well as a summary of current trends). Generally defined as online/networked intercultural exchanges in which learners from different linguistic and cultural backgrounds interact around a variety of tasks and topics (see Dooly, 2016; O'Dowd, 2007), learners collaborate via synchronous chat, asynchronous email, and asynchronous blogs, with a handful of studies examining collaboration via social networks and massively multiplayer online games. The use of telecollaboration to address ILP development enables learners themselves to tackle pragmatic issues both as tasks and topics, but also as a function of their interactions with their peers around other tasks.

Drawing from a robust body of literature addressing a variety of areas of world language learning and teaching (see Belz & Thorne, 2005 as well as Guth & Helm, 2010 for reviews), telecollaboration has demonstrated benefits (and drawbacks) for the learning of ILP. It affords opportunities for interaction, analysis, and reflection in ways that were not previously possible. Sykes (2016, p. 127) reports eight key findings from the work on telecollaboration and ILP teaching and learning. Each is highlighted in italics and then further explored briefly below.

1. *With explicit focus, telecollaborative partnerships can foster the learning of target pragmalinguistic features and are an effective means to elicit pragmatic functions (e.g., greetings, terms of address, leave taking).*

Telecollaboration research that explicitly targets pragmatic functions demonstrates a positive impact on learners' ability to use specific pragmatic features and engage in pragmatic behaviors developing over time, especially as measured by pragmalinguistic features of language such as pronouns of address (Belz & Kinginger, 2003) and modal particles and pronominal adverbs (Belz, 2007; Belz & Vyatkina, 2008; Vyatkina & Belz, 2005, 2006, Vyatkina, 2007) in German and French. In addition, the impact can extend to target functions and pragmatic formulae, as was in the case of Cunningham's (2014, 2016) study of 17 learners of German for business purposes and Gonzalez-Lloret's (2008) study of terms of address in Spanish. In all instances, explicit attention to pragmatic formulae was included as part of the learner intervention.

2. *Longitudinal interaction in an online community can be highly beneficial to the learner's developmental trajectory; however, reflection and mediation may be necessary for development to occur.*

As learners engage in online communities, developmental gains (Gonzales, 2013) and explicit attention to pragmatic features (Jenks, 2012) in pragmatic behavior can be observed. In a longitudinal study of leave-taking behavior in LiveMocha between Spanish learners and their Spanish-speaking counterparts, Gonzales (2013) found evidence of pragmatic change in leave-taking behavior. Similarly, Jenks (2012) points out the value of out-of-class telecollaboration behavior in English Skypecasts, where partners consistently corrected one another and attended to pragmatic components of language. Critical to ILP development in this area is explicit attention to the pragmatic features in interaction as well as mediation or instructor intervention in instances of miscommunication (Vyatkina & Belz, 2006).

3. *Telecollaborative pedagogy, aligned with contrastive learner corpus analysis, is an effective approach to intercultural exchanges, but not the only possible approach.*

Learner corpora and the use of learner analysis as part of telecollaborative tasks can be an effective means of ILP development (Belz, 2004; Furniss, 2016; Urzua, 2013; Vyatkina & Belz, 2006). Effective means of corpora include longitudinal analysis of English learner self-positioning strategies in writing (Urzúa, 2013), learner interaction in German (Belz, 2004; Vyatkina & Belz, 2006), and Russian routine formulae (Furniss, 2016). Corpus-based approaches do not show evidence of superiority to other instructional contexts, but are reflective of significant technological advances in the field of ILP research, teaching, and learning.

4. *Asynchronous collaboration allows for reflection and careful analysis of pragmatic topics.*

Blogs and email tools have a long history in telecollaboration practices and a demonstrated usefulness for increasing ILP awareness and documenting ILP development in requests in Chinese (Li, 2013) and compliments, gratitude, requests, and refusals in Japanese (Takamiya & Ishihara, 2013). By slowing down interaction, there is an added benefit of reflection and opportunity for intervention on the part of the instructor.

5. *Careful attention should be paid to avoiding stereotype reinforcement or unanalyzed pragmatic missteps. Moreover, telecollaboration is an empirically documented context for the development of pragmatic competence and intercultural reflection.*

As evidenced throughout telecollaboration research, careful attention to the patterns being noticed and reinforced are essential (O'Dowd, 2016). This caution appears consistently in the literature (e.g., Belz & Kinginger, 2002; Furstenberg et al., 2001; Vyatkina & Belz, 2006) and warrants discussion, especially in light of the tendency to simplify pragmatic patterns to increase accessibility of information to the learner.

6. *Conversation analysis presents a promising approach for understanding pragmatic behaviors such as terms of address, turn sequencing, and multilingual interactions, allowing for a micro-level analysis to present a salient picture of discursive patterns.*

A focus on conversation analysis (CA) as a method for understanding pragmatic behaviors is not unique to telecollaboration (see Kasper, 2006), but does indicate a meaningful approach to the area. Using CA to analyze synchronous chat data for learning of Spanish pragmatics, González-Lloret utilizes a CA approach to understand pragmatic developmental trajectories as related to terms of address (2009) and emotion (2016) of learners via peer and multilingual telecollaboration. Furthermore, Gonzales (2013) adds a longitudinal perspective by using a CA approach to understand leave-taking development across Spanish learners in LiveMocha. In all instances, this research yielded valuable information about learner pragmatic behavior, which showed largely positive ILP development.

7. *In comparison to explicit instruction alone, an added telecollaborative approach is more effective for developing pragmatic comprehension skills.*

Key to understanding the value of telecollaboration for ILP development is an understanding of its effect on learners' comprehension of pragmatic behavior. Utilizing an experimental design to better understand the impact of telecollaboration on receptive skills in pragmatics, Rafieyan, V., Sharafi-Nejad, M., Khavari, Z., Eng, L. S., & Mohamed, A. R. (2014) used a pre-/post design to compare a control group with an experimental group who participated in telecollaboration activities with English speakers. Thirty Iranian students were split into two groups, both receiving pragmatic instruction, but only the experimental group interacted with English-speaking peers. Results indicate a positive impact on learners' pragmatic comprehension, that is, the ability to understand the intended illocutionary force of their interlocutor. While this is only one study, the results, combined with notable data indicating a positive impact of telecollaboration on other areas of learning, warrant a closer look at the possible ways in which telecollaboration can further enhance ILP development in instructional contexts.

8. *Telecollaboration is an effective means to provide consistent interaction with native speakers and to document the developmental stages of the learning of ILP.*

Much of the work discussed previously suggests that an explicit focus on pragmatic features of language, especially when included as part of the facilitation and reflection process in telecollaboration, has a largely positive impact on learners' ILP development. As long-term partnerships are formed, data addressing learners' initial interactions, intermediary steps, and final interactions can be observed and measured in terms of pragmatic shifts, both positive and negative. Much-needed work that attempts to isolate factors leading to ILP development and salient attention to ILP will undoubtedly offer additional opportunities for innovation, deep thinking via telecollaboration, and continued attention to ILP in the language classroom.

More generally, as O'Dowd (2016) points out, numerous trends will continue to materialize, including critical telecollaboration and increased cross-disciplinary telecollaboration, both ripe for pragmatic exploration and poised to enhance learners' linguistic repertoire. Critical to the successful realization of any telecollaboration project are strong partnerships, relevant tasks, and time for analysis and reflection around any positive or negative experiences learners might have. Future research should begin to address the potential outcomes afforded by the use of different technological tools for telecollaborative work. For example, how does ILP learning occur in intercultural interactions via written chat, email, video conference, social networking sites, and/or a combination of a variety of platforms? While the general benefits for telecollaboration are clear, much remains to

be seen about the ways emergent tools may or may not be useful for pragmatic development.

Research Methodologies

In addition to technology that directly applies to ILP teaching and learning practices, innovations in digital technologies have also played a significant role in the field's research capabilities (Taguchi & Sykes, 2013), transforming both the manner in which data collection and analysis occur, as well as the types of pragmatic questions that can be asked. This section explores key innovations—conceptual and methodological—to describe ways in which these innovations might benefit ILP teaching and learning in the future.

An ongoing challenge in pragmatics research has been the difficulty of collecting and analyzing large sets of complex data without losing key pragmatic information such as speech fluency, intonation, and gesture. Utilizing digital recordings of learner speech, in combination with meaningful measurement tools, has made it possible to extend our notion of pragmatic competence. For example, the field has witnessed movement away from elicited pragmalinguistic features towards an extended view of ILP ability. This includes the analysis of performance fluency (Li, 2013; Taguchi, 2013), genre analysis of written texts and automated scoring mechanisms to expand the pragmatic analysis of textual artifacts (Taguchi, Kaufer, Gomez-Laich, & Zhao, 2017; Zhao & Kaufer, 2013), L2 corpora with concordancing, structural tagging, and pragmatic notations (Fung & Carter, 2007; Geyer, 2007; Urzúa, 2013; Vyatkina & Belz, 2006), metapragmatic analysis and learner behavior patterns (Sykes, 2009, 2013), and systematic investigation of sociopragmatic awareness and impact (Douglass, 2009; Holden & Sykes, 2013). Furthermore, classic experimental measures such as DCTs are being delivered digitally, overcoming some of the challenges involved in the creation of the contextual context (e.g., Roever, 2013). Initial work has also begun on a simulation-based assessment designed to capture and measure a learner's ILP profile across multiple dimensions of pragmatic performance—knowledge, analysis skills, subjectivity, and awareness (Sykes, Malone, Forrest, & Sadgic, forthcoming). If pilot data show it is a valid and scalable assessment measure, this assessment would enhance the researcher's toolset for analyzing ILP competence holistically and by area, rather than simply as a construct of specific language functions or pragmatic skill.

Data analysis capabilities, and their influence on ILP research and teaching, are expected to continue to grow. These advances enable researchers to capture the, often challenging, nuanced elements of ILP behavior and measure ongoing developmental trajectories of language learners through multimodal databases and computerized analysis models. As these practices become more commonly used by researchers, one can expect a steady stream of research about ways in

which ILP development occurs, the most effective instructional interventions for ILP development in instructional settings, and how access to large bodies of digital data for comprehensive analysis can be shared across research teams.

Augmented Digital Contexts

Fundamental to any discussion of ILP development and digital technologies is the changing discursive landscape occurring concurrently with the emergence of new technologies. The simultaneous evolution of interactional practice and pragmatic behaviors warrants attention as both a research domain and as a site for the development of ILP interventions that prepare learners to engage with a wide variety of interactional contexts. Take, for example, friends sitting around a dinner table talking face-to-face when one makes a bad joke and the other says “hashtag: one to forget” or the discussion between a parent and child about how to caption an Instagram picture. Termed “ciberpragmatics” by Yus (2010), the pragmatic behaviors of digital contexts are fundamentally important, both as information learners need and also as significant contexts for pragmatic exploration and experimentation that are fundamental to the development of ILP skills. Shifting away from technology as a delivery mechanism for “important content,” recognition of the dynamic, co-constructed behaviors of the seemingly infinite number of digital mediation tools must be understood as relevant, high stakes, and impactful (Thorne, Black, & Sykes, 2009; Thorne, Sauro, & Smith, 2015). Any number of digital contexts could serve as sites for pragmatic analysis. For exemplary purposes, two are explored here as especially noteworthy digital contexts for the teaching and learning of ILP because of their direct mediation of human-to-human contact: social networks and hashtags.

Research examining the role of social networks in second language learning is relatively limited (McBride, 2009; Mitchell 2009; Prichard, 2013; Reinhardt & Zander 2011). Blattner and Fiori (2013) explicitly addressed the development of sociopragmatic competence by 13 intermediate learners of Spanish via Facebook. Qualitative analyses of a series of thematically directed posts indicate that the use of the social network Facebook leads to sociopragmatic development. Yet, there is currently a movement away from Facebook towards other, more intimate, social networking sites such as Instagram, WhatsApp, and SnapChat. With these shifts, we can expect changes in pragmatic expectations to also occur. While it would be impossible to discern the dynamic patterns of these varying expectations, a comparison of pragmatic behaviors across digital contexts can give learners the ILP skills they need to navigate a variety of other interactional contexts.

As Twitter continues to gain popularity and scrutiny and as users continuously look for ways to express themselves digitally, the teaching and learning of hashtags (i.e., a traditionally digital practice in which words or phrases

follow a ‘#’ symbol to indicate a topic, emotion, or context) to convey socio-pragmatic information in a digital format warrants attention. While there are few, if any, studies directly tied to hashtags and ILP development, Scott (2015) reports findings of a pragmatic analysis of Twitter hashtags through the lens of implicature and conversational style. His analysis indicates that hashtags in Twitter are used to guide the hearer (i.e., reader) through explicit and implied meaning. Language learners must not only know how to interpret hashtags, but, if participating in online communities, they must also know how to produce them to accurately to express their own meaning in the target language.

Social networks and hashtag behaviors are two exemplars of the type of pragmatic behavior that is especially useful for ILP development via classroom interventions. As learners are guided towards the pragmatic features of digital discourse, they not only learn the content needed to engage with interlocutors online, but also develop valuable analysis and awareness skills fundamental to successful ILP behaviors. Research addressing each of these areas will undoubtedly yield interesting findings relevant to instructional and non-instructional contexts.

Conclusion

There is little doubt that digital technologies have played a significant role in the teaching and learning of ILP. From the provision of new methods for content delivery and classroom intervention to emergent research tools and contexts for language analysis, digital technologies are fundamental to further integration of ILP in instructed language classrooms. Technological advances overcome many of the previously existing barriers to pragmatic instruction and offer mechanisms to explore the dynamic nature of human interaction in ways that have never-before been possible. Still in its adolescent phase and struggling to find a consistent identity, emerging research continues to point towards the value of digital technologies for capturing the complexities associated with ILP development and offering practical, scalable means for classroom integration.

About the Author

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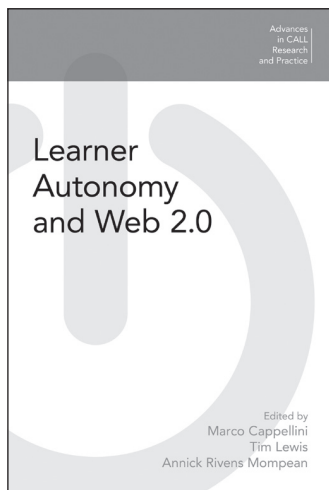
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Learner Autonomy and Web 2.0

Edited by Marco Cappellini, Tim Lewis
and Annick Rivens Mompean



Learner Autonomy and Web 2.0 explores tensions between 'classical' definitions of learner autonomy and the learning dynamics observed in online contexts. Autonomy is viewed as emerging and developing in a complex relationship with L2 proficiency and other competencies. A wide diversity of environments is featured, ranging from adaptive learning systems, through mobile apps, to social networking sites and – almost inevitably – MOOCs. Paradoxically, autonomy appears to flourish in some tightly restrictive contexts, while users of avowedly open platforms are seen to experience difficulty in learning to self-regulate.

David Little and Steve Thorne set the stage with a discussion exploring the evolution of language learner autonomy, from its origins in the era of self-access resource centers to its more recent instantiations in online (and offline) learning

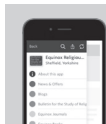
communities. Other contributors explore how autonomy can be exercised within adaptive learning systems, how adult learners in a teletandem exchange envisage metacognitive competences, how mobile apps support the emergence of autonomy among primary level language learners, and how collaborative language learners, using social media, demonstrate learner autonomy with an empathetic dimension. Finally, two chapters chart the challenges faced by autonomous learners in unsupported environments, whether on MOOC platforms, or using informal means.

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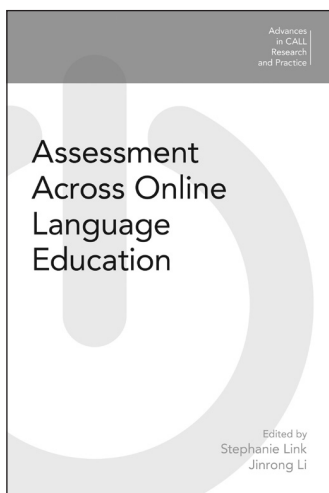


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Assessment Across Online Language Education

Edited by Stephanie Link and Jinrong Li



With the expansion of online language learning opportunities, language teachers and learners are presented with an increasingly diverse range of tools to facilitate language learning in various contexts. However, CALL researchers and practitioners often have limited knowledge about the effectiveness of online language learning on proficiency gains, primarily due to a lack of empirical studies. Despite the challenges in assessing language learning online, the editors of this volume believe the range of online language learning opportunities has brought new tools and methods to both strengthen assessment and inform pedagogical decisions in online language teaching. Technologies offer various ways to complement achievement and proficiency measures of language learning outcomes while allowing the assessment to be incorporated for the purpose of more effective learning (e.g.,

adaptive learning) and teaching (e.g., technology mediated dynamic assessment and teacher intervention). more effectively, and such developments can motivate researchers and practitioners to re-conceptualize the role of assessment in online language education.

Assessment Across Online Language Education examines these challenges that have emerged in online language teaching and learning, explores the new opportunities for language teachers and learners, and provides suggestions for future research on assessment and learning in online language education.

Stephanie Link is an Assistant Professor of TESL/Applied Linguistics and Director of International Composition at Oklahoma State University, USA.

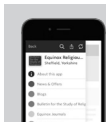
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