
Twitter and Micro-Blogging and Language Education

Lara Lomicka

Abstract

Over the past decade, Twitter has grown significantly in its popularity and has also migrated into educational contexts. Although the use of Twitter and micro-blogging has risen steadily, research exploring its potential in L2 learning has been relatively limited. This chapter provides an overview of microblogging in L2 contexts, which began in 2009 (for a critical analysis of work done on Twitter from 2009 to 2016, please see Hattem and Lomicka, *E-Learning and Digital Media* (Sage Publications), 1–19, 2016). It also provides insight into the development of Twitter as well as the major contributions that Twitter has made to L2 contexts. L2 acquisition research has been varied in approach, task, and with different levels of learners, but to date, it has been largely inconclusive. Early studies primarily examined tweets at the surface level, including frequency and type. Subsequent studies have shown that Twitter enhanced student engagement and improved communication between teachers and students. More recently, research using Twitter in L2 contexts has tended to focus on the areas of student production of tweets and student analysis of tweets. While the production of tweets can increase students' L2 output, the analysis of tweets exposes students to L2 input. Research has also looked at the use of Twitter to facilitate community within the language classroom. As microblogging continues to emerge in education and is becoming more prevalent in language learning contexts, future work could focus on the use of hashtags, microfiction, and corpora use in Twitter. As the field is emerging, the focus should remain on how learning occurs in microblogging-enhanced environments, what specific factors affect the learning processes, and how to support effective learning in such environments.

L. Lomicka (✉)
The University of South Carolina, Columbia, SC, USA
e-mail: lomicka@mailbox.sc.edu

Keywords

 Twitter • Microblogging • Language learning • Social media • Education • Tweets

Contents

Introduction	402
Early Developments	403
Major Contributions	404
Work in Progress	406
Problems and Difficulties	408
Future Directions	409
Cross-References	410
Related Articles in the Encyclopedia of Language and Education	410
References	411

Introduction

Over the past decade, Twitter has grown significantly in its popularity and now ranks close to Facebook in terms of social media use. Smith (2015) estimates that 302 million active monthly users are on Twitter, which includes 100 million daily users. With the exponential growth of microblogging, it has also migrated into educational contexts. In fact, Shweiki media (2014) reports that 80% of college students use Twitter, which comes in just behind Facebook (95%). The use of Twitter is on the rise in academia, including among university professors, who, according to Rogers (2013), are increasingly using twitter in education as it contributes to a more engaging learning environment. Symmons (2013), for example, in a study conducted on how professors use Twitter, found that as a teaching tool, Twitter was not as popular as other social media tools in the classroom. She indicates that professors use Twitter more as a source for gaining knowledge, external information, and to stay up to date in their fields of study and expertise. However, Symmons also suggests that Twitter use in the classroom is steadily on the rise. The role of Twitter as a learning tool has shown potential in myriad ways over the last few years. For example, various studies have suggested that microblogging can provide ways for learning to take place out of the classroom, to serve as a tool for collaborating with experts (Lord and Lomicka 2014; Wesely 2013), for enabling access and mobility (Antenos-Conforti 2009), to support authenticity in learning (Lomicka and Lord 2012), for fostering student engagement and involvement (Raguseo 2010), to serve as a knowledge sharing tool (Dennen and Jiang 2012), and that Twitter is participatory, authentic, and immediate (Antenos-Conforti 2009).

Studies that have documented the role of Twitter in language learning have focused primarily on language production (Antenos-Conforti 2009; Castrillo de Larreta-Azelain 2013; Hattem 2014; Lomicka and Lord 2012), student perceptions of Twitter (Antenos-Conforti 2009; Lomicka and Lord 2012; Perifanou 2009), target language practice (Lomicka and Lord 2012; Fewell 2014), building second language (L2) vocabulary (Fornara 2015; Montero-Fleta et al. 2015), teacher education and

professional development (Lord and Lomicka 2014; Wesely 2013), community building (Fewell 2014; Lomicka and Lord 2012), instructor guidance (Hattem 2012; Fornara 2015), and analysis of tweets (Blatner et al. 2015a, b). The next sections will explore the multifaceted ways that Twitter has been used in the language learning process.

Early Developments

Although the use of Twitter and microblogging has risen steadily over the last few years, research exploring its potential in L2 learning has been limited. Early developments in microblogging in L2 settings date to 2009 (see also Hattem and Lomicka 2016) and have primarily examined tweets at the surface level, whether through frequency counts as a way to develop competence or through community building. The next section outlines some of the early contributions of Twitter to language learning.

In Twitter's early stages of development, the first contribution to microblogging in the L2 setting was a study conducted by Antenos-Conforti (2009), who looked at microblogging practices in an intermediate Italian classroom. In her innovative study, 22 students enrolled in university-level Intermediate Italian tweeted during one semester. Data were collected included tweets (documenting frequency and distribution), a Likert questionnaire, and a follow-up free-response questionnaire. Based on her results, Antenos-Conforti suggested that the incorporation of Twitter can extend the physical classroom as it provides a space encouraging participation and fostering a sense of community. In another early study, Perifanou (2009) conducted research using Edmodo (as a microblogging tool) in an Italian language class with 10 second year students. Tweets were analyzed for frequency counts and from a sociocultural perspective. Details of the coding and analysis were not provided. Results (primarily from the questionnaires) indicate that that student response was extremely positive and that microblogging increased collaboration, motivation, and participation and had a positive effect on learning outcomes. In a larger study, Borau et al. (2009) examined tweets from 90 ESL students enrolled in an online college course for a period of 7 weeks. In all, students produced 5580 tweets, which were analyzed for communicative and cultural competence by way of a questionnaire and content analysis. Details of the coding framework and analysis were not provided. Borau, Ullrich, Feng, and Shen claimed that students responded positively to Twitter, establishing its status as a suitable tool for developing communicative and cultural competence anytime, anywhere, without the need for face-to-face interaction.

In addition to serving as a tool to foster student language production, microblogging also has the potential to foster a sense of community within and beyond the walls of the classroom – to learn, share, reflect, and communicate. Kolowich (2011) cites the work of a professor who used Twitter to encourage students to talk with a class at a different institution: “students to talk about what’s going on in their lives in the moment, and share that with the other class” (para. 5). While the language professor specifically comments that Twitter does not replace traditional language

instruction in the classroom, she adds that it does help to build community and to extend learning outside of the classroom as it encourages students to use the target language more often. Finally, Dervin (2009) suggests the Twitter has the potential to aid in the development of reading, writing, listening, and speaking as well as to boost task-based learning, and promote intra- and intercultural discussion among students. While there was clearly an interest in using and conducting research with Twitter in the L2 setting in early work, this research shows minimal use of theoretical frameworks and methods regarding how to analyze Tweets and how to clearly and consistently report the data.

Major Contributions

Recent research using Twitter in L2 contexts has generally focused on the areas of student production of tweets and student analysis of tweets. While the production of tweets increases students' L2 output, the analysis of tweets exposes students to L2 input. Another area of research includes how Twitter can be used to facilitate community within the language classroom.

We will first look at the studies that focus on the production of tweets by L2 learners. As mentioned earlier, Antenos-Conforti (2009) was the first to conduct a study on the use of Twitter in the L2 setting. Her work set the path for future research as an example of how students could potentially facilitate acquisition by providing both input and output with an online audience. She notes that such exchange allows for opportunities for negotiation of meaning as well as "good interaction" (Chapelle 1998, p. 24) in that communication goes beyond simply that which is unidirectional (ibid, p. 24). While Antenos-Conforti's study primarily reports on student responses to the questionnaires, her work also provides basic data on both the frequency and distribution of tweets, which were either reply tweets or status updates. Although Antenos-Conforti did discuss some of the content in the tweets, a formal content analysis was not performed. Hattem (2012) also looks at input, output, and interaction through structured grammatical tasks to encourage noticing using the Twitter. Forty-nine students participated in the 7-week study. Over 3500 tweets were collected and analyzed with Corpus of Tweets. Additionally, questionnaires were administered on input, output, and interaction and on automaticity. Findings suggest that the use of Twitter helped to increase noticeability in input, output, and interaction; Hattem further reports that microblogging represented an appropriate forum for practice and memorization.

Another major contribution to microblogging research was a project conducted by Lomicka and Lord (2012); they explored the use of Twitter among intermediate level French learners, who used the tool to communicate with each other and with native speakers of French. In this study, students both produced tweets and read tweets produced by native speakers. Data were collected by way of surveys and tweets. While survey data elicited some noteworthy attitudinal trends, content analysis provided more compelling data (following Rourke et al. 2001). A framework used to code tweets for social presence (1004 indicators, such as humor, emotion,

agreement, and inclusive pronouns), which allowed the researchers to see whether Twitter might be an appropriate tool for building community in the L2 classroom. Researchers observed evidence of both cultural and linguistic gains and received positive feedback from students with regard to their reactions to the project. Results suggest that Twitter is capable of both building community and establishing social presence, which was demonstrated largely through affective and interactive indicators.

In a study by Castrillo de Larreta-Azelain (2013), who investigated learner attitudes toward using Twitter in collaborative writing in German classes, students produced tweets for writing practice. Using a mixed-methods study, Castrillo de Larreta-Azelain used various sources of data, including a pre- and postquestionnaire and tweets. Findings suggest that students were able to create a new learning community and the Twitter task allowed students to develop writing competence. While the researcher did perform a content analysis, coding procedures and frameworks were not mentioned explicitly in the study. Castrillo de Larreta-Azelain's work does affirm, however, that learners, who self-reported on their participation in the task, improved their German writing skills.

More recently, Fornara (2015) examined whether an instructor who models L2 usage might affect students' use of L2 on Twitter. Ninety-three students taking Italian 2 were included in control and experimental groups and tweeted during an academic semester. Tweets were tallied and analyzed via tweetdownload.net and pre- and postsurveys were administered. Results presented both the number of new vocabulary items and grammar structures used in tweets and results were not significant; however, students indicated that Twitter was a useful tool and that it provided them with additional opportunities to practice vocabulary and grammar. Results also found that the presence of a co-tweeting instructor did not significantly influence linguistic features used by students.

While prior contributions (Antenos-Conforti 2009; Lomicka and Lord 2012; Hattem 2014; Fornara 2015) have looked at the tweets written and produced by students, more recent work has looked at how students analyze tweets. For example, two studies by Blattner et al. (2015a, b) provide an analysis of how learners identify various lexical items such as abbreviations and of how English words are used differently in various tweets from different native speaker tweeters. This contribution also investigates students' use of Twitter at the beginning levels of language learning, unlike many previous studies where the focus was on the intermediate and advanced level. In the study by Blattner et al. (2015a), participants were asked to analyze authentic French tweets produced by well-known native speakers (NS). The analysis focused on two features of cross-cultural pragmatics: (a) the use of abbreviations and (b) nonce and established borrowings from English. Data were analyzed by the regular distribution of a questionnaire which targeted various pragmatic variables through a series of guided questions. Participants took screenshots of NS tweets and then analyzed the tweets. Results indicated that a number of breakdowns occurred in situations where students were able to identify but not contextually decipher high-frequency abbreviations and novel English borrowings. In addition to serving as a production-based tool, this study is significant in that it demonstrates that Twitter can

also be used as an effective and “appropriate venue to assist students in the comprehension of cross-cultural pragmatics and the development of digital literacy skills” (Blattner et al. 2015a, p. 227).

Blattner et al. (2015b) analyzed students’ understanding of 380 French tweets via a linguistic analysis; data were also collected by means of a pre and post survey. Students were enrolled in first and second semester university level French. As part of the linguistic analysis, students were asked to identify English borrowings in each tweet they analyzed. The task of identifying English in tweets caused students to realize how prevalent English is in social media and especially in French-speaking countries. Next, there were 19 unidentified English words among first-semester participants versus 30 among second-semester participants, revealing a higher tendency among more experienced French learners to interpret words presented in a French context as established French lexical items, rather than scanning each item for a counterpart in their native English. Finally, participants identified English words and expressions at similar rates, but in the case of false cognates, second-semester participants showed a greater tendency toward recognizing their language-specific values.

Aside from investigating input, output, and meaningful interaction, Hattem’s (2014) qualitative study is of particular importance as it looks at language play using Twitter in the L2 setting and uses a case study design. Hattem followed three participants who used Twitter as part of an intensive, ESL high advanced grammar course. Looking for examples of ludic language play in tweets, Hattem analyzed and coded tweets for characteristics of CMC coherence. He found that during the 7-week session, students did use language play (repetition, joking, insulting, improvisational word games, foreign words and references, imaginary worlds, and carnival language) and they created their own learning contexts. Hattem argues that the three participants did not just perform that task designed for them but rather co-constructed their own activities and as a result directed their educational and social goals, which he characterizes as “expansive learning” (p. 167).

The aforementioned contributions to research on Twitter in L2 contexts ranged from using tweets to facilitate input and output, build community, and assess student attitudes to student analysis of native speaker tweets and language play. These studies provide a solid foundation from which to design and carry out future work. While a variety of methodologies and interpretive frameworks were used, future research would benefit from stronger methodologies, including more examples of productive analytic approaches and coding procedures.

Work in Progress

Although research using Twitter is only in its beginning stages, Twitter has been used in a variety of innovative ways for students to produce language and thus facilitate participation, target language practice outside of the classroom, to build community, and to target specific grammar, vocabulary and/or pronunciation learning. Current

research has also used Twitter as a means for students to gain exposure to NS input and to analyze sociopragmatic elements of the target language.

There are a number of emerging projects that show potential for future micro-blogging research and that provide divergent avenues for creative activity in micro-blogging. First, similar to work done by Fornara (2015), in that the instructor distributes content related tweets, Mompean and Fouz-González (2016) examine the role of Twitter on students' participation and pronunciation. Sixteen EFL students from a language school in Spain participated in this project, which involved several steps: a pretest oral task with targeted stimuli and questionnaire, a battery of tweets (distributed by the instructor to the students during 27 days and targeting pronunciation), and a posttest interview and final questionnaire. Participants were also asked to confirm reading tweets by posting a short response. Specifically, the researchers attempted to facilitate active participation and to use Twitter to serve as a pronunciation tool for ELS lexical items that are commonly mispronounced. Empirical results (counts, content analysis) suggest that the use of Twitter did encourage participation (reading comment rate of 82.4%) and that there was a beneficial effect on students' pronunciation of the targeted lexical items (gain rate of 75.2%).

In addition to using Twitter as a tool to facilitate pronunciation, recent work explores ways of using microfictions with microblogging. While not unique to language learning, Twitter is being used as a platform for creating student-generated microfictions literacy projects where students publish 140 word (or less) literary narratives while engaging in real-time storytelling. As Ragueso clarifies, Twitter fiction comprises an "original, self-contained work of fiction in each tweet published by a Twitter user" (2010, n.p.). Fitzgerald (2013), in discussing Twitter fiction in a TedTalk, reminds the audience of the emergence of the first episodes on radio and then discusses how we can embrace new formats as we tell stories to today's audiences. In thinking about language specific contexts, students can create virtual spaces in language class for stories where feedback is immediate, and students can be pulled into stories, roles, and identities, leading to creative experimentation with new formats for storytelling. In addition to Twitter fiction, other literary projects such as Complete da Tweet (<https://twitter.com/CompleteDaTweet>) could be adapted to language specific tasks for students at varying levels of language learning. Short stories that were written with Twitter in mind, such as "Blackbox," provide examples of how Twitter can be successful with the distribution of serialized tweets. While to date there is a paucity of research that documents this trend in the language classroom, it does hold the potential for future pedagogical innovation and L2 research.

Finally, work on hashtags (#) is also in beginning to surface in the field. For example, Solmaz (in press) uses an ecological framework to explore the potential of hashtags, where hashtags are convention markers for annotating the content of tweets. Using an autoethnographic approach, he analyzes his own Twitter experiences in his target language during a 6-month period. He examines hashtags both qualitatively and quantitatively and suggests that they can create affiliation with target language speakers, allow students to better reach out to native speakers in their communities, and join in on authentic conversations. Blattner et al. (2016) investigate how French language learners in three different second and third year

French courses (intermediate and advanced levels) understand and interpret hashtags using Twitter. Their study sheds light on how microblogging may provide an authentic yet dynamic context that enhances the language learning experience while developing students' multiliteracy skills in a L2. Data from 18 students were examined, including 579 analyzed tweets, 171 of which contained hashtags. Results suggest that language learners tend to glance over the hashtags and make guesses based on the information contained in them. Emerging research on microblogging and pronunciation, twitter fiction, and hashtags hold the potential for interesting and creative work in future language research.

Problems and Difficulties

For most students today, the use of Twitter is ubiquitous; it is also on the radar of most educators. However, Twitter has not been without its share of challenges in the educational setting. While some criticize Twitter for being a distraction in education, the challenge is to ascertain whether Twitter can be used in meaningful ways in the classroom and if it can facilitate language learning and communication in the L2 context. Ideas for use of Twitter in language contexts continue to emerge and evolve. One challenge to the effective use of Twitter in the language classroom is finding tasks that are solid and pedagogically innovative for both smaller and larger classroom settings. For example, Professor of French Carolyn Shread integrates Twitter feeds into Moodle with students in advanced elementary and intermediate level French classes. To engage students in their viewing of 52 textbook videos, students are each given characters from the video series. Students then posted about their character's private thoughts, lives, and activities throughout the semester, which added a "playful and creative element to their learning" (Shread, 2015, cshread@mtholyoke.edu, personal e-mail communication). According to Shread, students find the task engaging and challenging. Marshall (2015), who teaches large lecture classes, finds ways to incorporate Twitter by using it as a way to facilitate starter questions at the beginning of class. This use of microblogging engages students to communicate both with the instructor and with each other during in-class face-to-face sessions. Both examples show ways that Twitter can be used effectively for teaching different types of classes and for diverse tasks. Another challenge for those using Twitter is finding an effective yet creative use of hashtags for both microblogging tasks and for research. Hashtags can be used in myriad ways, such as to help connect learners, to examine engagement rates of tweets, to model authenticity, and to promote communication. Tasks could ask students to follow and analyze how hashtags are being used by native speakers and delve into socio-pragmatic understanding of meaning in the tags. Little research in language learning (see Solmaz [in press](#); Blattner et al. 2016) has been conducted with hashtags on Twitter, and it would be interesting to see the number and types of hashtags that

learners can produce as well as learners' understandings of hashtags from following native speaker tweets.

As research involving microblogging in L2 settings is in its early stages, more studies are needed to highlight longitudinal uses of Twitter. For example, research could examine students' use of microblogging across various levels and semesters of language learning to help fill the current gap in literature associated with Twitter in the L2 classroom. Studies that investigate the use of Twitter in the K-12 setting also warrant further research. To date, Kim et al. (2011) document students' use of Twitter in grades 5, 7, and 10 in EFL classes. Forty-Five students participated in their research which looked at the purposes, patterns, and features of student tweets. Researchers noted a variety of patterns, purposes, and features and suggested that Twitter stimulates learners, promotes language output, and encourages them to socially interact with others.

A general trend in studies on Twitter indicates difficulty finding frameworks for analysis, challenges in selecting appropriate and affordable tools to analyze tweets, and a paucity of ways to analyze hashtags generated by students. While studies such as Lord and Lomicka (2012) have employed tested frameworks (such as Rourke et al. 2001), these frameworks measure nonlanguage-specific data and more language-sensitive approaches are needed, as well as examples of coding methodologies. As frameworks and coding procedures are more consistently employed, it is also essential to allow language researchers to easily download tweets in a variety of learner languages. Although numerous tools are available (BirdSong Analytics, Twitonomy, Tweetdownload, to name a few), researchers need access to one's own tweets as well as twitter searches by hashtag. A common critique has been that access to Twitter feeds (especially archives of tweets) is virtually inaccessible or only available at high costs.

Future Directions

With the breadth of research on Twitter that has been conducted in the last decade, the focus for the future should turn to depth and to further exploring the development potential of Twitter use in L2 contexts (see also Hattem and Lomicka 2016). Studies exploiting media coupled with tweets are just beginning to emerge (see Mompean and Fouz-González 2016). Mompean and Fouz-González call for more research addressing the types and content of tweets in order to exploit differences between tweets that include both text and audio or video/images. Following the research conducted by Mompean and Fouz-González (2016) and that of Fornara (2015), there is also a need for more investigation of microblogging that is both instructor-led with student responses where Twitter is used either to ask questions and/or provide information to students. Differences in acquisition rate of items that are sent in a single tweet and items that are sent in several tweets could also be examined as part of this work.

Additional avenues for research could expand upon work on communities of practice both with language learners and language teachers. For example Wesely (2013) and Lord and Lomicka (2014) both explore the microblogging sphere as a way to bring together language educator communities. Wesely (2013), from a sociocultural perspective, looks at an online community of world language teachers who used Twitter for professional development. The study suggested that Twitter facilitated a new form of learning and collaboration among teachers in virtual spaces. Similarly, Lord and Lomicka (2014) examine the role of Twitter in a graduate methodology course. Approximately 80 teachers in training in the USA and Canada tweeted reactions to and reflections of their experiences as new language teachers. Both content analysis and survey data revealed that the microblogging tasks allowed participants to form a virtual Community of Practice (Lave and Wenger 1991) in which they were able to learn, share, and reflect.

Twitter corpora studies also are beginning to appear that utilize tools that researchers to monitor and collect tweets and hashtags so that corpora can be built and investigated. To date, research has focused on various linguistic aspects, such as lexical, morpho-syntactic, or orthographic aspects of Twitter usage. Vilares et al. (2015) have begun to lay the groundwork for such studies as they examine tweets from a linguistic perspective and describe how language processing techniques could be adapted to deal with the informal register language often present in Twitter messages. Finally, longitudinal investigation using various methodologies could help to reveal insights about learners' experiences, particularly in the classroom context and also with the inclusion of other variables such as target language, language proficiency level, and gender (see Solmaz [in press](#)).

To conclude, microblogging continues to emerge in education and is becoming more prevalent in language learning contexts. Studies have shown that Twitter enhances student engagement and improves communication between teachers and students. L2 acquisition research has been varied in approach, task, and with different levels of learners, but to date, it has been largely inconclusive. As the field is emerging, the focus should remain on how learning occurs in microblogging-enhanced environments, what specific factors affect the learning processes, and how to support effective learning in such environments.

Cross-References

- ▶ [Second Language Writing, New Media, and Co-construction Pedagogies](#)
- ▶ [Technology and Second Language Teacher Professional Development](#)

Related Articles in the Encyclopedia of Language and Education

Richard Kern, Paige Ware, and Mark Warschauer: [Networked-Based Language Teachings](#). In Volume: Second and Foreign Language Education

References

- Antenos-Conforti, E. (2009). Microblogging on Twitter: Social networking in intermediate Italian classes. In L. Lomicka & G. Lord (Eds.), *The next generation: Social networking and online collaboration in foreign language learning* (pp. 59–90). San Marcos: Computer Assisted Language Instruction Consortium.
- Blattner, G., Dalola, A., & Lomicka, L. (2015a). Tweetsmarts: A pragmatic analysis of well-known native speaker Tweeters. In E. Dixon & M. Thomas (Eds.), *Researching language learner interactions online: From social media to MOOCs* (pp. 213–236). San Marcos: Computer Assisted Language Instruction Consortium.
- Blattner, G., Dalola, A., & Lomicka, L. (2015b). Twitter in foreign language classes: Initiating learners into contemporary language variation. In V. Wang (Ed.), *Handbook of research on learning outcomes and opportunities in the digital age* (pp. 769–797). Hershey: IGI Global.
- Blattner, G., Dalola, A., & Lomicka, L. (2016). #MindYourHashtags: A sociopragmatic study of student interpretations of French Native Speakers' tags. In L. Winstead & W. Congcong (Eds.), *Handbook of research on foreign language education in the digital age* (pp. 33–58). Hershey: IGI Global.
- Borau, K., Feng, J., Shen, R., & Ullrich, C. (2009). Microblogging for language learning: Using twitter to train communicative and cultural competence. In *Advances in web based learning – ICWL 2009. ICWL 2009* (Lecture notes and computer science, Vol. 5686). Berlin/Heidelberg: Springer. doi:10.1007/978-3-642-03426-8_10.
- Castrillo de Larreta-Azelain, D. (2013). Learners' attitude toward collaborative writing in e-language learning classes: A Twitter project for German as a foreign language. *Revista Española de Lingüística Aplicada*, 26, 127–138.
- Chapelle, C. A. (1998). Multimedia CALL: Lessons to be learned from research on instructed SLA. *Language Learning & Technology Journal*, 2(1), 22–34.
- Dennen, V. P., & Jiang, W. (2012). Twitter-based knowledge sharing in professional networks: The organization perspective. In V. P. Dennen & J. B. Myers (Eds.), *Virtual professional development and informal learning via social networks* (pp. 241–255). Hershey: IGI.
- Dervin, F. (2009). *Microblogging and language learning and teaching* [Resource document]. Tempus.
- Fewell, N. (2014). Social networking and language learning with Twitter. *Research Papers in Language Teaching and Learning*, 5(1), 223–234.
- Fitzgerald, A. (2013). Ted talk – Adventures in Twitter fiction. http://www.ted.com/talks/andrew_fitzgerald_adventures_in_twitter_fiction. Accessed 3 Sept 2015.
- Fornara, F. (2015). *Micro-Input: effects of an instructor model on L2 student practice on twitter*. Paper presented at the computer-assisted language consortium conference, Boulder, CO.
- Hattem, D. (2012). The practice of microblogging. *The Journal of Second Language Teaching and Research*, 1(2), 38–70.
- Hattem, D. (2014). Microblogging activities: Language play and tool transformation. *Language Learning and Technology Journal*, 18(2), 151–174.
- Hattem, D., & Lomicka, L. (2016). What the Tweets say: A critical analysis of Twitter research in language learning from 2009–2016. *E-Learning and Digital Media (Sage Publications)* 13, 1–19.
- Kim, E., Park, S., & Baek, S. (2011). Twitter and implications for its use in EFL learning. *Multimedia-Assisted Language Learning*, 14(2), 113–137.
- Kolowich, S. (2011). *The web of Babel. Inside higher education* [Resource document]. Kathleen Collins. http://www.insidehighered.com/news/2011/01/11/college_professors_use_social_media_such_as_twitter_and_itunes_to_teach_students_foreign_language#sthash.LE1FWYJb.dpbs. Accessed 15 Aug 2015.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lomicka, L., & Lord, G. (2012). A tale of tweets: Analyzing microblogging among language learners. *System*, 40, 48–63.
- Lord, G., & Lomicka, L. (2014). Twitter as a tool to promote community among language teachers. *Journal of Technology and Teacher Education*, 22(2), 187–212.

- Marshall, K. (2015). Rethinking Twitter in the classroom. *The Chronical of Higher Education*. <https://chroniclevitae.com/news/1021-rethinking-twitter-in-the-classroom>. Accessed 3 Sept 2015.
- Mompean, J. A., & Fouz-gonzales, J. (2016). Twitter based pronunciation instruction. *Language, Learning and Technology*, 20(1), 166–190.
- Montero-Fleta, B., Pérez-Sabater, C., & Pérez-Sabater, M. (2015). Microblogging and blended learning: Peer response in tertiary education. *Procedia: Social and Behavioral Sciences*. doi:10.1016/j.sbspro.2015.04.384.
- Perifanou, M. A. (2009). Language micro-gaming: Fun and informal microblogging activities for language learning. *Communication in Computer and Information Science*, 49(1), 1–14. doi:10.1007/978-3-642-04757-2_1.
- Raguseo, C. (2010). Twitter fiction: Social networking and microfiction in 140 characters. *The Electronic Journal for English as a Second Language*, 13(4). <http://www.tesl-ej.org/wordpress/issues/volume13/ej52/ej52int/>
- Rogers, M. (2013). Wired for teaching. *Inside Higher Education*. <https://www.insidehighered.com/news/2013/10/21/more-professors-using-social-media-teaching-tools>. Accessed 10 Sept 2015.
- Rourke, L., Anderson, T., Garrison, D. R., & Archer, W. (2001). Assessing social presence in asynchronous text-based computer conferencing. *Journal of Distance Education*, 14, 51–70.
- Shweiki Media (2014). Social networking: College students and social media statistics. <http://www.shweiki.com/blog/2014/02/social-networking-college-students-social-media-statistics/>. Accessed 15 Aug 2015.
- Smith, C. (2015). By number: 150+ amazing Twitter statistics. <http://expandedramblings.com/index.php/march-2013-by-the-numbers-a-few-amazing-twitter-stats/>. Accessed 10 Sept 2015.
- Solmaz, O. (in press). Autonomous language learning on Twitter: Performing affiliation with target language users through #Hashtags. To be published in *The Handbook of research on digital tools for self-directed language learning*.
- Symmons, J. (2013). An exploration of professors' use of Twitter in higher education. http://www.dr.library.brocku.ca/bitstream/handle/10464/4960/Brock_Symmons_Janet_2013.pdf?sequence=1. Accessed 10 Sept 2015.
- Vilares, D., Alonso, M. A., & Gomez-Rodriguez, C. (2015). A linguistic approach for determining the topics of Spanish Twitter messages. *The Journal of Information Science*, 41(2), 127–145.
- Wesely, P. (2013). Investigating the community of practice of world language educators on Twitter. *Journal of Teacher Education*, 64(4), 305–318.