

## ARTICLE

# Twitter: A Professional Development and Community of Practice Tool for Teachers

Fernando Rosell-Aguilar

This article shows how a group of language teachers use Twitter as a tool for continuous professional development through the #MFLtwitterati hashtag. Based on data collected through a survey (n = 116) and interviews (n = 11), it describes how this collective of teachers use the hashtag and evaluates the impact of their Twitter network on their teaching practices. The results show that most users try the suggestions and ideas that they find on this network, which have a positive impact on their teaching. Finally, the article assesses whether the hashtag users can be described as a community of practice.

**Keywords:** Social networking; Continuous Professional Development; Twitter; Communities of Practice; teachers

## Introduction

As many schools around the globe suffer cuts to their funding for Continuous Professional Development (CPD), some teachers have taken to Twitter as a replacement for formal learning opportunities through conversations, sharing ideas and resources (Greenhalgh and Koehler, 2017). Twitter is a microblogging tool where users can post messages (tweets) of up to 280 characters (the limit was 140 up to November 2017) as well as links, photos and videos, polls and live video streaming. It also has a feature for direct messaging to individuals or groups. Twitter is multiplatform and can be used from a variety of connected devices (computers, smartphones, tablets). In 2017 Twitter had over one billion registered accounts, of which 330 million were active. It is estimated that 500 million tweets are sent every day and 80% of users access Twitter via their mobile device, which supports considering engagement with Twitter as a mobile activity for most users (all data source: Twitter 2017). Hashtags are an essential part of Twitter. They are words or combinations of words preceded by the # sign to indicate the topic of the tweet. When a hashtag appears in a large number of tweets, it 'trends' as a popular topic; that is, it features in the chart of most talked-about issues. Hashtags are also used for Twitter Chats, where users utilise a hashtag for a pre-arranged conversation on a specific topic.

Although dismissed by some as a medium for "vacuous, inane and limited postings" (Wright 2010, p. 259), Twitter has become a social media tool where meaningful and engaged conversations can take place. Over 4.2 million daily tweets are reported to be from educators (Hill 2014), who share their work, ideas and thoughts through

Twitter. Some educators (teachers, trainers, and experts on their fields) have tens of thousands of followers. Whilst the number of followers is not necessarily an indicator of content quality in their tweets, it provides credibility and conveys to prospective followers that a high number of people wish to know what these educators have to say or curate.

## Literature review

### *Twitter for Education*

Back in 2010, the results from a report based on 2,000 responses from US higher education professionals (professors, online instructors, academic leaders, and individuals) showed that more than half the respondents thought that Twitter had no place in academia or potential use in higher education (Al-Khalifa 2010). Nowadays there is general agreement that Twitter has the potential to deliver informal learning beyond the classroom (Ebner et al. 2010; Gao et al. 2012; Tang and Hew 2017). Among the potential uses of Twitter that were highlighted in the early research into its use for education are: developing classroom community, collaborative writing and topic discussion, gauging responses and opinion from readers, collaboration, project management, exploring language, and developing a Professional Learning Network (PLN) (Grosbeck and Holotescu 2008); support for informal learning and connection with a professional community of practice, as well as the possibility of engaging with students in a timely manner (Dunlap and Lowenthal 2009); and connectivity and immediacy among users (Stevens 2008).

The opportunities that Twitter provides to build interaction and collaboration between students and/or students and instructors are often mentioned in the literature (Dunlap and Lowenthal 2009; Ebner et al. 2010; Junco et al. 2013), as is the enhancement of social presence

(McFedries 2007; Dunlap and Lowenthal 2009). Other authors have highlighted the promotion of cultural authenticity and the fact that student reactions to its use in and out of class time have been mostly enthusiastic (Antenos-Conforti 2009; Lomicka and Lord 2012), although this has not always been the case (Craig 2012). Some drawbacks identified include the possibility of Twitter use being too distracting, time-consuming and addictive, as well as issues around privacy (Grosbeck and Holotescu 2008; Dhir et al. 2013). The 140-character limit that operated until November 2017 (and still applies to languages such as Chinese, Japanese and Korean) was regularly mentioned as well: some authors were concerned about how this limit restricted the ability to express oneself (Luo, Sickel and Cheng 2017), whereas others stated that the character limit lowered users' time requirements and facilitated more frequent postings (Java et al. 2007). In contrast, Dunlap and Lowenthal (2009) thought that the character limit encouraged more precise thinking and editing of the language used.

One common role among educators on Twitter is that of curators of content, both their own and that of others. Weisberger and Butler (2012) list the following steps to becoming an educator curator: finding content, selecting (depending on quality, relevance and originality), editorialising (by contextualizing, summarizing, and/or adding your own perspective), arranging, creating, sharing, engaging with others, and tracking that engagement. Not all teachers on Twitter follow these steps in their practice: some restrict their activity to following others and not contributing any content of their own. This is still a valid activity that allows them access to the content and ideas being shared. The content that teachers choose to curate is what makes them stand out from others on Twitter and therefore gain more followers.

### ***Twitter as a learning environment for teachers***

As teachers turn to online environments for their own independent CPD, as opposed to that provided by the institutions they work for, it is important to evaluate the value this provides as "there is a paucity of research exploring professional development on social media across different contexts" (Veletsianos 2017, p. 285). Teachers appreciate the flexibility, lack of cost, accessibility and relevance of such professional development, although there are some disadvantages such as information overload or feeling intimidated or overwhelmed (Hill 2014; Carpenter, Tur and Marín 2017; Luo, Sickel and Cheng 2017). This phenomenon has been reflected in the literature, with many authors concluding that Twitter is an effective tool for professional development (Carpenter and Krutka 2014; Lord and Lomicka 2014; Visser et al. 2014; Carpenter, Tur and Marín 2016; Trust et al. 2016; Greenhalgh and Koehler 2017; Veletsianos 2017; Luo, Sickel and Cheng 2017; Rehm and Notten 2017). The Visser et al. (2014) study analysed the responses of 324 school teachers who used Twitter. Some reported that the professional activity that they carried out on Twitter had an impact on their classroom practice as well as on the development of their own professional knowledge. Other participants reported

developing a network with fellow teachers through Twitter. Similar results were found by Carpenter and Krutka (2014), who also reported on how ideas and resources that teachers found through Twitter had had an impact on their classroom practice and the relationships they developed with other teachers helped them to combat isolation and find a positive community. These findings also match the research carried out by Wesely (2013) with language teachers. Luo, Sickel and Cheng (2017) found very improved perceptions of Twitter for professional development; their participants found useful sources of information and were inspired by the connection to other educators. Similarly, Carpenter, Tur and Marín (2016) compared the experiences of two groups of student teachers in the USA and Spain and, although there were differences among the groups (possibly because far more tweets are posted in English than in Spanish), their participants were positive about the educational purposes of Twitter and the connections with other professionals it enabled. These latter two studies introduced the use of Twitter among the participant student teachers, so their participants did not come together naturally as was the case of other studies based around hashtags.

Some authors have highlighted the value of social media (and Twitter in particular) for connecting new or in-training teachers with peers and with more experienced ones to engage in professional conversations (Risser 2013; Beaudin and Sivak 2015; Luo, Sickel and Cheng 2017). Wright (2010), carried out a study where eight teacher education students placed in schools in different locations were able to support one another effectively and discuss pedagogical issues. Some respondents to Carpenter and Krutka's (2014) survey of 755 teachers highlighted the access that Twitter provides to the perspectives and experience of veteran teachers. Pieterse and Peled (2014) set up a Twitter practice where teachers in training shared experiences with fellow students and mentors with very positive results, as did Lord and Lomicka (2014).

A PLN for teachers is developed on Twitter by following other teachers, checking who else follows them or whose tweets they retweet, and selecting similar people to follow. Trust, Krutka, and Carpenter (2016) define PLNs as "uniquely personalized, complex systems of interactions consisting of people, resources, and digital tools that support ongoing learning and professional growth" (p. 28). The shared Twitter hashtags become digital "affinity spaces" (Gee 2004) that teachers can use "to engage in conversation, mentoring, and resource sharing" (Trust et al. 2016 p. 18). A Twitter PLN is linked to the concept of social presence as online representations of the self, which can be a key factor in facilitating collaborative learning and developing online communities (Lomicka and Lord 2012) based on the assumption that "social presence serves as the basis for building successful communities of enquiry and other dimensions of cognitive and teaching presence" (p. 51). Ferguson (2010) stated that Twitter can help create "a community built on communication and collaboration dedicated to making learning and education the best they can be" (p. 13), therefore, members of a Twitter PLN may become a Community of Practice (CoP), defined as

“groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger et al. 2002, p. 4). Wright (2010) found that teachers in training valued contact with the community, mitigating feelings of isolation. In their study of language teachers in training and their contact with more experienced teachers through Twitter, Lord and Lomicka (2014) found evidence of engagement in joint activity and discussions: they concluded that Twitter is “a tool that is capable of allowing participants to create a CoP and to build social presence” (p. 209). Pieterse and Peled (2014) arrived at very similar conclusions in their study of novice teachers using Twitter for professional guidance, social support and personal empowerment.

An issue that is linked to CPD and CoP practices on Twitter is that of confidentiality and public profiles. As school leaders find their staff on Twitter, some institutions are choosing to regulate and/or monitor their activity. However, Visser et al. (2014) found that the majority of teachers whose schools placed restrictions to using Twitter continue to use it, albeit using their mobile phones to bypass school network restrictions and administrators. Educational technology blogger Andrew Campbell argues that the:

Influx of school leaders onto edutwitter is changing how teachers are using the space. (...) Teachers are now under greater scrutiny for their online activities, and are increasingly asked to ensure their tweets are in line with what their school leaders approve (Campbell, 2015, para 5).

As a consequence, Campbell notes that “increasing numbers of teachers choose to tweet anonymously” (ibid) and this may drive teachers to protect their tweets by locking their accounts so that only people they choose can read them, or choose to exchange messages through private direct messages, therefore losing the benefits for other members of the community.

### ***Teachers coming together through a hashtag: the #MFLtwitterati***

Some researchers have based their studies on teacher use of hashtags for professional and community development (Rehm and Notten 2016; Gao and Li 2017; Greenhalgh and Koehler 2017; Veletsianos 2017). Greenhalgh and Koehler (2017) highlight the ‘just in time’ nature of some hashtags and how they can help deliver resources and ideas for teachers dealing with a current situation (e.g. addressing a terrorist attack with their students and colleagues) while Veletsianos considers hashtags a learning environment that can provide exciting opportunities for teaching and learning, pointing out that their use and effectiveness of a hashtag is “partly determined by factors other than its affordances and design – by users’ needs and desires, as well as the broader social, cultural, economic and political environment” (2017, p. 285). Wesely (2013) carried out a twitter-based ethnography (netnography) study of professional development for language teachers around the

#langchat hashtag. She followed the hashtag as a member and interviewed 9 participants. She mapped the data collected to the different characteristics of communities of practice (domain, community and practice) and concluded that the community formed around the hashtag fitted these characteristics.

Another example of language teachers coming together through a hashtag is the #MFLtwitterati. The #MFLtwitterati hashtag was originated by Joe Dale (@joedale), who has interests in the use of technologies for language learning. He created a list of like-minded Twitter users, which he named the MFL (Modern Foreign Languages) Twitterati. The list members soon started using the name as a hashtag for their tweets, and it has now become a well-known Twitter hashtag used by innovative language teaching professionals, mostly based in the UK but also from further afield. One disadvantage of the hashtag is that it is 14 characters long, which used 10% of the available characters in a 140-character tweet. In the 12 months between 4th July 2014 and 3rd July 2015, 5652 tweets were posted using the #MFLtwitterati hashtag (data gathered using *Humabird Scriptscrape*, a prototype tool to collect Twitter data).

Users of the #MFLtwitterati hashtag share thoughts, ideas and practices, resources, joys and frustrations alike. The list currently has over 2,000 members, and the hashtag is used by many more. Joe Dale reflects: “Over time, the group has developed a strong ethos of sharing innovative classroom practice, encouraging each other to experiment and feed back their findings for further discussion and reflection.” (Williams 2015, section 6). One way the #MFLtwitterati share resources is through Dropbox. Users upload materials, classified by language, for others to reuse or adapt, including plans, images and PowerPoint presentations. This has proven very popular with teachers and as of June 2015 over 13,000 items were stored in the different Dropboxes (2109 in the generic Dropbox and 3,886, 6,196 and 1,299 in the respective Spanish, French and German boxes).

In an effort to understand whether the tweeting activity had an effect on classroom practice, Dale (2013) carried out an informal Twitter survey, asking hashtag users to describe their opinions in a single tweet. From the replies he received, he concluded that the #MFLtwitterati feel they are part of a large group of like-minded colleagues where they can share their classroom experiences and be supported when experimenting with new ideas; can reflect on their own practice through informal discussion with others and feel they have become better teachers as a result, always open to new ways to improve; find it easier to keep up to date with the latest resources, national news, government documents, Ofsted initiatives, links to useful blog posts, etc.; are delivering more engaging and effective lessons by trying out new strategies which in turn are motivating their pupils, improving attainment and encouraging them to produce more creative outcomes; and have greatly improved their own and their students’ skills and confidence in different technologies, integrating them into their lessons and enhancing learning (Dale 2013, para 8). The research study this article reports on

aims to take this informal data and make a more formal attempt to capture the current practice of #MFLtwitterati members and users.

### Research Questions

More research is needed to understand how people involved in informal learning communities learn from one another (Carpenter, Tur and Marín 2016; Rehm and Notten 2016), the reasons why people participate in Twitter online communities and what they believe they gain from participation (Gao and Li 2017) and the use of hashtags in teacher development (Greenhalgh and Koehler 2017; Veletsianos 2017), language teachers in particular (Wesely 2013). The research questions the study aimed to answer were:

- 1 Who are the #MFLtwitterati? This involves profiling the participants: sex, where they live, where they teach, and what subjects they teach.
- 2 Do the practices of the #MFLtwitterati provide evidence that Twitter engagement can contribute to Continuous Professional Development? The evidence for this is based on the participants' awareness of the hashtag, use of the hashtag, use of resources, and perception of how activity around the hashtag affects their professional activity.
- 3 Can the #MFLtwitterati be described as a community of practice? This evaluation is based on whether the practices of the #MFLtwitterati fit with the three descriptors defined by Wenger (1998): mutual engagement, joint enterprise, and shared repertoire.

The #MFLtwitterati hashtag was chosen for this study as it is a very active hashtag with a specific audience. Other language learning hashtags such as #LanguageLearning or #Langchat exist, but whereas these two are used by teachers and learners alike, #MFLtwitterati tends to be used almost exclusively by teachers and not learners.

Twitter is a very popular tool among language learners and teachers as it provides exposure to authentic language via the accounts of individuals, media outlets and institutions who tweet in the target language. It is also a way to practise language skills and access resources such as text, audio and video in the target language (see Rosell-Aguilar 2018 for a full review of uses of Twitter for language learning).

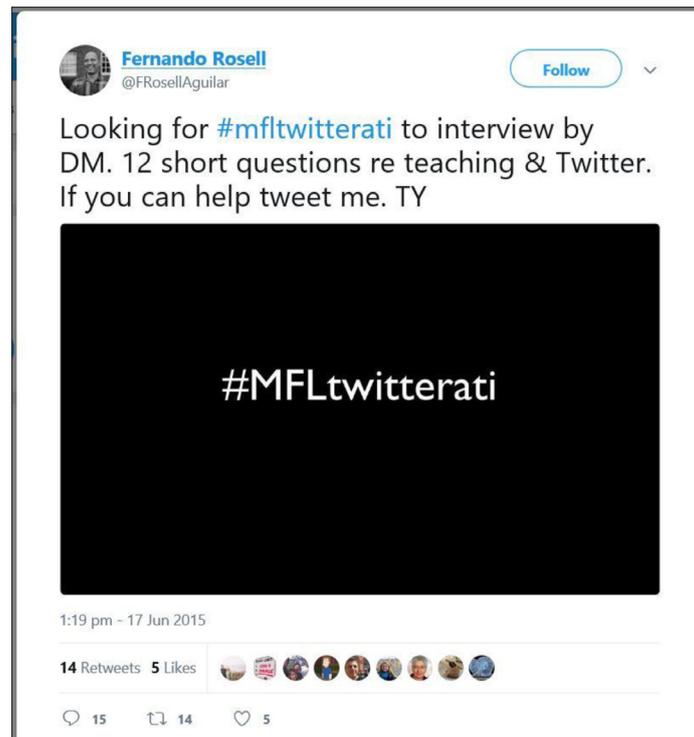
Although some research has been carried out into the use of Twitter among language teachers (Lord and Lomicka 2014), previous studies have mostly been based on groups formed when coming together in a physical space or for a specific purpose, such as a class. This meant that the researchers knew the profile of the participants in the research. The research this article reports on is varies from that approach and is similar to that of Wesely (2013), as it is based on a group that has formed organically, just by being users or followers of a hashtag. This means that the approach is more ethnographic than previous research, as it is based on a natural community. However, it also means that there is no user profile available, which is why the first research question profiles the users. Although some of the research described in section 2 made claims about CPD and CoPs, these were mostly observations rather than evidence based on empirical research designed to clarify what practices on Twitter demonstrate engagement with CPD and belonging to a CoP. This gap in the research is what questions two and three address.

### Methods

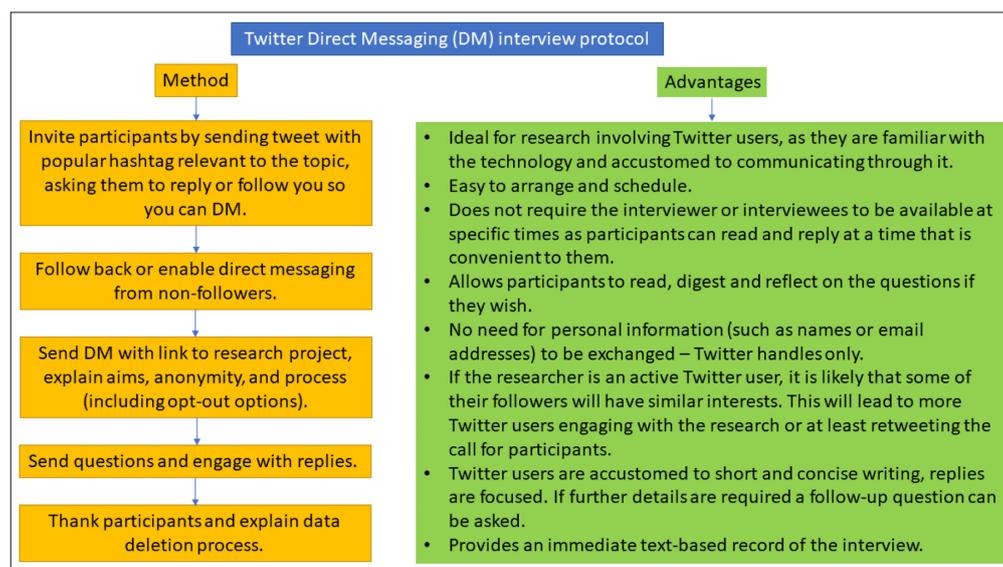
A survey was set up using SurveyMonkey, the online survey tool. At the time the survey was carried out, current recommendations against its use in UK Higher Education research due to the location of its servers outside the EU had not been established. The survey contained 22 questions: 17 closed questions and five open-ended questions (see Appendix A). The questions were designed to provide a profile of the users, their use of the hashtag and how belonging to this community had benefitted them. Given that the research revolves around the use of Twitter, it was decided that the link to the survey should only be distributed via Twitter using the #MFLtwitterati hashtag, and not through any other methods such as mailing lists. This method of tweeting a link to a survey has been used in previous research on teacher Twitter practice (e.g. Carpenter and Krutka 2014; Visser et al. 2014). Tweets with the link were sent by both the author and #MFLtwitterati creator Joe Dale in November 2014 (**Figure 1**), and 120 responses were received. Four of the respondents did not identify as language teachers, so they were removed from the data. The total number of responses is therefore  $n = 116$ . Because of the exploratory nature of the research and the type of questions, which aimed to find out demographic information, practice, and beliefs, the analysis of the closed questions was restricted to descriptive statistics,



**Figure 1:** Tweet by Joe Dale inviting #MFLtwitterati to take the survey.



**Figure 2:** Tweet from the author requesting participants for follow-up interviews.



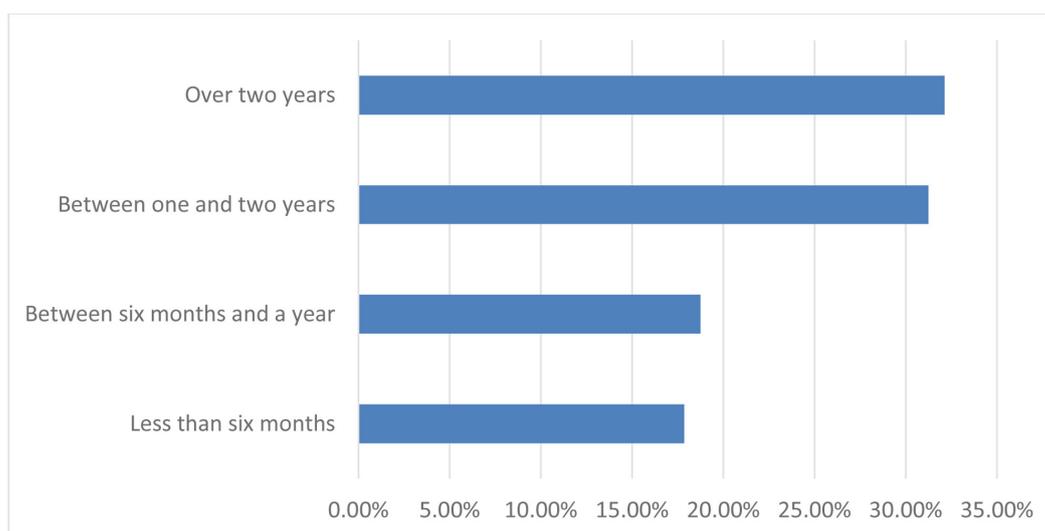
**Figure 3:** The Twitter Direct Messaging Interview Protocol.

carried out using SurveyMonkey's own data analysis tools. The data are available to view as an open resource (Rosell-Aguilar 2017). To analyse the data from the open-ended questions, all responses were read once in order to gain a general picture of the data. Subsequently, all responses were read a second time to identify main themes and code the replies. The responses were then read a third time to ensure that the coding had been adhered to and ensure nothing had been missed following the thematic analysis process suggested by Braun and Clarke (2006).

In addition, follow-up interviews were conducted in June 2015 (see Appendix B for the list of questions). A tweet was sent with the #MFLtwitterati hashtag requesting participants (Figure 2). A total of 13 Twitter users agreed to take part, all of whom had taken part in the

large quantitative survey. Of the 13 interviewees, one was removed from the analysis because he was not a language teacher. Another interviewee was removed as she was very new to Twitter and had only just heard about the hashtag, therefore  $n = 11$ .

The interviews were conducted by Direct Messaging (DM), Twitter's own private messaging tool. This 'Twitter Direct Messaging interview protocol' follows the principles of email epistolary interviews online (Debenham 2007) adapted to Twitter (Figure 3). The features of Epistolary interviews that Debenham finds positive are that they provide an immediate text-based record of the interview, are more convenient to arrange (without travel considerations or expenses) and do not require the interviewer or interviewees to be available at specific times.



**Figure 4:** Time respondents have been aware of the #MFLTwitteratti hashtag.

They also allow participants to read, digest and reflect on the questions if they wish. As is the case with email, the asynchronous nature of this method removes time zone differences when applied to Twitter, as participants can read and reply at a time that is convenient to them. The medium is ideal for research involving Twitter users, as they are familiar with the technology and accustomed to communicating through it. In addition, if the researcher is an active Twitter user, it is likely that their followers will have similar interests, which will lead to more Twitter users engaging with the research or at least retweeting the call for participants. Further advantages of this Twitter DM interview protocol include ease of scheduling and lack of need for personal information (such as names or email addresses) to be exchanged. The questions were written so that they would fit within the 140-character limit of DMs that applied at the time when the research was undertaken (this has since changed and DMs no longer have a character limit). Participants were advised that they could take their time to think about their replies and that they could use more than one DM to respond to avoid the character length restriction. The content of the DMs was subsequently copied and pasted onto a spreadsheet for ease of analysis. Replies were coded and analysed thematically by interviewee and question. The research methods were approved by the Human Research Ethics Committee at the University where the author works and ethical guidelines for internet research (Markham and Buchanan 2012) were followed. No information collected is available to the public and participants cannot be identified. Participants were self-selected and could withdraw from the survey or interview at any time. No names or contact details (except Twitter handles for interviewees) were collected.

## Results

In this section the relevant results from the survey will be presented in the first two sections: user profile and practices and beliefs. A third section presents the results from the interview data.

### User profile

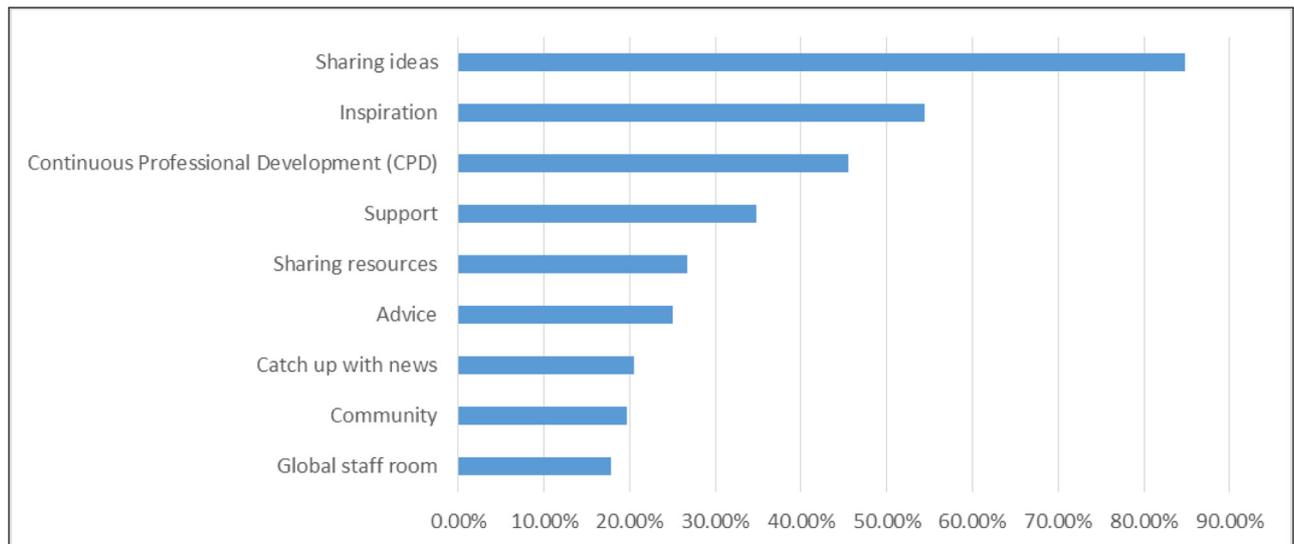
The majority of survey respondents (86.6%) lived in the UK. Respondents from other geographical areas represented much smaller percentages (Ireland 3.6%, rest of Europe 4.4%, US/Canada 1.8%, Asia 1.8%, Africa 0.9% and Australia/New Zealand 0.9%). Most respondents were female (87.6%). All respondents were involved in language teaching: 89.5% at a school, 1.8% at a university, 6.1% independently, and a further 2.6% in “other” teaching situations. Respondents were asked to select all languages they taught, as many language teachers teach more than one language. These were mostly French (84.2% of participants), Spanish (58.7%) and German (42.1%). Other languages were English as a foreign language (10.5%) and Italian (4.4%).

### Practices and beliefs

The responses to the survey are presented here under four categories as identified in the research questions: awareness of the hashtag, use of the hashtag, use of the Dropboxes, and perception of the #MFLTwitteratti.

**Awareness of the hashtag:** the responses to the question about how long respondents had been aware of the #MFLTwitteratti hashtag appear in **Figure 4**. The main reason respondents had become aware of the #MFLTwitteratti was because they had noticed in tweets from others (51.4%), followed by personal recommendation (36.2%) and because they had read about it (12.4%).

**Use of the hashtag:** 77.7% of respondents had used the hashtag in their tweets, whereas 22.3% had not. In response to an open question about their reasons for using or not using the hashtag, those who used it did so for a number of reasons. 84 responses were received. A frequency analysis of these showed that the word most used was “sharing”, with 30 instances from different respondents. “Ask/asking” questions, “advice” and “help” had a combined count of 40, and the concept of reaching an audience appeared 21 times. Other words which appeared multiple times were “ideas” (14 times), “resources” (10), “community” (5) and “information” (4). Among those respondents who had



**Figure 5:** Most commonly-used descriptors of the #MFLtwitterati.



**Figure 6:** One-word descriptions of the #MFLtwitterati.

not used the hashtag in their tweets, eight were new to Twitter and a further seven explained that they did not tweet, they only used Twitter to follow others and read their contributions. Two respondents felt that they had nothing worth contributing, and two respondents worried about privacy issues as teachers. A final question about the use of the hashtag asked participants if they regularly checked the hashtag. Some 43.4% of respondents claimed that they did so “often” and a further 43.4% did it “occasionally”, with 9.7% choosing “rarely” and 3.6% who “never” checked it. It worth noting that it is not necessary to check the hashtag to access the tweets where it is used, as these will appear in the users’ timelines, albeit in a more serendipitous way.

Use of the #MFLtwitterati Dropboxes: some 66.4% of respondents were aware of the Dropboxes, whereas 33.6% were not. Access to the Dropboxes is not open and users have to request access from a number of key holders. A total of 40 respondents (35%) downloaded resources stored in the Dropboxes. Of these, 20% used them often, 50% occasionally and 30% rarely. Fewer respondents added resources to the Dropboxes: some 74.6% had never added resources, 10.5% “rarely” did so, 12.3% did so “occasionally” and 2.6% added resources often.

Perception of the #MFLtwitterati: some 86.6% of respondents had recommended the hashtag to others.

Using a list of descriptors that Dale (2013) gathered from his previous survey, participants were asked to select the three that they most agreed with. The results are presented in **Figure 5**.

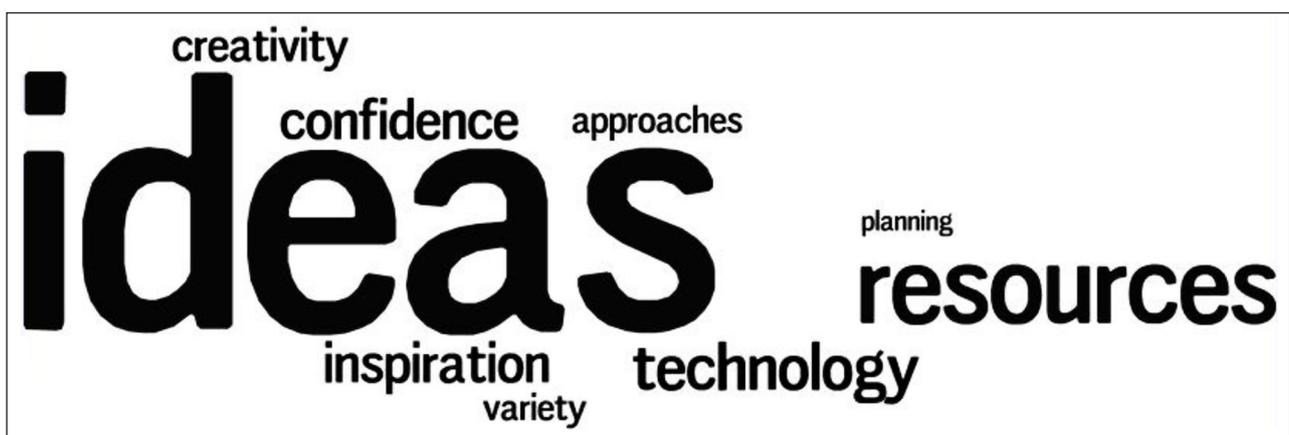
Respondents were also asked how they would describe the #MFLtwitterati in one word. A total of 104 responses were entered. The responses are displayed in **Figure 6**, with the most common words arranged by size.

Effect on teaching practice: the majority of respondents (88.5%) reported having tried suggestions or ideas by other #MFLtwitterati members in their teaching, and a further 74.3% reported using resources they have found via the #MFLtwitterati hashtag. When asked in an open question what the #MFLtwitterati group had brought to their teaching, 100 participants entered responses, as displayed on **Figure 7**. As well as these, respondents also wrote about their teaching being “livened”, “transformed”, “refreshed”, “revitalised”, “totally changed” and “revolutionised” by the group.

Finally, participants were asked if they thought their teaching had improved in any way because of the #MFLtwitterati. The vast majority (87.5%) agreed. A total of 91 respondents provided examples in an open question, illustrated in **Figure 8**. Many respondents provided actual examples of specific tools, websites and apps that they had found out about through the group. They also mentioned



**Figure 7:** What has the #MFLTwitterati brought to your teaching?



**Figure 8:** Improvements to teaching from the #MFLTwitterati.

newer approaches to teaching such as flipped learning. Some respondents described how they have found the confidence to try new ideas and be more creative.

#### **Interview results**

All 11 interviewees were language teachers, 10 at a variety of schools and one (interviewee 11) at university. All described themselves as regular Twitter users. When asked about whether Twitter is the main medium they used to keep up with language learning news, ideas and resources, eight responded “yes”. The other three included Twitter among other tools they use, such as Facebook and email groups.

All interviewees had used the hashtag in their tweets. Their reasons included giving a wider audience to their tweets, reaching like-minded people, and sharing ideas and resources. All but one of the interviewees (interviewee 11) reported having used resources recommended by an #MFLTwitterati tweet in their teaching, including photos, websites, and apps. The same ten interviewees (the school teachers) stated that they would describe the #MFLTwitterati as a community, citing reasons such as a common purpose, support, shared resources, and dialogue.

In the UK context, where all interviewees came from, CPD is a commonly-used term that appears in teacher training. Teachers are provided with some in-school CPD but they

are also expected to engage with their own professional development. In response to the question “Do you consider engagement with #MFLTwitterati tweets to be part of your CPD (Continuous Professional Development)?” all ten school teachers responded affirmatively, many with replies such as “absolutely” and “definitely”. Interviewee 11 stated that it might be “too much” to consider it CPD but it is “a way to keep informed about what others do”. Similarly, all ten school teachers responded that engaging with #MFLTwitterati tweets had improved their teaching in terms of experimenting with new ideas and creativity as well as reflecting on their practice. Interviewee 11 did not think it had had any impact on his teaching “yet”.

Three questions in the interview protocol (Q 9–11) explored the concept of the public nature of Twitter and privacy. When asked if they knew whether any students or management at their institution read their tweets, most did not know. Four school teachers were aware that their school leaders read their tweets and the university teacher replied that a few of his students follow him on Twitter. Three of the interviewees mentioned that, although they were not aware of being read by students or management, they were aware of the possibility and maintained a very professional tone in their tweets. Being in a public arena had an effect on what the interviewees tweet, with many stating that they were careful about what they tweeted or retweeted. Two of the interviewees had locked their

accounts so that their tweets could only be read by people they selected. All but three of the interviewees (7, 9 and 11) admitted that they sometimes communicated with other teachers on Twitter through direct messages to avoid their opinions being seen by others.

When asked for their final thoughts, interviewee 1 said she would like to see Twitter recognised as CPD. Interviewee 3 stated that “professionally, joining Twitter is the best thing I ever did” and interviewee 10 said “My teaching has been reinvigorated through Twitter and joining the #MFLtwitterati. I think much more about teaching ideas than ever before and Feel like I'm right up to date with all that's happening”.

## Discussion

In this section the results will be discussed to answer the three research questions presented in section 3.

### *Who are the #MFLtwitterati?*

The results provide a picture of the #MFLtwitterati users as language teachers, mostly female, and mainly based in schools in the UK. The majority of teachers in the UK (almost 75%) are women (Department of Education, 2011) so their overwhelming majority in the membership to the group was to be expected too. It is surprising that such a large proportion of the respondents work in schools and only 1.8% work at universities, where there is much activity both in language teaching and research. Also surprising is the large proportion of teachers who are based in the UK. Although the hashtag initiated and has had press coverage in the UK, it has been in use long enough to have crossed borders further afield considering the international nature of Twitter. This could perhaps be attributed to the fact that most users are UK-based and therefore some of their tweets refer to the UK context only, which would appeal more to a UK audience. The time zone may also be a relevant factor, as tweets sent from the UK would appear in the timelines of other English-speaking countries such as the USA, Canada or Australia at times that do not fit with the schedules of school teachers in those areas. Furthermore, the acronym MFL to refer to Modern Foreign Languages is mostly used in the UK, which may also explain why this hashtag has remained local to that context.

### *Do the practices of the #MFLtwitterati provide evidence that Twitter engagement can contribute to continuous professional development?*

The results show that many survey respondents consider Twitter part of their CPD. The interviewees who worked in a school setting agreed. Nearly 50% of the survey respondents chose “CPD” as a descriptor of the group, and many of the other responses such as “sharing”, “inspiration”, “support”, and “advice” are also words that fit into the description of CPD. CPD was also mentioned by survey respondents when asked to describe the group in one word and when asked about what the group had brought to their teaching. These results confirm the previous findings of Visser et al. (2014), Lord and Lomicka (2014), Veletsianos (2017) and others. The impact on classroom

practice identified fits with Carpenter and Krutka's (2014) results and link to inspiration and the mitigation of isolation coincide with Luo, Sickel and Chengs (2017) and Wright's (2010) findings respectively.

Other issues arising from the data that are related to CPD are confidentiality and public teacher profiles on Twitter. A number of participants expressed concerns about this. Although this was not a specific question in the survey, two respondents mentioned this issue in their responses. The interviews revealed that, although many of the teachers are not aware of who follows or reads them, many are very aware that Twitter is a public arena and either are careful about what they say or even lock their accounts. The large number of interviewees who admit to communicating through DM supports Campbell's (2015) statement about teachers going underground for some of their Twitter activity, but the fact that the same teachers also engage in very public activity through a popular hashtag suggests that such activity does not reduce the benefits for other members of the group as Campbell feared.

### *Can the #MFLtwitterati be described as a community of practice?*

Evidence of engagement and practice to determine whether the #MFLtwitterati can be considered a community of practice is based both on the profile of the hashtag user, which demonstrated the general shared enterprise of language teaching, and on the practices and beliefs presented in 5.2. To evaluate membership to a community of practice by educators on Twitter, McLeay (2008) used three terms defined by Wenger (1998): mutual engagement (the negotiations among the members of the community and how this participation binds them together), joint enterprise (the shared understanding of their goals), and shared repertoire (a set of communal resources used to reach the goals of the shared enterprise).

The results in terms of awareness of the hashtag show that membership to the group of users is dynamic, with members who have used the hashtag for a relatively long time as well as newer members. The fact that most users become aware of the hashtag through noticing and recommendations suggests that members are self-selected and share a mutual interest.

The active use of the hashtag and the frequency analysis of words most utilised to describe this use as sharing, asking, advising and helping are consistent with mutual engagement activity, and the use of the Dropboxes to upload materials exemplifies the groups' shared repertoire as evidence of wanting to engage in CPD and improve their language teaching practice, as well as save time on class preparation. This integrated use of both Twitter and Dropbox is innovative and not reported in previous research. The use of the of the dropboxes reveals an awareness of technological developments to support the sharing of resources as well as providing a repository that can be located at any time, unlike other Twitter communities that tend to post links to resources that users need to save for themselves. Further evidence of the groups' mutual engagement and shared practice is provided by the results that deal with perception of the

group. These findings support previous assessments concerning the concept of language teachers forming a CoP through the use of Twitter by Lord and Lomicka (2013) and the use of hashtags by Wesely (2013). The descriptors presented in **Figure 4**, as well as the one-word descriptions, support the notion of a community whose members describe it as a place to share ideas, feel inspired, where they can engage in CPD and feel supported as well as sharing resources and providing and getting advice, which fits with the initial findings by Dale (2013) as well as previous research by Luo, Sickel and Cheng (2017). The word “community” itself was one of the descriptors and appears in both the questions about describing the group as well as in the effect on their teaching. The fact that 86.8% of users check the hashtag either often or occasionally is further evidence of the engagement with the community. The positive descriptions as well as the majority perception that membership to the community improves their teaching supports the joint enterprise of improving their language teaching through CPD via Twitter and the hashtag. This is further supported by the clear statements from the interview results, where 10 out of 11 interviewees considered the #MFLtwitterati a community of practice and used very similar descriptions to those used by the participants in the survey.

## Conclusion

The research presented in this article contributes to the current literature by providing evidence that teachers who use the #MFLtwitterati hashtag (mostly from school settings) engage in collaborative practices and argues that their collective can be considered a community of practice. It also provides a profile of the members of the community. The research contributes to the fields of Mobile Learning and using Twitter as a Personal Learning Network for Continuous Professional Development within a Community of Practice. It brings the often under-researched issue of mobile learning among teachers rather than for learners to the fore. In addition, it showcases how teachers are taking CPD into their hands using the latest tools available to them, possibly due to shortages in funding for professional development funding in learning institutions. It also suggests that some teachers would like the informal CDP they engage in on Twitter recognized formally. The research also provides an insight into newer online practices, such as support through a social media tool, and the sharing of resources through Dropboxes. This research is methodologically different from previous research as it introduces the use of a Twitter Direct Messaging Interview protocol, an innovation that may be of use to researchers in many other fields.

A number of limitations affect the research as it uses self-report as a method, and the members of the community who chose to complete the survey were self-selected. Another limitation is that due to the lack of data on how many people use the hashtag, it is impossible to know what percentage of the total hashtag users the 116 survey respondents represent.

This research is easily replicable using the hashtag, even though the participants would not necessarily be the

same members of the community. The introduction of Twitter polls since the research was carried out also means that further research could be carried out using these for separate questions over time. The survey questions could be adapted for other groups of language teachers or teachers of other subjects to carry out further research into Twitter communities of practice for teachers. Such research could then be compared to the results presented here. Text analysis of tweets, as carried out by Lord and Lomicka (2014), could be used to correlate actual practice and the results obtained by self-report. Finally, the recent expansion of the Twitter character limit from 140 to 280 characters may change some aspects in the way people express themselves on Twitter by reducing the amount of abbreviations and acronyms currently used, and in the case of the #MFLtwitterati hashtag it means that its 14-character length will represent 5 rather than 10 percent of the total possible length. The change in length may go some address some of the concerns some researchers have expressed regarding the previous 140-character limit (Grosbeck and Holotescu 2008) and will merit further research.

## Additional Files

The additional files for this article can be found as follows:

- **Appendix A.** #MFLtwitterati survey questions. <https://doi.org/10.5334/jime.452.s1>
- **Appendix B.** DM interview questions. <https://doi.org/10.5334/jime.452.s1>

## Acknowledgements

I would like to thank Joe Dale (@joedale) for his help to promote the call for participants on Twitter. I would also like to thank Pat Lockley (@patlockley) for allowing me the use of the Humabird Scriptscape prototype, and Amanda Salt (@amandasalt), Terri Dunne (@misstdunne), Alex Bellars (@bellaale) and Langwitch (@Langwitch) for their help collecting data about the mfltwitterati Dropboxes. Finally, I would like to thank all participants in the survey and interviews and the reviewers who provided very helpful feedback on earlier drafts.

## Competing Interests

The author has no competing interests to declare.

## References

- Al-Khalifa, HS.** 2010. Finding a Place for Twitter in Higher Education. *eLearn*, 5: 6. DOI: <https://doi.org/10.1145/1795374.1821980>
- Beaudin, L and Sivak, T.** 2015. Three Reasons to Use Twitter in Teacher Preparation. In: Slykhuis, D and Marks, G (eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2015*, 2150–2155. Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
- Braun, V and Clarke, MJ.** 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2): 77–101. DOI: <https://doi.org/10.1191/1478088706qp0630a>

- Campbell, A.** 2015, April 15. How School Leaders Are Changing EduTwitter. *Looking Up* [online]. Available from: <http://andrewscampbell.com/2015/04/15/how-school-leaders-are-changing-edutwitter/> [accessed 30<sup>th</sup> May 2016].
- Carpenter, JP and Krutka, DG.** 2014. How and why educators use Twitter: A survey of the field. *Journal of research on technology in education*, 46(4): 414–434. DOI: <https://doi.org/10.1016/j.tate.2016.08.011>
- Carpenter, JP, Tur, G and Marín, VI.** 2016. What do US and Spanish pre-service teachers think about educational and professional use of Twitter? A comparative study. *Teaching and Teacher Education*, 60: 131–143. DOI: <https://doi.org/10.1016/j.tate.2016.08.011>
- Craig, D.** 2012, September 6. Twitter for Academic Writing. *Daniel Craig: a critical eye on Education and Technology*. [online]. Available from: <http://www.danielcraig.com/?s=twitter+academic+writing> [accessed 30<sup>th</sup> May 2016].
- Dale, J.** 2013, February 7. The Language of Twitter: the rise of MFL teachers online. *The Guardian*. [online] Available from: <http://www.theguardian.com/teacher-network/teacher-blog/2013/feb/07/twitter-language-mfl-teachers> [accessed 30<sup>th</sup> May 2016].
- Department of Education.** 2011. *A profile of teachers in England from the 2010 School Workforce Census*. [online] Available from: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/182407/DFE-RR151.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182407/DFE-RR151.pdf) [accessed 30<sup>th</sup> May 2016].
- Dhir, A, Buragga, K and Boreqqah, AA.** 2013. Tweeters on campus: Twitter a learning tool in classroom? *Journal of Universal Computer Science*, 19(5): 672–691.
- Dunlap, JC and Lowenthal, PR.** 2009. Tweeting the night away: Using Twitter to enhance social presence. *Journal of Information Systems Education*, 20(2): 129–135.
- Ebner, M, Lienhardt, C, Rohs, M and Meyer, I.** 2010. Microblogs in Higher Education—A chance to facilitate informal and process-oriented learning? *Computers and Education*, 55(1): 92–100. DOI: <https://doi.org/10.1016/j.compedu.2009.12.006>
- Ferguson, H.** 2010. Join the Flock! *Learning & Leading with Technology*, 37(8): 12–15.
- Gao, F and Li, L.** 2017. Examining a one-hour synchronous chat in a microblogging-based professional development community. *British Journal of Educational Technology*, 48(2): 332–347. DOI: <https://doi.org/10.1111/bjet.12384>
- Gao, F, Luo, T and Zhang, K.** 2012. Tweeting for learning: A critical analysis of research on microblogging in education published in 2008–2011. *British Journal of Educational Technology*, 43(5): 783–801. DOI: <https://doi.org/10.1111/j.1467-8535.2012.01357.x>
- Gee, JP.** 2004. *Situated language and learning: A critique of traditional schooling*. Psychology Press.
- Greenhalgh, SP and Koehler, MJ.** 2017. 28 Days Later: Twitter Hashtags as “Just in Time” Teacher Professional Development. *TechTrends*, 61(3): 273–281. DOI: <https://doi.org/10.1007/s11528-016-0142-4>
- Grosseck, G and Holotescu, C.** 2008. Can we use Twitter for educational activities. In: *4th international scientific conference, eLearning and software for education*. Bucharest, Romania.
- Hill, C.** 2014. Why Teachers are Flocking to Twitter. *UKEdChat*. [online]. Available from: <http://ukedchat.com/2014/10/24/why-teachers-are-flocking-to-twitter/> [accessed 30<sup>th</sup> May 2016].
- Java, A, Song, X, Finin, T and Tsen, B.** 2007. Why We Twitter: An Analysis of a Microblogging Community. In: *9th Web-KDD and 1st SNA-KDD 2007 workshop on Web mining and social network analysis*, 118–138. Springer-Verlag.
- Junco, R, Elavsky, CM and Heiberger, G.** 2013. Putting twitter to the test: Assessing outcomes for student collaboration, engagement and success. *British Journal of Educational Technology*, 44(2): 273–287. DOI: <https://doi.org/10.1111/j.1467-8535.2012.01284.x>
- Lomicka, L and Lord, G.** 2012. A tale of tweets: Analyzing microblogging among language learners. *System*, 40(1): 48–63. DOI: <https://doi.org/10.1016/j.system.2011.11.001>
- Lord, G and Lomicka, L.** 2014. Twitter as a tool to promote community among language teachers. *Journal of Technology and Teacher Education*, 22(2): 187–212.
- Luo, T, Sickel, J and Cheng, L.** 2017. Preservice teachers’ participation and perceptions of Twitter live chats as personal learning networks. *TechTrends*, 61(3): 226–235. DOI: <https://doi.org/10.1007/s11528-016-0137-1>
- Markham, A and Buchanan, E.** 2012. Ethical decision-making and internet research. Recommendations from the AoIR Ethics Working Committee (Version 2.0). [online] Available from: <http://www.aoir.org/reports/ethics2.pdf> [accessed 30<sup>th</sup> May 2016].
- McFedries, P.** 2007. Technically Speaking: all a-twitter. *Spectrum, IEEE*, 44(10): 84.
- McLeay, J.** 2008. Twitter as a community of practice for educators: Microblogging explored. *The open classroom* [online]. Available from: <http://theopenclassroom.blogspot.com/2008/10/twitter-as-community-of-practice-for.html> [accessed 30<sup>th</sup> May 2016].
- Pieterse, E and Peled, Y.** 2014. A Chaperone: Using Twitter for Professional Guidance, Social Support and Personal Empowerment of Novice Teachers in Online Workshops. *Interdisciplinary Journal of E-Learning and Learning Objects*, 10: 177–194. DOI: <https://doi.org/10.28945/2068>
- Rehm, M and Notten, A.** 2016. Twitter as an informal learning space for teachers!? The role of social capital in Twitter conversations among teachers. *Teaching and Teacher Education*, 60: 215–223. DOI: <https://doi.org/10.1016/j.tate.2016.08.015>
- Risser, HS.** 2013. Virtual induction: A novice teacher’s use of Twitter to form an informal mentoring network. *Teaching and Teacher Education*, 35: 25–33. DOI: <https://doi.org/10.1016/j.tate.2013.05.001>
- Rosell-Aguilar, F.** 2017. *Data MFLtwitterati research*. DOI: <https://doi.org/10.21954/ou.rd.4987112.v1>
- Rosell-Aguilar, F.** 2018. Twitter as a formal and informal language learning tool: from potential to evidence. In: Rosell-Aguilar, F, Beaven, T and Fuertes-Guiterrez, M (eds.), *Innovative language teaching and learning at university: integrating informal learning into formal*

- language education*. Researchpublishing.net, Dublin, Ireland. (In press).
- Stevens, V.** 2008. Trial by Twitter: The rise and slide of the year's most viral microblogging platform. *The Electronic Journal for English as a Second Language (TESL-EJ)*, 12(1): 1–14.
- Tang, Y and Hew, KF.** 2017. Using Twitter for education: Beneficial or simply a waste of time? *Computers & Education*, 106: 97–118. DOI: <https://doi.org/10.1016/j.compedu.2016.12.004>
- Trust, T, Krutka, DG and Carpenter, JP.** 2016. "Together we are better": Professional learning networks for teachers. *Computers & education*, 102: 15–34. DOI: <https://doi.org/10.1016/j.compedu.2016.06.007>
- Twitter.** 2017. About > Company. Available from: <https://about.twitter.com/company>.
- Veletsianos, G.** 2017. Three cases of hashtags used as learning and professional development environments. *TechTrends*, 61(3): 284–292. DOI: <https://doi.org/10.1007/s11528-016-0143-3>
- Visser, RD, Evering, LC and Barrett, DE.** 2014. #TwitterforTeachers: The Implications of Twitter as a Self-Directed Professional Development Tool for K–12 Teachers. *Journal of Research on Technology in Education*, 46(4): 396–413. DOI: <https://doi.org/10.1080/15391523.2014.925694>
- Weisberger, C and Butler, S.** 2012. *Re-envisioning Modern Pedagogy: Educators as Curators*. Presentation given at SXSWedu on March 6, 2012. Available from: <http://www.slideshare.net/corinnew/reenvisioning-modern-pedagogy-educators-as-curators-11879841> [accessed 30<sup>th</sup> May 2016].
- Wenger, E.** 1998. *Communities of Practice: Learning, Meaning and Identity*. Cambridge University Press, Cambridge. DOI: <https://doi.org/10.1017/CBO9780511803932>
- Wenger, E, McDermott, RA and Snyder, W.** 2002. *Cultivating communities of practice: A guide to managing knowledge*. Harvard Business Press.
- Wesely, PM.** 2013. Investigating the community of practice of world language educators on Twitter. *Journal of teacher education*, 64(4): 305–318. DOI: <https://doi.org/10.1177/0022487113489032>
- Williams, M.** 2015. The seven big language learning issues facing the UK. *The Guardian*. [online] Available from: <http://www.theguardian.com/education/2015/apr/14/seven-language-learning-uk-multilingualism> [accessed 30<sup>th</sup> May 2016].
- Wright, N.** 2010. Twittering in teacher education: reflecting on practicum experiences. *Open Learning*, 25(3): 259–265. DOI: <https://doi.org/10.1080/02680513.2010.512102>

**How to cite this article:** Rosell-Aguilar, F. 2018. Twitter: A Professional Development and Community of Practice Tool for Teachers. *Journal of Interactive Media in Education*, 2018(1): 6, pp. 1–12, DOI: <https://doi.org/10.5334/jime.452>

**Submitted:** 11 July 2017

**Accepted:** 26 January 2018

**Published:** 11 May 2018

**Copyright:** © 2018 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

]u[

*Journal of Interactive Media in Education* is a peer-reviewed open access journal published by Ubiquity Press.

OPEN ACCESS 