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Review article

It takes research to build a community: Ongoing challenges for scholars in digitally-supported communicative language teaching

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Abstract

This article provides an argument for closer multilateral alliances between the emergent and loosely-bound international community of educational researchers who are working in areas related to Digitally Supported Communicative Language Teaching and learning (herein DSCLT). By taking advantage of the communications revolution that is currently reshaping the world, internationally aligned investigators can foster new knowledge, technology, and practices that develop improved teaching strategies and policies appropriate to our rapidly changing times. Beginning with a brief overview of the impact that technology has had on education and post-2000 nascent research areas related to DSCLT, this article goes on to examine whether or not the impact of research is geographically bound, and if so, how transnational alliances can be useful in bridging gaps in the continuum of knowledge-building. Finally, the potential gains that could stem from an enhanced collaboration between international research communities are examined, although admittedly such endeavors are not without challenges.

Keywords: Computer-Mediated Communication; educational research; Language Learning; language teaching; Technology-Enhanced; Telecollaboration

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Introduction

Very few people would argue against Markauskaite's words concerning the current impact of technology on the average citizen's everyday existence:

> Various technological and social developments have been reshaping almost all aspects of human life. Some of the knowledge, skills, abilities, competencies and personal characteristics that were necessary for life in previous centuries have now become irrelevant, while others have become critical. The majority of these changes are associated with the proliferation of new technologies, particularly information and communication technologies (ICT). (Markauskaite, 2006: 2)

These changes are being felt in academic spheres as well. The effect of technology in education, in particular language education and the use of social media (Demaizière and Zourou, 2012), is evident in current developments in both teaching practice and educational research. As Zourou (2012a, para. 1) remarks, 'it is undeniable that social media have been generating enthusiasm, skepticism, expectations and even illusions' amongst the Computer-Assisted Language Learning (CALL) community.

The growing impact and use of technology in language education is evidenced by the many different terms that have arisen, such as Computer-Supported Collaborative Learning (CSCL), Computer-Mediated Collaboration and Language Learning (CMC and LL), Network-Based Language Teaching (NBLT), Technology-Enhanced Language Learning (TELL), and other, more recent denominations such as Telecollaborative Language Learning (TlcLL) and Mobile Assisted Language Learning (MALL). To add to this list of monikers, 'Digitally-Supported Communicative Language Teaching' (DSCLT) has been coined (by the author) for this article in order to combine language teaching through communication media that includes both Mobile and Internet applications. The term can be applied to CSCL, NBLT, CMC and LL, TELL, TlcLL and MALL inclusively.

In face of the exponential growth in the use and advancement of technology (and terminology attached to its use in education), it is easy to lose sight of the fact that technology has long been a staple in teaching practice. For instance, as early as the 1870s 'magic lanterns' were used to project images printed on glass plates in darkened classrooms (Robinson, Herbert, and Crangle, 2001). Similarly, the use of the film projector in schools prompted Edison to predict that books would become obsolete, replaced by learning 'through the eye' (Smith, 1913). And as Sadler (2012) points out, even in the early 1960s, experiments with email, newsgroups, and real-time chat were being used at the University of Illinois Urbana-Champaign (p. 31).

Despite this, it is rather recent that the growing role of technology in language education has contributed to a sense of an almost ubiquitous presence.

Perhaps one of the main impetuses for an increasingly integrated use of technology in the domain of language teaching has been the advent and proliferation of Internet-supported Computer-Mediated Communication (CMC), which in turn has motivated activities within pedagogical paradigms largely driven by Communicative Language Teaching (herein CLT; Richards, 2005).

> The desire to communicate and its rewards have clearly transformed the internet. What was initially conceived as a network for information exchange has quickly evolved into a global social network. This shift from information archive to a venue for human interaction is not surprising given the essential human drive to commune with others. (Meskill, 2013: 1)

The use of social media and CMC-based activities in teaching and learning (both formally and informally) has also generated considerable speculation (and political posturing) concerning the role of educators and the development of specific ICT literacy needed for basic functioning in society today. Basing her arguments on work by Kearns (2002), Markauskaite (2005), and a report by the Organisation for Economic Co-operation (OECD) (2001), Markauskaite (2006) points out that the emergence of the phenomenon of ICT literacy is tightly linked with three general rationales for the inclusion of ICT into education: economic, social and educational. Additionally, along with reclamations for education systems to embrace and adapt to the technological society, much has been said about the trials and tribulations of doing so.

> The networked society (Castells, 1996) challenges teachers, students, teacher educators and educational systems in a number of ways. What counts as valid knowledge in a fragmented myriad of available information, how to make sense of such fragments, how to represent them and turn such information into coherent insights are but a few overarching questions. (Lund, 2013: 77)

All of these circumstances indicate the need for informed decision-making by all education stakeholders: administrators, policy-makers, teachers, students, and parents. Informed decisions, in turn, denote the need for solid research in the field. In particular, more long-term, geographically-distanced partnerships could help promote international lines of inquiry into DSCLT, providing much needed support for sound decisions about education practices and policies.

A long way in a short time

It stands to reason that language educators were aware of the vast opportunities for promoting 'authentic' language use through technology long before the notion became a byword in general policies (consider, for instance, early work by Warschauer, 1995a,b, 1996). Since the gradual emergence of the role

of CMC in education (Maule, 1993), a large amount of research and practice in this field has been carried out in the last decade or so (Bax, 2003; Belz, 2002; Chapelle, 2009, 2012; Kern, 2006; Lamy and Hampel, 2007; Luppicini, 2007; Macaro, Handley, and Walter, 2012). As can be seen in the review of research that follows, there are some identifiable emergent areas of study. For instance, there is a growing interest in telecollaboration, which has led to a significant increase in the number of studies on intercultural competences gained in this type of environment. Similarly, studies on teacher education and development are becoming more common as DSCLT moves into mainstream education. Likewise, as the communicative focus in DSCLT becomes more ingrained, research into language gains has begun to focus more on integrated competences, rather than separate language competences such as writing or pragmatic development (it should be noted that sociopragmatic competences are often included in the term 'intercultural competences', especially in studies on telecollaboration).

There has also been considerable attention to the promotion of language fluency in online interaction (Abuseileek, 2013; Chang, Lin, and Tsai, 2013; Smith and Sauro, 2009; Yanguas, 2012). This is a seemingly natural development that coincides with the increase in Internet connections in classes, thereby allowing for language production aided by videoconferencing, audio chats, and video chats. There have been interesting variations of foci, for instance studies on the impact of *text-based* CMC on *oral* fluency (Blake, 2009; Razagifard, 2013). Other studies have also begun to explore the way in which multiple integrated modes of communication can influence or support language production and eventual proficiency (de Haan, 2012; Joseph and Uther, 2009; Satar and Özdener, 2008; Sauro, 2009; Sydorenko, 2010), rather than focusing the study on one isolated mode of communication.

The aforementioned focus on CLT has had an impact on how language learning is conceived in DSCLT environments – as integrated (rather than separate) competences (cf. García-Sánchez and Rojas-Lizana, 2012; Lee, 2012; Miceli, Visocnik Murray, and Kennedy, 2012; Mitchell, 2012). While studies into DSCLT may still look at specific language competences such as writing (Chen, 2006; Elola and Ozkoz, 2010; Lee, 2010) or sociopragmatic gains (Shin, 2006), these studies take into consideration the framework of computer-supported collaborative learning environments and aim to focus on the wider learning process. In short, it appears that research into CMC in language education is moving towards an inherently more complex view of language production and learning that includes the use of various channels of communication simultaneously (multimodality).

This perspective also reflects a general understanding of '21st century' multiple competences – the ability to use (and adapt to) new tools to communicate.

Multiple, integrated competences that emerge from highly complex exchanges have become a central focus for many scholars. The impulse coming from the New London Group's[1] groundbreaking work on literacies in the early 1980s, followed by studies into multiple literacies (Kress, 1998; 2003; and Kress and van Leeuwen, 1996, 2001) has had a profound impact on the question of literacies in CMC and LL (Blattner and Fiori, 2011; Guth and Helm, 2012; Hampel and Hauck, 2006; Murray, 2000). Moreover, aspects of 'multi' (multilingual and multicultural) are becoming highly recognized as an integral part of online exchanges (Chanier and Ciekanski, 2010). More and more, both practitioners and researchers acknowledge that even if an exchange is designed to practice and work on one target language (often a lingua franca for all the learners), it is rare that students will come into the exchange with just one language as a resource. Most are already multilingual and are taking part in what can be called a 'plus one' language situation – students with more than one L1, plus the new target language (Dooly, 2011a). Studies such as these push the limits of how language learning is conceptualized by encouraging research that tries to take into consideration the multidimensional aspects of these environments.

Intercultural competences have always been a salient area of research for international exchanges (Audras and Chanier, 2008; Belz, 2002; Belz and Müller-Hartmann, 2003; Jin, 2013; Kinginger, Gourves-Hayward, and Simpson, 1999; O'Dowd, 2003). Recently, research in this area appears to be moving away from the notion that 'intercultural' is limited to one specific target language focus towards more studies that hold a 'global' notion of the intercultural (Dooly, 2011b; Dubreil, 2012; Kramsch and Thorne, 2002). It is likely that this is related to the ubiquity of online connections and the incremental possibilities of communicating with individuals outside of the target language (Araújo e Sá, de Carlo, and Melo-Pfeifer, 2010; Kitade, 2012; Liaw and Master, 2010). Research into the development of the interculturality of language learners, often through observation of their actions (Abrams, 2013; Bouyssi, 2009; Schenker, 2012; Tudini, 2007), can provide important information for sound pedagogical decisions (Helm, 2009), as well as observation of the teacher role in the learning process (Mangenot and Tanaka, 2008).

This dovetails into another growing focus of research in DSCLT: teaching skills and teacher development. This includes attention to approaches (Demaizière and Narcy-Combes, 2005; Hubbard, 2013; Stockwell, 2011), task development and implementation (Hampel and Pleines, 2013; Hsu, 2012; Mangenot, 2003; Ollivier, 2012; Zourou and Mangenot, 2007), and teacher competences (Chen, 2012; Develotte, Guichon, and Vincent, 2010), particularly through collaboration in virtual environments (Dooly and Sadler, 2013; Ernest, *et al.*, 2012). Research into teacher education is key for ensuring that

the decisions of educators (and policy-makers) worldwide are informed by solid research results concerning how to efficiently design and implement international collaborative language learning (see for instance discussions of effective task design in different environments by Alwi, Adams, and Newton, 2012; Brandl, 2012; Collentine, 2011; Kessler, 2013; O'Dowd and Waire, 2009). The pedagogical perspective that tends to be reflected in the cited research is student-centered, socially-constructed learning, supported by appropriate scaffolding through the task design. These studies address important issues pinpointed by Ortega and Zyzik (2008) concerning the ostensible lack of pedagogical focus in several CMC-supported tasks in language learning, many of which simply aim to practice the target language.

Inevitably, as technology develops and expands in daily life, new lines of research are emerging in both formal and informal language learning environments, for instance Mobile Assisted Language Learning (Stockwell, 2007, 2010, 2013; Oberg and Daniels, 2013). Gaming (especially Massively Multiplayer Online Role-Playing Games or MMORPGs) is also evolving as a salient area of study (see Cornillie, Clarebout, and Desmet, 2012; Cornillie, Thorne and Desmet, 2012; Gee, 2007; Sykes and Reinhardt, 2013; Thorne, Black, and Sykes, 2009; Thorne and Fischer, 2012), along with the use of Virtual Worlds (cf. Jun Tang, 2012; Liou, 2012; Peterson, 2012) through both 'play' and 'serious content' (such as online virtual classrooms, conferences or one-to-one language conversation classes). Obviously, with the connotations of violence so often associated with games or the worries of explicit adult behavior in Virtual Worlds (VWs), there is some hesitance towards introducing them into formal learning environments, although specific education games and VWs are becoming more common in the classroom. Studies indicate that it is possible to bridge the apparent gap between formal language learning contexts and VWs or games at different ages and target language levels, albeit with carefully scaffolded interventions.

Researchers are also exploring the use of CMC with young language learners or adult beginners, two groups of learners that are frequently profiled as not having the basic communicative competences to handle online interaction. Recent research is showing otherwise (Gruson, 2010; Gruson and Barnes, 2012; Kennedy and Miceli, 2013, 2012b; Sadler and Dooly, 2013; Tolosa, East, and Villers, 2013). The younger generations' familiarity with specific communication devices can serve both as a basis for implementation and as a focus of study, as demonstrated in Hwang and Chen's (2013) look at elementary school students' learning through MALL.

Clearly there are stimulating new areas of research concerning DSCLT. Many of the reports tend towards a more integrated approach to understanding the process, one based on a sociocultural understanding of learning. The

focus of recent studies is not necessarily on a specific tool, task, selected skill, or discrete linguistic features. Instead, many reports (within situated learning paradigms) consider how working with diverse tools and various tasks result in multiple competences. In short, it appears that researchers and practitioners are delineating the 'human factor' in computer-mediated communication. At the same time, some caution must be applied. As Ortega and Zyzik (2008) point out, researchers and practitioners may be blinded by their own assumptions due to an underlying euphoria or 'relentlessly optimistic view' (Buckingham, 2008: 14) concerning the benefits underlying the use of technology in language learning. Ortega and Zyzik (2008) discuss how some assumed benefits of CMC-supported communication have proven true, for instance, there is more L2 production and variety in production fostered through online discourse; however, some less positive attributes deserve more attention, such as increased anxiety of public discourse of interaction, participation that is not always equitable, continuance of existing power relations, especially in teacher-pupil interaction where 'lurking' is seen more negatively than tangible output, etc.

Moreover, as the review shows, there are discernible gaps in areas of less educational experimentation (e.g. DSCLT and young language learners, MALL, gaming) that need to be expanded. Also, there appear to be far less globally-distanced multiple authorships of studies, despite the increase in telecollaborative exchanges. Indeed, it is principally in the area of telecollaboration that most transnational authoring seems to take place, reinforcing the argument that this type of experience supports the emergence of cross-border international research and can be applied in other DSCLT research domains. The argument for just such a community of researchers is addressed in the next section.

Research communities: Local, global, or glocal?

According to the National Research Council (2002: 53), science is a communal 'form of life' regulated by norms of the scientific community. But what constitutes a scientific community? Again, taking the lead from the NRC (2002: 53), a scientific community can be defined as 'a cadre of investigators who can engage differing perspectives and explanations in their work and consider alternative paradigms.' Each scientific community has a cumulative tradition of questions, tools, methods, practices, and their own style and language for writing up research studies. Smith and Schulze (2013) make reference to a CALL community, arguing for 'the construction of knowledge across interdependent studies,' (p. ii) while Zourou (2012a, para. 1) mentions a 'Computer-Assisted Language Learning (CALL) community.' Similarly, Chanier (2007: 142) calls readers of *Language Learning & Technology* journal an 'international research

community.' Likewise, Guichon (2012) mentions a '*communauté de chercheurs*' centered around technology mediated language learning and then proceeds to discuss the 'epistemological contours' of this community, based on 79 articles published in the French-language journal *Alsic*.

However, as perusals of some of the articles cited here demonstrate, there appears to be geographical gaps in the 'knowledge across interdependent studies' (Smith and Schulze, 2013: ii). For example, the references cited in the principal research journals based in North America tend to be from scholars based in the USA, the biographical lists of European based journals are largely Eurocentric scholars, and work stemming from Asian countries are largely referenced in Asian journals (and to a lesser degree in either North American or European journals). Moreover, francophone research appears far less frequently in English-language journals, to such a degree that French researchers seem to have formed their own *communauté*.

It is necessary for educational scientific communities to ensure that sound pedagogical practice is informed by solid research and to 'build further knowledge about education, and about education policy and practice' (NRC, 2002: 50), based on objective, rigorous, open-minded, and honest studies that go beyond 'local communities.' To do so, researchers must be aware of similar studies that are being carried out in their field in more expanded geographic radiuses. For example, Smith and Schulze (2013) contend that there must be more replication of studies. However, for this to happen on a global scale, researchers must first be aware of the studies that are being carried out beyond their local parameters.

In his article on the participatory nature of today's culture, grounded, to a large degree, on the collaborative culture of the Internet, Kessler (2013) proposes that communication has been transformed dramatically and that these changes afford new opportunities for collaborative language learning. It can be argued that this same discussion can be applied to our scientific community. These same valued workplace skills – the ability for researchers to exploit opportunities provided by the participatory, collaborative nature of globalized communication – underscore the need for some self-reflection on behalf of the CALL community. One is left with the question of why there is not more 'digitalized' collaboration between researchers worldwide, especially investigators interested in DSCLT. More and more research journals are open-access, ensuring the availability of published results from scholars across the world. However, this fact in and of itself does not guarantee dissemination of in-real-time investigations, largely because it can take many months before the article is actually published.

Many of the challenges facing educators and policy-makers are best addressed at the local and regional levels, especially by practitioners and

experts from that particular community who are more familiar with contextual boundaries. Nonetheless, there are certainly numerous issues that cut across geographic boundaries so that local and regional groups might benefit from comparative studies of similar situations in other parts of the world. As the number of geographically distributed collectives of researchers in DSCLT grows, more consolidated efforts to cross boundaries (geographic and epistemological) can only lend strength to our associated body of knowledge. This, in turn, can help ensure systemic, quality undergraduate and graduate studies in teacher education, ones including integrated courses on DSCLT that are based in solid, international research–an issue that has been of concern for several researchers and practitioners for some time (Egbert, 2006; Egbert, Paulus, and Nakamichi, 2002; Hubbard, 2008). It can also be helpful to create affiliations and a continuum of synthesis among researchers who are working in similar fields and may not know it – in other words, convergence among geographically-distributed researchers and practitioners.

One size fits all? Challenges faced by transglobal researchers

Almost inevitably there are caveats to the idea of transglobal research communities— some of which have already been addressed by Ortega and Zyzik (2008) and Buckingham (2008) – such as the lack of interrogation of underlying assumptions concerning the benefits of technology. Researchers often ignore 'many of the down sides of these technologies – the undemocratic tendencies of many online "communities," the limited nature of much so-called digital learning and the grinding tedium of much technologically-driven work' (Buckingham, 2008: 14). An international community of researchers may help highlight submerged assumptions simply through the 'collision' of different mindsets and sociocultural frameworks.

Another challenge that becomes apparent through the brief review is how to 'pair' transglobal partnerships given the complex nature of the study domain. The review in the previous section is evidence of the growing amount of research in DSCLT – some of which can be categorized within more conventional areas of SLA while other studies borrow from social sciences, computational linguistics, communication studies, linguistics, cultural studies, literacy studies (many areas that have often been converged within SLA studies as well). Moreover, there are many exciting new approaches being applied to data coming from online interaction, e.g. Cultural Historical Activity Theory, Chaos Theory, Complexity Theory, Connectivism, socially-distributed cognition, and network knowledge, to name a few.

This evolution traces an understandable and logical sequence. As language education moves beyond the established boundaries of the classroom, new paradigms of both teaching and research must inevitably emerge, particularly

ones that take into account the international boundaries that are being crossed. Whereas SLA studies have customarily analyzed processes in (local) face-to-face classrooms in which all of the participants in the data collection are present, this is not always the case in online language learning exchanges. DSCLT implies that there are participants who take part in the interaction but who are not necessarily physically present (or perhaps it can be argued that they are present, although with limited possibilities of interaction since they are not mobile in the classroom and do not physically interact in any way). This example, as simple as it may appear (the difficulty of defining who is present in the research data set), necessitates the revision of theories, approaches, and assumptions that have been used successfully in the past for understanding (locally situated) language learning processes. As more DSCLT takes place, analytical approaches will need to be refined in order to fully encompass the type of data gathered in online/offline/simultaneous interactions that includes multiple parties in geographically distributed situations.

To envision the complexity involved, allow us to imagine hypothetical researchers carrying out a study based on data collected in an online exchange aimed at promoting foreign language learning amongst medical students. The pedagogical approach might be based on a paradigm taken from engineering (the origin of project-based learning), the research perspective may come from 'connectionism', taken from neuroscience, and the analytical approach may employ membership categorization analysis, which originated in ethnographical sociology. In other words, just as the students who are involved in the exchanges are spanning virtual borders, so too are many practitioners and researchers involved in these learning environments. Collaborating international researchers must find areas of convergence in both the data compilation and the analytical approach they wish to take in order to ensure coherence in their studies. Also, it is essential to adopt a critical and reflective attitude about research carried out within online language learning exchanges; complexity cannot be an excuse for non-rigorous research. A transglobal collective can work together to ensure that research into DSCLT maintains standards and criteria of quality research – whether quantitative, qualitative, or mixed methods.

An international collective can also seek ways to disseminate study results to the educational community on a worldwide scale, while entering into scientific dialogue with researchers from other disciplines. This could create a systemic synergy rather than piecemeal 'borrowings', or as Kincheloe (2001) puts it, to avoid the 'superficiality of methodological breadth and the parochialism of unidisciplinary approaches' (p. 679). It is exciting to contemplate the potential empowerment of an international research community that aims to avoid 'groupthink' – often based on underlying assumptions about

'transglobal' (almost unidimensional) features of online interaction (Ortega and Zyzik, 2008) while ignoring the 'multilayered cultures' of different learners in DSCLT environments.

There are other issues at stake for a transglobal research community. One might argue that topping the list is the question of ethics when dealing with international data. This has been brought up by Ortega and Zyzik in 2008 and continues to be a key issue in international research. Internet users (despite the apparent 'openness' of the 'cyberworld') expect privacy and often resent researchers whom they feel have invaded their 'virtual' space. Once a product has been 'published' (e.g. a collage on facebook) does a researcher have a right to use it as data? Indeed, Internet copyright issues have regulators running in circles and, as *Forbes* magazine has pointed out, most endeavors, such as the foundational Internet law 17 USC 512 on copyright, have failed (Goldman, 2014).

As it has already been highlighted above, researchers who are dealing with data gathered from groups distributed across the globe are straddling numerous frontiers (national, cultural, geopolitical). Practitioners and researchers may generally tend to see these borders as virtual but they can be all too real when it comes to legal issues. To give some examples of conceivable legal entanglements:

- What is considered lawful and permissible when dealing with data collected in the cyberworld in one country may not be allowed in the other countries where some of the study participants are located.
- When collecting data from Communities of Practice (CoP; Wenger, 1998) where there are participants that the researcher does not know – does the researcher have rights when it comes to using data without explicit consent?
- Does the right to collect data in cyberspace (e.g. Virtual Worlds) depend on where the researcher is located? Where the participants are geographically located (out of the VW)?
- Do multiple-party international researchers involved in a study need to pass the research board exam in all the countries involved?
- Who can have access to the data and how is this controlled? For instance, if the data are collected by two researchers in different countries, can these researchers provide access to the data to fellow colleagues who did not take part in the online interaction? Does this require written consent between all researchers?
- If the data are shared, should all the researchers (including colleagues who may not have participated in the actual data compilation) meet research board requirements for both countries?

- In the case of large, international databases, how can restrictions that ensure ethical use of the data be enforced in different countries?
- On a more pragmatic level – in the case of large, international databases – who is in charge of maintaining (and funding) the database?
- When it comes to publications, how do researchers ensure consent and meet ethical requirements for protecting the subjects of inquiry if some of the participants live in other parts of the world?
- Must publications derived from such collaborations reflect all participants in data compilation as collaborators?
- Do the researchers need to have written consent from their collaborating partners in order to publish findings, even if the data set used in the publication only reflects local participants?

These questions are just the tip of the iceberg; scholars working in this domain are in a largely unexplored territory and must navigate the course together. So how do we deal with these points? Ortega and Zyzik (2008) pose four central questions that a transnational research group might depart from: (1) what is the purpose of the research; (2) how vulnerable is the population under study; (3) does the research cause them harm; and (4) who gets credit for cultural creation?

From there, other issues that need to be considered are: what can be done to maintain rigorous standards and is it possible to establish transnational guidelines for dealing with online data? Is it possible to have some sort of meta-catalogue of approaches and frameworks that have been successfully applied to these exchanges? Some solutions may be to have more synergy between researchers, more shared databases, more cross-national research, and more dialogue and position papers concerning research ethics for transglobal studies. In short, there is a need for more of what we are asking and training our language students to do: online collaboration. A transglobal research community could also be in a better position to examine, discuss, and come to terms with the aforementioned legal issues that will inevitably emerge as studies become geographically larger in scope.

A strong international collective should not only aim to sustain and strengthen achievements and educational advances (e.g. through international databases and shared research findings), it should also endeavor to address new questions and promote fresh understandings of situations that arise from the increment of integrated online collaborative teaching and learning. Apart from the areas mentioned in the above section of under-explored populations (Gamers, MALL, young and beginner learners), there is also a need to look into transversal features of DSCLT. For instance, are competences learned online transferred to face-to-face situations and vice-versa? How can transdisciplinary, multiple competences be promoted through

online collaborative language learning? How can incidences of this type of learning be captured in research data? How can research help optimize these types of learning situations? Also, there is a need for more research into political and educational implications: Are curricula adapting to new literacies promoted through DSCLT? Does social capital of digital knowledge through CMC create inequality? These are just a few of the many intriguing questions that might be tackled by a transglobal research team.

Final words

The brief overview of emerging areas of studies related to Digitally-Supported Communicative Language Teaching clearly demonstrates that important and innovative research is being carried out that will reinforce good practices, extend knowledge to a wider audience (educators, learners, and decision-makers), and lay the groundwork for innovation and improvement in performance and outcomes in DSCLT. The short review also demonstrates that investigators are moving towards increasingly more complex paradigms about the DSCLT 'learning ecology' (Barron, 2006), as well as tending to follow international lines of inquiry that incorporate notions of language teaching and learning as a lifelong process aimed at generating authentic communicators of the target language.

Taking advantage of the affordances provided by the many possibilities of digitally-supported Communities of Practice (Wenger, 1998) or Communities of Inquiry (Dewey, 1938), researchers can cross international borders in order to undertake comparative and collaborative research. Such collaboration will enrich both our knowledge of current research findings and pedagogical approaches that use DSCLT. This will also promote knowledge sharing as well as access to resources and expertise between different regions and countries. Moreover, transglobal research can support the problem-solving capacity of investigators and practitioners involved in these types of environment. It can also enhance teacher education and young researchers' development (and subsequent employability) through access to an ample knowledge base, international expertise, and the opportunity to compare local and internationally related experiences.

Closer alliances between international researchers in different countries will likely foster new knowledge, tools, and methods to help research, analyze, and develop improved strategies for diverse aspects of design and delivery of DSCLT. Such a nexus will also contribute to policy development appropriate for these rapidly changing times, and provide a venue for open discussion of emergent issues concerning international research collaboration while ensuring more transglobal, critical knowledge-exchange among like-minded researchers.

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Note

1. This is a group of independent but associated researchers, in a large part coming out of work by Gee, Street, Heath, Barton and Hamilton who specifically looked at literacy as a social practice. Members of this group often published under the name of New London Group.

About the author

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