



Re-envisioning L2 hybrid and online courses as digital open learning and teaching environments: Responding to a changing world

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Abstract

This article begins with a summary of the research literature that has been carried out over the last ten years regarding second language (L2) learning and teaching issues in college-level hybrid and online course environments. Next, I explore the open education movement and highlight characteristics that are shared between open educational resources and practices as well as open access scholarship and the interactions, activities, materials, and digital tools that are commonly used in L2 hybrid and online courses. As such, the primary focus of this article examines how L2 hybrid and online course environments can be conceptualized as—and are increasingly becoming—digital open learning and teaching ecologies (van Lier, 2004). Re-envisioning L2 hybrid and online courses as digital open learning and teaching environments presents both opportunities and challenges for L2 learners and teachers and the language education field as a whole. I therefore conclude with an overview of future empirical, pedagogical, and curricular issues and questions that will need to be addressed related to L2 digital open efforts as they continue to expand.

Keywords: *distance education, open educational resources, open educational practices*

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Introduction

Over the past decade, the number of college-level second language (L2) hybrid and online courses has increased significantly in the United States for a variety of reasons, including financial and enrollment factors (Blake & Guillén, 2020; Sykes, 2015), the proliferation and advancement of a number of digital applications and tools (Godwin-Jones, 2016; Kessler, 2018), and an increasing amount of empirical research investigating the effects of digital environments on L2 learning and teaching (e.g., Arispe & Blake, 2012; Hampel & Stickler, 2015; Rubio, 2012; Sanz-Sánchez et al., 2017). The bulk of the research in this area has primarily focused on the similarities and/or differences in linguistic gains of L2 learners in hybrid and online contexts when compared to L2 learners in face-to-face (F2F) classrooms. At the same time, the open education movement, which includes the creation and incorporation of open educational resources (OER) (Wiley, 2018), the increased use of open educational practices and open pedagogy (Jhangiani & DeRosa, 2017), and efforts around open scholarship (Herb & Schöpfel, 2018) has progressively affected how L2 hybrid and online courses are defined, designed, and implemented. That is, the rise of open education is changing the nature of the teaching materials used in technologically enhanced L2 contexts, the roles of L2 learners and their instructors, and the collaborative and social nature of the activities that are used and shared in digital learning environments. Recent research efforts in this area indicate that both university-level language program directors (Thoms & Thoms, 2014) and instructors teaching L2 hybrid and online courses are not only becoming more aware of OER but are incorporating them in their courses. When compared to their colleagues teaching F2F courses, instructors working in L2 hybrid and online course environments are more likely to consider a wider variety of teaching materials, such as content that is open and does not carry restrictive copyrights (Thoms & Poole, in press).

In what follows, I demonstrate how many of the tenets of open education overlap with various characteristics of L2 hybrid and online courses. The future of L2 digital learning and teaching, I argue, will increasingly resemble digital open learning environments. This trend provides both opportunities and challenges for L2 learners and teachers, college-level L2 programs, and the broader L2 education field. Before fully exploring those ramifications, it is first necessary to provide a brief overview of the existing research on L2 learning and teaching issues in hybrid and online course environments.

Summary of Research on L2 Hybrid and Online Courses

Key Definitions and Growth of Distance Education in Higher Education

It is important to note how the terms hybrid (also referred to as blended) and online learning and teaching are defined in the research literature. In contrast to traditional F2F L2 courses, where students physically meet with each other and their instructor and where the use of technology is limited, hybrid instruction involves “courses that combine F2F and online instruction and application time” (Goertler, 2019, p. 53) and significantly relies on technology to provide for both synchronous and asynchronous interactions and activities outside of the physical classroom. The goal is to use technology and online-based projects to “replace some portion of face-to-face class time with the aim of reducing in-class contact time without sacrificing the quality of instruction, the learning experiences of students, or the learning outcomes of the course” (Thoms, 2012, p. 2). It should be noted that each institution will differently interpret or define the exact nature of each L2 hybrid course, such as the number of days students meet F2F versus time spent online and the kinds of digital tools and applications that are embedded in various course management systems (e.g., Canvas, Moodle) that can be used to facilitate virtual interaction(s) among students themselves or between students and teachers. In contrast, online L2 instruction involves the content of the course delivered exclusively in an online environment, where interactions among students and their teachers are entirely mediated by digital tools and applications. In these courses, students never physically meet with other enrolled students nor with their teachers. These latter courses are often referred to as distance learning courses in the literature (Sykes, 2015).

Although the overall number of students in the United States pursuing an undergraduate or graduate degree decreased across all higher education institutions between 2012 and 2016 (the most current data available), the total number of students taking a distance learning course grew over that same time period (Seaman et al., 2018). As of Fall 2016, there were “6,359,121 students taking at least one distance education course, comprising 31.6% of all higher education enrollments” (p. 11), a percentage that has risen steadily since 2012, when it stood at 25.9%. It is also important to note that much of this growth primarily occurred in undergraduate-level programs, in which 82.6% of all higher education students taking at least one distance learning course are undergraduate students (p. 24).

To date, there has been little research effort to quantify the growing number of online language learning courses in the United States. One exception is a small-scale, survey-based study by Murphy-Judy and Johnshoy (2017) involving 147 language instructors teaching in various K-16 institutions, with the bulk of respondents working in postsecondary environments. The researchers reported that the majority of online language courses offered (a) involve Spanish (although other L2s were represented by survey respondents) and (b) are more common in lower-level language courses. The authors also discussed the challenges of offering online language courses to lower-level learners, noting the possible negative effects online instruction may have on beginning-level students as they contemplate taking more advanced L2 courses. One possible hurdle includes the unique needs of lower-proficient students, such as more scaffolded help provided by language instructors or via course materials and possible design issues in online courses to fully meet those needs. Another potential challenge involves inadequate articulation between lower-level online and upper-level F2F courses. In short, the number of postsecondary education students in the United States who will take at least one distance learning course before they complete their degree is increasing. This trend of online course offerings across all U.S. educational institutions continues to grow, which, in turn, will likely lead to an increased number of L2 hybrid and online courses that are offered over time.

Given that a number of recent volumes and articles provide in-depth summaries of research, pedagogical, and curricular efforts related to L2 learning and teaching in college-level hybrid and online contexts (e.g., Blake & Guillén, 2020; Goertler, 2019; Hampel & Stickler, 2015; Sanz-Sánchez et al., 2017; Thomas & Gelan, 2018), what follows is a brief summary of the principal research areas that have been investigated to date. The following review of the literature therefore is not exhaustive but is intended to help frame the discussion below of how L2 hybrid and online courses are changing due to the effects of open education.

Linguistic Development

Early research efforts on L2 hybrid and online learning included a handful of empirical studies that focused on the linguistic development of L2 learners in F2F versus hybrid or online courses. Many of these studies were carried out in university-level Spanish language courses due to the fact that Spanish programs are often larger and involve more students when compared to less commonly taught languages (Thoms & Thoms, 2014). The results of comparative studies that looked at learning outcomes in F2F and hybrid or online environments have been mixed. For example, Young's (2008) study assessed the learning outcomes (i.e., writing, speaking, reading, and listening abilities) of university-level students enrolled in hybrid and F2F Spanish courses over the course of a semester. She found no significant differences between the two groups of learners regarding their linguistic gains. In contrast, Thoms (2012) compared the speaking and writing gains of learners in two university-level F2F and hybrid Spanish language courses. The researcher did not find statistically significant results regarding the oral proficiency gains between the two groups of learners; both groups similarly improved their oral proficiency over the course of the semester. However, learners in the hybrid section of the course did demonstrate more improvement in their writing competency when compared to their F2F counterparts. The researcher concluded that differences in writing competency between the two groups may have been due to learners in the hybrid section completing required bi-weekly written journals via personal blogs over the course of the semester. This likely resulted in more time on task practicing their L2 writing over time in relation to students in the F2F class.

Money Penny and Aldrich (2016) compared undergraduate students' oral proficiency in online and F2F Spanish classes via the Versant Spanish assessment tool at the end of a two-semester Introductory Spanish course sequence. The exam assessed students' pronunciation, vocabulary, sentence formation, and fluency as factors of oral proficiency. The study revealed no statistically significant differences between the two groups of students. In a similar study, Rubio (2012) measured differences in oral proficiency development between learners in a F2F Spanish course and those enrolled in a hybrid version of the same course. From a holistic level, the researcher did not find any significant differences between the two groups of learners. However, while carrying out closer analyses of proficiency data, such as looking at ratios of syntactic complexity, lexical diversity, and accuracy, he found significant differences between the two groups.

While the majority of early research efforts tended to indicate that L2 hybrid and online courses could be as effective for L2 learning when compared to F2F environments, the results from this initial cohort of studies were, again, somewhat mixed. To help explain the results of this early work, some (Blake, 2009; Chapelle, 2010) indicate that taking a comparative research approach can be problematic as a myriad of factors across the various studies in this area—including how terms such as hybrid or blended are defined and the variety of instructional models and differences in learning environments across comparative studies—can “pose a challenge for systematically assessing and comparing learning outcomes in online and F2F classrooms” (Van Deusen-Scholl, 2015, p. 398). Others (e.g., Goertler, 2019; Sykes, 2015) suggested that because L2 hybrid and online environments are designed to engage learners in a way that is fundamentally different when compared to the learner interactions, tasks, etc., typically found in traditional F2F L2 courses, it is no longer useful to pursue comparative work. Rather, research carried out in L2 hybrid and online environments should primarily look at learning and teaching issues and draw conclusions about the affordances and challenges unique to those environments without comparing them to F2F courses. To that end, research efforts have increasingly focused on various other issues in L2 hybrid and online course contexts. Some topics include investigating how learner characteristics can affect success in online L2 environments, such as correlations between student personality traits and success in online L2 courses

(Goertler et al., 2012). For example, Arispe and Blake (2012) found that learners whose personalities involved high levels of conscientiousness (i.e., diligently completing tasks with little need for encouragement or explicit guidance from teachers/others) were highly correlated with success in online L2 classes. Other learner-based characteristics investigated in the literature involve learner engagement and participation levels with online components and tasks (Rubio et al., 2018) and heritage language learner concerns (Henshaw, 2016).

Learner Autonomy

A related area of research that has received much recent attention involves investigating how L2 hybrid and online course environments affect learner autonomy. For example, Lee (2016) looked at how and whether task-based instruction in two university-level second-semester online Spanish language courses, delivered with the aid of digital tools (e.g., Blogger, Audioboo, Voicethread) and teacher scaffolding, facilitated students' ability to self-regulate their learning. She found that overall, the various kinds of synchronous and asynchronous activities embedded in the online course, coupled with timely teacher feedback along the way, promoted learner autonomy in the online learning environment. Specifically, a combination of guided teacher questions/scaffolded help and free topic tasks helped to "boost learner autonomy in a meaningful and productive way" (p. 94). Learner autonomy in Lee's study involved learners making use of a variety of Web 2.0 tools (e.g., Audioboo, VoiceThread, Blackboard Collaborate) to more independently and collaboratively work with and learn from their peers and their instructor. In sum, research to date in this area suggests that L2 hybrid and online course environments facilitate learner autonomy (e.g., Eneau & Develotte, 2012; Lai, 2019).

Assessment Issues

Another area of research that has received attention relates to various assessment practices and concerns in online foreign language education (e.g., Link & Li, 2018; Tarone, 2015). Outside of the aforementioned comparative studies that measured proficiency differences of learners in F2F and L2 hybrid and online courses, little empirical work has been carried out thus far that makes use of widely-accepted standardized measures (e.g., ACTFL's Oral Proficiency Interview-Computer/OPIc) to assess the linguistic development and proficiency of online L2 learners. The majority of studies to date have measured the linguistic gains of learners in L2 hybrid and online courses via institution-specific assessment tools (i.e., assessment tasks created by instructors or language program directors that are tailored to particular outcomes, students, or goals of an L2 program). Additionally, the bulk of work in this area reports on how assessment issues can be easier to carry out in online environments while also noting a number of challenges. Rubio (2015), for example, noted that online environments are unique contexts of learning and teaching and that "online teaching should explore new avenues for assessment that are consistent with a different delivery mode" (p. 406). Echoing Rubio (2015), Goertler (2019) indicated that online course environments are particularly well suited to incorporate adaptive assessment tools, involve multimodal-based tasks, and allow for more efficient assessments along with timely and individualized feedback for learners and their instructors. Others (e.g., Tarone, 2015) have noted a dearth of assessment-based studies of L2 online learning given that the majority of studies in this area primarily focus on linguistic achievement (i.e., are tied to specific L2 courses or institutionally defined assessment protocols) and not on proficiency benchmarks such as those articulated in the ACTFL Guidelines. Lin and Warschauer (2015) suggested that this discrepancy may be the result of "costs and organizational challenges of online proficiency testing" (p. 395). Needless to say, much more empirical work is needed that investigates the linguistic and proficiency gains of students in L2 hybrid and online courses along with continued work on how to best implement assessment measures in these contexts.

Instructor-Related Aspects

A final area of research on L2 hybrid and online courses encompasses a number of instructor-based issues. Work in this realm over the last decade has focused on how the nature of L2 hybrid and online courses is changing the roles of language teachers working in these environments (Hampel & Stickler, 2015). Winke

et al. (2010) suggested that instructors who are tasked to teach an online language class should ideally first experience such a course themselves. To that end, Ernest et al. (2013) created a series of professional development activities whereby 20 language educators from two European universities virtually interacted and collaborated with each other over the course of six weeks. An analysis of participants' questionnaires and interviews regarding the overall design of the project, the digital tools that were used, and the factors that facilitated or impeded collaboration on group tasks yielded five main perspectives about online instruction: (a) the importance of instructions and time management in a digital environment; (b) the effectiveness of forums and other online tools (e.g., wikis, Elluminate); (c) the importance of developing a sense of community among participants in the virtual environment; (d) the use of tools to allow for both synchronous and asynchronous interactions; and (e) the concept of "learning by doing" (p. 15).

Other researchers working in this area have looked at how a teacher's presence (or lack thereof) in online L2 courses can play an important part for learners and their virtual-based language learning experiences. Meskill and Anthony (2015) suggested that although online environments allow for more learner autonomy, the ability to self-pace one's learning, etc., teachers need to remain active in online courses as students still need recognition and guidance, especially with respect to corrective feedback. When investigating the characteristics of teaching presence and classroom instruction in F2F and hybrid elementary Spanish language classes, Rubio et al. (2018) found that the instructor's behavior in the hybrid environment was less teacher-centered (i.e., less direct/explicit instruction) and involved less time dedicated to course organization issues (e.g., reminding students of deadlines), both of which resulted in learners taking on a more active role in their learning.

In summary, early research efforts on L2 hybrid and online courses yielded somewhat mixed results regarding student learning outcomes in these contexts, especially when compared to more traditional F2F learning environments. As noted, those working in this area are increasingly focusing on the various benefits and drawbacks of learning and teaching in L2 hybrid and online courses without making comparisons to experiences in F2F courses. It is also worth noting that many of the aforementioned studies have been framed via sociocultural- or ecological-based theoretical perspectives on L2 learning (e.g., van Lier, 2004; Vygotsky, 1978), many of which seek to understand the social and contextual variables in learning environments that can affect how learners co-construct meaning and engage with each other and their learning context(s) (Thoms & Poole, 2017). Similarly, some in the field of computer assisted language learning (CALL) suggest that the current stage of CALL research is one that represents an "ecological CALL," by indicating that "this more encompassing view of language acquisition goes beyond classroom walls, as do technologies that can be accessed anytime and anywhere" (Chun, 2016, p. 106). Effective L2 learning and teaching outside of a physical classroom is becoming more accepted or normalized (Goertler, 2019), in part as a result of a proliferation of Web 2.0 tools and applications and an increased interest in social and collaborative views on L2 acquisition. Additionally, these changes are also impacted by and related to the open education movement.

Open Education

Since the early 2000s, open education has become a movement affecting virtually all facets and levels of education in various countries around the world (de los Arcos & Weller, 2018; Jhangiani & Biswas-Diener, 2017). The Open Education Consortium (n.d.) defines open education as encompassing "resources, tools and practices that employ a framework of open sharing to improve educational access and effectiveness worldwide." To date, many open education efforts have focused on the creation, adaptation, and/or use of OER, defined as resources "that are openly available for use by educators and students, without an accompanying need to pay royalties or license fees" (Butcher, 2011, p. 5). OER are often shared via Creative Commons (CC) licenses (<https://creativecommons.org/>) that allow teachers to revise, remix, reuse, and/or redistribute content without dealing with restrictive copyright. That is, CC allows educators to indicate the level of openness and adaptability of their content via six CC license options. For example, an activity authored by an educator to teach a particular cultural aspect of the L2 can carry a CC license that allows others to edit or adapt the content but requires them to credit the person who originally created the

activity. In the aforementioned scenario, the teacher could opt for a more restrictive CC license called “Attribution-NonCommercial-NoDerivs/CC BY-NC-ND,” which does not allow anyone to edit or adapt the activity and only permits others to use the activity as is while acknowledging the creator of the work. In sum, freely sharing OER with others provides both teachers and their students access to content instead of paying exorbitant fees for similar, copyrighted materials from traditional publishers. Currently, the cost of textbooks and supplies in the United States for a typical undergraduate student averages \$1300 per year (College Board, 2019), and there is ample evidence that OER significantly reduce or eliminate textbook costs for students while maintaining similar learning outcomes when compared to publisher-produced content (Wiley, 2018; Wiley & Green, 2012).

In addition to the aforementioned financial and copyright benefits, one of the primary affordances of OER is that they allow teachers and students to adapt the materials to better address context-specific educational needs (de los Arcos et al., 2016), such as those related to specific L2 learners (e.g., heritage vs. non-heritage language learners) or filling a gap in a publisher-produced textbook (e.g., incorporating authentic videos that facilitate teaching a particular pragmatic or cultural concept). In short, one of the main benefits of OER is that they are much easier to adapt and use when compared to publisher-produced materials. This kind of flexibility means that “instructors, students and self-learners who use OER can replace ‘flat’ educational experiences, where opportunity is a function of what one instructor or school can offer, with a constantly evolving multidimensional educational process” (Plotkin, 2010, para. 4).

In addition to OER, the open education movement also involves open educational practices (OEP) (Blyth, 2017; Jhangiani & DeRosa, 2017), which encompass “all activities that open up access to educational opportunity, in a context where freely available online content and services . . . are taken as the norm” (Beetham et al., 2012, p. 1). In other words, open education has allowed language learning and teaching to become more participatory for both students and instructors as they become active producers rather than passive consumers of course content. These changing instructor and student roles have the potential to create more effective learning environments (Butcher, 2011; Thoms & Thoms, 2014) given that the creation and use of OER can provide for a more student-centered learning experience. Students are more engaged and actively contributing to their learning, thereby creating meaningful educational experiences (DeRosa & Robison, 2017; Gruszczynska, 2012) that contrast with more traditional educational approaches where students simply consume course content provided by instructors. These kinds of open learning and teaching experiences are inherent in open pedagogy, a term defined as “an access-oriented commitment to learner-driven education AND as a process of designing architectures and using tools for learning that enable students to shape the public knowledge commons of which they are a part” (Jhangiani & DeRosa, 2017, p. 14). An example of open pedagogy could involve engaging students in the process of helping to shape aspects of a course syllabus by indicating what topics they are most interested in pursuing early on in the semester and then the teacher adapting and adopting content to better meet students’ needs and interests. Similarly, another example of open pedagogy could include students actively searching for course content online via research databases made available to them by their institution’s library or finding authentic and up-to-date materials online via digital repositories (see Appendix for a list of open L2 content and relevant digital repositories).

In short, L2 learning and teaching that relies on digital open content (i.e., OER) and OEP can lead to the creation of a collaborative learning environment where learners are regularly exposed to and interact with authentic L2 resources and are provided opportunities to co-create and co-curate target language content; all of which may lead to increasing motivation to learn and make use of the L2 in meaningful ways. The open education movement is considered by some in L2 education to be disruptive in that it is creating new knowledge ecologies (Blyth & Thoms, in press) involving students, instructors, and researchers in response, in part, to the overall increasing cost of textbooks (Weller et al., 2017), inadequate funding for K-16 education in various states in the United States (Center on Budget and Policy Priorities, 2017), and the abundance of technology-mediated L2 content available on the web (Kessler, 2018). In addition, both OER and OEP often draw upon “open technologies that facilitate collaborative, flexible learning, and the open sharing of teaching practices” (Cape Town Open Education Declaration, 2008, p. 1), many of which are

characteristics inherent in L2 hybrid and online courses. That is, L2 hybrid and online learning and teaching environments rely on a number of digital tools and applications that are intended to promote collaboration among L2 learners themselves and with their instructors; to allow for a more open, accessible, and flexible learning environment whereby more learners (e.g., non-traditional students) can pursue language study; and to facilitate learner autonomy as L2 learners can more easily work with materials and each other at their own pace in virtual environments. Open education, coupled with the growing number of digital tools and applications used in L2 distance learning environments, is creating unique L2 learning and teaching experiences. The final section outlines the implications of the growing reliance on digital open learning and teaching for college-level L2 programs and L2 education by providing an overview of future issues and questions that merit exploration moving forward.

Digital Open Learning and Teaching Environments: Directions for Future Research

As we have seen, a growing number of students are taking distance learning courses as part of their undergraduate experience in the United States. This reality, coupled with an increasing interest in open education across various educational contexts and institutions, means that L2 learning and teaching environments will likely continue to become more digital and open in nature. This trend has ramifications for college-level L2 programs in the United States and for the L2 education field.

One of the first general areas that will need more attention as L2 learning and teaching becomes more open involves the L2 learner and access issues. Although we have seen that open learning and teaching contexts allow for the possibility of more students having access to L2 content and courses that were previously out of reach due to physical hurdles, geographical hurdles, or copyright barriers, a digital divide still remains for many students around the world and within the United States. That is, some (de los Arcos & Weller, 2018; Ortega, 2017) have acknowledged that the increasing social, economic, and financial inequities in our society, coupled with rising tuition rates at U.S. institutions, directly impact some L2 learners as they can no longer afford the required hardware, software, or reliable Internet access that is required for basic participation in digital open learning and teaching environments. Although work has been carried out that looks at other cost-related factors such as why university-level students choose not to purchase textbooks given their expense (Hilton, 2016), there is little research regarding (a) just how pervasive the digital divide is among college-level students within university-level L2 programs in the United States, and (b) how this lack of reliable connectivity and digital resources (e.g., a laptop or smart phone) affects students' access to or their learning in L2 distance education courses. The current health pandemic has shed an even brighter light on these inequality concerns that are an inherent part of our society and, in particular, have demonstrated that some L2 learners simply don't have the means to fully participate in distance education courses even if they are offered. This issue is obviously one that no single L2 program or university can tackle on its own. Rather, these larger access and equity concerns will need to be resolved via wider legislative efforts by the U.S. Department of Education, state legislatures, or local municipalities.

Another learner-based issue related to L2 digital open learning environments that will need to be investigated further involves the optimal amount of training necessary for learners to take full advantage of the digital tools and applications embedded in L2 distance education courses. While the notion of whether or not learners know how to effectively communicate in digital, academic environments is not new (e.g., Warschauer, 2003), what is new is the plethora of digital tools that allow for meaningful social and collaborative interactions via more open learning activities in digital contexts. One example of this area of research involves how digital annotation tools are used to allow learners to collaboratively read, annotate, and interact with digital texts uploaded by the instructor or via texts that are found and annotated by learners online. As more of these kinds of tools transform solitary or closed learning and teaching experiences into more open and collaborative activity, additional research will be needed to understand how these kinds of digitally mediated interactions with text affect L2 reading comprehension and learners' overall developing digital literacies (Chun et al., 2016; Ware et al., 2016).

A third area of inquiry that will be needed as more L2 hybrid and online courses become more open in

nature involves the L2 instructor. While existing research has indicated that, in general, L2 instructors are not provided with adequate professional development opportunities related to how to effectively incorporate technology in traditional F2F courses (e.g., Cummings et al., 2017), more work will be needed that explores not only how L2 instructors perceive their roles in facilitating learning in L2 open learning and teaching environments, but also how they go about designing activities that take full advantage of various digital tools and applications. For example, many professional development workshops for graduate teaching assistants in L2 programs merely provide an overview of available tools for instructors to use in their assigned courses with little attention given to how more open activities afforded by the tools and applications change the role of the instructor (Thoms, 2013). Language program directors should therefore seek to incorporate professional development opportunities for instructors and graduate student teaching assistants that explicitly focus on creating and adapting OER and highlight aspects of OEP that they can use in their classes.

In the case of graduate student teaching assistants, for example, a language program director or the person responsible for teaching the methods course in the L2 department could introduce graduate students to open education terminology, explain the CC licensing structure early on, and require them to produce linguistic, literary, or cultural lessons and activities that are then shared with fellow students and instructors in the L2 program via a CC license. An example of this kind of approach is the Foreign Languages & the Literary in the Everyday (FLLITE) project (<https://fllite.org/>), in which graduate students develop open L2 materials and activities via a collaborative process with fellow students and their L2 methods instructor (Blyth, Warner, & Luks, in press). This kind of real-world, experiential professional development not only allows graduate students to become familiar with the tenets of open education early on in their careers, but it has the potential to affect what they do in their future L2 classes and how they perceive their roles as effective language or literature instructors long after they finish their graduate work. Determining effective ways to expose L2 instructors to more open contexts of and approaches to L2 learning and teaching will be a challenge for L2 programs moving forward. In sum, professional development opportunities for the future professoriate should increasingly focus on the inclusion of CALL literature and more thorough, hands-on training activities to adequately prepare L2 instructors to teach in more open contexts and via more open materials and tools.

The fourth area involves various pedagogical and curricular concerns. For example, renewed interest in a multiliteracies perspective (Paesani et al., 2016; Palpacuer Lee, 2018; Warner & Michelson, 2018), which has reconceptualized traditional notions of literacy by acknowledging other aspects of literacy development such as information and computer literacy, is also indirectly contributing to how we envision effective L2 learning activities and contexts. As mentioned above, research in the CALL field has focused on how to best facilitate L2 learners' digital literacies, with some advocating for language learning to go beyond the brick and mortar classroom and take place via digitally mediated experiences in the digital wild (e.g., Little & Thorne, 2017; Sauro & Zourou, 2019). Language learning in the digital wild involves the use of digital tools to facilitate language learning via more authentic environments and social interactions, such as those that take place in fan fiction websites or blogs or via social networking applications, among others. Using tools in the digital wild is very different from how many educators incorporate them in more formal learning environments as they are oftentimes "'tamed' to fit to curriculum-based, institutional frameworks and requirements, occasionally leading to paradoxical and unreal learner practices" (Sauro & Zourou, 2019, p. 1).

As L2 learning and teaching contexts become increasingly more open and involve more learner autonomy, one key pedagogical question will be to how to best harness these wild, yet potentially rich, digitally mediated learning experiences that take place outside the confines of the traditional L2 classroom and meaningfully incorporate them alongside activities typically found in more traditional F2F, hybrid, and online environments. Some have suggested ways to mitigate this gap via the inclusion of bridging activities (Thorne & Reinhardt, 2008). Bridging activities attempt to make use of learners' everyday digitally mediated learning practices that take place in the wild (i.e., outside of the classroom environment) and incorporate them alongside formal L2 classroom activities that are often guided by curricular or L2

programmatic goals. For example, L2 learners could be encouraged to explore the digital texts in the L2 that they find and read on their own outside of class, such as threaded discussions on a newspaper article, reactions to and interactions with a notable L2 cultural figure's social media post, or the text-based interactions of learners participating in a multiplayer online game. Learners can then bring the digital texts that they find on their own back to the L2 classroom and engage in various analyses and activities created by the instructor. Reinhardt and Thorne (2011) describe a three-phase cycle of incorporating bridging activities that involves "observation and collection, exploration and analysis, and creation and participation" (p. 15) of internet-based L2 texts and practices. These kinds of activities are more open and experiential in nature when compared to traditional L2 activities and therefore have the potential to be more engaging for learners. That said, much more work is needed in this area to determine additional ways in which learning in the wild can benefit the majority of L2 learners and what this means for course and L2 program articulation concerns.

As we have seen, characteristics of the open education movement, such as access/accessibility issues, inclusivity, more open collaborations and interactions between learners and their instructors, and the democratization of knowledge, are increasingly affecting various aspects of higher education in the United States, including the design, implementation, and proliferation of L2 hybrid and online environments. While some valid concerns remain about how to promote more openness in these aforementioned L2 contexts while also maintaining a high level of instruction and meaningful learning experiences, it behooves L2 programs in the United States to embrace these changes to better reflect the changing realities of L2 instructors and learners in the 21st century. Developments around L2 hybrid and online learning and teaching thus far indicate that the L2 profession is uniquely positioned to take advantage of the open movement. This article is an important step in ensuring that we continue to do so.

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Appendix. Digital Repositories and Resources for Open L2 Learning and Teaching

1. Center for Open Educational Resources and Language Learning (COERLL), <https://www.coerll.utexas.edu/coerll/>
COERLL, one of 16 National Foreign Language Resource Centers in the United States and housed at The University of Texas at Austin, creates and archives various OER across a number of different languages and also provides free/open professional development modules for L2 educators.
2. Merlot, <https://www.merlot.org/merlot/>
A digital repository of OER content that is curated and vetted by educators across a variety of K–16 disciplines.
3. OER Commons, <https://www.oercommons.org/>
A digital repository for various OER activities, tools, etc., intended for educators working in K–16 contexts.
4. Open Textbook Library, <https://open.umn.edu/opentextbooks>
A digital repository housed at the University of Minnesota that contains a number of full-length open textbooks in a variety of disciplines, including languages.
5. The Open Education Research Hub (OER Hub), <http://oerhub.net/>
A research entity/group housed in the Institute of Educational Technology at The Open University in the United Kingdom that investigates a number of issues related to open education, open pedagogy, open educational resources, and open scholarship.

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