Technology and Autonomy

HAYO REINDERS

Framing the Issue

Learner autonomy is generally defined as learners' ability to take control over their own learning (Holec, 1981) and is seen as an important goal in language teaching. Increased autonomy has the potential to make learners more engaged in the learning process, to help them better manage their own learning outside the classroom, and to prepare them for lifelong learning (Benson, 2011). In addition, the political perspective on autonomy in language education emphasizes its critical and empowering nature, giving learners the freedom to control their own destinies (Winch, 2004). Technology has the potential to facilitate many aspects of autonomous learning, for example by providing access to language learning resources or by facilitating learner choice, and a vast range of technology-mediated opportunities for learning is now available. However, in practice the successful use of technology has been shown to *require* a degree of autonomy and there is evidence that much technology-mediated learning (at least that without direct teacher support) is limited in its scope and quality. Technology can also be used to explicitly support the development of learner autonomy, but such attempts are rare. Below I will give examples of both autonomy-supportive technology use (i.e., technology that facilitates autonomous learning) and autonomy-developing technology use (i.e., technology that guides learners in developing autonomy).

Making the Case

Successful autonomous learning for most learners requires significant investment to develop the ability needed to identify learning needs, develop a learning plan, monitor progress, and reflect on outcomes, amongst many other skills. Programs (whether technology-mediated or not) that encourage or facilitate autonomous learning without preparing learners for such experiences, and without supporting them in the process, are likely to fail: "Students entering into these programs without having learned the skills of self-directed inquiry will experience anxiety,

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frustration, and often failure, and so will their teachers" (Knowles, 1975, p. 15). This applies particularly in distance learning situations, where "[…] learners must regulate and oversee the rate and direction of their learning to a much greater degree than classroom learners" (White, 1994, pp. 12–13).

What is required is a careful consideration of the *affordances* and *constraints* (van Lier, 1996) of technology-mediated resources for the development of learner autonomy. Reinders and Hubbard (2013) describe both organizational or practical advantages of technology for autonomous learning and pedagogical advantages. In the former category they include *access* as one of the key benefits of technology for enabling students to use resources anywhere/anytime, and to reduce reliance on formal education. Another advantage is the possibility of easy *storage and retrieval* of learning records, for the benefit of both teachers and learners. In addition, the easy *sharing and recycling* of materials means that teachers and learners can easily create, revise, and share learning resources, giving learners more control over the resources they use. Technology may also increase *cost efficiency*, especially for learners who can more easily access resources and learn outside of (paid) formal education. Pedagogical advantages include the *authenticity* of resources that learners have access to, as well as opportunities for *interaction* in the target language. Related to this, *situated learning* is facilitated by the use of technology, and can help minimize the boundaries between the classroom and the target language context (Hung, 2002). The use of *multimedia* and *new types of activities* allows for the accommodation of a wide range of learning styles and preferences. *Non-linearity* gives learners the opportunity to work through materials in their preferred way, rather than having to follow the teacher. An important benefit is that learners can receive *feedback* and *monitoring of learning behavior and progress* in a wide range of ways, for example through the recording of (online) materials usage or participation and the ability for teachers and other learners to provide support. All of the above give learners greater *control* over the learning process and *empowerment* as learners in charge of their own learning destinies.

Pedagogical Implications

It is clear from the above that there are important roles for the teacher in (a) developing learners' ability to make successful use of technology for learning, and (b) supporting learners in the process. In terms of preparation, classroom teachers will need to provide curation, structuring and scaffolding of CALL activities.

Curation

Many technologies commonly used for language learning are not specifically designed for this purpose and teachers will need to be critical in identifying the affordances and constraints of each. However, also in the case of the many tools that *do* support language learning, teachers will need to be clear about their purpose for a particular group of learners; many tools are limited in their functionality

(for example, the many flashcard apps that are available), or are limited in their pedagogical approach (for example the many "educational games" that provide drill-and-practice exercises only).

Curation therefore involves an evaluative process of selection through identifying pedagogical strengths and weaknesses in relation to students' needs, and their ability to make use of the technology, for the purposes of developing their ability to learn autonomously. It also involves an evaluation of the demands (technological and in terms of ways of learning) that the technology places on learners. For example, whereas social networking tools or digital games may be suited to certain groups of learners, for others these tools may pose too steep a learning curve. As with any process of materials evaluation, this may include adoption or adaptation.

Structuring

CALL materials, like all teaching materials, require careful structuring based on a wide range of environmental and learner needs. The development of autonomy requires that resources and activities are sequenced so that they give learners an increasing range of choices over the learning process while still providing support in the form of monitoring and feedback. An important consideration for teachers is the way autonomous learning is linked to classroom learning and how both can complement each other. For example, greater learner choice in what activities to engage in outside the classroom can mean that when learners return to class they have had different experiences, and possibly at different levels. The teacher's role is to build reflective and collaborative activities into the curriculum that, for example, allow learners to report what they learned and—crucially—how they learned it to their peers.

Scaffolding

Support for autonomous learning goes beyond feedback on linguistic performance alone; it also needs to include monitoring and guidance for learners' ability to make decisions about their own learning. Learners benefit from the ability to seek help when they are unsure how to manage the learning process by themselves. The level of support can be decreased over time and the range of choice increased. As Schwienhorst puts it: "Teachers need to ensure that learners are given enough freedom for the task to be meaningful yet enough guidance so that they are able to fulfill the aims of the exercise" (2007, p. 57).

The above are ways in which teachers can prepare students for the use of technology. An additional important role is in supporting ongoing learning, especially where this takes place beyond the classroom. While technology facilitates access to target language content and opportunities for interaction, teachers will need to find ways to be increasingly "present" through monitoring and guiding students.

Monitoring

The wide range of learning opportunities poses well-documented challenges for learners in identifying the most appropriate options, and knowing how a

particular activity has contributed to their learning. Teachers need to find ways to monitor students' activities online, both inside and outside the classroom. In the case of resources specifically designed for language learning this is often relatively easy (most commonly through a "teachers' mode" where instructors can review progress and (sometimes) give feedback), but in the case of general tools, this is not as easy. Some teachers use portfolios to be able to track learners' activities outside the classroom and give feedback on, for example, the types of activity, the tools used, the learners' reflection, and so on. Others have attempted to create communities in social networks. Lamy and Zourou (2013), created tasks for learners to complete in digital games (Reinders & Wattana, 2014), or developed mobile activities that require students to record evidence of having completed tasks outside the classroom (Pegrum, 2014). As Schwienhorst argues: "CALL environments need to have mechanisms to support reflection; CALL software needs to support, even force learners to confront their own planning, monitoring, and evaluation in language learning. This is still probably the most difficult but also the most important part of learner autonomy" (p. 163). We would add to this that where CALL software does not actively do this, this role falls to the teacher.

Guiding

Whereas monitoring involves observing and commenting on learning behavior, guiding learners is a process of encouraging reflection on that learning. The purpose is to help learners develop a critical perspective on themselves and their learning process. Although many teachers interested in developing learner autonomy in class use techniques such as (student-generated) needs analyses, learning plans, learning diaries, and many others (see Benson, 2011), such activities are both more important and more challenging in technology-mediated learning, because learners are more likely to be engaged in a wider range of activities, spread out in time and place. New ways of guiding learners are being developed as technologies emerge; many teachers now routinely interact with learners via Skype to discuss learning progress and to offer suggestions, or use mobile technologies to record and track learners' engagement both inside and outside class.

Conclusion

What the above has shown us is that the use of technology requires new skills on the part of both learners and teachers. As an increasing number of new learning opportunities develop, learners need to become ever more adept at managing their own learning. As control over the learning process devolves to learners, teachers will need to find alternative ways to support learning in an increasingly wide range of contexts. This is not merely a mechanical shift in the ways teachers interact with students but instead it involves a pedagogical transformation in the roles of teachers as facilitators of learning; curating resources, fostering autonomy, encouraging critical reflection, and engaging with learners.

SEE ALSO: CALL (Computer-Assisted Language Learning); Independent Language Learners in TESOL

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Suggested Readings

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