

Hidden impacts and stereotypes of technology in language learning

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This is a short reflective piece consisting of two parts. The first relates to the connection between society, technology and language learning and the second highlights a stereotype of the language teaching profession which is hidden and somewhat problematic especially in the context of technology use in language teaching.

PART ONE

Here, I will try to connect developments in society and the technological area with developments in the theory and practice of language learning at the level of mindset. These connections are often not visible.

Typically, when we think of developments in language learning we tend to think that they emerge from research and that it is research that guides progress. In so doing, we fail to recognize that researchers are embedded in the community in which they live, not only their professional community of practice.

Many of the developments that have occurred are just as much (if not more) a reflection of social expectancies as they are of theoretical developments in the fields of linguistics, applied linguistics, pedagogy, etc. Those expectancies apply both implicit and explicit pressure to research to develop along certain lines. In other words, the personal culture in which each researcher is embedded, and its accompanying collective unconscious, will guide the way that researchers think and dictate, at least to some extent, the shape of research in the field.

In one of the PhD courses that I teach at Suranaree University of Technology students are meant to identify and critique the various issues purportedly influencing the field of English language studies.

The very first trend that they identified was a trend toward technology. The primary emphasis on technology use as they saw it was in areas such as eLearning, biotechnology, artificial intelligence, neural networks, deep learning, augmented reality, virtual reality and big data. Of course, all of these are vitally important in the development of technology support for language learning but, when pressed, students had little idea of how technology would be of value.

Other areas identified included collaborative learning and, of course, trendy areas (but less original than we might think) such as translanguaging and English as a Lingua Franca (ELF),

together with English Medium Instruction (EMI), Blended Learning and Flipped Learning. While all of these trends can be seen as emerging from research in language education, this is not the only place where they exist. In fact, they are ubiquitous in society in general and are ingrained in the culture not only as a result of the widespread availability of technology but also, *inter alia*, as a result of social developments such as the social justice movement and related civil rights concerns e.g. ELF or, to some extent, translanguaging.

In a nutshell, developments in language education today are not only the result of research in language teaching and learning but also come out of the fact that modern society unconsciously expects research to produce certain kinds of structures. They are something of a natural extension of views and practises held in the collective unconscious of societies with access to modern technology.

Let me try to explain. In a study that I performed in 2011, and still relevant today, I identified eight features of educational life in the 21st century that are relevant to our conversation. They are largely technology-based and may well be partially responsible for the modern mindset. I will list them briefly (in slightly modified form). They are:

1. An unprecedented rate of change
 2. An unprecedented richness of information
 3. An understanding that the universe is interdisciplinary in nature
 4. Research is of central importance to all
 5. A realization that knowledge-construction, perception and meaning-making are all individual and are key factors in building personal understandings
 6. The power of social networking
 7. The need for creativity and divergent thinking
 8. More power to the students
- (Lian, 2011)

Let's take a look at three of these.

An unprecedented rate of change

This is clearly due to technology and this change has placed a great deal of pressure on humanity to change and change quickly. Not everyone has been successful in this, but humans are good at adapting and, in general, are doing so successfully.

We have now entered a "change" mindset. Nothing is stable, and nothing lasts long, especially technical information. So, in the minds of many there is no point in learning "stuff" that will be out of date soon. It's better to look it up when you need it. This has given rise to the so-called Google effect (Sparrow et al., 2011). The Google effect states that there is no point in learning things in advance. You just need to know where to find the solution to a problem when you encounter it. It is not unlike the impact of the electronic calculator on maths classes decades ago: why learn your multiplication tables, when the calculator will do it for you? This attitude has given rise to a relatively new approach to the gathering of knowledge for the average person.

We now tend to use a "just in time, just enough and just for me" (Riel, 2000) approach to learning instead of a "just in case" approach where we are taught lots of *potentially* useful (but often useless) things just in case we need them one day. We are becoming more focused and more selective in what we invest our time and energy.

An unprecedented richness of information

While we are becoming more selective in our points of focus and interest, we also have much more to choose from than ever before. Information is proliferating at an exponential rate, an

outrageous rate, and much of it, particularly technical information, is becoming outdated equally fast. This means that information is unstable, and we need to become much more selective and critical in deciding what is valuable and what is not and what generic skills need to be developed. This proliferation of information has weakened the position of the subject matter expert and turned us all into *de facto* experts. Well, perhaps not quite, but we feel much more in control of knowledge than ever before because we have more and better access to it and we can challenge or check the veracity of other people's claims.

This results in a democratisation of knowledge and emancipation, at least in principle, from the various social structures, including educational structures, which govern our lives. In other words, we are becoming more independent educationally as well as socially. And we are turning into researchers by virtue of the fact that we no longer depend, at least for many things, on the knowledge of others to succeed in our objectives. This is a form of freedom.

Freedom is another word for autonomy. Those who have access to information are now able to develop an autonomous mindset. If we have a problem, then most of the time we solve it ourselves. It is much faster and more economical than relying on others to do it. This is a Do-It-Yourself mentality (DIY), another characteristic of 21st century life.

But whatever you call it, it is very much a case of autonomy in action and not just for the few but for everybody. An automatic, but critically important, side-effect of autonomy in today's world is personalization. Because people are free to choose whatever they are interested in, whenever and wherever they are interested in it, the kind of information that they gather or the procedures that they learn are necessarily tailored to *their* perceptions of *their* needs. This is called personalization.

An automatic, critically important, outcome of this is that people are becoming more sensitive to their personal needs and are now operating within what we might call a needs-based approach to the solution of their problems. They are looking for solutions to their problems as the need arises – and it is impossible to be entirely prepared for such needs as these are very often unpredicted and unpredictable. As a consequence, we have become accustomed to personalized solutions to our problems, we expect it in all aspects of life and this is consistent with modern educational approaches.

In other words, people have acquired the power of education in their personal lives. They can now decide what, when, where, how and for how long they wish to study. In many ways, they are the masters of their own destinies, and this is no more visible than in the proliferation of Massive Open Online Courses (MOOCs), and the growth of nano learning, a phenomenon that reflects both an interest in education and the presentation and reinforcement of learning in small, bite-sized, manageable pieces that meet the “just in time, just enough and just for me” criteria. Significantly, because we expect solutions to be personal, we also expect, either implicitly or explicitly, our education to be personalized too. It is an expectation that is built-in to modern society.

Social networking

When we combine these developments with the huge growth of connectivity between people (social networks and the like), we now find ourselves caught in a galloping, somewhat out of control, development. In this context, collaboration is crucial for many reasons as solutions are often provided by other users including, perhaps, intellectual outliers who put forward new and unusual ideas. This is a critically important development that was simply not available when access to knowledge was possible only through the “approved” channels of the establishment press and other media.

Outlier impact is not as rare as we might think and is gaining in importance. For instance, we have had stunning examples of intellectual crowdsourcing such as the *fold.it* initiative, leading to what I call the growth of community intelligence. And remember that, most often, progress comes from the contributions of groups engaging in crazy activities such as the *Focus on the Physical* (FonPh) work (Cai et al., 2021; Lian et al., 2020) in neuroscience which focuses on the importance of the physical quality of the auditory input used in language-learning (but as Jack Ma said: we are crazy, but we are not stupid). Such craziness should be encouraged and initiatives such as this should help us to reduce the risk of stagnation and move the field forward.

The resilience of dogma

Yet the power and embeddedness of conservative forces, what we might call the dogma of the field, cannot be discounted. The fear of change is deeply anchored in the human psyche and is always greeted with suspicion (often in the guise of caution) rather than embraced with hope.

Thus, the foundations for our modern educational language-learning systems and, indeed, our research are actually embedded, albeit hidden, in modern society and possibly even find their source in it. Society expects these things to happen, it requires them to happen and, as a consequence, society itself very much acts as a catalyst for change, although it may do so unwittingly – with the profession often lagging behind. In a sense, we now find ourselves engaged in a battle between unconscious, modern, society-based, approaches to learning and education on the one hand and more conservative, dogmatic, conservative approaches often based on outdated research of the past. This brings me to the end of the first part of my presentation.

PART TWO

I now briefly want to address an issue which has been bothering me for some time: a stereotype of technology enhanced language learning that is prevalent in the educational communities that we function in. This stereotype became glaringly obvious in the aftermath of the Covid-19 pandemic. Suddenly and with no significant notice, schools, universities and other educational organisations were required to move from a face-to-face mode of teaching to an online mode of teaching, often with little preparation and support. Individual teachers were suddenly required to become experts in eLearning and, of course, many did not do very well. However, many others did do well, and schools, universities and other educational organisations realised that online activities could be as valuable or even better than activities prior to the Covid-19 crisis.

Yet, in the midst of this potential success teachers have been and in many cases are still faced with the reality that they are more or less alone in having to grapple with the challenges of technology enhanced language learning. Regrettably, all of this remains somewhat invisible, rather hidden and embedded in the prevalent culture of what it means to be a teacher.

Teachers have been raised to be self-reliant. They are told that *they* are “in charge” of their classes, that *they* are the experts, that *they* are the masters of their own destinies. It’s up to *them* to “be teachers” and find solutions. That’s what they have been trained for. And teachers are generally proud of that role. But actually, underneath it all and despite a brave face, teachers are in trouble. They cannot do everything and are not all powerful. We are all limited in some way. Consequently, we need to get away from the image of the solitary teacher bravely and selflessly facing the challenges of the profession alone or with one or two local colleagues to support them. Administrators too need to change their understandings and be helpful rather than sending it all back to the teachers. Teachers deserve to be given proper support. Concomitantly,

teachers' attitudes need to change – in a sense become more humble and more realistic about what they can achieve alone.

On a related note, the Covid-19 crisis has surely generated countless good examples of technology-enhanced language-learning, yet they remain hidden, invisible, and beyond the reach of most.

We have not crowdsourced online language education nor have we convinced public funding to invest in it. We still have no international TELL centres, we still have no consortia delivering TELL education and training in support of teachers. In fact, paradoxically, the number of formal TELL programs around the world seems to be reducing rather than increasing.

And yet, in reality, we are not alone. In fact, we are all in this together. I therefore urge you to join with like-minded people, maybe at this conference maybe elsewhere, to reduce the loneliness and the fatigue, to share the knowledge, the ideas, the research and, most of all, the enthusiasm to the benefit of us all.

CONCLUSION

Both points that I have made are related and we have all the tools for success. Society is ready for progress in technology-related language education. It already contains the seeds for that success and in many ways is ahead of research. Society is already telling researchers what matters and what does not matter, and researchers need to understand that (and be humble about it). They need to understand that they too are part of that society, that they too are part of the social developments that are occurring and that inevitably must impact on our learning and teaching practices. We need to transfer to our teaching the things that we practice in normal life.

We are now facing an interesting challenge. It will not be a smooth ride, but groups such as AsiaCALL offer hope for the future as they bring together people of good will. The AsiaCALL18 International conference is one such opportunity. Let's make the most of it.

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Biodata

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