In recent years there have been numerous discussions of key issues in CALL, but many of these discussions do not intersect with each other. Thus, it sometimes appears that the field of CALL – like e-learning in general – is informed by a series of essential but quite separate conversations. This paper proposes that in these conversations, e-learning is viewed through four different lenses: the technological, the pedagogical, the social, and the sociopolitical. It argues that we need to make use of all four lenses, and integrate the insights from our disconnected conversations, in order to achieve a broader and deeper understanding of the field. This will help us develop more effective models of CALL.

1. Taking a Step Back
Technology seems to be everywhere (Fig. 1). But sometimes technology is not really about technology. Sometimes, indeed, it may be necessary to take a step back from the technology in order to understand it better. The 4-lenses model of e-learning described in this paper was originally developed on a holiday away from communicational technologies (Fig. 2). It may be that taking regular breaks from our typically close focus on technology is the only way to give ourselves the time and space to appreciate the bigger picture.

2. Separate Conversations
In recent years there has been no shortage of discussions of major issues in CALL, but many of these discussions simply do not intersect with each other. It sometimes appears, in fact, that the field of CALL – like e-learning in general – is informed by a series of essential but quite separate conversations. In many of these conversations, e-learning is viewed through one of four lenses: the technological, the pedagogical, the social, or the sociopolitical. All of these conversations, each focused through a different lens, are important. However, it is necessary to use the lenses in combination, and to synthesise the insights to which they lead us, in order to achieve a broader and deeper understanding of the field.

3. A 4-lenses Model of E-learning
The model in Fig. 3 shows the four lenses. As with any set of lenses, there is some overlap in what the various lenses enable us to see, but there are also considerable differences in what comes into sharpest focus and what is relegated to a blurrier presence. So, even allowing for overlap, a minimum of four lenses seems necessary to capture the focal points of the main types of conversations about new technologies in education: the technological discussions typically favoured by IT professionals and some educators; the pedagogical
discussions favoured by many academics and teachers; the social discussions favoured by the media and politicians; and the sociopolitical discussions favoured by cultural and political theorists. It might even be appropriate to add a fifth lens to include broader ecological issues, but the majority of key issues impacting on CALL specifically, and e-learning in general, can be covered by the four lenses shown.

The model attempts to capture some of the main issues which come into focus through each of the lenses. Like all models, it involves a trade-off between detail and depth on the one hand, and clarity of presentation on the other. Inevitably, it entails some simplification, though its main aim is certainly not to simplify our conversations. On the contrary, the aim is to lead us away from simplification, by offering a more complex, nuanced and differentiated picture of the area of electronic technologies in education, and reminding us of the many issues which have a bearing on it.

The topics which seem to be more prominent in contemporary discussions are presented, in the style of a tag cloud, in larger and darker (bold) fonts. As with most tag clouds, this represents a personal perspective, a snapshot of electronic technologies in education taken from one point of view among the constellation of possible points of view, although it does draw extensively on the views of others working in the field. The model should be seen as a work in progress and like the internet, the web and e-learning itself, will have to be revised from time to time.

The terms used in the model are largely drawn from common usage, with some referring to developments and others to trends, some to problems and others to fields of study or debate. Some are widely accepted and others are more controversial. Some are relatively neutral and others carry positive or negative overtones. Closely related issues often cluster together, with issues at one level feeding into and articulating with issues at other levels. While some phenomena are shown on lens boundaries, many can in fact be viewed through multiple lenses, with each lens highlighting particular aspects.
4. Technological Conversations

Conversations focused through a technological lens typically concentrate on the available technologies and how to use them in education. In addition to analysing the ever-expanding range of web 2.0 tools, they may deal with practical concerns such as the speed of change and cost, alongside broader issues like the convergence of technologies, the rise of web 3.0 and, on the border between the technological and the pedagogical, the area of normalisation (Bax, 2003, 2008).

An example of a less frequently addressed but increasingly important issue is the growing overlap between the virtual and real. Digital immigrants often make the mistake of seeing the virtual and the real as quite separate, whereas many digital natives barely differentiate between the two. As one school student told Mark Prensky (2007): “You look at technology as a tool. We look at technology as a foundation – it’s totally integrated into what we do.” A quick glance at the everyday technologies around us shows the blurring of the virtual-real divide. A social networking service like Facebook allows users to mix virtual with real world friends, while signing up to groups supporting causes which may be virtual, real, or both. It also offers virtual language teaching applications such as Dictionary.com or the Japanese Audio Word of the Day alongside applications like the Language Exchange, which integrates users into real world networks of language learners. Real world students are now able to gather in virtual spaces to listen to real world speakers: a speech by Kofi Annan, for example, was simulcast live to four virtual worlds by Global Kids on 20 March 2008. Meanwhile, a service like Vodafone’s InsideOut has allowed phone calls to be made between the real world and the virtual world Second Life. This increasing virtual-real fusion challenges us, as educators, to find new ways of using electronic tools to help our students improve their language abilities – which are vital both online and offline.

5. Pedagogical Conversations

The pedagogical discussions which have now come to dominate the field suggest that educational rather than technological principles must drive CALL. A key theme is constructivism, with other major emerging themes including collaboration, collective intelligence and UGC (user-generated content), all of which are arguably on the pedagogical-social border. The current deluge of ironic and satirical cartoons and other commentary about education and online tools indicates that this is an area of broad societal concern.

One specific area of concern to educators is the ongoing polarisation of pedagogical opinion. At one extreme, techno-enthusiasts like Mark Prensky (2007) insist that as educators, we must adapt to our students, who are far ahead of us technologically – but also, in many ways, pedagogically and even socially. At the other extreme, Tara Brabazon (2002) laments that internet education, with its tendency towards “the cheap, the delicious and the colourful”, has to date “been a tragedy for education” (pp.151-152). The danger is that as the debate becomes increasingly polarised, those who hold opposing views are less and less likely to engage with each other, which is limiting for all of us working in the field. Note that this comment is not directed specifically at Prensky’s or Brabazon’s writings, both of which contain valuable insights, but is a general observation about the potential breakdown of dialogue in the field.

6. Social Conversations

In social discussions – conducted largely in the media – major themes include identity issues related to the net generation, as well as concern (sometimes bordering on hysteria) over issues of privacy, online predation and cyberbullying.

In both the media and academia, an important theme which has recently come to the fore is attention. This reflects the fact that people feel increasingly overwhelmed by the number of digital tools available, the amount of information streaming through their lives, and the maze of personal connections they have woven around themselves with the help of web 2.0 tools. Connectivity may be an advantage of web 2.0, but how much connectivity is too much? While some commentators take a positive perspective, celebrating the rise of the multitasking generation and highlighting the possibilities of lateral thinking, others, such as Linda Stone (2008), note that we now live in an age of “continuous partial attention”. This must have real consequences in many areas of our lives, ranging from personal relationships to reflective academic thought. To combat the growing “infomania” (report cited in Naish, 2008, p.18) or even “infobesity” (p.25), we may need to develop a sense of “enoughism” (p.2), adopt a “neo-Amish” strategy (Kelly, 2004), or simply get “off the grid” (Lessig, 2008) from time to time. In other words, we may need to take a step back from the technology to give ourselves time to reflect on the bigger picture – including engaging with other parts of our lives. If, as educators, we ask students to spend many hours online, we need to consider whether we are also giving them the opportunity to
think, to relate, and just to be, in spaces which exist outside the web of online connectivity.

7. Sociopolitical Conversations

Sociopolitical discussions focus on discourse and power, situating the struggle over different visions of e-learning with respect to political, economic, legal and cultural paradigms. Thus, they encompass issues that are largely political (censorship, surveillance), economic (commercialisation, neoliberalism) and legal (copyright, net neutrality), as well as others, like digital divide and cultural imperialism, which are a real mixture.

The cultural imperialism of the net begins with the iconography that requires computer users to be familiar with the metaphor of the Western corporate office – the desktop icon, manila folders, a recycling bin. But even if most of our students have previously encountered Western-style offices, there are still many hidden cultural aspects to the tools we use and the tasks we set. Asynchronous discussion forums are an excellent way of engaging students in extended target language conversation, but they build on thousands of years of Western history, extending back to the forums of ancient Rome. As such, they carry fundamental cultural assumptions we rarely stop to think about: they depend on the notion of the autonomous individual operating in a mode of rationality and on a basis of equality – including teacher-student equality – and engaging in debating-style interaction characterised by speed and informality. Yet research indicates that not all participants approach online forums with debating-style principles in mind (Pegrum & Bax, 2007). Blogs are a good way to involve students in extended writing, but for some students they may create very real conflicts around issues of privacy and publicity. Wikis – including Simple English Wikipedia, to which many TESOL teachers ask their students to contribute – are commonly regarded as co-operative ventures. Yet, as Clay Shirky (2008) notes, Wikipedia is actually the product of “unending argumentation” (p.139), while Jimmy Wales (2007), founder of Wikipedia, has stated that: “We need to have places on the internet […] to disagree with each other safely.” Both elements in this statement are equally important: the safety, and the disagreement. As Martha McCormick (2007) has suggested, we may have to accept that our technologies are inevitably cultural and ideological. Despite – or indeed because of – this, we must be very sensitive to the cultural and ideological codes which are embedded in our tools and tasks, and which may prove challenging or troubling for some of our students.

8. Conclusion

All of the above conversations are important. However, too many of our discussions have been too narrow, focused through only one lens. We need to use all four lenses in conjunction and join up our discussions of technology, pedagogy, society and sociopolitics. In short, we need to look beyond the technology itself to grasp the bigger picture, so that we can develop more informed and more effective models of CALL and e-learning.

References


