Before rejecting any new idea or equipment, therefore, we should ask ourselves how we can make it work for us and for our students. We need to look at the 'best-case scenario' and use that to evaluate what we are being offered, not only in a cynical, but also in a positive light. That way, we have a chance of judging its real worth.

We should, finally, address one of the fears that many teachers have: technological malfunction. When you have made a beautiful PowerPoint presentation only to find that the projector doesn't work or that the connections aren't right, all your work appears to go to waste. Perhaps the internet connection simply won't work, or you can't find the audio controls in the classroom you have been assigned to. And it's not just teachers who feel this frustration; children working in classrooms equipped with IWBs in Madrid reported irritation at technical malfunctions, too (Yáñez and Coyle 2011).

There is nothing new about suddenly finding that we can't use what we had hoped to when we planned our lessons. Teachers (and their students) have been forgetting to take the right books to class for years, for example; and electronic devices, from tape recorders to overhead projectors, have always shown an alarming propensity to break down at the worst possible moment. That is why most experienced teachers either have a 'Plan B' or develop the ability to 'think on their feet' and improvise when something unexpected happens. There are good reasons for being anxious about whether or not technology in the classroom is going to work, but these should not stop us from planning to use digital resources. We just need to think about what we might do if things go wrong.

11.3 Using classroom resources

In this section, we will look at some of the areas where technology (especially the digital kind) can be useful. Most of these categories apply to the non-digital world, too.

Showing things We can show (and ask our students to show) things using a variety of resources, ranging from the humble blackboard to presentation software such as PowerPoint, Keynote and Prezi. Depending on their skill (and on the task itself), we may sometimes expect them to provide multimedia presentations using text, graphics, illustration, video and audio.

Showing things can operate at the 'mobile' level, too. Students can take pictures on their mobile devices and show them to their colleagues. Perhaps we can ask them to take pictures from unusual angles for their classmates to speculate about (guessing what the object or place is, for example). They can make quick videos using their smartphones about just about anything and these can be shown to the rest of the class. As Peter Fullagar suggests, using smartphones in these ways 'provides learners with an interesting, creative activity that they can really get their teeth into. It caters for different learning styles and takes the language off the page and into an activity that they can actually *do*' (Fullagar 2013: 58).

Sharing things and collaborating We often encourage our students to work together because we believe that such cooperation promotes successful language learning (see 3.1.4). The impact of digital tools on student collaboration is often highly beneficial. When students group together to make videos or plan digital presentations for the class, there is often '… a very high level of collaborative behaviour within the group' (Cullen, Kullman and Wild 2013: 432–433), though as the authors of the article point out, 'no technology guarantees collaboration, and collaboration in itself does not guarantee learning'.

In the digital world, the students do not have to be physically present to collaborate, of course. From the privacy of their own rooms they can also share information on wikis (Ashford 2013, Dreger 2010) – much in the same way as information is pooled on Wikipedia. Information can be added to and amended, and students can even write stories with each other (rather like the class-based 'Story circle' activity – see Example 6 on page 376). There are other ways of sharing, too, such as Wallwisher (now renamed as Padlet) where the students can post notes, pictures and video onto a 'wall'. In this way, teachers can have students from different classes (for example) share their thoughts on a book they have been reading, discuss a topic or make suggestions about a project. They can also share sentences and paragraphs using language they are practising.

Teachers can get their students to collaborate in Twitter and Facebook groups – or, indeed, any social media platforms that allow people to communicate and share information. Such groups can 'provide an effective and accessible medium for students to use the L2 outside the classroom, whether it is to complete homework tasks, assignments, or engage in friendly, social interaction with group members' (Boon and Beck 2013: 40). Dale Brown had his students use Librarything.com to compare the books they had read and say what they thought about them (Brown 2009a).

Watching and listening With video channels like YouTube and Vimeo, and any number of audio sites, there is almost no limit to what students (and teachers) can find on the internet. Video enthusiast Jamie Keddie is a great exponent of what he calls 'Videotelling' (Keddie forthcoming), where getting ready to watch online videos provides the spur for language development and storytelling. Students can also see what their classmates have produced in terms of video material (posted to YouTube, for example) and audio material, which they can share on sites such as Vocaroo (see 'Authoring things' below).

Practising things Where students once relied on notebooks and workbooks to do practice at home, there is now a wide range of digital alternatives. Practice can take the form of 'cyber homework' (essentially electronic versions of the earlier paper-based workbooks). Students can also go online to access additional reading or to take tests. As we saw in 11.1.1, data analytic technology can track their use of these websites – and which particular areas they go to.

Authoring things The digital world has greatly expanded the students' potential for authorship. Rui Da Silva, for example, asked his students to create collaborative stories together using photographs they could find on the Flickr website. They assembled these into slideshows, which they then presented to the class (Da Silva 2011). Olive Cheung and Icy Lee used a software programme called Photo Story 3 to get their students to tell stories using pictures, recorded voice and background music. When they do this kind of storytelling, the students not only write their script, 'but they also speak, listen to their own recording, and select the right pictures and music to enhance the appeal of their digital story. Digital storytelling, therefore, can promote multiple literacies' (Cheung and Lee 2013: 51).

Some teachers have their students write, and respond to, each other's blogs. They post their thoughts and experiences on blogs, and their classmates can leave their comments and responses. Claudia Trajtemberg and Androula Yiakoumetti found that blogs 'assist in motivating students to use language for real communicative purposes and to write in English in ways that they have not previously experienced' (Trajtemberg and Yiakoumetti 2011: 445). Teachers have found, however, that having their students write blogs works for a limited period only. If blogging is open-ended (i.e. it goes on indefinitely), students often lose interest.

There is hardly any limit to what students can author and then post online. A huge range of possibilities is offered, for example, by sites like *Storybird* (where students use the pictures of famous artists to create stories), *Toondoo* (where they can create their own comic strips), *Vocaroo* (where they can share their own audio clips), *Voki* (where they can create avatars which speak the words they type in using text-to-speech software) or *EduGlogster* (where they can post texts, audio and video).

Teachers have always encouraged students to author things; if you go into many classrooms around the world, you will see posters of students' work on the walls. They may, in the past, have created class newspapers, shared their work with other classes or put up a class display on a school noticeboard. What is different about the digital world, however, is that they can post their work for literally the whole world to see. Many teachers have observed that the knowledge of this whole-world audience (see 20.3) makes the students focus far more than they otherwise might have done on accuracy, and on the best ways of expressing themselves.

Researching things The web is, of course, extremely useful for finding things out, from the time of the train we need to catch, to the latest news; from factual information on sites like Wikipedia, to information about how to play the guitar; from discussions of recent brain research, to all the celebrity gossip anyone could ask for. It is useful for language students because it is such a rich language resource.

Most of the big publishers now have free online dictionary sites for students of English. These will give definitions, audio clips of the words being spoken, collocation information, etc. Some publishers now have dictionary apps for use with mobile devices. Unlike first generation electronic dictionaries of many years ago, these can now be rich resources with a wealth of material and information.

Linguists and dictionary makers make use of language corpuses (or 'corpora'). These are huge collections of texts (written and spoken) which can be searched electronically to investigate how language works. Using concordance software, a search provides a KWIC (key word in context) display where the search word or phrase occurs in the middle of the screen in a list of the many and various sentences containing that word that are in the corpus. We can then look at the words that come immediately before and after the key word to identify collocations, etc.

The beauty of concordances is that the lines can be rearranged in different ways. For example, we can ask the concordancer to display the lines in alphabetical order of the word directly to the left of the KWIC (left-sorting) or to the right (right-sorting). This gives us an immediate visual image of how words group together, and which are the most frequent collocations. In Figure 3 we can immediately see that *research* is frequently followed by the words *and development*.

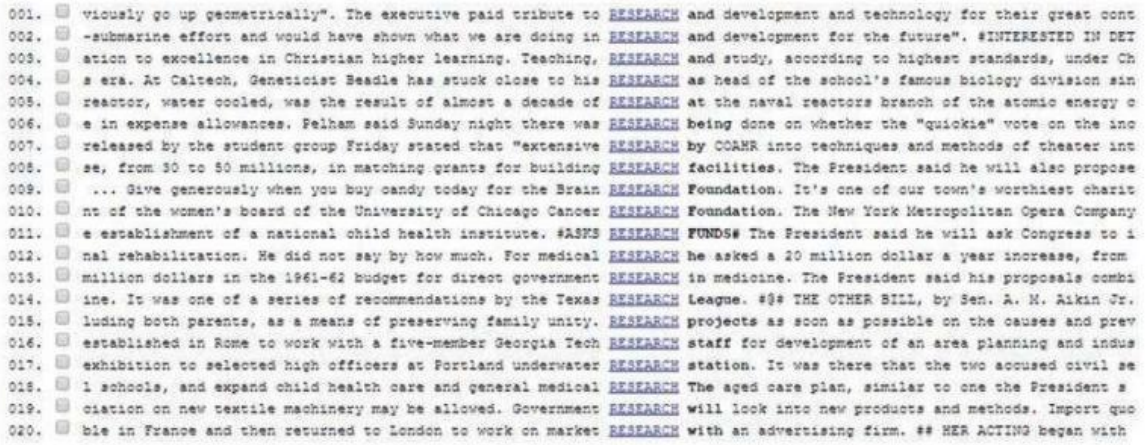

Figure 3 Right-sorted concordance of 'research' (extract) from www.lextutor.ca

Some teachers have their students look at language corpora (see the references at the end of the chapter) because 'they feel they demonstrate the raw nature of language, providing unfiltered and unsanitised samples which are otherwise vetoed by coursebooks and publishers' (Wright and Rebuffet-Broadus 2013: 'corpora in the classroom').

Even without using concordancing software, however, students can research language using any of the popular internet search engines. For example, when 'research' is typed into a search engine, the results typically offer 'researchgate', 'research methods', 'research chemical' and 'research methodology' as the most frequent search terms currently being used. Enter 'research and' and you are likely to get 'research and development' as the only commonly searched phrase. In other words, any searching for and about language will yield results if the students are persistent. Gregory Friedman, for example, encouraged his students to use the web as a 'living corpus' where they could investigate the 'collocative properties of lexis' (Friedman 2009: 126).

Students can complete projects using the internet to find the information they require. Many teachers have designed *webquests* to help them to do this – where a progression from introduction to searching and evaluating/reporting back provides a collaborative learning structure.

11.4 Blended learning, flipped classrooms and beyond

11.4.1 Blended learning

Student access to our digital world has led some to talk about the 'connected classroom' (Stannard 2012: 37). We can do many of the things we have always done *inside* the classroom, but we also have the option of going *beyond* the classroom without necessarily moving from our seats. To put it another way, we can mix the inside and outside learning worlds in what is usually referred to as *blended learning*.

The idea of a blend is that the teacher (and students) work with an interconnected mix of books, classroom presentation and activities, and digital resources (whether in the form of online material or embedded in apps). In this increasingly common scenario, the work that is done in class is supported, sometimes previewed (or flipped – see below), practised and revised online.