New technologies and language learning

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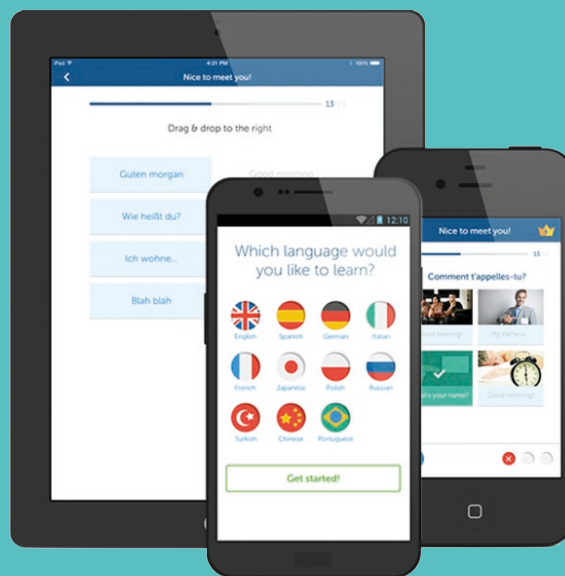**Billy Brick** surveys the new technologies changing autonomous language learning

NEW TECHNOLOGIES AND LANGUAGE LEARNING

The Busuu app

Before the advent of computers, teachers would encourage their pupils to communicate with pen pals in their target language. The time between sending and receiving letters would be several weeks. As e-mail use became widespread at the end of the 1990s, the process speeded up, but it wasn't until the end of the noughties that the language learning landscape changed considerably with the launch of two new technologies: social networking sites (SNSs) for language learning such as Busuu and Babel, and dedicated language learning apps, the most popular of which is called Duolingo. Although they are in some ways quite similar their functionality and business models vary considerably.

Inspired by Facebook's meteoric rise, in 2008 two business students, based in Madrid, founded Busuu, which incorporates aspects of social networking with language learning. At around the same time 3rd party apps were launched on Apple's platform and Busuu lost no time in launching a series of language specific apps. More recently, Busuu have consolidated their app into just one, for multiple languages, and although it has limited functionality, more and more features are being introduced. The current offer includes English, German, French, Italian, Spanish, Portuguese, Russian, Polish, Turkish, Arabic, Japanese and Chinese, but this is likely to expand in the near future. They have also recently launched apps for English and Spanish aimed specifically at children.

Computer Assisted Language Learning (CALL) has been around since the launch of the first PCs but the proliferation of smart phones over the last few years has fuelled a shift away from CDs and DVDs towards web-based materials and the creation of a new, but related, academic field: Mobile Assisted Language Learning (MALL). Portable devices connected to the Internet, keyboards that allow the input language to easily be changed, storage, voice recognition, audio and video recording and numerous other functions make the smart phone an effective medium for language acquisition. Furthermore, learners can learn at their own pace and can repeat tasks until they get them right, making them more appealing than traditional language labs found in schools and colleges.

SNSs for language learning all share some specific features designed to help learners practise the four skills: reading, writing, listening and speaking. Simple reading and listening exercises are relatively easy for developers to build by constructing gap-fill or matching exercises and similar tasks from written texts and audio files. Writing and speaking, however, are more of a challenge: although online translators are fairly accurate with simple sentences, computers still struggle to make sense of complex written texts – try inputting a paragraph of text from a broadsheet newspaper into Google Translate and see what you get – and although voice-to-text technology has matured over the last few years, receiving meaningful feedback from or having a conversation with a computer, appropriate to your level, remains elusive.

Busuu approached this problem in an ingenious way. They made level specific, picture-based learning materials available to learners, whilst incorporating systems to allow personalised feedback from community members. They also utilised the video-conferencing functionality, now standard on most PCs, laptops and tablets to allow members to practise the spoken word. In order for the site to identify suitable language learning partners upon registration, learners are prompted to complete a detailed profile including their language competences and country of origin. An automated process then suggests potential language exchange partners and members are encouraged to chat with them via in-built

video-conferencing software and consider 'friending' them if the exchange was deemed productive.

Busuu make some of their content freely available, but charge a premium for grammar units, practice tests, mobile apps, speaking exercises, certification, an advertisement-free interface and numerous other activities and functions. Several competitors, who launched at a similar time, also adopted this so called Freemium model, not least Livemocha, which was acquired by Rosetta Stone last year. With Livemocha being subsumed into Rosetta Stone, Busuu has emerged as the market leader, boasting 45 million members worldwide, although it's unclear whether all of these are active users. Nevertheless it's clearly a popular and flexible way of language learning at a fraction of the cost of attending evening classes.
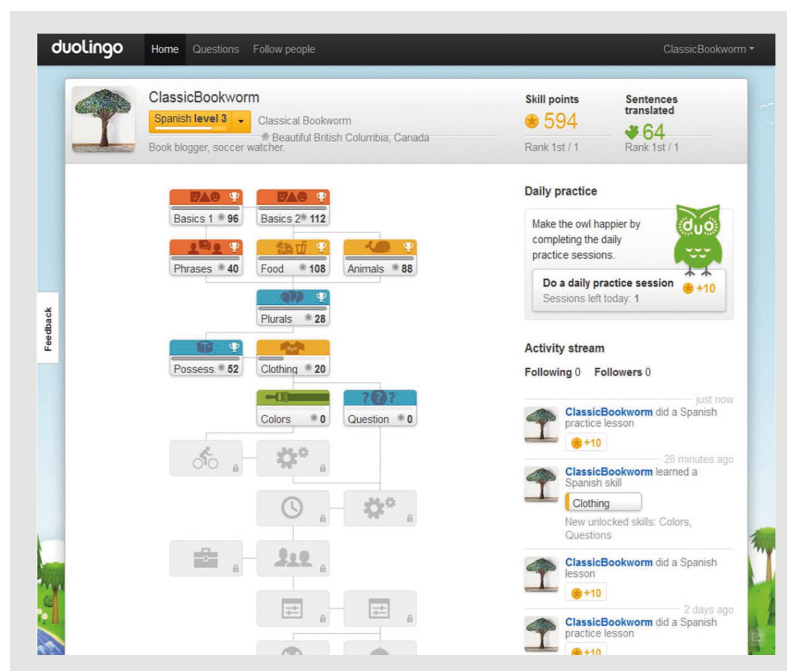
A similar procedure has been developed to facilitate written text corrections by community members. Each learning unit includes a prompt to learners to write a short text and submit it to the community – to 'friends' or strangers – for written feedback. Whilst the quality and appropriateness of the feedback can vary, learners receive responses within minutes. It may take several months to build up a trusted circle of friends to correct your work and practise speaking with, but if you are prepared to spend some time making friends, you will have a ready-made community to support your language learning.

Another innovative feature is the introduction of motivational awards (Busuu berries) linked to the number of learning activities you undertake and

the number of corrections you complete. Members also have an animated garden which flourishes when you are active on the site, but gets attacked by virtual bugs when you fail to practise your chosen language(s) on a regular basis. To add to this fun element, members can trade in their Busuu berries for virtual gifts such as owls, rabbits and scarecrows which you can keep or send to your friends. Although this may seem trivial, they've proved to be enormously popular; much in the same way Farmville was when it was fashionable on Facebook in 2009-10. Other motivational features include a leader board and virtual stars and jewels based on the number of Busuu berries you have earned.

Duolingo is a free course on the web and via an app.

It is, however, not without its critics. Some women have complained that the site tends to attract men who have little interest in language learning and are more concerned with what can be at best referred to as cyber-flirting. This problem is exacerbated when female

users include a profile picture and detailed profile. It could be argued that this is just a microcosm of the Internet, or indeed society as a whole, but unfortunately scenarios like this are all too frequent.

Duolingo was launched at the end of 2012 and just 12 months later it had been downloaded 10 million times; by the end of 2013 it was voted app of the year by Apple. So how does Duolingo differ from Busuu? Crucially, whereas Busuu charges anything from £4 to £13 per month, depending on length of subscription, Duolingo is entirely free of charge for all levels and languages and doesn't contain any advertisements. Its co-creator, Associate Professor of Computer Science at Carnegie Mellon University, Luis von Ahn, is evangelical with regard to making language learning free to all and wanted to create an app which didn't cost the £300 that Rosetta Stone charge per language, so he came up with an app that relies on crowd sourcing rather than subscriptions to fund

itself. At the end of some lessons you will be asked whether you'd like to try translating a real life document from companies such as Buzzfeed and CNN. Through a complex online crowd-sourcing process English texts are translated by high-level users into Spanish, Portuguese and French by Duolingo members learning English and the finished product is sold to Duolingo's clients.

Van Ahn is convinced that the site can remain free of charge and points to the £15billion translation market as evidence of this. As the site expands its provision from Dutch, English, French, German, Hungarian, Portuguese, Russian, Spanish and Turkish, to include more languages and more translation opportunities, this remains a real prospect. Unlike Busuu, Duolingo doesn't map its levels over to the Common European Framework of Reference (CEFR), preferring instead to emphasise the importance of learning about 3,000 basic words of each language, as well as a series of basic structures for expressing ideas in different verb tenses. They don't promise that this will make you fluent in your chosen language but it will give you a good basis for further study.

The site also acts as an online research project. Von Ahn found the existing CALL literature regarding online language learning unconvincing so he undertook his own experiments. For example, when deciding whether to teach adjectives or plurals first, he made two versions of the app and monitored which group made the most progress. The winning method was then rolled out to all users.

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bite-sized blocks and users are encouraged to compete against friends on leader boards, on which they are awarded points (Lingots) for the successful completion of units as long as they don't lose their four lives. Through these features language learning is turned into a fun game with regular rewards and the motivation to 'level up' and beat your peers. It also cleverly builds in repetition and introduces grammar implicitly, leaving you to work it out for yourself. The site actively encourages learners to comment on exercises and rate comments too. If you particularly like someone's comment you can even send them a Lingot. Real enthusiasts are offered the opportunity to build new language courses but, in accordance with Duolingo's ethos, they are not paid for this but are given credit for the course's creation.

Other apps have been developed which concentrate on particular aspects of language learning. For example, the British Council has produced a number of these which are free to download but offer 'in app' purchases for additional content. They range from International English Language Testing System (IELTS) preparation apps to apps aimed specifically at children. They've even produced one that focuses on the language taxi drivers would find useful.

Another unique language learning website is Bliu Bliu, an example of a website that predicts your level and is based on Krashen's theory of comprehensible input. It works in two main ways: it encourages you to 'surf' through short texts of 20-50 words and you are required to identify the words that you know. You are then drilled on those you don't know in five or more unrelated contexts, and then you are encouraged to infer meaning from the context rather than rely on translations. Bliu Bliu is still in beta version but has already won plaudits and is one of the first websites to have taken Krashen's ideas and built a website around them.

Another new addition to the language learning app market is Lingua.ly. Lingua.ly offers learners the opportunity to look up and save words they encounter when reading online articles in their target language and recommends suitable texts for learners to read in order to extend and improve their vocabulary and reading skills. Lingua.ly collects data about the words that you know and how well you know them by asking you a series of questions and also taking into consideration the interests you list in your profile. It then uses that data

to suggest suitable texts that you should read in order to reinforce and extend your lexical vocabulary. All texts are also tagged and categorised so that you can search an area or topic of interest. The website also learns from you, so the more time you spend on the system, the better the recommendations Lingua.ly will make.

In a similar way to Bliu Bliu, Lingua.ly adheres to Krashen's comprehensible input theory by suggesting texts which contain 10% new words, allowing you to acquire new vocabulary by inferring the meaning form the context. Lingua.ly is currently free of charge and, significantly, in addition to technological expertise, some members of the development team have a background in second language acquisition. This isn't always the case and can sometimes result in language learning websites being technology led rather than pedagogy led. One of the most impressive features of Lingua.ly is the way in which learners can easily integrate it into their daily routines as it seamlessly allows you to double click a word on any web page and it will be added to your list of words to be learned.

On the negative side, Lingua.ly treats all words in isolation rather than considering their meanings in collocations or lexical bundles. However, this is likely to change as the site matures and improves. It also automatically adds the first translation of a word to your list, e.g. the English word 'web' might be added with a picture of a spider's web and the accompanying definition, even though the context it was being used in related to the Internet. It also fails to recognise proper nouns and relies on Google Translate for its translations. Nonetheless, the concept is

sound and it is likely to improve in time.

Another language exchange website which has received extremely positive reviews is WeSpeke. Unlike Busuu the website is currently free of charge and the sole focus is around language exchange. There are no learning materials; instead learners are encouraged to complete a detailed profile stating their native tongue, interests, age, gender and target language level. Users can use the support tools: 'Write it', 'Slow down', 'Say again', or 'Say this way' to help them communicate with their exchange partners. Other features include topic tags that allow language partners to agree on topics of mutual interest, and the innovative inclusion of a Google Translate window.

Another app which specifically aims to facilitate language exchange is HelloTalk, but unlike WeSpeke there isn't a desktop version. You download the app, complete your profile – including the language you wish to learn – and are presented with potential chat partners. The app will read to you what has been written and also produce a machine translation. The focus tends to be on colloquial,

everyday language and it works in much the same way as any messaging app, so it's easy to use.

This article has reviewed just a few of the recent developments in technology and language learning. The next generation is likely to become more nuanced, using complex algorithms and crowd sourcing to deliver more personalised, gamified, motivating, data driven user content. ¶

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Find out more

Links

An excellent collection of language specific and non-language specific links is available at http://altec.colorado.edu/languagelinks/All_Language_Resources.shtml

British Council, Learn English Apps, available at http://learnenglish.britishcouncil.org/en/apps