

Timothy Barnes



Talking the same language

It is easy to assume that the world of university spin-outs is dominated by disciplines such as computer science, engineering and biotechnology. In many ways this assumption is born out by the facts, but it obscures significant opportunities for commercial activity that can be found lurking in other parts of the research spectrum.

Linguistics is the scientific study of language and its components such as phonetics, syntax, and semantics, and it is proving to be fertile ground for new businesses.

A recent article in *New Scientist* highlighted the work of Professor David Moore at Oxford University who has developed a product called Phonomena that helps children with language problems. The product takes the form of a computer game and has had astonishing results, enabling children to improve their listening skills, by as much as the equivalent of two years' development in just a few weeks.

The system works by developing simple exercises that allow the brain to practice hearing and distinguishing different sounds in much the same way as repeatedly throwing and catching a ball can help hand to eye co-ordination. The fact that it has been developed as a game should enable Phonomena to be introduced easily into homes and schools.

Oxford is not the only university seeking new applications for language technologies.

Edinburgh University has had a history of academic strength in linguistics and is now seeking to capitalise on its capabilities and reputation. The university has launched a unique initiative in partnership with Stanford University in the United States. The project is called the Edinburgh Stanford Link and is specifically directed at exploiting language-based

technologies developed at the two universities.

Stanford chose to partner with Edinburgh because of the university's deep expertise in the field and when the project won £5.3 million of funding from Scottish Enterprise, plans were developed to base the centre in Edinburgh and run programmes over the next five years. Much of the money will be invested in primary research that has been assessed as having a high-degree of commercial potential.

The Link has already had its first success in the form of start-up Linear B, a developer of machine translation software. The company's two founders Chris Callison-Burch and Colin Bannard were Link-

Linguistics is the scientific study of language and its components

funded MSc students. Linear B has received investment from the Edinburgh Technology Fund and has a SMART award to help fund its efforts to create an automatic language translator for all major languages. It aims to have a prototype early next year.

Even before the link was established, Edinburgh University had already spun out four companies based on language technologies in the last two years. Perhaps the most high profile of these has been Rhetorical Systems.

Rhetorical has developed a series of text-to-speech products for use in a variety of commercial environments and, uniquely, their software allows customers to select their own choice of voice.

Recently, Rhetorical was selected to supply mobile network operator Orange with its rVoice product to provide an

interactive speech-based guide to the Edinburgh Festival via Orange's voice portal. End users can dial a three-digit short code and get up to date travel and event information read to them over the phone. Reporters who phone in with their stories, which are then converted to text over the phone and converted back to voice by rVoice when requested, keep information and reviews up to date.

Infogistics is another of Edinburgh's spin-outs and operates in the market of data and document management. The company's products are text-analysis solutions targeted at various market segments such as human resources, law enforcement and customer-relationship management. Users can link and locate information across multiple databases automatically. Once installed, end users can perform keyword based searches across all of the information stores to which they have access and because the software can interpret the meaning and context of the search terms being used it is able to suggest new keywords that might yield better results or ones that should be excluded to cut down on extraneous data.

There are four products in Infogistics' portfolio. Real Term is the search tool, Xtractor is used to search through large volumes of data to create links and database summaries, NLProcessor segments text into manageable portions and XML Zoner breaks text into parts such as paragraphs, tables and titles.

What the Edinburgh Stanford Link will hopefully illustrate is the value of collaboration and partnership, and as any businessman will tell you, partnerships only work when you speak the same language.

Timothy Barnes is Managing Director of Lodestone Innovation Partners (www.lodestoneip.com), a London-based firm that works with UK universities to help build businesses based on innovative technology.