TOMORROW'S TECHNOLOGY TODAY by H. Y. Pothetical

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Scientists Announce Breakthrough in LogoBotics©

Since the middle of the last century, scientists have been seeking to develop a technology that could simulate a human being's ability to engage in spoken conversation, and hence allow human-machine interaction by voice. From that time there have been many false dawns … who can forget the spectacularly disastrous launch in 2009 of VoMo® - the 'keypad-free' mobile communications devices that, only six months later, were banned from use in all public spaces due to the excessive noise created by people's repeated vocal attempts to operate them, or SecureVoice® - General Auto's abortive attempt in 2011 to replace car ignition keys with a voice biometric device that ended up stranding all their proud new owners if they caught a cold. Both of these events undoubtedly contributed to Bill Gates' decision two years ago to ditch Microsoft's 'Conversational PC' research lab as speech technology clearly failed to make it into the mainstream.

Of course there have been successes … the huge SoftGoogleScan conglomerate continues to strengthen its grip on the global media management market based on its specialised use of off-line speech technology to analyse and search the world's telecommunications traffic, backed heavily by Western corporate and Government interests, and WaltPixar Studios has successfully driven down film production costs by using voice animation software as a substitute for previously highly paid Hollywood actors.

The problem is that all contemporary speech technology applications are based on AI^2 – artificial-ignorance/absence-of-intelligence – an approach that avoids the need to understand how human beings use and process speech by simply accumulating massive amounts of recorded data in a futile attempt to capture its intrinsic variation. Such techniques are now widely acknowledged to be fundamentally limited in their ability to support meaningful conversational interaction between humans and machines, and this has led to the emergence of the entirely new field of *LogoBotics©*.

Based on the PRESENCE (PREdictive SENsorimotor Control & Emulation) theory of spoken language processing first proposed by Prof. Roger Moore at the University of Sheffield in 2006, and subsequently developed by a consortium of top research labs in an international research project of the same name, LogoBots are devices that incorporate computational implementations of some of the latest discoveries in cognitive neuroscience and intelligent perceptual control in order to predispose them to acquire communicative behaviour in much the same way as a human child. Since 2010, a community of over 10,000 infant LogoBots are being brought up in normal interactive linguistic environments by care groups in many different countries. Linked together by the Hypernet and closely monitored by the scientists, the LogoBots have been gradually evolving the skills necessary to develop spoken language.

After a long wait, scientists have today announced that several of the more advanced infant LogoBots had uttered their first meaningful words and were engaging in simple conversational ineraction with their carers. This development is being described as a significant breakthrough in LogoBotics research and a leap forward in our understanding of how human spoken language processing works. It is now expected that the rest of the LogoBot population will rapidly catch up and the process of spoken language acquisition will accelerate, albeit much slower than in human beings. Scientists are quietly confident that by 2030, LogoBots will have developed sufficient spoken language skills to take on the simple tasks that you might expect to give to a 10 year-old child.