

will become far more critical about the ones we choose to consume.

Designed for real-time messaging, some apps can be more destructive than productive. *WhatsApp* now has more than 250 million monthly active users, and says it handled ten billion inbound messages and 17 billion outbound ones in a single 24-hour period in 2013. But the frequent use of push notifications leads to situations where we are receiving personal messages while doing business (and vice-versa). This infringes on our ability to concentrate on what we're doing or who we're with. Moreover, our ability to know exactly when the other party was last using the app makes us more likely to assume that we and our peers are always available. These mechanisms also increase the fear of being without mobile-phone contact, a term known as nomophobia - no-mobile-phone-phobia.

In a June 2013 Cisco survey of 3,800 Australians, nine out of ten of them said they became anxious when their phone wasn't within reach.

Apps such as *Pause*, *StayOnTask* and *Human Mode* are trying to help us reconnect with real life by encouraging us to turn on "airplane mode" while doing real-world activities. These are the early birds that herald the change we'll see in 2014. More extreme examples include Camp Grounded, a "digital detox" event in California, where such devices are banned. But putting the phone away for hours or days doesn't fully solve the problem, and won't work for many people. We must dive deeper into the causes of such addiction.

Following the critique of McDonald's poor nutritional values presented by the 2004 documentary film *Super Size Me*, the chain added salads to its menu, though it

claimed this had nothing to do with the film. Apps are about to face a similar reckoning. We will start dividing them into those that have real value - "organic apps" - and those that only serve to waste our time - "junk apps". Reviewing our apps and revealing the techniques with which developers have us addicted are one step towards change. We also need an organic-app market, where only non-addictive apps with real value are offered.

This doesn't have to be bad news for app makers, either. By introducing salads to the menu, McDonald's not only showed its customers that it was being responsible, but it also managed to penetrate the healthy-food market. Look out for a healthier version of Facebook in 2014. *Lior Frenkel is the founder of undigitize.me and former CTO and cofounder at Moovu, a social-video application*

SPOT ILLUSTRATION: MATTHEW HOLLISTER



3D-PRINTED FOOD

Pizza will be coming out of a 3D printer in Texas, as Austin-based Systems and Materials Research Corporation (SMRC) develops its 3D food-printer concept for Nasa. The ultimate aim of the project is to develop a food printer for use by astronauts on their way to Mars. SMRC's proposal comprises food components, such as protein, carbohydrate and flavours, stored in separate cartridges, much like ink. These are then combined with water or oil as required, and laid down in layers, as in a traditional 3D printer.

APP-INSURED

App-monitored driving will adjust our insurance as we go, claims Adrian Guttridge of XChanging, a telematics firm.

by SMS texts of their children's progress, and pay fees using their mobile phones. Its publishing division prints the schoolbooks.

Bridge is not a charity. All parents, however poor, must pay fees - on average, \$5 a month per pupil (Kenya's average annual salary is \$1,700). The company says having to pay empowers parents, making them a

"customer base" to which Bridge is answerable, like any retailer.

In 2013, Bridge launched an academy every three days, and says it now employs 2,000 people. Investors include eBay founder Pierre Omidyar, who put up \$1.8m in seed funding. Pearson, the world's biggest educational publisher, also invests through its partner, Learn Capital.

The Kenya pilot has shown what can be done by a private company in a sector usually governed by NGOs. There are 700 million children in the world who live on less than \$2 a day, and, the company says, there's a \$51bn market in educating them. *Michael Watts wrote about Li-Fi - a technology for wirelessly transmitting data using light - in The WIRED World in 2013*

Profit-led education for six million kids

Private enterprise will tackle developing-world illiteracy - while tapping a potential £31 billion market. **By Michael Watts**

A

technology-based programme, designed to reduce illiteracy in the developing world, will expand out of Kenya in 2014 and into Uganda, Nigeria, Ghana, India and Pakistan. The aim of Bridge International Academies, which runs the scheme, is to be teaching six million poor children within a decade.

Bridge was cofounded in Nairobi in 2008 by Jay Kimmelman, now 35 and the

company's CEO, Shannon May, 36, and Phil Frei, who has moved back to the US but serves as the company's president. Its mission is to create low-fee private schools in some of the world's toughest economies. May is an anthropologist. Kimmelman founded the educational software company, Edusoft, which he built into a \$20m-a-year business before selling it in 2003.

The company developed an e-learning business model called "academy in a box", a school in which virtually everything is predefined and monitored. Teachers are drilled in standardised lesson content, for example, and pupils' performance and attendance are recorded and relayed to Bridge's Nairobi head office for assessment.

Each school's location is determined by mining population and income data, and using GPS information and aerial photography. And it is built to a predetermined spec by Bridge's own construction company. Teachers must live within walking distance of their school. And parents are informed



HANDS-FREE NEUROGAMING

EEG-derived tech will provide an intimate interface between humans and machines.

By Stephen Jacobs

Technology that was originally designed for diagnostic and therapeutic use, such as EEG sensors and biofeedback devices, will move

out of the laboratory and into the mainstream in 2014. Responding to changes in the brain's electrical activity, these devices will not only enhance video-games but, the manufacturers say, will help us improve our cognitive skills. And they will even show up in fashion. *Neurowear*, a Japanese company, launched the *Necomimi* headset in 2012, which features cat's ears that move according to your mood.

Necomimi and similar devices rely on consumer EEG technology developed by California brain-sensor company *NeuroSky*. One of *NeuroSky*'s partners, Canadian company *InteraXon*, is developing a