COVER IMAGE
Light Blue Optics' pico projection system combines holographic projection with infrared tough-recognition, allowing users to interact with the displayed content.

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Great expectations

Display technologies can be found in almost all aspects of our daily lives, with electronic displays now being included even on objects that have traditionally never featured screens, such as kitchen appliances. Without a doubt, electronic books (e-books) are the success story of 2010. According to Amazon.com, sales of e-books have now exceeded those of hardback books, and it is display technology that has made e-book readers a practical option in terms of their readability and battery life. Most of these devices feature a black and white electrophoretic display technology developed by E Ink (see page 748), a company that started after its founder ran out of books to read on holiday. What makes these displays different to other types of display is their bistable nature — power is only needed when turning a page. The demand for these low-power displays is now bigger than ever, and consumers are eagerly awaiting the deployment of improved versions that are full colour, have better contrast or feature a larger screen size. Munisamy Anandan, president of the Society for Information Display, believes that e-readers are a big growth opportunity, not only for new display technologies, but also for LED backlights (see page 756), which help to improve the power efficiency and colour rendering of LCDs.

New display technologies are also enabling other innovative applications. Light Blue Optics has combined holographic projection technology with infrared touch-recognition technology to make a pico projection system that allows users to interact with the projected content (see page 750). Finding applications for such an ingenious technology requires little imagination — you could do your internet shopping by projecting the website onto the table and choosing the items you want by touch, or project an interactive presentation onto your desktop at work.

The pico projection market is also a growing opportunity for microdisplays made using liquid crystal on silicon (see page 752). UK company Forth Dimension Display pioneered this technology, and its products are now used in a variety of applications including in the military, medical and movie industries.

Displays are everywhere, and new technologies are constantly emerging. Who knows what the next applications for displays will be?

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