

JANUARY 14, 2010, 7:21 PM

Waiting for Flexible Displays and Flexible Devices

By *NICK BILTON*

Reports [appeared online Friday](#) of a new 19-inch flexible display that LG hopes to start integrating into new devices.

Over the past year I’ve heard about numerous interesting advancements in the flexible display world. I’ve personally seen demos of [fully flexible E Ink](#), the screen technology in the Kindle and [Sony Reader](#). And there are also some [interesting videos](#) online of Sony’s full color flexible OLED displays.

But if LG hopes to start selling these flexible displays later this year, does this mean we’ll have flexible devices in the near future?

Robyn Beck/Getty Images
Sony’s flexible OLED display.

Will I soon be able to sit on the subway in the morning reading a full color, Web connected, constantly updating, flexible news reader?

Well, not exactly.

Nicholas Colaneri, director of the [Flexible Display Center](#) at [Arizona State University](#), explained that because we have flexible displays does not mean we will have flexible devices in the marketplace for another few years. He said: “The display panel itself is only a small part of the battle. All the ancillary electronics, the power, transistors and circuitry are all things today that are not yet fully flexible at large scales.”

Mr. Colaneri said we could expect to see flexible displays in the marketplace in the next three to five years — but this is just the screen technology. The other components are a little further out. The first iterations of these technologies will also be larger external screens than smaller readers. Mr. Colaneri said, “Flexible is a major part of the discussion because longer range there is an interest in larger area displays that can be rolled up and stored somewhere.”

O.K., so instead of my flexible news reader in the morning, can I go camping with a fully flexible 52-inch OLED television?

If the flexible technologies continue to advance and the correct resources are applied to research in this area, completely flexible OLED devices could be in the marketplace in the next 10 years, and flexible E Ink devices would be available even sooner, possibly in the next five to seven years.

The United States Army, the main financing arm of the A.S.U. Flexible Display Center, has invested millions of dollars into this technology for use on the battlefield. They hope that flexible devices will also mean inexpensive, rugged and fast technologies soldiers can use in

battle. Instead of lugging around laptops and heavy, breakable LCD screens, soldiers could just unroll a screen and begin interacting with maps and central commands.

Flexible displays also offer higher durability for consumers. If you drop your laptop or e-reader today, and the screen breaks, the device is worthless until you replace it — sometimes for several hundred dollars. A flexible display, although not actually pliant when placed in a hardened casing, would give consumers sturdier devices.

So, flexible displays are good for consumers as we will be able throw our gadgets around a little more. Camping with a widescreen TV will just have to wait a little longer.