

Technology geared toward the very young presents promise and pitfalls

May 27 2014

Meet the digital diapered set. As mere babes devour more and more online media while being baby-sat with the help of the Internet, the crib is becoming America's new tech incubator. And as app developers and gadget makers compete to corner the youth market, their innovations are fueling a national debate over the promises and pitfalls of being connected so young.

The folks at Boston-based Rest Devices, for example, probably never dreamed they'd kick a hornet's nest by launching Mimo. Slipped into a onesie, Mimo's sensor and microphone tells the smartphone-packing parent in the other room the baby's temperature, movements and position in the crib, offering 24-7 surveillance with a Bluetooth-transmitted soundtrack of their child's burps and babble.

Whether you consider Mimo an agent of Big Brother, as one San Jose schoolteacher fears, or the ever-vigilant digital assistant that mothers across the land crave, the trend it represents is touching nerves.

It's also gaining strength. From baby-monitoring hardware, to games on an iPad attached to a Fisher-Price bouncy chair, to interactive learning tools for the under-6 set from startups like Palo Alto-based Kidaptive, [technology](#) is increasingly being woven into American childhood.

A recent study by Common Sense Media found that 38 percent of children under two have used a mobile device for media, compared with 10 percent two years ago. Even larger increases were reported in tablet

ownership among their older brothers and sisters, up to age 8. With companies literally hooking up technology to humans right out of the chute, wearable sensors are the tip of an onslaught of apps and tablet-based learning platforms. And that leaves some adults alarmed.

"It's Orwellian to have too much tech shoved into our kids' lives at earlier and earlier ages," said East San Jose English teacher Robin Edwards-Harvey when she learned about Mimo, which is marketed as a "cure for Mommy brain." "With little kids getting addicted to things like game technology, I see this as part of a really disturbing trend."

But app-makers tout the educational horsepower of their wares, and many parents say they've seen technology have a positive impact on their children's lives. Massachusetts mom Heather McGibbon, 35, says Mimo has been a godsend as she wrestled with her infant son's stomach problems and erratic sleeping patterns. She says the benefits of the device far outweigh any concerns about invasive technology or abusive data-collection.

"They claim they're not viewing or selling my child's information and I have to take their word for it," she says. "Sure, it's a scary world we live in with all the surveillance going on. But it wasn't the fact that someone could track my baby's biorhythms that was keeping me up at night ... it was my baby."

Despite the upside for parents like McGibbon, early-age digital engagement raises two concerns: The American Academy of Pediatrics warns that screen-time of any kind for anyone two and younger could be detrimental to their development. Also, privacy advocates and others say we risk creating a "surveillance society" with all these new tech toys, forging a world where marketers will force-feed products to those far too young to opt out.

"We're normalizing surveillance with these tech devices," says Josh Golin, associate director for the advocacy group Campaign for a Commercial-Free Childhood. "And I think we need to ask who it benefits. The parents? Are we indoctrinating children into a society where their every movement is being monetized?"

Junne Webbe of Mountain House east of Livermore doesn't see it that way at all. Describing herself and her Google-employed husband as "techie" from the 90s, Webbe says their 9-year-old son Aiden got his first laptop at 13 months "because we wanted to expose him early on to reading through educational apps. Within months, he was learning to type, and I have videos of him reading a book at age two."

Webbe says she and her husband closely monitored Aiden's use of technology, adding that the third-grader now reads at an eighth-grade level - thanks, she believes, to his early adoption of computers.

Other parents are more conflicted. While Morgan Hill mom Penny Polayes, 53, was impressed with what her two daughters have learned from an all-iPad program at Archbishop Mitty High School, she says "it's kind of disturbing to see a one-year-old playing games on an iPad. I'm not sure if they're learning properly and I worry that the technology may be detaching them from their environment."

Janet Lansbury, a Southern California-based early-childhood specialist who blogs about the subject, says newborns are wired to take in and learn from the world around them. And face-to-face interaction with a parent is far more natural than staring into a shimmering tablet, like the iPad attached to the controversial "Newborn-to-Toddler Apptivity Seat" from Fisher-Price. Critics say the iPad "bouncy seat" encourages parents to leave their children with this "virtual baby sitter," depriving kids of face-to-face time that's essential to the developmental process.

"When a baby or infant sees a screen, it's like this bombardment of their senses," says Lansbury. "Adults can see a screen and filter the images, but babies can't. They see the glow and everything moving all around and they don't understand why that digital dog is there and it doesn't look like a real dog. That's confusing, and it's not something that they can learn from."

Lansbury believes that "by exposing them to this technology at such an early age, you're kind of subtly discouraging them from exploring their universe and encouraging passive rather than active thinking, which fosters their love of learning. Instead, you're fostering intellectual apathy."

Center-stage in America's too-young-for-tech-or-not debate is the question of whether self-described "educational apps" actually help youngsters learn faster. With 72 percent of children age 8 and under having used a mobile device for some type of media activity, according to the Common Sense Media study, more and more parents are buying into the perceived benefits.

Yet many childhood-development experts remain cautious. "We do know that children learn best through interaction with their parents, especially babies who see the expressions on your face and hear your voice," says Dr. Alanna Levine with the American Academy of Pediatrics. "You don't want a device to replace that, and we find that many of these so-called education apps actually take the away the child's ability to focus, to problem-solve, and to grasp things like cause and effect."

That said, "these apps are here to stay," says Levine. "We need to look closely at them and study them, but the problem is the technology is moving so fast, and studies take years to see long-term effects, that by the time we do that the next technology is already here."

KEY FINDINGS FROM "ZERO TO EIGHT: CHILDREN'S MEDIA USE IN AMERICA 2013"

Children's access to mobile media devices is dramatically higher than it was two years ago. Among families with children age eight and under, there has been a fivefold increase in ownership of tablet devices such as iPads, from 8 percent of all families in 2011 to 40 percent in 2013.

Thirty-eight percent of kids under two have used a mobile device for media, compared with 10 percent two years ago.

The percentage of children with access to some type of "smart" mobile device at home, such as a smartphone or tablet, has jumped from about half to three-quarters of all children in just two years.

Almost twice as many children age 8 or under have used mobile media compared with two years ago, and the average amount of time children spend using [mobile devices](#) has tripled.

Seventy-two percent of [children age](#) eight and under have used a mobile device for some type of media activity such as playing games, watching videos, or using apps, up from 38 percent in 2011.

The percentage of [children](#) who use mobile devices at least once a day has more than doubled, from 8 to 17 percent.

©2014 San Jose Mercury News (San Jose, Calif.)
Distributed by MCT Information Services

Citation: Technology geared toward the very young presents promise and pitfalls (2014, May 27) retrieved 19 May 2024 from <https://phys.org/news/2014-05-technology-geared-young->

[pitfalls.html](#)

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.