Technology Makes Bad Schools Worse

Believe it or not, this message comes from a technology expert.

In this morning's *Washington Post*, Kentaro Toyama, a University of Michigan computer science professor and fellow at MIT, offers an honest reflection on his attempts to bring technological innovation into classrooms.

After promoting new computer programs in schools in India for a number of years, he has ultimately come to conclude, "I have never seen technology systematically overcome the socio-economic divides that exist in education. Children who are behind need high-quality adult guidance more than anything else….technology never made up for a lack of good teachers or good principals."

In fact, he thinks it made "subpar schools" worse. In schools with strong leadership, the students used the computers to enhance their learning. But in schools with weaker leadership, the technology was merely another distraction that wasn't adequately used.

To those American districts who have set out to provide iPads to all students, Toyama offers a sage warning: "Schools' computer budgets tend to pay for hardware, software, and infrastructure — which are seen as one-time costs — but they neglect the ongoing costs of storage, upgrades, troubleshooting, maintenance, and repair — which are ongoing."

Finally, Toyama offers what is one of the most balanced assessments of technology in education I have read:

> *"What I've arrived at is something I think of as technology's Law of Amplification: Technology's primary effect is to amplify human forces. In education, technologies amplify whatever pedagogical capacity is already there."*

In other words, technology—whether in education or other areas of human life—is a tool, not a cure-all. And in schools, in

cannot substitute for good teacher.