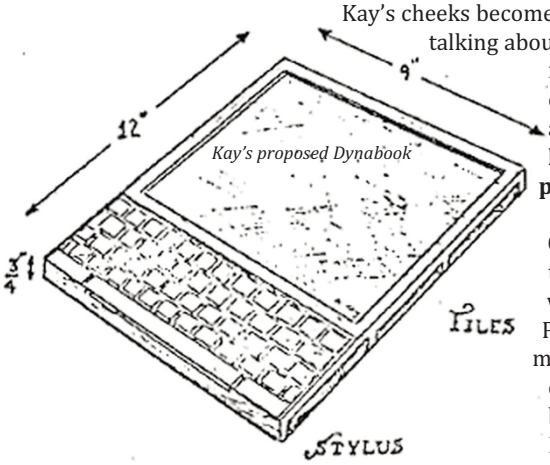
Mobile Technology is for Kids. Right? *A fictional 1977 conversation at MIT*

It's a sunny day in the spring of 1977 at MIT, and Alan Kay is in town to chat with Seymour Papert about his Dynabook concept. He's wondering if he could actually make a functional unit for less than $500. Suddenly, with a puff of smoke, Steve Jobs appears. "Gentlemen," "And ladies," he said, acknowledging Cynthia Solomon and Edith Ackermann. "Put your Dynabook away. Woz and I have something better. It has a clear color multi-touch screen, built in Wi-Fi, all day batteries and it's insanely revolutionary." He places an iPad on the table.



Kay's cheeks become red. "Seymour and I have been talking about what Piaget would do with this mobile technology. We want a computing environment that allows children to **construct knowledge**, not just **consume pre-digested ideas**.

Can a child make things, break things and try out powerful ideas with your iPad?" Meanwhile, Papert and one of his programmers, Hal Abelson, have been exploring the iPad. They've become transfixed by Monument Valley.

"I have to say I agree with Alan," said Papert. "This is an incredible device, and I offer my congratulations to the designers. But it is the programmers like Woz who have experienced the power from the code. So it has been their mindstorm. I'm thinking about the children who will use this. We need computing tools that will put the common child in the driver's seat, so they can experience the power."

Hal Abelson pipes in. "If you really want a revolution, make Xcode (Apple's exclusive authoring language) available to every middle schooler. "You can, said Jobs." "Xcode is free to download from my personal cloud." "But it's $99.99 per year to actually publish something," argued Abelson. This iPad won't be able to run the open source stuff we're thinking about making, like Logo, Scratch or MIT App Inventor. I'll stick with Alan's open source option, or hope that something else comes along."

Ackermann agrees. "While Steve's iPad has huge potential, it increases the chance that a child will spend time using powerful technology to do un-powerful things, like watching a cartoon, or slingshot a bird for hours on end."

Hal Abelson, Papert's programmer and Josh Sheldon, who started on Logo as a child, talk about the philosophy of MIT App Inventor. They've been working on extending Papert's ideals into the tablet age, at the Center for Mobile Learning at the MIT Media Lab.
Below: I talk with Cynthia Solomon (left) (who worked with Papert) and Edith Ackermann (right) (who worked with Piaget) about the state of children and technology during the recent Sandbox Summit at MIT. Watch the videos:

- **ABELSON & SHELDON** https://youtu.be/JcZImGHJ8mw
- **SOLOMON & ACKERMANN** https://youtu.be/wfWBkglawy4

Q: What would Piaget be saying in 2015?
A: Ackermann (on the right) "Piaget would talk very loudly the genesis of thinking in children and of becoming intelligent... He would talk about the sensorimotor grounding of constructing knowledge. Before you impose an understanding upon a child, you first have to look at how the child understands it."

Jobs' eyes flash angrily. He demonstrates his famously edgy confidence. "Face it, the SDK (Software Development Kit) behind this tablet is insanely powerful. It will enable an army of motivated designers who will make apps like Crazy Gears, Slice Fractions and Monument Valley. And we can all share the loot." He paused. "Did I mention we're going public? Stock is only $.53 cents per share."

Suddenly, without warning, more smoke filled the room. Jobs was gone and Abelson looked sheepish. "It appears that our Dr. Who team has been fooling around with the space-time continuum again." "But look", said Ackermann. "He left the iPad."

"Hmm..." Papert said. "Imagine if it could fit in your pocket and make phone calls."