The design of children’s technology
Allison Druin, editor
Morgan Kaufmann, 1999

When is the last time you read a book that you told all your friends to read? One that would change their lives; would encourage them; they’d enjoy it and they’d see the world in a new light?

Children today are beleaguered: they watch too much television and become passive; they play nasty computer games that inspire some of them to real crimes; health and safety concerns, to say nothing about worries of predators on the internet, force us to make their lives riskless and unexciting. How is this generation to grow up to become the world’s next leaders? Despair, for the future is in their hands!

Adults today are beleaguered too. Even the local gym is full of PCs, making the workers sit awkwardly and hasten the handicapped days of repetitive strain injury.

The computer is our new slave master, and even researchers trying to find ways of making computers better are stuck in ruts, led by tenure track or research assessment exercises.

The design of children’s technology says the sorts of things you’d expect it to say. If you are designing for children, sit on the floor and listen to them. Teachers are disempowered by educational material that makes them no more than IT technicians. It says things you didn’t expect it to say. Designing with children removes our blinkers. Computer systems can be much more creative, persuasive, useful and enjoyable. The book is of course full of creative and engaging systems, from movie authoring systems, functional programming, robotics, virtual reality, and touches real issues like pollution, traffic jams and food cycles, and of course says a lot about the learning experience. As The design of children’s technology is an edited book with 29 authors and 11 chapters, it covers a huge and very varied range of issues. It has stuff for interaction designers, and stuff for advanced programmers who, say, might want to know the difference between Turing Complete and Pac Man Complete. You will find something interesting in it, whatever your relation to technology or children.

But why stop at children? Why don’t we think like this with all technology design? Why don’t we sit down with users when we design new systems, rather than just impose our preconceptions? One reason is that we think we understand other people; and of course we don’t — that is why a book about the design of children’s technology is an eye opener: we know we don’t understand children because we are not children, as we’re often reminded when the things we make for them fail. It’s uncontentious, then, that we must engage children effectively in the design process. If we do so, we will end up with better things, not just building more effective learning and discovery environments for children, but discovering ourselves: both how we were as children, and how we can be. In short, The design of children’s technology tells how people can learn about the world, understand asthma, learn to program, learn Chinese music or build an electron microscope, learn mathematics or, which is what it is all about, become better designers and effective agents for change. The design of children’s technology tells how we can create a better world for people, that pulls us all out the conventional mental slavery of consumer technology into active participation of understanding and creating a new world.

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Persuasive technology’s use of digital media to target children, deploying the weapon of psychological manipulation at just the right moment, is what makes it so powerful. These design techniques provide tech corporations a window into kids’ hearts and minds to measure their particular vulnerabilities, which can then be used to control their behavior as consumers. This isn’t some strange future; this is now. Facebook claimed the leaked report was misrepresented in the press. But when child advocates called on the social network to release it, the company refused to do so, preferring to keep the information hidden.

The use of children in the design process is more effective if participating children demonstrate the confidence necessary for active engagement. The recent work of Druin and her colleagues (Druin et al., 1999) has seen a shift in focus, and explores the impact that children and teachers can have on the development of new technologies. Cooperative inquiry...