

The Personal Robotics Revolution

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The Personal Computer Revolution

Very few people own a personal computer

Most people own a device for word processing, email, or playing Halo 2

People (generally) don't know much about computers, and don't want to know much about them

Robots are Not Computers

My computer

- has never run over my toes
- has never terrorized my pets
- has never scratched my hardwood floors
- has never taken the initiative on anything
- made me feel anything but anger and frustration

My robot has done all of these things

- unfortunately

We Have the Technology...

But, many of the problems are not technological

- toys vs. useful appliances
- litigation
- price: "it's all about volume"

How do we get past this?

- I'm an academic, so it's not my job...

Why Does the Roomba Work?

It's an appliance

- It “just works”
- It has a well-defined task
- It's not too ambitious, so people aren't disappointed
- It's cute
- It's cheap

The Personal Automation Evolution

Robots will sneak into our lives

- Disguised as intelligent automation in existing devices
- I think that my dishwasher might be a robot
- Most of these will not be mobile, but they will have increasing autonomy

A robot in every home

- Much more likely to have *many* simple robots in every home

What Can Robots Do?

A mass-market robot needs to be

- safe
- completely reliable
- useful
- cheap

How many applications can you think of?

- That your mother would approve of

Everything I've Said is Wrong

I'm old...

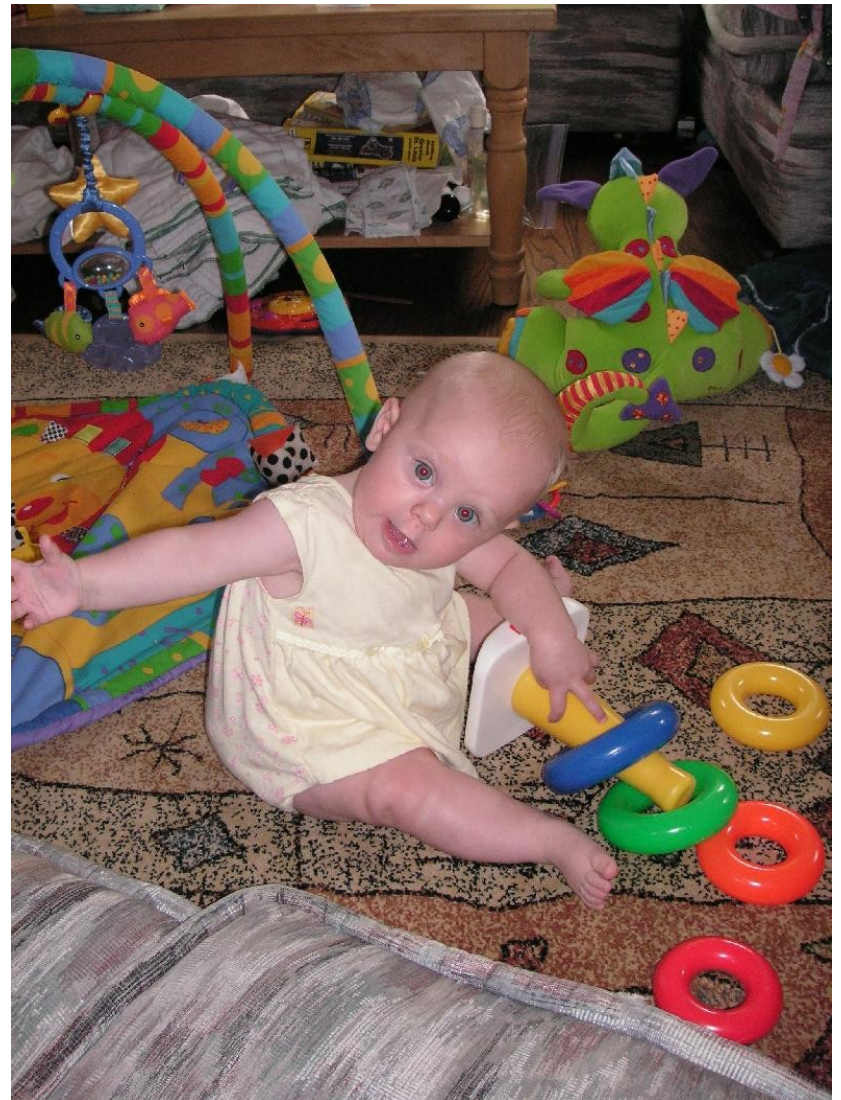
- I've actually programmed using a teletype
- I graduated from university before the web!
- I was alive before the Internet!!!
- I had to actually learn all this computer and technology stuff
- I fear change

And, I actually use robots

The Personal Robotics Revolutionary

- Will never have to “learn” to use technology
- Will be used to ubiquitous connectivity
- Will adapt easily to new technologies

....unlike us



Thoughts

The revolution will be televised

- The public needs to be educated about what robots can (and should) do

Academics and industry need to team up

- Tech transfer needs to happen

People need to be able to tinker

- Low cost platforms and accessible programming environments

Thoughts

We need appropriate applications

- Useful
- Acceptable to the general public

iRobot will let people think about revolution

- People now know what a robot is

Microsoft will not cause the revolution

- But, they will probably enable it