"How much technology?" is the question

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I will start by repeating a statement I have made in the past, but with new evidence to support it

More specifically I will talk about:

--- New technological developments

--- What they imply for living, working , learning

--- Why I claim that we have "seen nothing yet"

--- Few interesting experiments

--- The question in my title of my talk: how much technology do we really need.

I believe in fast convergence of PCs and cell-phones

Future cell-phone will be:

- Phone
- PC
- Camera
- E-Mail/ Internet
- TV set
- Gaming machine
- MP3 player
- GPS providers for apps
- Payment device
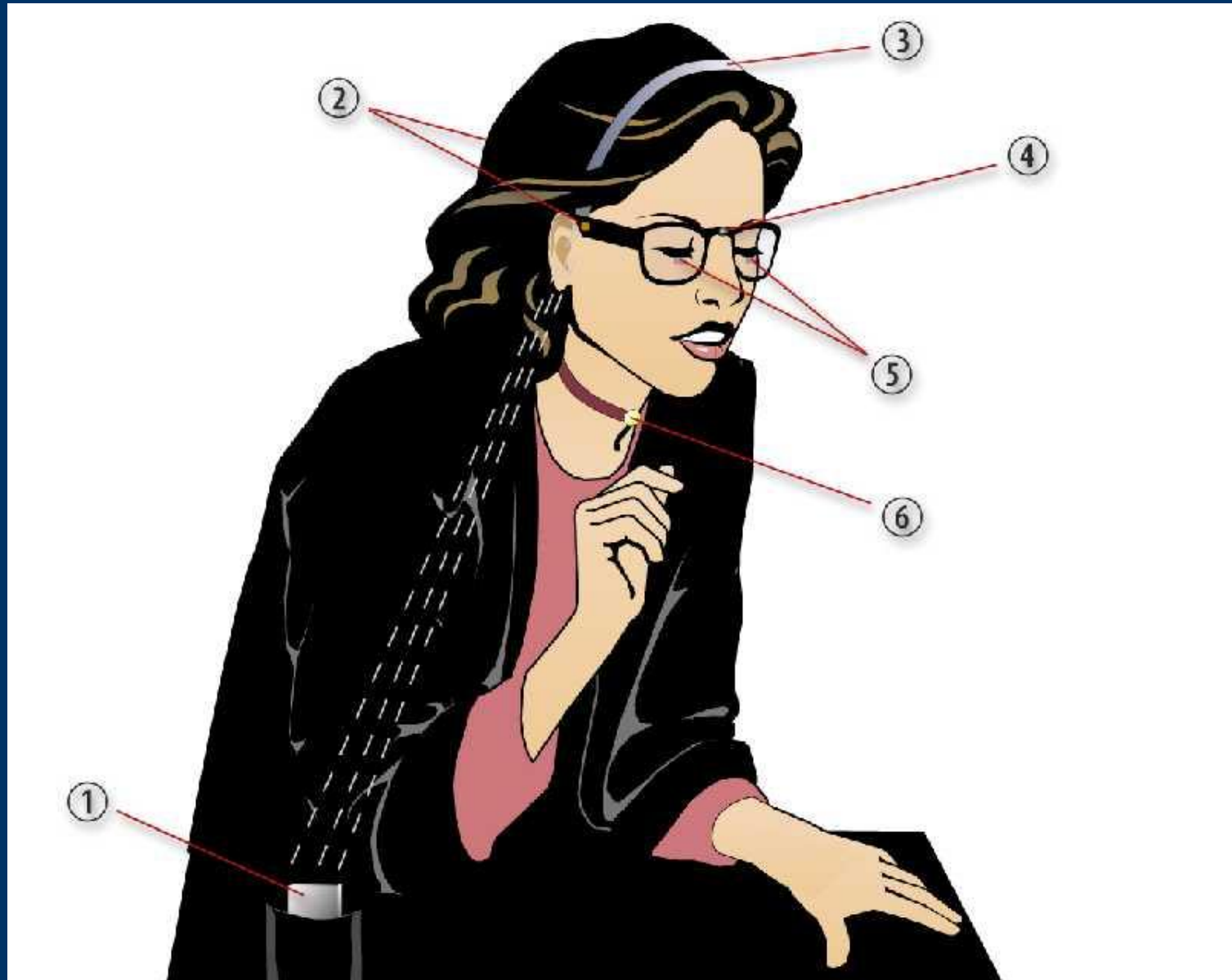- Identity card
- Drivers License
- …

So, what is new. All this is clear, right?

Well, there are some problems:

We need larger screens and larger keyboards or other input devices

However, a number of new technologies are emerging that are going to solve those problems.

One potential solution

Display glasses instead of screens ?

Display glasses instead of screens ?

Glasses with built-in camera

Sonnenbrille mit Camcorder € 279,–
- Schwarz Nr. 600-692-19
- Weiß Nr. 600-700-19

Cool: die Camcorder-Sonnenbrille aus weißem Hochglanz-Kunststoff.

Display glasses with eye tracing

Show movie!

Miniprojectors

MICROVISION

SHOW™ Pico Projector Prototype

The SHOW Prototype is a complete hand-held, battery powered, full color laser pico projector. This prototype's simple "Plug-n-Play" capability enables a large screen viewing experience from mobile devices such as cell phones, personal media players, laptops, digital cameras and other mobile devices.

3M Projektor

Miniprojectors

Handy with integrated beamer

Handy with touch sensitive back, rather than screen!

Logic Bolt: The US's First Projecting Cellphone

We've seen plenty of units from overseas manufacturers, but the Logic Bolt will be the first US cellphone on the market with a tiny projector squeezed inside.
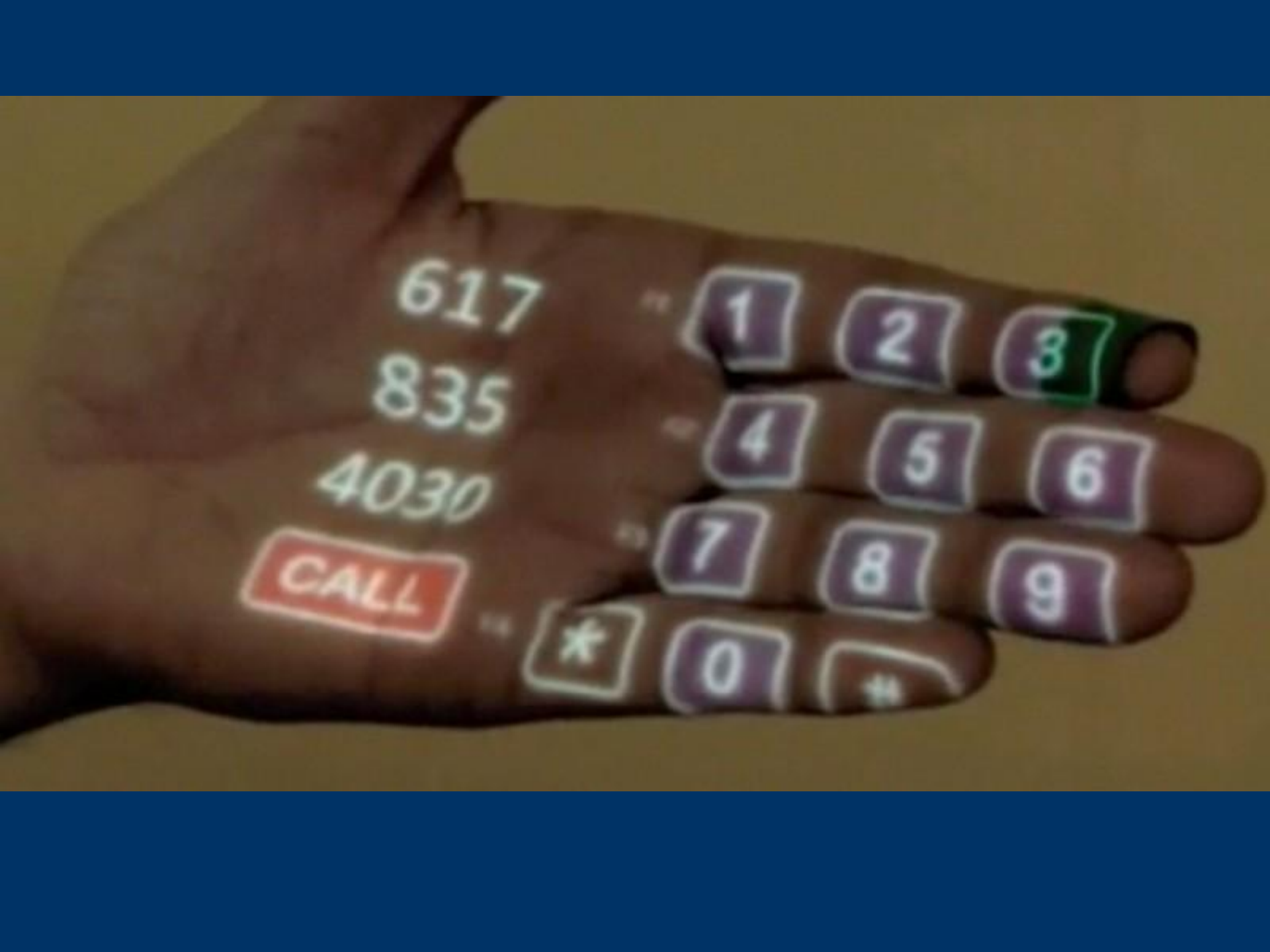
Camera with built in projector

Show movie!

Pattie Maes and her students at MIT

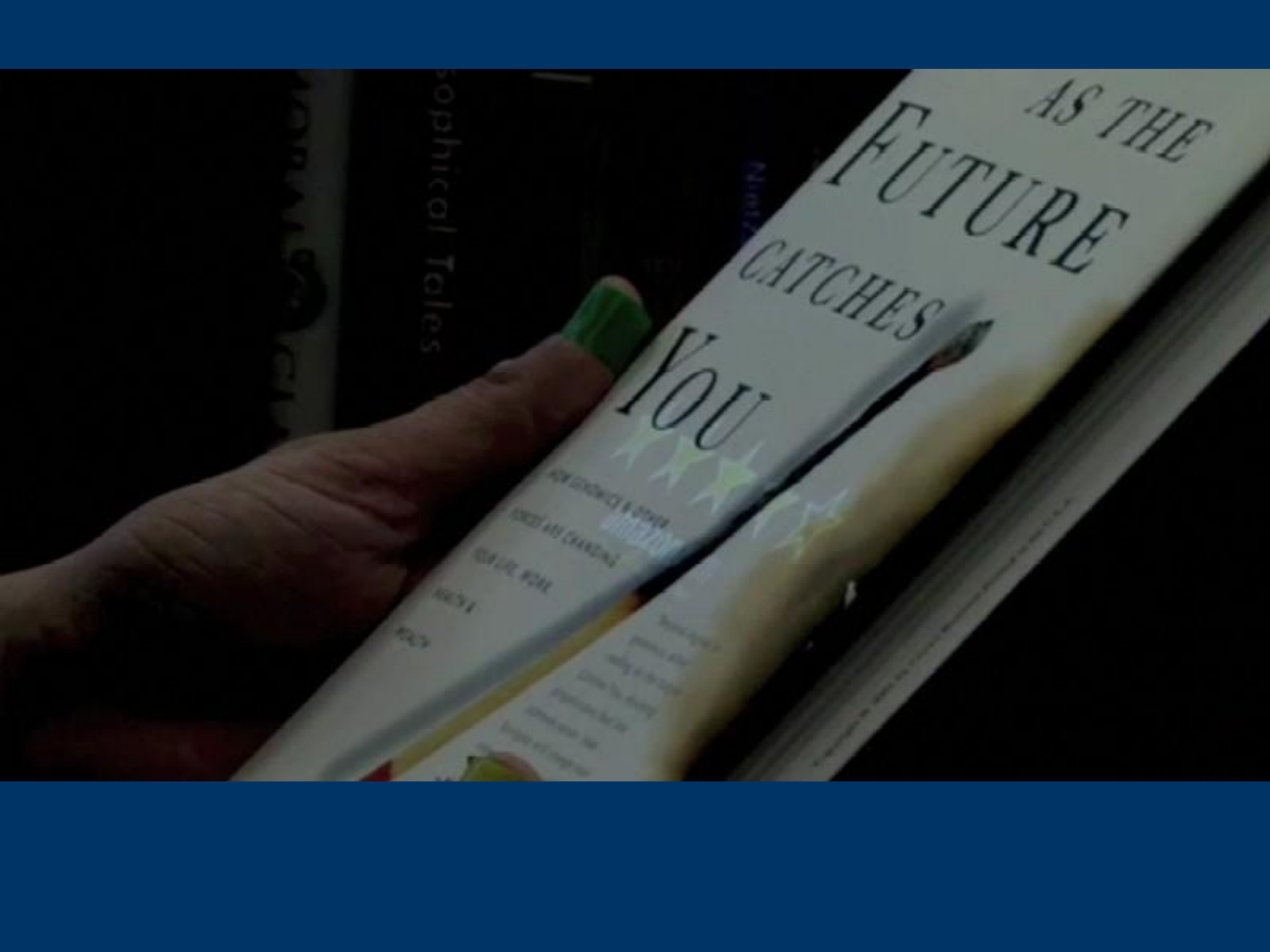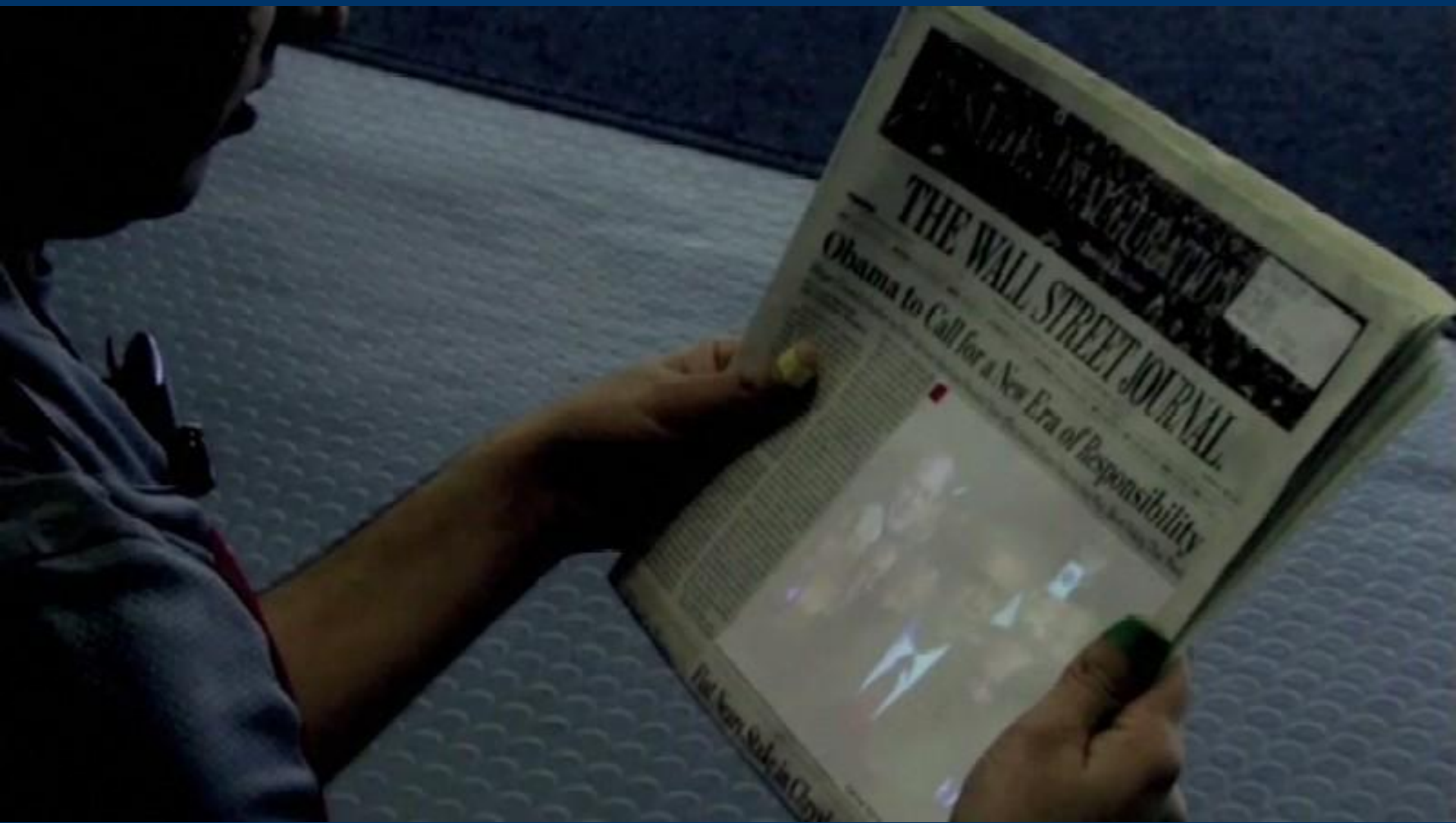Steve Jobs stellt das iPad vor: Apples lang erwarteter Tablet PC ähnelt optisch einem Riesen-iPhone, die Preise beginnen bei 500 US-Dollar.

Future cell-phone will be all in one, like an „egg- laying wool- milk- pig"?

Something with the functionality explained will be with us in 3-5 years.

Thus, we will always have a powerful electronic assistant with us. Great, but …

What does this mean for what we still have to know?

What do we still have to learn?

Many efforts on e-Learning for many years. But the important issue is more and more not HOW to teach using (future) technology but WHAT and WHEN!

What kind of facts will students at universities in law, medicine, geography, … still need to learn when all facts are just one thought away?

Do we still need to teach handwriting?
How about teaching how to construct triangles?
How about language teaching?
….

Typically, problem often completely ignored by E-Learning enthusiasts!

WHEN

When it is needed. I believe „on the fly" . Let us stop teaching stuff that just might be needed by a fragement of the persons we teach it to. Let us only teach things with a high chance of actually being used.

This allows de-cluttering of curriculae and adding a few things we all should know but never learn.

Could this allow us to shorten high-school (graduation at age 14?) and universities (M. Sc. at age 20) with obligatory schooling for everyone for two weeks every year till age 80?

I have said before: something with the functionality explained will be with us in 3-5 years.

Thus, we will always have a powerful electronic assistant with us. Great, but …

What if we end up with an empty brain, since all we ever need is available from our assistant whenever needed? Will we need fitness studios for our brains?

What does this mean if all devices and networks suddenly would break down for a long time in a large area?

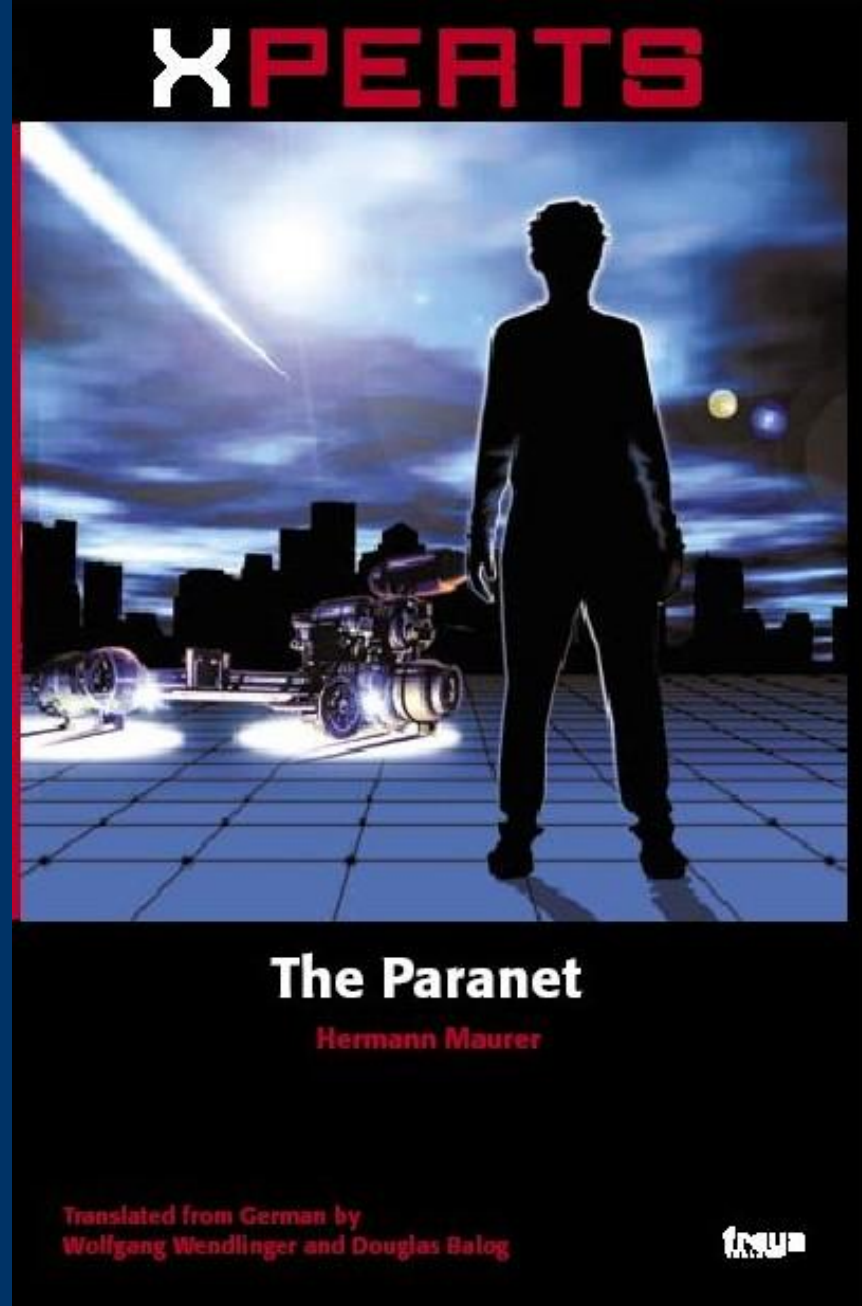... and then the Internet collapsed one day...

Could it really happen that computers and computer networks fail in large regions for prolonged periods?

Yes. And it has happened on a medium scale already a few times, the real catastrophy is still lurking in waiting

Note interconnection between power grid and computers / computer networks ! Power grid e.g. out for 6 weeks in Auckland in 2002!

One of the books in
my "Xperts-Series"
describes exactly
such a scenario.

www.iicm.edu/
Xperts

XPERTS

The Paranet

Hermann Maurer

Translated from German by
Wolfgang Wendlinger and Douglas Balog

Now: Is such a powerful assistant "good" or "evil"

It is both. And we should very much realize this and think about how to reduce the danger of rapid new technolgical developments… not enough people do, and that is why I called my talk " How much technology is the question!"

It should be clear that developments will continue rapidly, more rapidly than we assume.

This is not because of any particular technolgoy, but because humans are very egocentric.

We tend to always think that we know already most of the important facts. In reality, we know nothing yet… true of just about any area of science.

Examples:
Gravitation, Energy

Thus, our lifes (private, company, country,…) are in for many more surprises than we think.

Nice book about this: The black Swan (N. N. Taleb)

Preface-story

Many other surprises: financial crisis, breakdown of East-block, …

Why are we not used to surprises?
One, development of mankind

Two, we tend to form a thesis too fast and stick to it

Three, too much information is brainwashing us

Show pictures of a big city and guess which it is. (Those who know it, don't tell!)

The Elsa-Kunkles experiments

After all this talk about new technology and impact of one question seems obvious:

How much technology/ how high a living standard do people need to be happy?

Answer: Beyond basic needs almost nothing.
To be happy or content has little to do with what we have or don't have … and this can be proven easily.

So?   What really makes people unhappy if they know about things others have and they can't have.

Hence it would be nice if our world would have fewer extremes, would be a more just place.

Until then, let us not try to change other cultures, let them live as they want, help them if they want help, but don't impose help or cultural values.

After these philosophical remarks let me return to my original starting point: that cell phones and PC's and other functions will merge, and develop dramatically, as I have shown you with a promo movie clip of xphone at the panel-discussion at the opening of the conference.

Thank you for your attention

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My SF novels: www.iicm.edu/Xperts

What can we do against the dangers pointed out?

As far as searching is concerned:

--- Profiles of users are necessary to serve them in an optimal way. However, gather and have those profiles in a large number of gateways, rather than in one company
--- this also allows to obey the data-protection laws of each country

As far as other uses of the internet is concerned:

--- Make sure to use a good dose of scepticism in the truth found on the Web
--- Fight the „copy and paste without reading"- syndrome
--- Do not rely on checking for plagiarism when a product is finished, but make sure plagiarsim is avoided by progess tracking