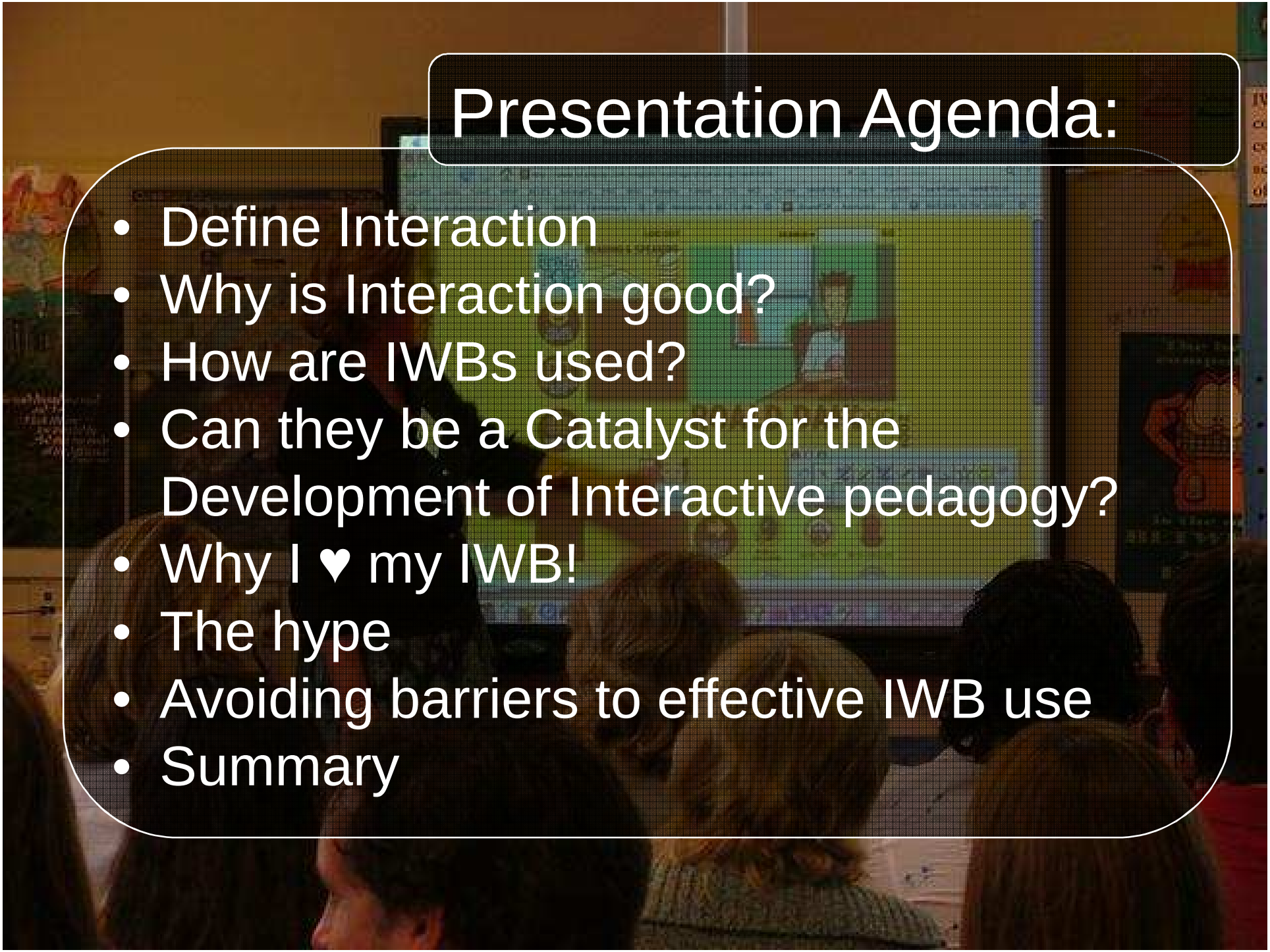


IWBs in the Secondary: Where is the Interaction?

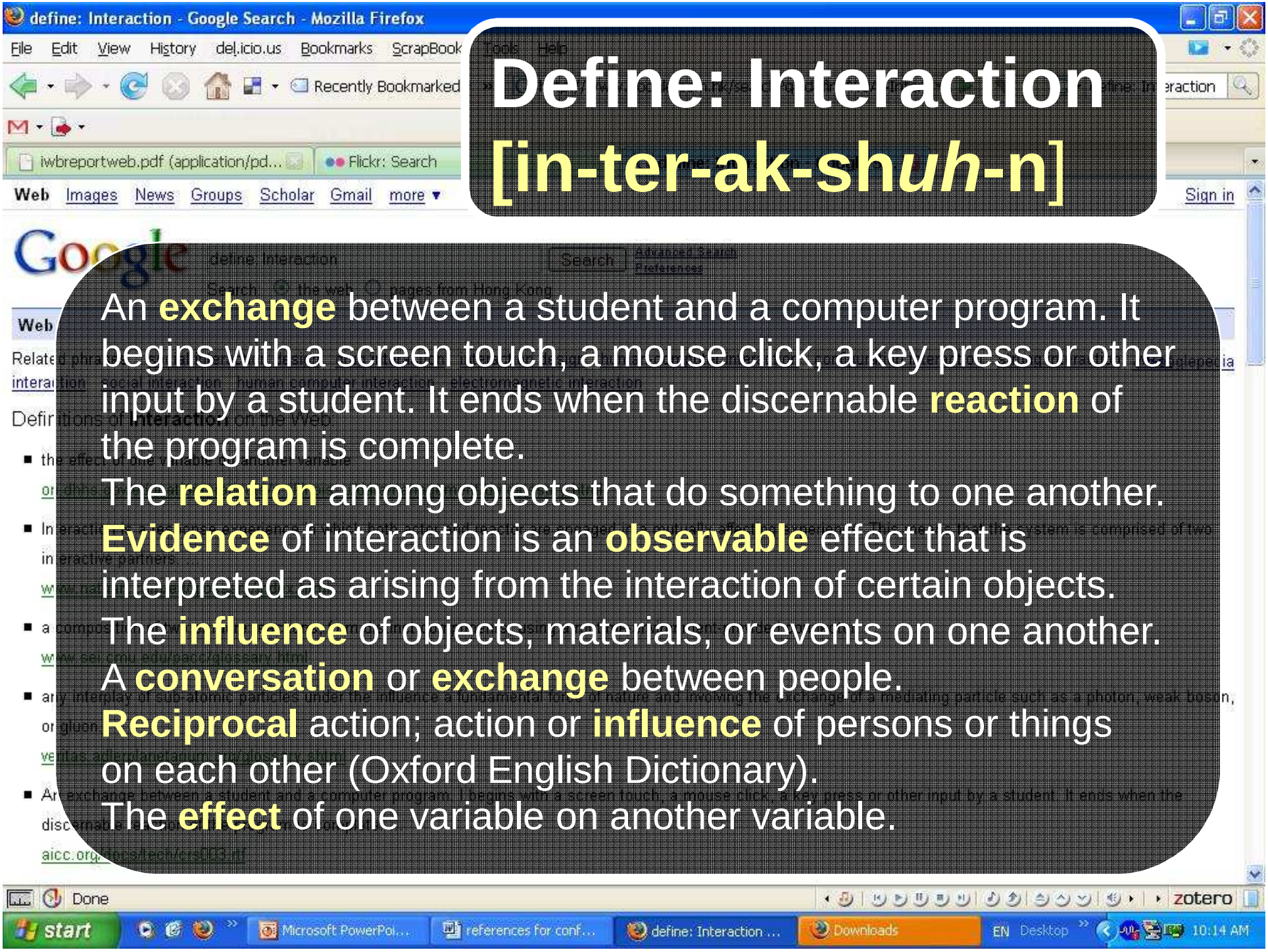
Jason de Nys

ESF 21st Century Learning @ Hong Kong Conference
2-3 May 2008



Presentation Agenda:

- Define Interaction
- Why is Interaction good?
- How are IWBs used?
- Can they be a Catalyst for the Development of Interactive pedagogy?
- Why I ♥ my IWB!
- The hype
- Avoiding barriers to effective IWB use
- Summary

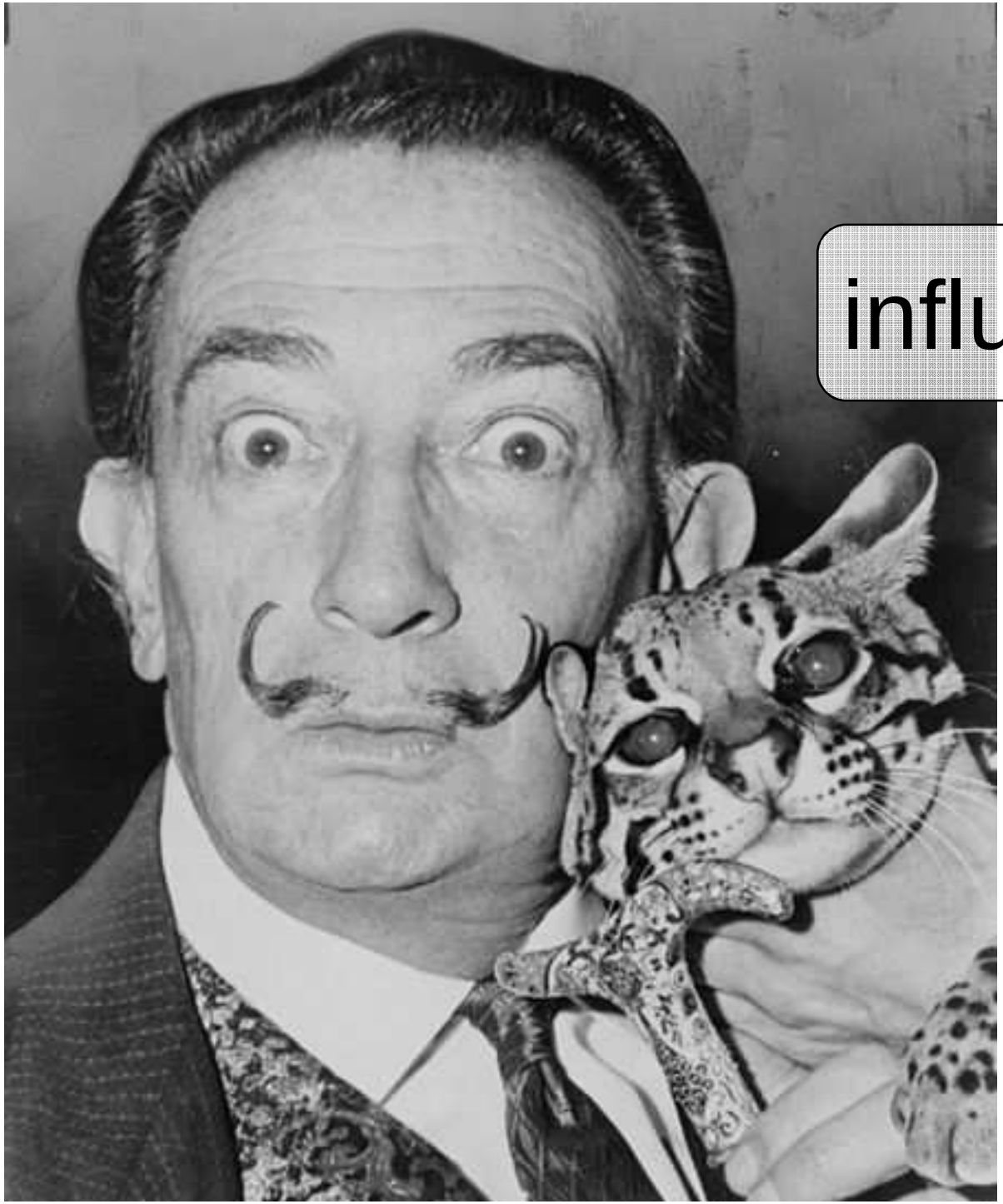

define: Interaction - Google Search - Mozilla Firefox
Define: Interaction
[in-ter-ak-shuh-n]
An exchange between a student and a computer program. It begins with a screen touch, a mouse click, a key press or other input by a student. It ends when the discernable reaction of the program is complete.
The relation among objects that do something to one another.
Evidence of interaction is an observable effect that is interpreted as arising from the interaction of certain objects.
The influence of objects, materials, or events on one another.
A conversation or exchange between people.
Reciprocal action; action or influence of persons or things on each other (Oxford English Dictionary).
The effect of one variable on another variable.


exchange

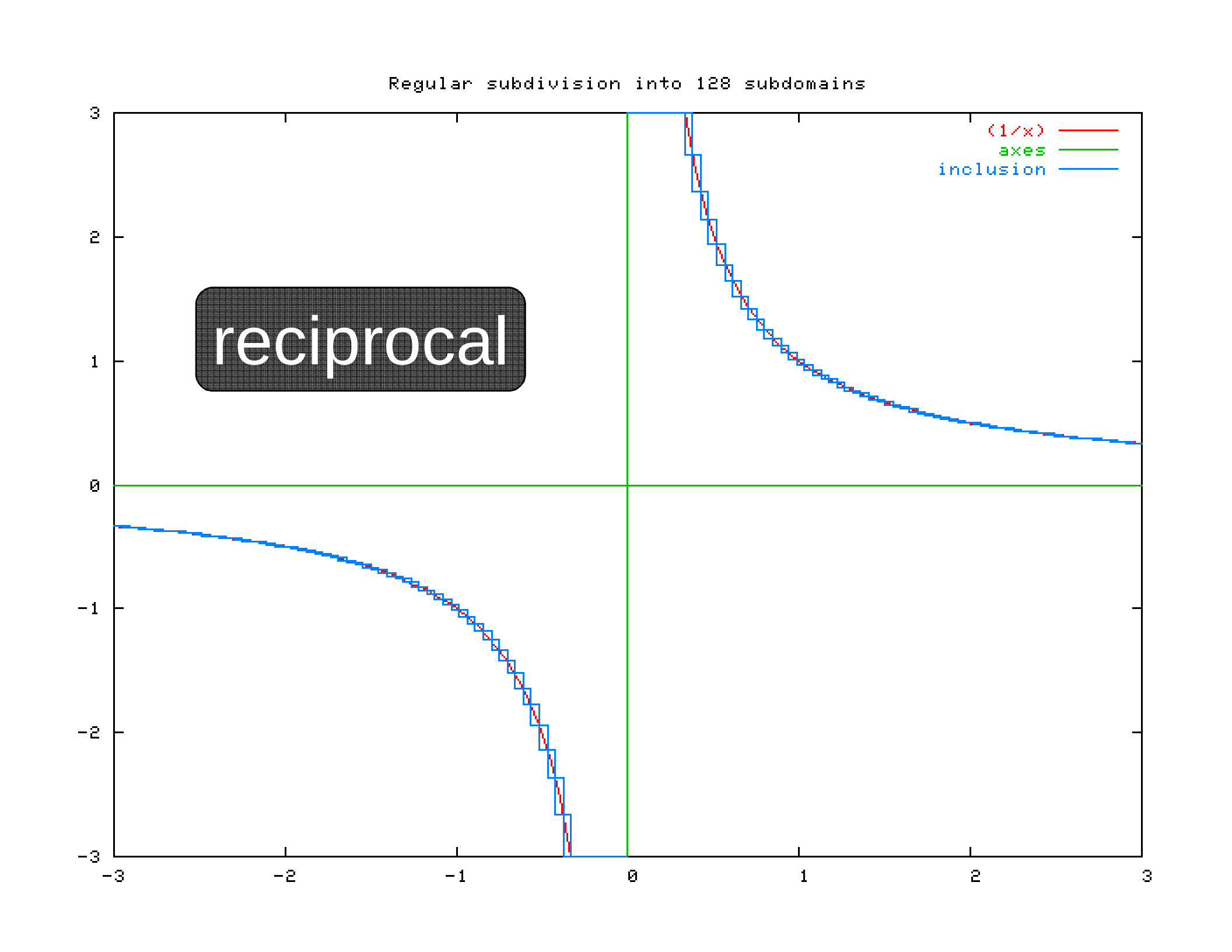

reaction


relation


observable
evidence


influence


conversation


Regular subdivision into 128 subdomains
(1/x)
axes
inclusion
reciprocal
3
2
1
0
-1
-2
-3
-3
-2
-1
0
1
2
3


effect

Why is interaction good?




Supervised interaction between students reduces the incidence of bullying

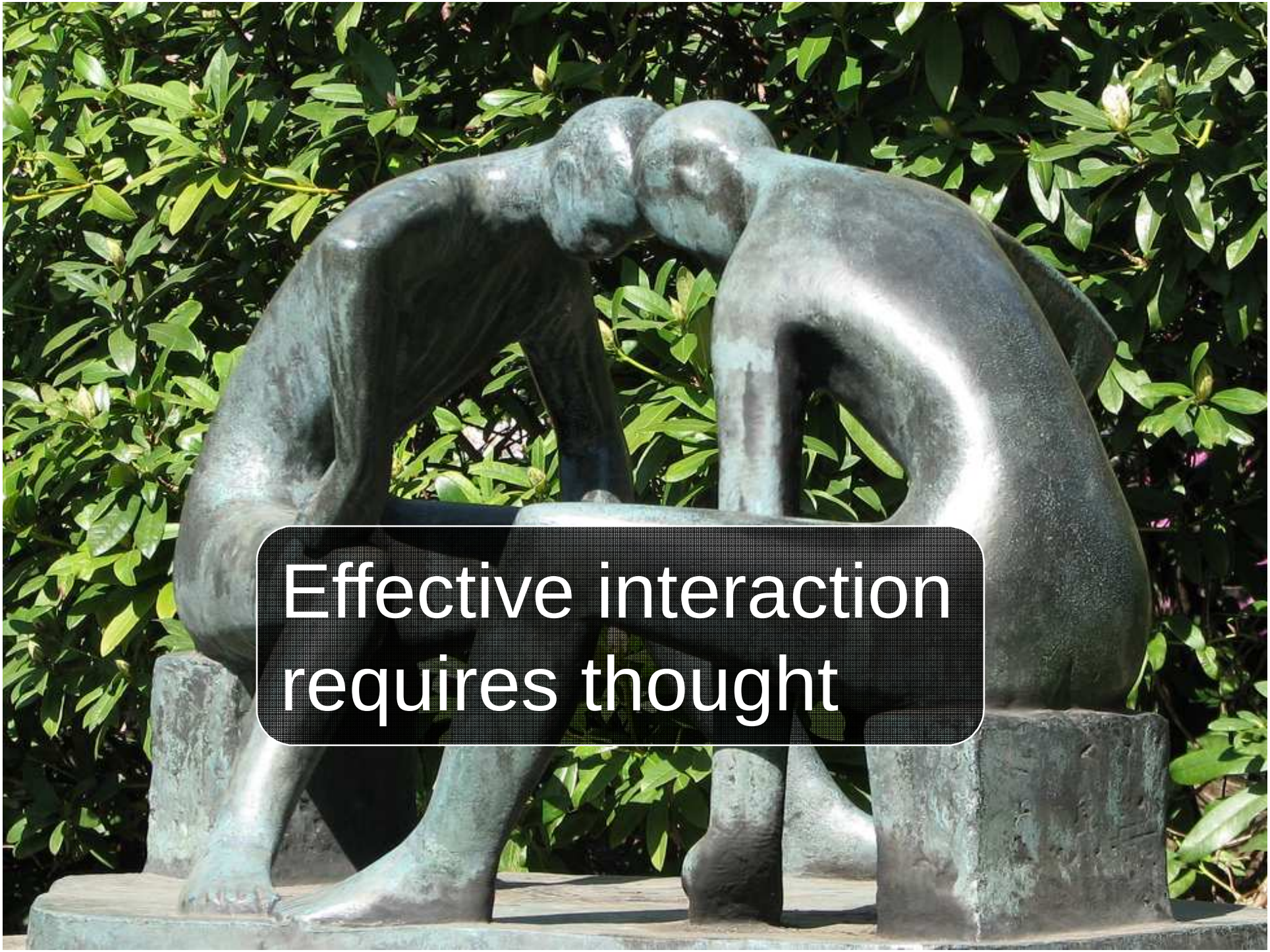

Interaction offers the teacher a window onto student thinking

Interaction enhances peer learning



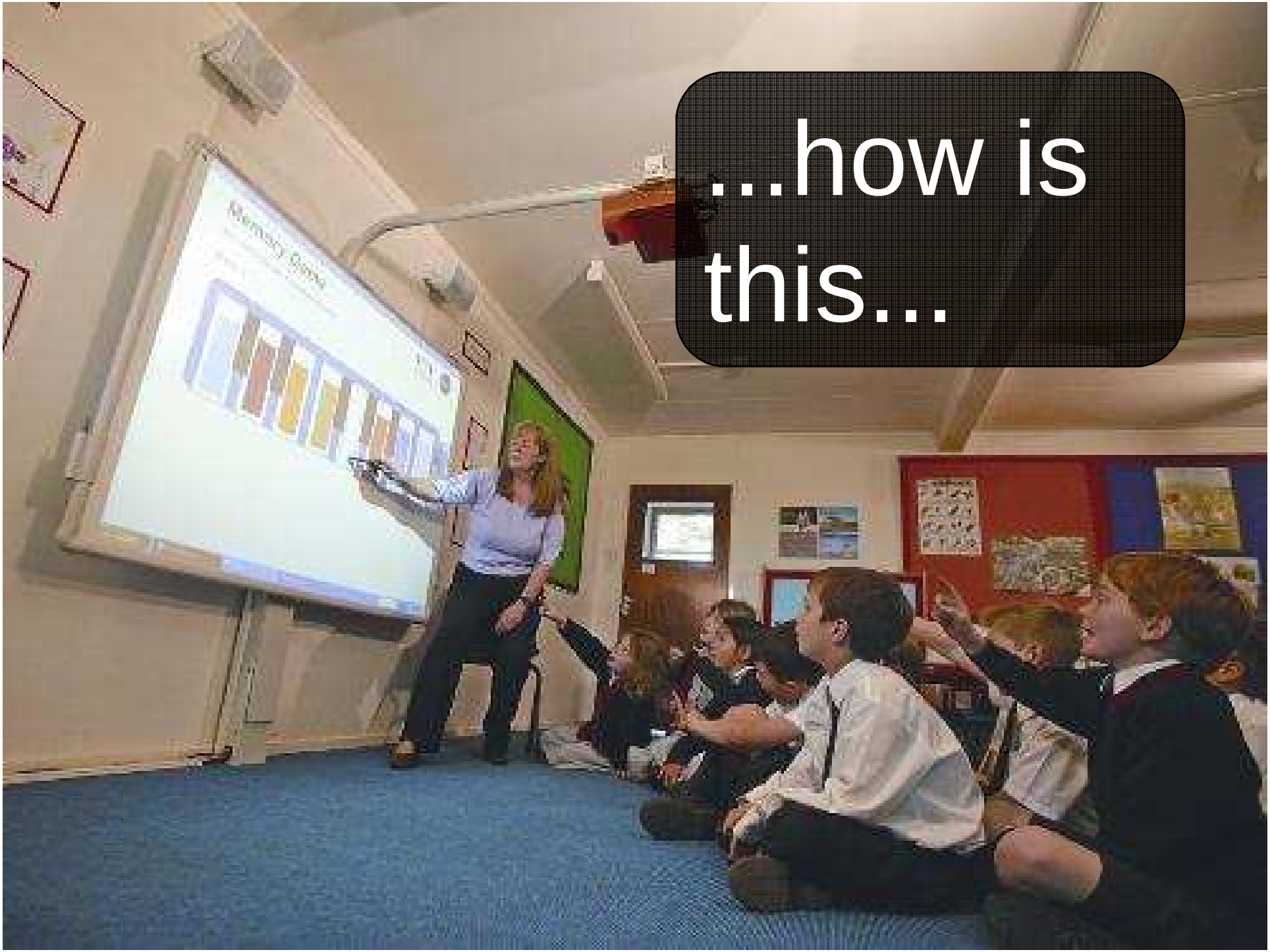
“The whole is greater than the sum of its parts

Interaction allows collaboration


Effective interaction
requires thought

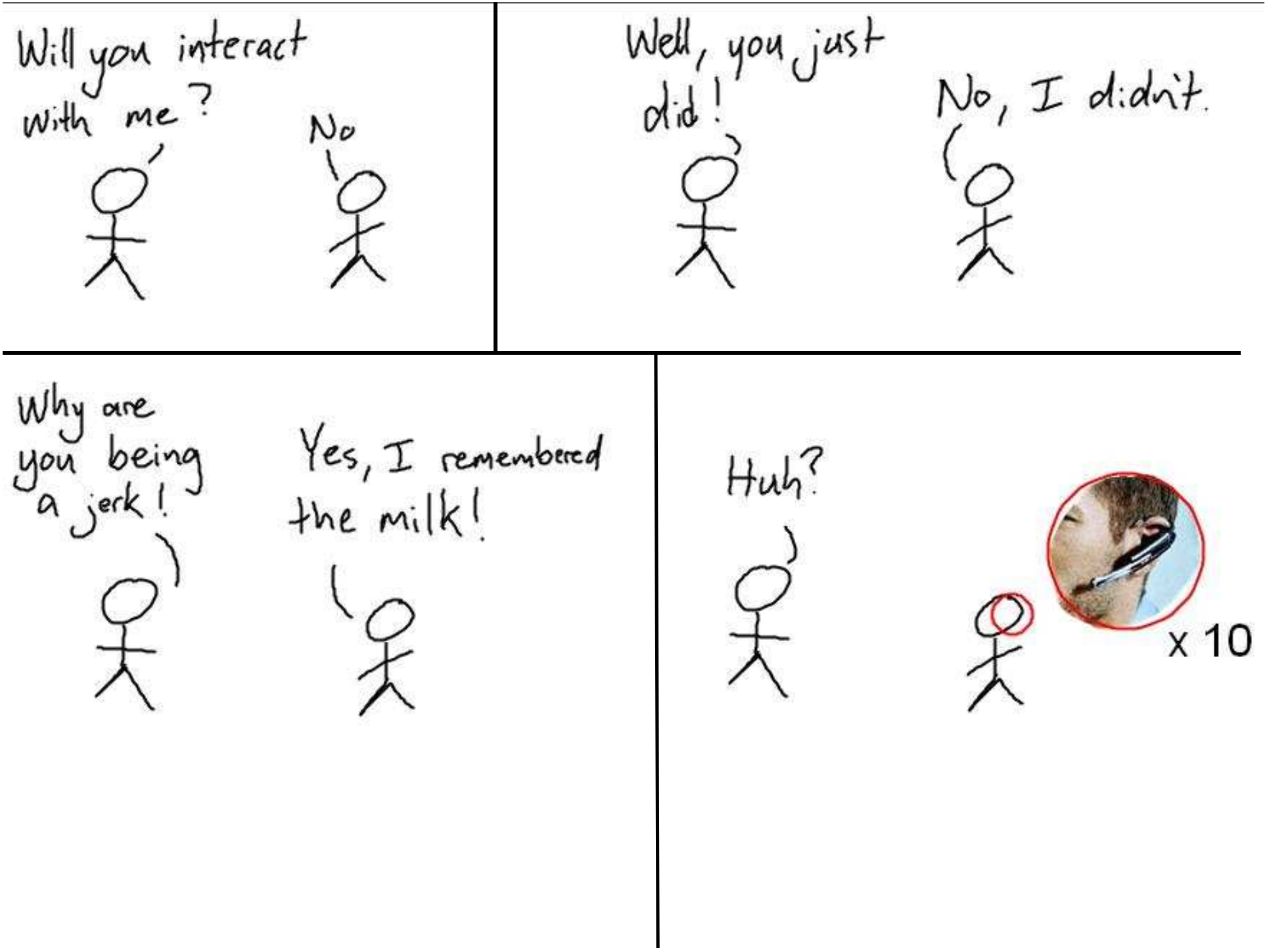

Without interaction everyone is on their own


In terms of real interaction...


...how is this...


...so very different from this?

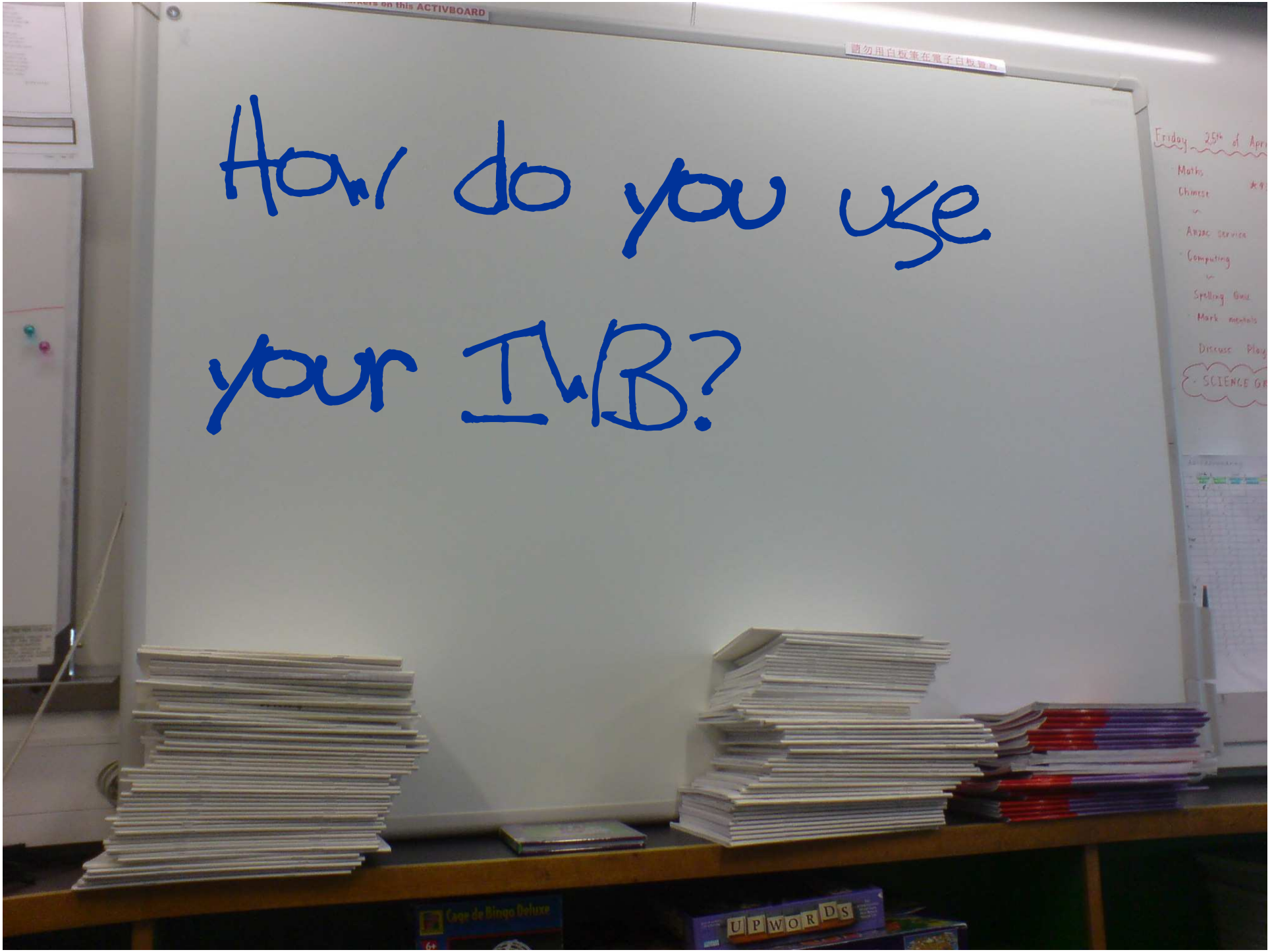

...or this?


Will you interact with me?
No
Well, you just did!
No, I didn't.
Why are you being a jerk!
Yes, I remembered the milk!
Huh?
x 10

Technology can be an enabler of interaction ...

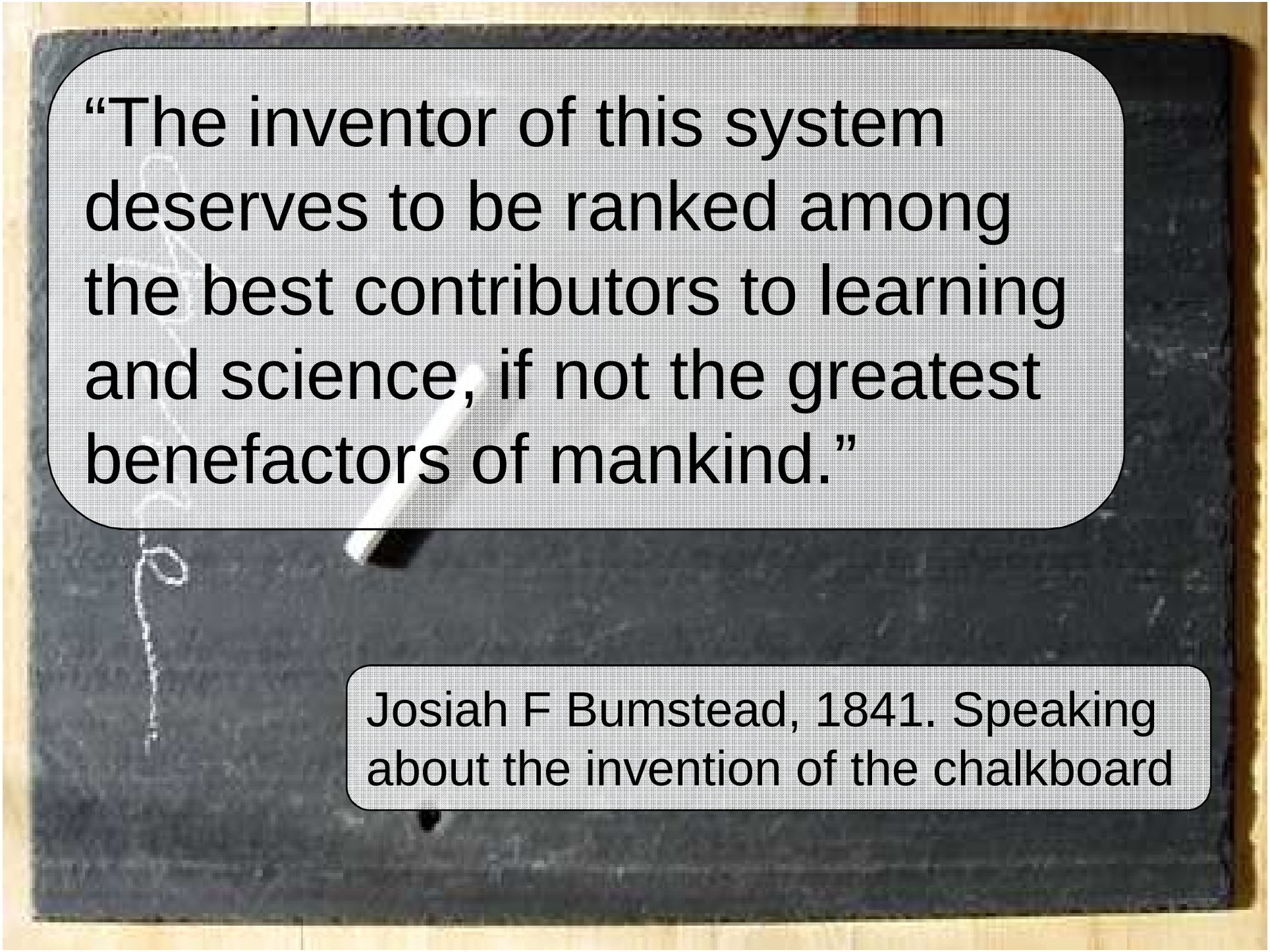



... and it
can be
a barrier


How do you use
your IWB?
UPWORDS

IWB use

“The inventor of this system deserves to be ranked among the best contributors to learning and science, if not the greatest benefactors of mankind.”


“The inventor of this system deserves to be ranked among the best contributors to learning and science, if not the greatest benefactors of mankind.”
Josiah F Bumstead, 1841. Speaking about the invention of the chalkboard

Could you use a chalkboard to do some of the things that you do on the IWB?

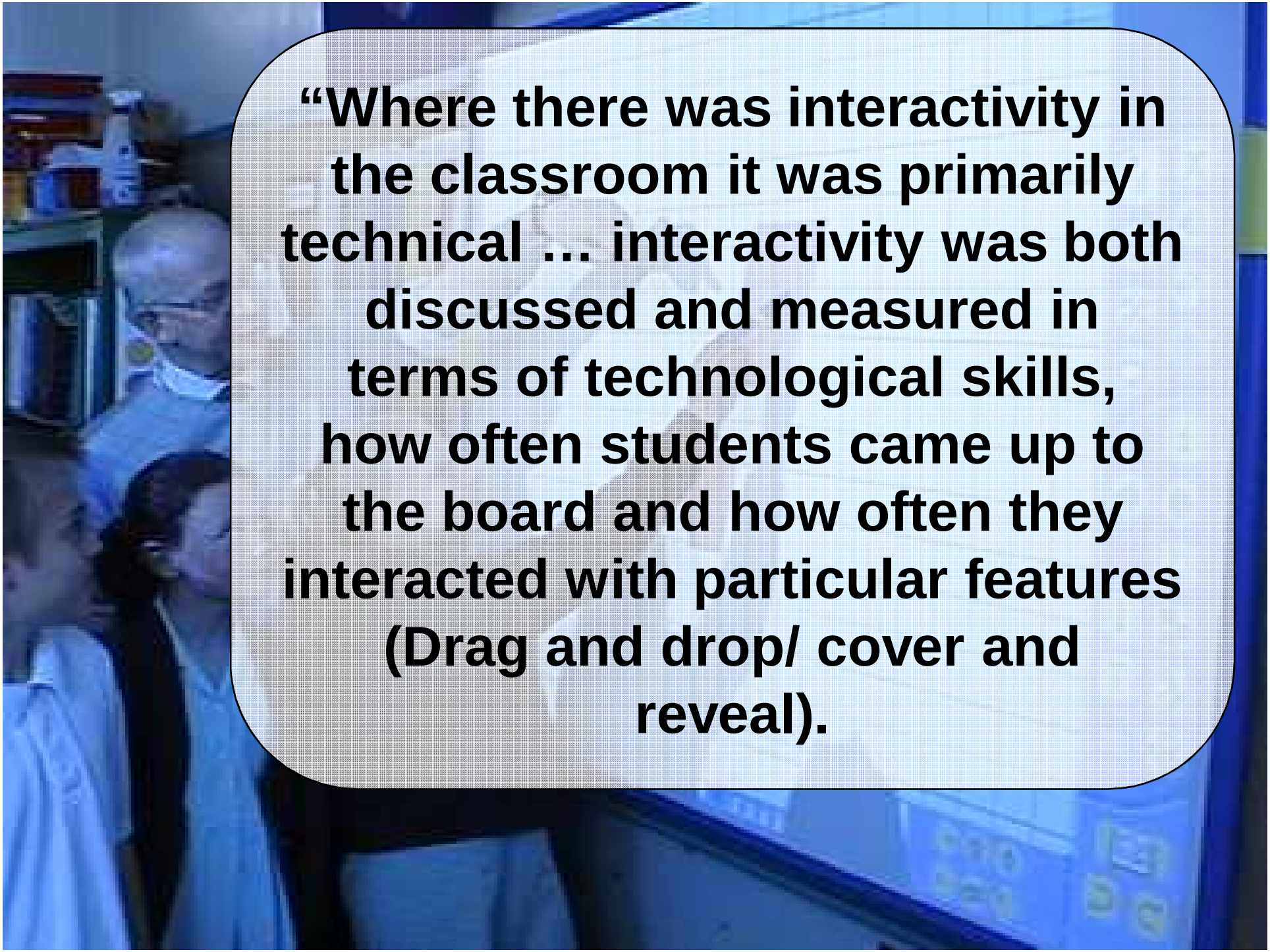
IWB use	Rate from 1-5 the interactivity (1 = best)	Is an IWB essential for the task?	If not, what other equipment could be used?

Can IWBs Act as a Catalyst for the Development of Interactive Pedagogy?

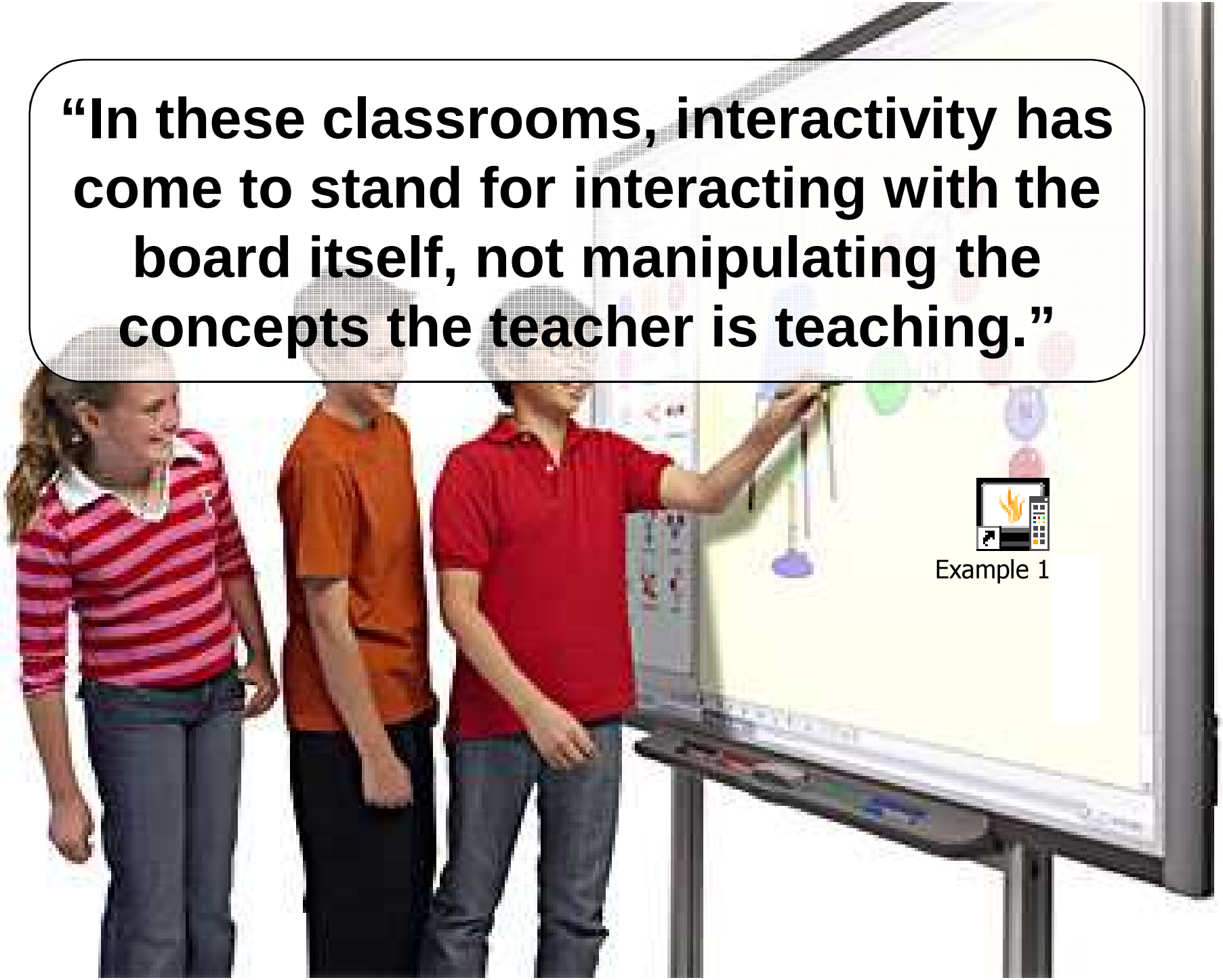
When ‘disruptive’ is a good thing.

From a British study:

“Our analysis suggests that teachers in the case studies conceived of interactivity in different ways and that this impacts on the type of pedagogy that we observed in the classrooms.”


“Where there was interactivity in the classroom it was primarily technical … interactivity was both discussed and measured in terms of technological skills, how often students came up to the board and how often they interacted with particular features (Drag and drop/ cover and reveal).

“In these classrooms, interactivity has come to stand for interacting with the board itself, not manipulating the concepts the teacher is teaching.”



“The focus on interactivity as a technical process leads to some relatively mundane activities being seen as ‘good’ with interaction with the board appearing to stand for ‘learning’.”

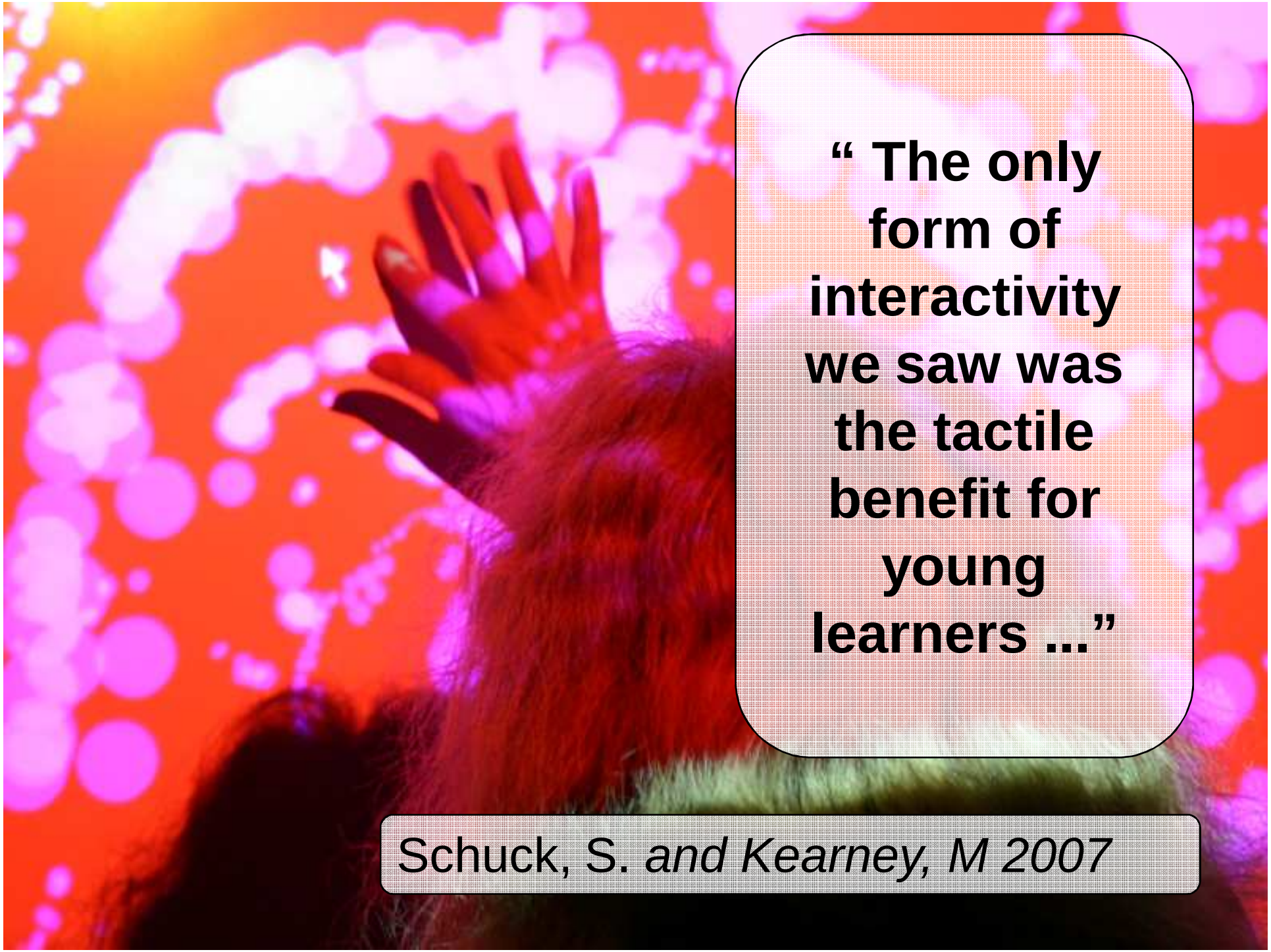


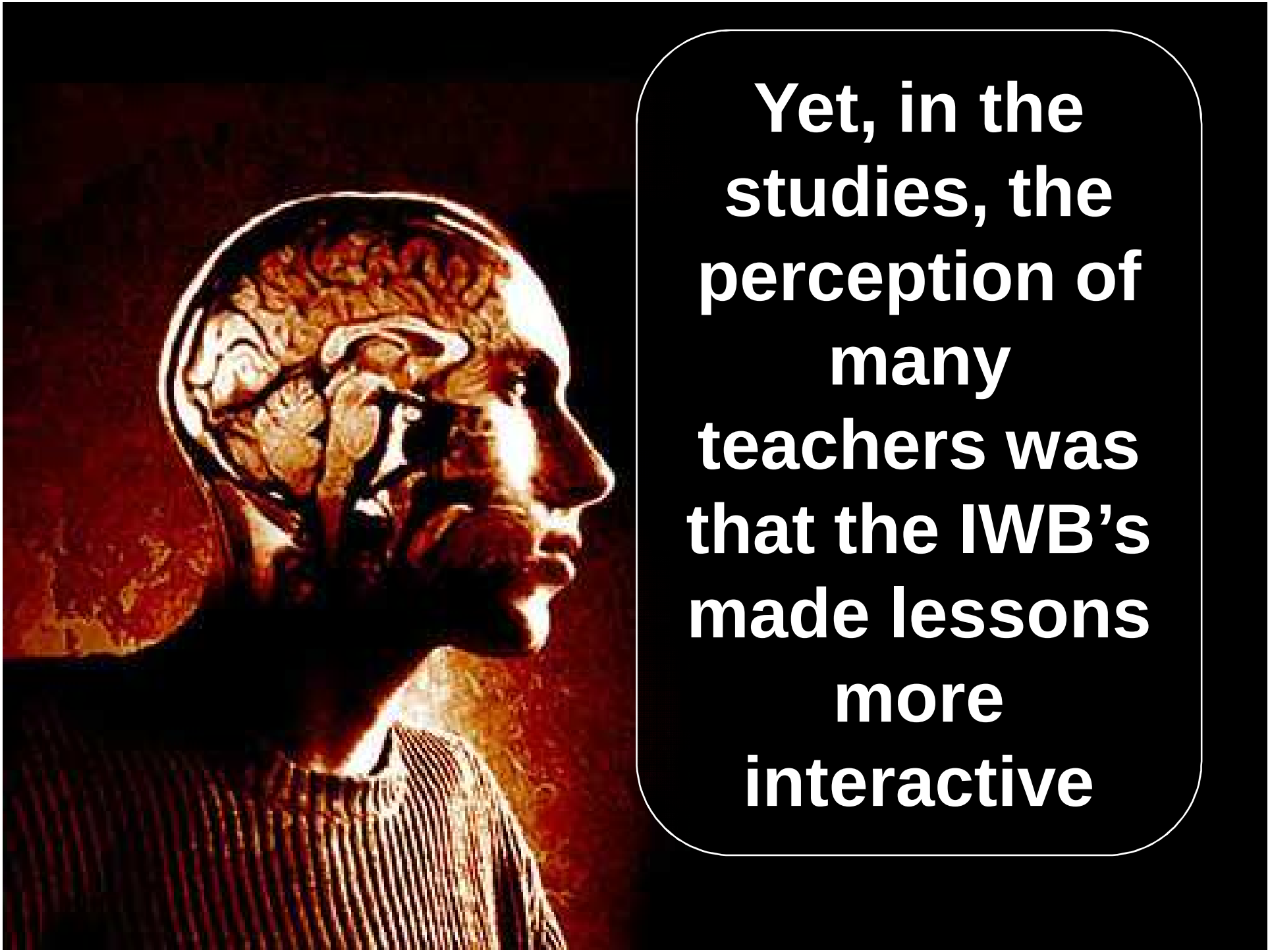
Moss, G. *et al 2007, p41*

From an Australian study:



"... the interactive whiteboard was heralded by most teachers as providing interactivity for students ...

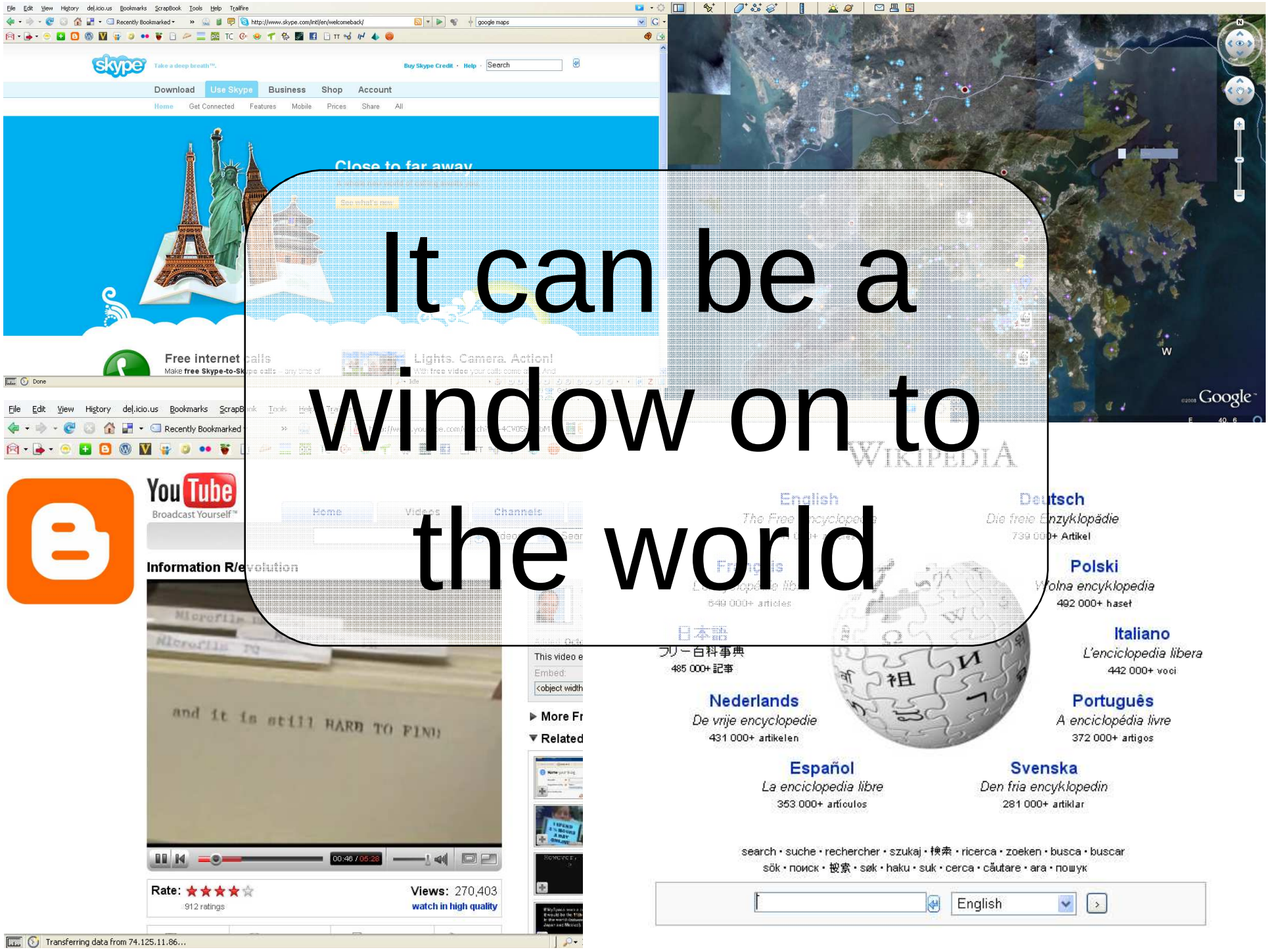

“ The only form of interactivity we saw was the tactile benefit for young learners ...”
Schuck, S. *and Kearney, M 2007*

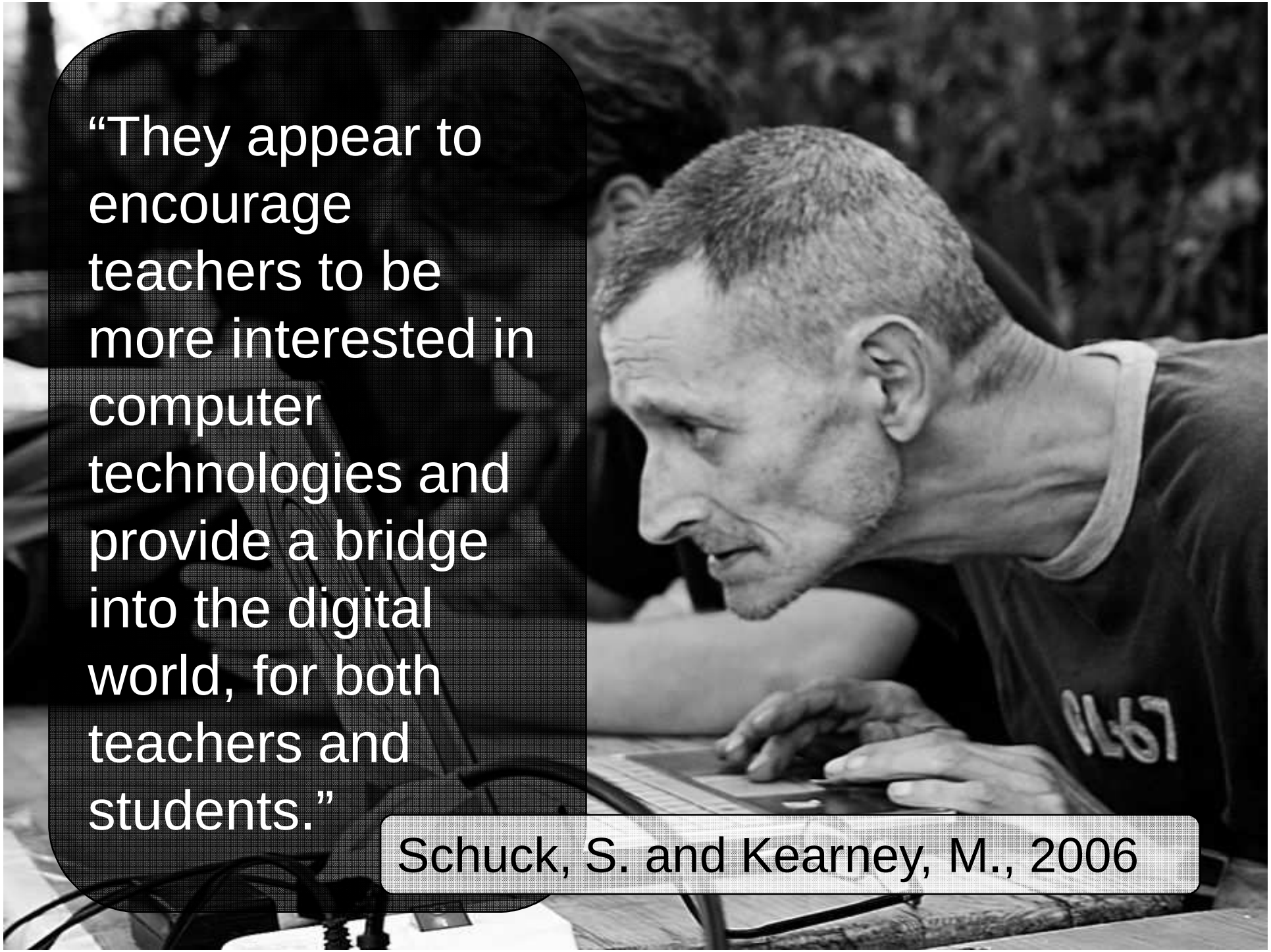

Yet, in the studies, the perception of many teachers was that the IWB's made lessons more interactive

Can IWBs Act as a Catalyst for the Development of Interactive Pedagogy?

Perhaps… but will it be a new pedagogy?
Most teachers continue teaching according to their existing philosophy.

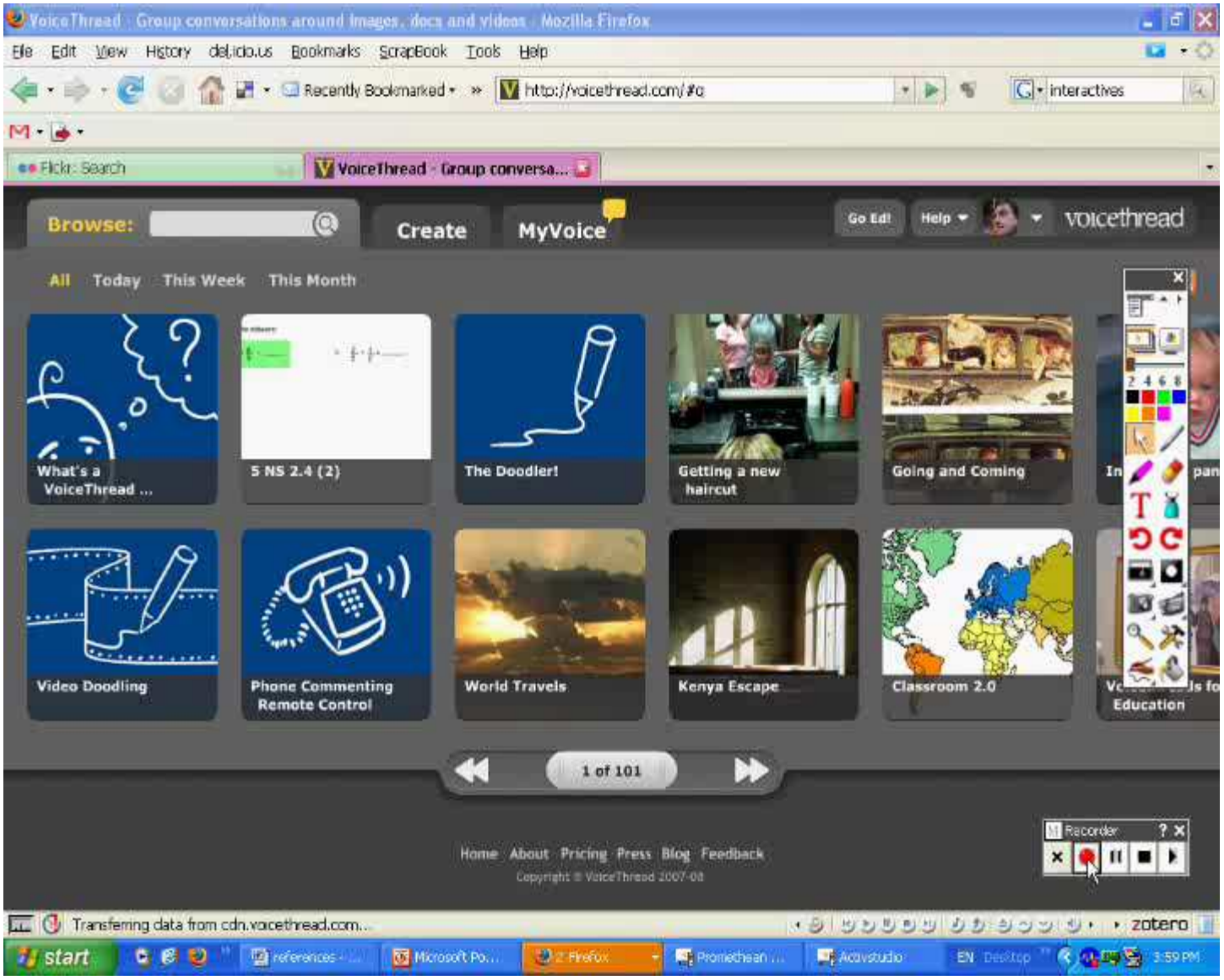

Why I ♥
my IWB!


It can be a
window on to
the world

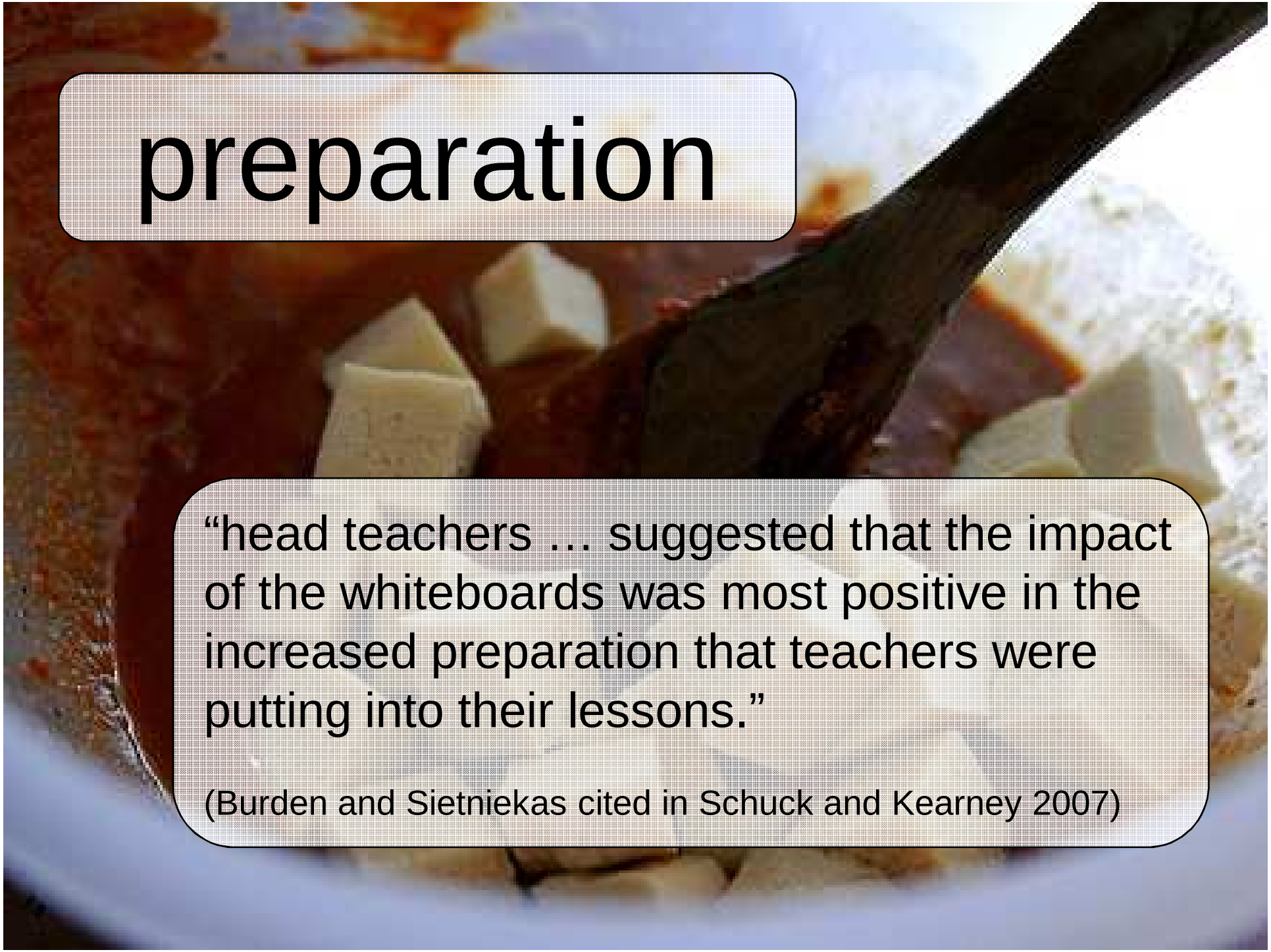

“They appear to encourage teachers to be more interested in computer technologies and provide a bridge into the digital world, for both teachers and students.”
Schuck, S. and Kearney, M., 2006

demonstrating applications






pace

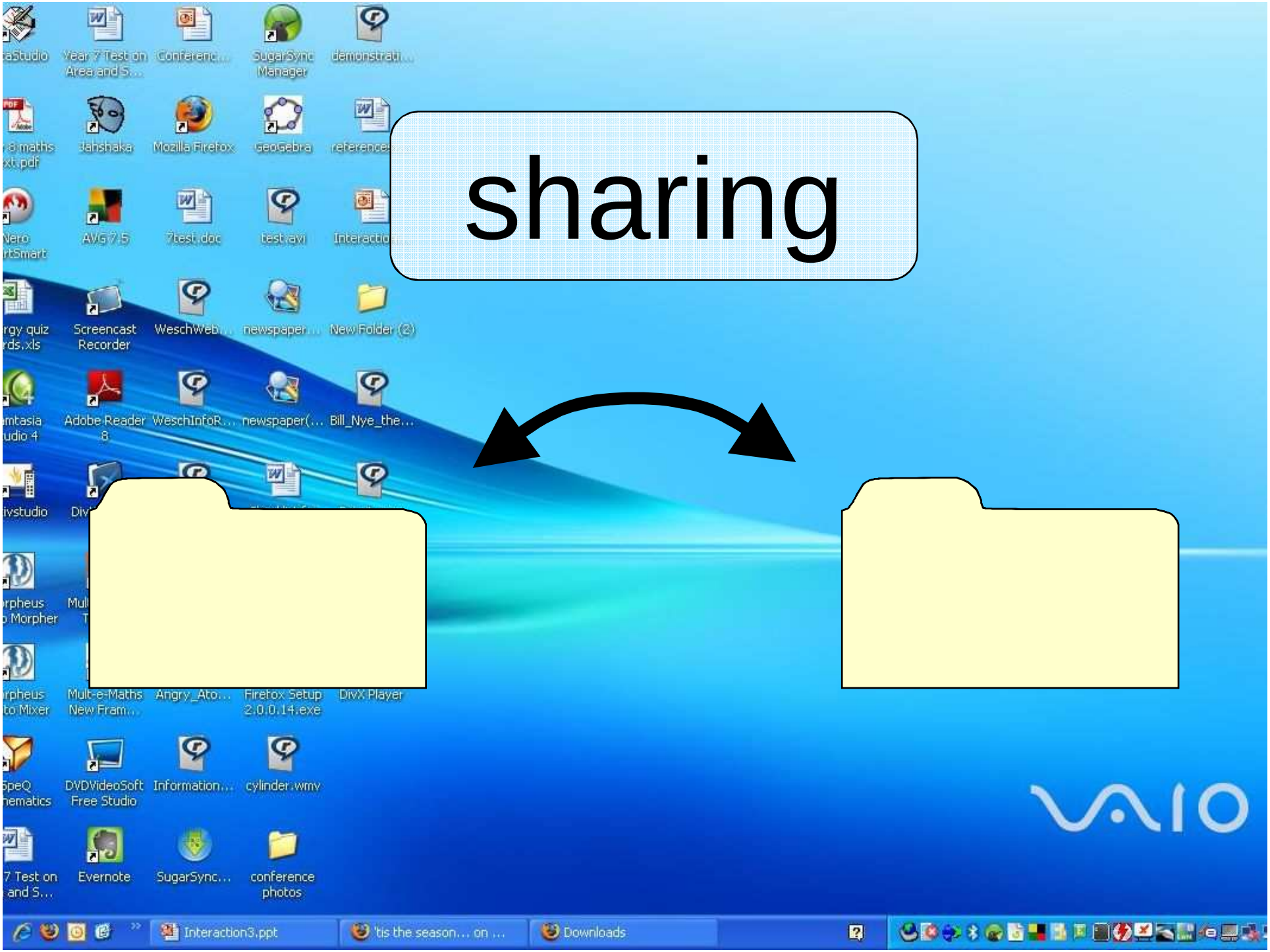


preparation

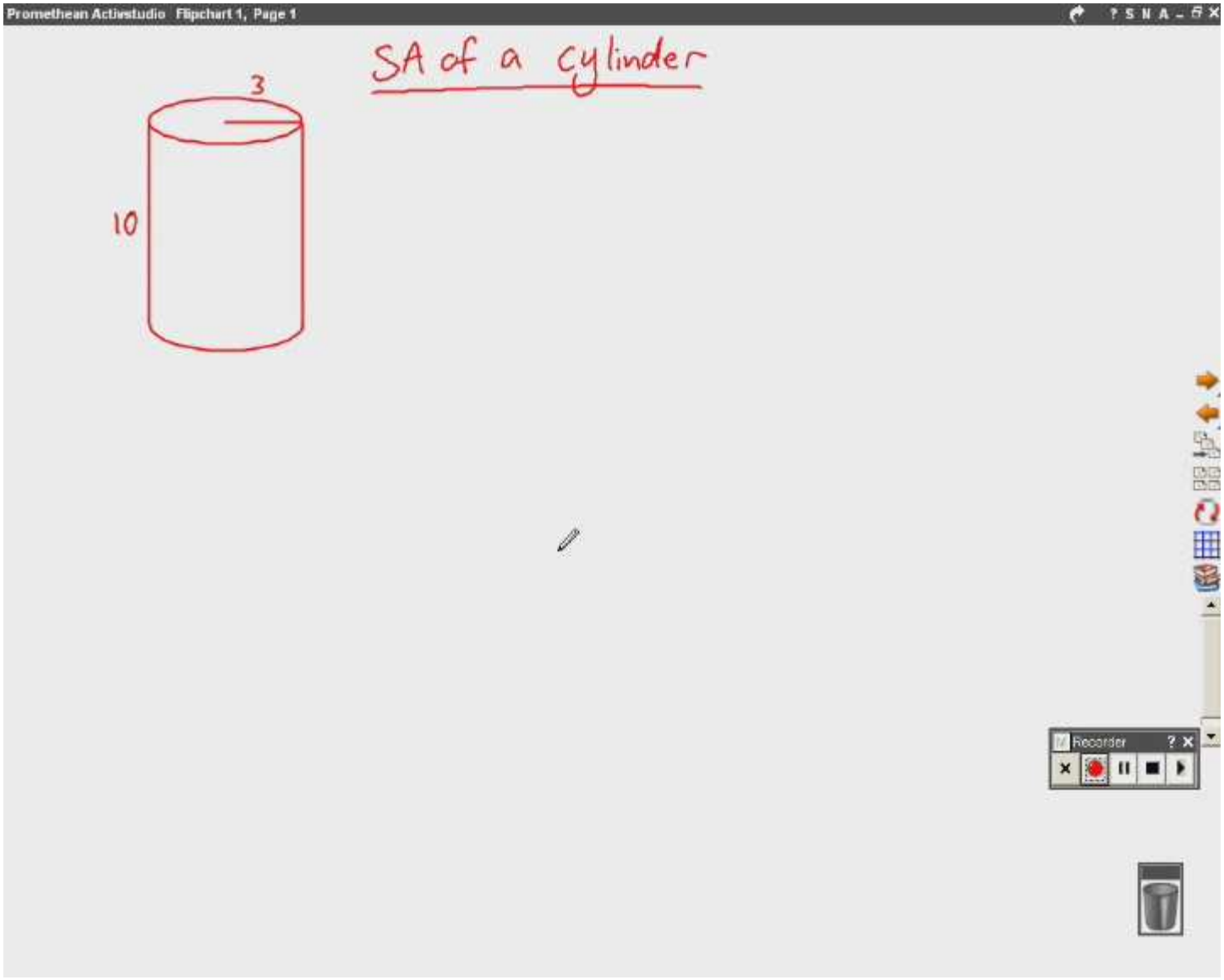
"head teachers … suggested that the impact of the whiteboards was most positive in the increased preparation that teachers were putting into their lessons."

(Burden and Sietniekas cited in Schuck and Kearney 2007)


resources


sharing
Year 7 Test on Area and S...
Conferenc...
SugarSync Manager
demonstrati...
Jahshaka
Mozilla Firefox
GeoGebra
AVG 7.5
7test.doc
test.avi
Screencast Recorder
WeschWeb...
newspaper...
New Folder (2)
Adobe Reader 8
WeschInfoR...
newspaper(...
Bill_Nye_the...
DivX Player
Mult-e-Maths New Fram...
Angry_Ato...
Firefox Setup 2.0.0.14.exe
DVDVideoSoft Free Studio
Information...
cylinder.wmv
Evernote
SugarSync...
conference photos
Interaction3.ppt
'tis the season... on ...
Downloads

recording lessons






continuity

voting

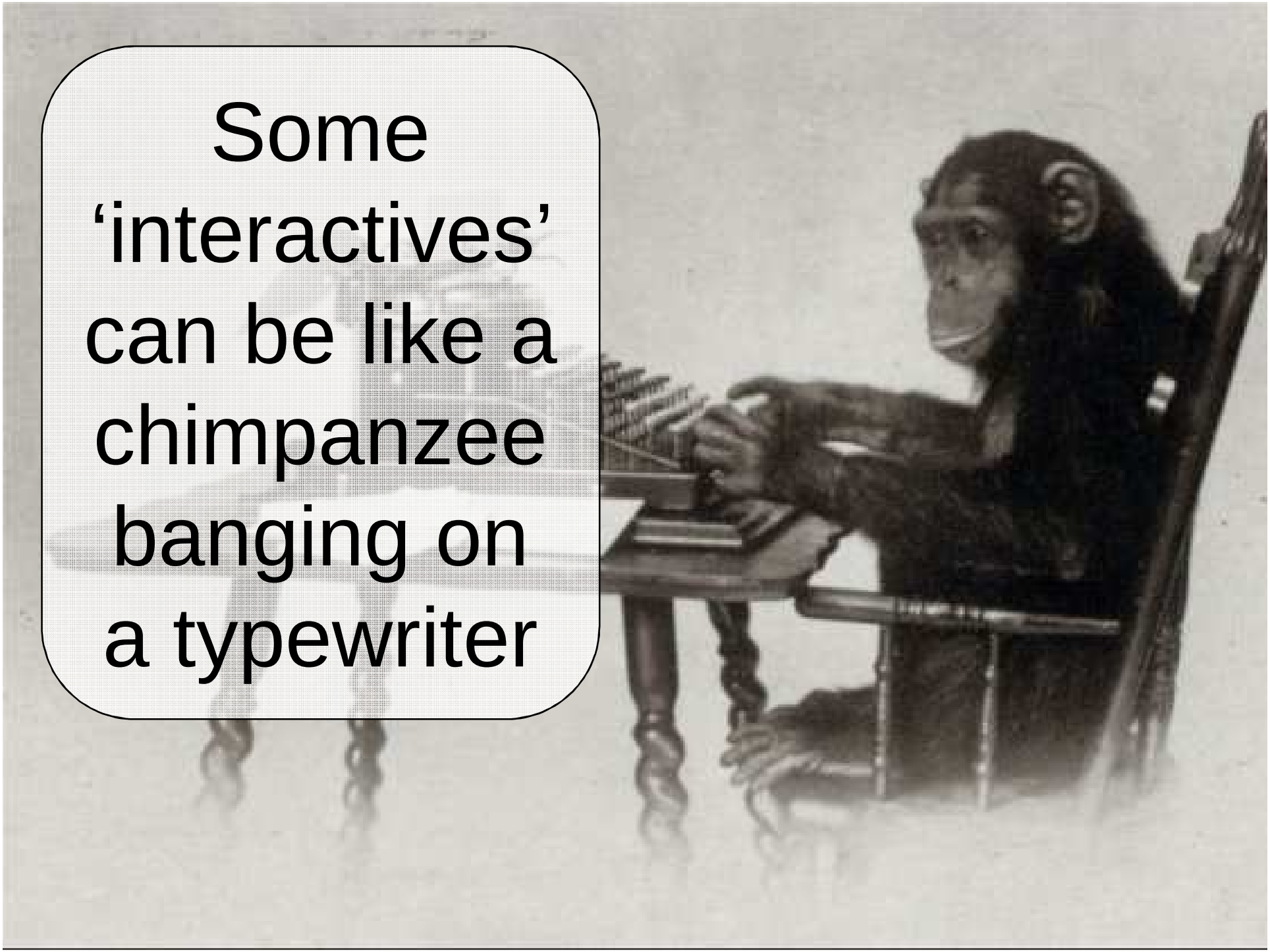



everything at your fingertips

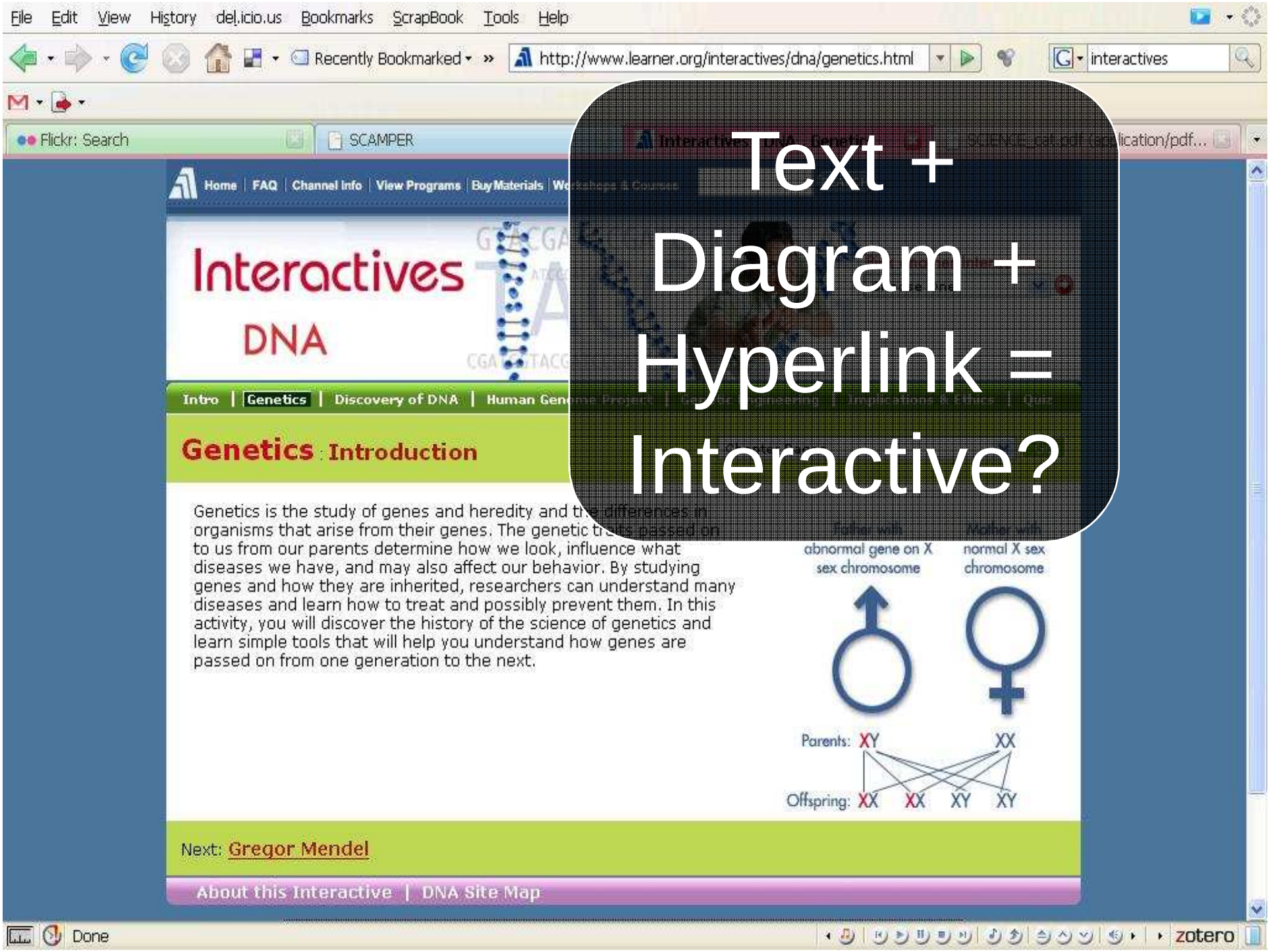

multimodal

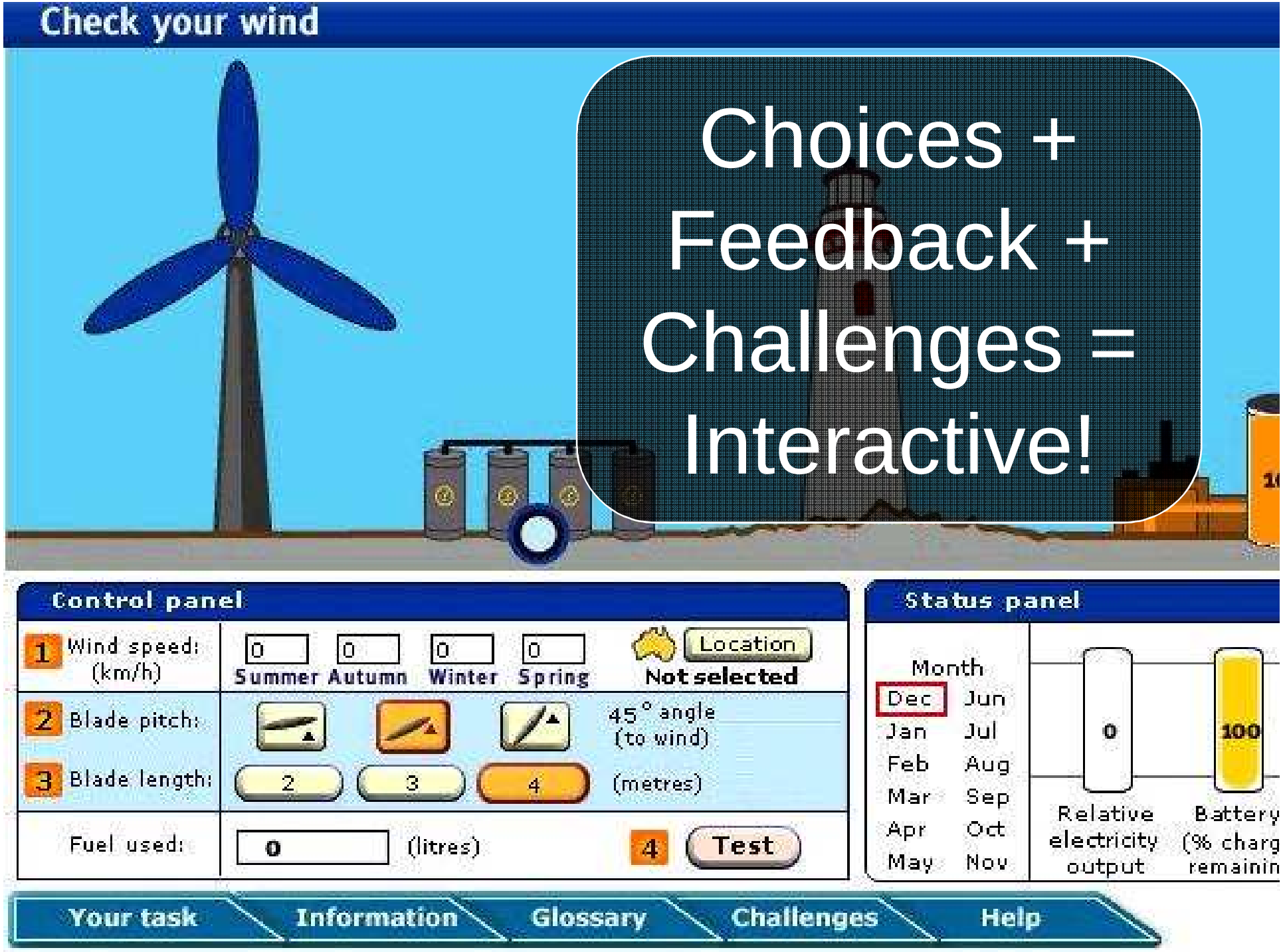
‘Interactives’ or ‘Learning objects’

But be aware...

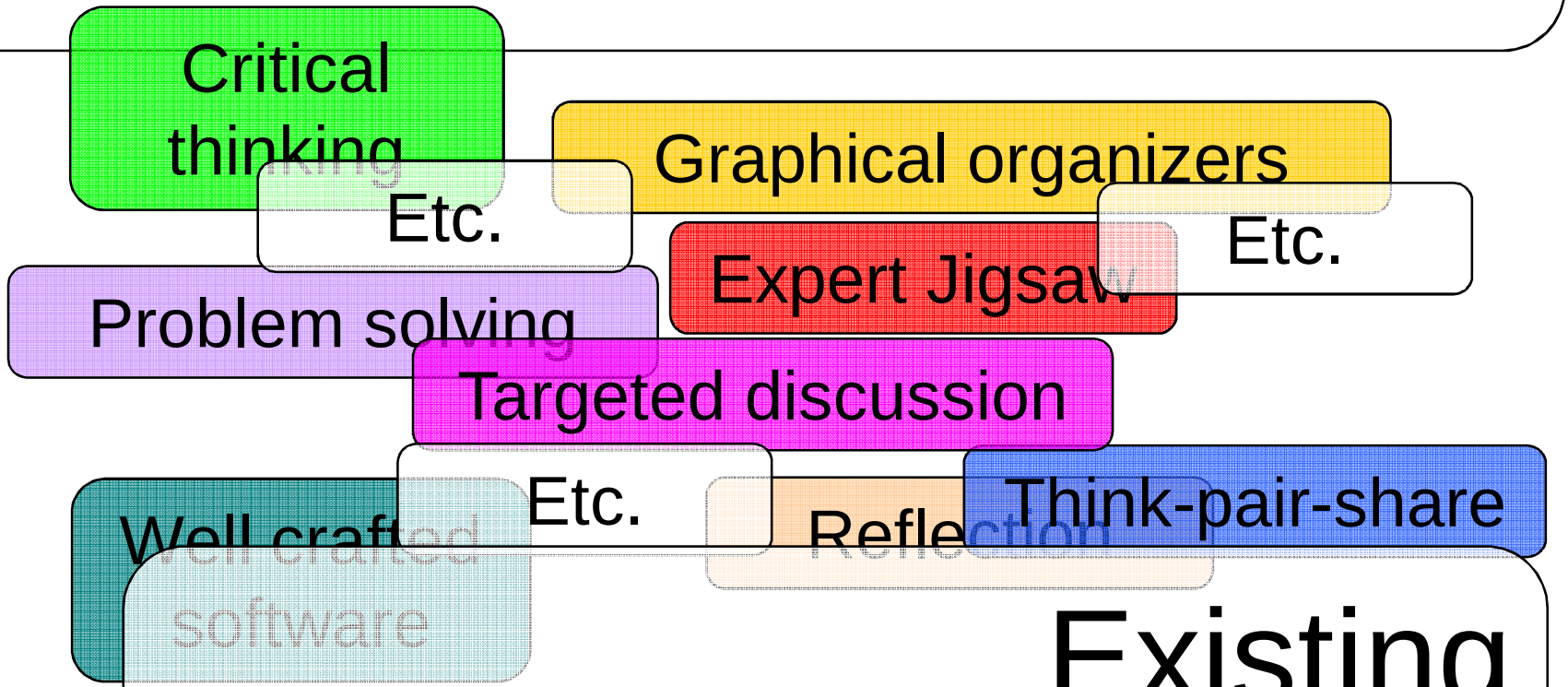

Some ‘interactives’ can be like a chimpanzee banging on a typewriter

Text + Diagram + Hyperlink = Interactive?




Check your wind
Choices + Feedback + Challenges = Interactive!
Control panel
1 Wind speed: (km/h)
0 0 0 0
Summer Autumn Winter Spring
Location
Not selected
2 Blade pitch:
45° angle (to wind)
3 Blade length:
2 3 4
(metres)
Fuel used:
0
(litres)
4 Test
Status panel
Month
Dec Jun
Jan Jul
Feb Aug
Mar Sep
Apr Oct
May Nov
0
100
Relative electricity output
Battery (% charg remainin
Your task
Information
Glossary
Challenges
Help

IWBs can become interactive when we use...



... Existing interactive pedagogies

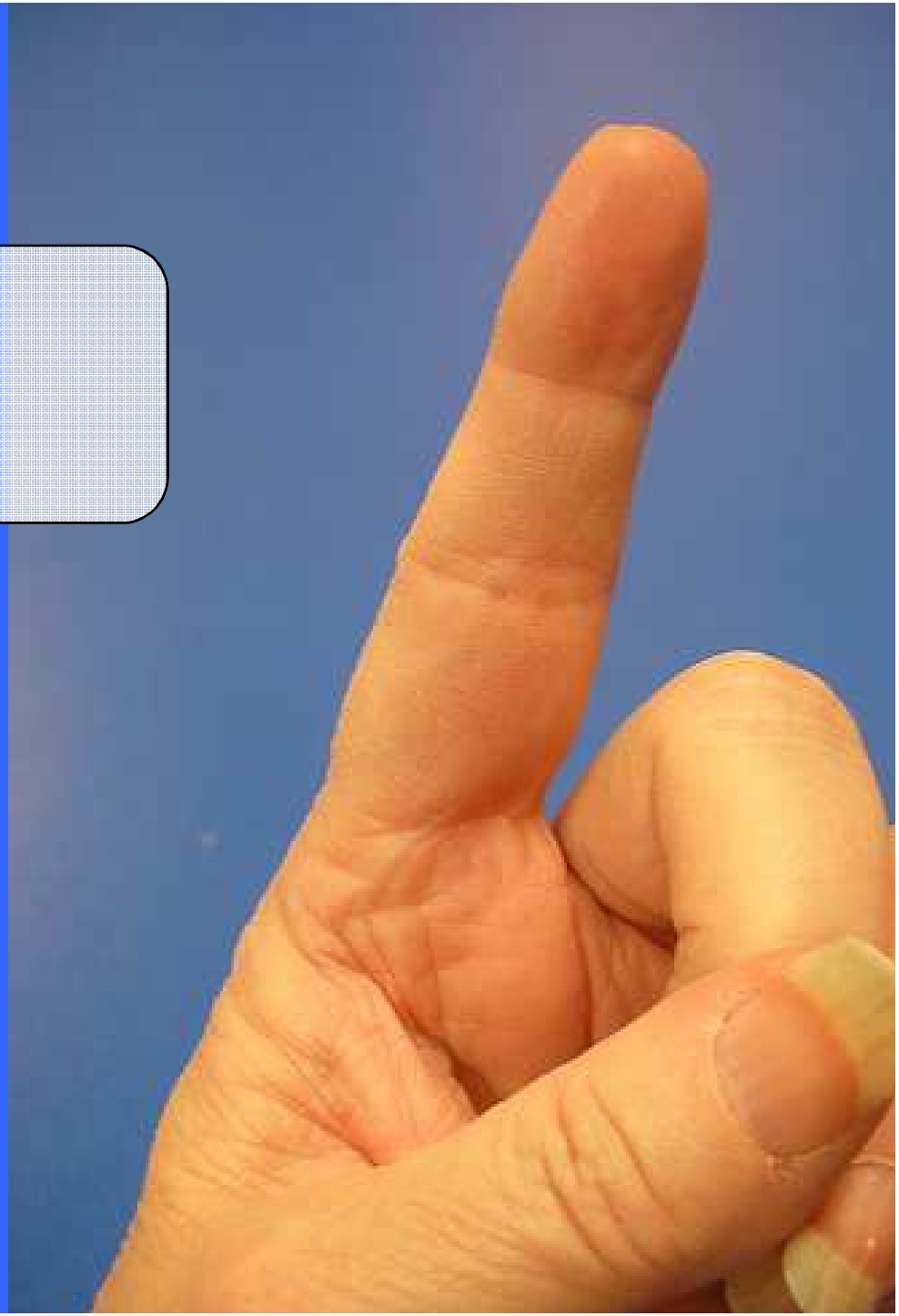
The Hype

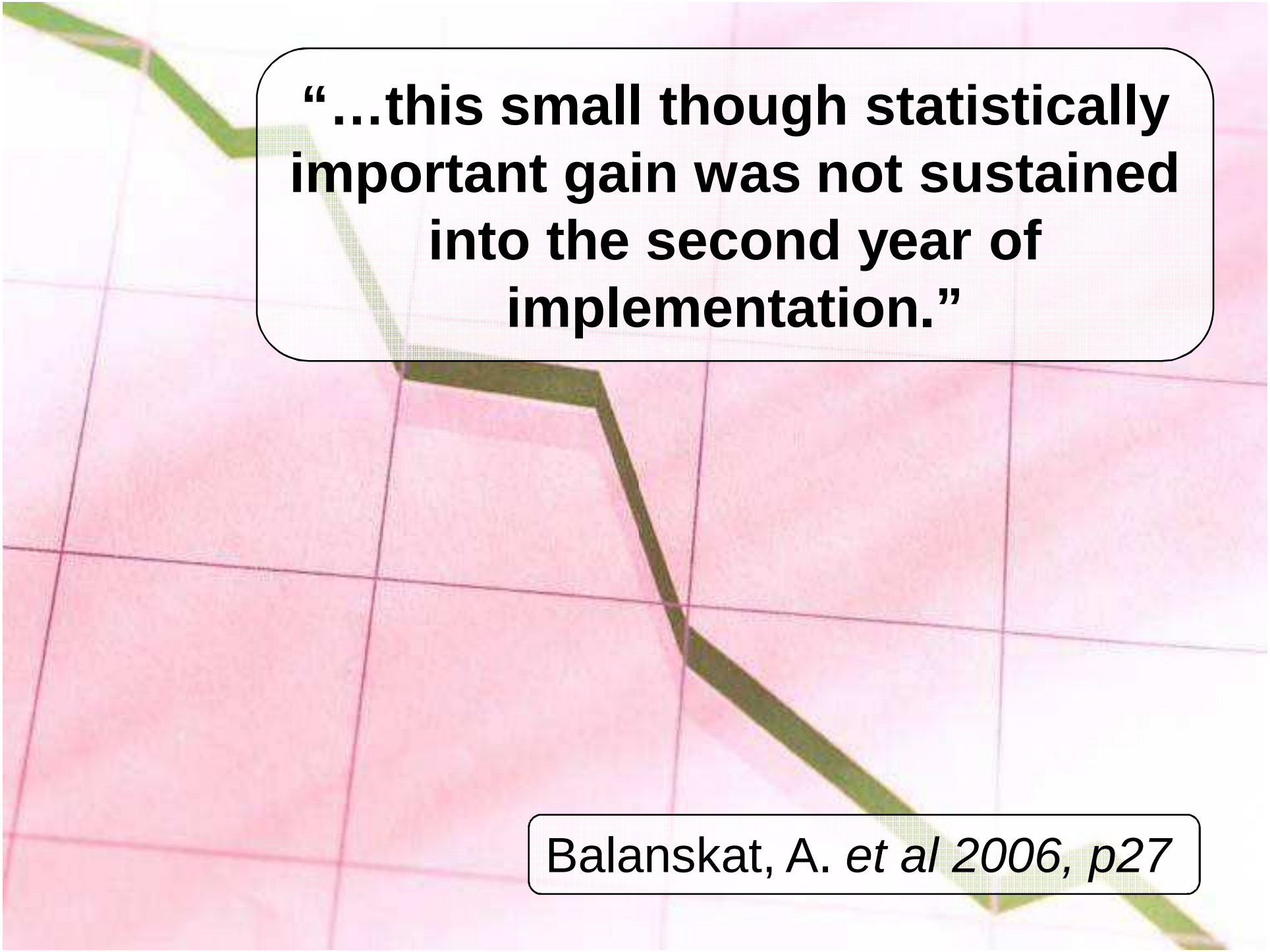


From a European study:

“…one year after the introduction of interactive whiteboards, pupils’ performance improved more in national literacy, mathematics and science tests compared to pupils in other schools.”

But ...



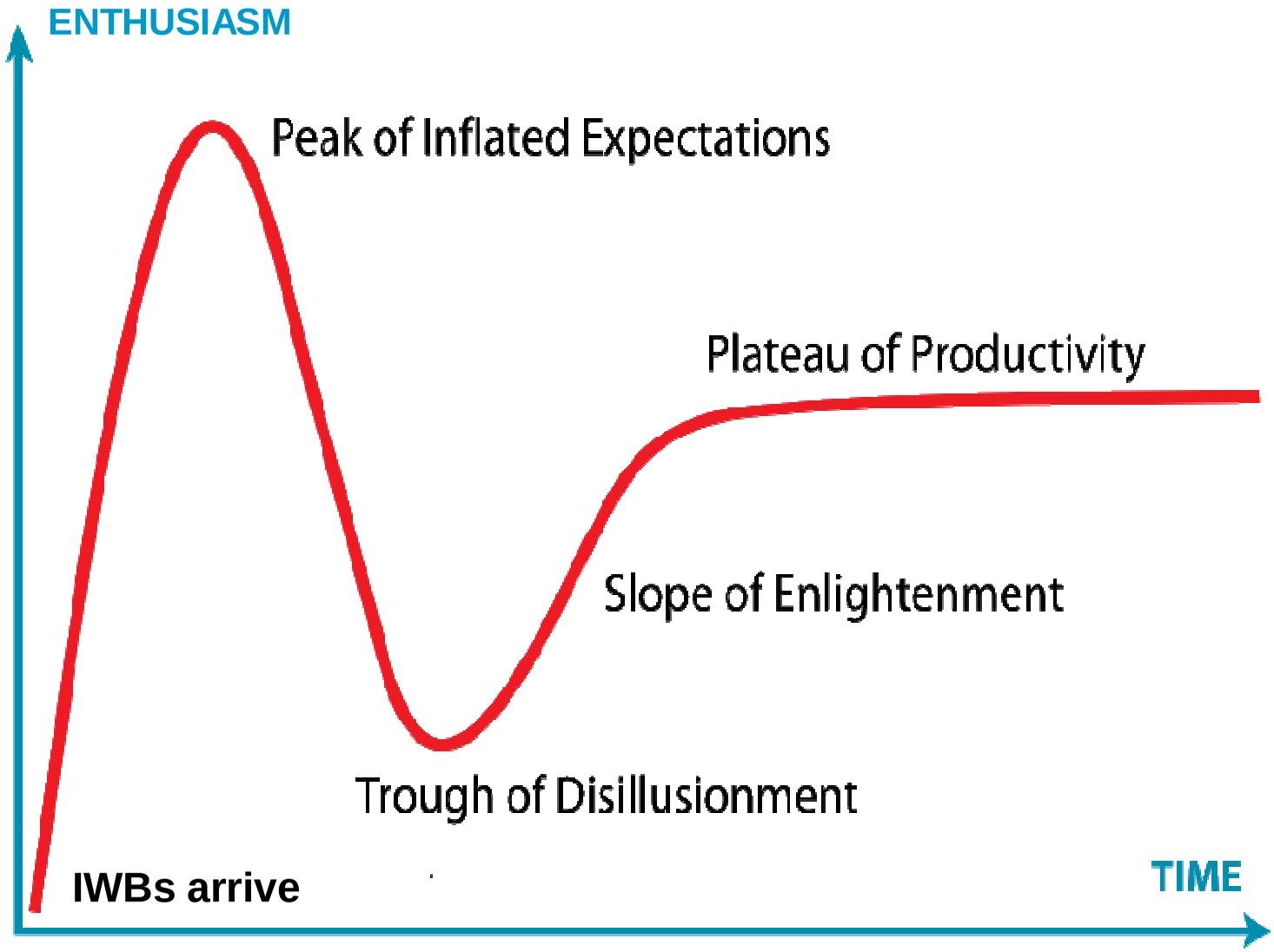

“…this small though statistically important gain was not sustained into the second year of implementation.”
Balanskat, A. *et al 2006, p27*


Initial enthusiasm for all things IWB ... the 'novelty factor' ... soon wears off.

“A critical review of the literature on IWBs by Higgins *et al.* (2005) also concluded that there does not appear to be any evidence linking increased pupil attainment with use of IWBs”

Schuck, S. and Kearney, M., 2007

Where would you place yourself?

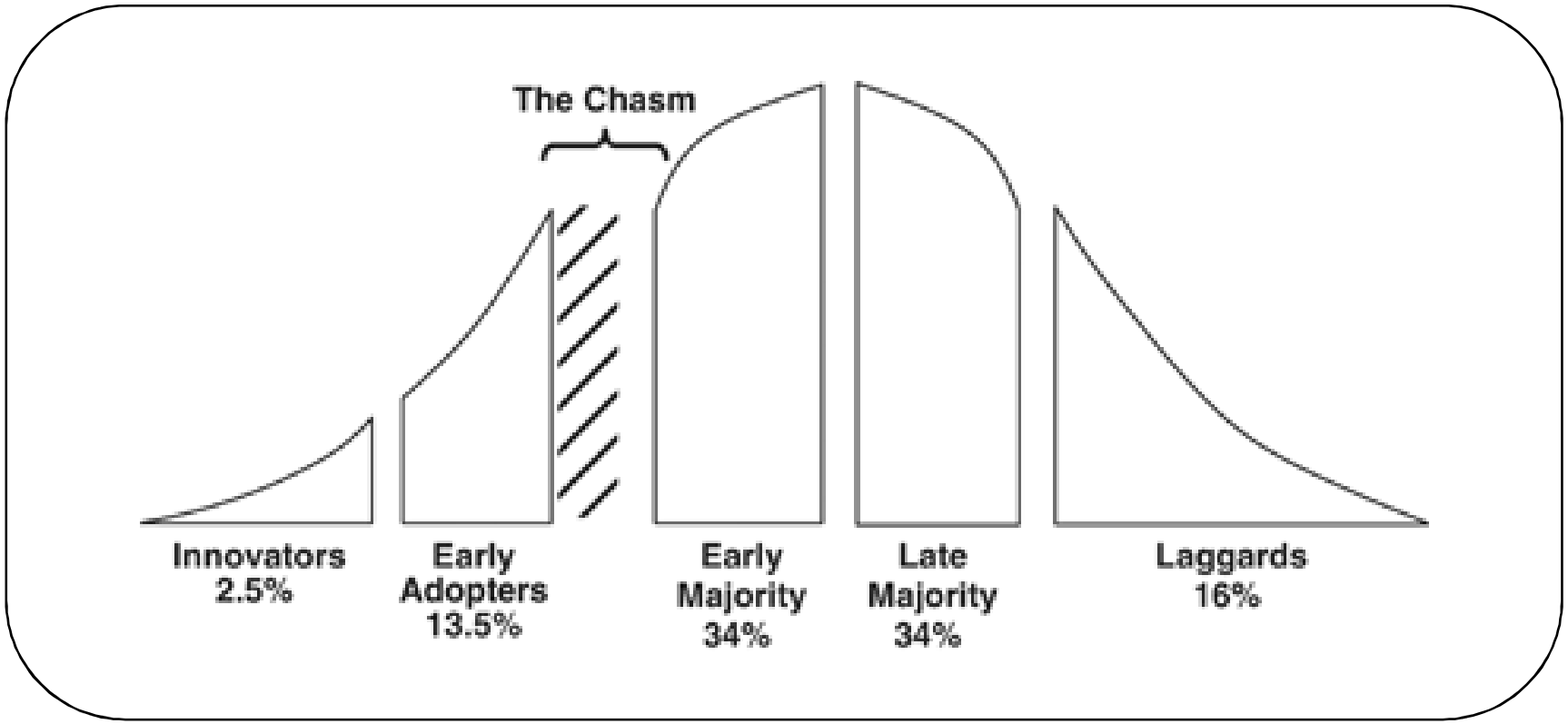


Modified from Gartner Inc. Hype Cycle

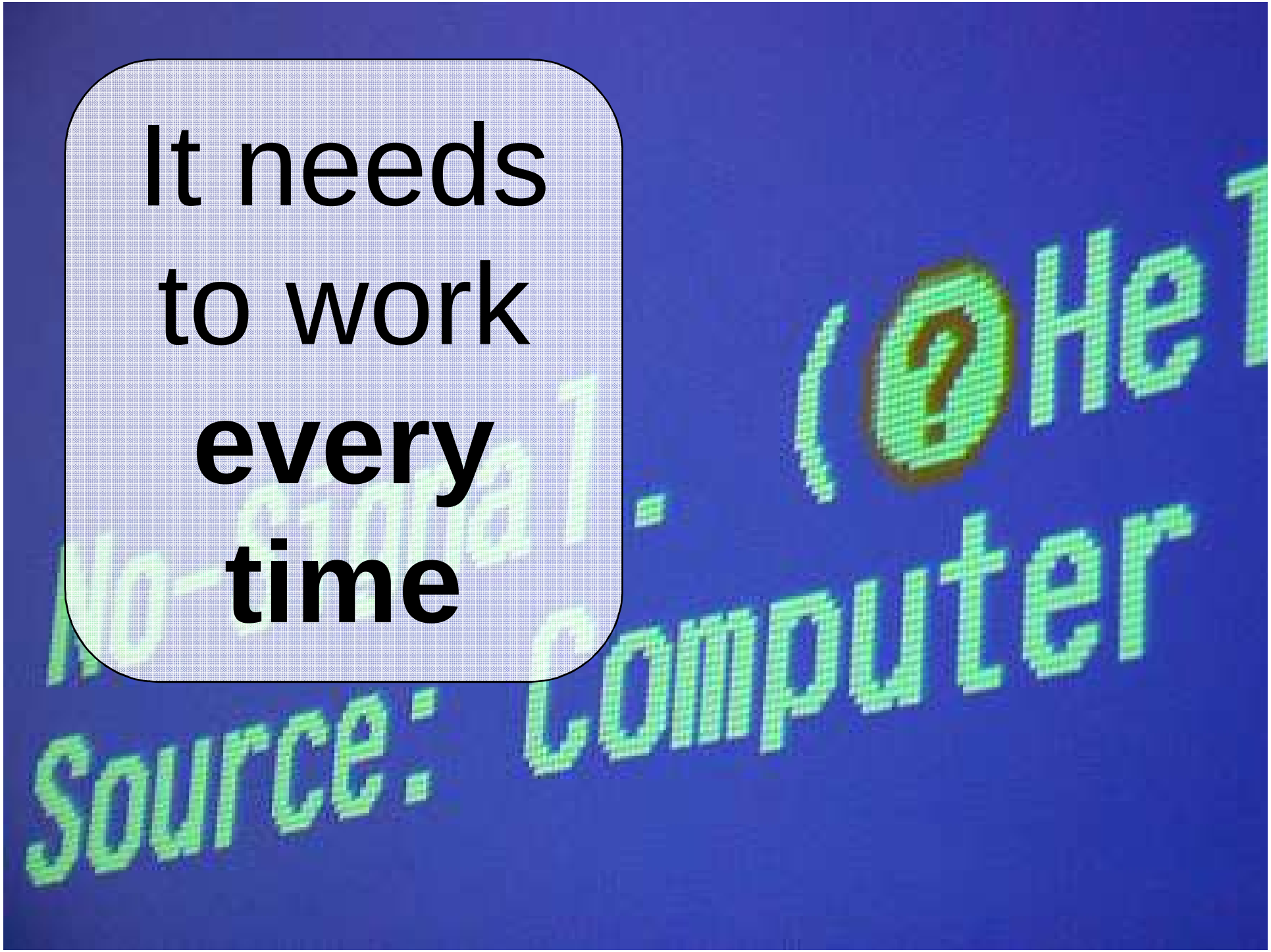

Avoiding barriers to effective IWB use

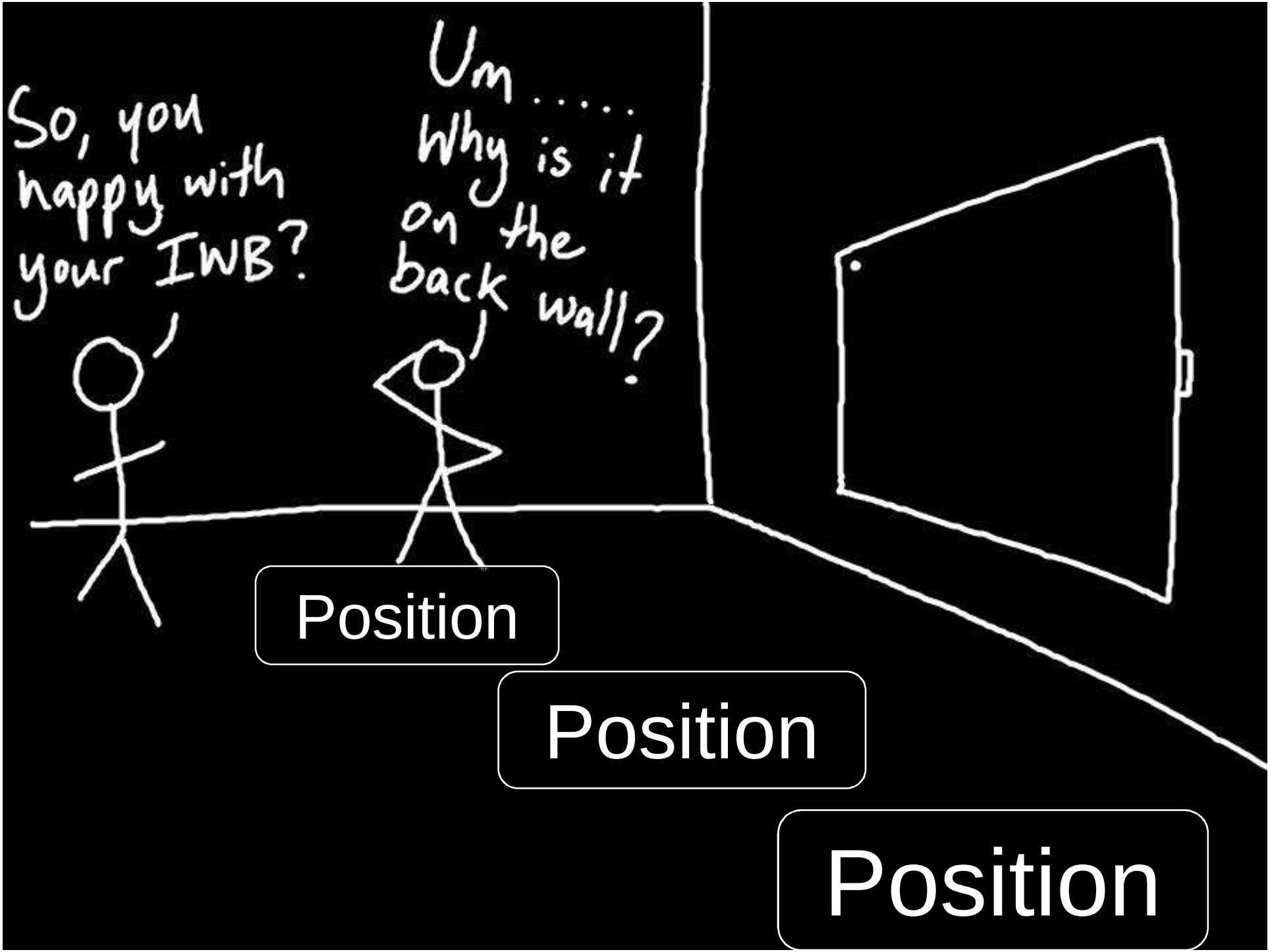

What do you think?
Thanks for asking!
Consult

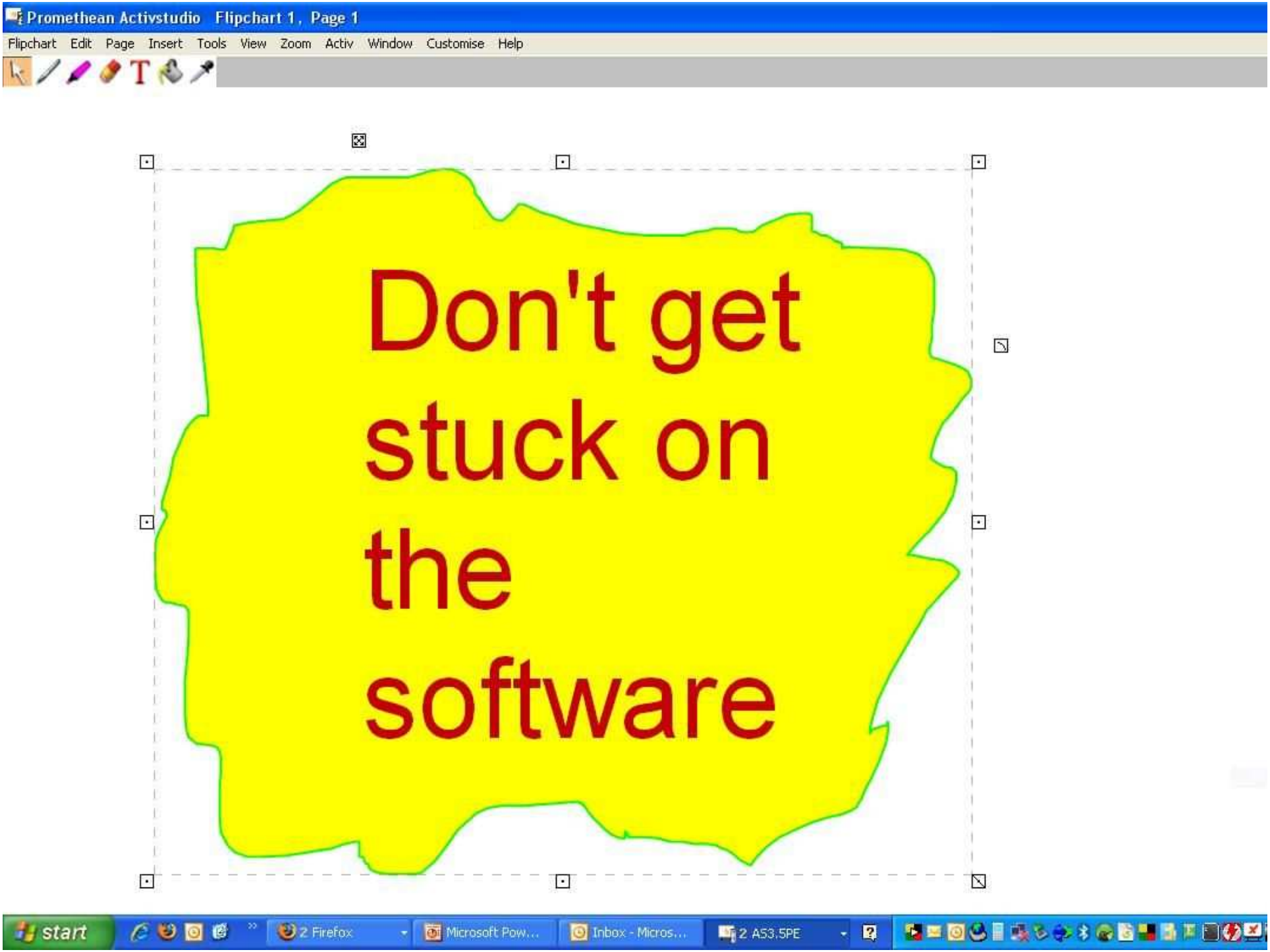
Target Early Adopters




Training
and
support


It needs to work **every time**
Source: Computer


So, you happy with your IWB?
Um..... Why is it on the back wall?
Position
Position
Position


Promethean Activstudio Flipchart 1, Page 1
Flipchart Edit Page Insert Tools View Zoom Activ Window Customise Help
Don't get stuck on the software
start
2 Firefox
Microsoft Pow...
Inbox - Micros...
2 A53.5PE

Mistaking IWBs for a pedagogy rather than a tool


Recycle Bin
Shortcut to iTunes
Flickr Uploadr
Recolored
pat's files from dan's computer
New Rich Text Format
start
Flickr : Photos from Pa...
2:16 AM

In Summary:


It’s not the Tool
that makes the
learning
experience…


Japan
... it's the Teacher!

References

Balanskat, A., Blamire, R. and Kefala, S. (2006) The ICT Impact Report. A Review of studies of ICT impact on schools in Europe. *European Schoolnet*. Retrieved April 21, 2008 from http://insight.eun.org/shared/data/pdf/impact_study.pdf

Moss, G., Jewitt, C., Levacic, R., Armstrong, V., Cardini, A and Castle, C. (2007) The Interactive Whiteboards, Pedagogy and Pupil Performance Evaluation: An evaluation of the Schools Whiteboard Expansion (SWE) Project: London Challenge. *School of Educational Foundations and Policy Studies, Institute of Education, University of London*. Retrieved April 21, 2008 from http://www.dfes.gov.uk/research/data/uploadfiles/RR816.pdf

Schuck, S. and Kearney, M. (2006) Exploring Pedagogy with Interactive Whiteboards: A case study of six schools 2005-2006. *Designs for Learning Research Group, University of Technology, Sydney.* Retrieved April 26, 2008 from http://www.ed-dev.uts.edu.au/teachered/research/iwbproject/home.html

Schuck, S. and Kearney, M. (2007) Disruptive or Compliant? The Impact of Two Educational Technologies on Pedagogy. *Centre for Learning and Change, University of Technology, Sydney.* Retrieved April 21, 2008 from http://www.editlib.org/index.cfm/files/paper_25741.pdf?fuseaction=Reader.DownloadFullText&paper_id=25741

Images

♥ [Image] (2008) Retrieved April 26, 2008 from http://www.flickr.com/photos/vogue_qtr/2378412604/

2005_048_03 [Image] (2005) Retrieved April 26, 2008 from http://www.flickr.com/photos/chuckp/252924532/

2008_03_20-138 [Image] (2008) Retrieved April 27, 2008 from http://www.flickr.com/photos/sergiorecabarren/2352398562/

Angel stole my Heart [Image] (2005) Retrieved April 26, 2008 from http://www.flickr.com/photos/thomashawk/60813467/

An old design 02 [Image] (2007) Retrieved April 26, 2008 from http://www.flickr.com/photos/ohhector/456611804/

BBQ Tofu Prep [Image] (2008) Retrieved April 27, 2008 from http://www.flickr.com/photos/sharynmorrow/2427371693/

Bolitas [Image] (2008) Retrieved April 26, 2008 from http://www.flickr.com/photos/alainbachellier/134682635/

Book Sculpture - SQC [Image] (2006) Retrieved April 27, 2008 from http://www.flickr.com/photos/auntie/102849108/

~Continually Framed~ [Image] (2008) Retrieved April 27, 2008 from http://www.flickr.com/photos/viamoi/2281653159/

Daddy you have not asked my permission! [Image] (2008) Retrieved April 27, 2008 from http://www.flickr.com/photos/mastrobiggo/2421862064/

Day 351: One more day to teach [Image] (2007) Retrieved April 26, 2008 from http://www.flickr.com/photos/judybaxter/2047851941/

Day dreamer... [Image] (2007) Retrieved April 26, 2008 from http://www.flickr.com/photos/beija-flor/532333043/sizes/l/

The Empire Skypes Back [Image] (2007) Retrieved April 27, 2008 from http://www.flickr.com/photos/he2005/461332822/

Fabulous lettering [Image] (2007) Retrieved April 29, 2008 from http://www.flickr.com/photos/carowallis1/424397178/

Further on down the line [Image] (2007) Retrieved April 27, 2008 from http://www.flickr.com/photos/thomashawk/387482226/

Freedom Fighters [Image] (2006) Retrieved April 26, 2008 from http://www.flickr.com/photos/beija-flor/194900377/

Fuzzhead to fuzzhead [Image] (2007) Retrieved April 29, 2008 from http://www.flickr.com/photos/tcmhitchhiker/699629035/in/set-

Gartner Hype Cycle [Image] (2006) Retrieved April 15, 2008 from http://upload.wikimedia.org/wikipedia/en/9/94/Gartner_Hype_Cycle.svg/400px-Gartner_Hype_Cycle.svg.png

Going up graph [Image] (n.d) Retrieved April 26, 2008 from http://theleadercenter.com/images/going%20up%20graph.JPG

Hype DMS LosAngeles Graffiti Art [Image] (2008) Retrieved April 27, 2008 from http://www.flickr.com/photos/24293932@N00/2344543676/

Inside [Image] (2005) Retrieved April 29, 2008 from http://www.flickr.com/photos/a_mason/4006709/

Interactive interactive art show - Mike's app [Image] (2006) Retrieved April 27, 2008 from http://www.flickr.com/photos/danzen/105653374/

Introduction to Monstering [Image] (2006) Retrieved April 26, 2006 from http://www.flickr.com/photos/76074333@N00/318034222/ http://www.futuristmovies.com/

Kiss [Image] (2005) Retrieved April 26, 2008 from http://www.flickr.com/photos/fofurasfelinas/26348730/in/set-257394/

Minty Dave [Image] (2008) Retrieved April 26, 2008 from http://www.flickr.com/photos/nealf/2380501309/

Old Skool [Image] (2006) Retrieved April 27, 2008 from http://www.flickr.com/photos/patrick_q/98179665/

Orange Bend [Image] (2006) Retrieved April 26, 2008 from http://www.flickr.com/photos/pbo31/234375542/

Phare de l'horreur [Image] (2006) Retrieved April 26, 2008 from http://www.flickr.com/photos/alainbachellier/134682635/

Players of games [Image] (2007) Retrieved April 26, 2008 from http://www.flickr.com/photos/cdell/511175506/

Pluto [Image] (2006) Retrieved April 26, 2008 from http://www.flickr.com/photos/solveigzophoniasdottir/316348283/

Promethean Activote after the Growth Hormone Treatment [Image] (2007) Retrieved April 27, 2008 from http://www.flickr.com/photos/mrjorgen/359846164/

Promethean sitting [Image] (n.d.) Retrieved April 26, 2008 from http://www1.conceptav.com.au/Upload/Images/PrometheanSITTING860445.JPG

Reciprocal - 128 [Image] (n.d) Retrieved April 26, 2008 from http://graphtools.org/i/interval/reciprocal-128.png

Screen Print [Image] (2008) Retrieved April 27, 2008 from http://www.learner.org/interactives/dna/genetics.html

Salvador Dali NYWTS [Image] (1965) Retrieved April 26, 2008 from http://commons.wikimedia.org/wiki/Image:Salvador_Dali_NYWTS.jpg

Superdog [Image] (2006) Retrieved April 27, 2008 from http://www.flickr.com/photos/skycaptaintwo/89447510/

Technical difficulty [Image] (2007) Retrieved April 27, 2008 from http://www.flickr.com/photos/benny_lin/634013739/

Thermite skillet [Image] (2006) Retrieved April 26, 2008 from http://commons.wikimedia.org/wiki/Image:Thermite_skillet.jpg

The runner [Image] (2006) Retrieved April 27, 2008 from http://www.flickr.com/photos/hamed/258971456/

Things are shaping… [Image] (2008) Retrieved April 29, 2008 from http://www.flickr.com/photos/b3ni/2434976328/

'Tis the season[Image] (2008) Retrieved April 30, 2008 from http://www.flickr.com/photos/nzdave/317217079/

Back



Back