

speculative design

smart homes

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this week's goal

case study: home's of the future
how should we design for future domestic life?

#firstworldproblems

what is a smart home?

a house that senses:
user **activities** and **needs**

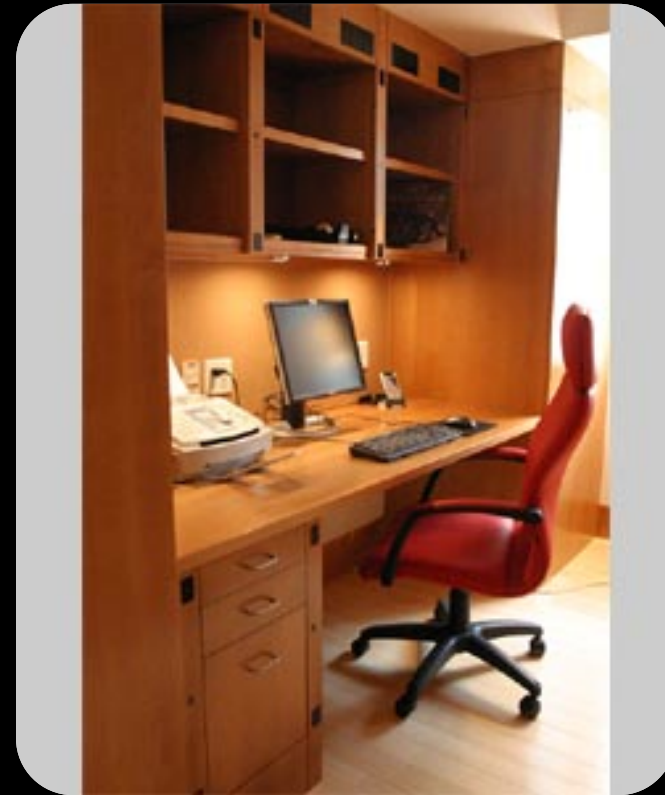
reacts to them in some way



the aware home, 1999

source: <http://awarehome.imtc.gatech.edu/>

house_n



source: http://architecture.mit.edu/house_n/placelab.html

microsoft's home of the future

http://www.youtube.com/watch?v=9V_0xDUg0h0

<http://www.youtube.com/watch?v=Wg8EzW3XwUs&feature=related>

<http://www.bbc.co.uk/news/technology-21632855>

made in 2013 for 10 years into the future

parody of microsoft's future



<http://www.youtube.com/watch?v=0USn7eufXps>

living tomorrow

<http://www.youtube.com/watch?v=9DJr8QwgLEA&feature=related>

samsung, south korea

<http://www.youtube.com/watch?v=2mxocMgUrvo&feature=related>

challenges for smart homes

1: accidentally smart

items will come in one at a time
impact of new devices is unclear



source: stylishfurniture.com

2: impromptu interoperability

will items really be able to interoperate?

how can devices know how to work with *all* future devices?



3: no systems administrator

upgrade hardware and software

design for no onsite expert

appliance model: simple, one function

utility model: smarts is in the network

lumiTouch
Chang et al





4: design for domestic use

study people at home

see what technologies they need and want

design for those needs

5: social implications

the use of a device is not always clear
technologies change social practice
how will they affect home culture?
how will they avoid disruptions?



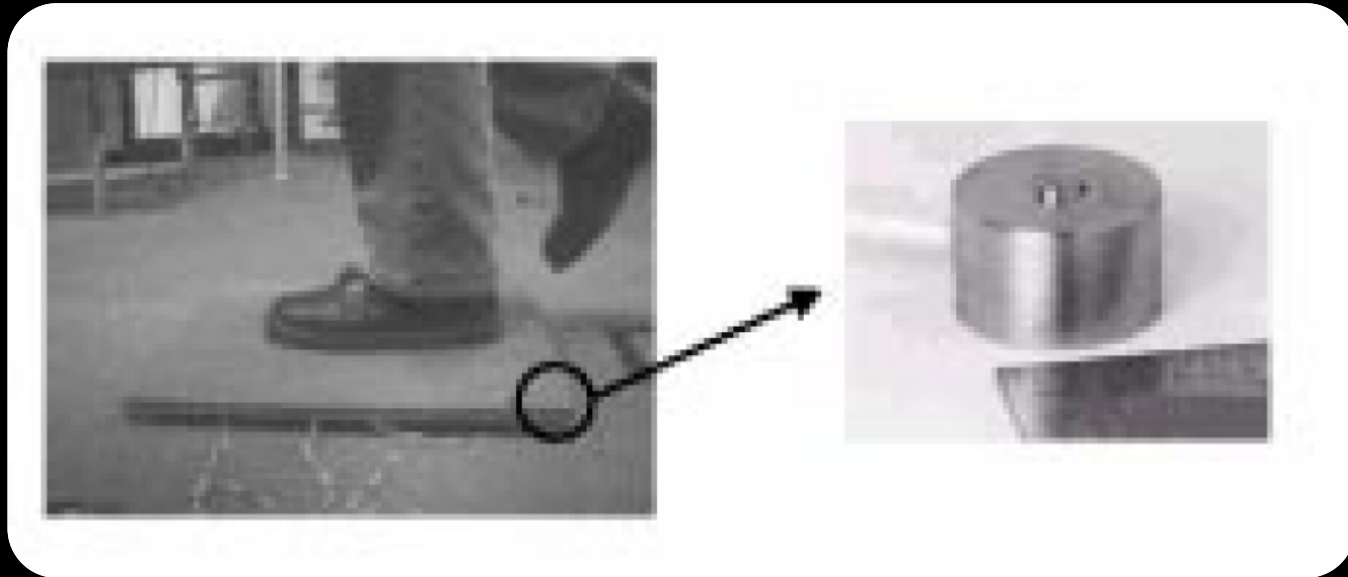
6: reliability

most appliances rarely crash
computers crash all the time
device independence



7: inference and ambiguity

how much inference is required?
how smart does it have to be?

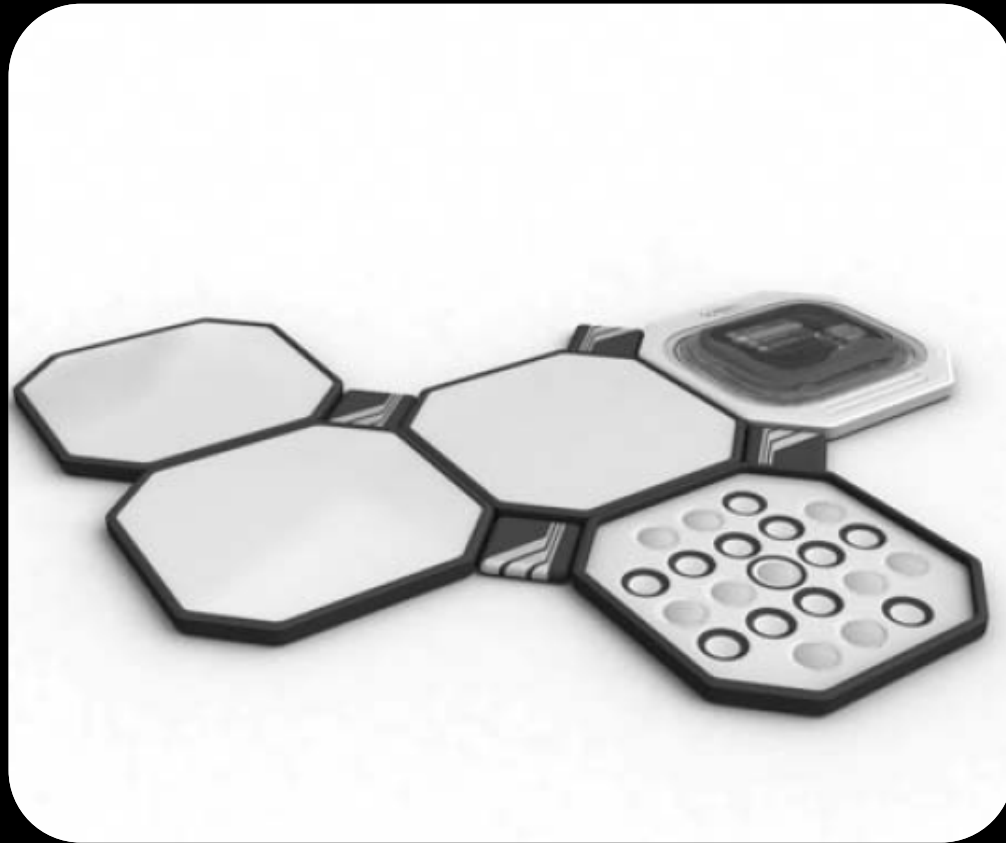


smart floor

source: Orr and Abowd

samsung

product concepts from 2003
digitally engineered domestic life



smart mat

source: Park et al, Samsung



smart wardrobe

source: Park et al, Samsung



Fig. 24 The smart bathroom is a sanctuary for relaxation and health

smart bathroom

source: Park et al, Samsung



digiflower

source: Park et al, Samsung



smart pillow

source: Park et al, Samsung



smart memories

source: Park et al, Samsung



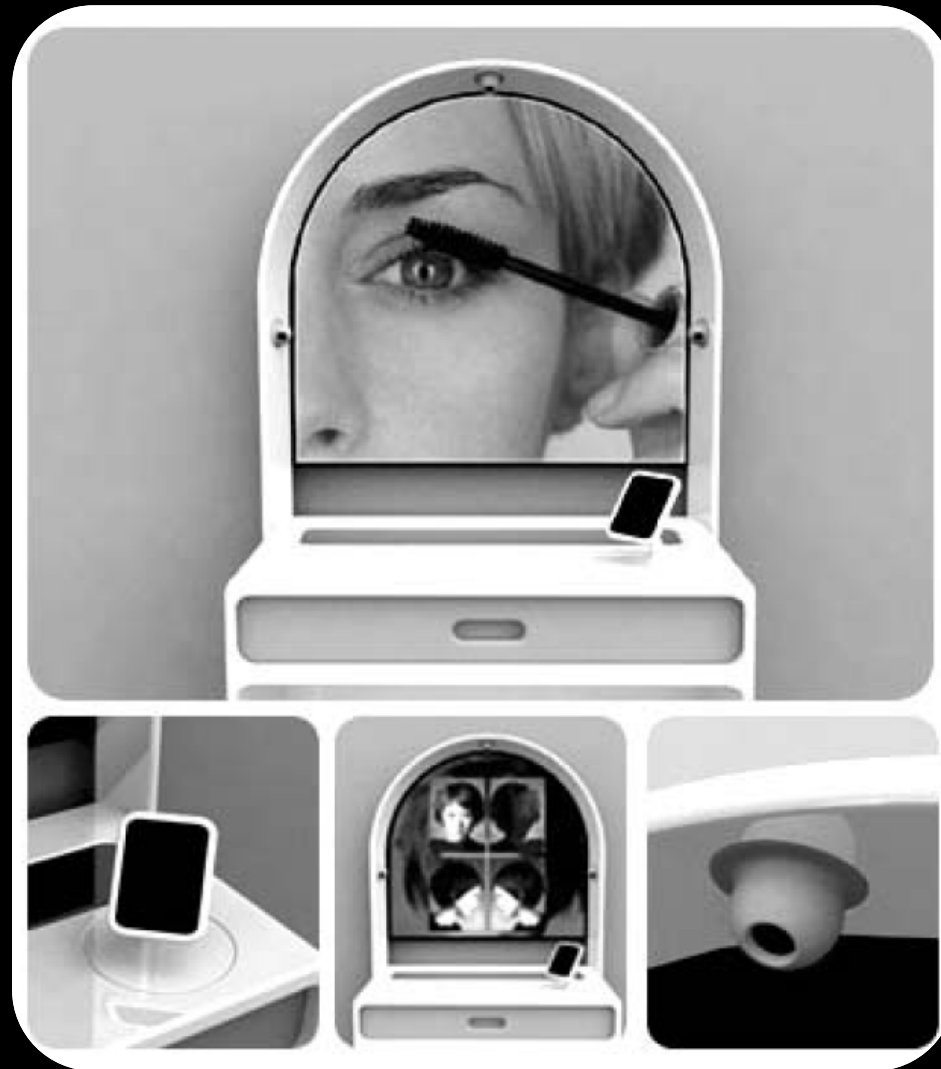
smart sofa

source: Park et al, Samsung



smart pen

source: Park et al, Samsung



smart dressing table

source: Park et al, Samsung



smart bed

source: Park et al, Samsung



gate reminder

source: Park et al, Samsung



smart refrigerator

source: Park et al, Samsung



smart paper

source: Park et al, Samsung