

Brainstorming

CSI 60: User Interfaces

John Canny

IDEO's Brainstorming Rules

1. Sharpen the Focus
2. Playful Rules
3. Number your Ideas
4. Build and Jump
5. The Space Remembers
6. Stretch Your Mental Muscles
7. Get Physical



Aim for quantity

Hope for quality



Sharpen the Focus

Posing the right problem is critical – neither too narrow, nor too fuzzy

Not “bicycle cup-holders” but “helping cyclists to drink coffee without accidents”



Number Your Ideas

Obvious but very useful

Helps keep track of them when the brainstormer is successful
(and 100 or more ideas are in play)

Allows ideas to take on an identity of their own

Build and Jump

Build to keep momentum on an idea:

- “shock absorbers are a great idea; what are other ways to reduce coffee spillage on bumps?”

Jump to regain momentum when a theme tapers out:

- “OK, but what about hands-free solutions?”

Build and Jump

Premature idea rejection is a serious barrier to good design.

One of the biggest differentiators between good designers and great ones is the latter's ability to successfully develop unusual ideas.

This requires a strong instinct to be able to distinguish fatal vs. minor flaws in an idea.



The Space Remembers

Covering whiteboards or papering walls with text is **extremely** useful in group work.

It's a very effective form of external (RAM) memory for group

Even better, its **shared** RAM. Helps group share understanding

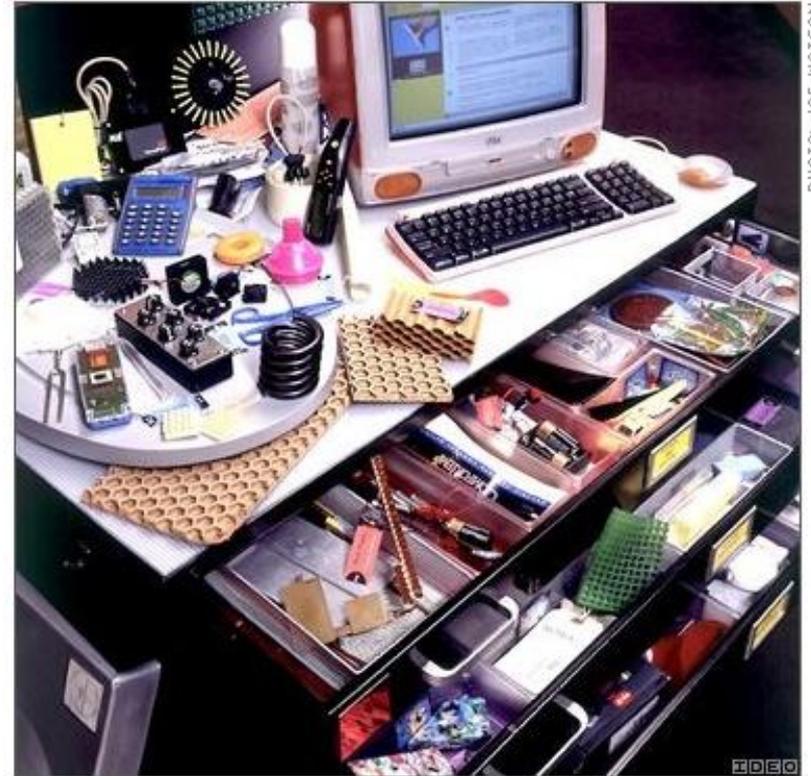


Stretch your Mental Muscles

Warmups: word games, puzzles

Get immersed in the domain: go visit the toy shop, or the bicycle shop, phone shop etc...

Bring some examples of the technology to the brainstormer



Get Physical

Sketch

Make models

Act out



Generative Objects (aka random stuff)



Warm-Up

Puzzle 1: Name 4 days that begin with the letter t

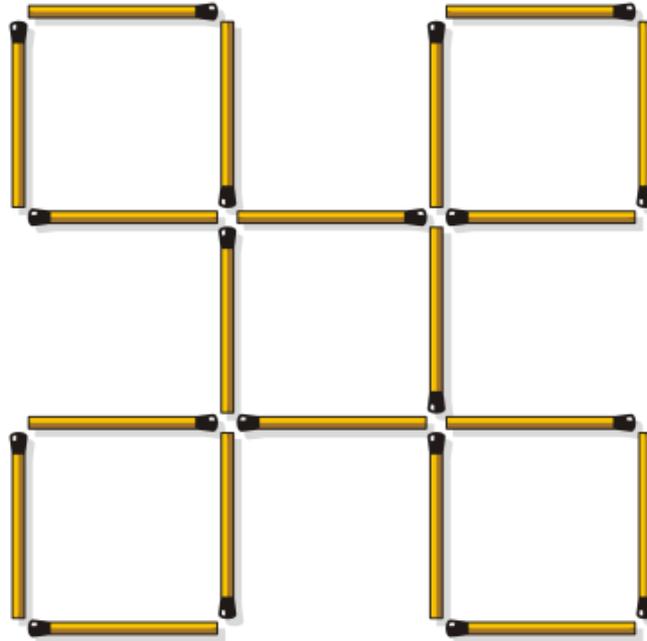
Puzzle 2: Three people arrive at a Motel, and rent one room for \$30. They each pay \$10.

The manager realizes the rate should actually be \$25, and sends the bellhop after them with \$5.

The bellhop can't divide the \$5 evenly into 3, so he gives each guest \$1 and pockets the other \$2.

Each guest has now paid \$9, so the total is \$27. The bellhop got \$2, where is the missing \$1 ?

Puzzle 3: Move 3 matchsticks to make 9 squares



Peter Puzzle

This Puzzle © 2008 Peter Grabarchuk. www.peterpuzzle.com

Brainstorming: Let's Try It