
From: Joi Ito <[REDACTED]>
Sent: Sunday, September 29, 2013 8:45 PM
To: Barnaby Marsh
Cc: Epstein Jeffrey
Subject: some thoughts on designing around our "little mind"
Attachments: signature.asc

Just posted this.

I'm talking with Jeffrey about more "systems" stuff, but this is one aspect that will be easy to use to tie various things at the Lab together around this idea.

- Joi

<http://www.linkedin.com/today/post/article/20130929185906-1391-designing-around-little-minds>

Designing around little minds

In designing user interfaces, we aim to empower the "user" to understand and control the system at hand. Output via screens and speakers, with input from a keyboard, a touch screen or gestures. Between them, the "user" is understood to be our conscious "mind" - the logical bit of our brain that thinks it's in charge.

This "mind" is actually not nearly as "in charge" as it thinks it is. In fact, our larger and often much more wise mind - the emotional, sub-conscious, parallel-processing, pattern recognizing part of our nervous system even manipulates and deceives our conscious mind. Articulated long ago as Dual Process Theory, Kahneman formalizes them as System 1 (this vast, quick and automatic aspect of thinking) and System 2 (the small "conscious" mind that logically considers and judges).

There is a basic fitness function to having our conscious mind feel confident, whether fighting, mating, or even making the small decisions that people make to get through a day. But the confidence we are building is with the small and logical part of our minds, deceiving ourselves that things are ok when another part of ourselves might know otherwise.

This is articulated in an experiment described by Trivers in which subjects are asked to listen to a series of voices, some of which are their own. Depending on the confidence of the subjects, some tended to attribute their voice to others ... or conversely, mistake other voices as their own. The interesting thing was that the galvanic skin response that connects to our parasympathetic nervous system always reacted consistently to our own voices, even when our conscious minds were deceived. (Trivers 1985)

Whether it's the decisions we make or the assessments of how we feel, we are consistently persuading ourselves that the world is organized and coherent, and that we understand what's going on, most of the time. In fact, the world is complex and chaotic. Most of what goes on in the world -- and even in our own bodies -- is beyond the comprehension and (luckily) the control of our little minds.

Thus, good design communicates with the broader, faster, more emotional system. What we call the "flow state" or "in the zone" is just our little minds getting out of the way so that our bigger and more intuitive mind can run the show. Whether throwing a basketball or driving a car, if our logical minds were coordinating each step, it would be impossibly difficult to coordinate all of the steps. However, our little minds are "smart" enough to get out of the way when we have mastery and allow the rest of the system dominate.

Why is it then that we seem to insist on building and assessing our systems based on what our little mind thinks? Think about the testing in schools that only measures local knowledge and logical skills, or designing user interfaces around what the user is focused on like pull-down menus and the mouse pointer.

I believe that we must focus much more on creating interfaces that send information to -- and receive controls signals from -- the rest of our system. This could apply to sensors for health, assistive robots, the internet of things, thermostats, or future vehicles.

The problem is, individually and collectively, our little minds don't like to give up control. We have to trick our minds to get out of the way sometimes. That's where deception emerges as a design pattern.

In the late 1800s, James Naismith, a pastor and a physical education teacher in Springfield, Massachusetts realized that he needed a way to deal with young kids who would become restless and unruly during the harsh New England winters. He knew they needed the exercise, collaboration and competition they got the other nine months of the year.

So Naismith invented basketball, allowing kids to exercise indoors, to compete and collaborate, all through playing this fun new game. It worked swimmingly, and quickly spread through YMCAs and became the sport it is today. My bet is that if he had called it "social ball" or "don't-beat-each-other-up ball" it probably wouldn't have been nearly the hit that it was.

Was this subtle deception immoral? Was it effective? Which part of the mind was Naismith looking to address, and which part did he find ways to speak to?

Today, we spend so much time telling our conscious and self-deceived minds what we want it to do. What if we spent more time trying to induce our minds to get out of the way, through meditation, play, prayer ... or even deception. We need to think less like industrial designers (designing for the intentions of the conscious user) and more like game designers (designing for the desires and quick, "irrational" behavior of our mind.) We need to design our medical devices, computers, vehicles and communication tools to be influenced by what we really do and think. Not just what we tell ourselves we are doing or thinking.

--

Trivers, R. (1985). Social evolution. Menlo Park, Calif., Benjamin/Cummings Pub. Co.