Designing Everything: Wicked Problems, Design Thinking and You

David Dunne
Design thinking is a unique, nonlinear approach to problems.

It is particularly suited to tough challenges: wicked social problems; innovation …

Its key strength is its emphasis on reframing: solving the right problem.

It is in increasing use in industry, government, education, healthcare …

… where it can be challenging to implement, but best practices are emerging.

We are starting to implement it at Gustavson, in our courses and approaches to problems. Watch for more to come.
Gerwin Hoogendoorn’s Senz of design
What is Design?
What is Design Thinking?
With a partner …

What is creative tension?

Come up with an example of creative tension
Design thinking is about **creative tension**

Position 1 \[\rightarrow\] Compromise \[\rightarrow\] Reframe \[\leftarrow\] Position 2
How I see creative tension

Tradeoffs between jobs and environment

HMW do both?

Economy

Environment
Design Thinking is a Method

It emphasizes framing problems, through *synthesis*

It emphasizes deep understanding of users and context, through *ethnography*

It emphasizes making, through *rapid prototyping*

It is iterative

It is reflective

It can be messy
It’s a method suited to ‘wicked’ problems

Wicked problems are those with no beginning, no end, where the questions overwhelm the answers.

The problem with wicked problems is defining the problem (framing the problem space).

How to deal with crime in the streets; terrorism; obesity

Most of the work in design thinking is in problem framing, which makes it suited for wicked problems.
What is Design Thinking?
Design thinking is a way of being in the world (Weltanschauung; Dasein)

It is humble: we don’t know the answer, or even the right question

It is optimistic: there is a solution and we will find it

It is open and flexible: mind of a child

It is curious: everything in the world needs fixing

It is focused on thoughtful action: reflective practice

“I am neither clever nor especially gifted. I am only very, very curious.”

- Albert Einstein
It’s a way of approaching problems in the world that begins from a point of **optimism**, that there is a solution, and it’s a matter of us reaching it. It builds on that with this idea of ‘mind of a child’, with this ability to be **open** to whatever the world is going to tell you, and coupling that with this idea of an attitude of **wisdom**. Being able to recognize evidence for what it is and **acting** upon it.
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Some interesting things design thinkers have done
How GE is turning an MRI into an experience for kids (and saving money too)

http://www.youtube.com/watch?v=16p9YRF0l-g
A new ‘broom’ from P&G

WHAT’S THE SWIFFER EFFECT?

It’s spending more time with the dogs, and less time cleaning behind them.

learn more ➤
Swiffer and creative tension
The University of Technology Sydney designs out crime
Visiting some Design Thinking labs
There are several municipal, provincial and federal government labs – in Victoria and across Canada

http://www2.gov.bc.ca/gov/content/governments/services-for-government/service-experience-digital-delivery/service-design
City Studio Victoria is a collaborative environment for co-creation and education

http://citystudiovictoria.com/
P&G’s clay street: a home away from home
MindLab’s government office in Copenhagen

REPLACE
FEAR OF
THE UNKNOWN
WITH
CURIOSITY
Or try MindLab’s The Mind
Or IDEO’s yurt
The classroom of the future? Rotman Designworks and Sauder d.studio
Your turn
How should universities respond to online education?

HMW Rethink the meaning of higher education?

Business as usual → Put some courses online → Go completely online
Could design thinking work at Uvic?

You receive a $500,000 grant to start a Design Thinking lab at Uvic, with a mandate to address the disruption of the university education model.

What challenges do you anticipate?
Creative Tensions

How design thinkers work in organizations
If design thinking’s so great, why isn’t everybody doing it?

Design thinking is widely misunderstood

It risks being dismissed as a management fad

Many have tried and many have floundered: they face 3 tensions

They’re not willing to sit in the question, not willing to chew it on it a little or revisit for a while … They really quickly jump to “We want this finished, we want to move on,” as opposed to actually taking the time to prototype, reframe, go through the iterations.
My journey

~30 interviews with experts and design leaders in the private, nonprofit and public sectors

The organizations were spread across Europe, the US, Canada and Australia

The interviews were conducted onsite whenever I could; otherwise by Skype or phone

My initial goal was to understand how designers used learning to tackle wicked problems

However ...

I found patterns that had more immediate interest: many of the labs were dealing with issues of their own survival in organizations and had to find responses
Joyce David Dunne 2017-05-12

Why do organizations get into design thinking?

Facilitate innovation: from ‘hand grenade’ to Post-Its

‘Disruptive’ innovation: ‘transform the experience and delivery of health care’

Cultural change: ‘innovative, nimble, responsive to change’

Complement to strategy: ‘people on the ground’

Perspective change: ‘inside-out to outside-in’

Collaboration: ‘collaborate, don’t consult’

System integration: ‘nobody experiences the tax system’

Well, the strategy’s really interesting and we’ve had a few breakthroughs, but is it changing anything for people on the ground?” So there was that human element or tangible element we were looking for that pure strategy-type thinking wasn’t giving us.
Another reason:

DESIGN-CENTRIC COMPANIES:
APPLE
COCA-COLA
FORD
HERMAN-MILLER
IBM
INTUIT
NIKE
PROCTER & GAMBLE
SAP
STARBUCKS
STARWOOD
STANLEY BLACK & DECKER
STEELCASE
TARGET
WALT DISNEY
WHIRLPOOL

DESIGN VALUE INDEX 2005-2015

06/05 06/06 06/07 06/08 06/09 06/10 06/11 06/12 06/13

$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000

DVI
S&P 500
Design Thinkers face three **tensions**

1. The Tension of Inclusion
2. The Tension of Disruption
3. The Tension of Perspective

These are called tensions because they are not ‘solved’ by making tradeoffs. They never really go away.
The Tension of **Inclusion**: being in and out at the same time

Too ‘in’
- Indistinguishable

Too ‘out’
- Isolated and easily forgotten

**HMW Build the Mindset?**

Build
government support
Don’t be a crazy cowboy

You have to spend some time within the organization and get to know the players and the politics, and the drivers of what they’re doing. They can’t be cowboys or cowgirls and just do whatever the hell they want.
The Australian Tax Office’s ‘diffused’ approach

We built all these islands of capability through the organization that were stitched together by the brand of “design”, but they weren’t centrally funded. I just knew that if it was a target it probably wouldn’t have a long shelf life.
The Tension of Disruption: being incremental and disruptive

Too ‘incremental’
- Fighting fires, chasing shiny objects

Too ‘disruptive’
- Too much time, too few results

HMW design platforms, not products?

Quick & early wins
‘People are talking about it, and there’s a buzz and we’ve got a funnel of projects, but the fragility of what we’ve built is pervasive … we are still largely influence without any authority’.
Why Christmas lights can spark a revolution
The Tension of Perspective: being user-centred and system-centred

Too ‘user-centred’
Nothing gets implemented
Blowback

HMW design for systems and users?

'Distributed' design thinking

Too ‘system-centred’
Isolated and easily forgotten

'Distributed' design thinking

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David Dunne
Anonymous (Swedish) automaker: the arrogance of (some) designers

They have zero idea, they don't even know that there's another world. It's kind of like, that book: called ‘Flatland’? It's an amazing book, written in the 1800s, it's a journey, where you will meet people in different dimensions, so first you encounter one image. It's just one guy, a dot, and he doesn't know anything about anything]
Designers tend to want to leap into action and work on something that’s really cool, that’s really desirable to an end-user, but in doing so they can often act on a point in the system that’s not really strategic; it’s not going to be a leverage point. So, stepping back and mapping the system helps you to identify better the leverage points where design could really make a difference.
Reframing the tensions

Reframe 1. Design Thinking as a **Mindset**

Reframe 2. Design Thinking as a **Platform**

Reframe 3. Design Thinking for the **System**
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