

# Design Thinking in an Hour?

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Roberto Arteaga  
@irobarte

Photo by Patrick Perkins



# Hello!



THANK YOU  
FOR BEING  
HERE!!!

I am Roberto Arteaga (he/him)

Pacific Lutheran University

@irobarte  
**#claps2018 #dtclaps**



INNOVATION  
COMES AND  
GOES

Photo by Skye Studios



WHY DO  
“NEW THINGS” OR TRENDS  
FAIL?



Design thinking is a process for  
**creative problem solving.**

-- Coe Leta Stafford, Managing Director IDEO U



SOMETIMES  
WIKI IS A  
CREDIBLE  
SOURCE

# Design thinking

From Wikipedia, the free encyclopedia



The neutrality of this article is disputed. Relevant discussion may be found on the talk page. Please do not remove this message until conditions to do so are met. (October 2018) ([Learn how and when to remove this template message](#))

**Design thinking** refers to the cognitive, strategic and practical processes by which design concepts (proposals for new products, buildings, machines, etc.) are developed by designers and/or design teams.<sup>[1][2]</sup>

Design thinking is also associated with prescriptions for the innovation of products and services within business and social contexts.<sup>[3][4]</sup> Some of these prescriptions have been criticized for oversimplifying the design process and trivializing the role of technical knowledge and skills.<sup>[5][6]</sup>



Photo by Bing Han



I DUG  
DEEPER

Photo by takahiro taguchi



Lee Vinsel

[Follow](#)

I do technology studies, co-organize @The\_Maintainers, and profess  
Society at Virginia Tech.

Dec 6, 2017 · 36 min read

He changed  
the title for  
The  
Chronicle

# Design Thinking is Kind of Like Syphilis— It's Contagious and Rots Your Brains



The greatest and **most savage critic** of Design Thinking has emerged from the heart of the Design Thinking world itself. His name is **Bill Burnett**, and he is a **comedic genius**.

--Vinsel, 2017



Photo by rawpixel



BEFORE  
THAT, A  
STORY FROM  
THE PAST ...

Photo by Smart



Example: What is  $\frac{d}{dx} x^3$  ?

We know  $f(x) = x^3$ , and can calculate  $f(x+\Delta x)$  :

Start with:  $f(x+\Delta x) = (x+\Delta x)^3$

Expand  $(x + \Delta x)^3$ :  $f(x+\Delta x) = x^3 + 3x^2 \Delta x + 3x (\Delta x)^2 + (\Delta x)^3$

The slope formula: 
$$\frac{f(x+\Delta x) - f(x)}{\Delta x}$$

Put in  $f(x+\Delta x)$  and  $f(x)$ : 
$$\frac{x^3 + 3x^2 \Delta x + 3x (\Delta x)^2 + (\Delta x)^3 - x^3}{\Delta x}$$

Simplify ( $x^3$  and  $-x^3$  cancel): 
$$\frac{3x^2 \Delta x + 3x (\Delta x)^2 + (\Delta x)^3}{\Delta x}$$

Simplify more (divide through by  $\Delta x$ ):  $= 3x^2 + 3x \Delta x + (\Delta x)^2$

Then **as  $\Delta x$  heads towards 0** we get:  $= 3x^2$

Image from Math Is Fun

## Power Rule



Example: What is  $\frac{d}{dx} x^3$  ?

The question is asking "what is the derivative of  $x^3$  ?"

We can use the [Power Rule](#), where n=3:

$$\frac{d}{dx} x^n = nx^{n-1}$$

$$\frac{d}{dx} x^3 = 3x^{3-1} = \mathbf{3x^2}$$

(In other words the derivative of  $x^3$  is  $3x^2$ )

#SCORPIOSEASON

So it is simply this:

"multiply by power  
then reduce power by 1"

[Image from Math is Fun](#)



# Design Thinking: A 5 Stage Process

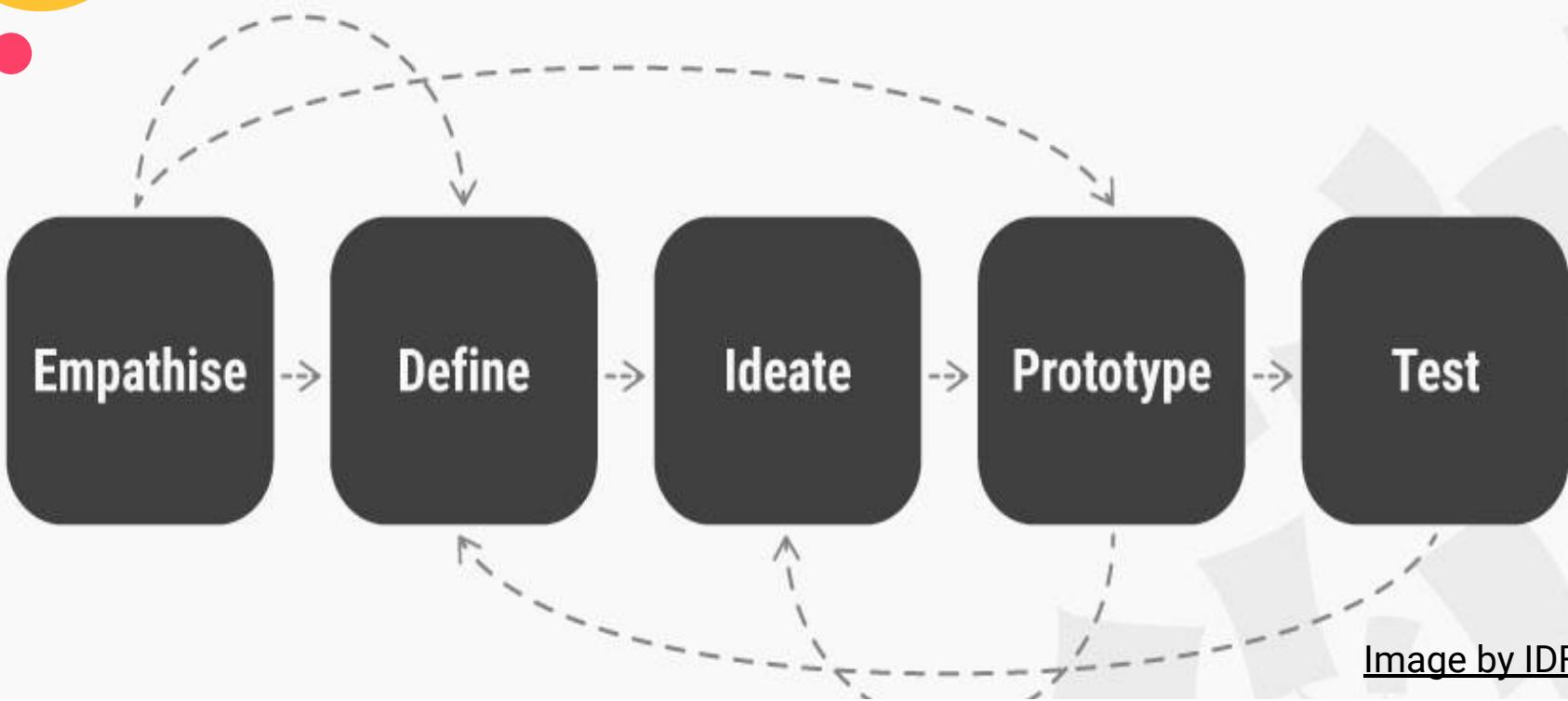
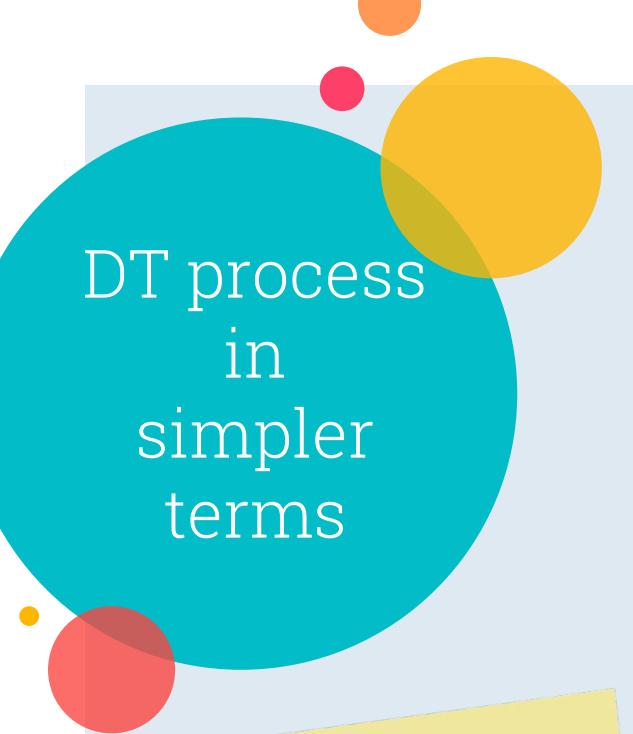


Image by IDF



DT process  
in  
simpler  
terms



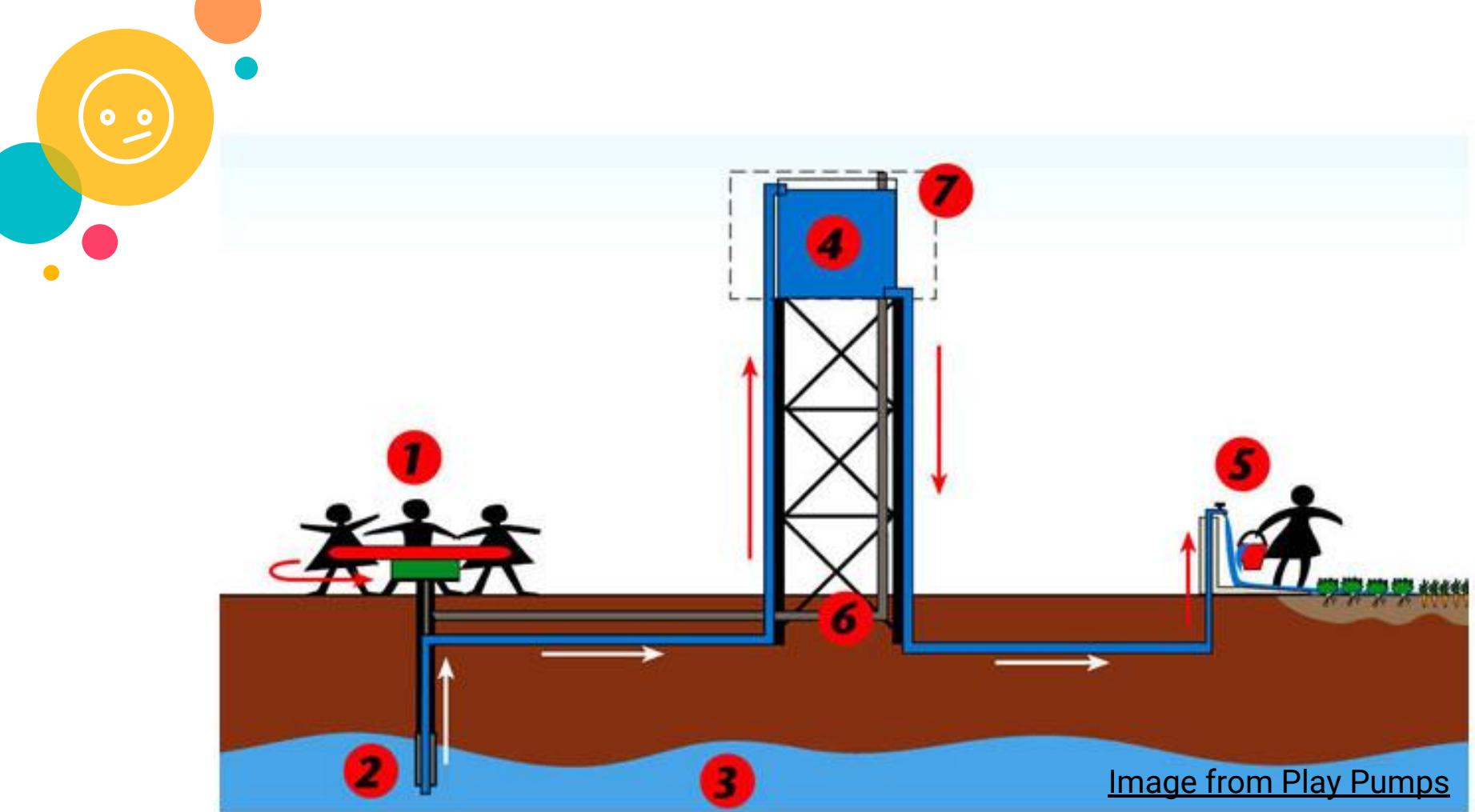
Adapted from  
Vinsel (2017)

Understand audience

Come up with a plan

Implement the plan

Evaluate the plan





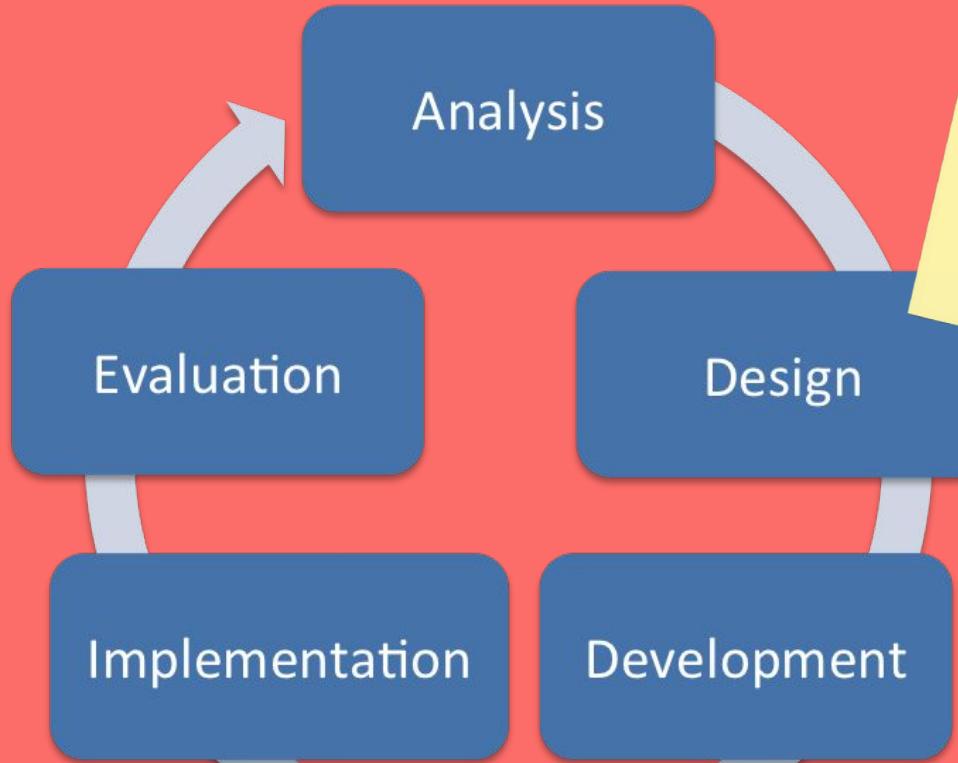
[Image from Play Pumps](#)



Photo by Braydon Anderson



# **ADDIE MODEL**



[Image from Wikimedia Commons](#)



## Design thinking is the opposite of inclusive design

Fast Company - Sep 26, 2018

In other words, **design thinking**, by giving the **designer** total authority, squashes more inclusive design practices. Even in the **design thinking** ...

## "Why are **designers** whining about **design thinking**?"

Dezeen - May 24, 2016

Opinion: **Design thinking** is the management phrase that makes real **designers** shudder. Can **designers** let go and accept it as a form of flattery, ...

## How Design Thinking Became a Buzzword at School

The Atlantic - Jan 4, 2017

Confusion around the precise definition of **design thinking** is ... Final **thinking** requires **designers** to generate ideas—lots of ...

## It's Time To Bring **Design Thinking** Down From On High

Forbes - Aug 15, 2013

In a now-classic TED Talk on **design thinking**, Tim Brown, president and CEO . Why '**Design Thinking**' is becoming a game changer for many ... a construct of a professional "priesthood," a society of **designers** who, ... Too **b@CIO** - Apr 12, 2016

## 10 **design thinking** myths debunked

The Enterprisers Project - Nov 5, 2018

**Design thinking** continues to gain popularity with IT leaders seeking to ... make it easy for non-**designers** to use **design thinking**, says Joshi.

## Buzzwords, big talk, and breakthroughs: Real talk about **design thinking**

Rapid Growth - Mar 14, 2018

... Adam Weiler, who explores why **design thinking** isn't just for **designers** after all. ... understand **design thinking** (and the stuff that's become ...

## Why the hot concept of **design thinking** isn't really about the thinking at ...

Financial Post - Jun 29, 2017

**Design thinking** is a misnomer, albeit a popular one, because there's nothing about **design thinking** that **designers** hold particular ownership ...

## John Spencer: "There's no bullshit like design bullshit"

Design Week - Sep 14, 2018

When did **designers** first come up with the idea that bullshit is good? Why do we think it makes us sound grown-up and clever and important?

Even though, the term '**Design Thinking**' has been coined back in the 90s, ... Instead of taking business requirements as marching orders, **designers** were ... what they want may lead a project going in a **wrong** direction... facts ...



“The solution to connecting design thinking principles to practical outcomes is astonishingly simple. Unfortunately, it involves talking to people and most product people find that hard.” [-- Banfield, 2017](#)

“Disagreements, lengthy disputes, and difficult compromises are not an option in design thinking, as acknowledging their existence would necessitate addressing their underlying structures.” [-- Seitz, 2018](#)

“Miller calls the Empathize Mode “ethnography,” which is uncharitable to cultural anthropologists who spend their entire lives learning how to observe other people.” [-- Vinsel, 2018](#)



**“Design thinking teaches corporate workers to tell stories about the lives of potential customers and imagine different futures for them.” -- [Irani, 2018](#)**

**“Business bullshit can and should be challenged. This is a task each of us can take up by refusing to use empty management-speak. We can stop ourselves from being one more conduit in its circulation. Instead of just rolling our eyes and checking our emails, we should demand something more meaningful.” -- [Spicer, 2017](#)**

**“As real designers, we really don’t use these terms to define our work. We use really, really hard and you know tangible words to describe and to critique our work. None of these words are real criticism of anything. They are buzzwords to sound like corporate jargon” -- [Jen, 2017](#)**





ACTUALLY...

DT IN  
LIBRARIES



Where have you seen DT  
show up in libraries?

What were the issues trying  
to be solved?



Image from DT for Libraries

## Google searches for “design thinking” and “academic library”

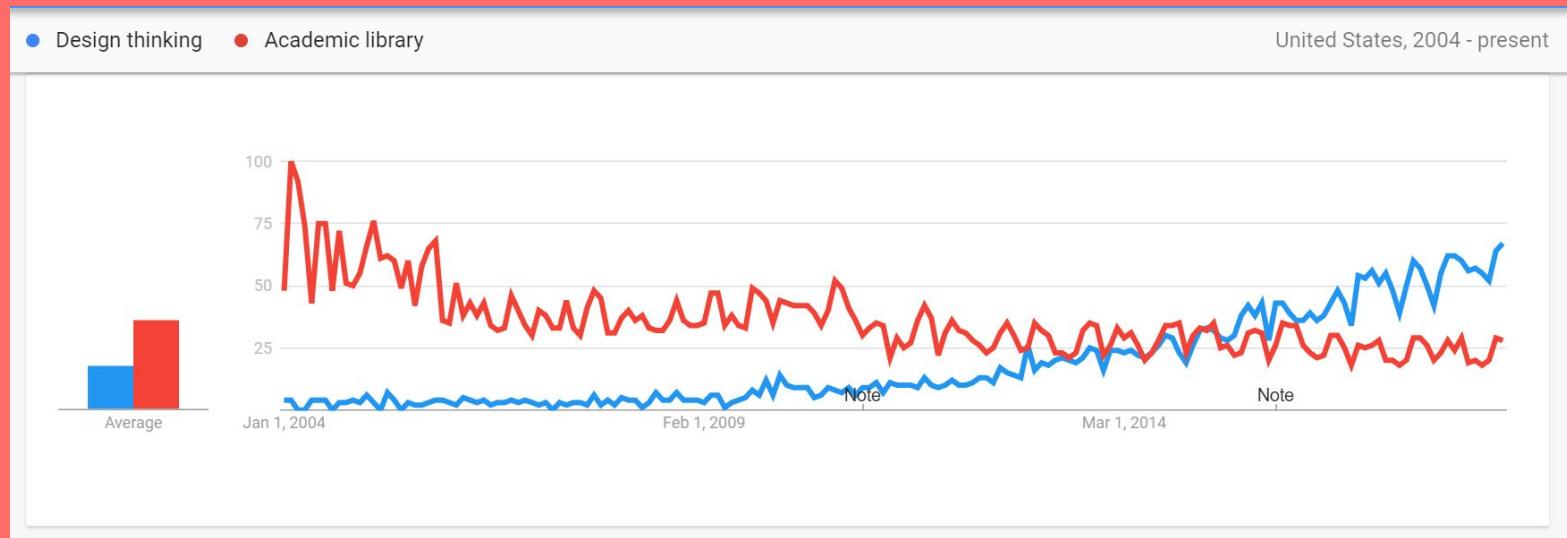
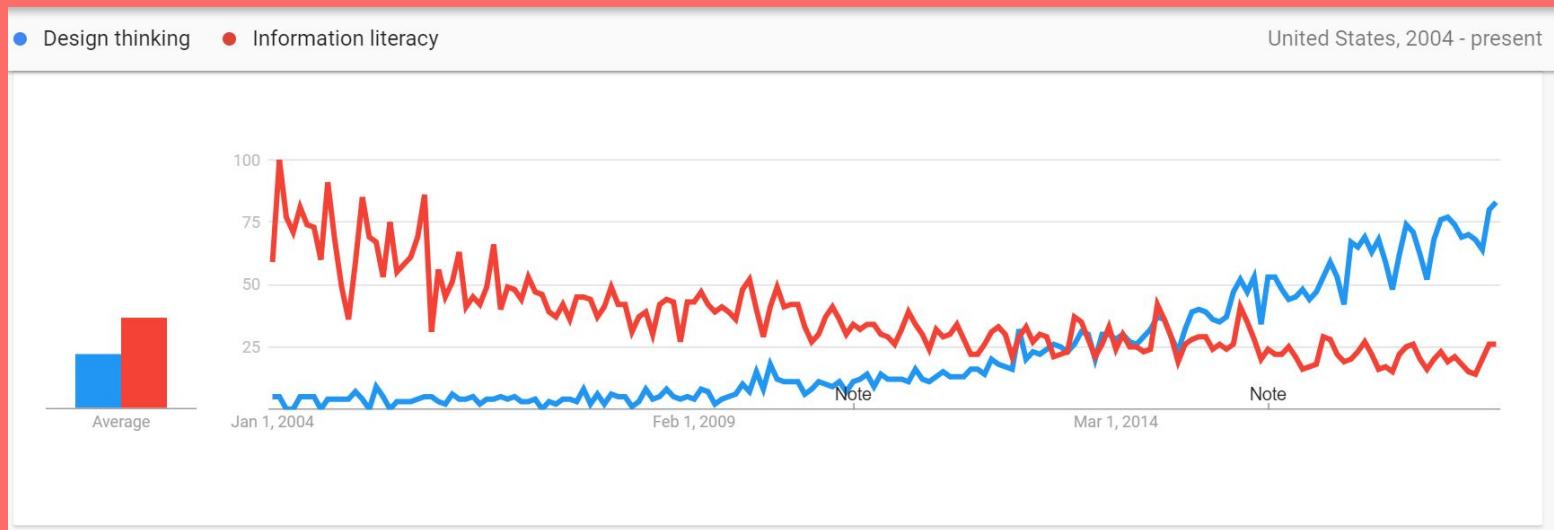


Image from Google Trends



## Google searches for “design thinking” and “information literacy”



[Image from Google Trends](#)

# Design



## 2018 Conference Program

Library Instruction by Design: Using Design Thinking to Meet Evolving  
Needs | June 1, 2018

Keeping up with...  
**DESIGN THINKING**

### **Bringing Design Thinking to the School Library**

Want to revamp your library? Design thinking may be just the planning tool you need.

INFO 287-11

SEMINAR IN INFORMATION SCIENCE

TOPIC: DESIGN THINKING [2 UNITS]

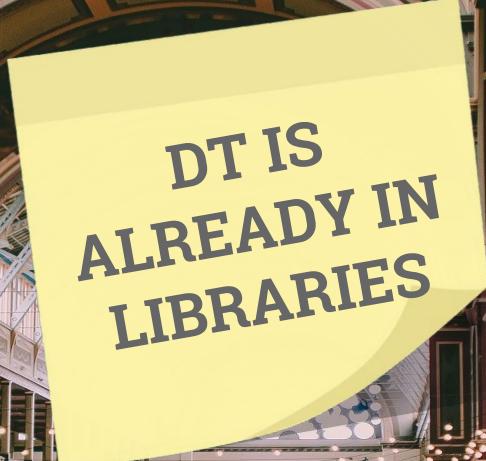
FALL 2017 SYLLABUS

### **Signage by Design: A Design-Thinking Approach to Library User Experience**

[Home](#) > Vol 77, No 6 (2016) > Meier

### **Turning the revolution into an evolution: The case for design thinking and rapid prototyping in libraries**

**What MAKES A Library?,  
Issue No. 1 – Design Thinking**



DT IS  
ALREADY IN  
LIBRARIES



Photo by brittany gaiser



Photo by Oscar Sutton



**Critical Information Literacy** is in a sense an expanded version of IL that places the **learner at the center** in a more empowered role and focuses on the sociopolitical, economic, and cultural aspects of all types and stages of information and the research process. It is very concerned with the **power relationships** that impact information production and dissemination and tries to move IL **beyond the purely mechanical and technical**. It pulls from critical theories, including critical pedagogy, critical literacy, and others.

-- Downey, 173, 2016



Photo by Bruno Martins



Photo by John Froschauer



IMPORTANCE  
OF  
POSITIONALITY

Photo by Chelsea London Phillips



Teaching and learning have always been (and will always be) **deeply subjective.**



WE MUST  
BRING OUR  
WHOLE SELVES

-- Morris & Stommel, 33, 2018



I WILL GO IN  
ANOTHER  
DIRECTION

Photo by Jungwoo Hong



Photo by Daniele Levis Pelusi

... IN CASE YOU  
DIDN'T FINISH  
READING

“

**Critical Information Literacy** is in a sense an expanded version of IL that places the **learner at the center** in a more empowered role and focuses on the sociopolitical, economic, and cultural aspects of all types and stages of information and the research process. It is very concerned with the **power relationships** that impact information production and dissemination and tries to move IL **beyond the purely mechanical and technical**. It pulls from critical theories, including critical pedagogy, critical literacy, and others.

-- Downey, 173, 2016



Photo by Franck V.



**LEARNER EMPOWERMENT**

Photo by Jason Rosewell



CID WANTS TO  
EQUALIZE  
POWER

THE SAME

FOR

EVERYONE

.... BUT THERE'S  
A LOT TO BE  
DONE YET

Photo by Søren Astrup Jørgensen



TRANSFORM  
CRITICAL  
PEDAGOGIES

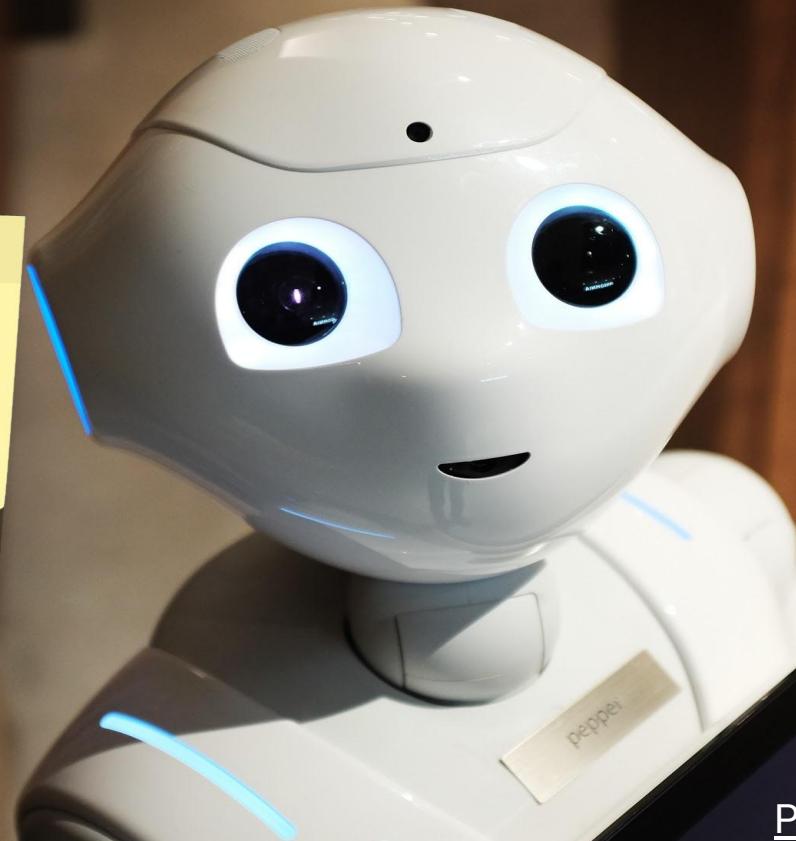


Photo by Alex Knight



# LEARNER-CENTERED PEDAGOGY

[Photo by Danielle MacInnes](#)



Harvard  
Business  
Review

ENTREPRENEURSHIP

# Design Thinking Is Fundamentally Conservative and Preserves the Status Quo

by [Natasha Iskander](#)

SEPTEMBER 05, 2018



THE  
BIG  
U

[Image from Rebuild by Design](#)





LEARNERS  
SHOULD DRIVE  
WHAT WE DO



Photo by John Froschauer



# REFLECTIVE PRACTICE

[Photo by Bekah Russom](#)



Non-inquiry **blinds** us to the environment  
in which we are actually teaching.

-- Morris & Stommel, 133, 2018



Photo by Chris Lawton



USE YOUR  
PEDAGOGY AS  
ADVOCACY

Photo by Daria Nepriakhina



# Design Thinking: A Cautionary Tale



Roberto Arteaga  
@irobarte

Photo by Erin Cho



## CRITICAL PERSPECTIVES

“Design Thinking”: Defending Silicon Valley at the Apex of Global Labor Hierarchies

Lilly Irani

UC San Diego



*Economic nationalism depends on  
**hierarchies of race and economic practice**  
to mobilize people in the name of  
whiteness and economy.*



-- Irani, 14, 2018



WHAT'S THE  
STATUS QUO IN  
LIBRARIES?

Photo by Sylvia Yang



“

**2042** is the year all goes to hell.

-- Jeff Chang @ #RPNC2018



# ***Minorities in U.S. set to become majority by 2042***

By SAM ROBERTS AUG. 14, 2008

Ethnic and racial minorities will comprise a majority of the population of the United States in a little more than a generation, according to new Census Bureau projections, a transformation that is occurring faster than anticipated just a few years ago.

The census calculates that by 2042, Americans who identify themselves as Hispanic, black, Asian, American Indian, Native Hawaiian and Pacific Islander will together outnumber non-Hispanic whites. Four years ago, officials had projected the shift would come in 2050.

[Source: New York Times](#)



OUR STUDENTS  
DON'T HAVE  
THAT LONG

Photo by Aron



CHANGE IS  
HARD TO  
IMPLEMENT



Photo by Fleur Treurniet



Photo by "My Life Through A Lens"



# Thanks!

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WHAT  
QUESTIONS DO  
YOU HAVE?

## Credits

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by [SlidesCarnival](#)
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## What I Cited and/or Recommend Reading

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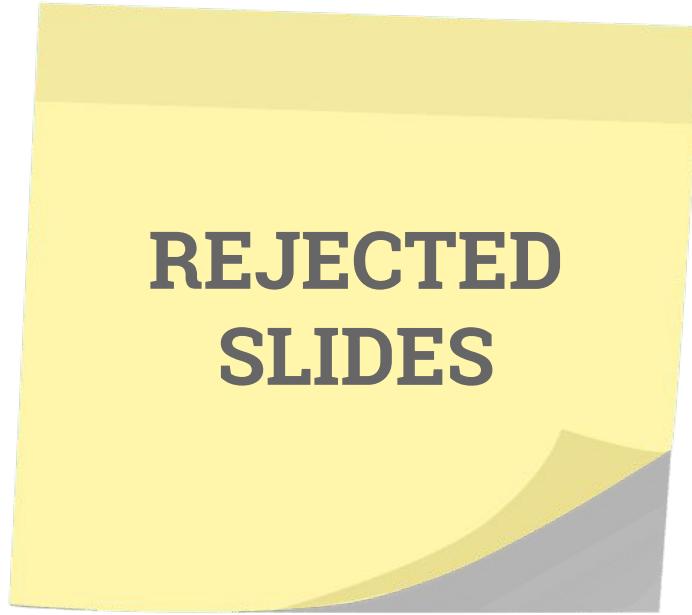


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# **REJECTED SLIDES**





KNOW  
YOURSELF AND  
YOUR  
ENVIRONMENT

The background image shows a person from behind, wearing a dark jacket, looking at a detailed map of a rural or forested area. The map is held open by two hands. The scene is set outdoors with blurred trees in the background. In the top left corner, there are several colorful circles (yellow, orange, teal, pink) of different sizes.

Photo by Annie Spratt

IN CASE I  
WASN'T CLEAR  
ENOUGH

Photo by Marvin Esteve



I WANTED AN  
ARROW  
POINTING UP



THIS  
WAY

Photo by Jamie Templeton