This is Your Brain on Programming

Wil Wade

StrangeLoop 2016

Disclaimers

- I am not a psychologist

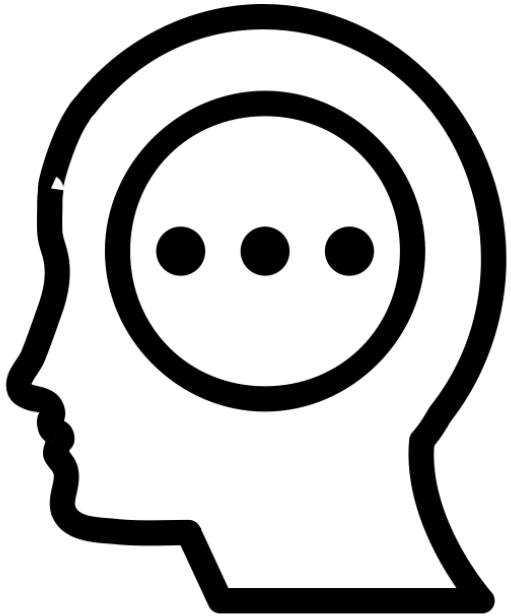
The Programmer’s Cycle

Learning

Doing

Finishing

Back to a beginning…



1926-1934

- Lev Vygotsky
- Play
- Thought & Language
- Zone Proximal Development (ZPD)

ZPD - Zone of Proximal Dev

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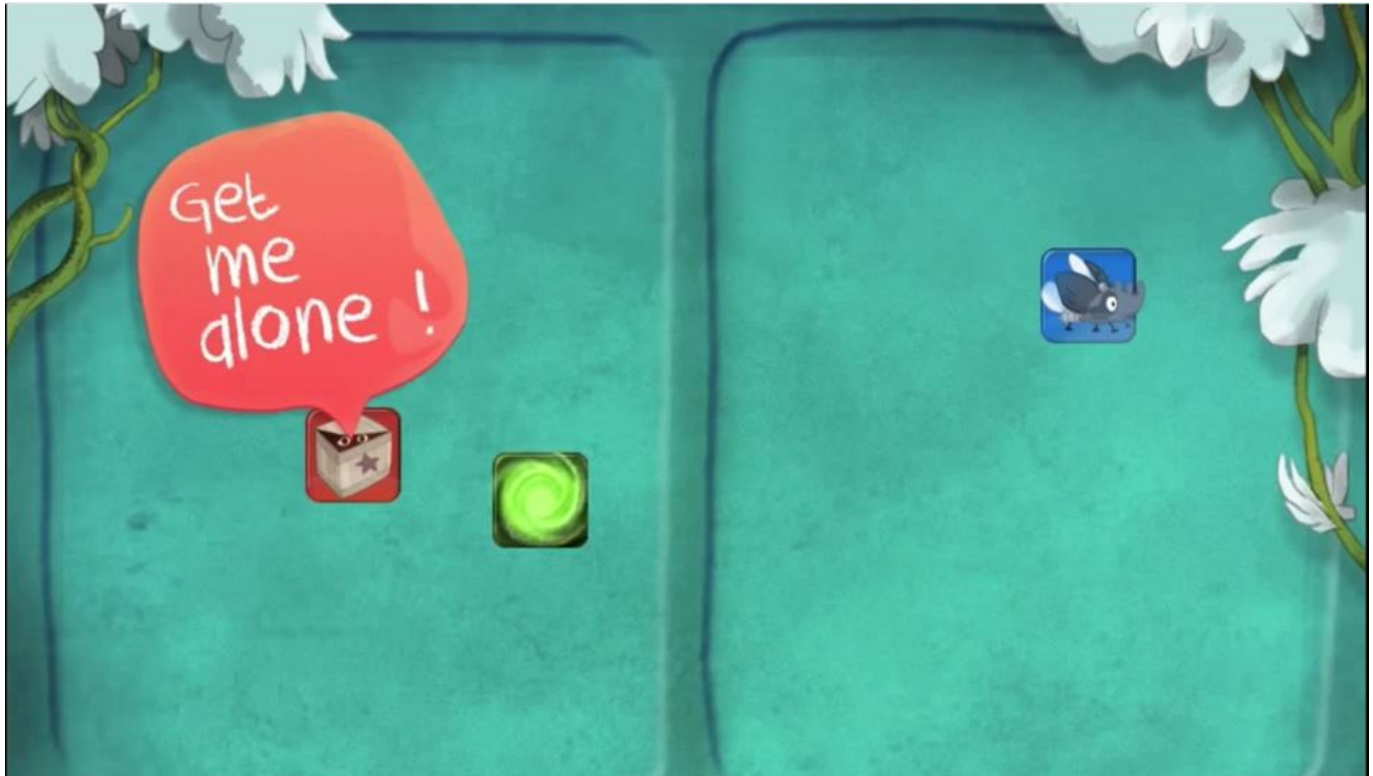
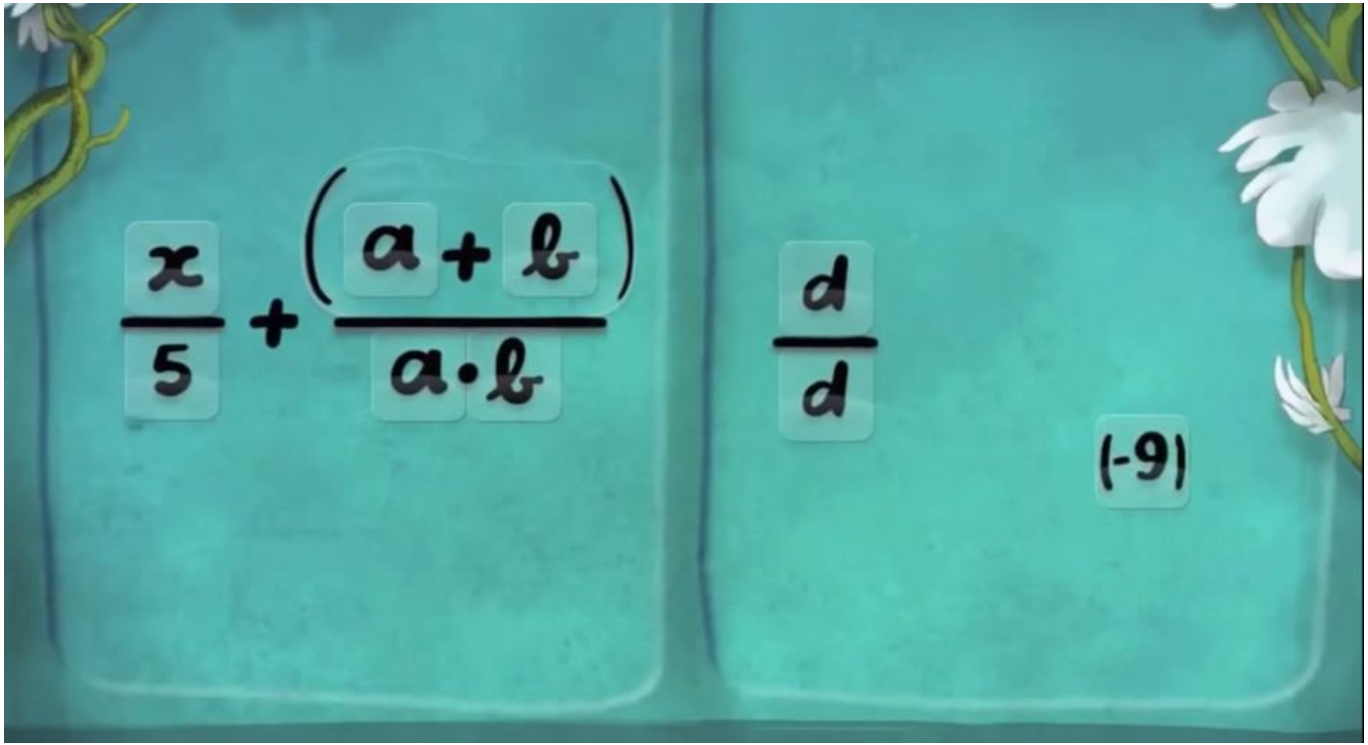
DragonBox

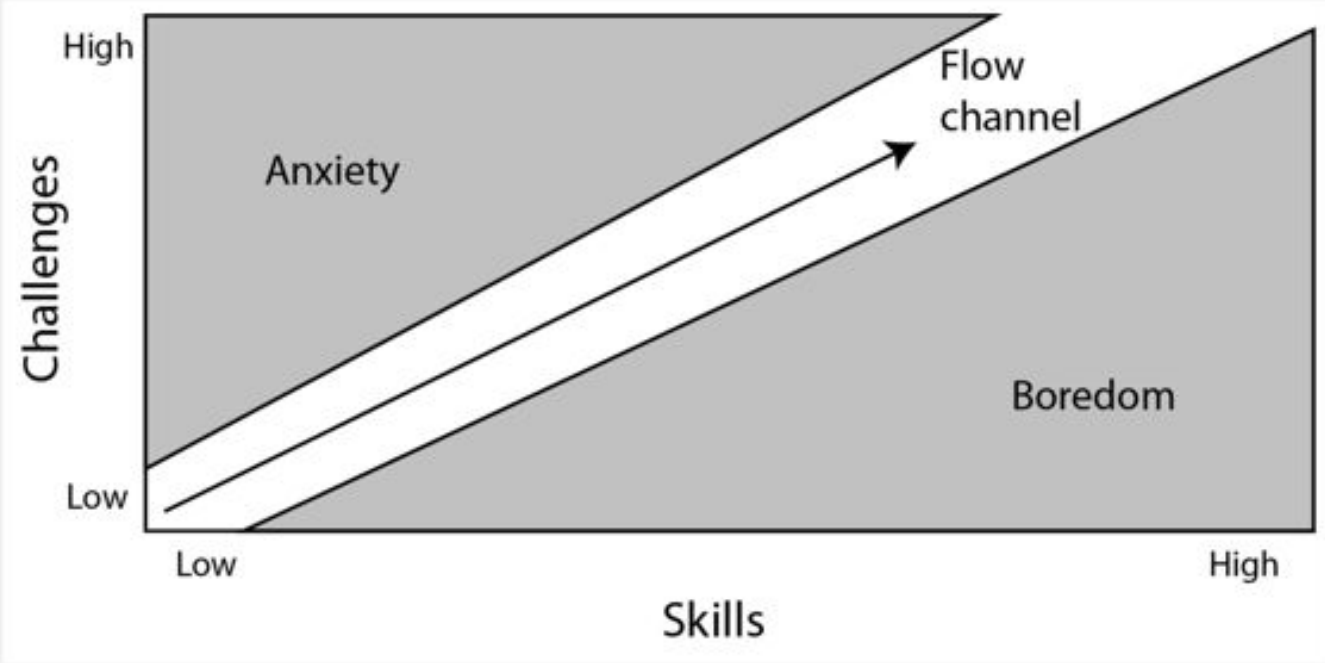


DragonBox

DragonBox



Sound Familiar?



— Flow Channel Line (from "The Art of Game Design" book by Jesse Schell)

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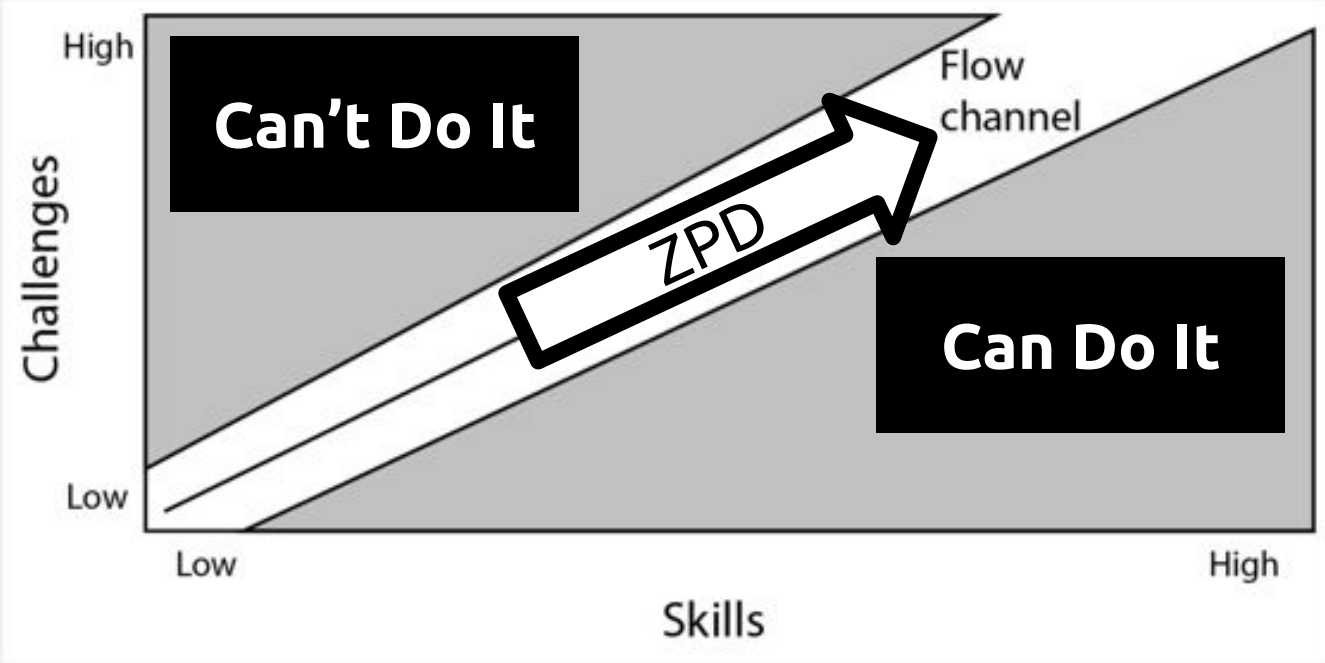

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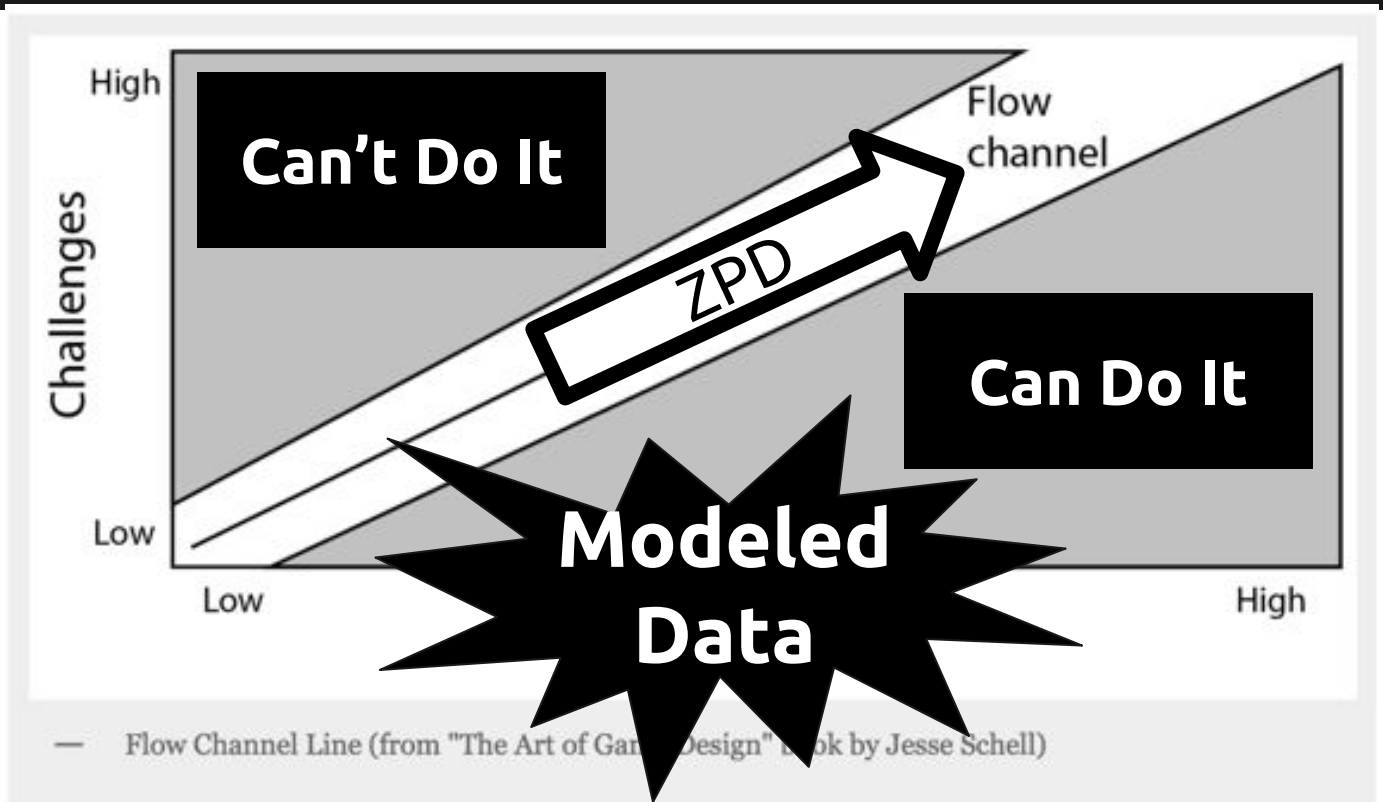

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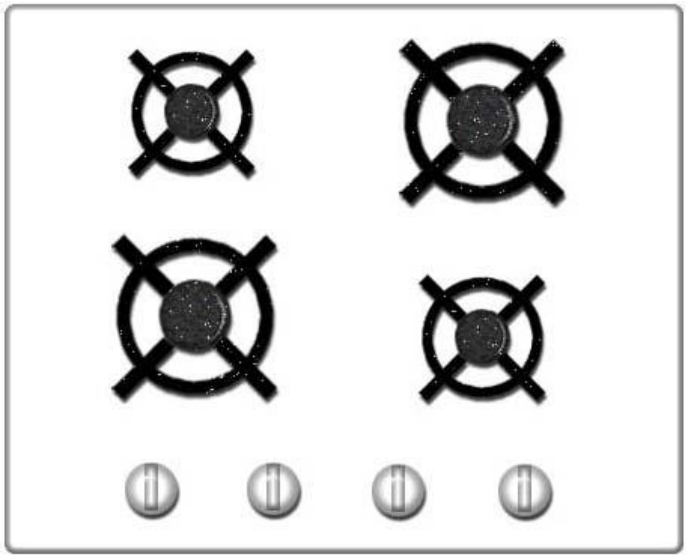
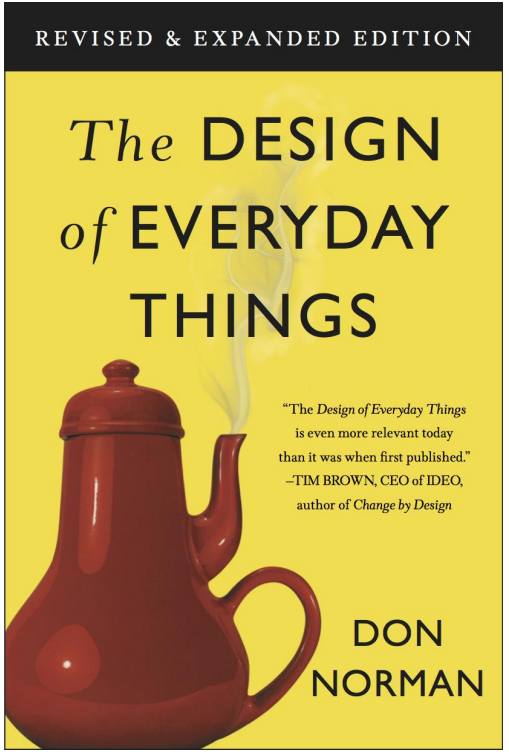
Mental Models



Via:
https://upload.wikimedia.org/wikipedia/commons/2/25/Old-style-kitchen-stove.jpg

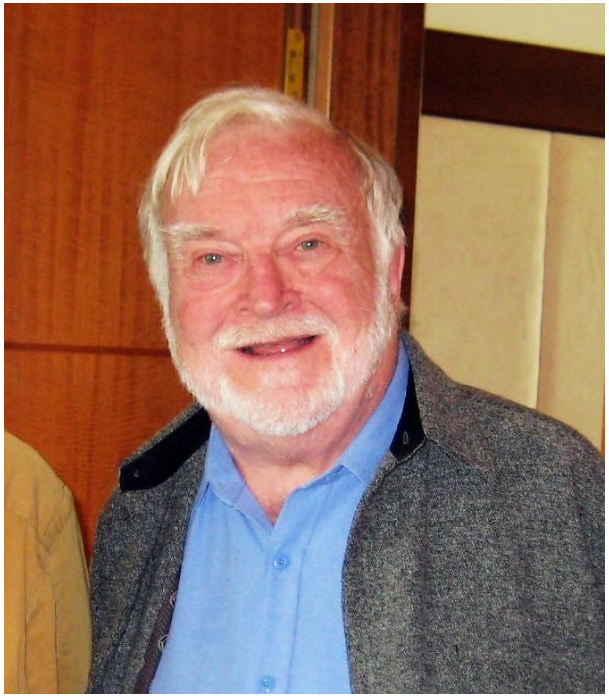


Incomplete Mental Model

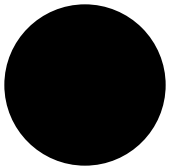
Doing

Flow

- Mihaly Csikszentmihalyi
  - Leading Psychologist
  - 1980’s - Now



Flow



Achieving Flow

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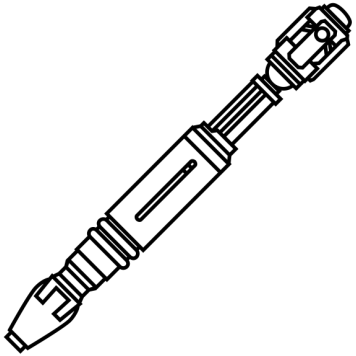
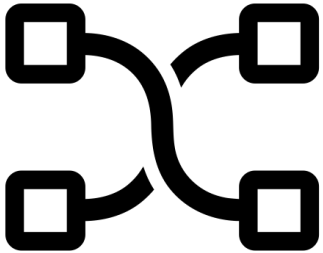
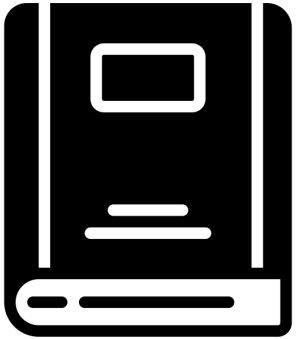
Achieving Flow



Tools

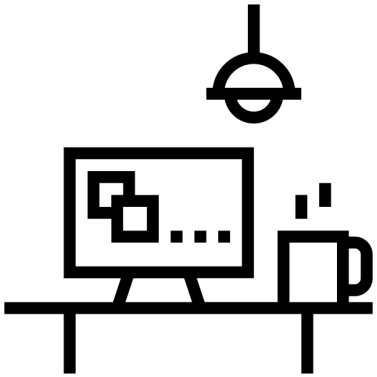


Defined Problem



Information

Achieving Flow



Environment

Time

Mental State

Finishing

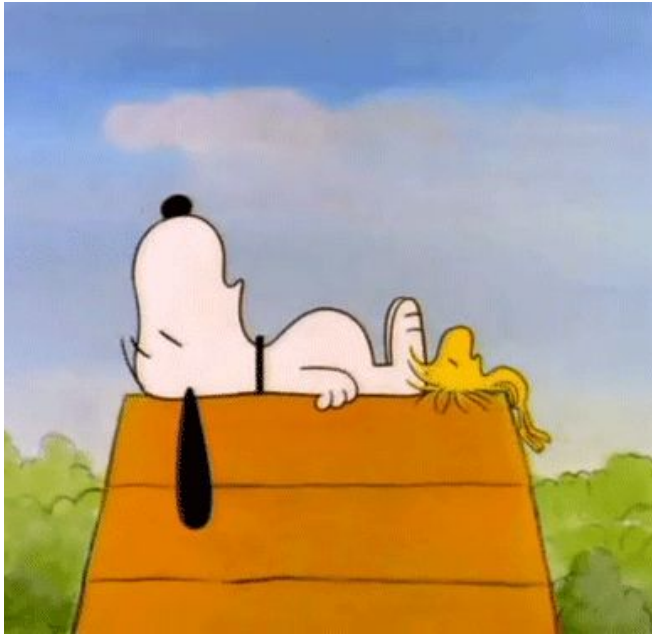
Burnout

Back in 1981...

- Maslach Burnout Inventory
  - Emotional Exhaustion
  - Depersonalization
  - Personal Accomplishment
- Christina Maslach & Susan E. Jackson

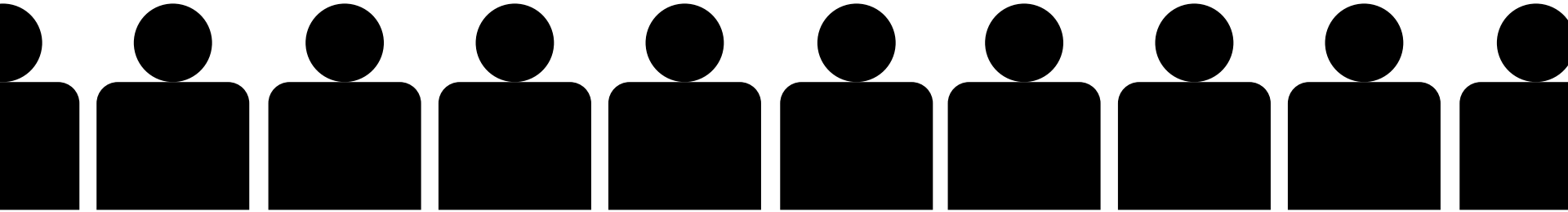
Emotional Exhaustion

- After work?
- Thinking about work?
- Affect relationships outside of work?



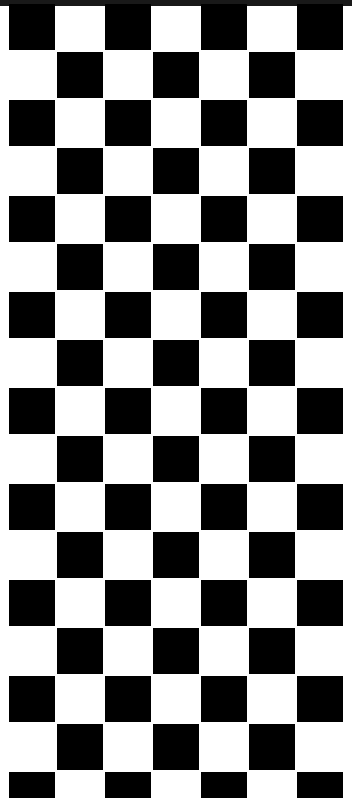
Depersonalization

- Have you run out of care?
- Are co-workers & customers just becoming objects in a program?



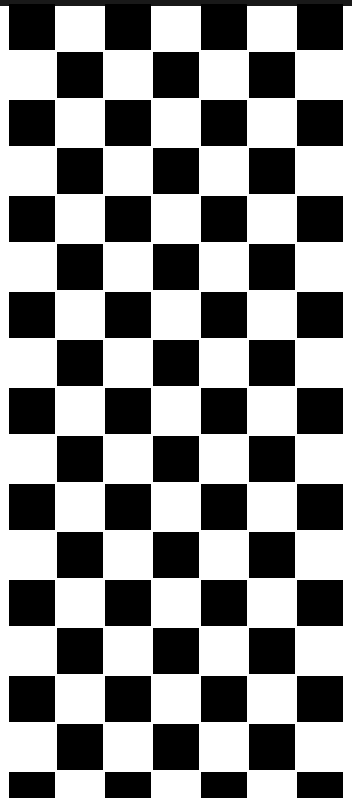
Personal Accomplishment

- Do you get a feeling of contribution?
- Meeting any goals?



Personal Accomplishment

- Do you get a feeling of contribution?
- Meeting any goals?
- Used code is happy code!

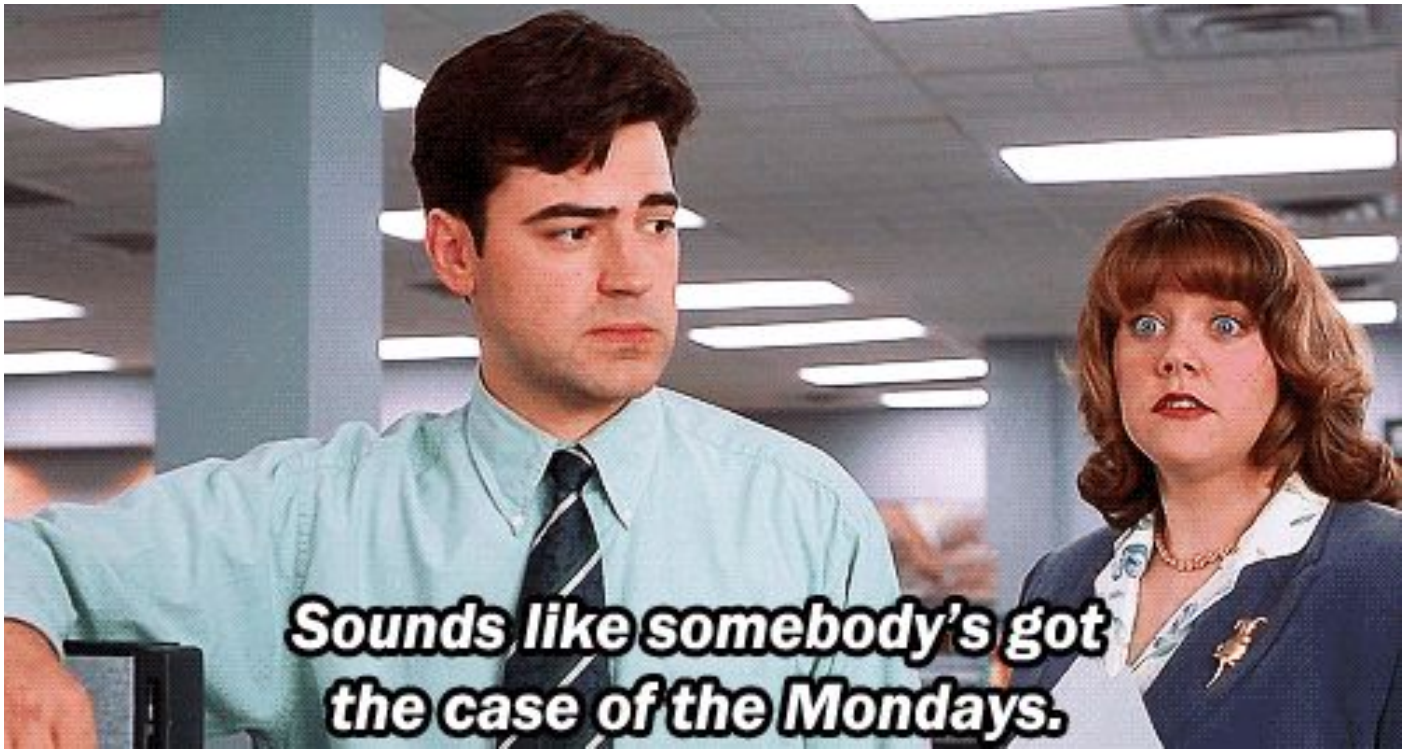


Burnout vs Depression

Burnout vs Depression

Work ≠ Fun	Nothing Fun
Dissatisfaction	Hopeless
Meh	No Meh to Meh
Overwhelmed	No Interest
Quit Job	Quit Everything

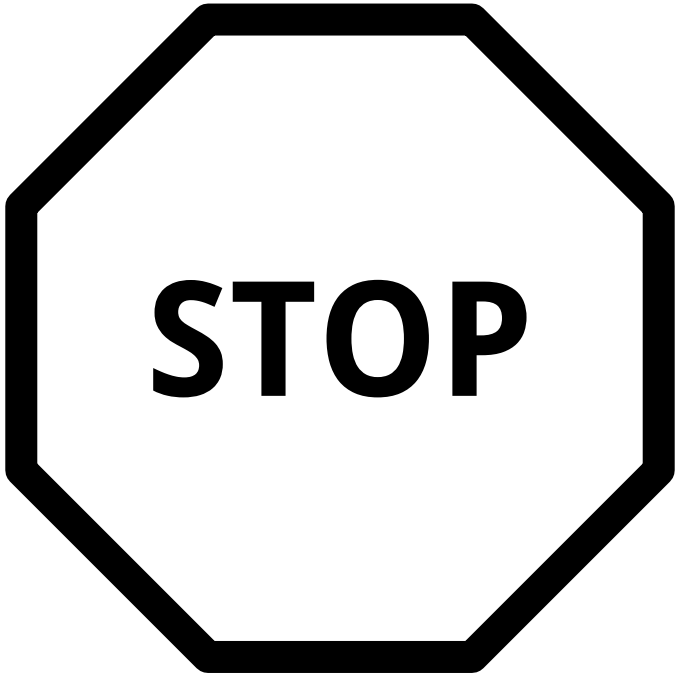
Burnout vs Boredom



How Do I Avoid It?

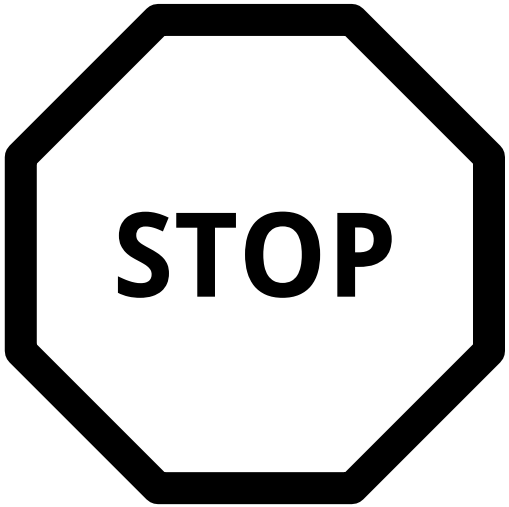
- Emotional & Physical Health
- Finish Goals
- Don’t Work
- Different Work
- Balance

How Do I Get Out of It?



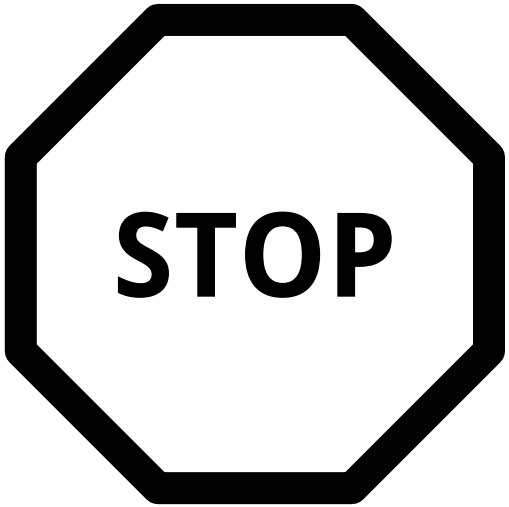
How Do I Get Out of It?

- Care Less



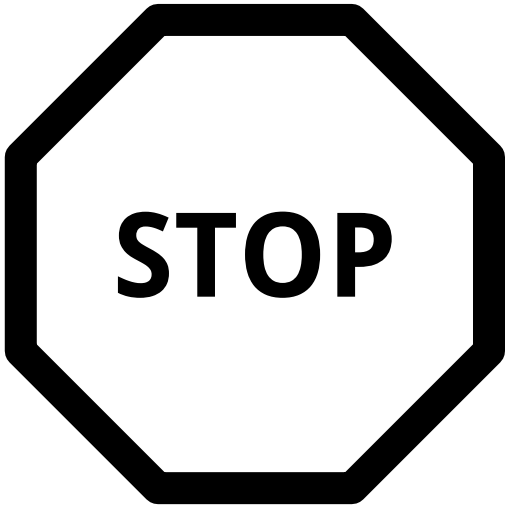
How Do I Get Out of It?

- Care Less
- Different Focus



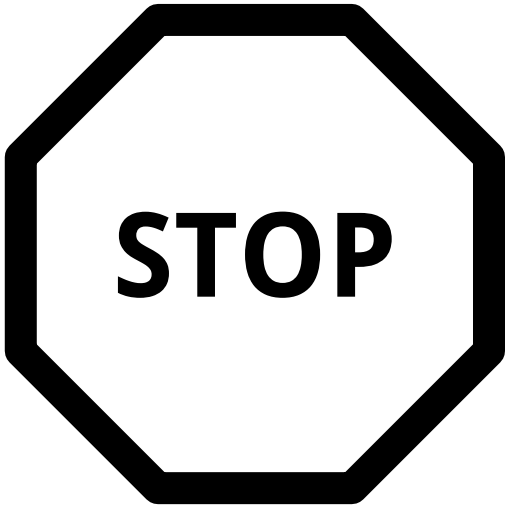
How Do I Get Out of It?

- Care Less
- Different Focus
- Excitement is Catching



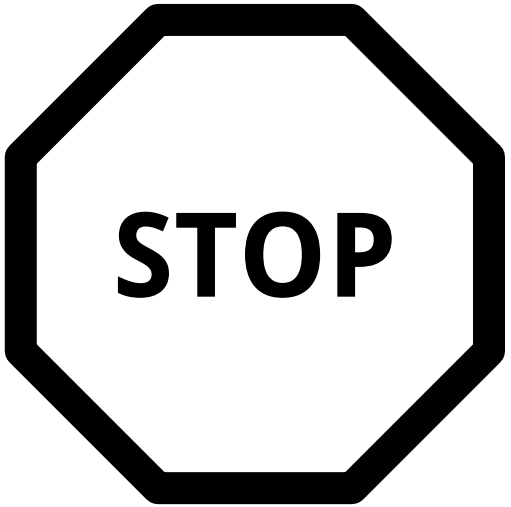
How Do I Get Out of It?

- Care Less
- Different Focus
- Excitement is Catching
- Slog Through



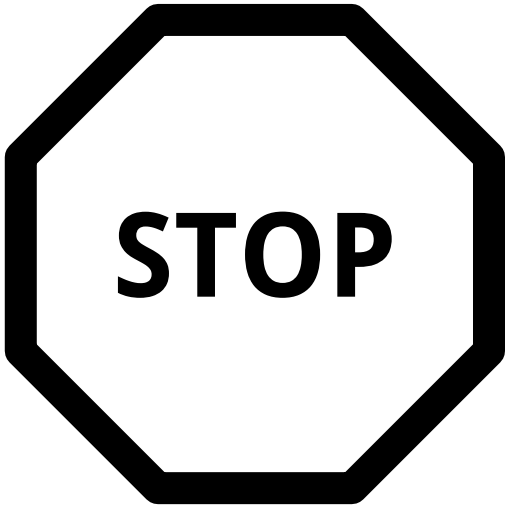
How Do I Get Out of It?

- Care Less
- Different Focus
- Excitement is Catching
- Slog Through
- Set a Date



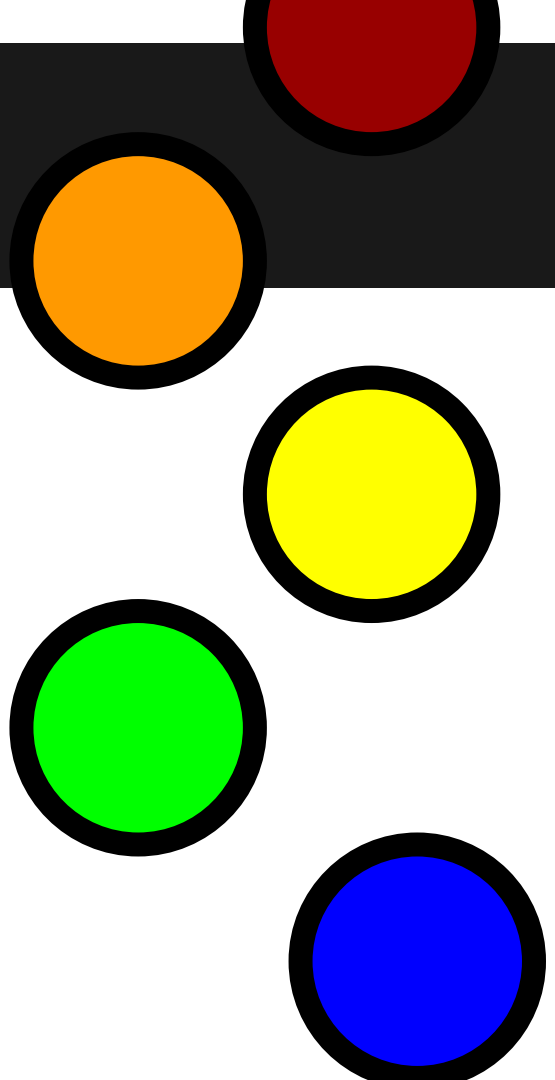
How Do I Get Out of It?

- Care less
- Different focus
- Excitement is catching
- Slog Through
- Set a Date
- Quit



Other Ideas

- Resentment
- Team Issues
- Life
- Lack of Challenges
- Skill Mismatch
- And hundreds more



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Media References

- DragonBox ScreenShots from https://www.youtube.com/watch?v=CYq-qOAq_iA
- Icons from The Noun Project - https://thenounproject.com
  - Thinking by Creative Stall
  - work in progress by Gleb Khorunzhiy
  - Checklist by Nick Bluth
  - office desk by Icon Fair
  - Data Model by Sam Smith
  - manual by Oliviu Stoian
  - Ten's Sonic Screwdriver by Cassie McKown
  - depression by Kelcey Hurst
  - Hour Glass by Laura Beggs
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