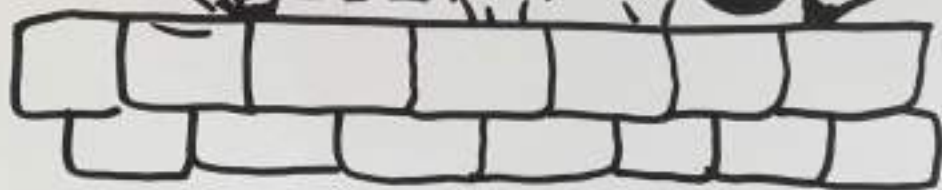


Design

for

IMPACT







ROTHAMSTED
RESEARCH









Poor experimental design

Poor experimental design

- No control groups

Poor experimental design

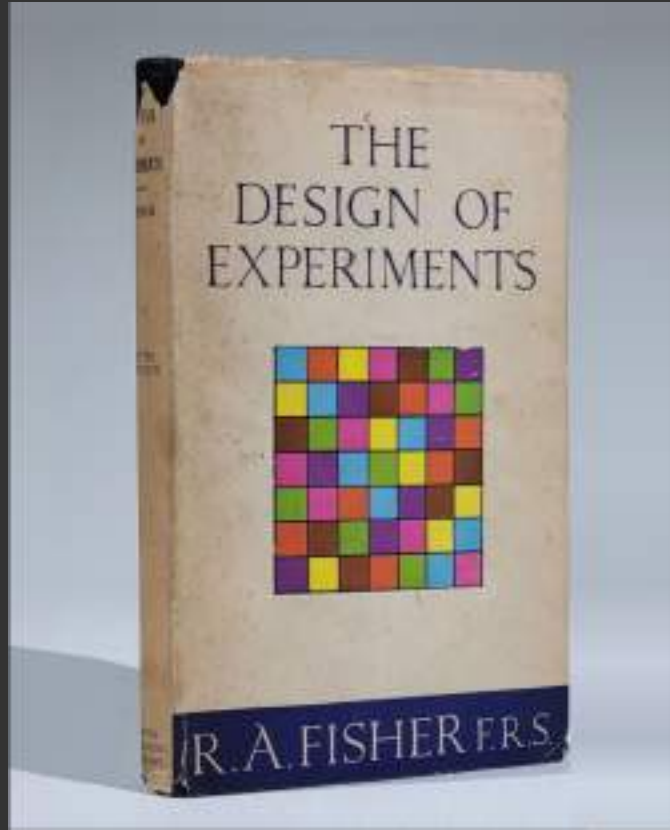
- No control groups
- Low sample size

Poor experimental design

- No control groups
- Low sample size
- Dodgy randomization

Poor experimental design

- No control groups
- Low sample size
- Dodgy randomization
- Crappy hypotheses 🍌





? ? ?
? ? ? ?



Conversion
DESIGN

The image shows a stack of white papers on a wooden surface. The top paper has the word 'Conversion' written in black, with a red underline. Below it, the word 'DESIGN' is written in a larger, bold, black font. A red arrow starts from the bottom of the 'Conversion' underline and points diagonally upwards and to the right, ending above the 'DESIGN' text.

We'll cover

We'll cover

- What Conversion Design is

We'll cover

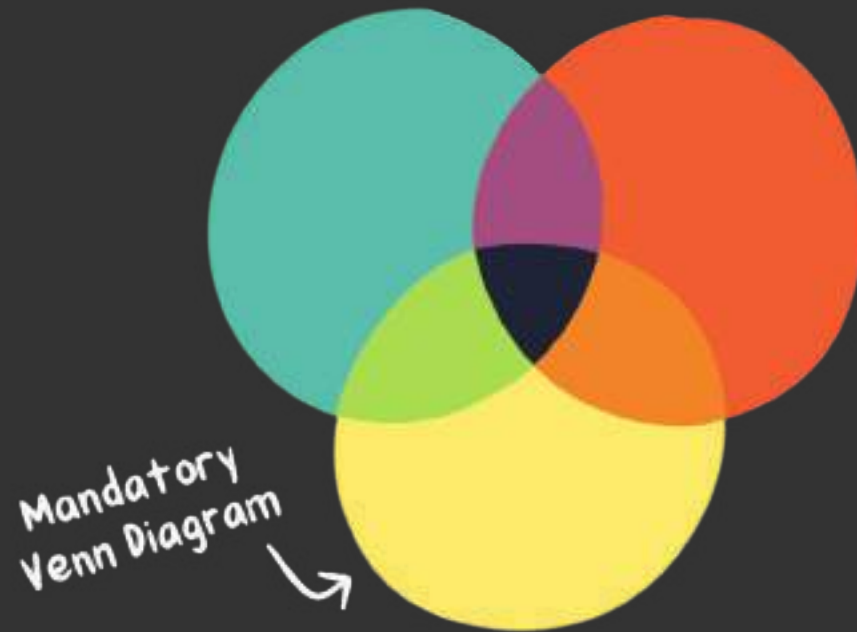
- What Conversion Design is
- The Conversion Design process

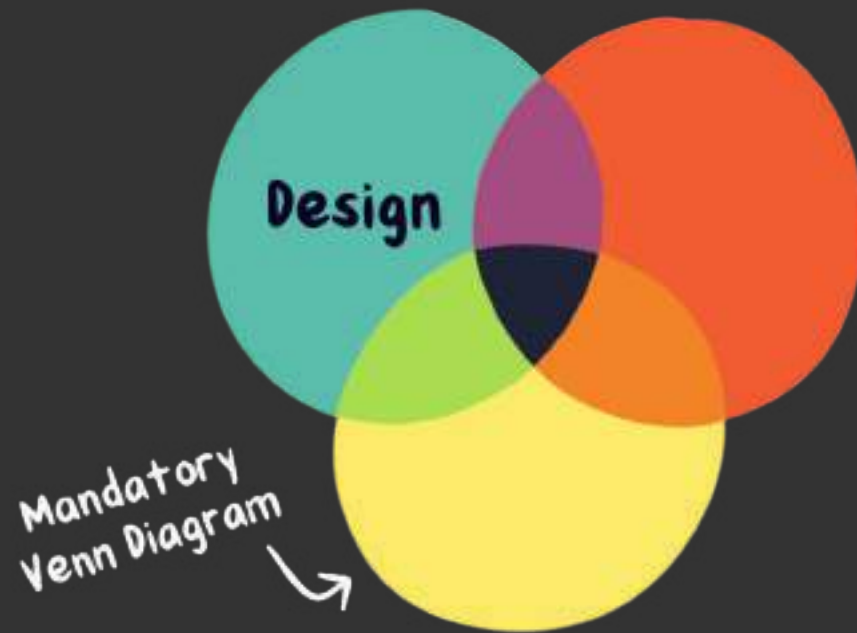
We'll cover

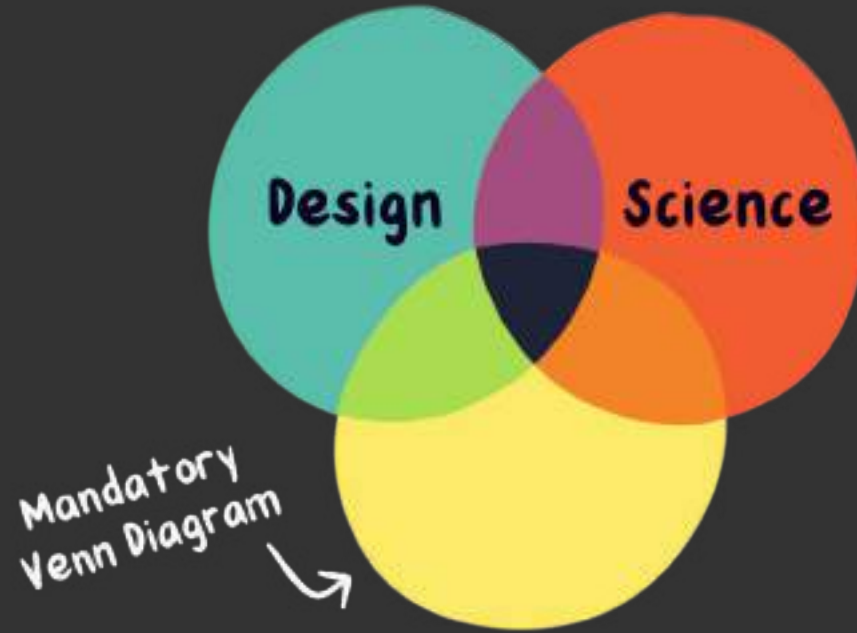
- What Conversion Design is
- The Conversion Design process
- How it drives growth

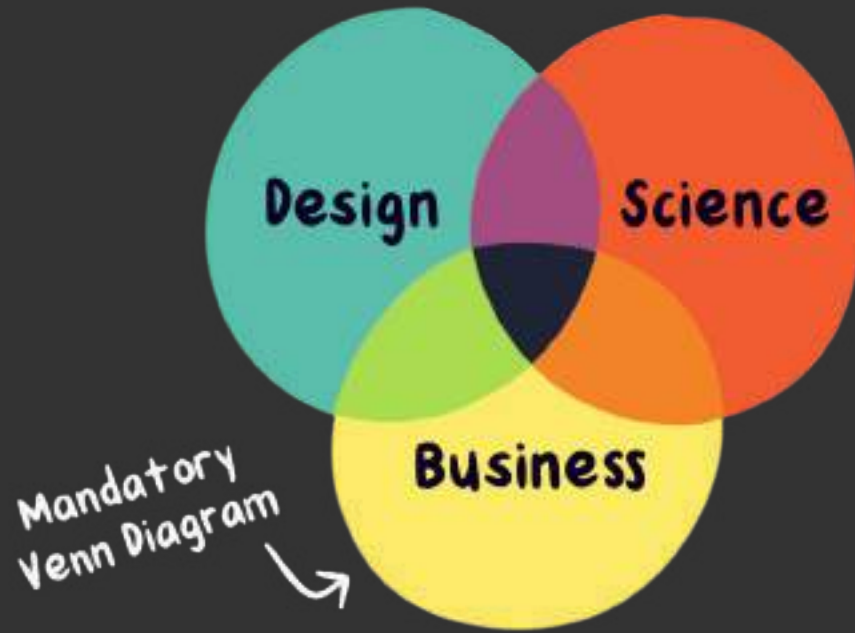


What is... Conversion Design?

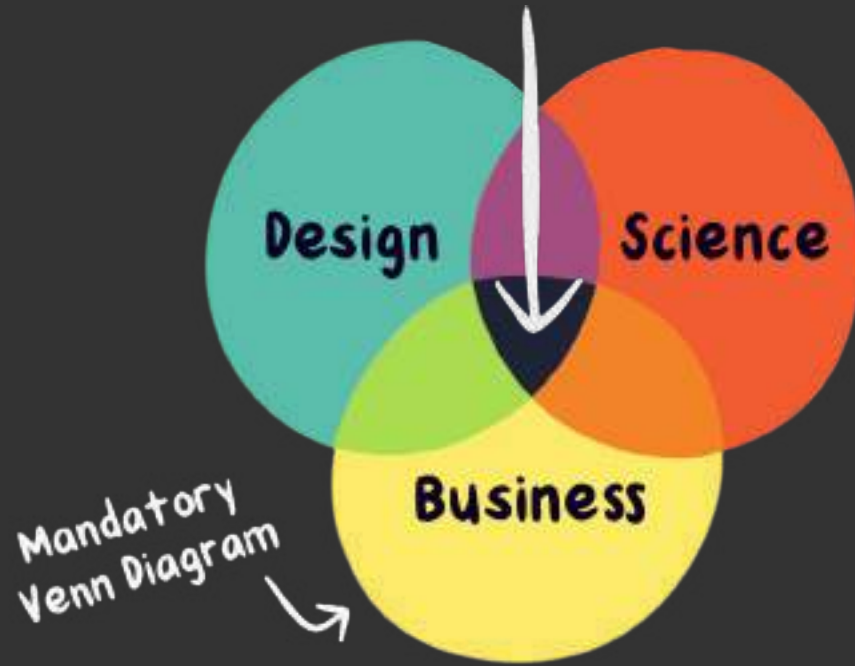




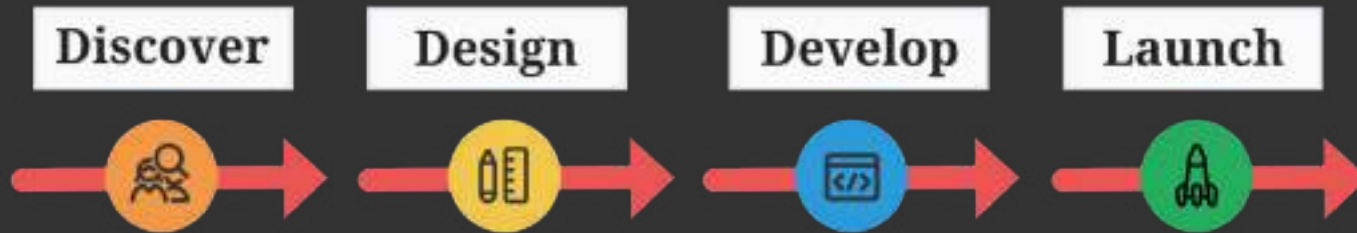




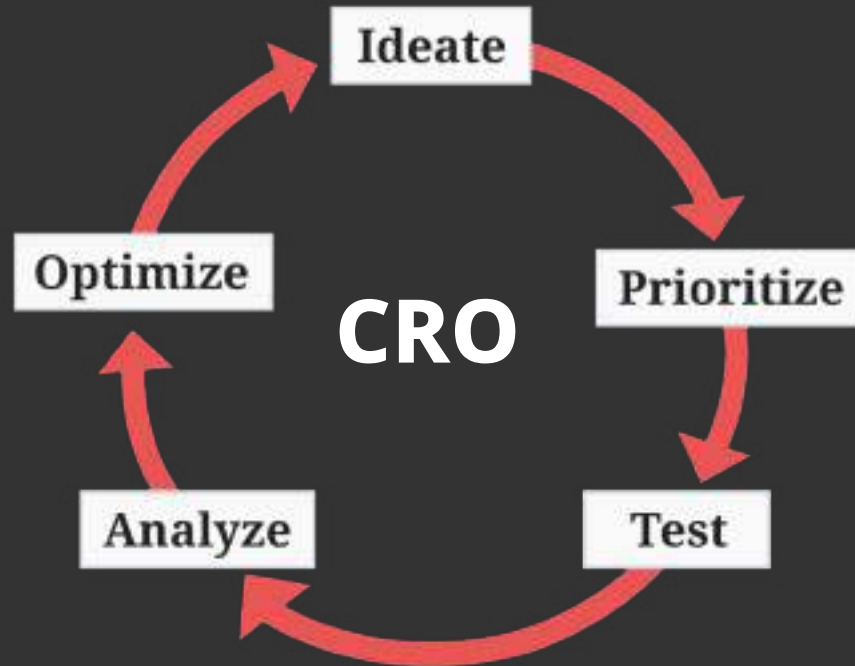
Conversion design



Product development process



Conversion rate optimization



Linear thinking



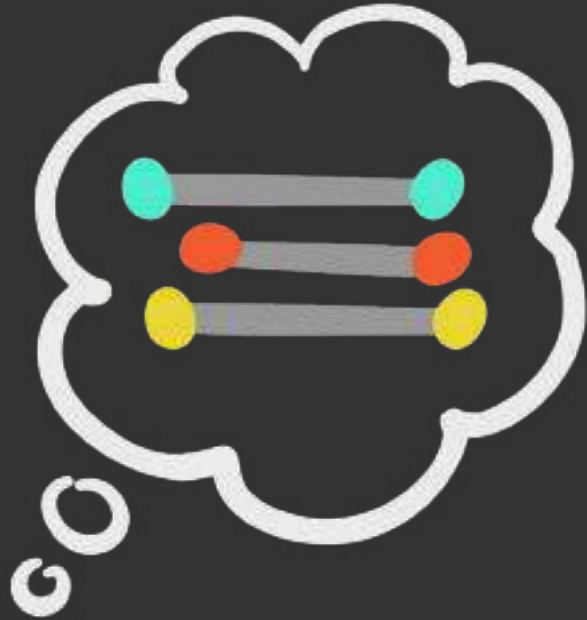
Linear thinking



1

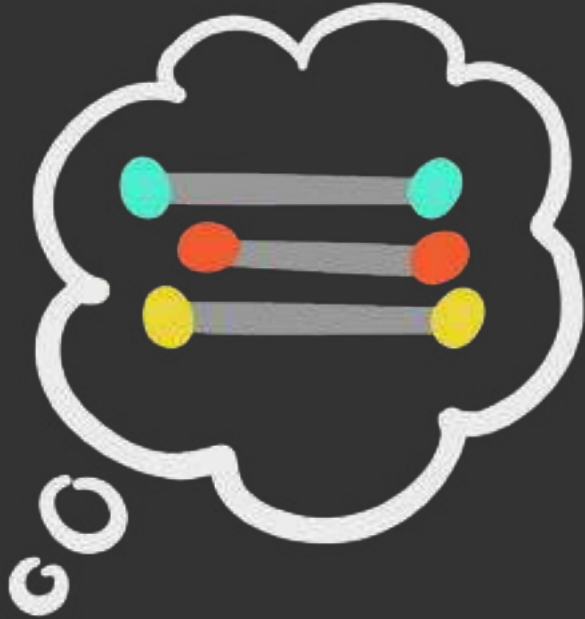
Step-by-step

Linear thinking



- 1 Step-by-step
- 2 Simple relationships

Linear thinking



- 1 Step-by-step
- 2 Simple relationships
- 3 Clear progress

Systems thinking



Systems thinking

1

Dynamic



Systems thinking

1

Dynamic

2

Complex relationships



Systems thinking

1

Dynamic

2

Complex relationships

3

Realistic progress



embrace



Complexity

simple



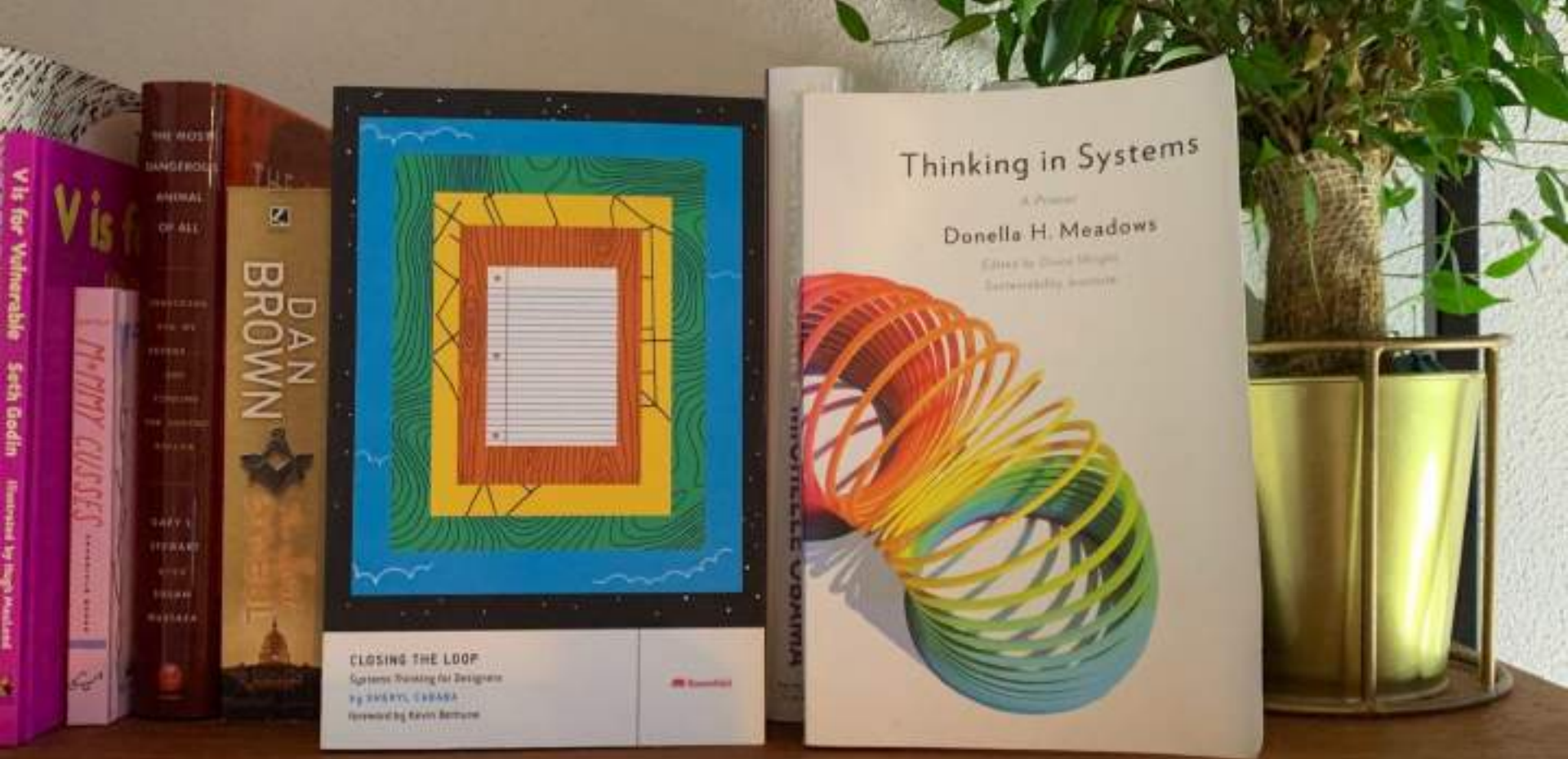
relationships

Think in both ways



Make things
Better!

NOT JUST DIFFERENT



Thinking in Systems

A Primer
Donella H. Meadows
Edited by David Wright
Sustainability Institute



CLOSING THE LOOP
Systems Thinking for Designers
By SHERYL CASASSA
Foreword by Kevin Struick
No Starch Press

DAN BROWN



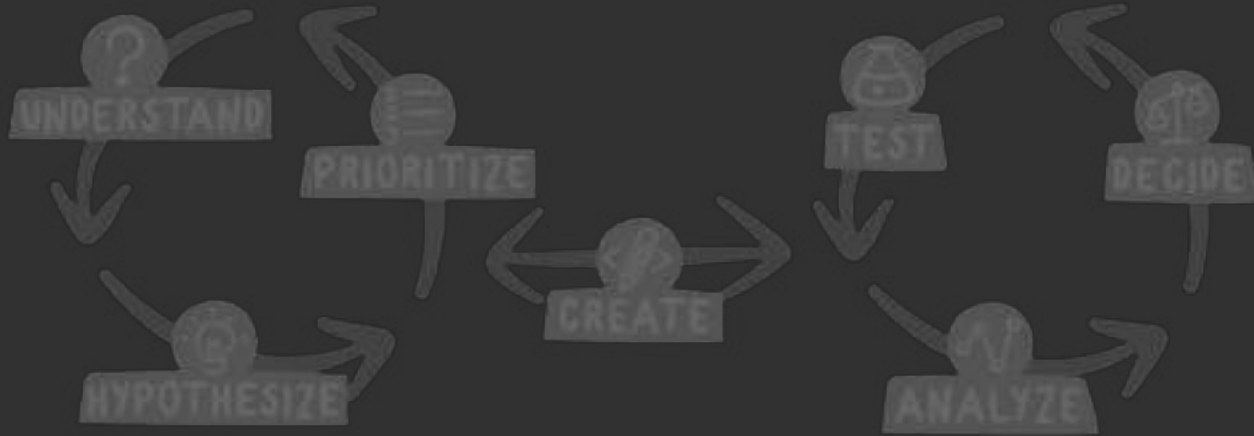
Vis for Vulnerable
Seth Godin
Illustrated by Ingo Isenhardt

We'll cover

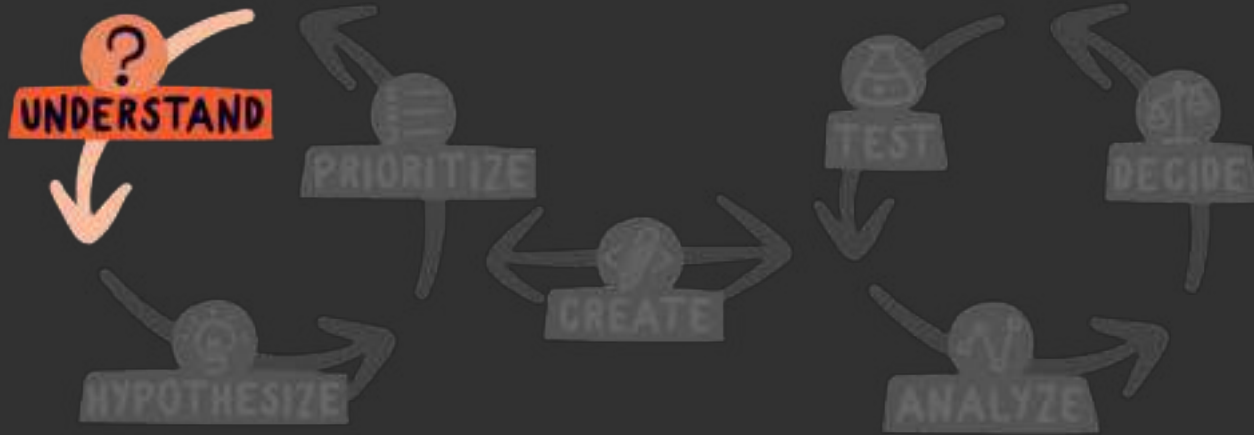
- ~~What Conversion Design is~~
- The Conversion Design process
- How it drives growth



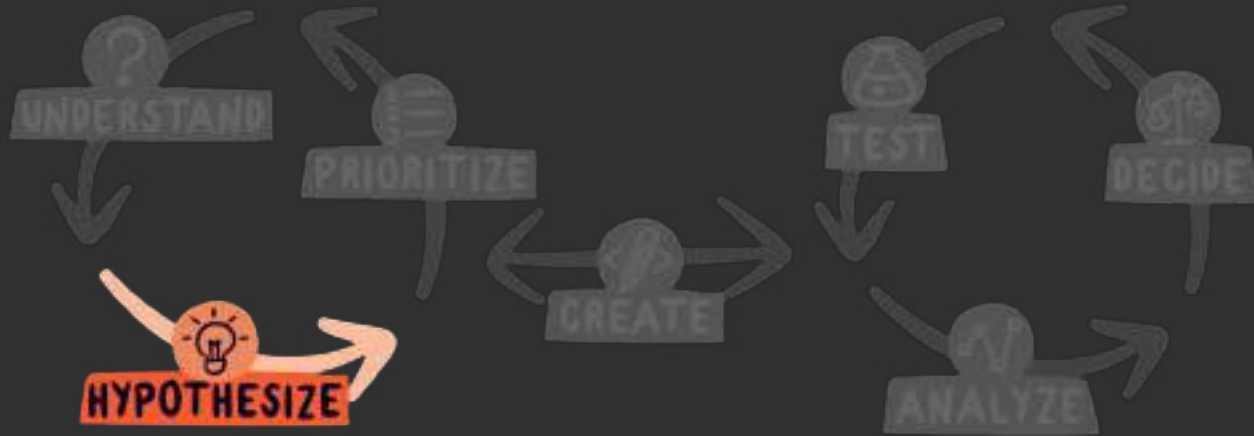
Conversion design process



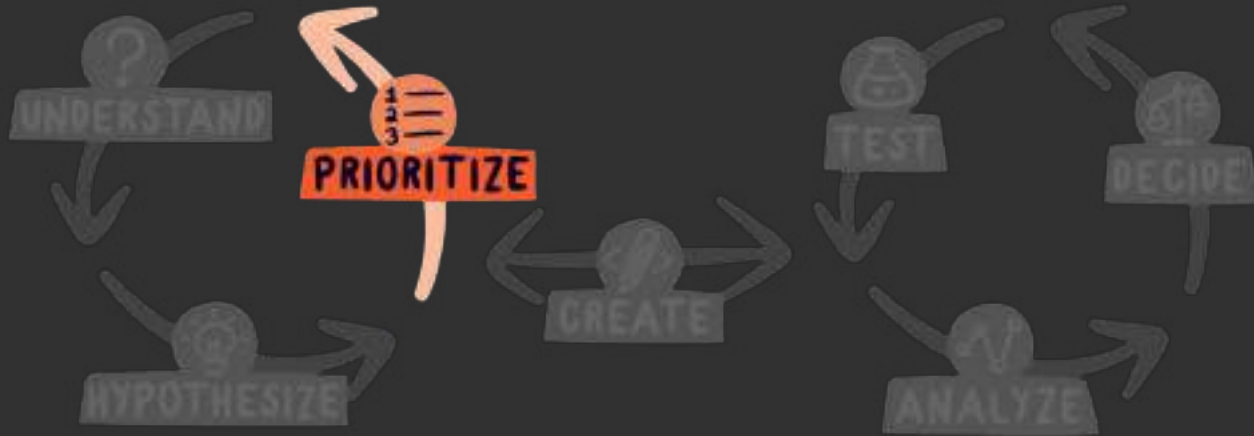
Conversion design process



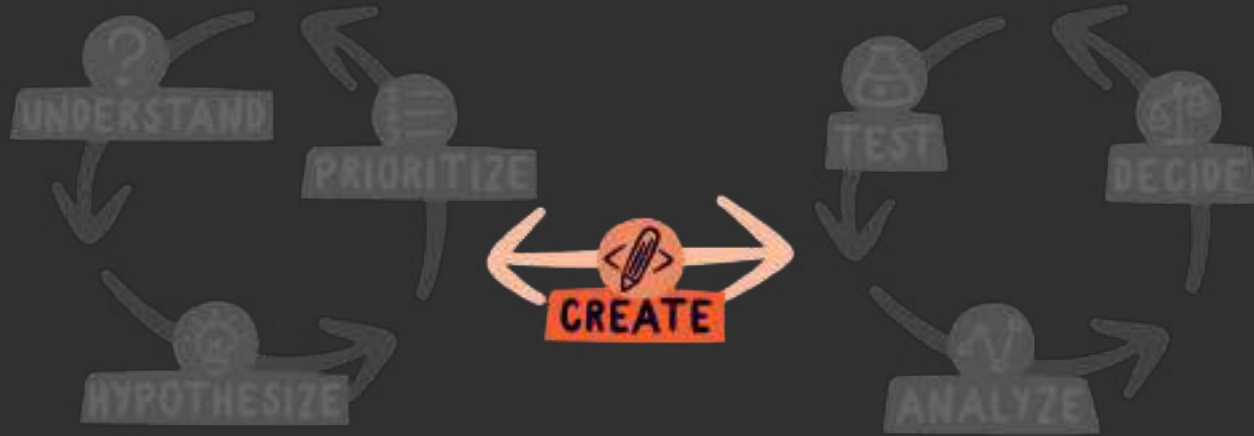
Conversion design process



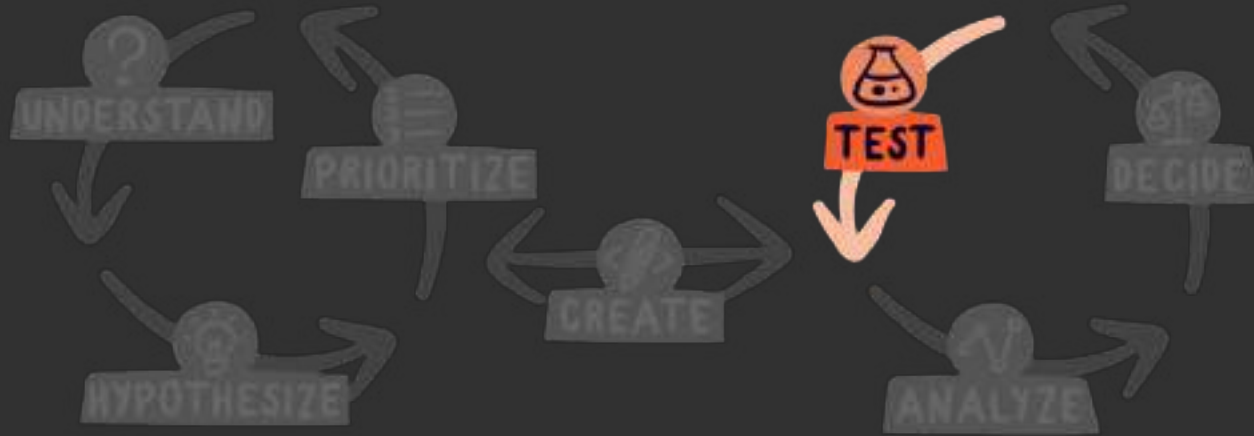
Conversion design process



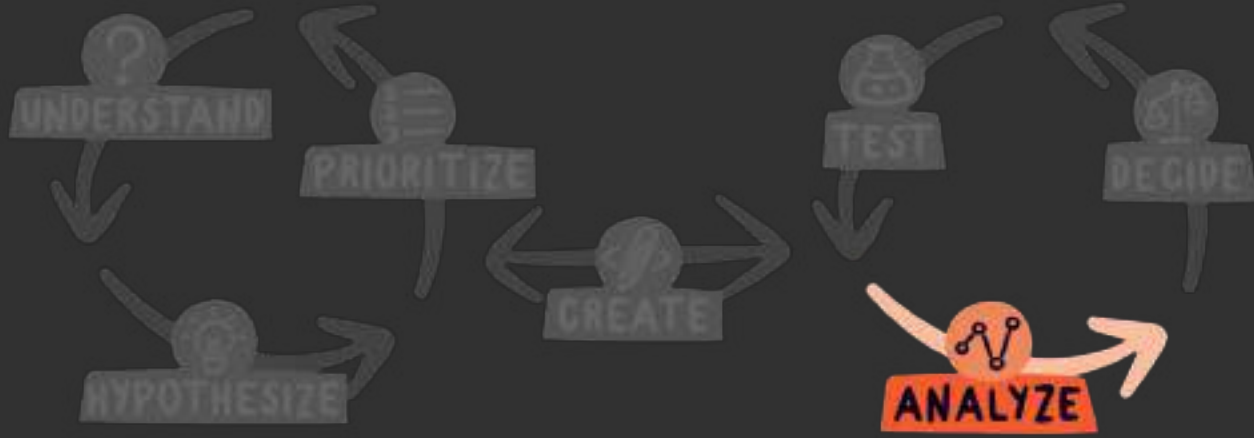
Conversion design process



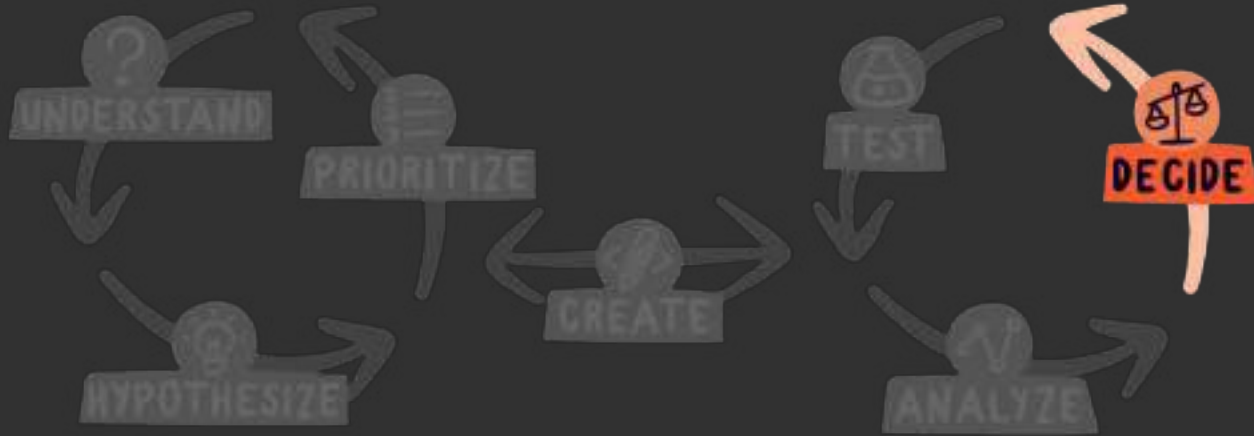
Conversion design process



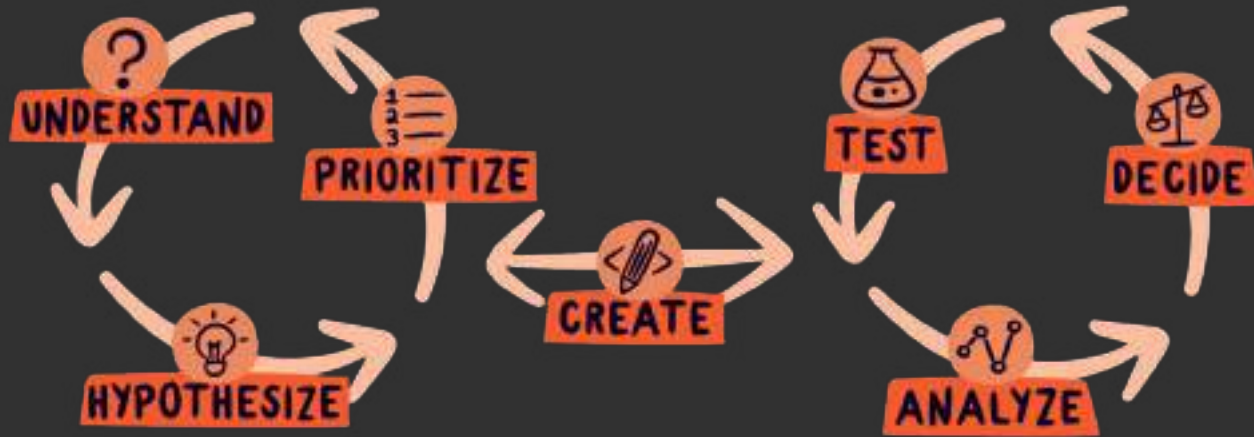
Conversion design process



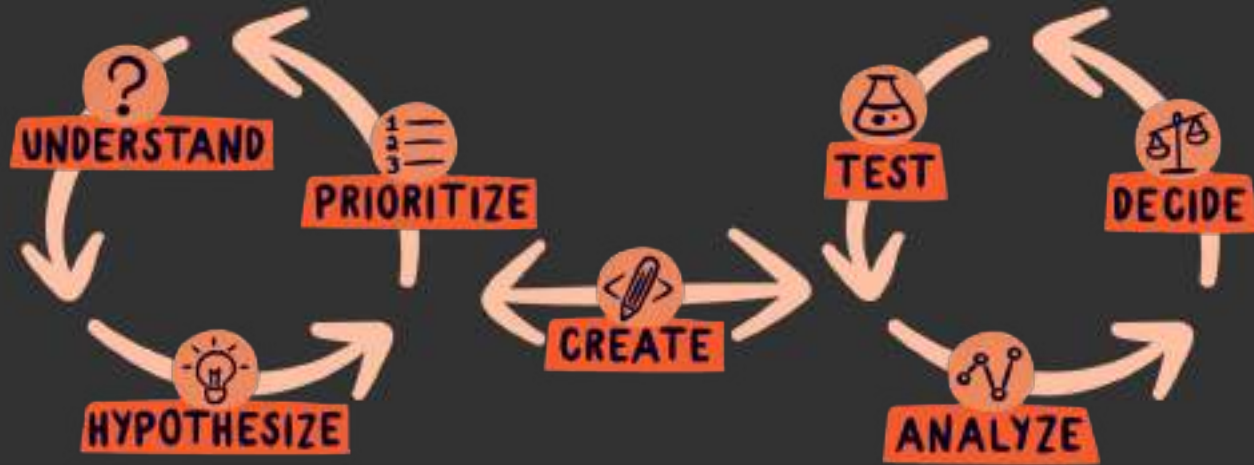
Conversion design process



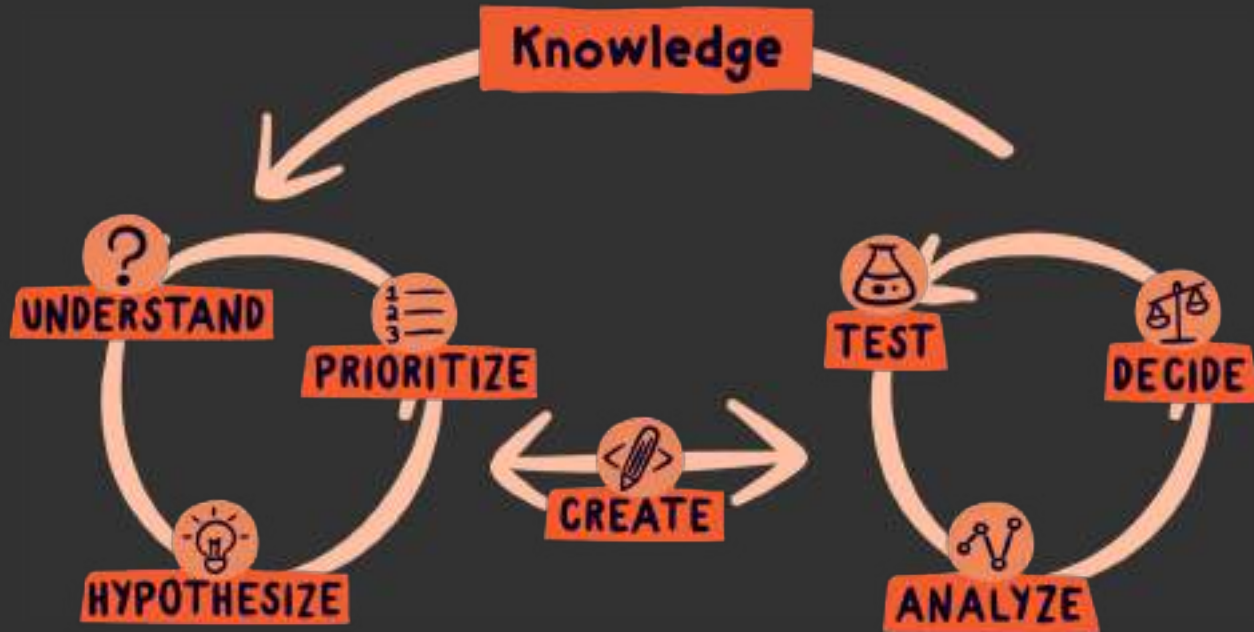
Conversion design process

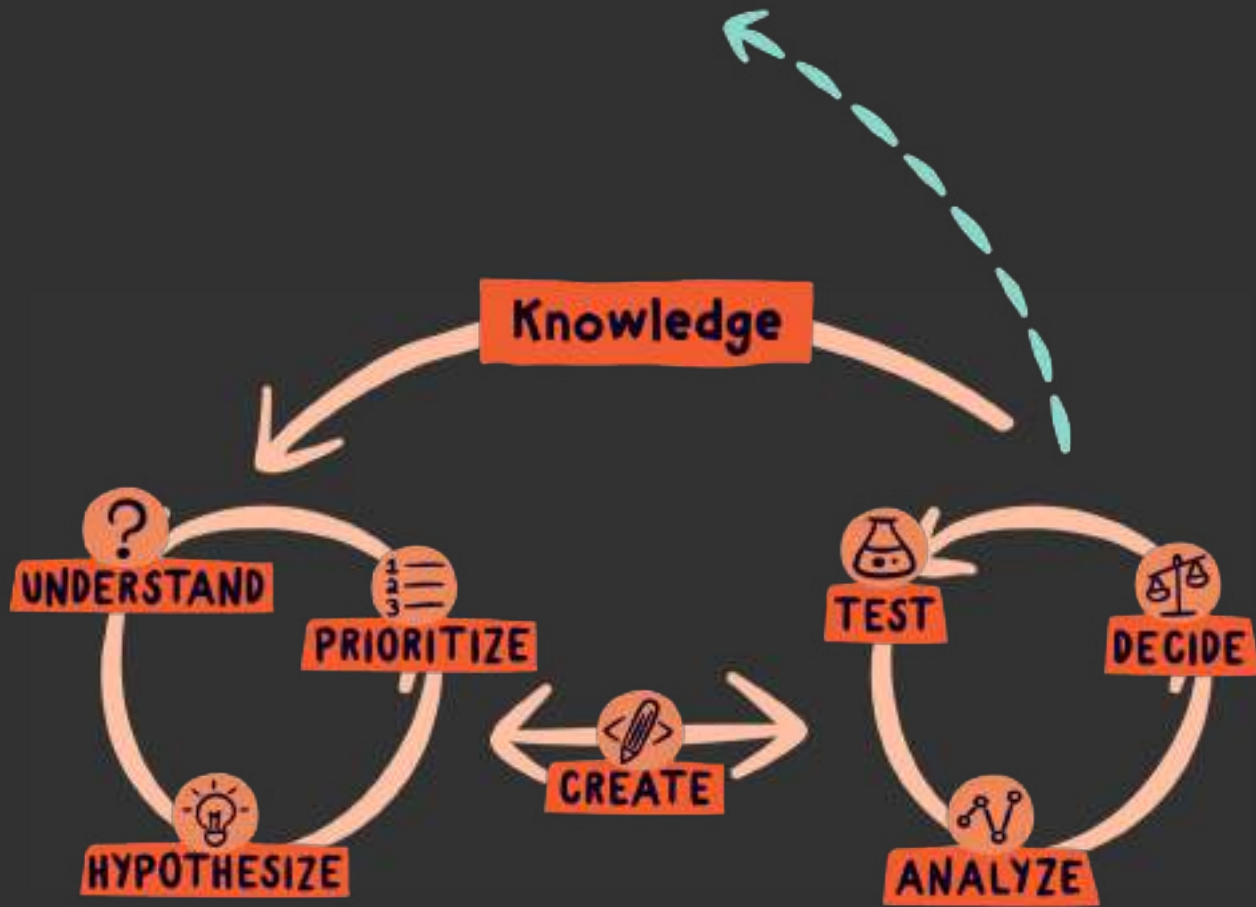


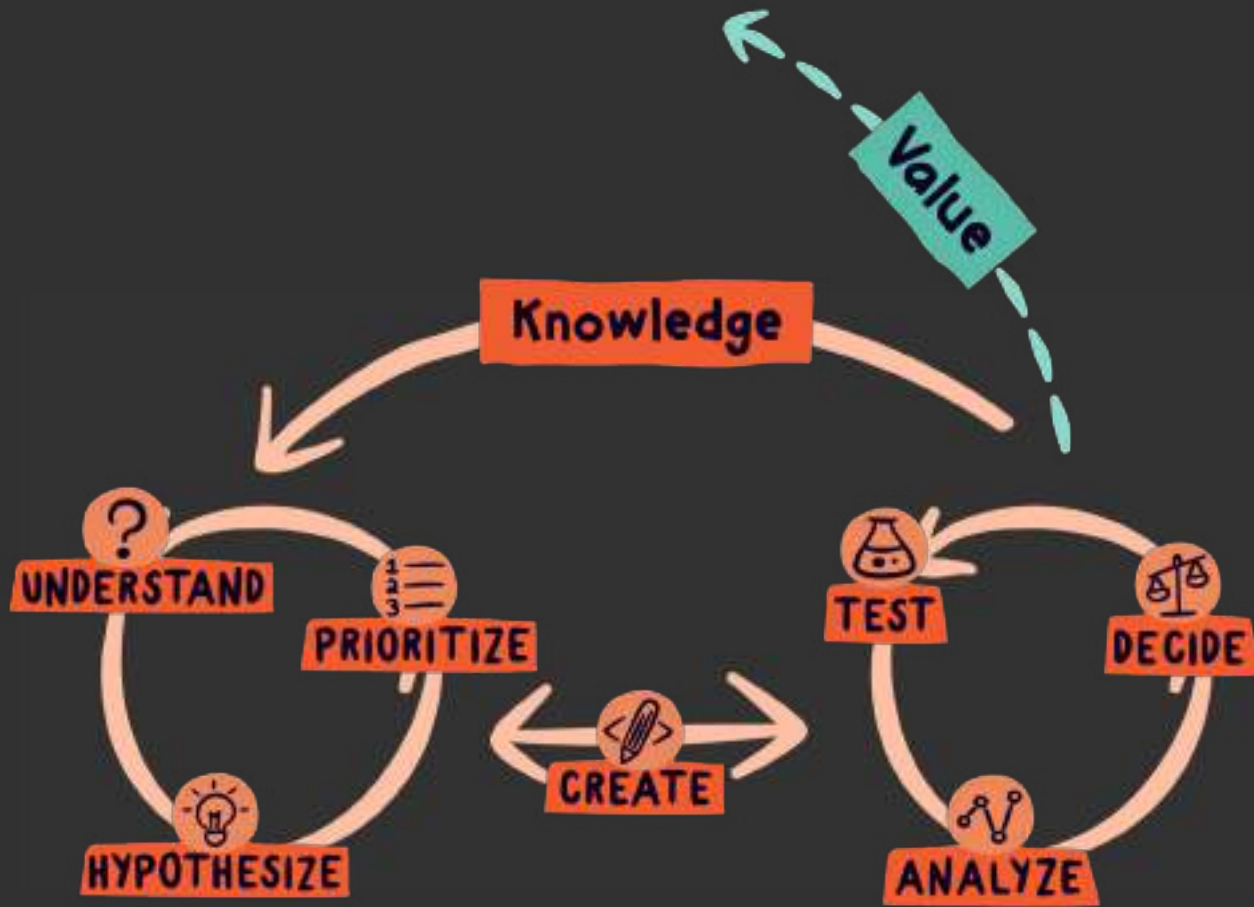
Conversion design process



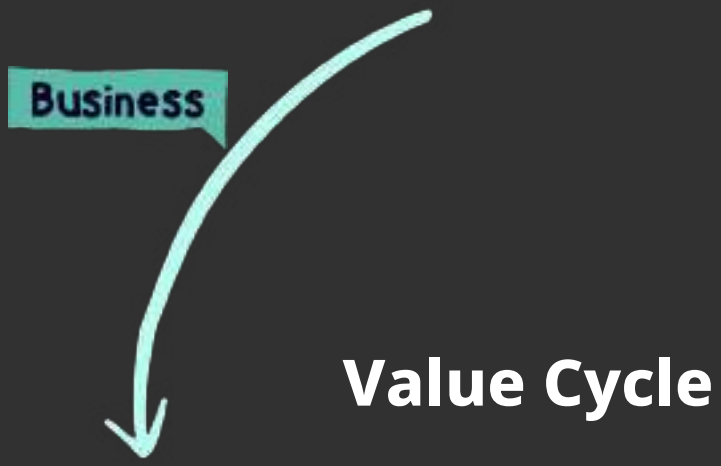
Conversion design process

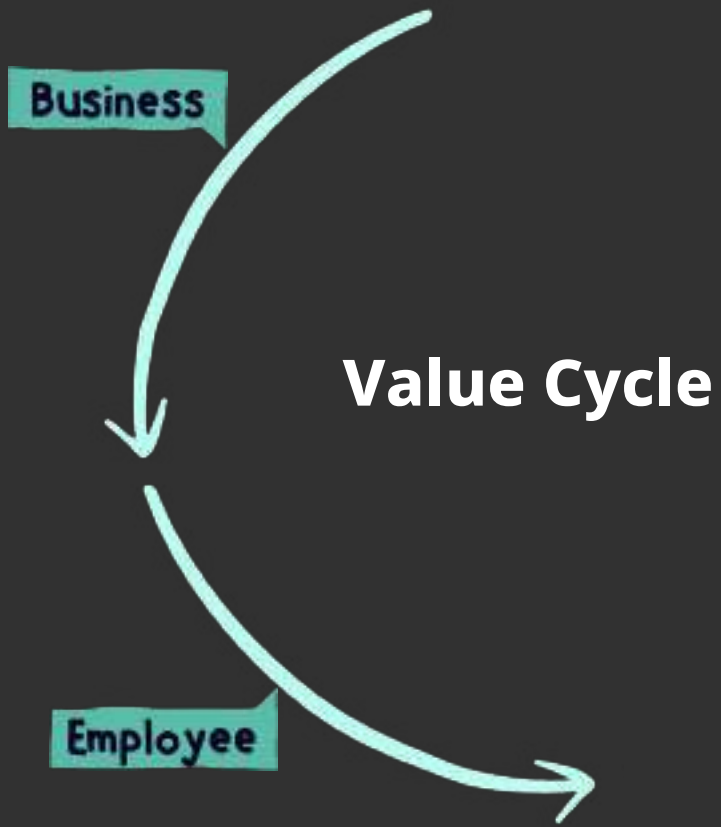


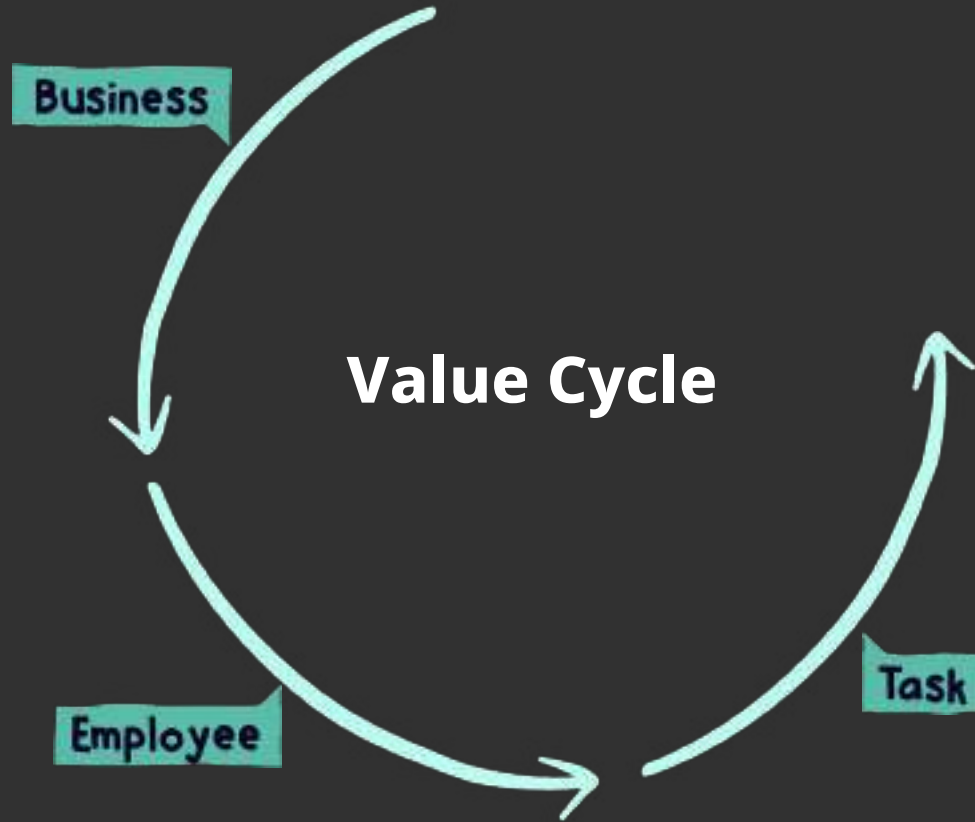


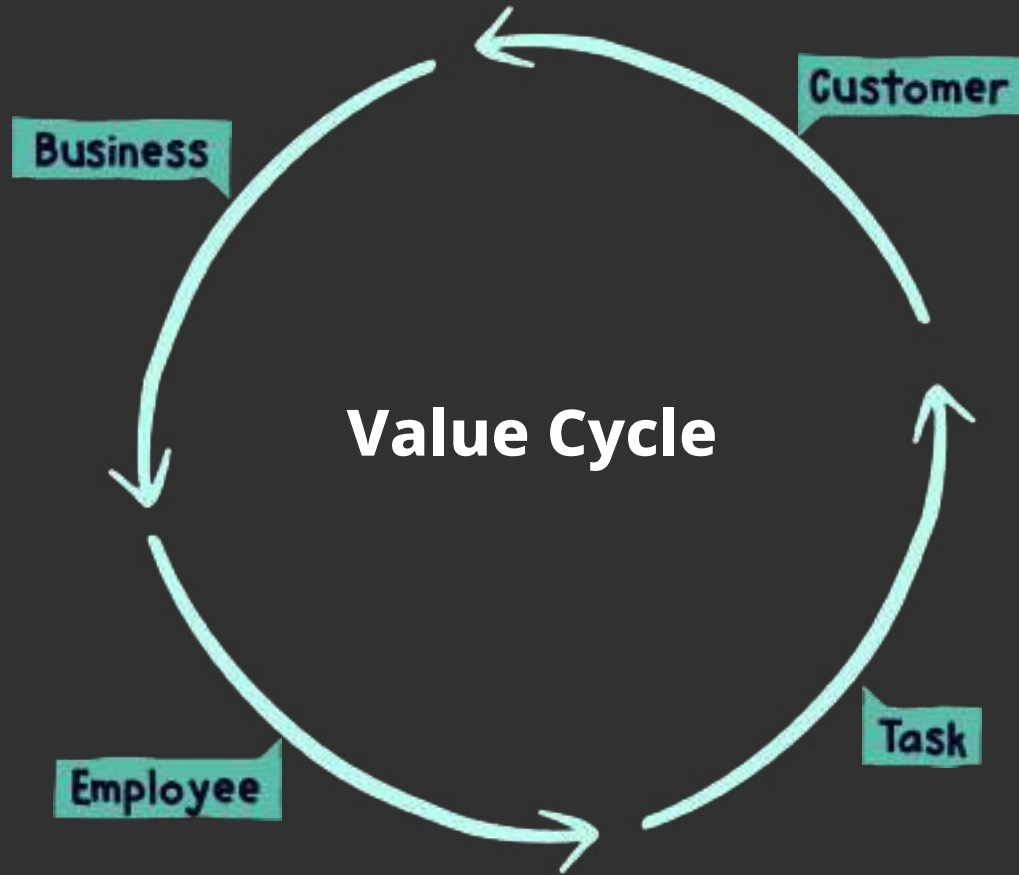


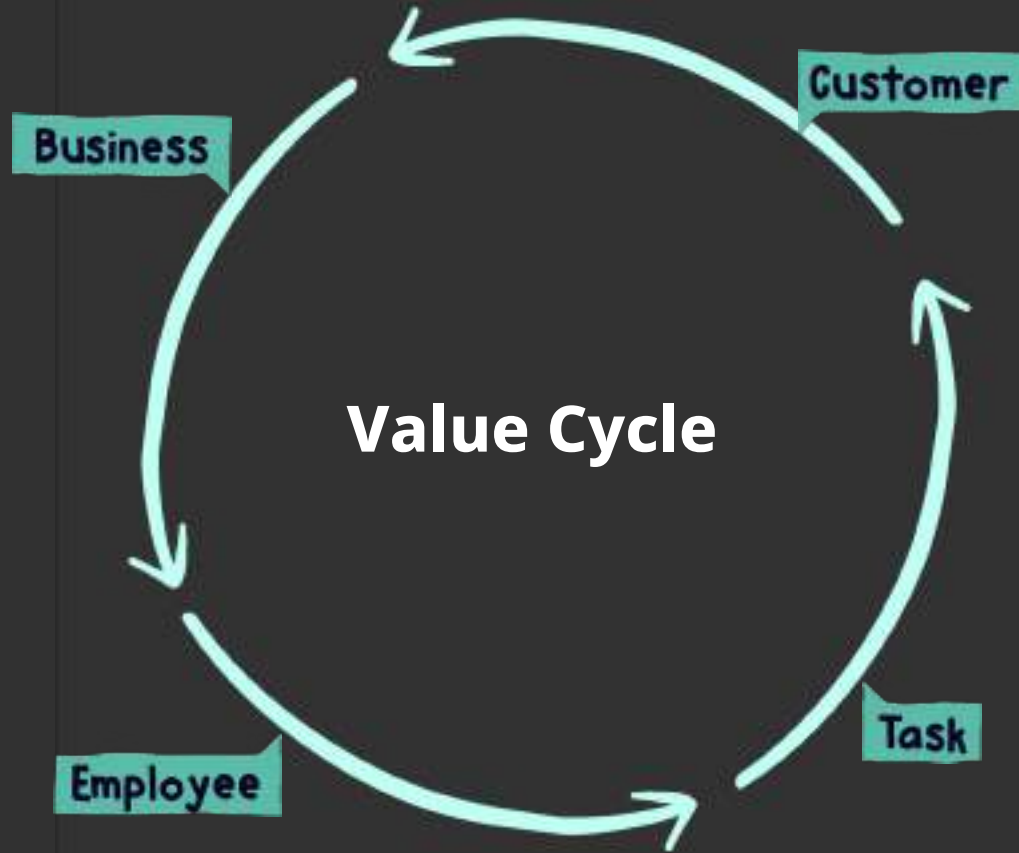
Value Cycle

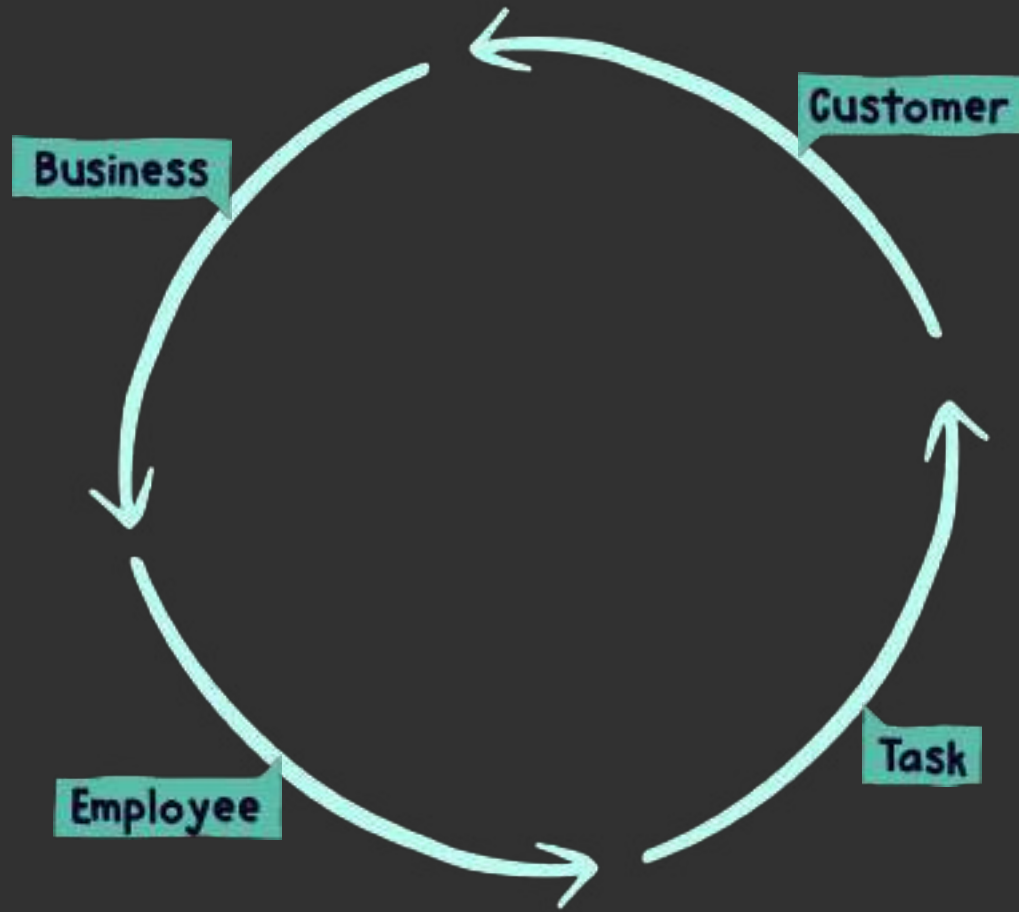


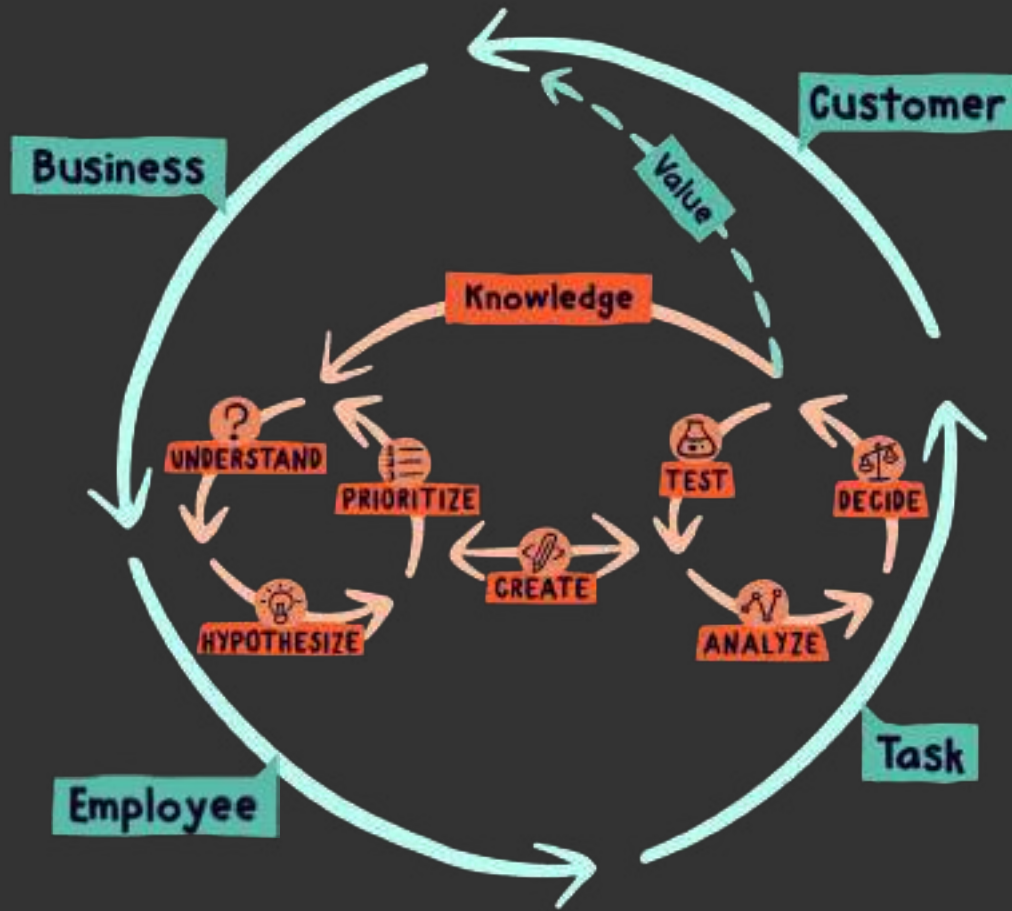


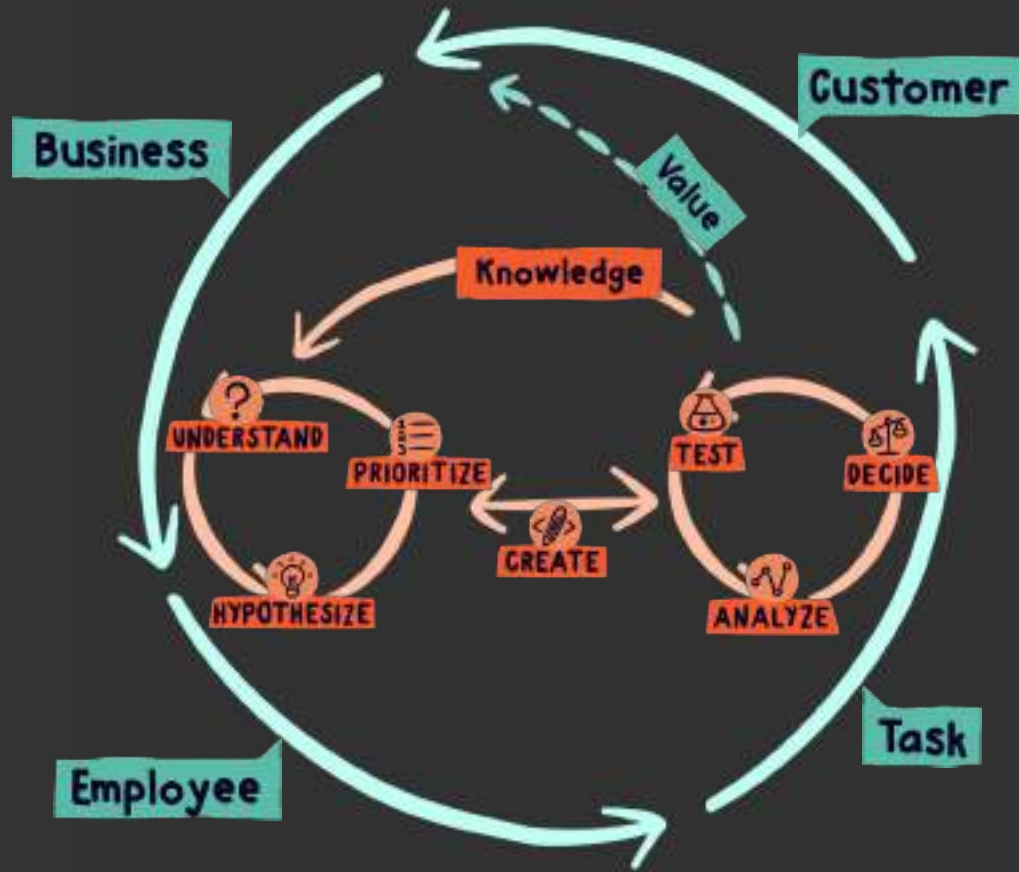












We'll cover

- ~~What Conversion Design is~~
- ~~The Conversion Design process~~
- How it drives growth

Research strategy

Research strategy



Business Goals

Research strategy



Research strategy



Research strategy



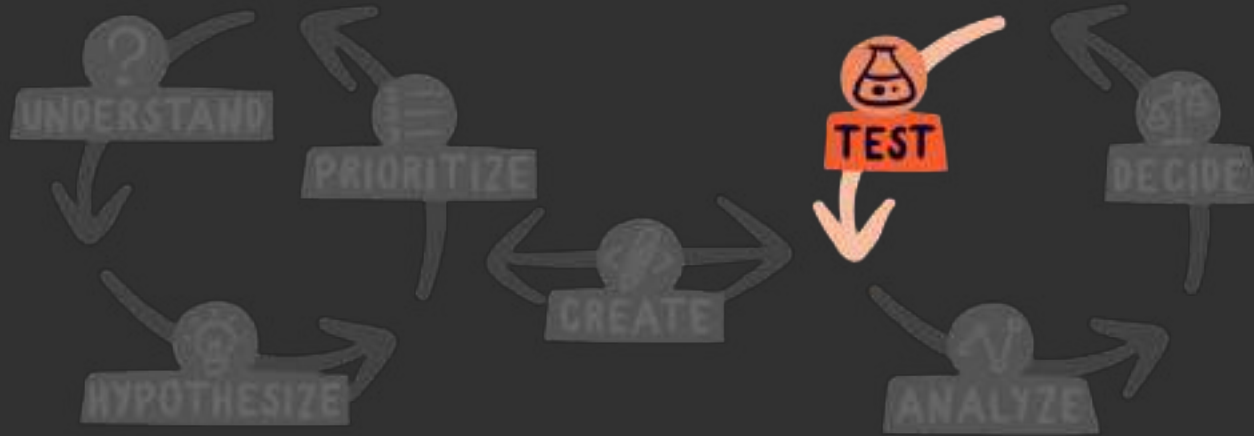
Research strategy

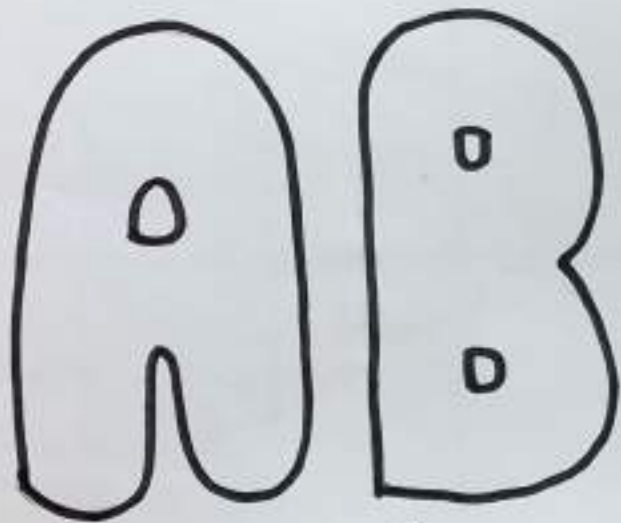


Research strategy



Conversion design process



A hand-drawn illustration on a white piece of paper. It features two large, rounded letters, 'A' and 'B', drawn with thick black outlines. Inside the 'A' is a single small black dot. Inside the 'B' are two small black dots, one above the other. The drawing is simple and appears to be done with a marker or thick pen.

test

Hierarchy of evidence



Hierarchy of evidence



Hierarchy of evidence



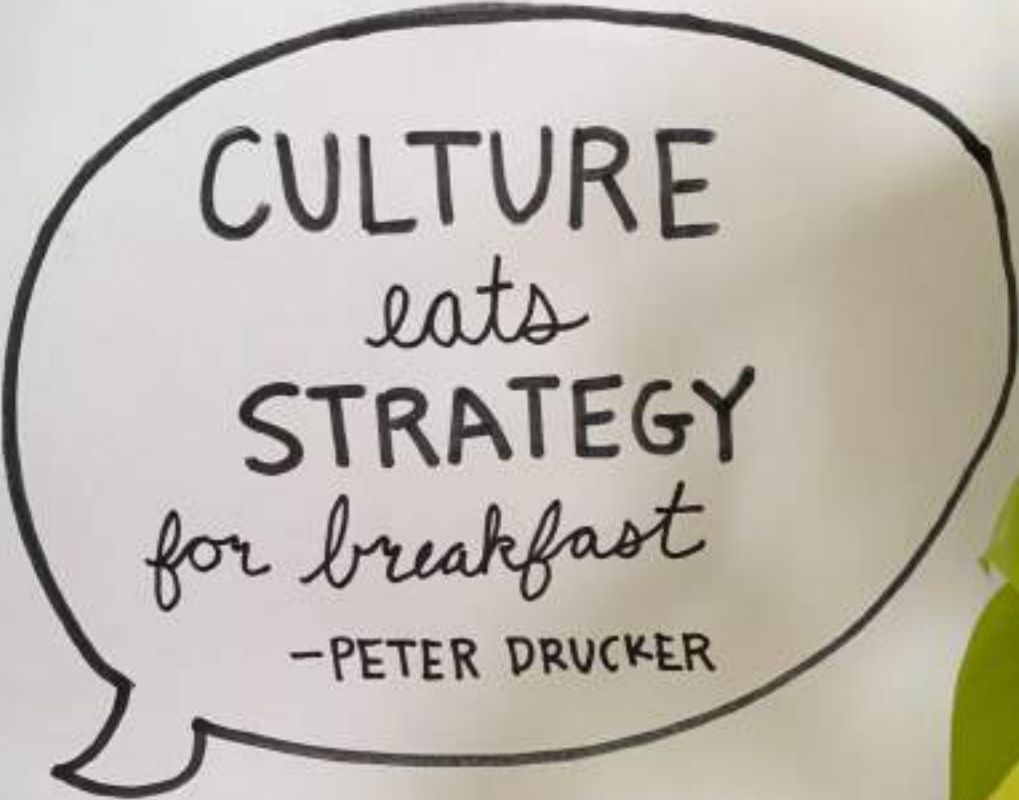
Hierarchy of evidence





Good experimental design

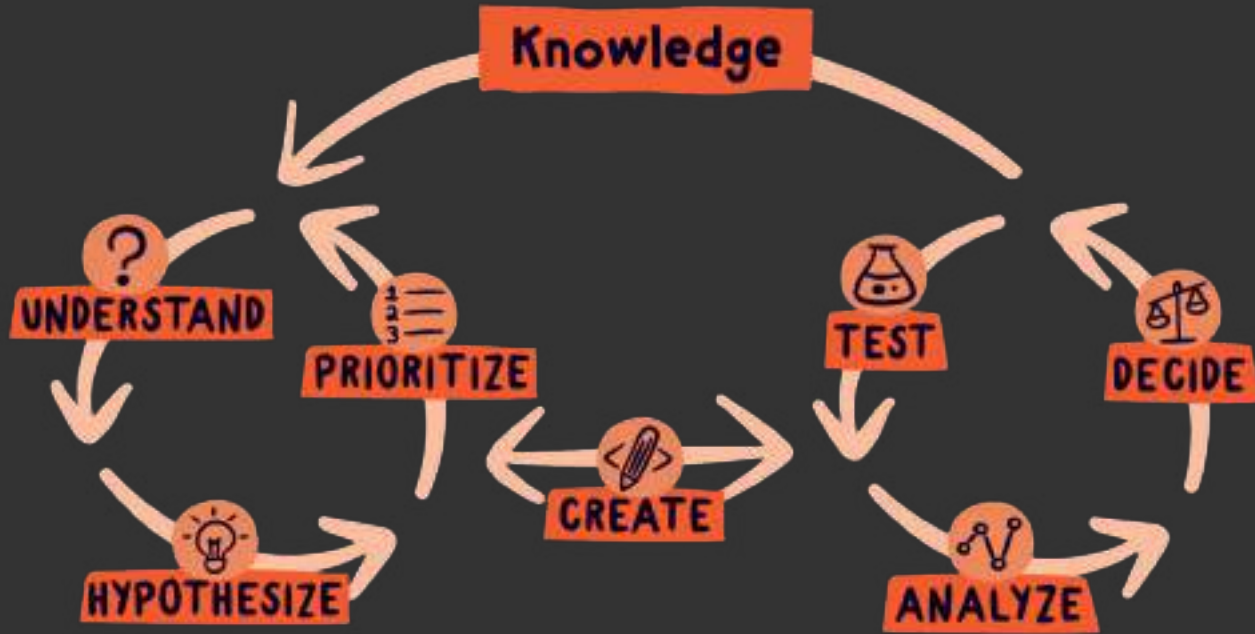
INTRODUCE	MEASURE	CREATE	DECIDE	CHECKOUT						
<h2>Design Like You're Right</h2> <p>Baseline State The current state is... [description of base]</p> <p>Research Insight Inaction... [research] observation or [evaluation]</p> <p>Variant We believe that... [description of testable idea]</p> <p>Problem Statement This is a [problem or opportunity] because... [background about the value it can create]</p> <p>Prediction If we [proposed change] to [independent variable] then [expected impact] on [dependent variable(s)]</p>	<h2>Test Like You're Wrong</h2> <p>Hull Hypothesis/ Assumptions The change is tested against the current state. The assumption here is that the change has an effect. However, if the effect did not in fact exist it should be observed, etc etc...</p> <p>• change one variable • expect the current state to end • adapt the change as the new current state</p> <p>Otherwise, we will reject the change and keep things in their current state.</p> <p>Metric & Math This test is designed to find an impact on... _____ I get metrics of... _____ % increase/decrease effect of it... _____ % significance detected... _____ % statistical power after... _____ statistical test... _____ I use data...</p> <p>Test Type <input type="checkbox"/> Repetitive (like A/B testing) <input type="checkbox"/> Non-repetitive (don't make things worse)</p>	<h2>Make With Care</h2> <p>Assumptions In this experiment, we assumed... [insert assumptions that guided the implementation]</p> <p>Design Decisions Because of those assumptions, we made these design decisions... [insert relevant design decisions]</p> <p>Developmental Needs To support the design, we made these engineering decisions... [insert relevant engineering decisions]</p> <p>Screenshots</p> <table border="1"><thead><tr><th>Base</th><th>Variant</th></tr></thead><tbody><tr><td></td><td></td></tr><tr><td></td><td></td></tr></tbody></table>	Base	Variant					<h2>Do What's Right</h2> <p>Understated Benefits This will be good for [stakeholder] because... This will be good for [stakeholder] because... This will be good for [stakeholder] because...</p> <p>Return & Overhead It will require a [insert positive or negative change] effort on [insert metrics]. We will not implement this change if it has [insert all positive or negative change(s)] impact on [insert guardrail metrics].</p> <p>Notes I, [name name], stand behind the utility of this test and I confirm that it is not: • unethical • discriminatory • illegal/illegal</p> <p>I understand that even if something is not illegal it still has potential. I am aware of how my decisions, and I take responsibility for thinking and acting behind this experiment.</p> <p>Age Date</p>	<h2>When Good Ideas Fail</h2> <p>A non-repetitive checklist to debug failed experiments</p> <p>DESIGN & EXPERIENCE</p> <ul style="list-style-type: none"><input type="checkbox"/> Call to action visible<input type="checkbox"/> Screen reader navigation<input type="checkbox"/> Right-sized copy length<input type="checkbox"/> Typography & legibility<input type="checkbox"/> Color usage<input type="checkbox"/> Information architecture<input type="checkbox"/> Visual hierarchy<input type="checkbox"/> Priority in UI placement<input type="checkbox"/> Content reading flow<input type="checkbox"/> Content scannability<input type="checkbox"/> Iterative summary<input type="checkbox"/> Affordance & interactivity<input type="checkbox"/> Feedback & confirmation<input type="checkbox"/> Access of content or action <p>ENGINEERING & TECH</p> <ul style="list-style-type: none"><input type="checkbox"/> Single code execution (SSE)<input type="checkbox"/> Page load time (s/m)<input type="checkbox"/> Time to interactive (TTI for app)<input type="checkbox"/> Errors & warnings<input type="checkbox"/> Redirections/soft-errors<input type="checkbox"/> Load times<input type="checkbox"/> Crash rate<input type="checkbox"/> Error status & details<input type="checkbox"/> Algorithm quality & timing data <p>AUDIENCE & CONTEXT</p> <ul style="list-style-type: none"><input type="checkbox"/> Language<input type="checkbox"/> Platform<input type="checkbox"/> Currency<input type="checkbox"/> Phone carrier<input type="checkbox"/> Date type (mm vs. dd/mm)<input type="checkbox"/> Authentication error (logged in/out)<input type="checkbox"/> Network speed<input type="checkbox"/> Device type & screen size<input type="checkbox"/> Browser type<input type="checkbox"/> Operating system version<input type="checkbox"/> External performance<input type="checkbox"/> Publishing restriction & approval<input type="checkbox"/> Profile viewer (viewer, FPL, email)
Base	Variant									



CULTURE
eats
STRATEGY
for breakfast
-PETER DRUCKER

A white sheet of paper with a hand-drawn black speech bubble outline. Inside the bubble, the text is written in a mix of bold, uppercase, sans-serif and cursive fonts. The quote is centered on the page. The paper is placed on a wooden surface, with a green plant on the left and a yellow plant on the right. In the background, several books are visible on a shelf.

Conversion design process





amazon Google

amazon

Google

Booking.com

amazon

Google

Booking.com

∞ Meta

amazon

Google

Booking.com

∞ Meta

 Microsoft

amazon

Google

Booking.com

∞ Meta

 Microsoft

Uber

amazon

Google

Booking.com

∞ Meta

 Microsoft

Uber

 airbnb

amazon

Google

Booking.com

∞ Meta

 Microsoft

Uber

 airbnb

NETFLIX

“

Our success at Amazon

“

Our success at Amazon
is a function of how
many **experiments**

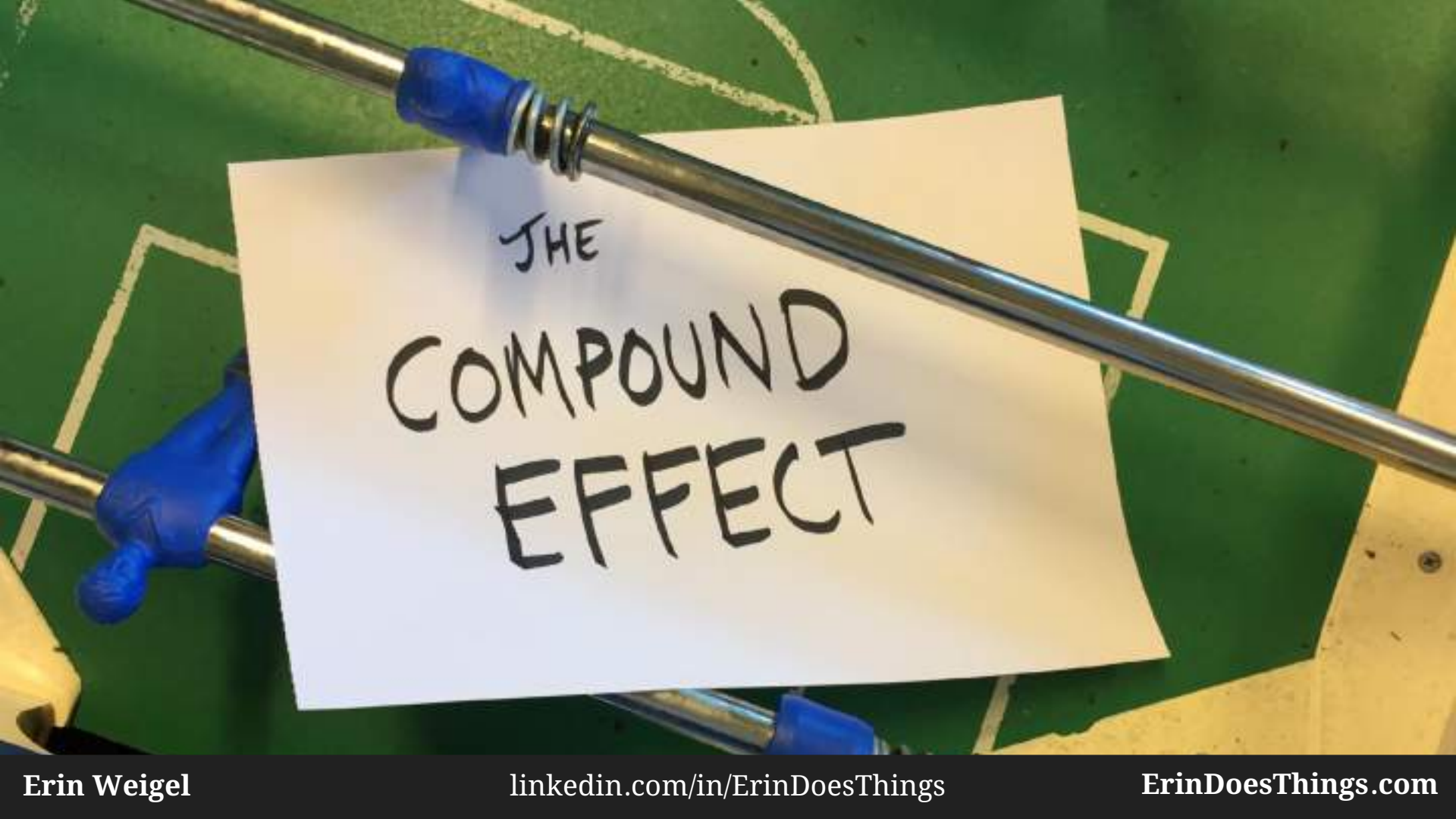
“

Our success at Amazon
is a function of how
many **experiments** we
do per year, per month,
per week, per day.

“

Our success at Amazon
is a function of how
many **experiments** we
do per year, per month,
per week, per day.

– Jeff Bezos 🍅



THE
COMPOUND
EFFECT

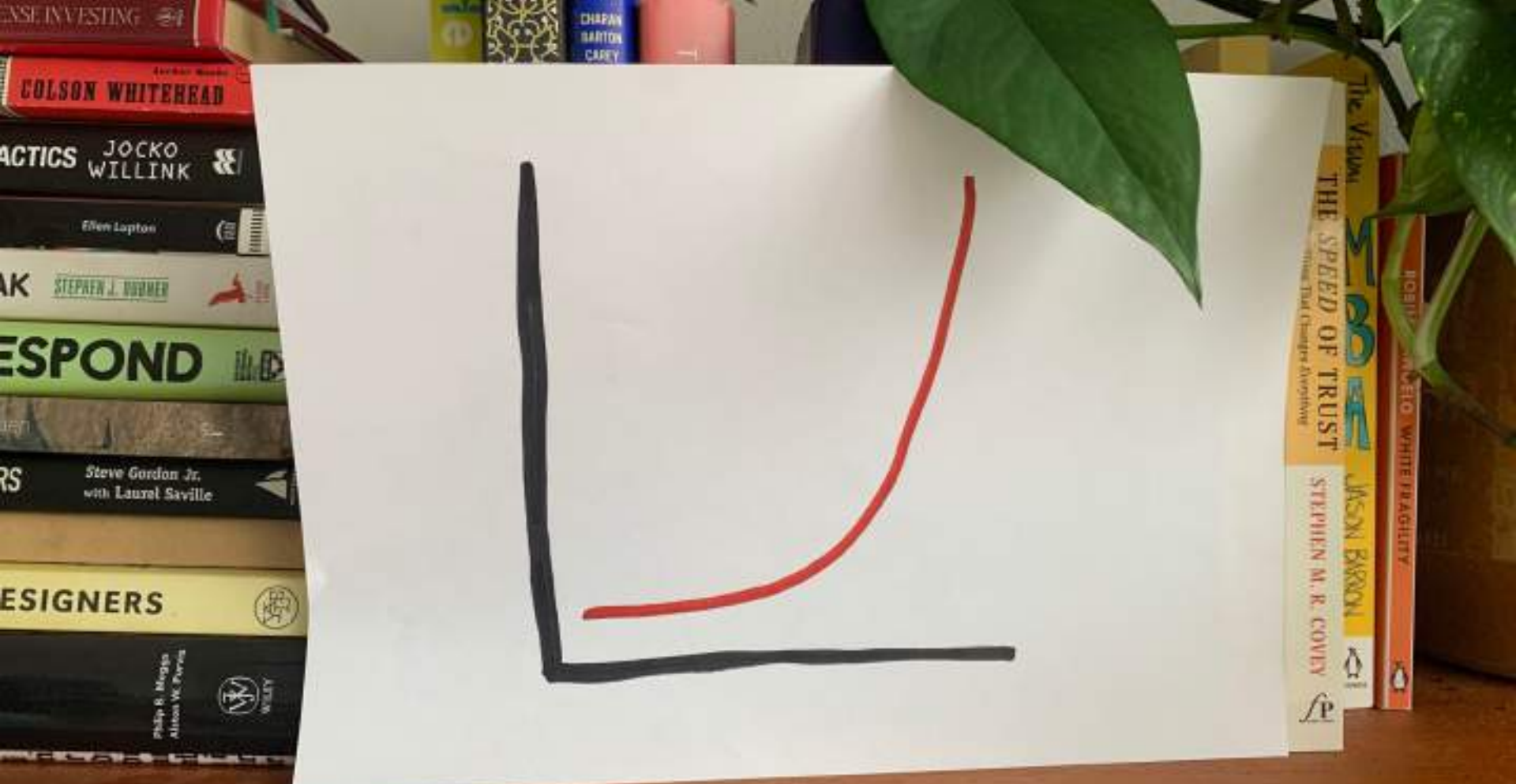




THERE ARE FAR MORE
WAYS TO FAIL
THAN THERE ARE
TO SUCCEED.



✓ ✓ ✓
✗ ✓ ✓



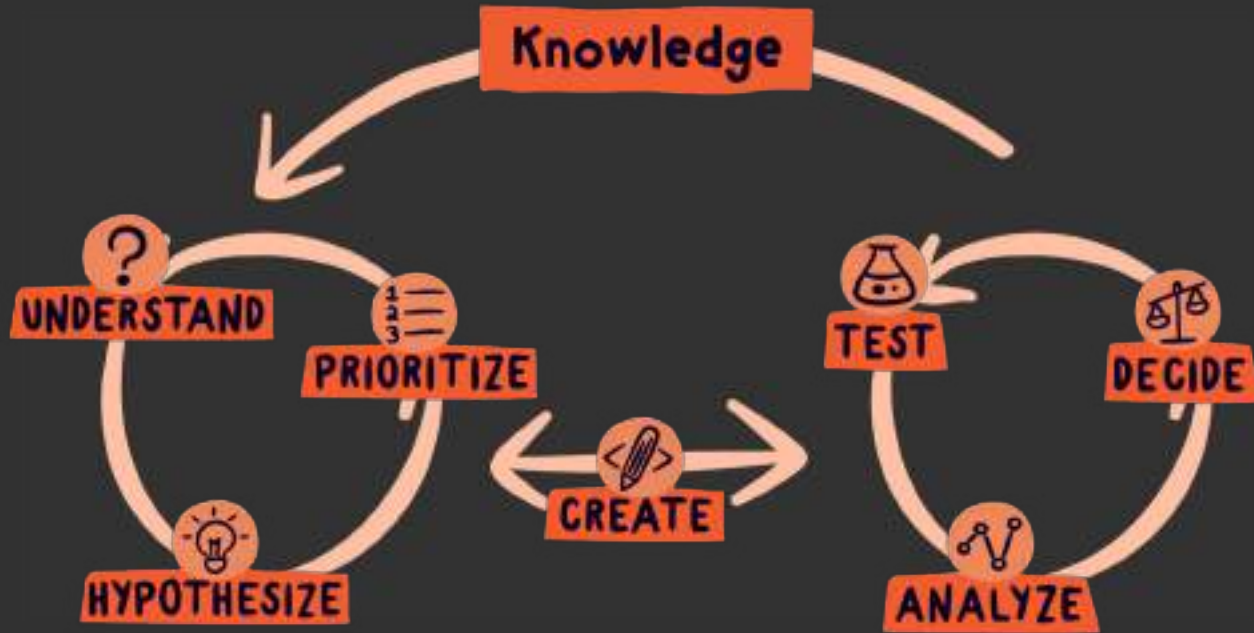
COLSON WHITEHEAD
ACTICS JOCKO WILLINK
Ellen Lupton
AK STEPHEN J. DUBNER
RESPOND
Steve Gordon Jr. with Laurel Saville
DESIGNERS
Philip B. Meggs Alison W. Purvis

THE VIEW
THE SPEED OF TRUST
JASON BARRON
STEPHEN M. R. COVLEY
ROBERTO MANCINI WHITE BRAGLIATE

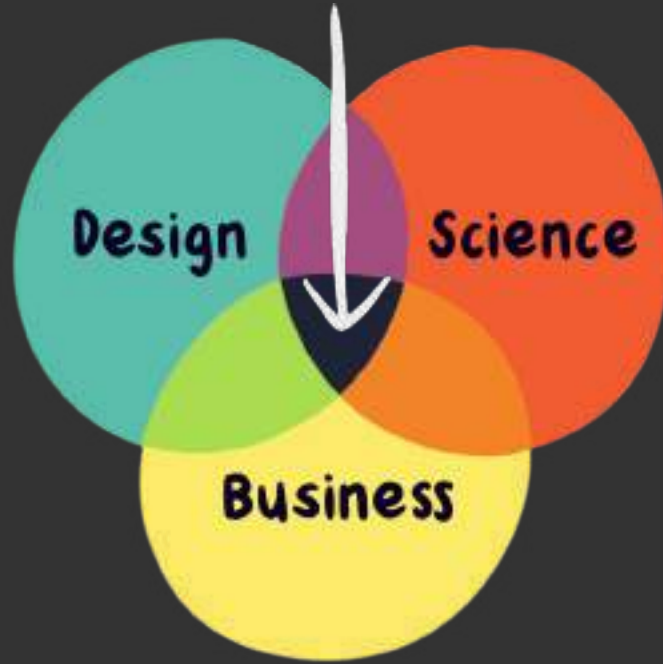


SUMMARY

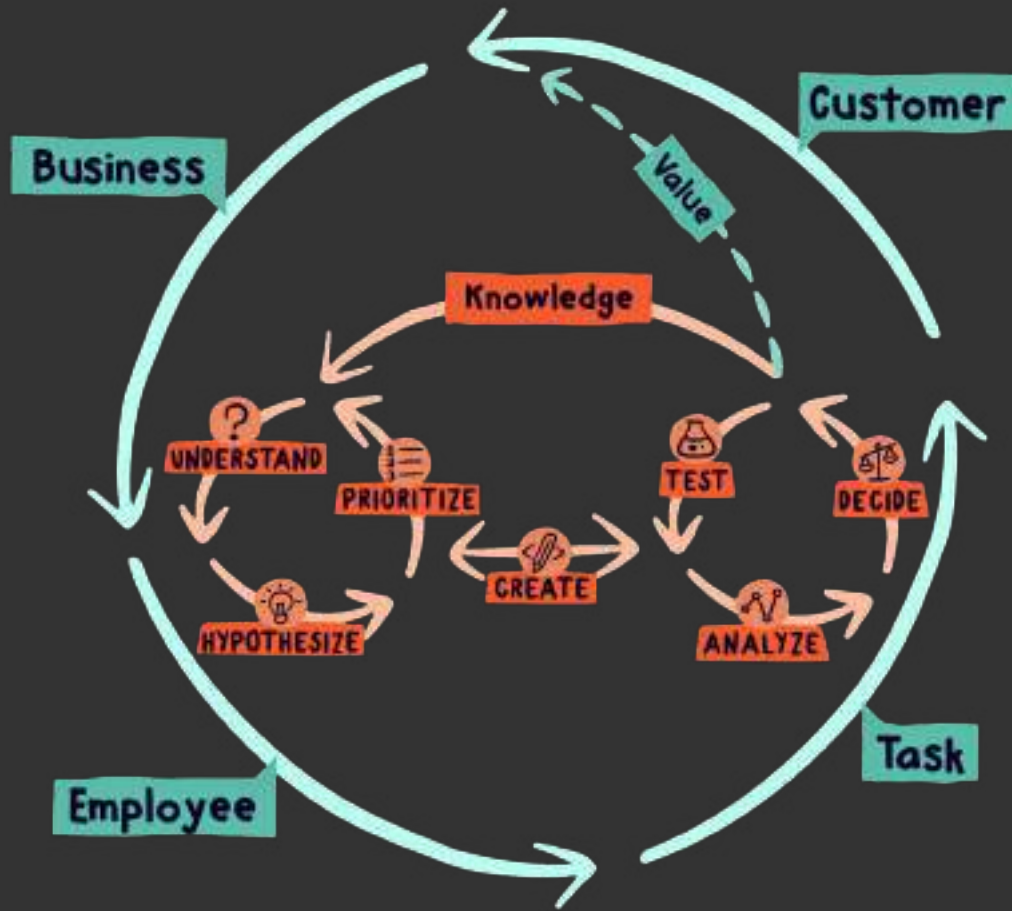
Conversion design process



Conversion design







HYPOTHESIS

Design Like You're Right

Executive Summary The current state is... [description of issue]

Research Insight Research... [research] [observation] or [evidence]

Verdict We believe that... [description of testable idea]

Problem Statement This is a [problem or opportunity] because... [summarize clearly the value it can create]

Prediction If, we [proposed change] to [independent variable] then [expected impact] on [dependent variable]

MINDSET

Test Like You're Wrong

Hull Myerhardt Koroloff The change is tested against the current state. The concept test is that the change has an effect.

However if the effect is found to be negative it should be observed, we will...

- change our beliefs
- reject the current state and
- adopt the change as the new current state.

Otherwise, we will reject the change and keep things in their current state.

Metrics & Method This test is designed to test an impact on...

- _____ I goal metric or...
- _____ % increase/decrease effect at...
- _____ % significant decrease at...
- _____ % statistical power effect...
- _____ [statistical test]...
- _____ [test date]...

Test Type **Relationship** (Make things better) **Non-Indifference** (Don't make things worse)

CRITERIA

Make With Care

Assumptions In this experiment, we assumed... [insert assumptions that guided the implementation]

RESULTS

Do What's Right

Underholder Results This will be good for [stakeholder] because... This will be good for [stakeholder] because... This will be good for [stakeholder] because...

Drivers & Barriers It's anticipated a [desired positive or negative change] effect on [driver metric].

We will not implement this change if it has [less of positive or negative change]] impact on [most general metric].

Notes I, [name name], stand behind the ethics of this test and I confirm that it is not

- misleading
- discriminatory
- illegal/unlawful

I understand that even if something in our design was still successful, I am aware of those data or behaviors my decisions, and I take ownership of thinking and being behind this experiment.

Sign Here

CHECKLIST

When Good Ideas Fail

A non-exhaustive checklist to integrate failed experiments

DESIGN & EXPERIENCE


- Color contrast ratios
- Privacy & UI placement
- Screen reader navigation
- Content reading level
- Keyboard-only navigation
- Content scalability
- Typography & legibility
- Formulation accuracy
- Color usage
- Offscreen & inaccessible
- Information architecture
- Forming & navigation
- Visual hierarchy
- Success of content or design

ENGINEERING & TECH

- Sample code snippets (BEM)
- Code review
- Page load time (web)
- Layout stretch & breaks
- Time to interactive (TTI for apps)
- Algorithm quality & training data
- Errors & warnings
- Redundancy & fallbacks
- Localization

AUDIENCE & CONTEXT

- Language
- Operating system version
- Platform
- Platform performance
- Currency
- Purchasing restriction & payment
- Platform device(s)
- Profile viewer (device, IP, social)
- Date type (time vs. enhancing)
- Anticipatory error (signal focus)
- Network speed
- Device type & screen size
- Browser type





CULTURE
eats
STRATEGY
for breakfast
-PETER DRUCKER

Make things
Better!

NOT JUST DIFFERENT



The End.

thank you!





ErinDoesThings.com



Book ships within the EU 

Go to RosenfeldMedia.com for global shipping.

Erin Weigel

linkedin.com/in/ErinDoesThings

ErinDoesThings.com