

# **Agile on the Edge**

## **Building Projects with Cutting Edge Technology Using Agile Methodology**

@rosalinekarr

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# The Problem

A photograph of a woman with long, wavy blonde hair, seen from behind and slightly to the side. She is wearing a dark blue denim jacket over a light-colored turtleneck. She is holding a map or piece of paper in her hands, looking down at it intently. The background is a blurred landscape of trees and a road, suggesting an outdoor setting.

# How Do We Navigate Unexplored Territory?



Where do we start when there's  
no clear path forward?

# How do we dedicate time to research and planning without losing velocity?



How do we adapt as our  
understanding improves?

A photograph of a man standing on a dirt path in a dense forest. He is seen from behind, wearing a black baseball cap, a light blue t-shirt, dark jeans, and black sneakers with white soles. A black backpack with green and yellow accents is strapped to his back. He stands at a junction where the path splits into two different directions, one leading up a slight incline to the left, the other continuing straight ahead. The forest is lush with tall trees and fallen leaves on the ground.

How Do We Make  
Hard Decisions?



# How do we answer questions that have never been asked before?



**How do we avoid duplicating work when we  
don't always know what we're working on?**



How do we make sure what we've learned isn't lost after we're gone?

# Our Solution

A photograph of three Erlenmeyer flasks filled with colored liquids. The flask on the left contains a bright blue liquid. The flask in the center contains a vibrant green liquid with some small bubbles. The flask on the right contains a deep orange-red liquid. The flasks are arranged in a triangular formation, with the blue flask on the left, the green in the middle, and the orange-red on the right.

# The Scientific Method

(kinda)

# The Scientific Method

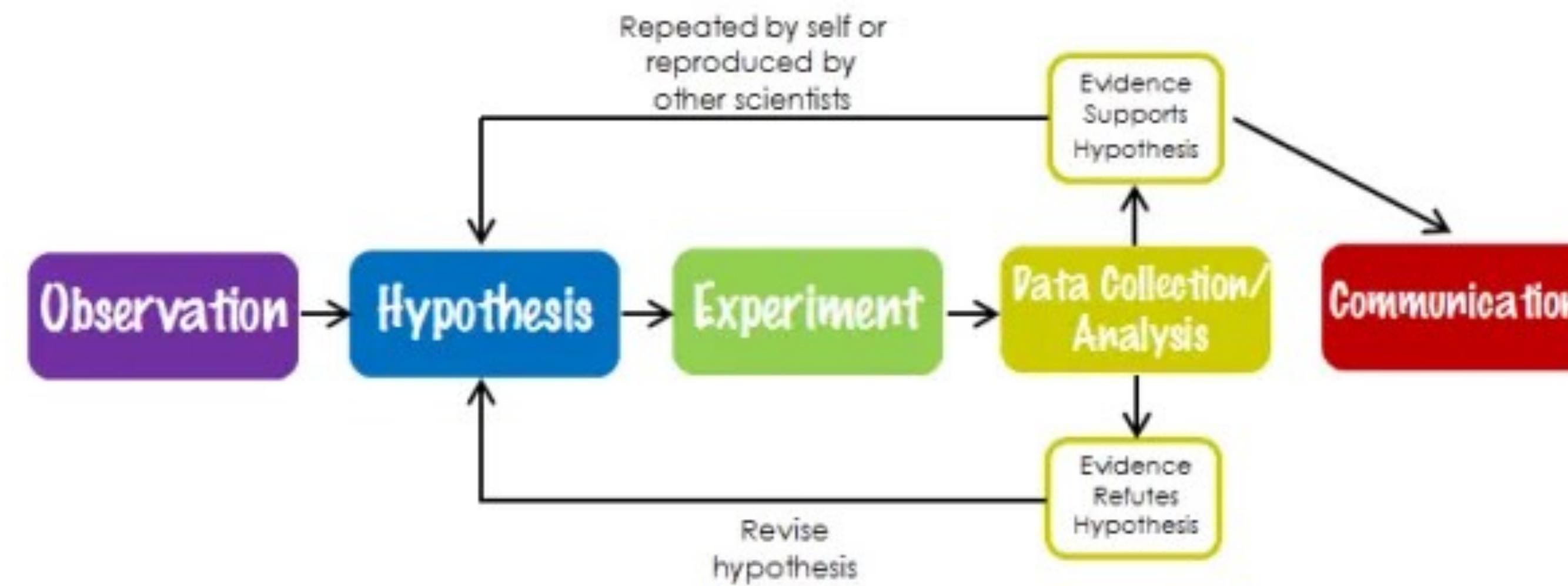
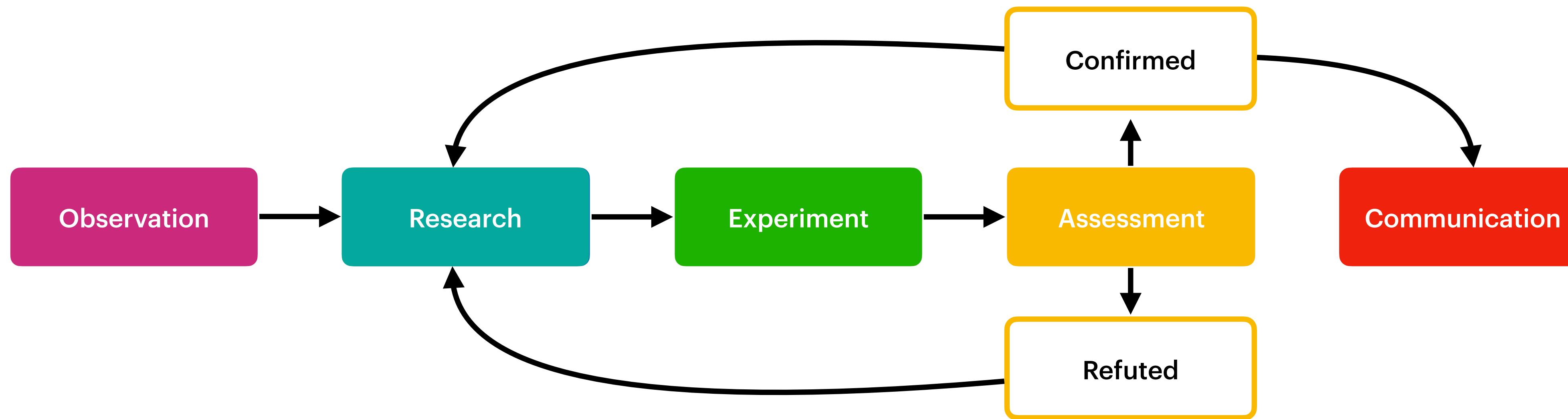


Diagram courtesy of GAVirtualSchool.org

# The “Scientific” Method



# Research

- We want to learn as much about a subject as possible.
- We want to gather information from a wide range of sources, including everything from highly technical research papers in academic journals to news articles on the wider social context around a subject.
- We want to continue until we have some ideas worth testing.



Photo credit @impatrickt

# Experiment

- We want to try out our ideas, write code and build proofs of concept.
- We need to operate under the assumption that anything we create may be thrown away when we're done.
- Our goal **is not** to build something. Our goal **is** to figure out what we need to build.



Photo credit @nate\_dumlao

# Assessment

- We want to document what we've discovered.
- We want to share our ideas and discuss them with our team.
- We want consider our next steps and adjust our plan for the project overall as appropriate.





But where's the Agile?

# Story Writing

- Good stories have a beneficiary, like an end-user or contributing developers.
- Good stories have deliverables, like a new feature, a report or a document.
- Good stories are estimate-able and can be done in a finite amount of time.



Photo credit @joszczeponska

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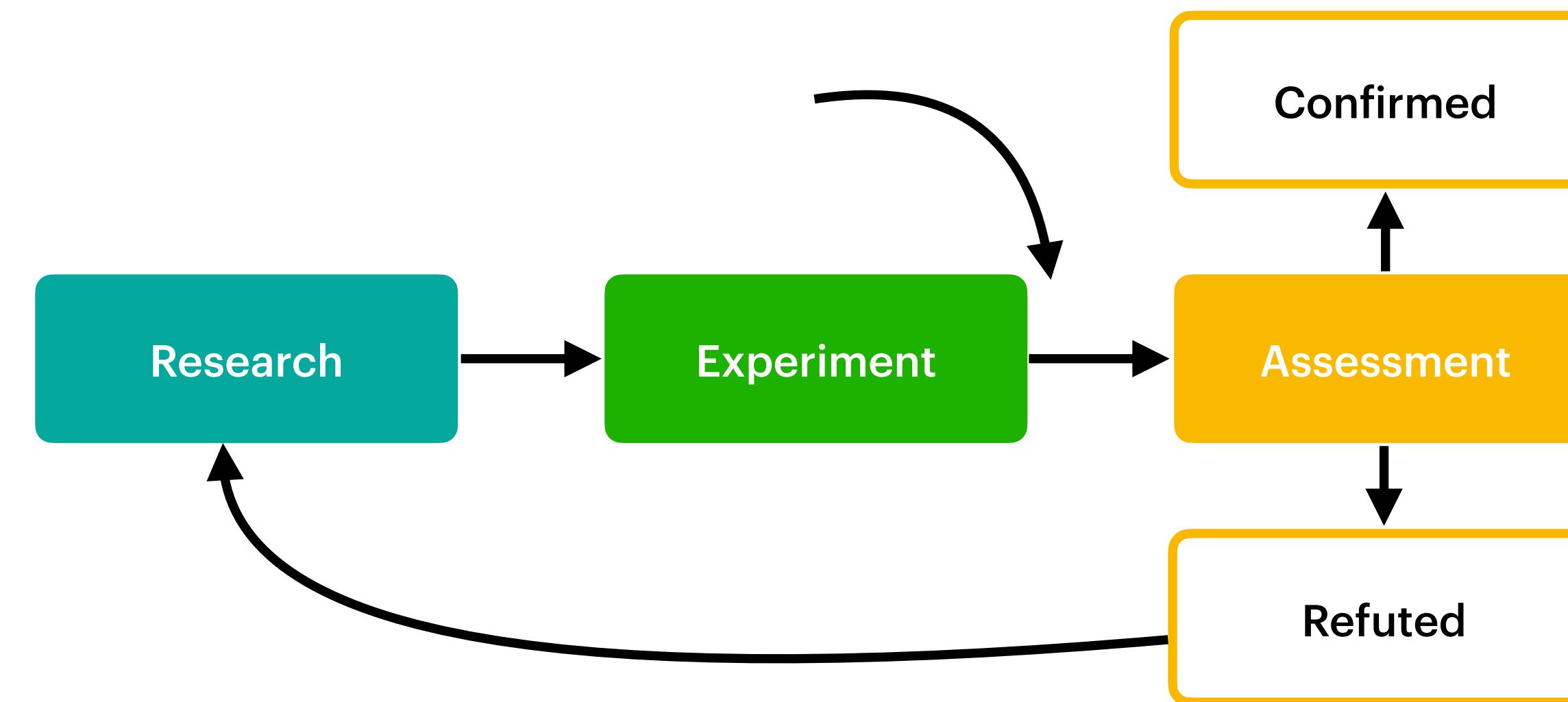


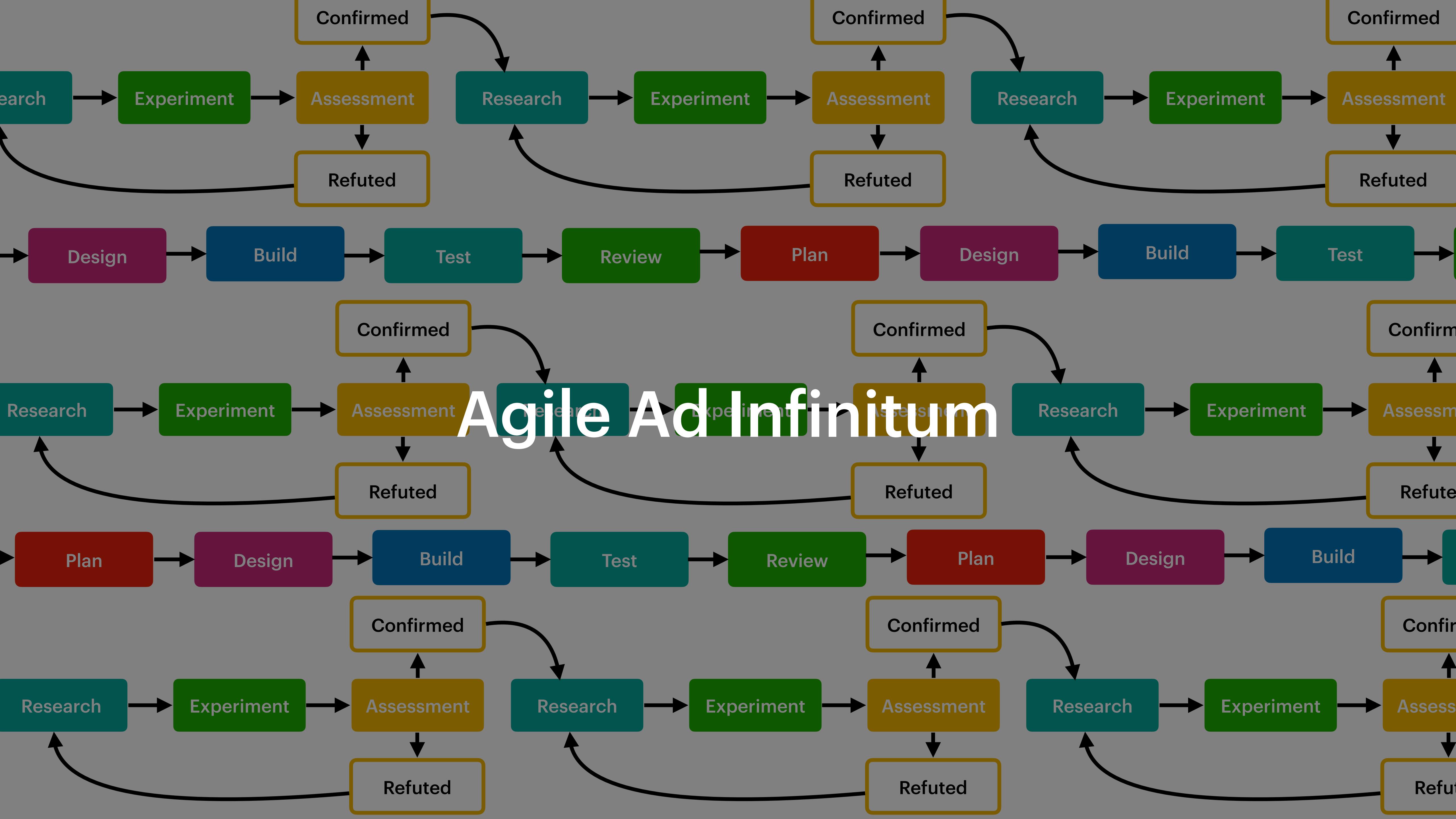
# Patterns

- All of these steps can be represented as agile stories
- All of these steps are about unblocking the next stage of development when we don't know what to do next
- All of these stages can be subdivided



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# Thanks!

Rose Karr  
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