

CS 563:  
Software Maintenance and Evolution

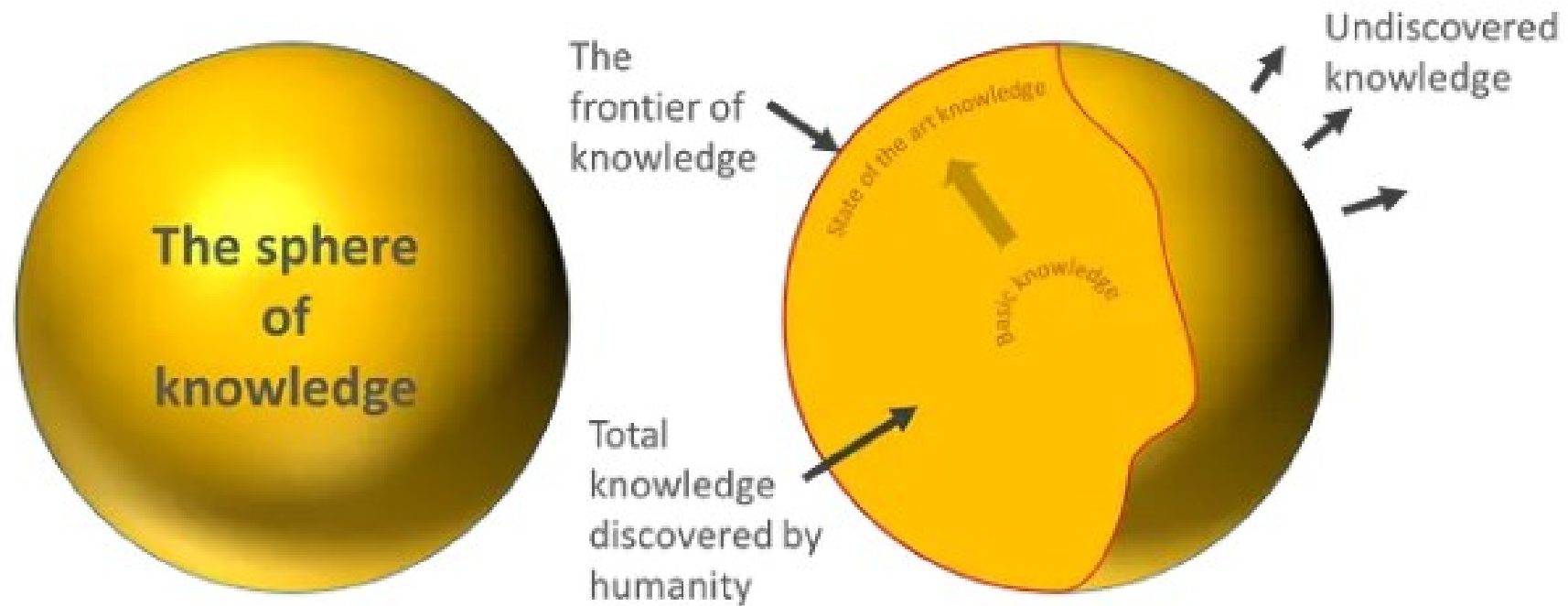
**Research Project Expectations**

Oregon State University, Spring 2024

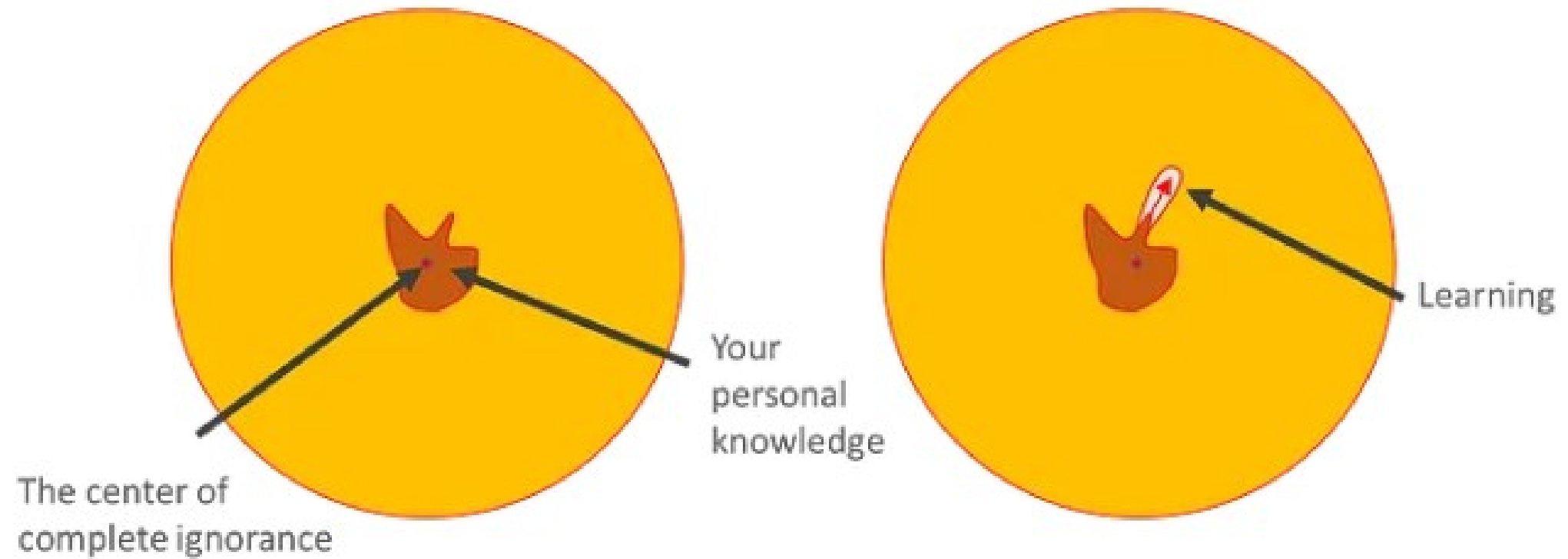
# Today's Plan

- Understand what is expected in your final project presentation and report to get full score
- Conduct project standup meeting

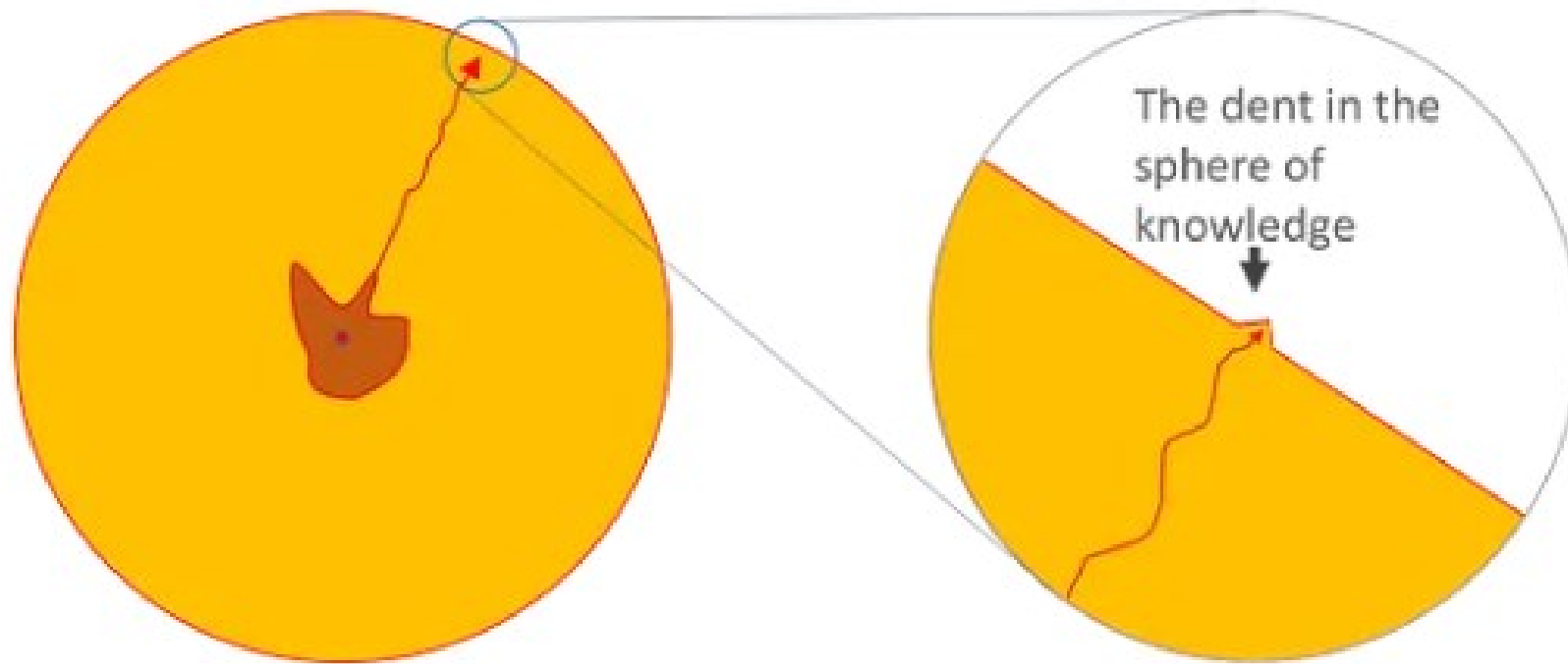
# Sphere of Knowledge



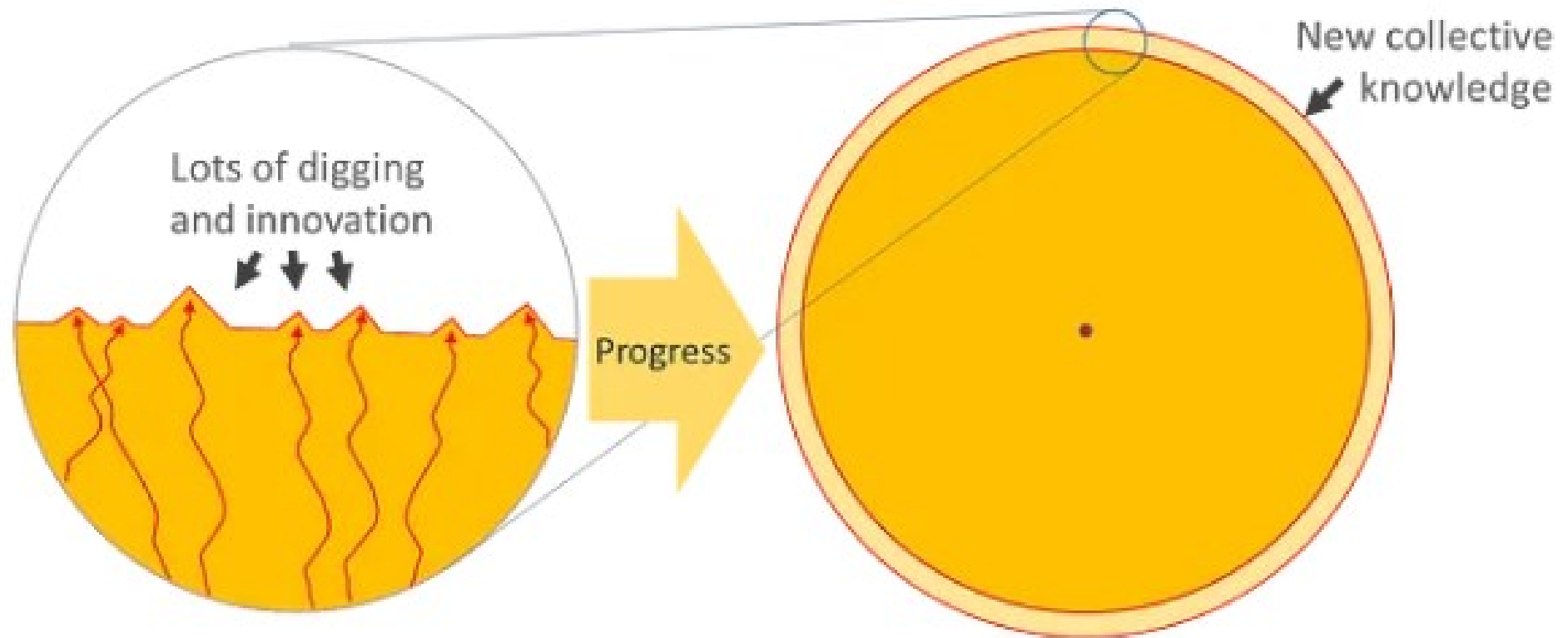
# Your Knowledge



# Discovering New Knowledge



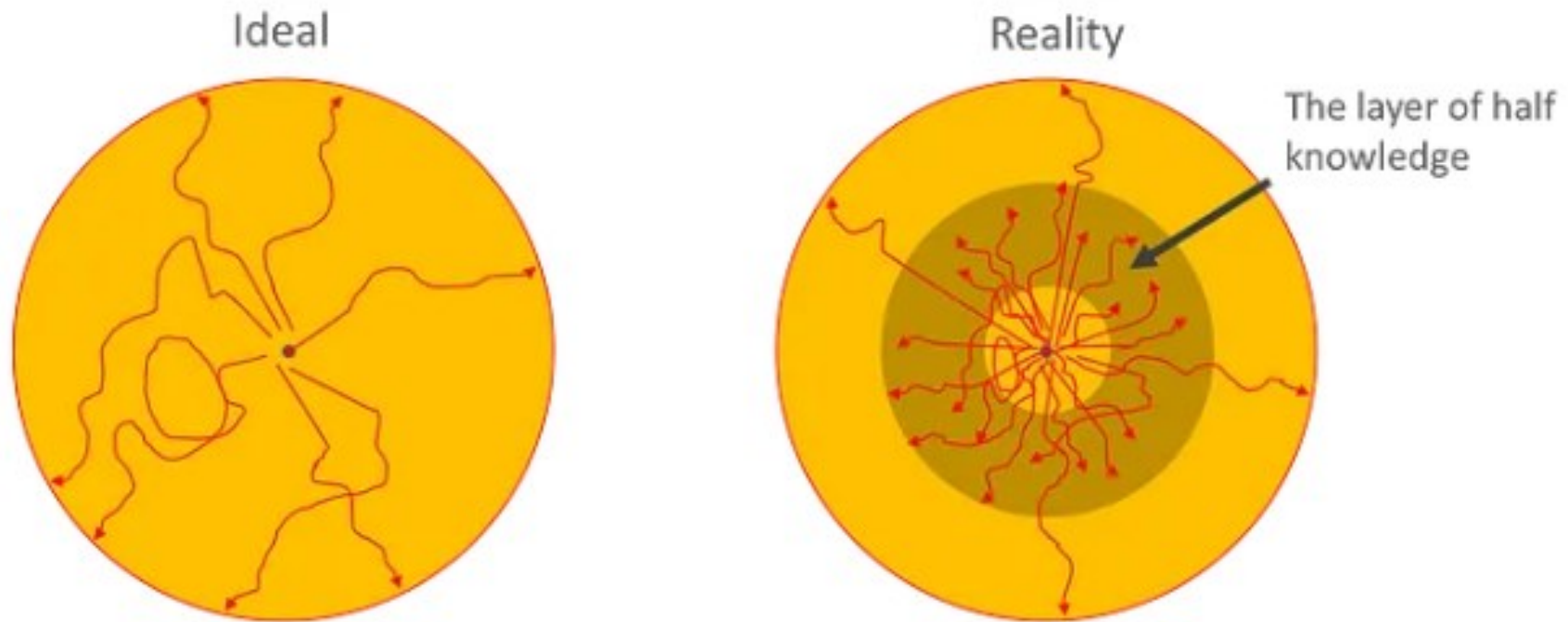
# Many Dents Cause Innovation



# Why Research Projects Need Patience And Long-Term Thinking?

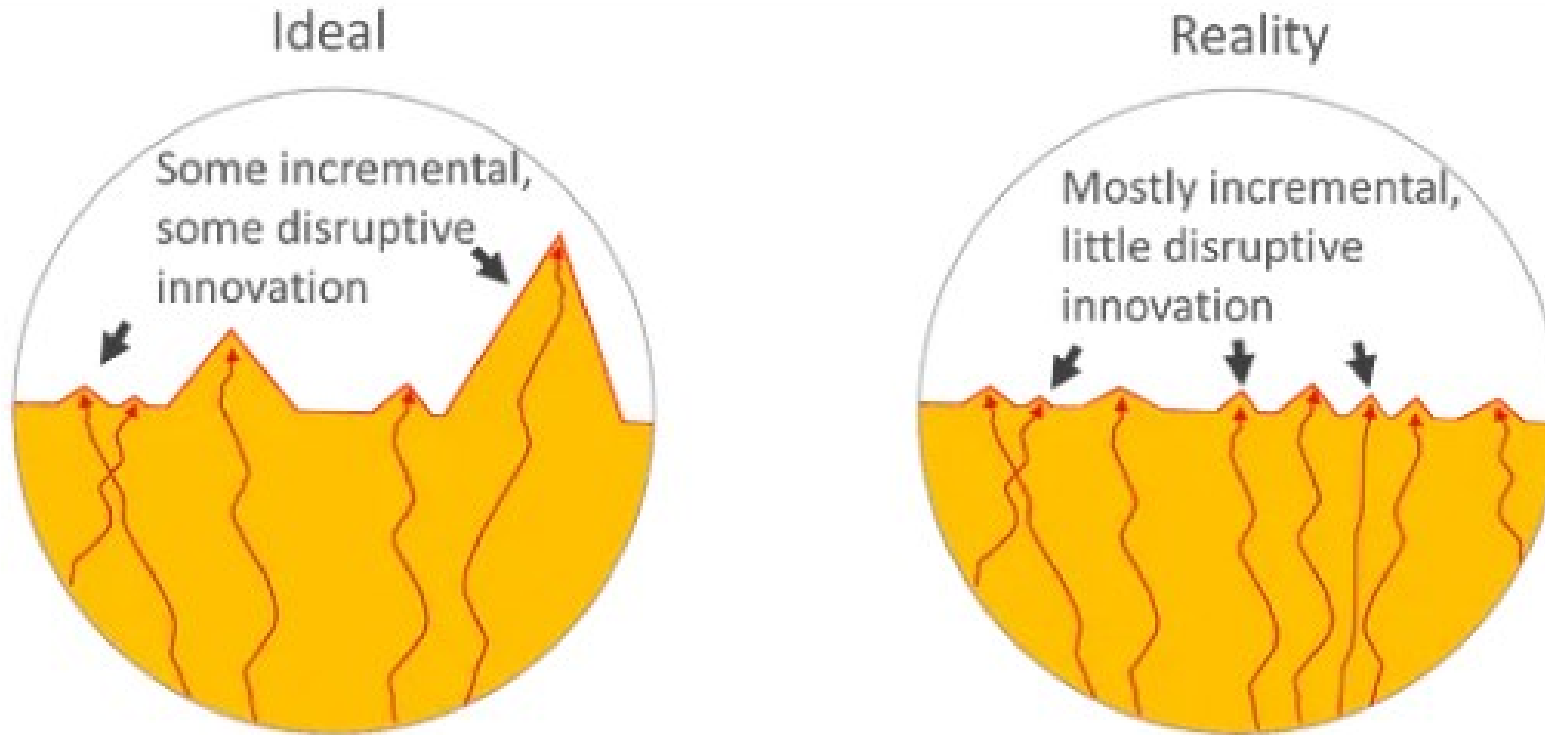
- Digging and Denting takes time
  - Cannot innovate without first 'digging' through the inner layers of the sphere
  - Millions of other people digging and constantly denting and expanding the sphere of knowledge
  - Sometimes it is harder, e.g., when it requires us to access different parts of the sphere to combine knowledge in two separate fields to create novelty
- Digging and Denting is risky
  - Even if we eventually reach the surface of the sphere, we sometimes still might not be able to expand it significantly.

# Short-term thinking creates noise





# Risk aversion is the enemy of innovation



# How to be a successful researcher?

- **Long-term thinking** and **patience** are the key to **innovation**
- **Accept** that the digging through the sphere of knowledge and the denting of its surface **takes time**, is **risky**, but ultimately **pays off**!

# Final Project Expectation

- While working on project, did you learn any “new thing(s)” that you did not know before? (did your knowledge increase?)
  - If no, analyze why did this happen? What went wrong and what would you do differently if you were to start over?
  - If yes, could this “new thing(s)” lead to a (potential) dent in the sphere of knowledge? If yes, why do you feel so?
- Considering the feedback on your previous submissions, complete the report and prepare the **slides that focus on your learning and early/intermediate results.**
- **I do not expect you to have all results for all RQs, as research takes time. I am looking forward to hear about the first point mentioned above (individually) in your final presentation.**

# Announcements

- In-class exercise#3 grades are out, and solutions are available towards the end of the assignment description
- Class participation grade is **5% of your final grade**
  - Please participate by posting/answering questions on Canvas pinned discussions
- Next class is the final class of this course:
  - Each group will present their final project for **20 min** with **2 min Q/A**.
  - Focus more on presenting your findings (positive or negative) and results!
  - Add link to your GitHub repository on the last slide of your presentation

# Project Standup Meeting

- What did you accomplish in your project until now?
- What will you work on tomorrow (last-minute work, if any)?
- Is there anything that is blocking you from what you're working on?
- Do you have a parking lot discussion?