Active Feedback Loops in Software Testing
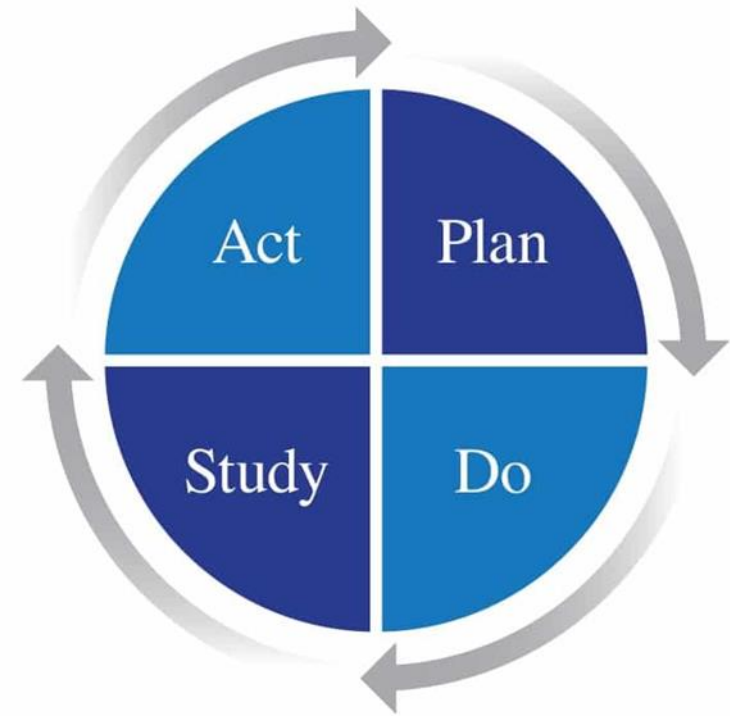
Robert Sabourin and Chris Blain
11-October-2022

Overview

- About feedback loops

- Ticket driven testing case study

- Test management feedback case study

- Business Stakeholder case study

Feedback Loops

- Adaptive systems
  - Behavior of a system is designed to adapt
  - Consider system inputs and outputs
  - Correct as you go

Ticket Driven Case Study

- Work breakdown to tickets assigned to testers
  - Goal is to close ticket
  - Minimize time to close
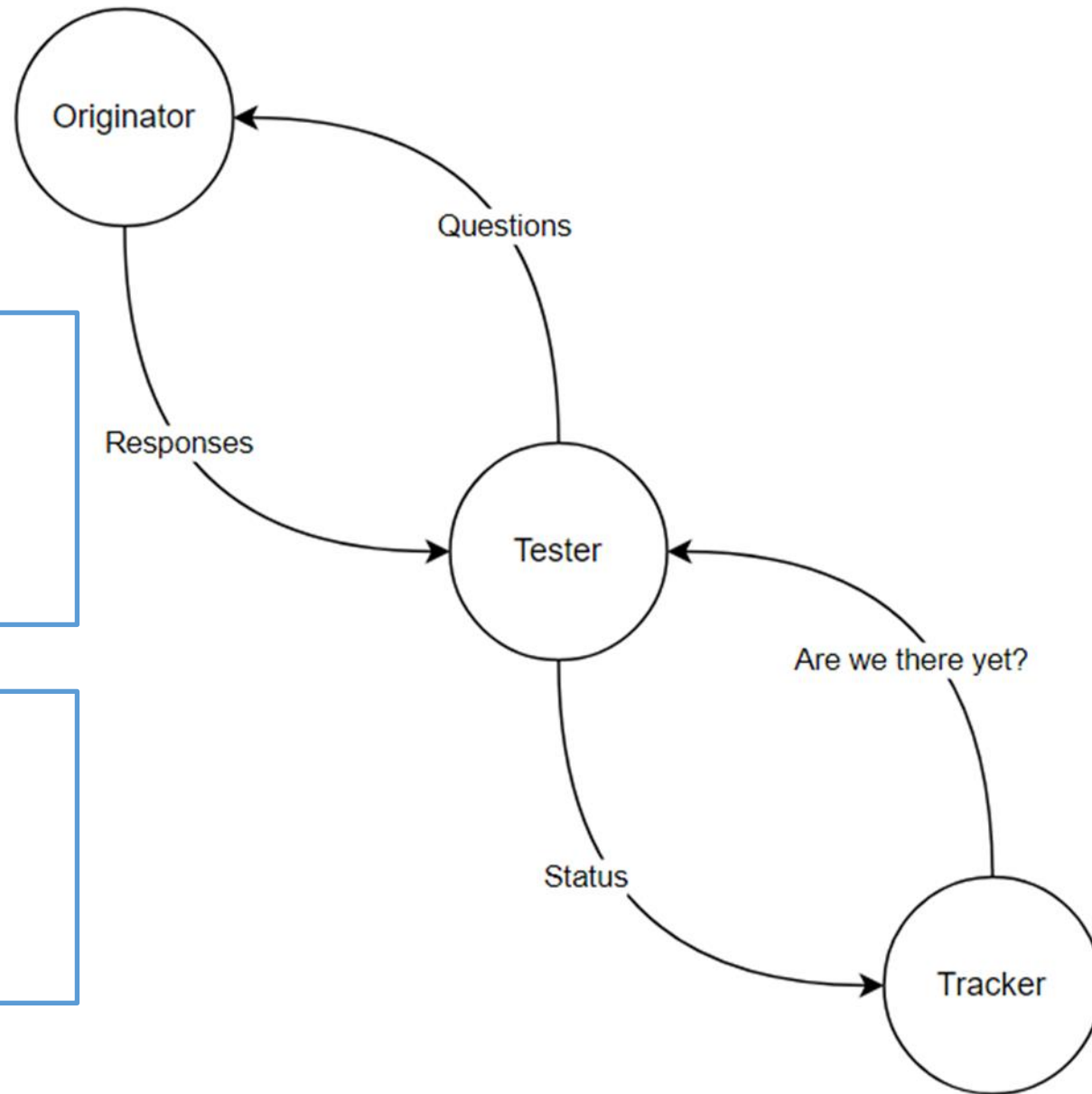 - Minimize reopen
  - Minimal context

Ticket Driven Case Study
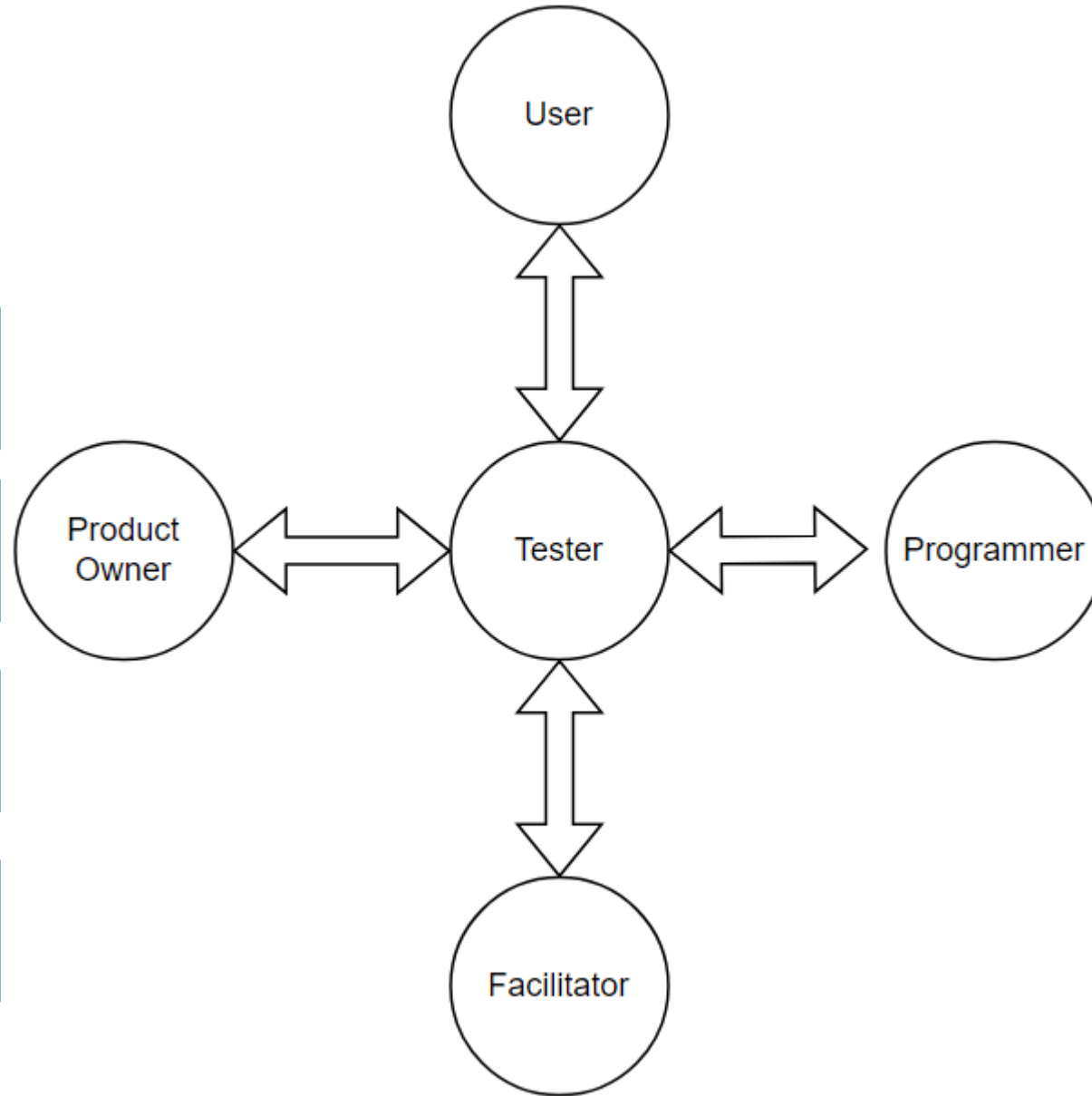
Originator Loop

- Q/A Chain
- On demand

Tracker Loop
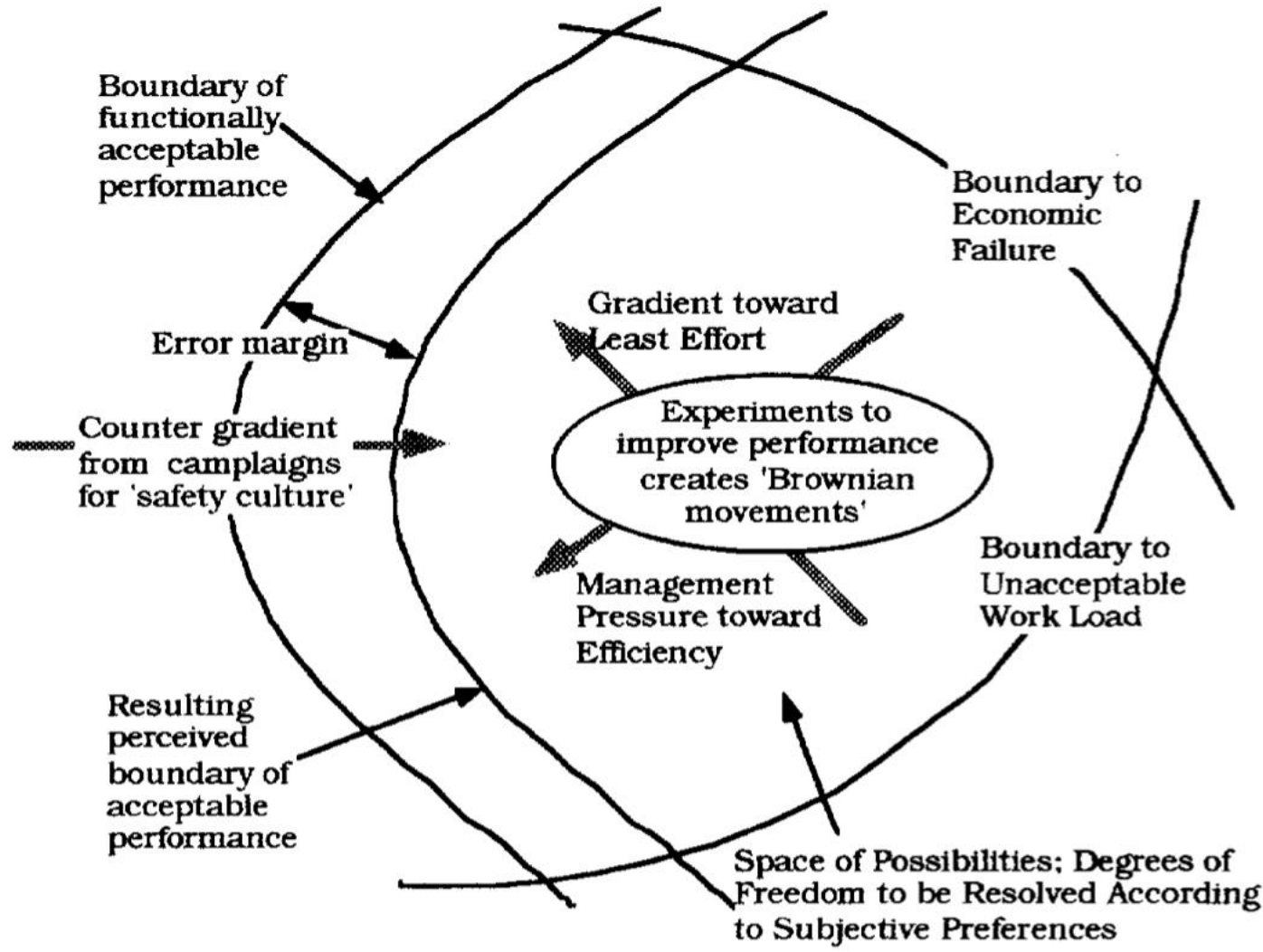
- Are we there yet?
- Status

Ticket Driven Case Study

Product Owner
- Business Risk Opportunity
- Redirect Focus/Scope

Programmer
- Technical Risk Opportunity
- Redirect Focus/Scope

User
- Usage Scenario
- Redirect Focus/Scope
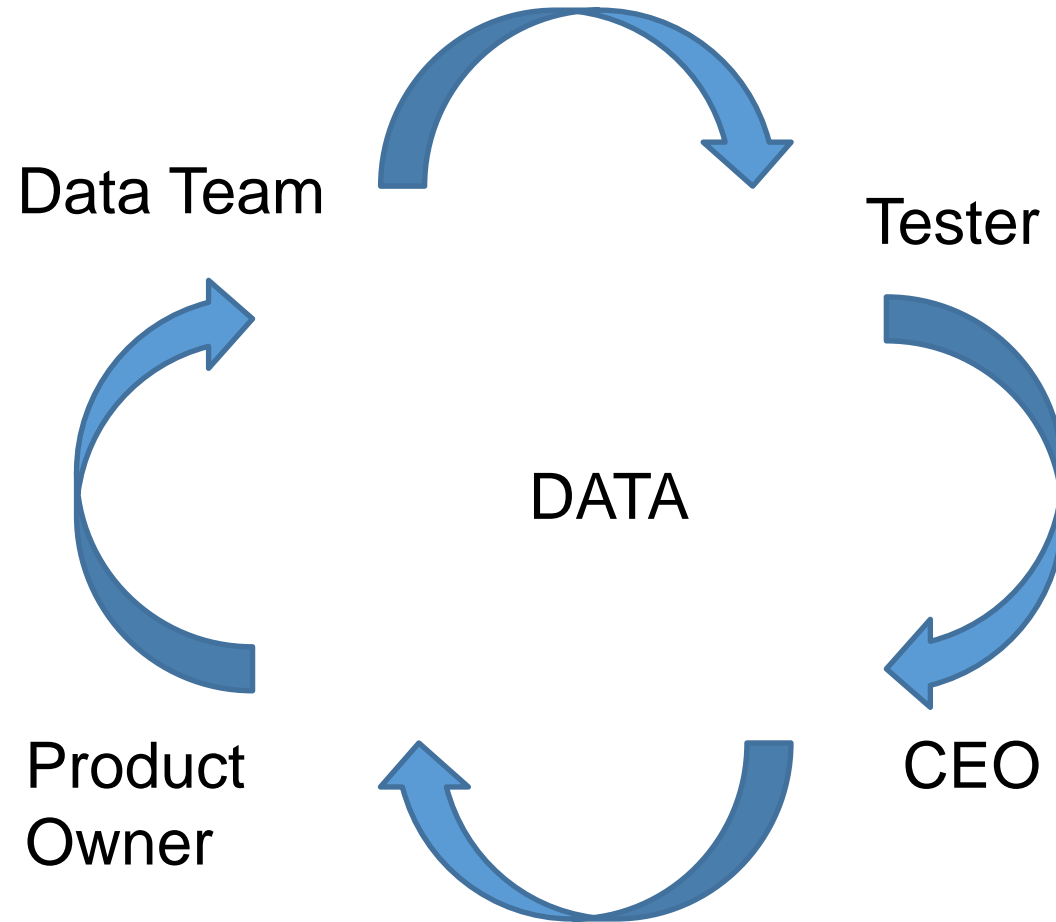
Facilitator
- Status
- Support

No silver bullet but maybe a darn
good diagram

Risk Management in a Dynamic Society: A modeling
problem. Jens Rasmussen, 1997

Business Stakeholder Case Study

Data Team

Tester

DATA

Product Owner

CEO

Feedback Loops in Software Development

- Feedback loops can help amplify the effectiveness of testing and the overall software development process.

Testing related feedback loops are demonstrated to:

- improve product requirements early, before implementation begins
- influence software design decisions
- improve personal and team software process
- increase engagement in active processes instead of milestones and phase gates that loom over the team.

Testing related feedback loops are demonstrated to:

- dynamically adapt the focus, scope and depth of testing based on active feedback
- influence process, change in self-organized teams to improve product quality
- help find and fix the bugs that matter sooner
- provide vehicles to collaborate with stakeholders, programmers, and members of the user community

Thank You

- Questions

- Comments

- Dialogue