

ABC's to Avoiding Disaster

**GET THE MOST OUT OF  
PROJECT MANAGEMENT**

# IN APPRECIATION

---

Texas Tech

Universities of Oregon

University of Utah

Brigham Young University

Universities of Alaska

UCLA

Duke

University of Arizona

Colorado State University

Kansas State University

NORAD/NorCom

FedEx (worldwide)

American Express (worldwide)

Starbucks (worldwide)

United States Architect

Zions Bank

State of Utah

UDOT

# WHY DO MAJOR PROJECTS FAIL?

---

- ✘ Our Customer is given the wrong role in the project
- ✘ The Technologies have not been proven
- ✘ Our Process is foreign to the Customer
- ✘ The Design is conceptual
- ✘ Our Solution meets requirements, but not the need
- ✘ Testing is confused with Validation

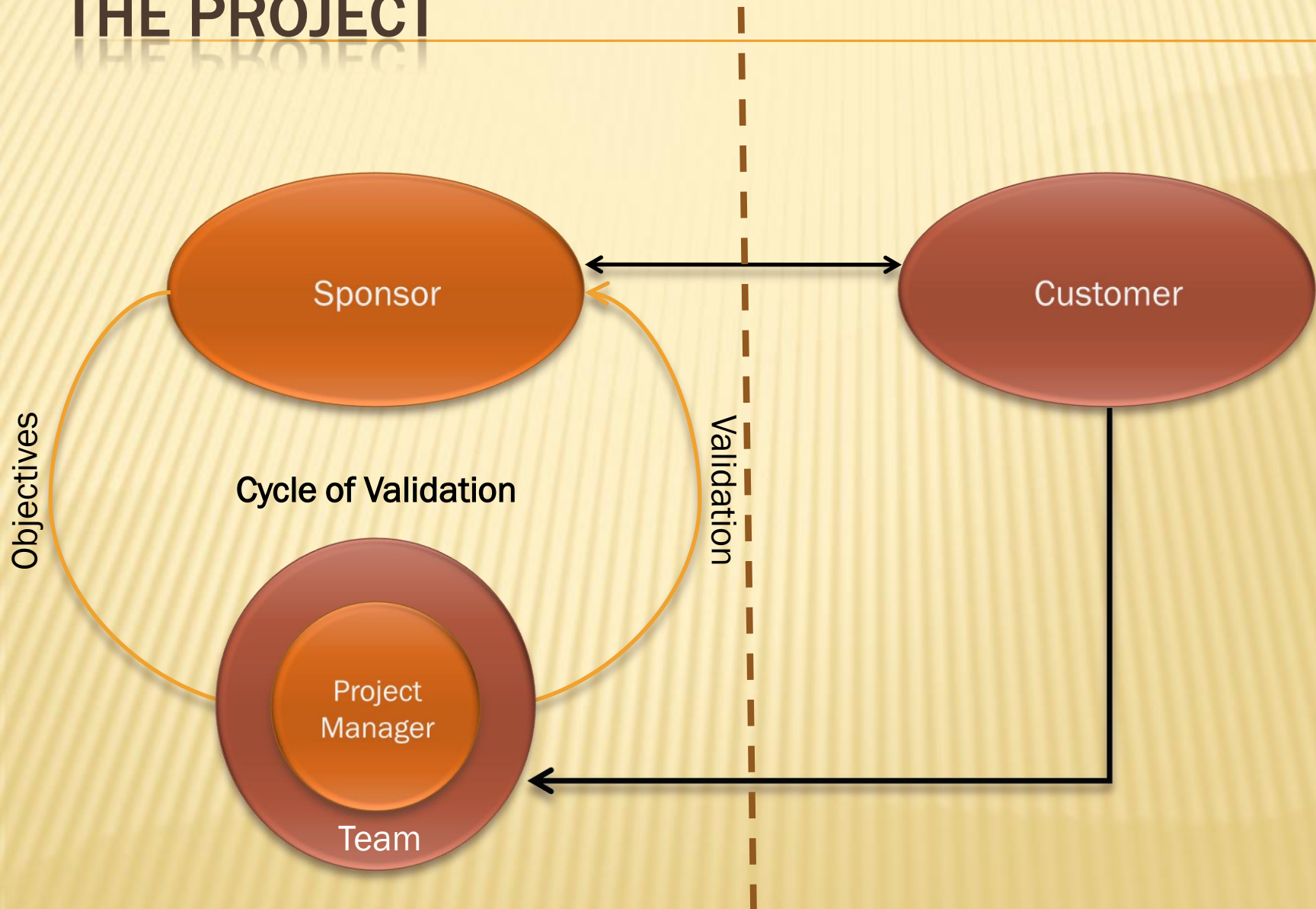
# OUR CUSTOMER IS GIVEN THE WRONG ROLE IN THE PROJECT

---

## A rchitect the Solution

- + Make sure our Customer is treated as a Business Architect
- × Our Customer is NOT our Sponsor!
  - + Just because they have the money doesn't make them the Sponsor
  - + Our Sponsor should come from our "side of the house"
  - + Our Customer should be well represented on our project team

# OUR CUSTOMER IS GIVEN THE WRONG ROLE IN THE PROJECT



# THE TECHNOLOGIES HAVE NOT BEEN PROVEN

---

## **B**e secure in the underlying technologies

- ✘ Dropping a new technology into the solution defocuses the project
  - + Try not to change technologies as part of the solution
  - + A new technology introduction can/should be a separate project
  - + Our Customer doesn't need to be part of the technology project
  - + Prove the technology outside the new solution





## **THE TECHNOLOGIES HAVE NOT BEEN PROVEN**

- Tiles kept falling off in launch and re-entry
- Process review showed an “innovation” in applying the tile sealant

# OUR PROCESS IS FOREIGN TO THE CUSTOMER

---

## C Confirm the approach with our Customer

- ✘ We fail to set the expectation of the “order” of work
  - + Educate our Customer in their role in our development lifecycle
    - ✘ Example: Requirements, Architectural Design, Detailed Design, Build/Test, User Validation, Deploy, Monitor
    - ✘ Appropriate Customer participation in each phase
  - + Gather and expose metrics of performance on previous and similar projects
  - + Don't force the project into an accelerated schedule or reduced budget without involving our Customer in the evaluation and validation of consequences
  - + Development lifecycle is not the same as our project approach

# OUR PROCESS IS FOREIGN TO THE CUSTOMER

## An Agile Approach to Managing our Projects

Must

Should

Could

majority of the work



These aren't so  
"fun" and require  
minimal  
innovative  
thinking

These require  
innovative  
thinking in the  
approach, not in  
the content

These depend on  
lots of innovation,  
but might possibly  
be eliminated from  
the effort

# THE DESIGN IS CONCEPTUAL

OUR SOLUTION MEETS REQUIREMENTS, BUT NOT THE NEED

**D**esign the Solution so our Customer visualizes it in their environment

**E**valuate usability and viability before building

- ✘ Validated requirements DO NOT equal design agreement
  - + Let the Customer experience the design
  - + Don't be afraid of a prototype
  - + Be flexible – our Customer most often doesn't know everything they want
  - + Use Cases are a key element of success
  - + In the end, if it works for our Customer, it works!



## THE DESIGN IS CONCEPTUAL

- Our Customer has a vision
- We experience success when our Customer experiences their vision

# TESTING IS CONFUSED WITH VALIDATION

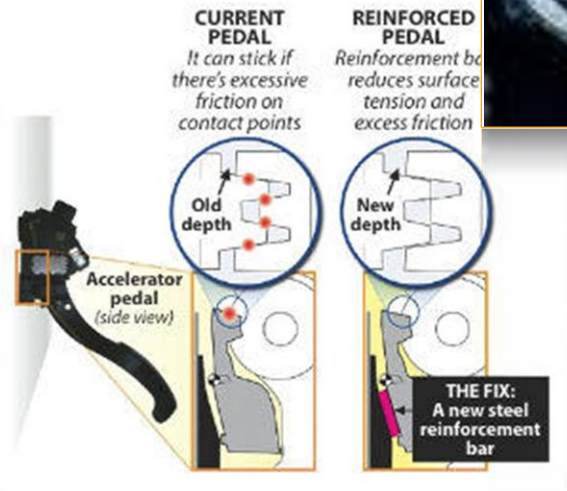
## Formalize Testing

## Find and Fix the concerns early

- ✘ Our Customer IS NOT our tester!
  - + Test the solution against the design before our Customer ever sees it
  - + Clarify the testing process with our Customer early
  - + Our Customer should not see an unprogrammed system error
  - + Gain confidence by letting our Customer validate a working solution
- ✘ Customers should NOT find our errors!

## Toyota's fix for sticky accelerator

Toyota dealers will install a steel reinforcement bar that keeps two key parts of the pedal mechanism farther apart than in the current assembly. The company says this will permanently reduce friction and excessive wear, which in rare instances have caused sudden acceleration problems.



SOURCE: Toyota

RICH CLABAUGH/STAFF



*We did not see a need to test the pedal assembly to excess. We trusted our supplier!*



## TESTING IS CONFUSED WITH VALIDATION

- Testing finds functional errors
- Validation confirms performance

# ABC'S TO AVOIDING DISASTER

---

**A**rchitect the Solution

**B**e secure in the underlying technologies

**C**onfirm the approach with our Customer

**D**esign the solution so our Customer visualizes it in their environment

**E**valuate viability and usability before building

**F**ormalize testing – **F**ind and **F**ix errors early

**QUESTIONS,  
COMMENTS,  
GRIPES,  
CONCERNS,  
EMOTIONAL OUTBURSTS?**

Ernie Nielsen  
ernie@byu.edu