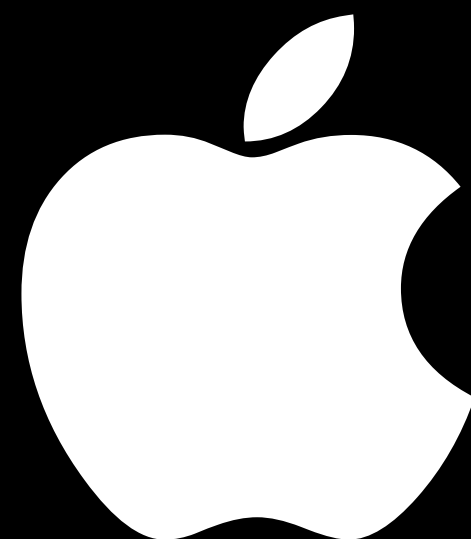


Sending Feedback to Apple

An Insider's Guide

James Dempsey

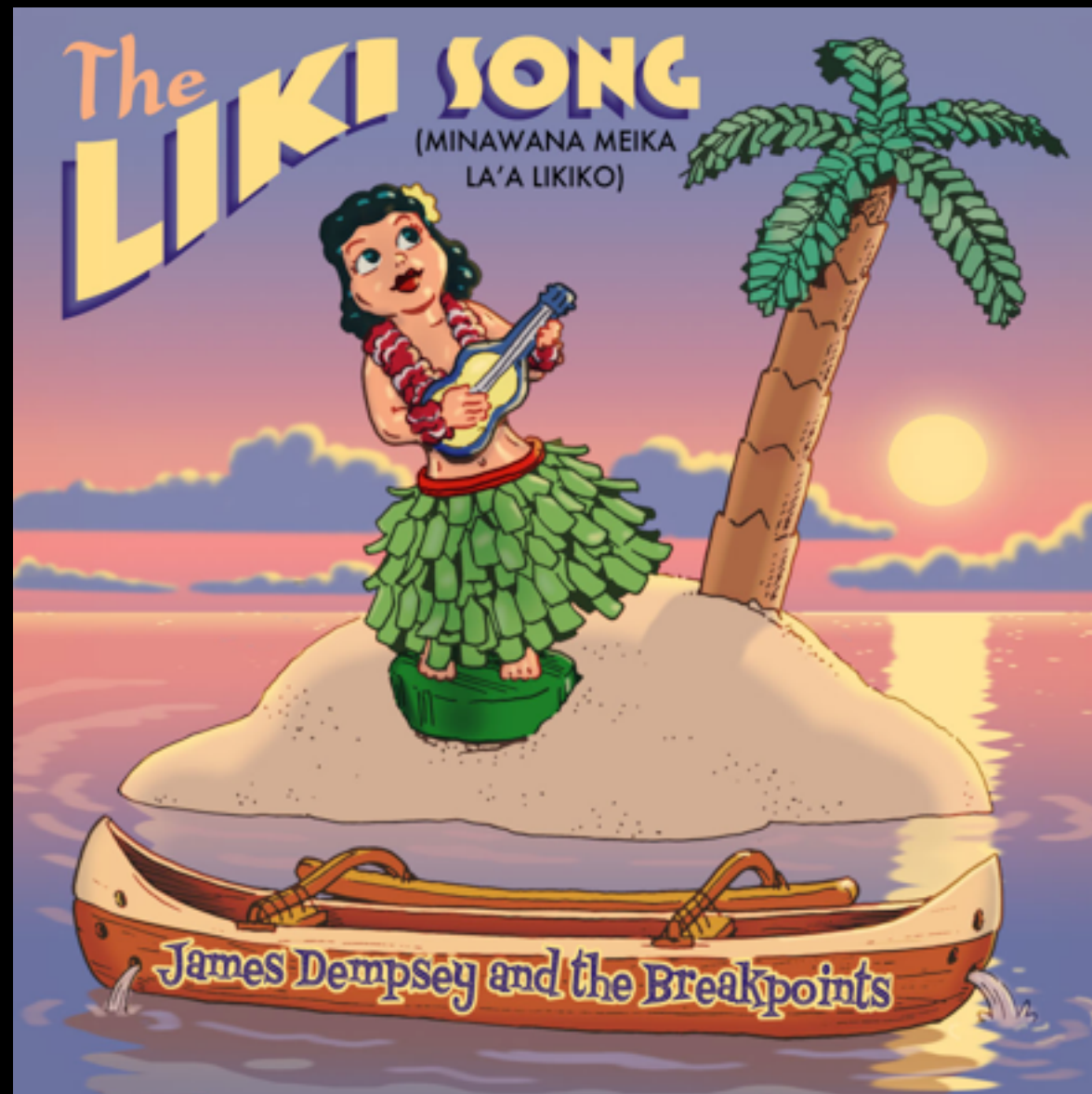
Tapas Software





The LIKI SONG

(MINAWANA MEIKA
LA'A LIKIKO)



James Dempsey and the Breakpoints



Reverb



Goals

- Strategies to maximize the chances that Apple acts on the feedback you provide
- Have some fun

Getting on the Radar

RADAR



OR GTFO

I CAN HAZ



BUG FIXX?

RADAR



OR GTFO

Corollary:

**Don't Assume Someone
Else Will Report An Issue**

Getting on the Radar

The Bugflow

bugreporter.apple.com

Login to Apple Bug Reporter

Apple Inc. bugreport.apple.com/cgi-bin/WebObjects/RadarWeb.woa/wa/sign Reader

Bug Reporter

Please enter your Apple ID and password.

Apple ID

Password

Login [Forgot Password?](#)

An [Apple ID](#) is required to use this tool:

- [Click here to find your Apple ID.](#)
- [Click here to reset your password.](#)
- [Click here to request assistance with login issues.](#)

Apple Developers may report issues with the Bug Reporter tool itself [here](#).

Note: Safari is the suggested browser for use of the Bug Reporter. JavaScript and Cookies must be enabled to access the Bug Reporter. Idle time to disconnect is 120 minutes.

 **Developer**
Copyright © 2012 Apple Inc.

Display a menu

AT&T 4G 9:53 AM

Apple Inc.

bugreport.apple.com/cgi Search

Please enter your Apple ID and password.

Apple ID

Password

Login [Forgot Password?](#)

An [Apple ID](#) is required to use this tool:

- [Click here to find your Apple ID.](#)
- [Click here to reset your password.](#)
- [Click here to request assistance with login issues.](#)

Apple Developers may report issues with the Bug Reporter tool itself [here](#).

Note: Safari is the suggested browser for use of the Bug Reporter. JavaScript and Cookies must be enabled to access the Bug Reporter. Idle time to disconnect is 120 minutes.

Navigation icons: back, forward, home, search, tabs (7)

A JOURNEY THAT BEGINS WHERE EVERYTHING ENDS

BLACK HOLE

THE BLACK HOLE Starring MAXIMILIAN SCHELL, ANTHONY PERKINS, ROBERT FORSTER
JOSEPH BOTTOMS and YVETTE MIMIEUX and ERNEST BORGNINE
Produced by RON MILLER Directed by GARY NELSON Screenplay by JEB ROSEBROOK and GERRY DAY
Story by JEB ROSEBROOK and BOB BARBASH & RICHARD LANDAU Production Designed by PETER ELLENSHAW
Music Composed and Conducted by JOHN BARRY From WALT DISNEY PRODUCTIONS

DOOLBY DIGITAL
SDDS

Read the Book
Technicolor® "Technivision"

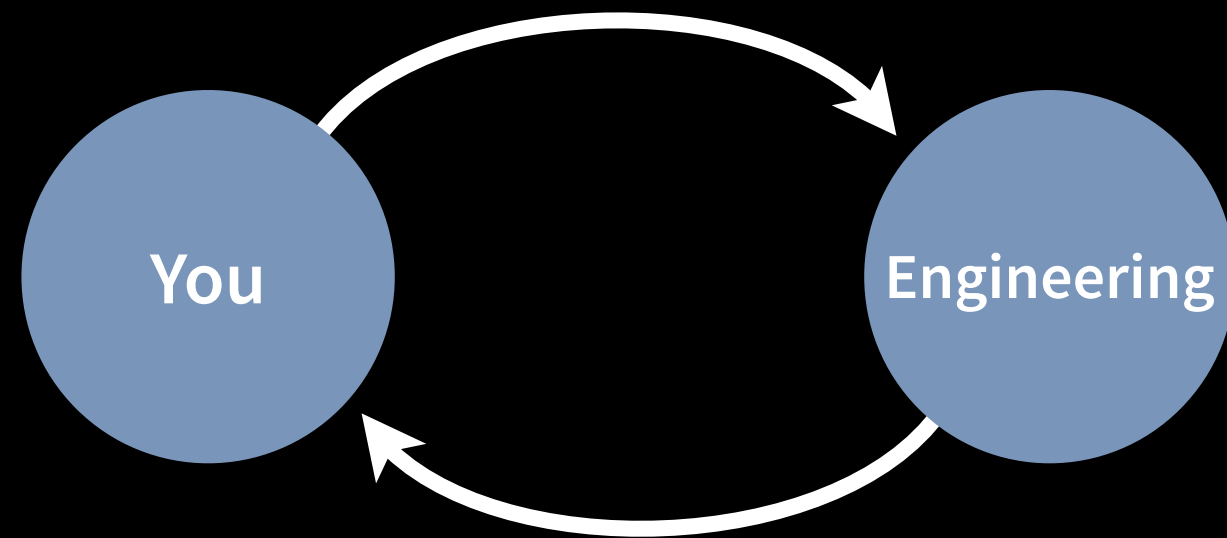
Released by Buena Vista Distribution Co., Inc.
© 1979 Walt Disney Productions

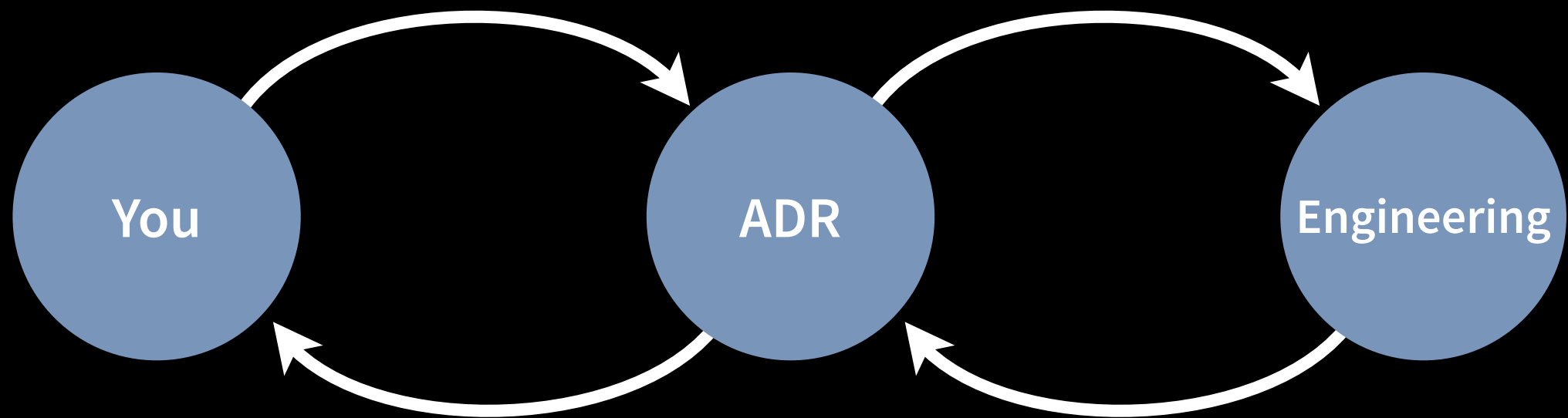
Sending Bugs To Apple



Bugs Go To Human Beings







Duplicate
Info Request
Verify

Action

Action Factors

- Time
 - Fix Time
 - Schedule
- Impact
- Risk
- Alignment

Time

Time

**The time it takes to understand,
reproduce, fix and test a bug**

Time

The time it takes to **understand**,
reproduce, fix and **test** a bug

Write Good Bugs

Time

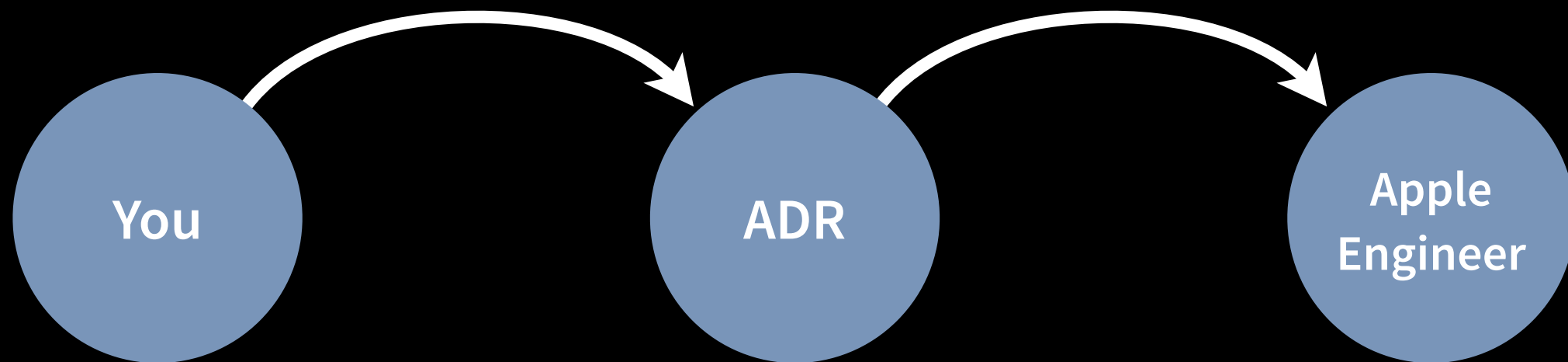
Time



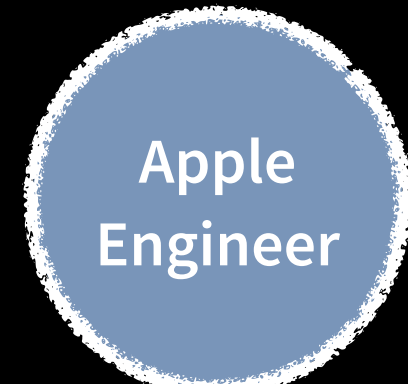
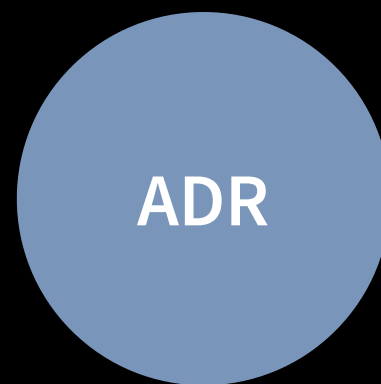
**Write Good Bugs
As Soon As
Possible**

Best Case

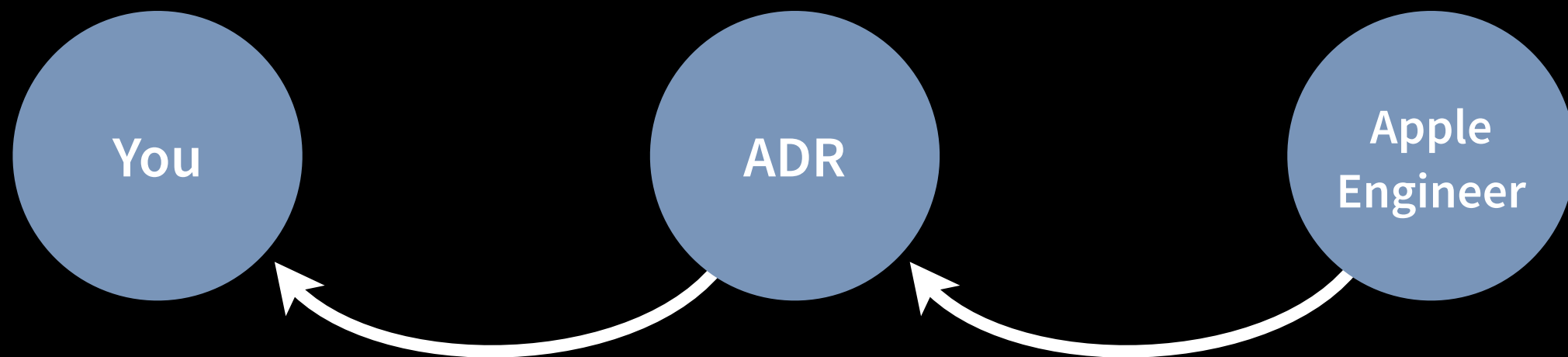
Report Bug



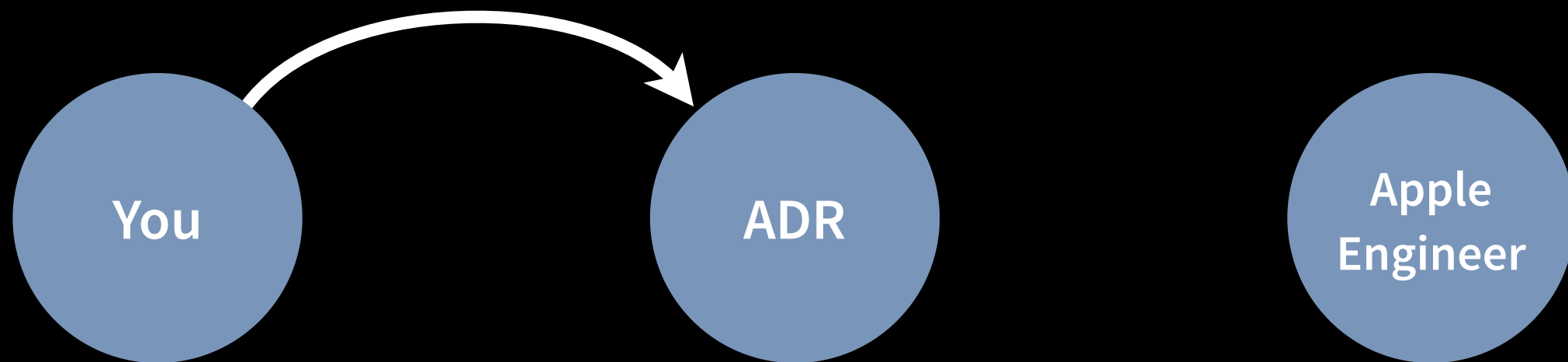
Understand, Reproduce, Fix, Test



Notify Originator



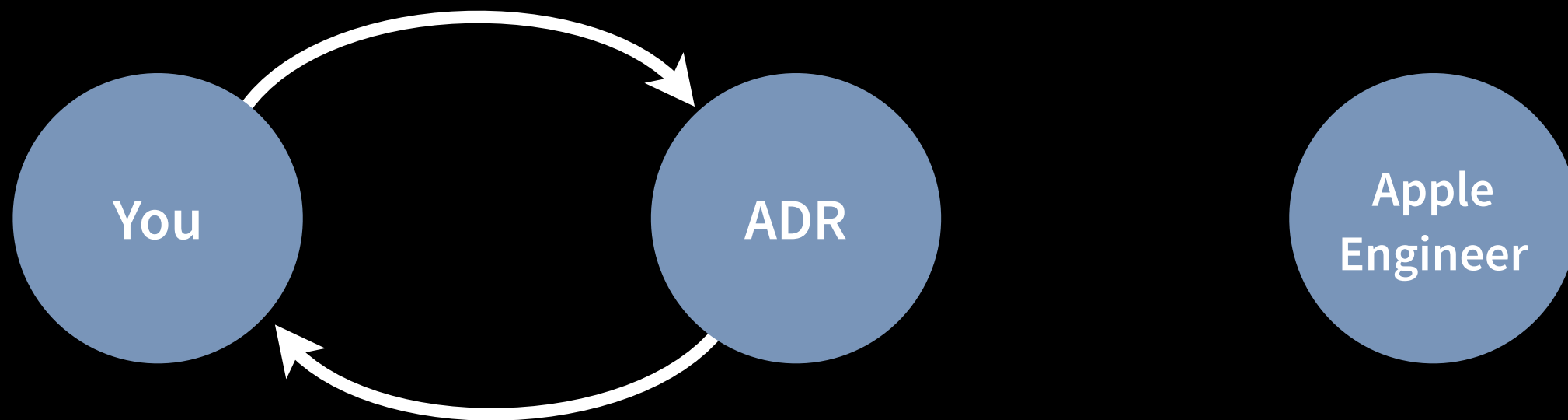
Verify Fix



The Round Trip

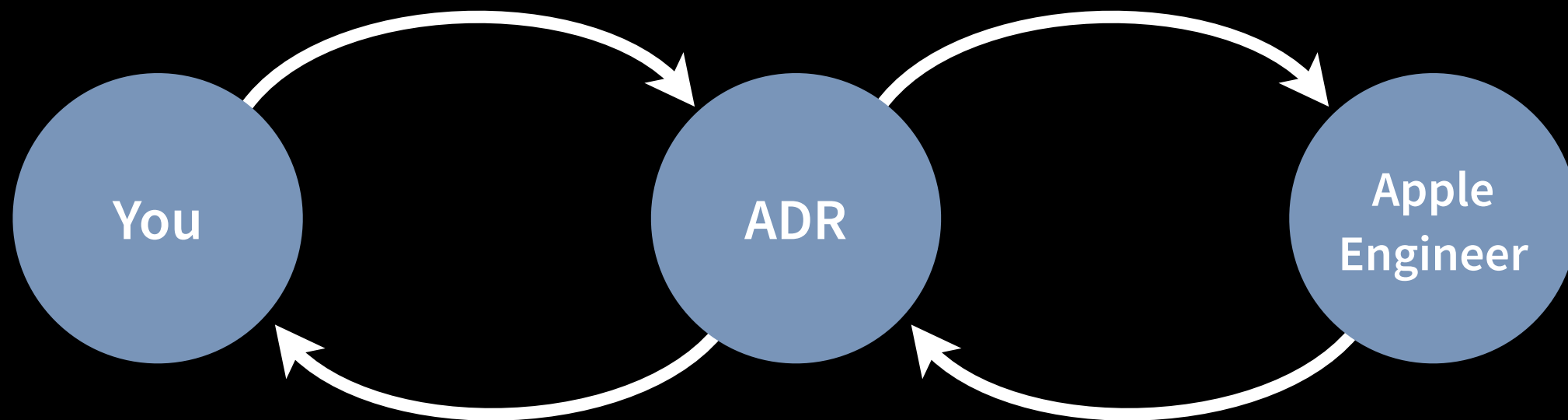
Round Trip - Version A

Issue: Not Enough Info



Round Trip - Version B

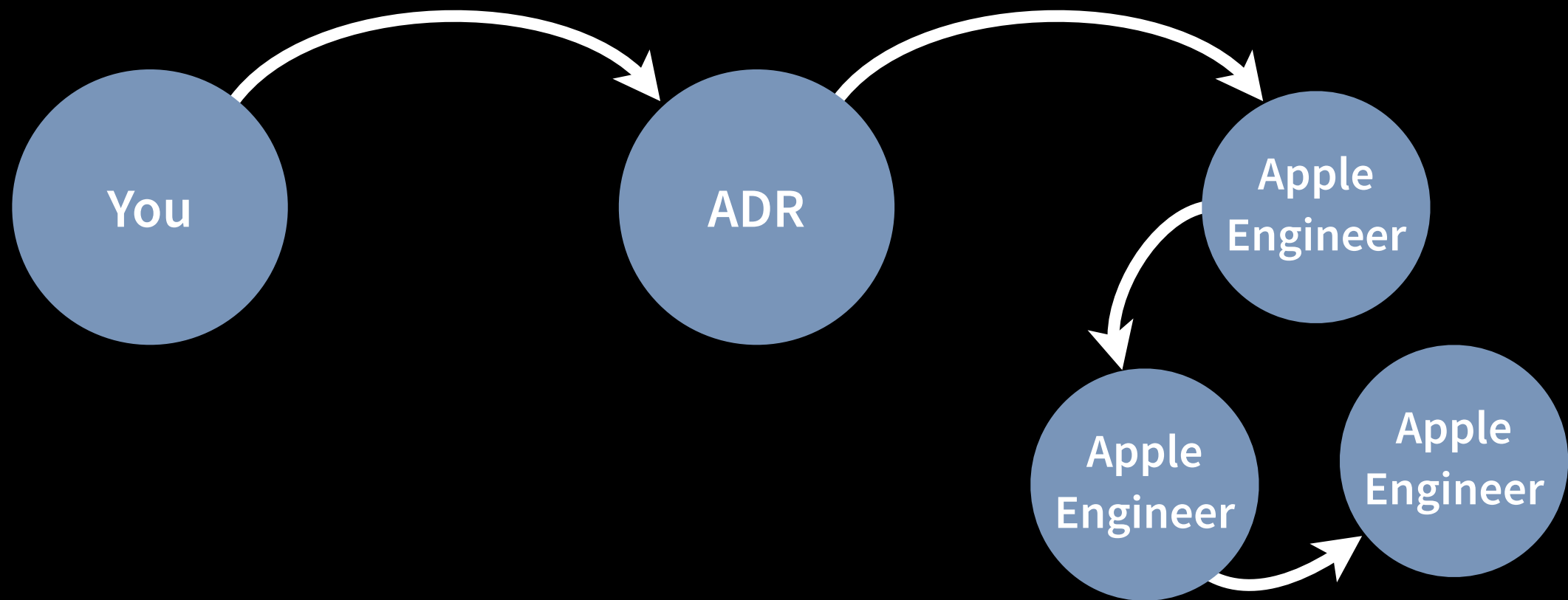
Issue: Not Enough Info



The Pinball

The Pinball

Issue: Unclear bug description



Time

The time it takes to **understand**,
reproduce, fix and test a bug

Write understandable bugs

Both the Title and the Description

- Clear
 - Concise
 - Specific
 - Actionable
-
- Excellent Resource And Tips:

<https://developer.apple.com/bugreporter/bugbestpractices.html>

Bad Bug

Title: Printing is Completely Broken

Description:

Printing is completely broken when I try to print

A little bit better bug

Title: Can't print from Safari

Description:

I installed the latest seed and I can no longer print from Safari

An even better bug

Title: Can't print from Safari on HP Laser Jet 2701

Description:

I installed the latest seed and I can no longer print from Safari on my HP Laser Jet 2701.

I was able to print from other applications. It seems that only Safari is having this problem.

I checked the console log, but did not find any log messages.

A non-actionable bug

Title: The new UI in <app of choice> sucks.

Description:

The new UI in <*app of choice*> sucks. I really hate it.

Avoid the laundry list

Title: Lots of problems with new build

Description:

Here are a bunch of problems I found in the new build:

Problem 1: ~~~~~
~~~~~

Problem 2: ~~~~~  
~~~~~

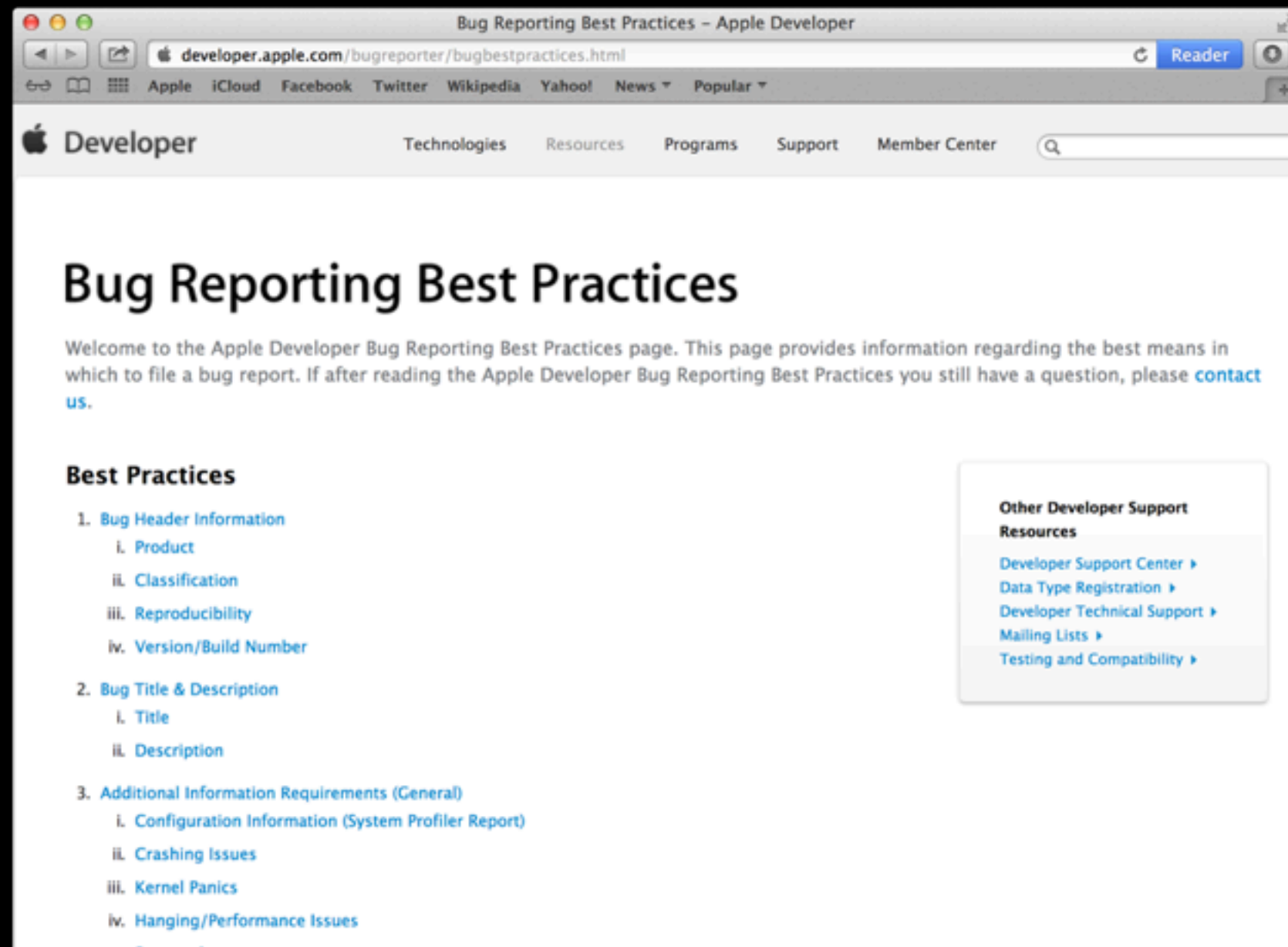
Problem 3: ~~~~~

Some tips for better understanding

- Edit before submitting
- Try to use correct terminology
- One issue = one bug report
- Explain what you are trying to accomplish
- Steps to reproduce
- Include pertinent logs and info
 - crash logs
 - console logs
 - screenshots
 - Instruments documents

Apple Best Practices

- <https://developer.apple.com/bugreporter/bugbestpractices.html>



Time

The time it takes to understand,
reproduce, fix and **test** a bug

A reproducible test case is like gold

Make it as easy as possible to repro

- Accurate, step-based reproduction steps
 - Use screen shots to help explain if necessary
- Sample project demonstrating the issue
 - Helps reduce the time needed to understand, reproduce, and test the issue.
 - Helps ensure the issue is not actually in your code
- It is better to file and add more info later than to not file at all.

Include relevant logs and info

- Console logs
- Crash logs
- Instruments documents
- Screenshots
- System Profile

Follow Up

- The ball is back in your court
- If you don't provide needed info, things are stuck

Verify

- Lots of time has gone into this bug already
- Sometimes the issue isn't resolved
- Verifying quickly can help get the issue resolved

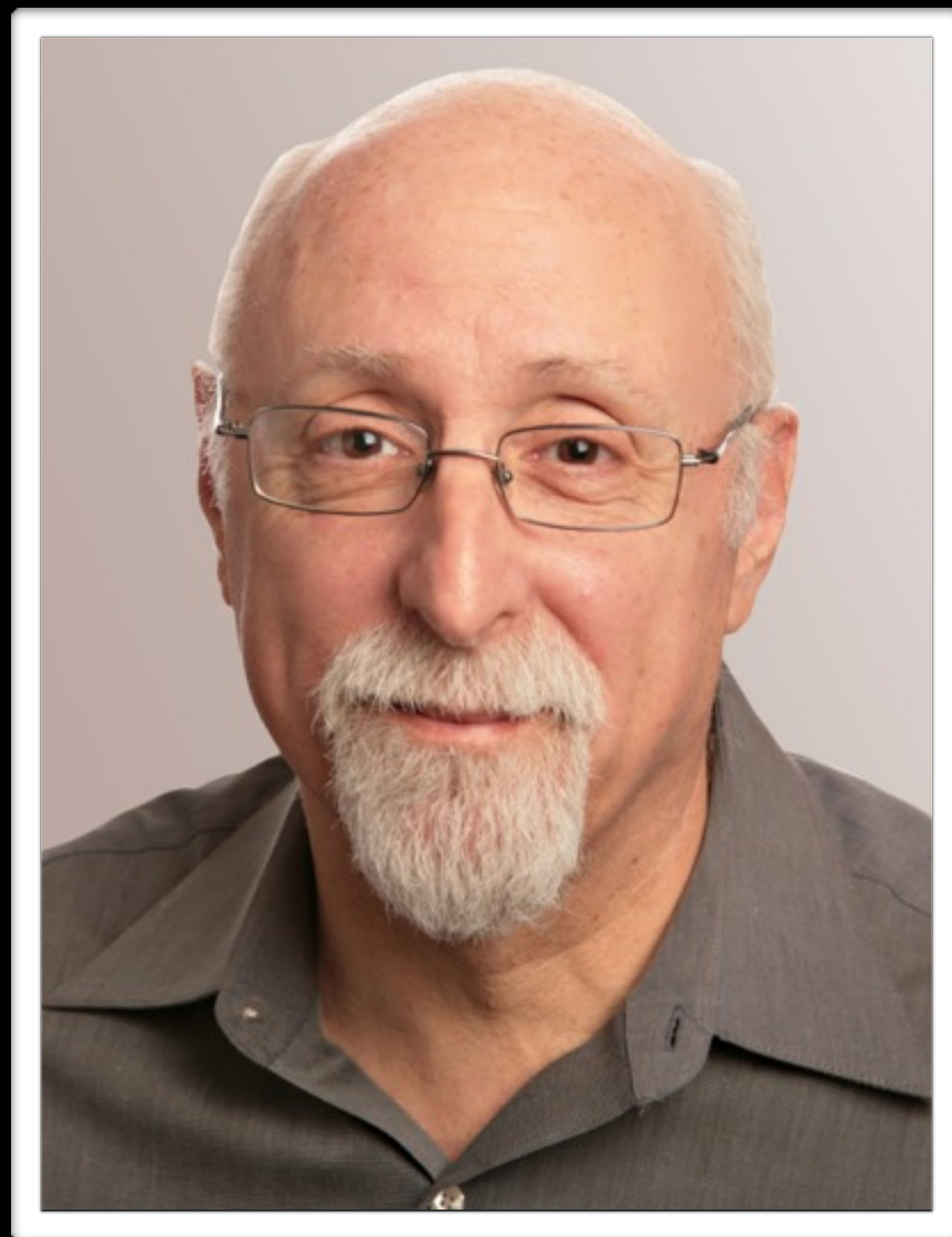
Avoid the ‘one more thing...’

- Great for keynotes, bad for bug verification
- Verify the issue in the bug is fixed
- Don't bring up another issue in the same bug.
 - File a new bug instead.

Impact

Duplicates

- Don't worry about filing duplicates
- The number of duplicates helps indicate impact of a bug
- Sometimes the best reproducible case comes in a duplicate



Alignment





Bugs are not anonymous

The ‘Emotional Blackmail’

“I really want to use OS X.

But if you don’t fix this bug, I am going to have to switch to
[Windows | Ubuntu | ChromeOS | Amiga].”

The ‘Ultimatum’

“Fix this bug in Safari, or else I will switch to [Firefox | Chrome | Lynx].”

The ‘Trivializer’

“It should be trivial to...”

The ‘Suck Up’

“You guys are the best. I’ve been using Macs since I bought my first Mac Plus in 1986...”

The ‘Snarkfest’

“My iMac has 2560 horizontal pixel. Please consider using them.”

The ‘It Couldn’t Be Me’

“It looks like objc_msgsend() is completely broken”

The 'Angry Ranter'

“The entire team should be taken out and fired! Whoever put this in is clearly the most idiotic engineer ever to walk the face of the earth!”

The 'Alarmist'

“If this bug isn’t fixed, the Mac will be ruined forever.”

The ‘Rambler’

“When I first installed the latest build, I thought that maybe the Finder was running more slowly, but then I thought it could be the new hard drive I had just connected. After going out for dinner with my wife for our anniversary, I noticed that...”*

*It’s a bug report, not a counseling session

The most hard core method

1. File bug
2. Go work for team at Apple
3. Fix bug

NSGradient

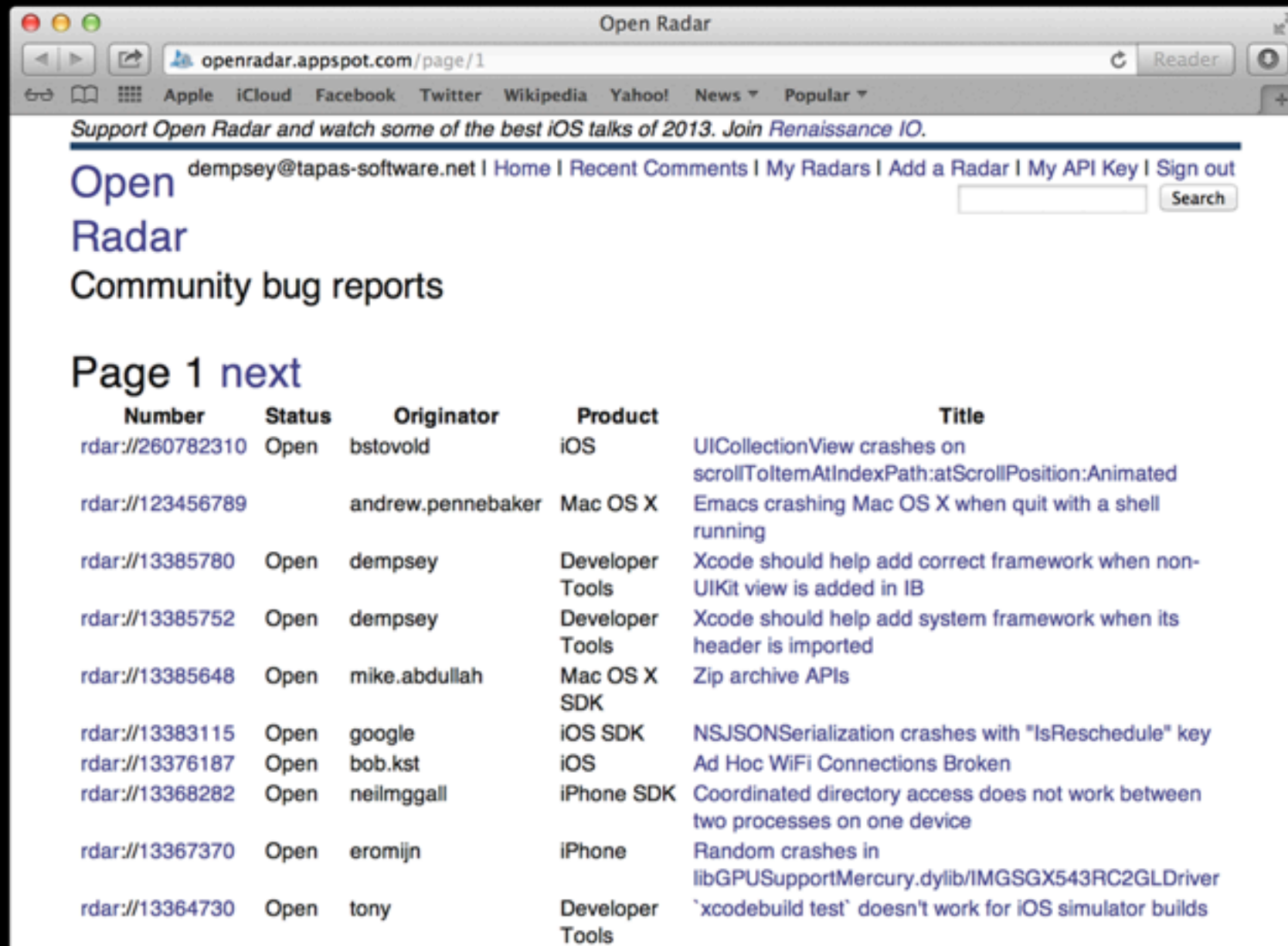
Action Factors

- Time
 - Fix Time
 - Schedule
- Impact
- Risk
- Alignment

**Write Good Bugs
As Soon As
Possible**

Open Radar

- <http://openradar.appspot.com>



The screenshot shows a web browser window titled "Open Radar" with the URL openradar.appspot.com/page/1. The page features a navigation bar with links to Home, Recent Comments, My Radars, Add a Radar, My API Key, and Sign out. Below the navigation bar, the text "Support Open Radar and watch some of the best iOS talks of 2013. Join Renaissance IO." is displayed. The main content area is titled "Open Radar" and "Community bug reports". It shows "Page 1" with a "next" link. A table of bug reports is listed below, with columns for Number, Status, Originator, Product, and Title.

Number	Status	Originator	Product	Title
rdar://260782310	Open	bstovold	iOS	UICollectionView crashes on scrollToItemAtIndex:atIndexPath:animated
rdar://123456789		andrew.pennebaker	Mac OS X	Emacs crashing Mac OS X when quit with a shell running
rdar://13385780	Open	dempsey	Developer Tools	Xcode should help add correct framework when non-UIKit view is added in IB
rdar://13385752	Open	dempsey	Developer Tools	Xcode should help add system framework when its header is imported
rdar://13385648	Open	mike.abdullah	Mac OS X SDK	Zip archive APIs
rdar://13383115	Open	google	iOS SDK	NSJSONSerialization crashes with "IsReschedule" key
rdar://13376187	Open	bob.kst	iOS	Ad Hoc WiFi Connections Broken
rdar://13368282	Open	neilmgall	iPhone SDK	Coordinated directory access does not work between two processes on one device
rdar://13367370	Open	eromijn	iPhone	Random crashes in libGPUSupportMercury.dylib/IMGSGX543RC2GLDriver
rdar://13364730	Open	tony	Developer Tools	`xcodebuild test` doesn't work for iOS simulator builds

Resources and Contact Info

Apple Best Practices

<https://developer.apple.com/bugreporter/bugbestpractices.html>

Open Radar

<http://openradar.appspot.com>

James Dempsey

<http://jamesdempsey.net>

@jamesdempsey

Tapas Software

<http://tapas-software.net>