



# MOBILE AND CHATBOT TESTING

Rachel Kibler

Carl Kibler



# Structure

- Chatbot Testing Concepts
- Mobile Testing Concepts
- Stress Cases
- Collaboration with Developers
- Hands-on Testing
  - Practice effective testing at table, then as group review
  - If you have Android device, visit [racheljoi.com/work/cast2018](https://racheljoi.com/work/cast2018) to download app from Play Store or an APK file. (if you want)
- Questions / Discussion



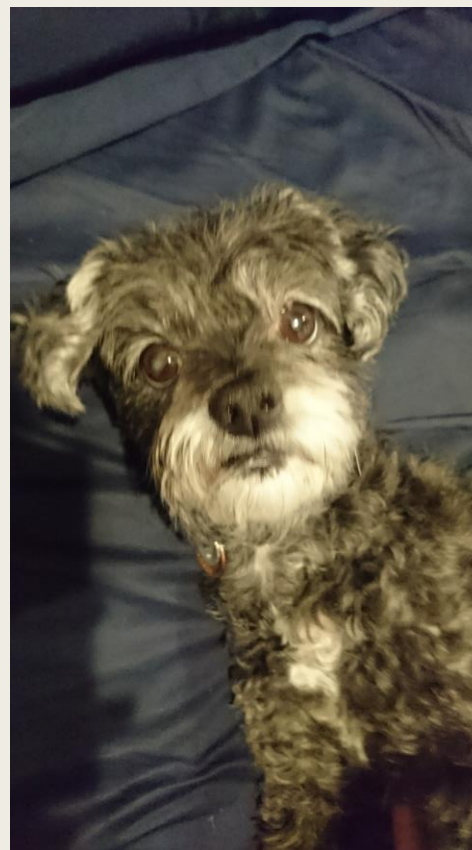
What can I help  
you with?

# Misuse of Language



cu l8r

for all intensive purposes



# Discussion point

- Words or phrases that could worry a human
- Change them just a little to prepare using them on a chatbot



# Getting Started

- Build your device library
- Get over taking bugs found in prod personally
- Be confident, bold, and compassionate
- Learn how to:
  - *Test APIs*
  - *Get logs from a device*
  - *Load apps and prior versions*



# Simulators, Emulators, Device Libraries

	Simulator	Emulator	Devices in Cloud	Owned Devices
Example	Apple iOS Simulator	Android SDK	AWS Device Farm, Perfecto	Store and track your own
What can be tested	OS	OS and some aspects of hardware (peripherals)	Mostly everything except certain states, functions	Everything
Downside	Least realistic	Slow (unreliable errors)	Not as much control	Expensive
Automation (UI)	Yes	Yes	ABSOLUTELY	Possible



# Device Considerations

- OS
- OS that it maxes out at
- CPU
- Screen size/aspect ratio
- Biometric authentication
- Cost vs popularity

# Recommended Devices

- iPhone 5C (32-bit iPhone, small screen)
- iPhone X (Face ID, screen, aspect ratio)
- iPhone 6, 7, or 8 (6 was most popular, last I looked)
- Samsung Galaxy S8 or S9 (aspect ratio)
- Google Pixel or Pixel 2 (touch authentication)
- Something old and slow and cheap on Android
- Most of these can be the Plus or XL versions too
- And a MacBook to grab logs (Android and iOS)







# ACCESSIBILITY

- Android Accessibility Suite
- ScreenReader for Blind (Google Play store)
- VoiceOver (iOS)



# Discussion point

- Are there apps that seem to work for everyone but you?
- What is your attitude (or your phone carrier's attitude) about OS upgrades?
- What kinds of accessibility tests do you run? What would you like to run?



**CRISIS**





Hours ▾

**A EvergreenHealth Urgent Care - Sammamish ▾**

**(Ad)** Urgent care center  
Sammamish, WA · (425) 898-1126  
Open · Closes 8PM



WEBSITE



DIRECTIONS

**B Swedish Emergency Room - Issaquah**

Emergency Room  
Issaquah, WA · (425) 394-0610  
Open 24 hours



WEBSITE



DIRECTIONS

**C EvergreenHealth Emergency Department - Redmond**

Emergency Room  
Redmond, WA · (425) 899-1111  
Open 24 hours



WEBSITE



DIRECTIONS

**D Swedish Redmond Emergency Room**

Emergency Room  
Redmond, WA · (425) 498-2020  
Open 24 hours



WEBSITE

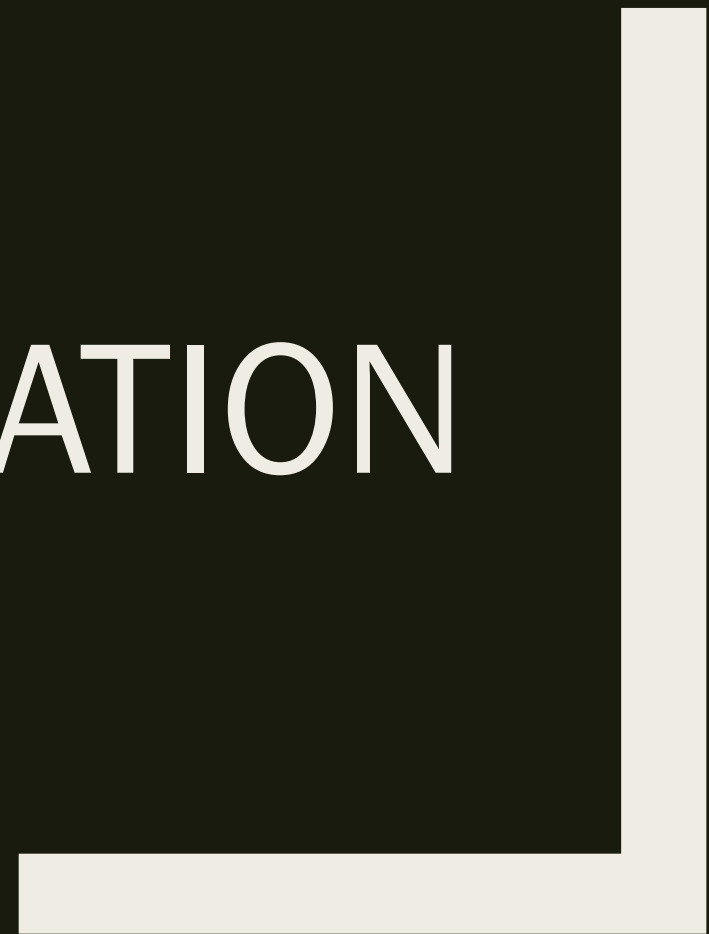


DIRECTIONS

# Discussion point

- When have you been stressed or needed accessibility, and how did the technology help or hurt?
- Check out Sara Wachter-Boettcher's books Design for Real Life and Technically Wrong

COLLABORATION



# Groups are terrible

- Us v. Them. Test v. Development. Adversaries.
- Compete for prestige, respect, and resources



# Groups are a *choice*

- Choose to identify with the larger group
- Prevent boundaries from becoming walls

# Groups are a *tool*

- Which group is the best to identify with right now?
- State the groupings if needed:
  - *“We are all here as the product team to accomplish ...”*
  - *“The testers ask that the developers ...”*

Group Identity helps find the right mix of competition and cooperation.

You have to choose the group and acknowledge it.

# Ownership in the Dev-Test Relationship

- Writing code often feels very personal
- Criticism is always hard to take
- Are these valid comparisons?
  - Director and Film Critic
  - Builder and Home Inspector



# Working in New Code

## Developer Mindset

- High excitement
- Swimming in possibilities and choices
- Low risk

## Needs from Test

- Support the excitement
- Work at high level
- Ignore the small stuff

# Working in Existing Code

## Developer Mindset

- Somewhat risky up to very high risk
- Trying to be careful and methodical
- Lower sense of ownership
- Dread, sometimes

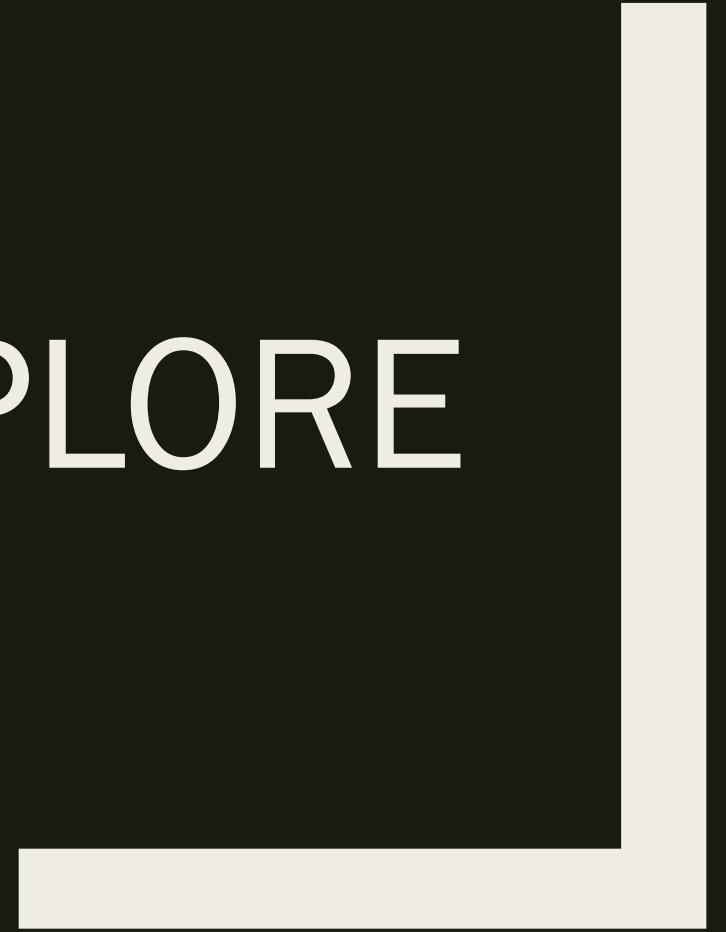
## Needs from Test

- Be an active “safety partner”
- Don’t ignore the small stuff – protect the product
- Prevent “Used to Works”

# Effective Collaboration

- Encourage groupings that are useful *in the moment*
- If developer is *creating*, maximize their “flow” and add your own energy and ideas
- If developer is *fixing*, use your knowledge to create a sense of safety
- In between, it’s a mixture!

EXPLORE

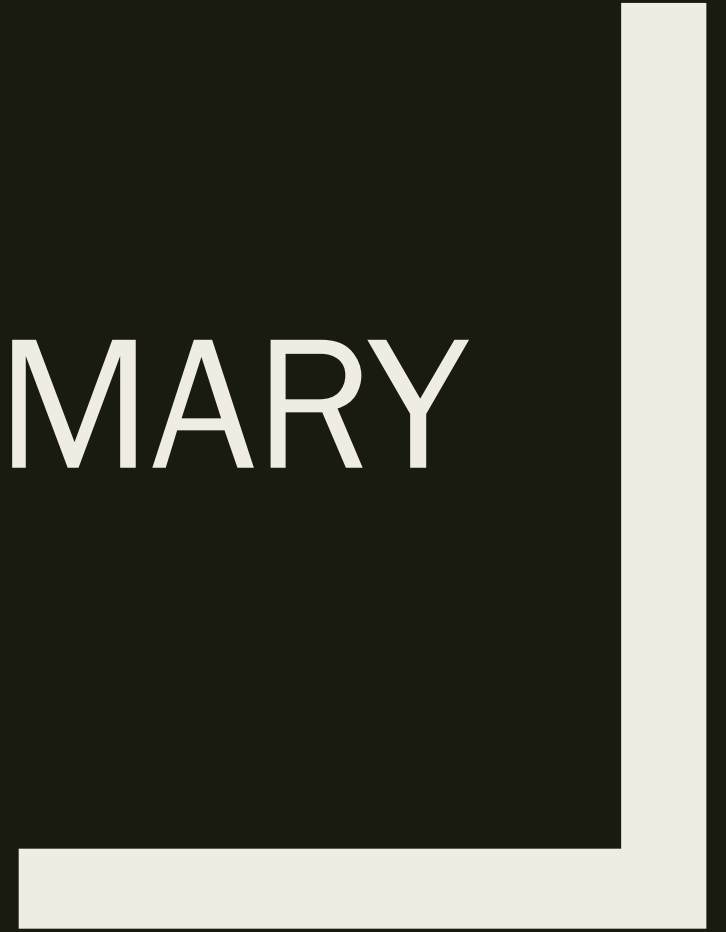


# Your Turn!

# TYMS POC

- [racheljoi.com/work/cast2018](https://racheljoi.com/work/cast2018)
- Android: click on the link on the page. Requires Android 7 or higher
- ~~iPhone: message @ckibler on Slack with your email to get an invitation to Testflight~~
- Bug reports: text 385.237.4890 or tag Rachel Kibler in Slack channel (#mobile)
  - OS/device
  - Summary/description
  - Level of reproducibility
  - Relevant screenshots
- Things to know
  - *Debug menu in app can delete data, restart process, set times, etc*
  - *No US Phone? Use 555-???-????. Verification bypass code: 111*
  - *To start via SMS, text anything (except "STOP") to: 312.663.8725*
  - *ALL TEXTS ARE LIVE (don't put in random phone numbers)*
  - *Via SMS, try 'commands' . Also 'track', 'how', 'who are you', etc.*

# SUMMARY



- Testing Mobile will always be incomplete
- You do not control the delivery pipeline
- A chance to rethink interactions with user
  - *What can you stop doing?*
  - *What can you silently enhance?*
- Mobile and Chatbot thinking can help simplify your app
- Mobile app is peak stress point - help your users at their most tired, angry, and physically or mentally incapable.