Voice User Interface for Mobile APPS

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Why do you need a VUI for App?

While driving

Annually, in US only:
1.6 million car accidents each year.
390,000 injuries due to texting while driving.
6,000 deaths texting while driving.
1/4 of all car crashes involved use of cell phone.

Source: https://carsurance.net/blog/texting-and-driving-statistics/

Walking down the street in downtown

Annually in US:
11,100 injuries due to use of cell phone when walking.
5376 death pedestrians
60 percent of people texting while walking

Source: https://www.rd.com/culture/texting-and-walking-injuries/
Existing Voice Solution

You can **make a phone call** to a business where

- A real person will answer and help you out
- An IVR system will handle your call

**Why can’t I talk directly to my App to get things done?**

Ask IA, one of Alexa, Google Assistant or Siri,
Hope there is a skill or action for your task
Why can’t I have an IA for my App?

**Two Challenges** before you start:

- **Must work in any noisy environment**
  - In a moving car 75 mph
  - In busy street or a noisy restaurant

- **Add a voice UI to an existing touch UI**
  - Integrating into App pages
Demanding Noise Cancellation

Mic in mobile phone not good enough

- Mostly requiring far-talk: ~ 1 – 10 ft
- Eliminate any kind of noise, without causing distortion to voice

- In-car array microphone accessory:
  - USB dual-mic cable, Phone holder, Dash Cam, Rearview mirror, etc.

- Wearable embedded microphone (array)
  - Watch, Bluetooth earphone, glass frame, etc.
Building a Voice UI for App

- Built for productivity – goal oriented
- Task Completion instead of info search or social chat
- Multi-model user interface. Voice UI offers direct link to App pages, coexist with App’s touch UI and screens
Voice UI Benefits

For enterprise

- Single unified digital interface for your customer. Don’t have to reinvent the wheel on lesser capable “applet” skills
- Increase user time spend on your App

For users

- Leverage App’s familiar visual UI always remind users of what to say
- Expand App usage to many more scenario
Case-in-point: Fast Food Ordering

Turn every smartphone into a virtual drive-through terminal

Order your food right there on app while driving to work

Make payment when the order is placed

Collect your food bag in store without waiting.
Demo

Demo shows how VUI works the magic: [https://www.youtube.com/watch?v=J_HBSNkd2-A](https://www.youtube.com/watch?v=J_HBSNkd2-A)

**Special Features:**

- No wakeup word
- No need to turn off radio
- Continuous conversation flow until task completed
- Full App functionality with voice UI
Conclusion

The biggest roadblock to the widespread use of IA is on the front and back

- Noise robust voice input
- Connection to App to complete a task

VUI.AI has the technology and know how to solve both problems

- The best noise cancellation for ASR
- APIs for integrating Voice UI into an App

App specific IA inside an App is a viable alternative to general purpose IA

We make sure every of your App user remains as your customer, not Apple, Google or Amazon’s customer!
Thanks!

Question and Answer

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