

vlingo

Mobile Voice Search

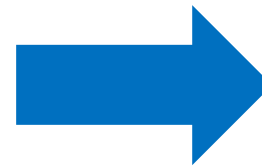
Mike Phillips CTO



Mobile Industry Problem

- Discoverability
- Usability

It takes seven steps on a feature rich device just to do something as simple as check the weather, and requires a lot of typing on a tiny keyboard!



- 1
- 2
- 3
- 4
- 5
- 6
- 7

Mobile Interfaces

- Open speech interfaces now possible
- Broad range of Applications and Services
 - Information: search, weather, sports
 - Entertainment: music, video
 - Communication: email, SMS, IM, social networks
 - Productivity: calendars, voice dialing
- Vlingo combining these in a single user experience

Simple Model For Users

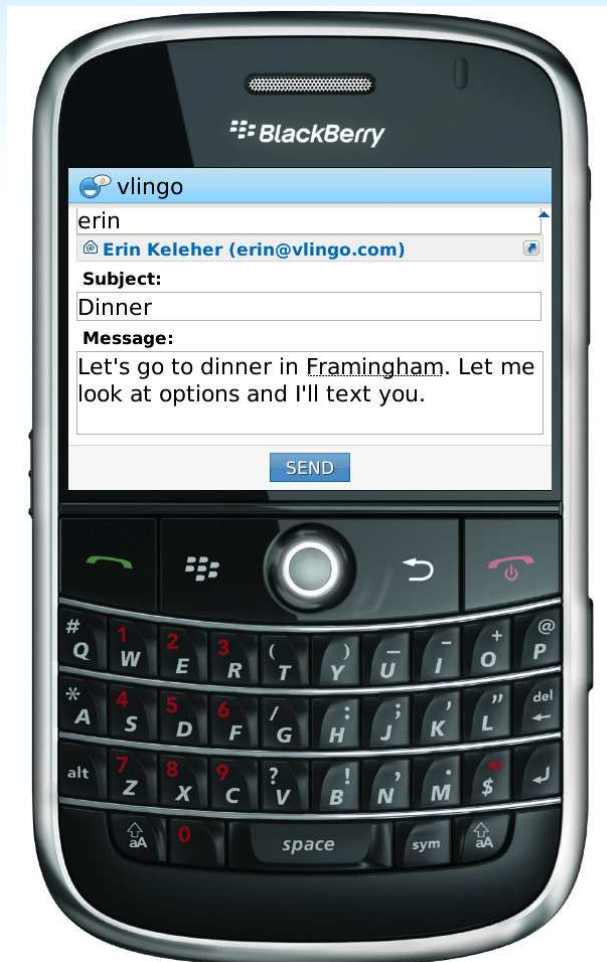
- Push “speak” button, say whatever you want
- System tries to do right thing:
 - If Idle, take user to appropriate application/action
 - If in a text field, fill that text field
- Let user know what is recognized and what is being done
- Give them an easy way to change it
- Give them an easy way to redo it

Demonstrations

Demonstrations



Demonstrations



Demonstrations



Demonstrations



Unconstrained Speech Technology

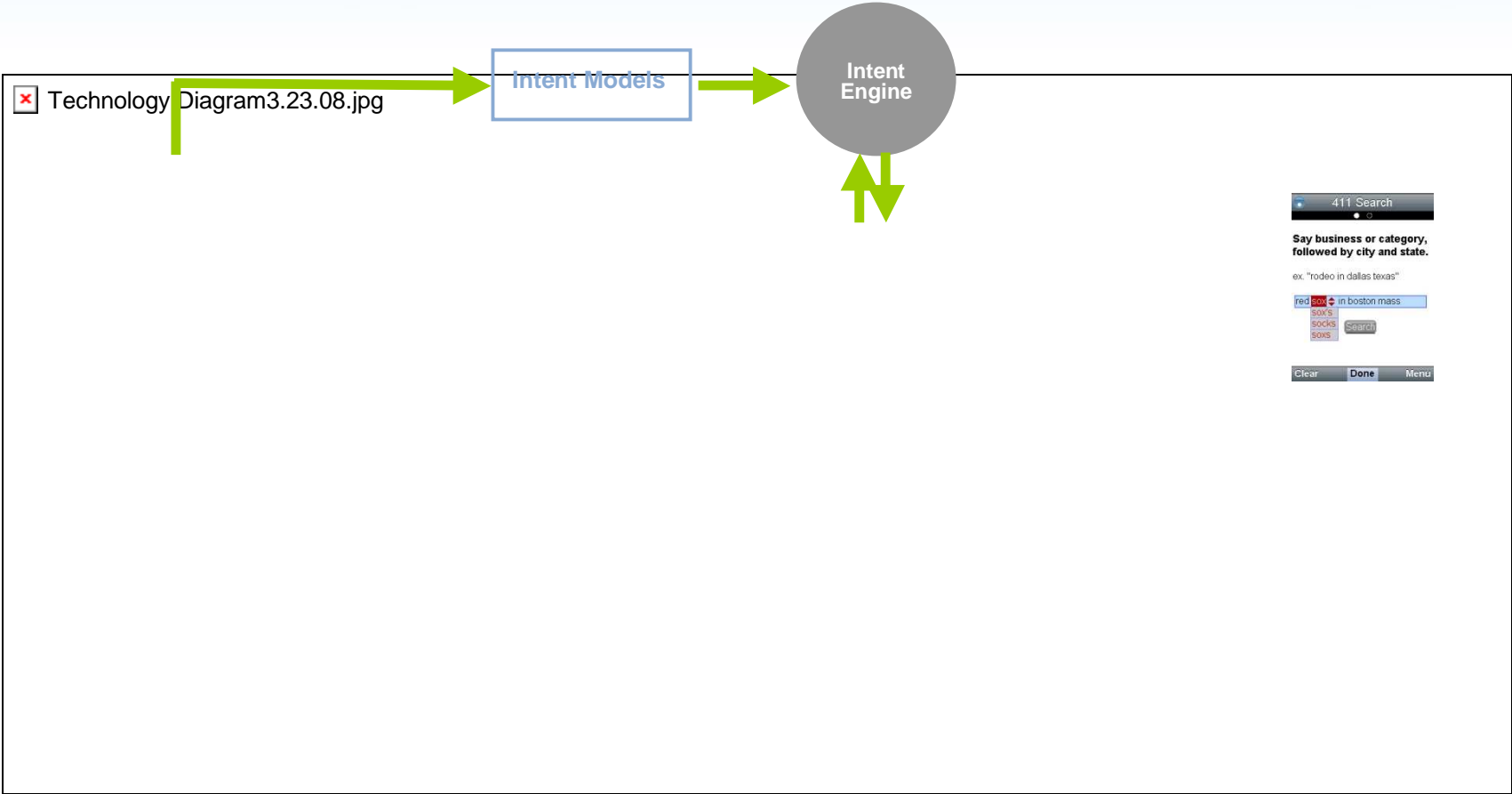
 Technology Diagram3.23.08.jpg



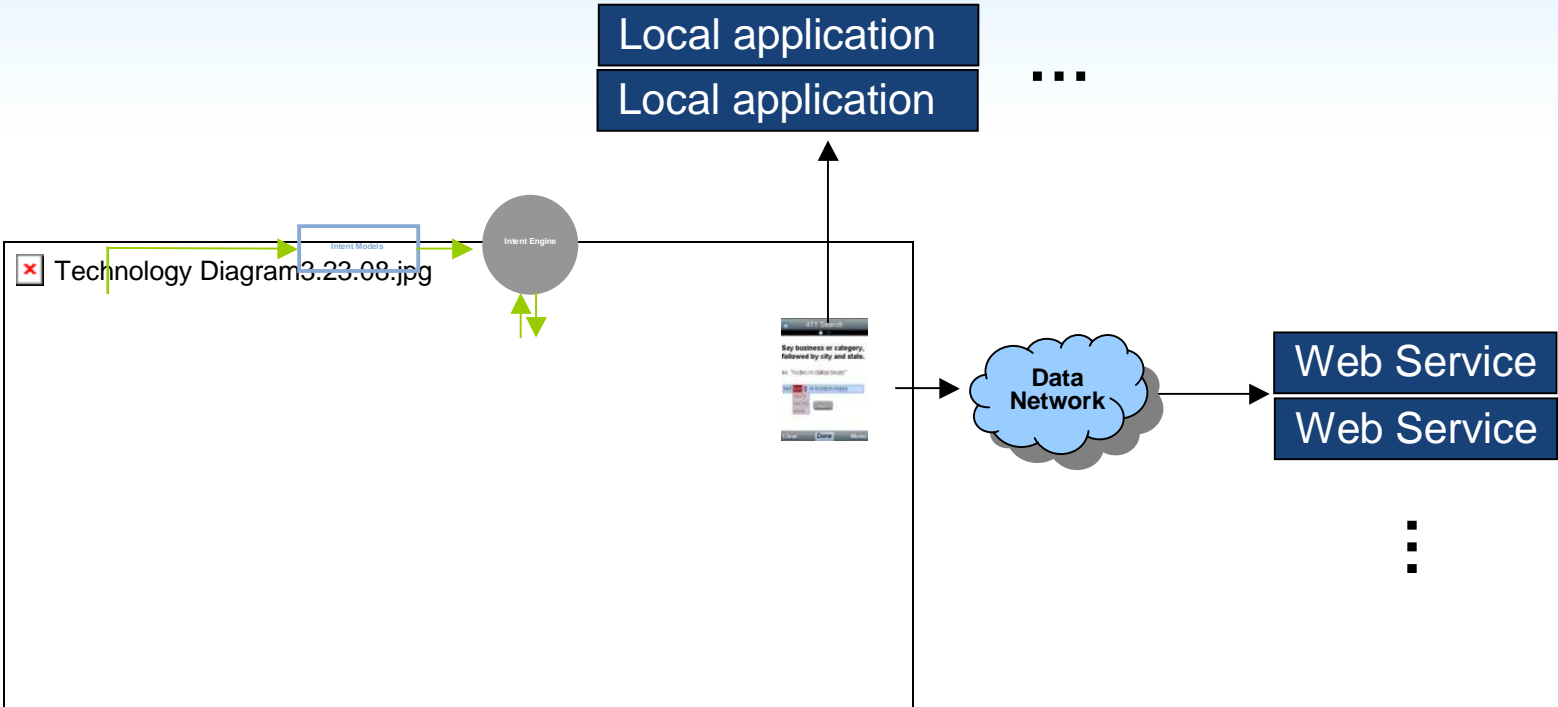
How to Handle Action

- Determine appropriate action
 - General: dialing, search, messaging, phone control
 - Specific: navigation, find a business, book a hotel
- Route input to application
 - Applications are domain experts
 - Local or Web-based applications
- Need to maintain consistent user experience

Technology For Application Routing



Technology for Actions



Operating System Integration

- Vlingo currently deployed as third party application on open OS's
 - Allows some control of basic functions
 - Allows some application integration
 - But, limited by what is exposed in OS
 - And, overall UI of the phone does not take into account speech
- OS-level opportunity
 - Full voice integration of all native and third-party applications (launch all apps from top-level, speak into any text field)
 - Design overall UI of phone taking into account speech input

Market Adoption

- Technology is now capable of handling broad range of mobile services
- Market adoption dependent on
 - High performance, reliable, low cost mobile data networks
 - Capable open devices
 - Successful implementations
- Need consistent high quality user experience

What We Need From Search

- Handle richer input
 - Users are more likely to speak longer input
 - Users are motivated to get results in one try
- More targeted output
 - Answer the query rather than providing links
 - Mobile-focused domains
- Make use of available data
 - Location
 - Usage history

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