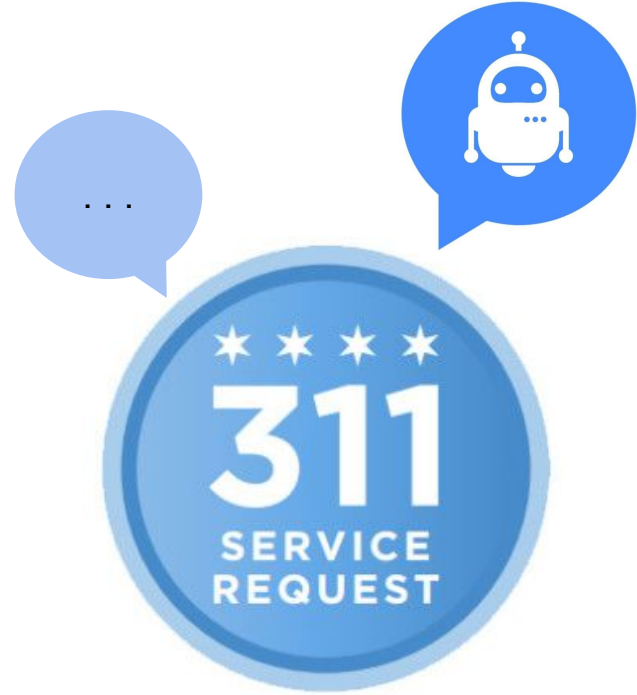# Simplifying The 311 Experience

Civic Chifecta

Current State: 311 Interactions

- Primary channel of request submission is via phone. Target wait times are 45 seconds, but can be much longer
- Existing alternatives that make the process more accessible (Online forms, SMS)
  - **Online Forms:** Difficult to navigate the website to find the right form; Daunting to fill complicated forms asking for too many details
  - **SMS/Text:** Fixed automated instruction flow makes it tedious and time-taking even for simple requests; Restricts interaction around a pre-determined message tree
- For submissions other than online form, difficult to navigate back or backtrack one or more level if a mistake or typo is made

Source: *Chicago 311 Call Center Metrics*

Virtual Agent 311 Channel

- Several large companies and governments are adopting virtual agents to automate repeatable tasks and transactions
- A virtual agent will be able to better serve the resident needs compared to a static form or list of text responses
  - More user-friendly
  - More efficient and flexible interface
  - Better data collection
- Will encourage citizen participation and responsibility sharing
- Potential to improve relationships between constituents and governments, and promote government transparency
- Help governments to streamline and re-allocate resources more optimally
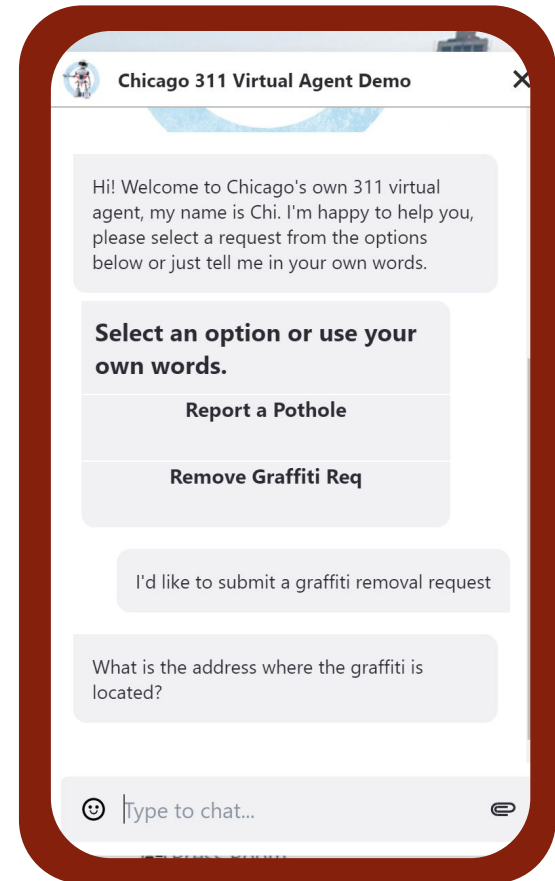
Data Sources

- **Training Virtual Agent** to recognize requests in natural language (Intentions)
  - Historical 311 Service Request open datasets from other US cities which include raw text, for example:
    - Gainesville, FL (April 2016 to present)
    - Cincinnati, OH (March 2015 to present)
    - Baton Rouge, LA (2016 to present)
- **311 Service Delivery**
  - Chicago's 311 Open Data for querying average response time for a specific type of request in a given neighborhood (to be used in responses to service request submissions, and in comparison map)
  - Historical data will be used to design additional features that will promote transparency in service delivery and better constituent relations.
    - Historical Chicago 311 Service Request Data (2011 to present)
      - Datasets corresponding to 13 service request types currently served by submission API:
        - Building Violations, Restaurant Complaints, Abandoned Vehicles, Graffiti Removal, Rodent Baiting/ Rat Complaint, Sanitation Code Violations, Tree Debris, Alley Light Out, Pavement Cave-In Survey, Pothole in Street, Street Cut Complaints, Street Light Out, Traffic Signal Out
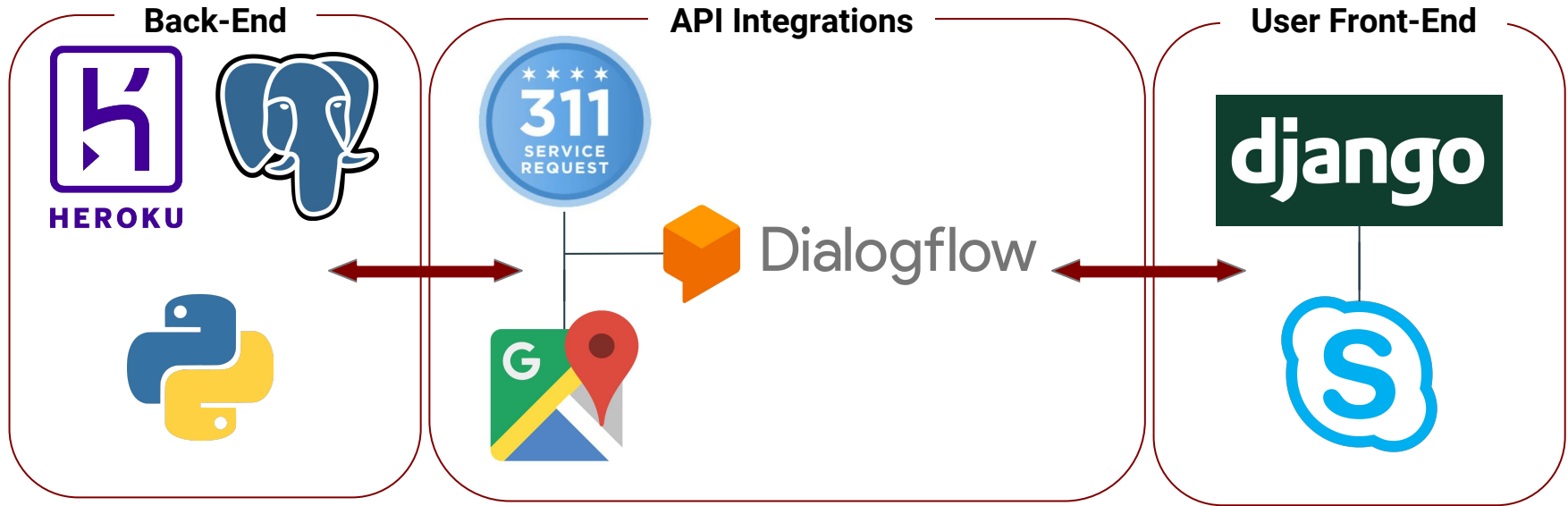
Future Applications

- By selecting Dialogflow as our bot integration tool, we would be able to easily duplicate functionality on additional platforms (in addition to Skype) like Facebook Messenger, Google Assistant, as well as SMS for those without access to internet and smartphones

- In utilizing the Chicago Developer 311 API, a new interface the city plans to continue to update, we will be able to support additional 311 request types as they become available

Project Timeline

	4th Week	6th Week	8th Week	10th Week	Finals Week

Data

Gather Data — Initial Data Analysis — Build Data Integrations — Feature R&D

Design

Current State Assessment — Feature Scoping — Dialogue Design — Complete Design

Develop

Build Backend Integrations — Begin Dialogue Development — Develop Features — Obtain Feedback — Dialogue Development — Complete Development

Test

Questions?