Redesigning Boeing’s Service Request Form ~ DawgsTakeFlight

Background & Objectives

**Purpose:** Reevaluate webform used by employees within all Boeing sites to submit service requests. Project limited to front-end redesign

**Most Submitted Requests in January 2023:**
1. General Equipment Repairs/Maintenance (1601)
2. Production Equipment Repairs/Maintenance (367)
3. Plumbing (258)
4. Production Equipment Repairs/Maintenance (367)
5. General Equipment Repairs/Maintenance (1601)

**Goals:**
- **Reduce Errors (Zero errors)**
- **AutoFill**
- **Smart Search**
- **Dropbox Menus**
- **Enhance Usability/Learnability (Likert rating of 5)**
  - Improve Aesthetics
  - Improve Description
  - Detail
  - Accuracy
- **Improve Efficiency**
  - Remove Redundancy
  - Minimize Manual Input
- **Reduce Completion Times (By at least 10%)**

Methodology

- Conduct usability testing on current Service Request Form
  - 1 of 2 hypothetical Boeing scenarios in which a service request must be submitted
  - Non-Boeing employees to simulate Boeing’s interface

- Target audience to reveal Boeing’s demographics

- Record and compile data from tests
  - Number of errors and where they were made
  - Likert survey of user likability
  - Photos, thoughts and suggestions

- Create newly updated prototype
  - Base changes off testing data
  - Focus on errors prone areas
  - Concept changes are feasible with Timothy (Mentor)

- Repeat iterative process until project objectives are met
  - 0 errors/insufficient submissions
  - T-test for significance of decrease of errors

- Maximum scores on Likability surveys

Resources

**Information:** Data from past service request and fulfillment queues. Research on user preferences, human factors and design and error production.

**Software:** Web-building applications (Figma & ProtoPie) and data analysis (Excel)

Human: Consult with outside experts and key stakeholders and recruit users for testing

Benefits

- **Due to decreased service request errors, we predict approximately $326,000 of monthly savings for Boeing**
- **Equation used:**
  \[
  \text{Cost} = \text{(# of errors)} \times \text{(Likert test)} \times \text{(# of equipment service requests)} \times \text{(average time to rectify incorrectly submitted service requests)} \times \text{(Hourly machine technician cost)}
  \]
- **Due to a more infallible form, employees will no longer neglect completing a service request**