Test the Bot; Test with the Bot

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What Are Bots

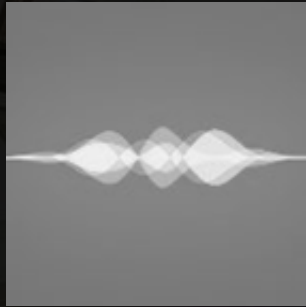Learn by doing things   Follow Instructions   from Data
Learn ~~by doing things~~

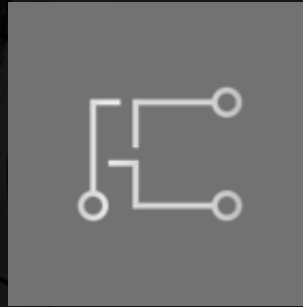" A program that behaves and interacts like a human and constantly learns by itself"

Humans   Machines   Bots

Bots Here Bots There Bots Everywhere

Siri

RightClick.io

Transavia
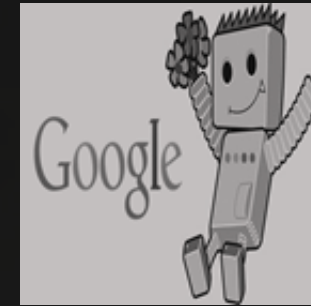
Trump Bot
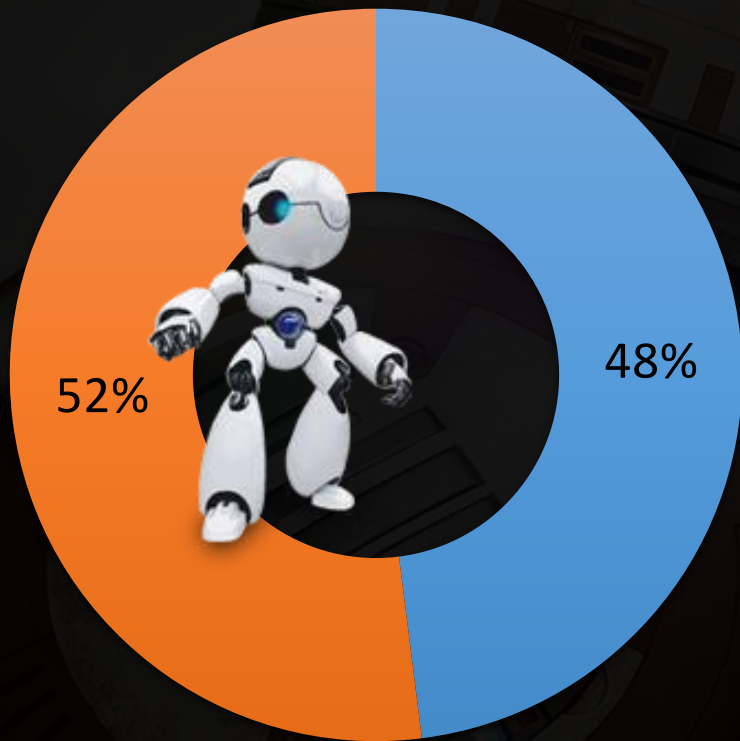
Spam Bots

Spider Bots

Why Now?

Online Traffic Report 2016
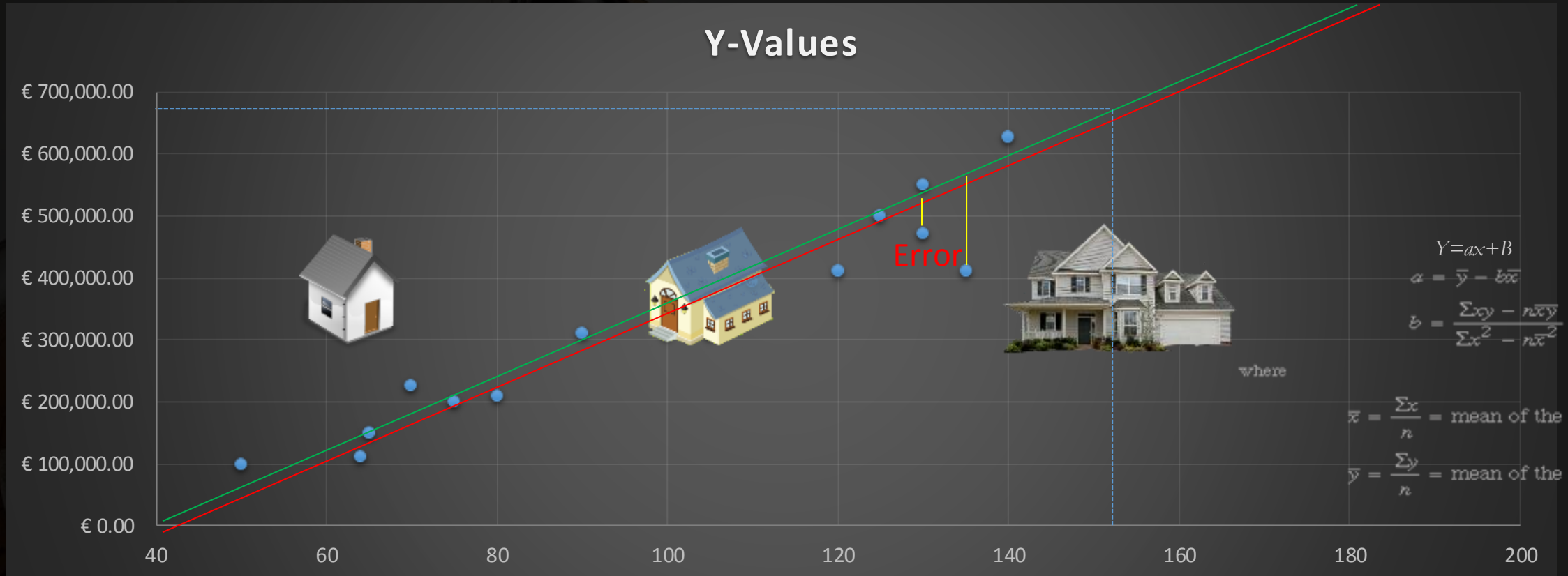

52%

48%

Big Data

Speech Recognition   Deep Learning   Image Recognition

Machine Learning & Data Science

Graphics Processing Unit   Natural Language Processing

Predictive Analytics
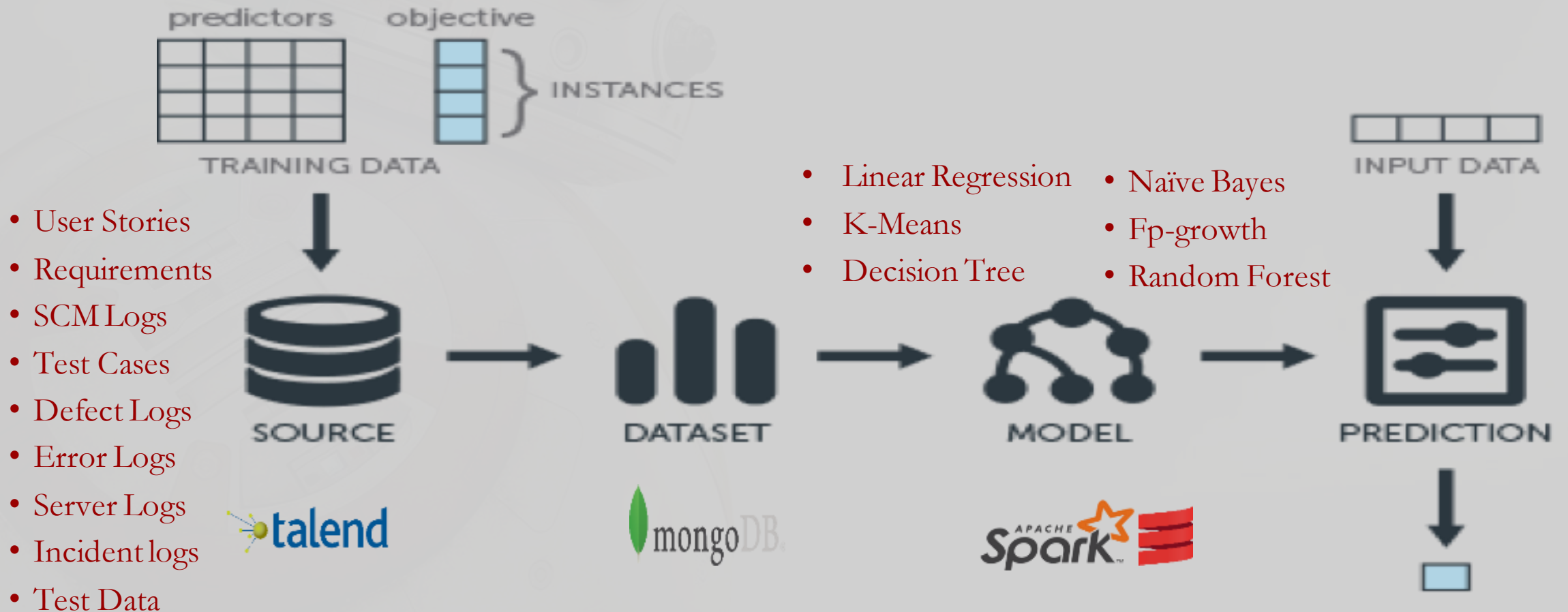
Data To Patterns To Prediction

Y-Values

Test With The Bot

Machine Learning Process

1. Acquire Data

- User Stories
- Requirements
- SCM Logs
- Test Cases
- Defect Logs
- Error Logs
- Server Logs
- Incident logs
- Test Data

2. Build a Model

- Linear Regression
- K-Means
- Decision Tree

- Naïve Bayes
- Fp-growth
- Random Forest

3. Predict Outcomes

How Bots Can Help Us

DEFECT PREDICTION
Predict the defects early in the cycle by the application of advanced text analytics on **user stories, scm logs, defect logs**.

ANALYZE TEST DATA DISTRIBUTION
Create your test environment as similar to your production environment by advanced distribution analytics.

ANALYZE USER EXPERIENCE
Identify geo-specific gaps in the market to drive scope and prioritization of next sprint's backlog

PREDICT EFFORT REQUIRED
Predict the user story points for user stories by the application of clustering algorithm on **user stories**.

Demo - Predicting Defects

Step1

SCM Logs: SCM Log history Sprints 0 to n..

Defect Logs: Historical defects sprints 0 to n..
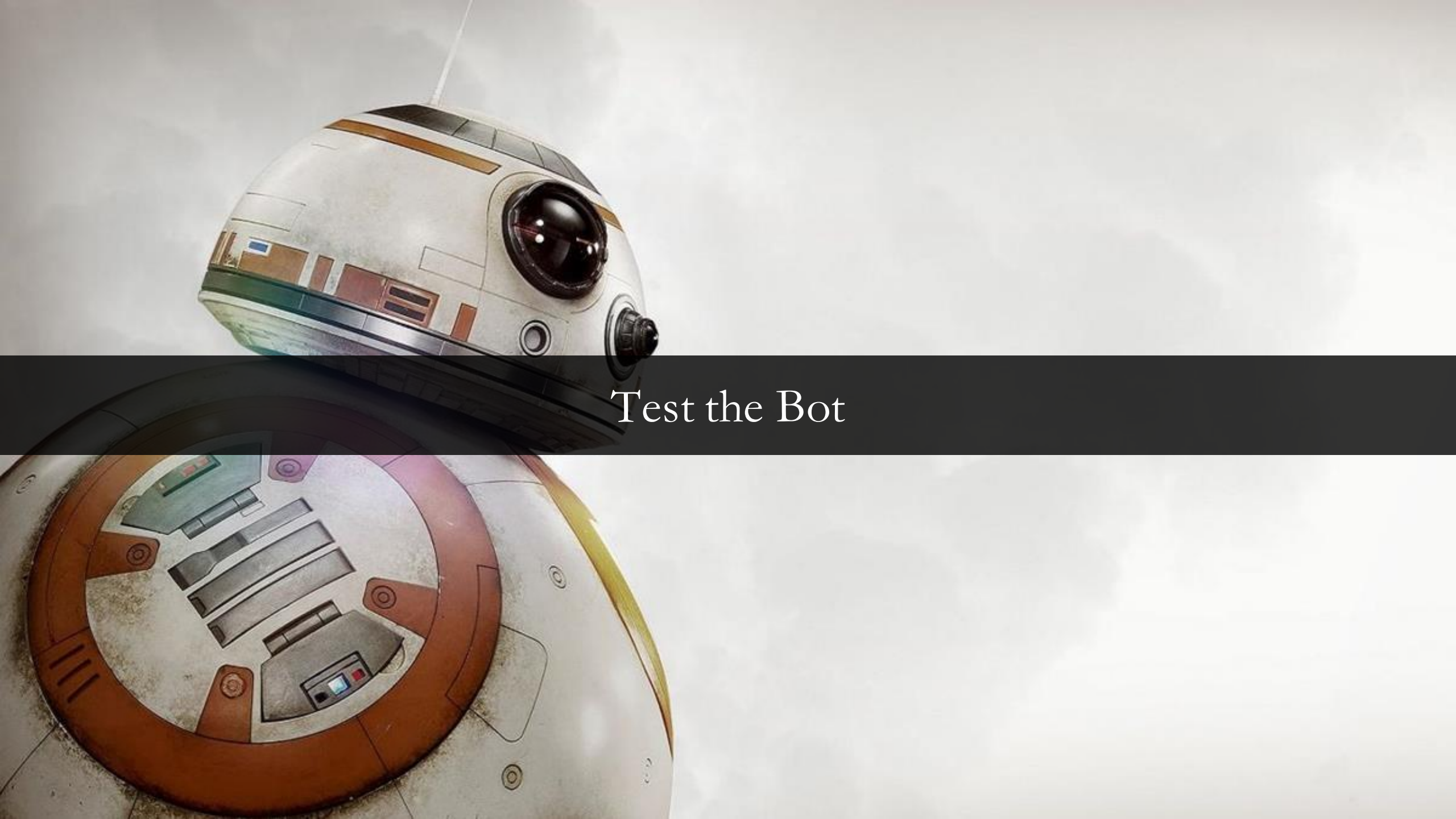
Fp – Growth Algorithm

Pattern Matching Model

Step2

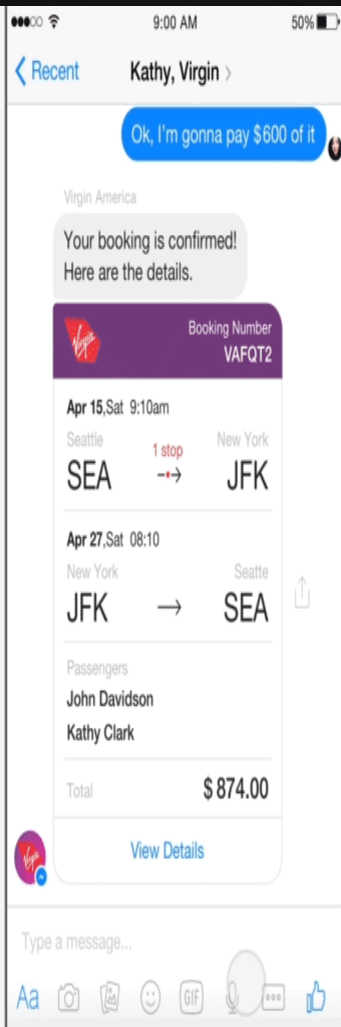SCM Logs: SCM logs current sprint

Pattern Matching Model

Predict possible defects based on history

Test the Bot

The Rise Of Chat Bots

Easy to create one

24/7 Customer service

Gives personalised service

Gives customer perspective

It's fun…

Challenges

1   **Language & Linguistic Variation**

2   **Platforms and dependencies**

3   **Humanization = Personality of their own**

4   **Traditional automation will not work**
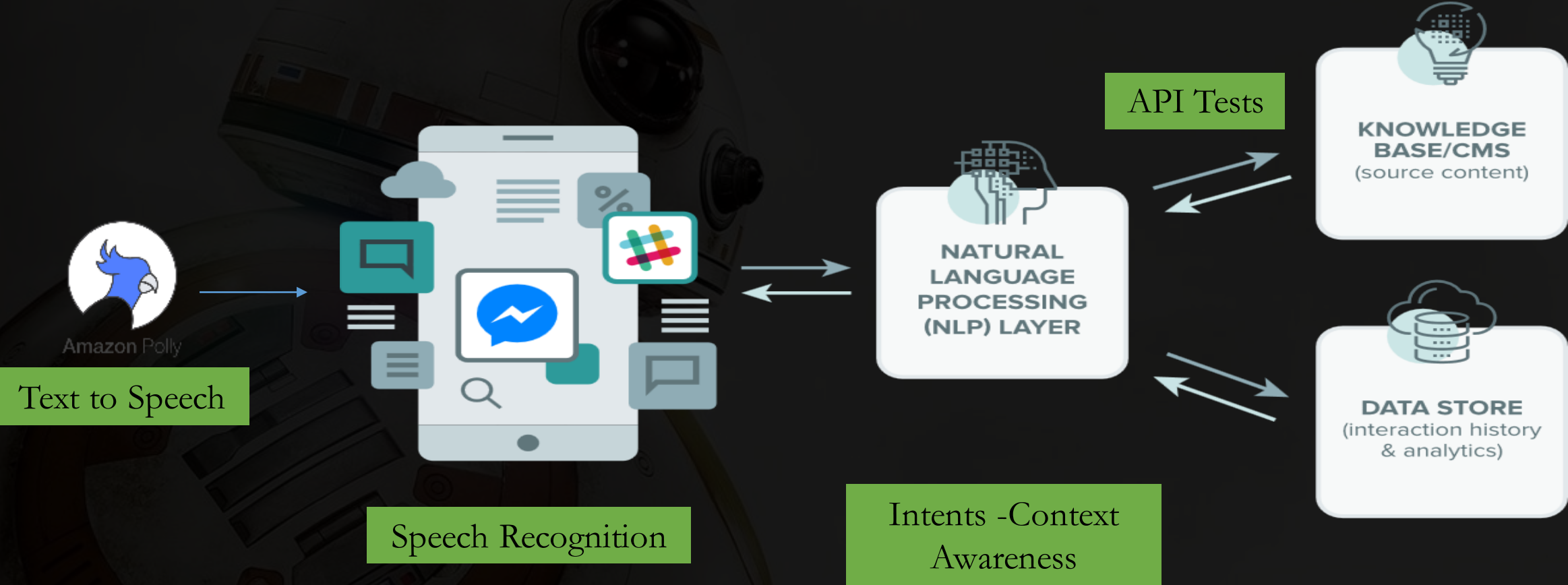
Possible Solutions

Turing Test

Crowd Testing

Bot Vs Bot

API Testing

What did We Test

API Tests

Text to Speech

Speech Recognition

Intents -Context Awareness

The Fine Print

"You can't solve tomorrows problem with today's thinking"

THANK YOU