



BIZ-OPS DASHBOARD

*Demonstrating the combined power of R, Apache Drill, and
flexdashboards*

AGENDA

1. Intro's, Project Background, Business Model Overview
2. Discussion About Yelp's Current Approach to Data
 - pain points, exiting tools, technologies, workflows
3. Overview of Tools Used for Project
4. Dashboard User Scenarios
 - Internal Customer
 - External Customer
5. Yelp Analytics Dashboard Demo
6. Github & RStudio - A Look Behind the UI
7. Potential Future Applications
8. Gauge Interest & Explore Opportunities

PROJECT BACKGROUND

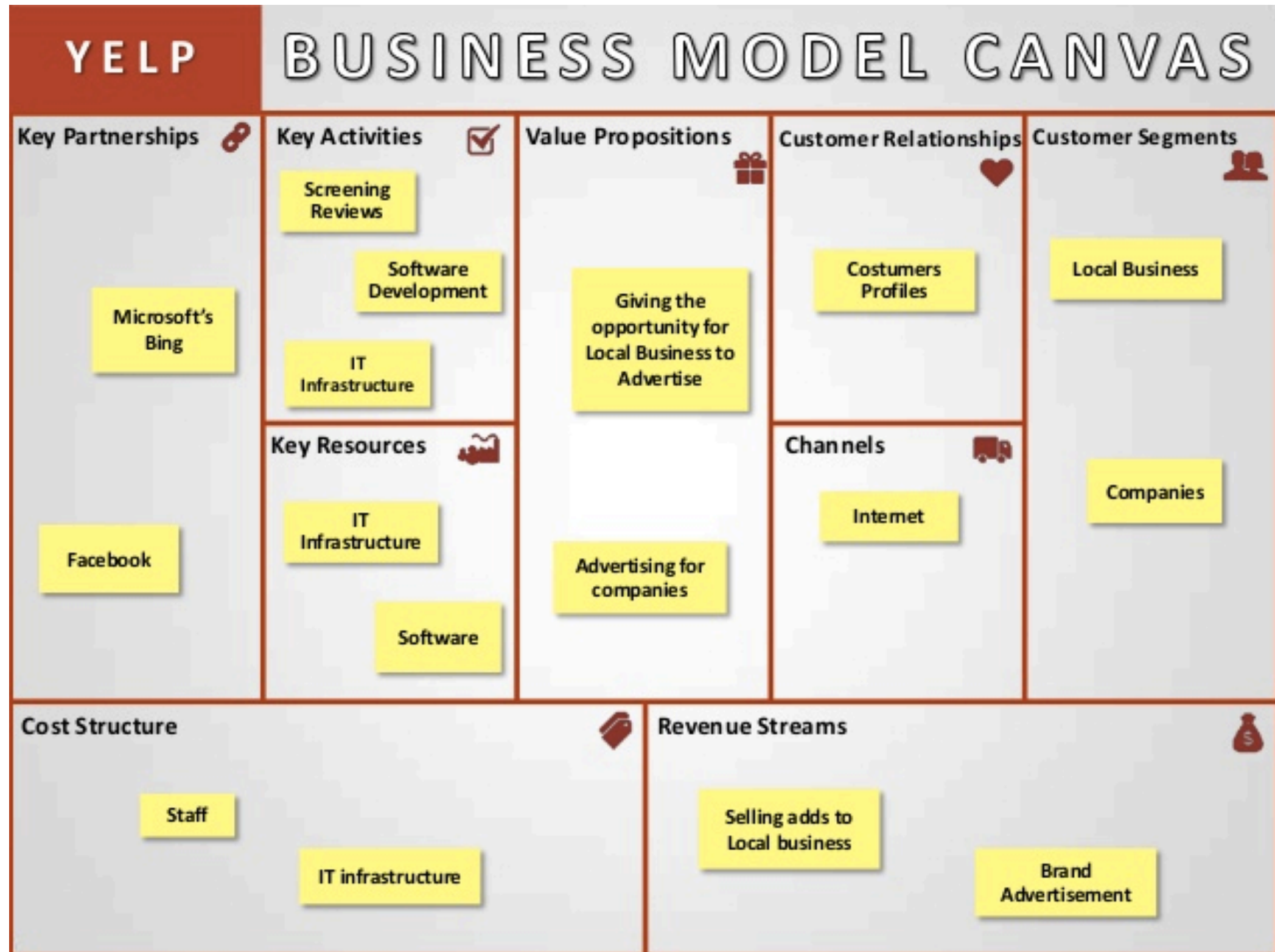
Who we are & why we did this project

*A quick discussion about Yelp's overall
business model and strategy.*



YELP'S BUSINESS MODEL – HIGH LEVEL WALKTHROUGH

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CURRENT APPROACH

*How is Yelp's data currently being
used to support decision-making?*

*What pain points could a new
approach potentially solve?*





TELL US A BIT ABOUT YOUR DATA

- What we know:
 - Yelp's code code (3 million lines or so) is written mostly in Python
- Engineering team uses:
 - Python, MySQL, **WHAT ELSE?**
- Biz Ops team uses:
 - Excel, Tableau, Salesforce & Google Analytics, **WHAT ELSE?**

NEW TOOLS

R/RStudio

Apache Drill/Sergeant

Shiny/Flexdashboards





ADVANTAGES OF THIS TECH LAYER

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- **Apache Drill & Sargeant** - agile, flexible and open-source SQL query engine for Big Data exploration. Allows for data analysis without any ETL or up-front schema definitions
- **Shiny & Flexdashboards** - combined with R Markdown and R Studio provides a framework for creating powerful, interactive web documents.
- **R** is an open-source programming language and software environment for statistical computing & graphics in wide use among data scientists & miners

BIZ-OPS CASE #1: EXTERNAL DECISION-SUPPORT (CUSTOMER FOCUS)



BIZ-OPS CASE #2: INTERNAL DECISION-SUPPORT (FIRM FOCUS)



DASHBOARD DEMO





BEHIND THE SCENES

*A look at our code &
Github repository for this
project*





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<https://github.com/mgd1984/Yelp-Analytics-Dashboard>

POTENTIAL APPLICATIONS

*A look at our code &
Github repository for this
project*





POTENTIAL BIZ-OPS USE CASES

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- * **Marketing**: new & more efficient ways to acquire customers, and how R could be used to enhance market-mix modelling techniques
- * **Sales**: how R could improve Yelp's compensation system & pilot new products/price points
- * **Community Management**: identify new ways to encourage contributions from Yelp users & conduct sentiment analysis of Yelp user reviews
- * **Product**: using R to identify new products opportunities & priorities
- * **Engineering**: taping in to existing tools developed by Yelp's engineering team such elastalert, mrjob, paasta, or undebt.



POTENTIAL BIZ-OPS INTEGRATIONS

- * Packages to connect to Google Analytics ([RGoogleAnalytics](#)), Salesforce ([RForcecom](#)), SQL ([Drill](#) + [Sergeant](#)), and other tools used at Yelp (Excel, Tableau) are readily available through open-source networks such as CRAN

GAUGING INTEREST & EXPLORING OPPORTUNITIES

*A look beyond the data &
dashboard to the implications
and opportunities this
approach may open up.*





QUESTIONS & COMMENTS

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