

# Creating a Project Management Tool for Institutional Research

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# Presentation Overview

- Background Information
- New Project Management Process
  - Data Collection: Qualtrics
  - Data Analysis: Tableau
- Positive Outcomes and Challenges
- Adaptability to Other IR Offices
- Discussion

# Background Information

- Tufts University
  - Private, 4-year, research university
  - Undergraduate, graduate, and professional schools
  - Approximately 10,800 students
- Office of Institutional Research & Evaluation (OIR&E)
  - Office of the Provost
  - Eight primary staff members: Director, two Associate Directors, three Research Analysts, a Business Analyst, and a Coordinator
  - Provides data, topical research, and analytical support to University decision makers within every school and division

# Types of Projects

- Surveys
  - Students, alumni, parents, faculty, employers, staff, etc.
- Internal data requests
  - Enrollment, faculty and staff data, course information, etc.
- External data requests
  - IPEDS, Common Data Set, US News, etc.
- Other
  - Program evaluations, IRB reviews, data warehouse, fact book, workshops and presentations, etc.

# Project Requests

- Project requests come from a variety of sources
  - Emails to staff members
  - Phone calls to staff members
  - OIR&E Website
  - Cyclical
- Project requests are assigned based on:
  - Current workload
  - Skills/experience
  - Volunteering

# Previous Project Management

- Projects stored in Excel file on shared network drive
- Problems with this process:
  - File was rarely updated
  - Analysis of project data was not possible
  - Workbook was very large – containing 22 worksheets
  - Not possible to easily determine open projects
  - Data was entered inconsistently

# Project Management Needs

- Central location for all project data
- Process that requires minimal effort to maintain
- Method for easily assigning new projects
- Detailed summary of office activity for Annual Report
- Help redistributing projects when staff member leaves
- Improve project billing process

# New Project Management Process

- Project data is collected through Qualtrics (survey software)
- Project data is analyzed in Tableau (data-visualization software)
- Process is automated using Qualtrics API (application programming interface), Python programs and Windows Task Scheduler



# Data Collection: Qualtrics

- Designed a form using Qualtrics to collect all relevant project details
- A link to this form is automatically emailed to each OIR&E staff member daily
- Staff members complete form as they start new projects
- If project is not complete, staff members can use a unique link to update project at a future time

[https://tuftsir.co1.qualtrics.com/SE/?SID=SV\\_2a7JldqfAQGHZIX](https://tuftsir.co1.qualtrics.com/SE/?SID=SV_2a7JldqfAQGHZIX)

# Advanced Qualtrics Features

- Triggers
  - Trigger emails are sent to staff members when cost estimate is completed
  - Trigger emails are sent to Research Coordinator when project is ready for final billing
- Piped Text
  - End of Survey message contains unique email link based on analyst completing form
  - End of Survey message contains unique link that can be used to update form with additional project details

# Advanced Qualtrics Features

- Qualtrics REST API
  - REST API allows you to set up an outside program to interface directly with Qualtrics
  - Python program communicates with Qualtrics to email form
  - Python program communicates with Qualtrics to download data

# Data Analysis: Tableau

- Tableau is an interactive data visualization software focused on business intelligence
- Tableau dashboards help analyze OIR&E project data
- Using the Tableau server, dashboards are available for OIR&E staff to access via web browser
- Dashboards can be created using real-time data

# OIR&E Projects Dashboard

- Graphically represents the number of projects broken down by analyst
- Shows the areas of the university we are working with
- Lists the names and affiliations of all OIR&E projects
- Allows the user to interact with the data
  - Select a time range
  - Filter by OIR&E Staff member

# Assign Project Dashboard

- Displays information on all open projects broken down by analyst
- Allows user to view open projects of selected OIR&E staff member
- User can search for staff members with similar project experience
- Emails with OIR&E Project Form link can be sent directly to selected staff member

# Positive Outcomes

- Regularly recording office activity
- Quickly summarize office activity for any given time period
- Project billing process operates more efficiently
- Historical data will allow for more advanced analytics
- All staff members have access to detailed project information

# Challenges

- OIR&E Projects Form is not always completed when new projects start
- Limitations with Qualtrics make updating open projects somewhat challenging
- If project data is not kept up-to-date, Tableau dashboards will not reflect real-time information and project billing may be delayed
- Inconsistent data entry



# Next Steps

- Short-term
  - Improve process for updating open projects
  - Regularly send project summaries to staff members to aid in keeping data up-to-date
  - Create dashboard that allows for advanced searching
- Long-term
  - Improve analytics using advanced Tableau calculations
  - Link project activity with other OIR&E office data (e.g., budget, student workers)

# Adaptability

- Qualtrics form can be embedded in website
  - Allows clients to submit data requests
  - All data requests are being saved in central location
- Tableau Public
  - Free service
  - Warning: Data is stored on Tableau Public server and therefore, publicly available on the web
- Automation does not require advanced IT resources
  - Computer Science student
  - Qualtrics documentation

# Discussion

- Questions, Comments?
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- A copy of this presentation will be uploaded to our website (and to NEAIR's)

<http://provost.tufts.edu/institutionalresearch/>

