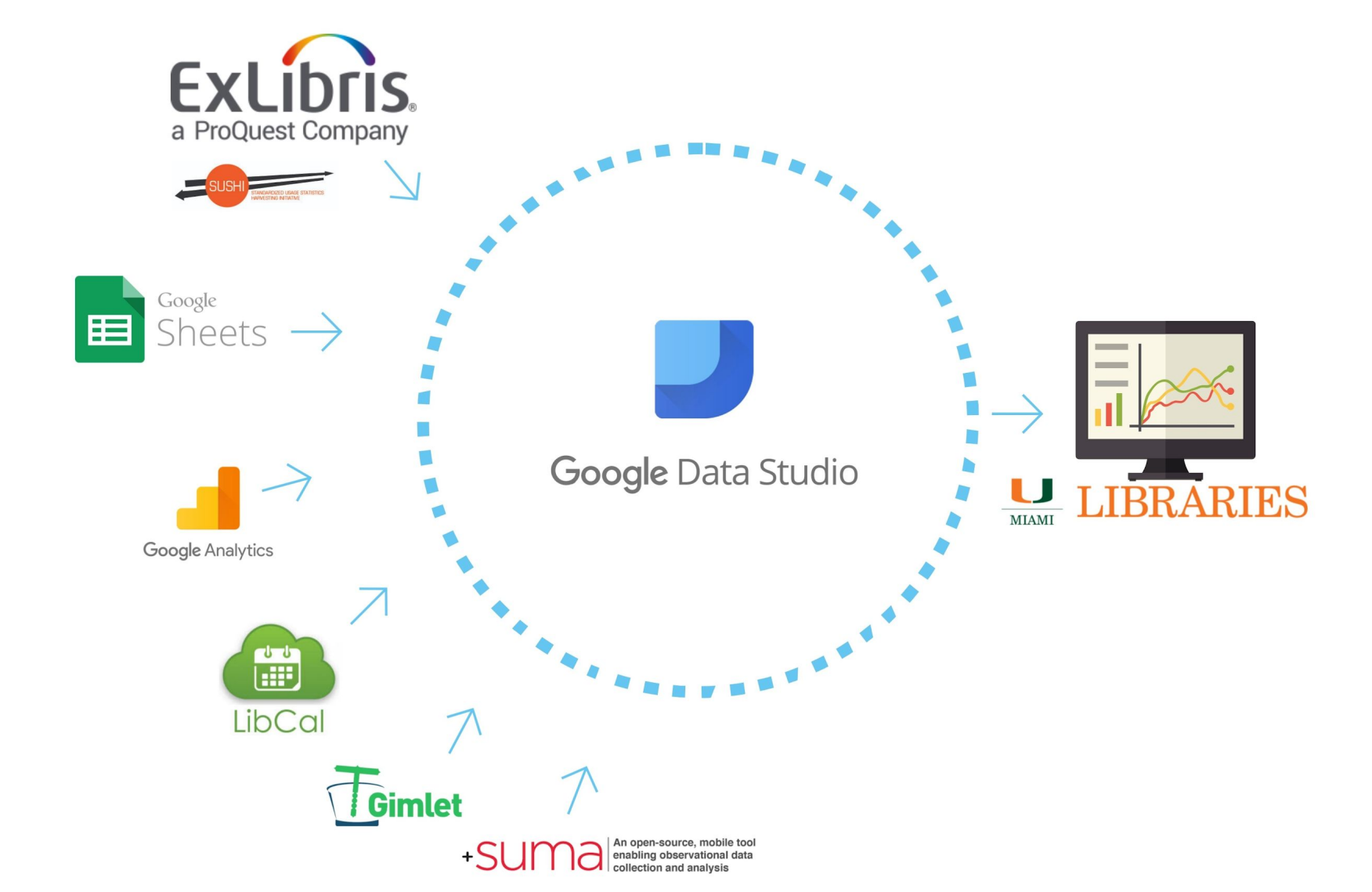# Make Your Library's Data Accessible and Usable
Create Live Dashboards with Google Data Studio

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INTRODUCTION

This poster presents the implementation of a collaborative approach and solution for data gathering, data consolidation and most importantly, data accessibility through a live connection to free Google Data Studio dashboards.

Units at the University of Miami Libraries (UML) have long been engaged in data collection activities. Data from instructional sessions, consultations and all types of user interactions have routinely been gathered. Other assessment measures, including surveys and user experience observation activities, have been conducted with the aim of understanding user needs. However, data collection outside of the Alma integrated library system has been decentralized. Library departments have maintained their statistical data locally and without a routine procedure for gathering or sharing data. Every request for cross-departmental data has involved days spent simply getting access to the data. It was clear that we were not utilizing our existing data to its full potential.

Establishing a unified solution based on trust and openness is needed.

UML Research & Learn Dashboard, Google Data Studio
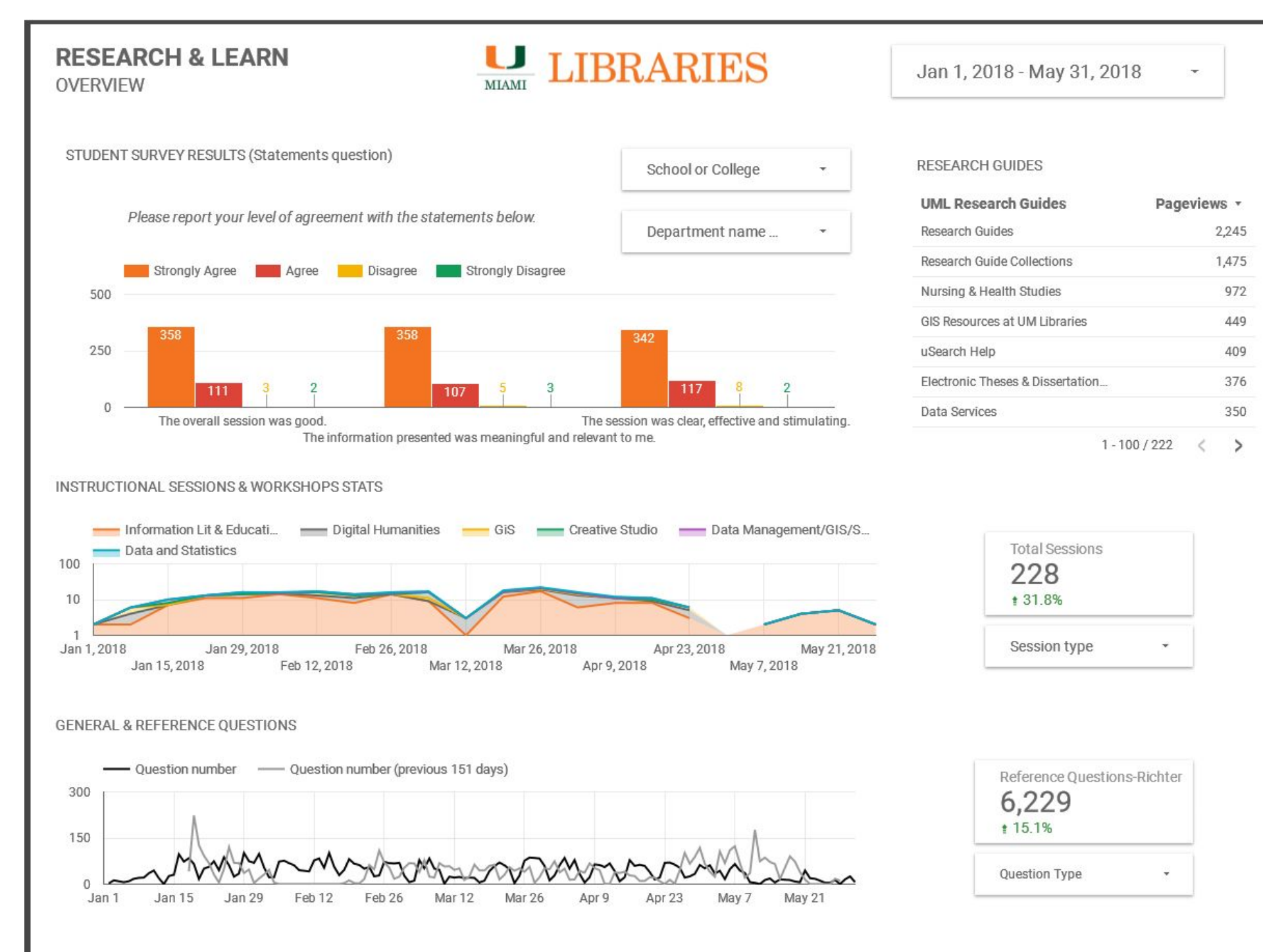
Research & Learn Overview page presents data from multiple sources, including Qualtrics Student Survey results, Instructional & Workshops Sessions statistics, Gimlet questions software, and Google Analytics Research Guides statistics.

OBJECTIVES AND GOALS

The aim of the project is to implement a shared and straightforward data collection platform, which will harvest multiple, diverse data sources and present statistics in a clear and visually engaging manner.

Our key goals are:

- To facilitate the use of data from isolated data sources, not only to encourage evidence-based decision making, but also to better communicate how UM Libraries' activities support student learning and faculty research.
- To benefit from data in a consistent, library-wide manner.
- To implement a data consolidation solution tool that is (1) familiar (2) flexible (3) enables customized sharing options, and (4) reasonably priced.

UML Access Services Dashboard, Google Data Studio
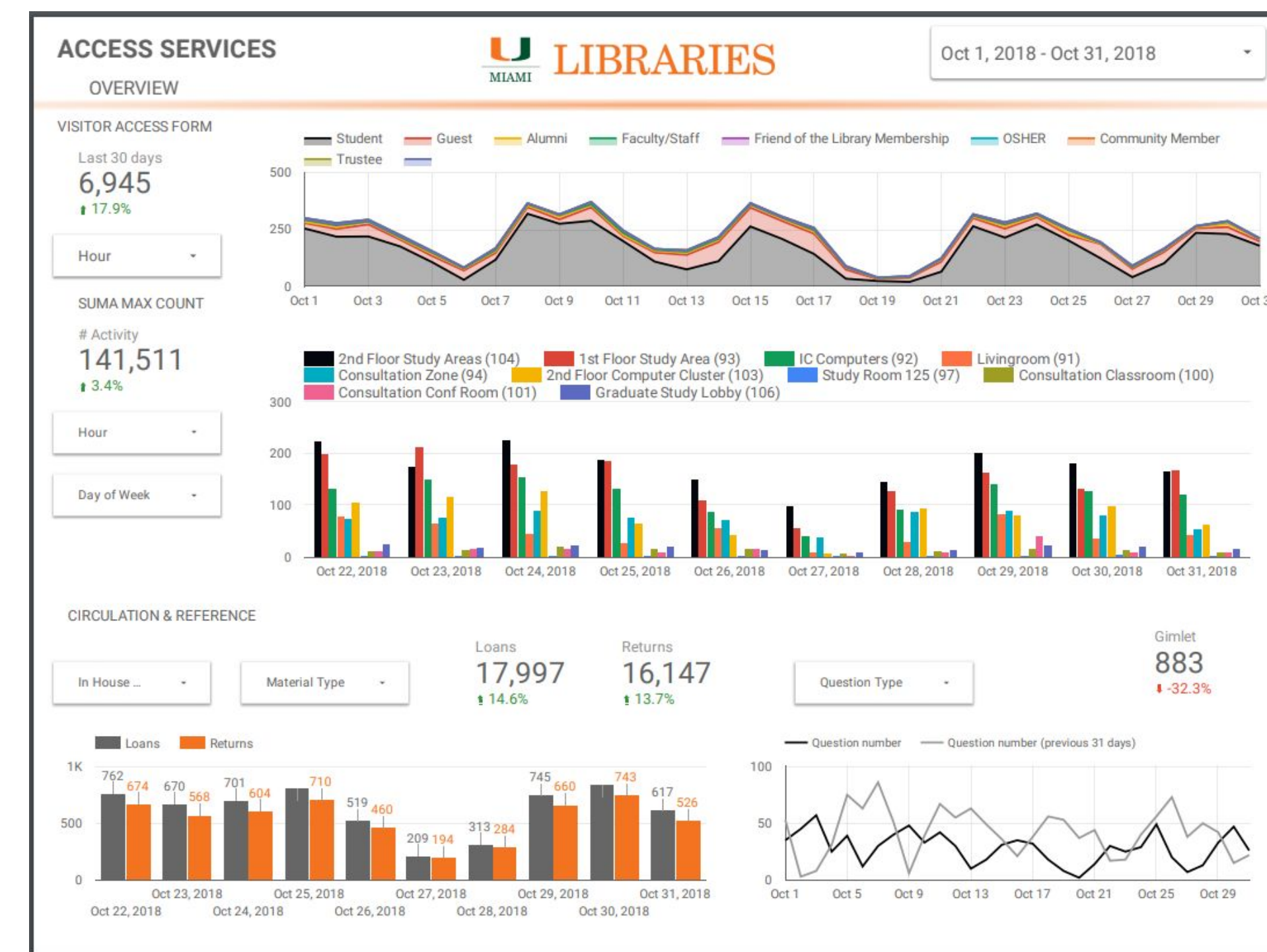
Access Services Overview page presents data from multiple sources, including Visitor Google Form, Suma head counts, Gimlet questions software, and Alma Analytics circulation statistics.
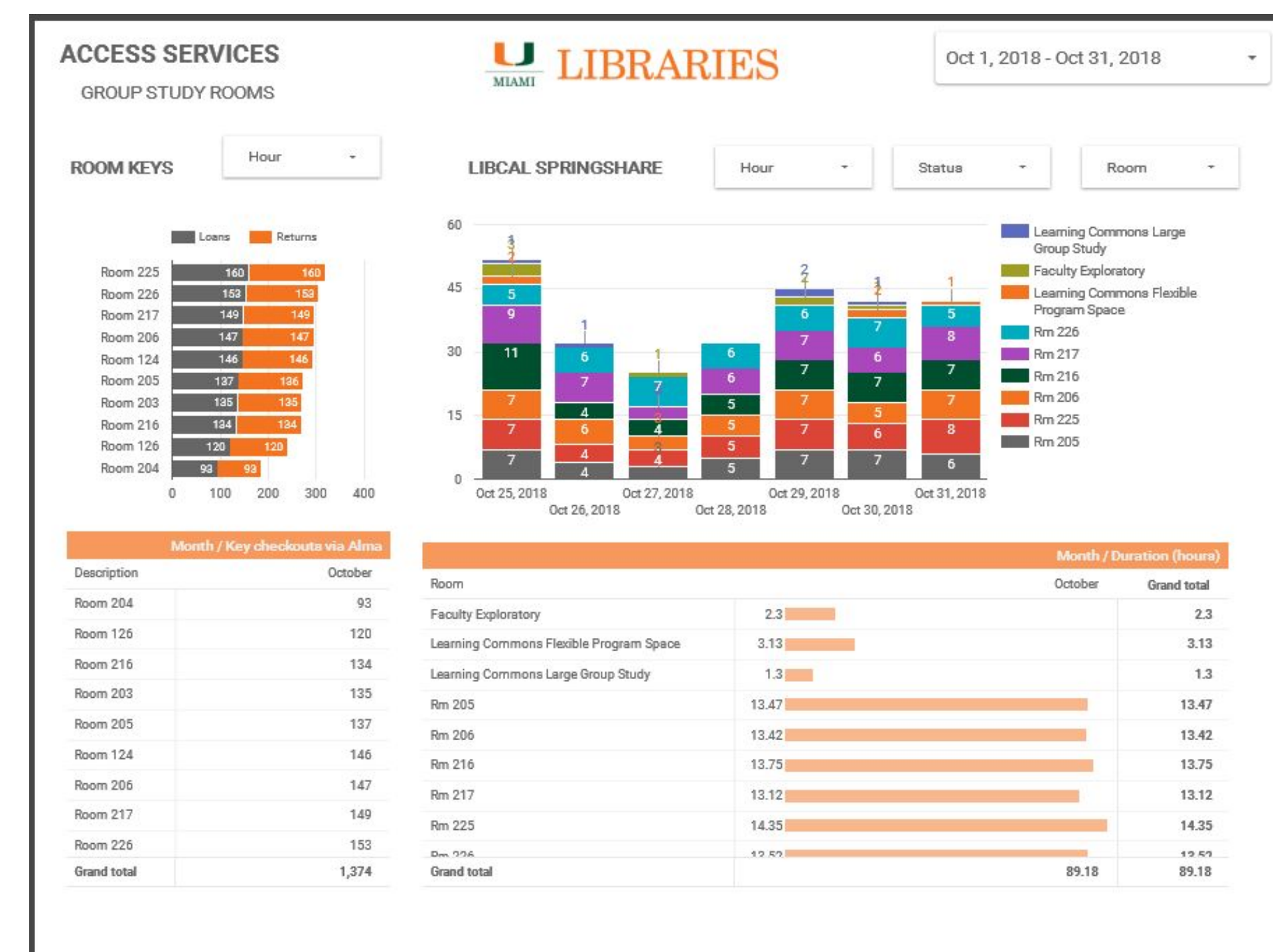

Access Services Group Study Rooms page presents data from Libcal Room Booking system and Alma Analytics Room Key checkouts.

STRATEGY AND METHODS

Our solution involves the following:

- Move to shared Google Sheets and Forms for any **local** departmental data collection, then connect these sheets to **Google Data Studio**, a free tool that allows users to create customized and shareable data visualization dashboards.
- Import and connect other library data sources to Google Data Studio. Google Data Studio can automatically ingest data from either pre-built data connectors (Google Analytics, MySQL, Google Sheets) or any source with an API, allowing for real-time dashboards that aggregate information from multiple sources. All data sources can easily be imported manually as well.
- Investigate and build **new** live Data Studio Connectors between Google Data Studio and library data systems and sources. Connectors allow a Google Data Studio data source to access the information stored elsewhere.
- Create multiple dashboards customized to each unit's needs and a "bird's eye view" dashboard for library administrators.

UML Access Services Dashboard, Google Data Studio
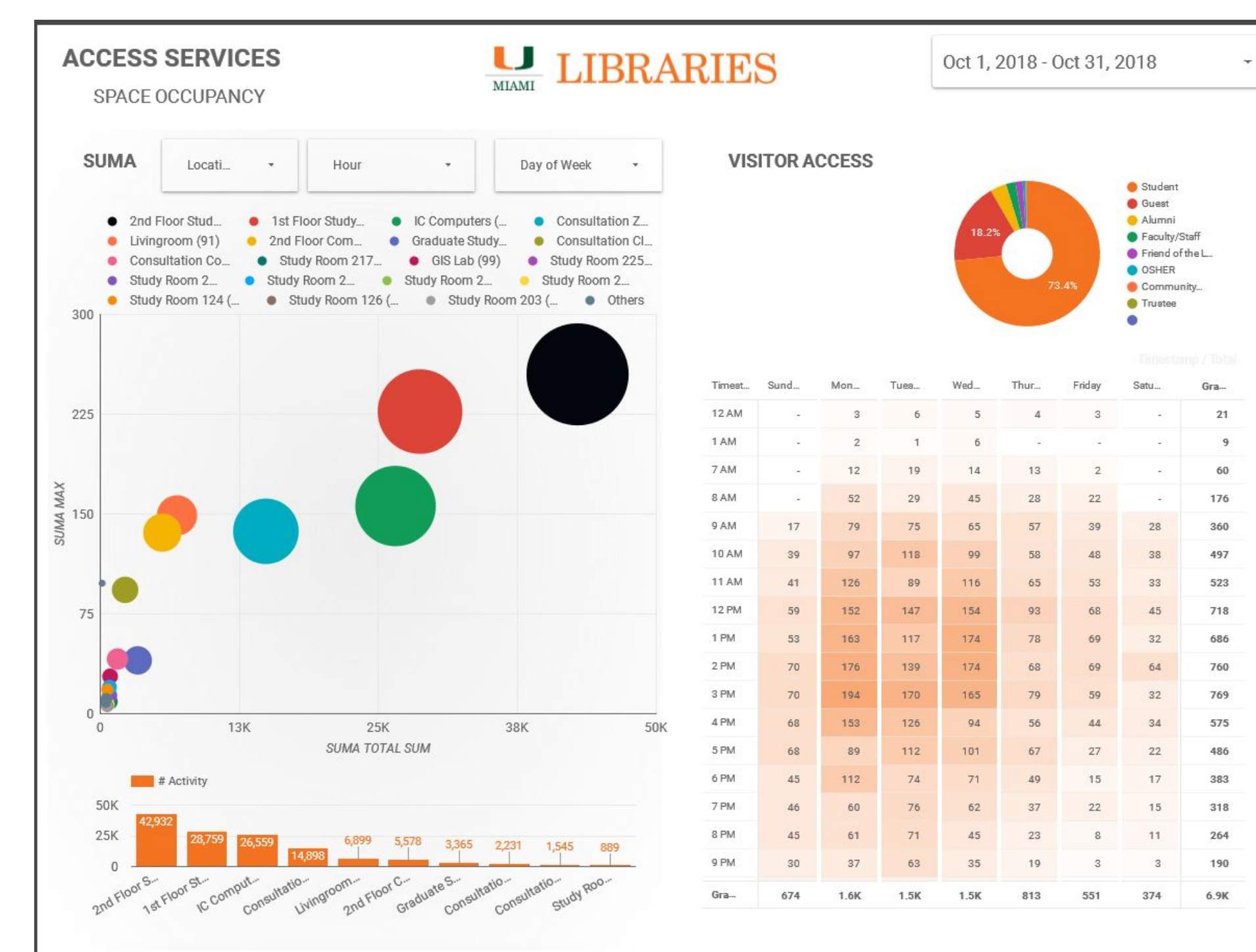
Access Services Space Occupancy page presents data from Suma head counts software and Visitor Google Form.

Empower our departments and units by engaging them with data insights and knowledge relevant to their activities.

PROJECT STATUS

Customized dashboards have been built and shared with several library departments. So far, we have connected or imported manually the following isolated data sources into Google Data Studio:

Metric/Data Source by type of Google Data Studio Connector

Metrics	Data Sources and Systems	Real-time connection & automatically updated	Imported manually into Google Data Studio (on a weekly bases)
Instructional & Workshops Sessions	Google Sheets	Yes	
Reference Question Tracking	Gimlet Questions software		Yes
Hourly Head Counts	Suma		Suma Data Studio connector is currently being developed using Suma API
Library Visitor Access Form	Google Forms	Yes	
Room Study Booking	LibCal	Yes	
Collection Holding and Circulations	Alma Analytics	Yes	
COUNTER Usage Reports	Alma Analytics (via SUSHI protocol)	Yes	
Website and Research Guides Statistics	Google Analytics	Yes	

- *Alma Analytics API connector has been built and published as open source under University of Miami Libraries GitHub account (https://github.com/UMiamiLibraries).*
- *LibCal Data Studio connector has been partly developed and published as open source by the University of Miami Libraries (https://github.com/UMiamiLibraries).*
- *Suma Data Studio connector is currently being developed using the Suma API.*

LIMITATIONS

- Cultural resistance or old habits can become an obstacle in moving forward with (raw) data sharing or replacing old data collection methods with new methods (e.g.Google Sheets and Forms).
- Building new live Google Data Studio Connectors requires development time, efforts and commitment.
- Data regulations and security may limit the ability to access distinctive data sources using APIs.
- Even with development efforts to create more real-time Google Data Studio Connectors, as is always the case with data, significant preparation and maintenance are required. In many cases, data would still need to be reformatted, filtered and manipulated according to current or future needs.

FUTURE PLANS

- Add additional library data sources to Google Data Studio infrastructure and dashboards.
- Invest in developing new API connectors between Google Data Studio and library systems.
- Create policies and documentation including data workflows, processes, and privacy regulations.

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Farney, Tabatha. Using Digital Analytics for Smart Assessment. 2018. Print.
The Data-Driven Manager: Make the Numbers Work for You. 2017. Print.

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