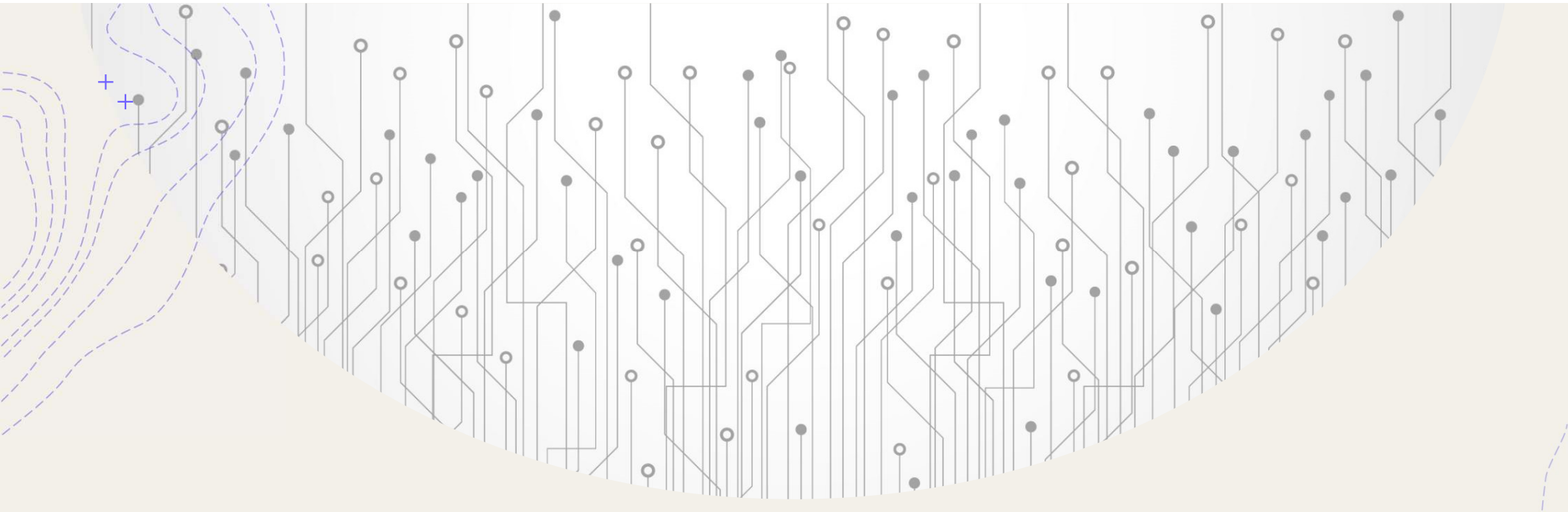

Data Analytics, Data Governance & Research

Andrea Freire

Digital Transformation Leader

Andrea Freire

Digital Transformation Leader

Data Analytics

- Data tool solutions break down
- Areas of Focus:
  - Experiment Design & Testing
  - Data Science Applications
  - Business Insights (BI) and Reporting
  - Data Architecture,
    Management and Governance
  - Digital User Experience
  - Measure and Testing
  - A/B Testing
  - Barriers
  - Data Democratization
  - Recap & Sugestions

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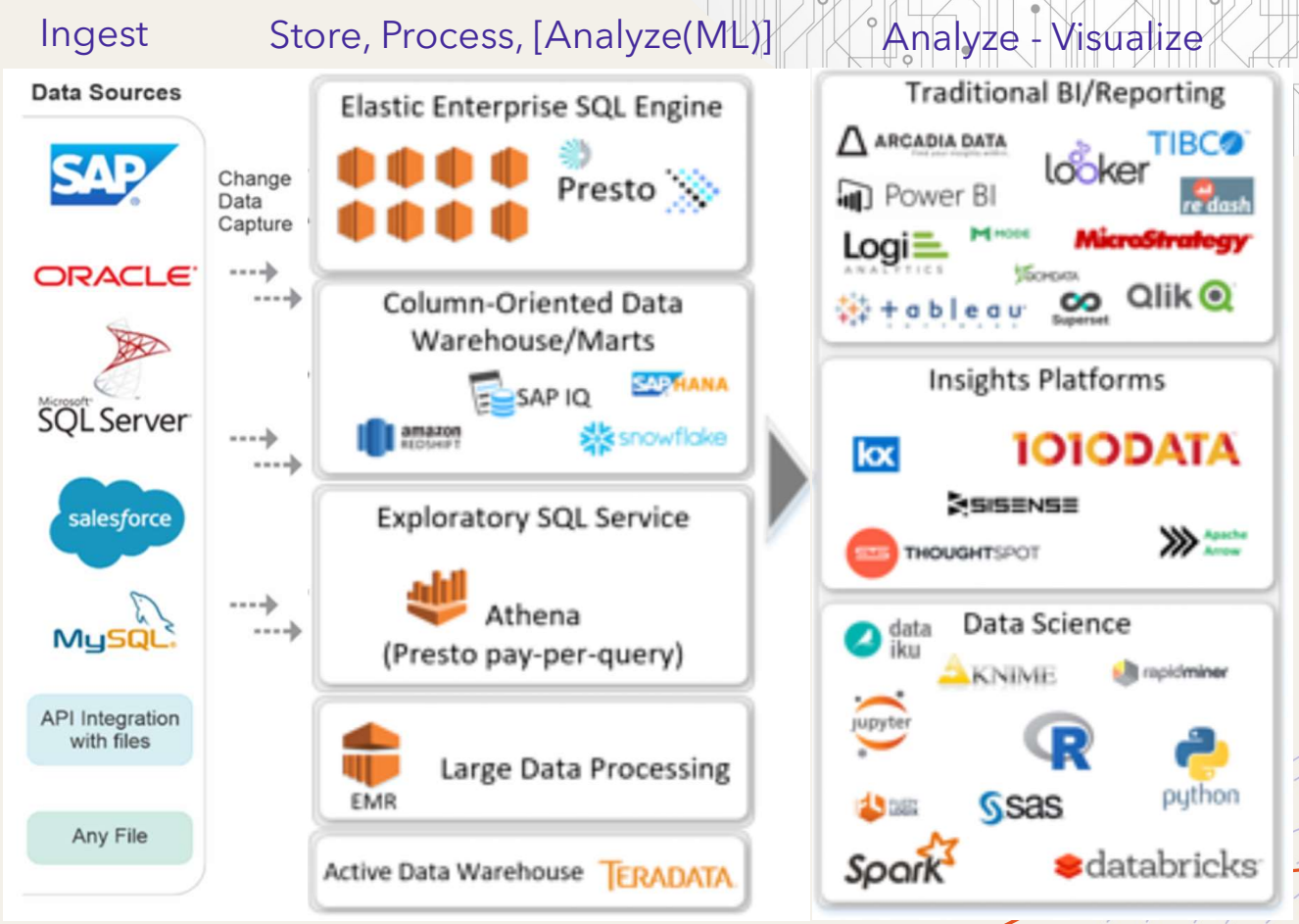
Digital Transformation Leader

Data tools



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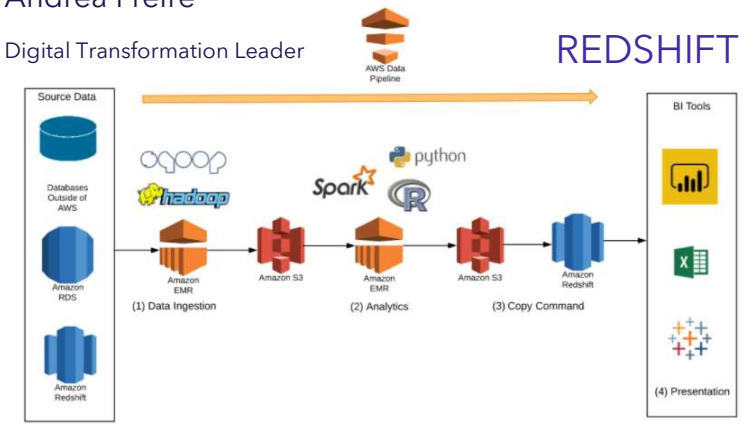
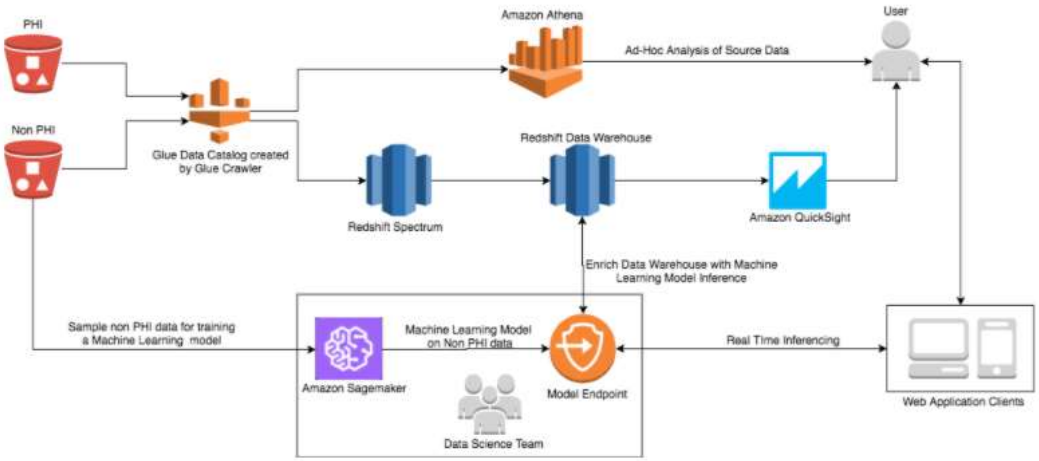
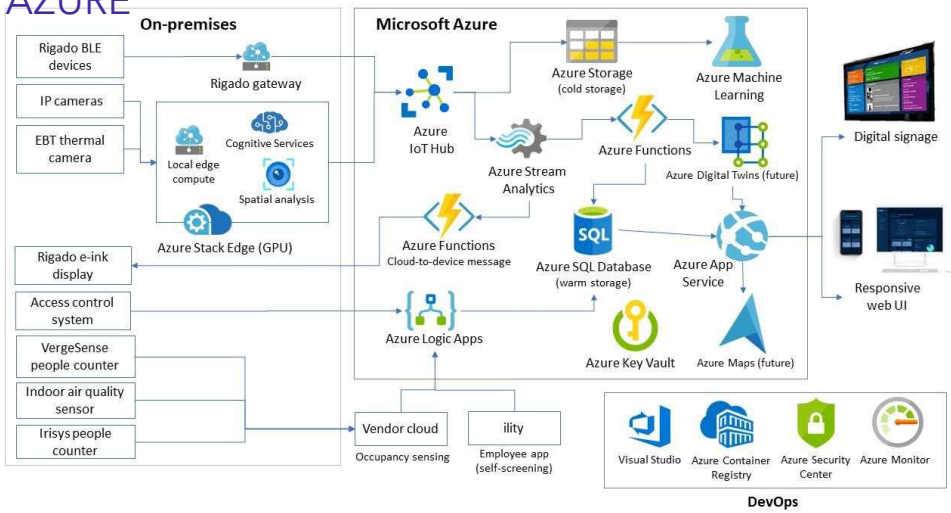
REDSHIFT





AZURE



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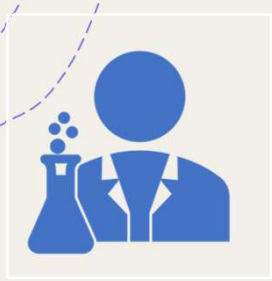
Data Analytics - Areas of Focus

Experiment Design & Testing



Experimentation in data science projects to cultivate more detail understanding of preferences and behaviors for users.

Experimentation learning across different parts of the organization to then facilitate effective learning to business users and executives from data insights.

Experimentation is critical to discover where a data science project would fit and how it could be woven into business unit practices.

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Data Analytics – Areas of Focus

Data Science Applications

- Establish open relationships (Analytics, Business, Administrative, Operations, IT, Other)

- Identify questions such as:
  - ❑ Where are the opportunities to deploy data science for the biggest impact?
  - ❑ What questions business units and functional areas have?
  - ❑ Could these questions be answered with data? If so, how?

- Bring data science to business units
  - Each unit supports experts from different capabilities groups.
  - Each data scientist can sit with business units' teams and contribute to managers' decision-making discussions.

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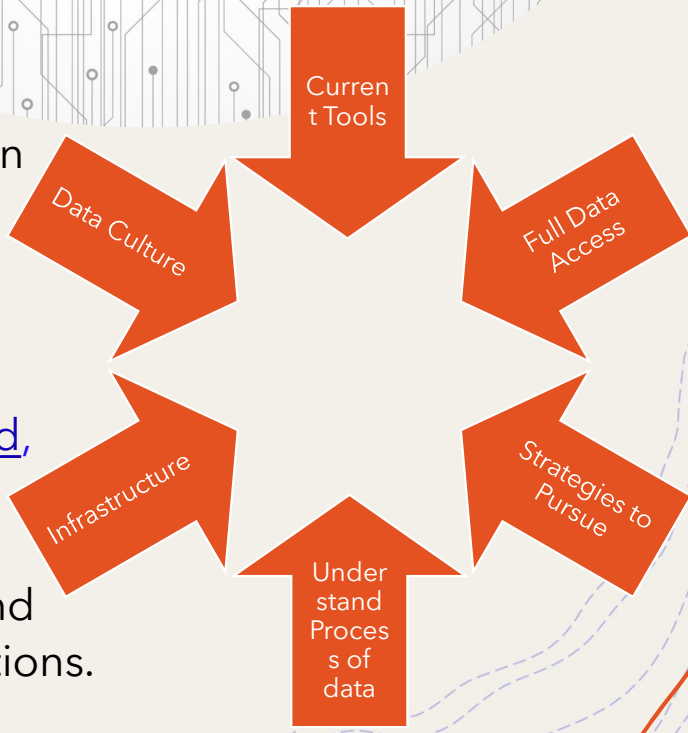
Data Analytics – Areas of Focus

Business Insights (BI) and Reporting

- Current tools
- Improve access to the full breath (non-sensitive data) of data on daily basis.
- BI analysts and executives to inform what strategies to pursue.
- BI analysts should understand how data is collected, processed, analyzed and reported to support executive decision making.
- For visualizing data, designing reports for use by BI analysts and executives, build [new] infrastructure to deliver these visualizations.
- Design the organization [create a data culture] to effectively produce, deliver, and use [new] visualization system.



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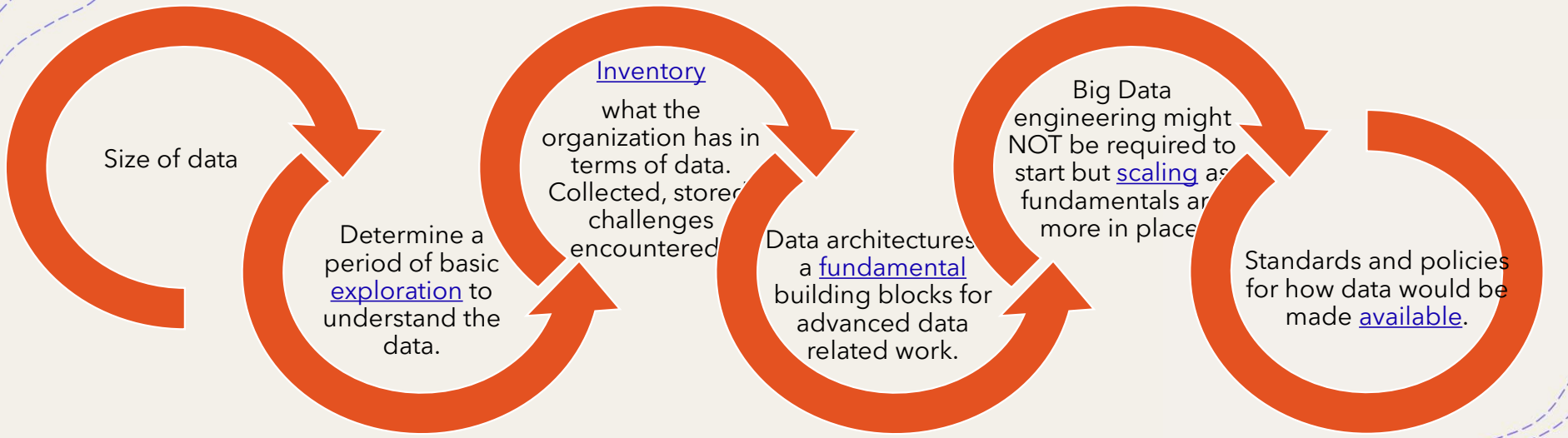
Data Analytics

Data Architecture, Management and Governance



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Data Analytics – Areas of Focus

Data Architecture, Management and Governance

Extracting data from various source to be explored to identify the state of the data.

Transformation can include joints, cleaning, imputing, transforming data to be better interpreted by models.

Loading already curated datasets to lakes that will advance analytics and machine learning tools.

ETL: Transformation is key to load datasets ready to be use for data science projects.

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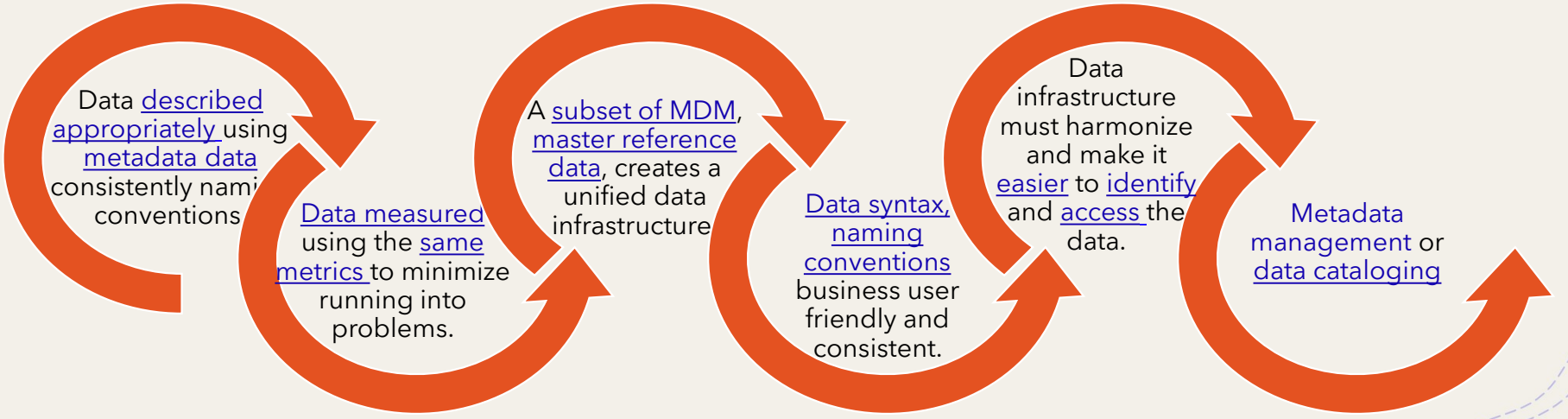
Data Analytics – Areas of Focus

Data Architecture, Management and Governance



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Data Analytics - Areas of Focus

Digital Experience

To design a better way to serve users.

What is the user's priority to maximize touchpoints?

What is the most important user experience?

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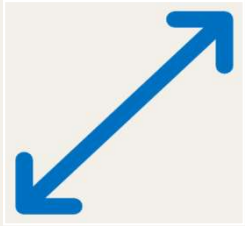
Data Analytics – Areas of Focus

Measure and Testing

Standards around measurement practices that data science practitioners would adopt.

Defining what, exactly, contributes to success.



Carefully measure the attribution of a feature for a specific conversion to quantify the incremental impact of the feature.

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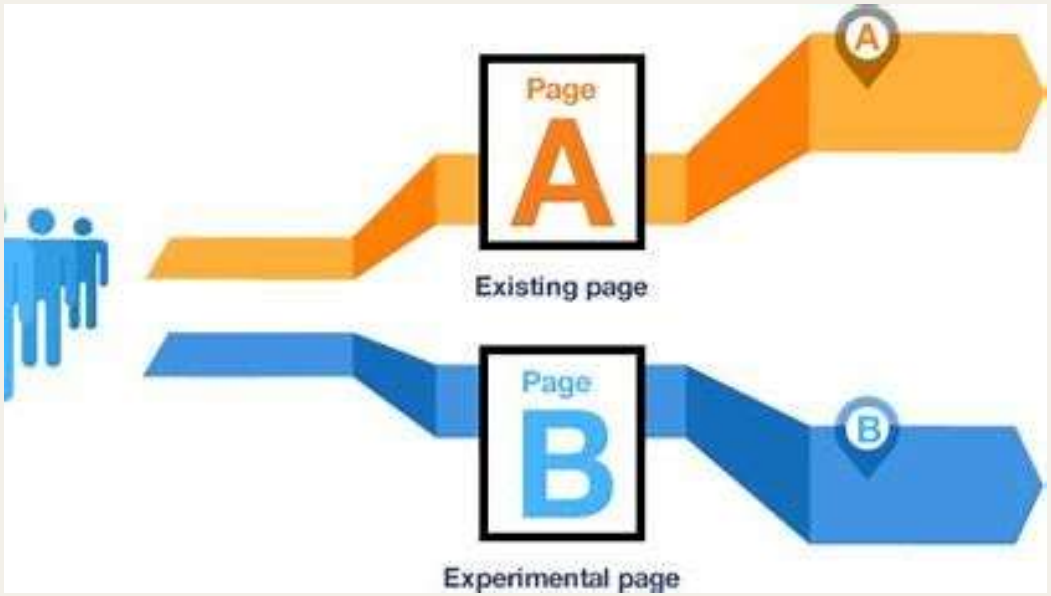
Data Analytics - Areas of Focus

A/B Testing

Understanding the context in which customer were browsing the site/application/component.



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Data Analytics – Areas of Focus

Barriers

Limited knowledge of business	Limited Working relationships with managers in business units	Lack of motivation to answer questions to seek for accuracy and quickly
Processing and aggregating specific data	Constantly changing environment	Changing questions, challenges to find ways to answer new questions
Hard stop time constraints	Accelerated expected processes and outcomes	Use of analytics for validation (The use of analytics to validate decisions rather than answer questions)
	Diminished drive for constant learning (sophistication of questions will increase over time)	

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Data Analytics – Areas of Focus

Data Democratization

Access to data, the quicker and faster they will be to identify the organization's needs.

Enables the ability to make critical decisions, quicker.

Enables ownership and accountability over data.

Fosters and agile environment and entrepreneurial spirit.

Accessible data to all job functions outside executive, analysts and IT.

Opens the appetite for all employees to learn more about data.

Accountability starts to reside with the user of the data, its privacy and security.

Discover new insights.

diverse set of skills and experiences to uncover inefficiencies

Andrea Freire

Digital Transformation Leader

Summary

- Reach out to business units in search of questions with the potential to generate value.
- Establish equal partnership between various teams, data scientists, engineering, business units, business insight analysts. Foster a culture of entrepreneurship with the teams.
- Develop or adopt system that will support the work of Business Insight analysts who are on the front lines engaging with data as it comes in, interpreting it, and working with managers, to develop novel ways of using data.
- Implement hardware and software to bring machine learning and sophisticated analysis to data science projects.
- Set agile development model, develop, test, measure, iterative approach to experimentation and to all engagements.
- Have a rigorous focus on crafting testable, measurable metrics and a clear thought process about how a metric would facilitate action.
- Communicate all approaches to partners within the business units.
- *Algorithms should be relevant and curated.*