Embedded Analytics

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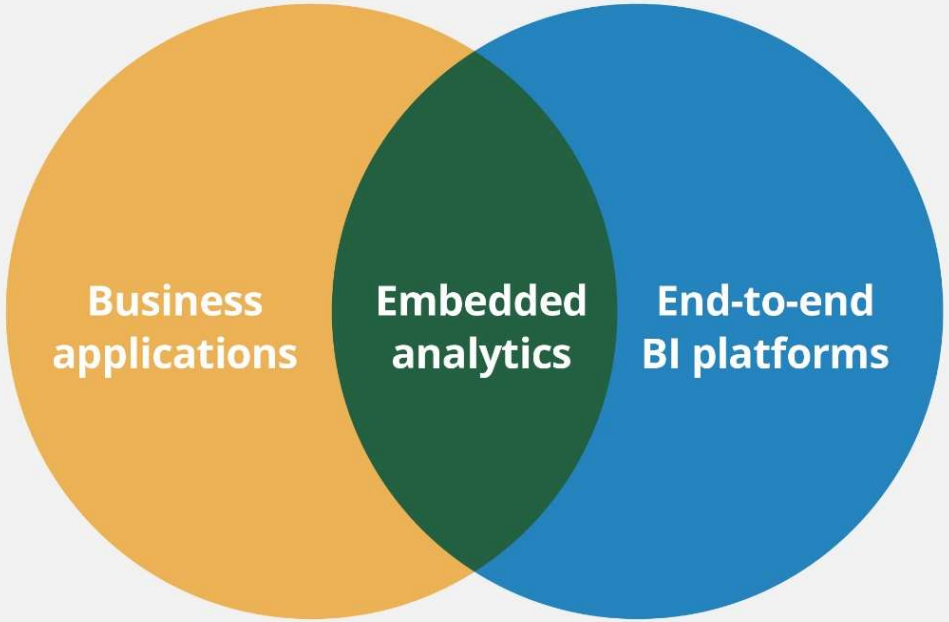
What is Embedded Analytics?

THE INTEGRATION OF ANALYTIC CONTENT AND CAPABILITIES WITHIN APPLICATIONS.



Business applications, such as CRM systems, HR systems and accounting software, support business processes and manage the data generated by them. Traditionally, they've lacked robust analytics capabilities.

Embedded analytics is the insertion of analytics and visualization tools directly within the user interface of business applications, as opposed to siloing analytics within dedicated platforms.

Traditional, end-to-end BI platforms focus on data preparation and integration, as well as analysis via scripting, reports and interactive visualizations such as dashboards.

Business Intelligence

- Independent systems that aggregate data from multiple sources.
- Prepare the data for analysis.
- Provide reporting and analysis on that data.
- Separate Interfaces to derive insights.

Embedded analytics

- Capabilities are tightly integrated into existing applications.
- Discovery of additional awareness, context, or analytic capability to support decision-making related to a variety of tasks.
- Require data from multiple systems or aggregated views
- Output is more than a centralized overview of information.
- It is targeted information to support a decision or action in the context in which that decision or action takes place.

Business Intelligence

Embedded Analytics

Standalone Analytics Application

Analytics in a separate application from the process application

Gateway to Analytics

Embedded access-single sign-on from process application to analytics

Inline Analytics

Analytics appear inside the process application (e.g. "reports module")

Infused Analytics

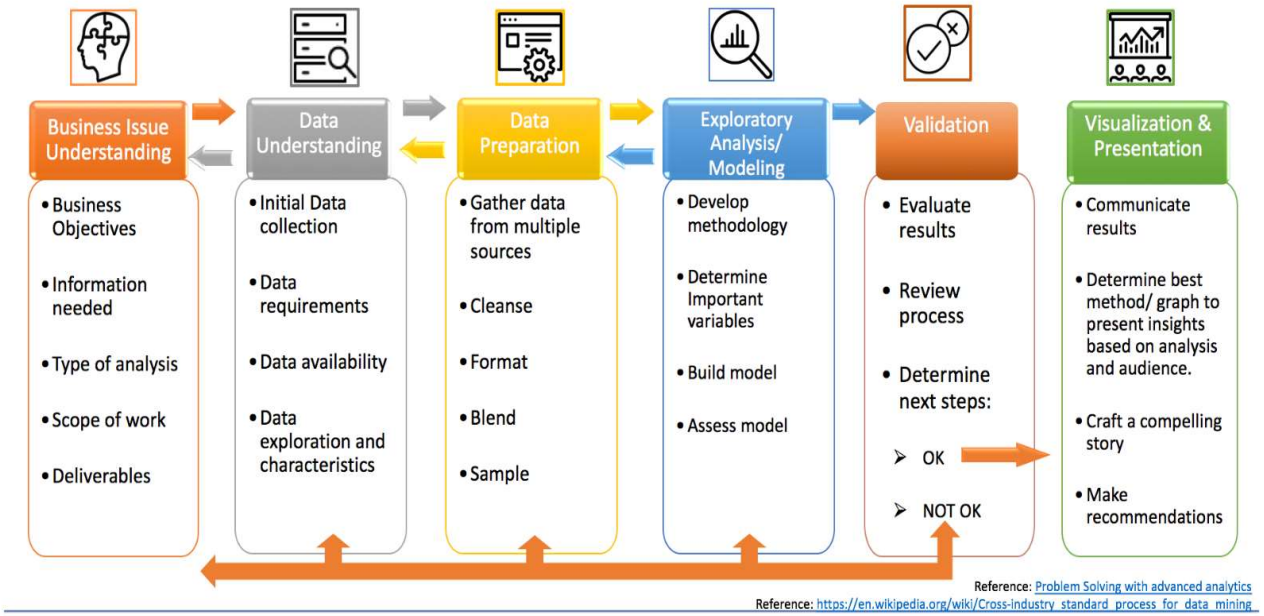
Analytics embedded within core workflows and application functionality

Integration	Standalone Analytics Application	Gateway to Analytics	Inline Analytics	Infused Analytics
Application				●
UI			●	●
Security		●	●	●
Data	●	●	●	●
UI/UX Insight-to-Action	Separate Context	←	→	Same Context

Embedded Analytics

MATURITY MODEL

BRING TOGETHER INSIGHT AND ACTION INTO THE SAME CONTEXT



Embedded Analytics

DATA ANALYSIS PROCESS LIFECYCLE

Enterprise Calendar and Scheduling

EMBEDDED ANALYTICS

PROOF OF CONCEPT

ECS Smart Application

- Embedded data awareness, relevant to business activity.
- Embedded analytical tools designed for task at hand.
- Embed analytics deep in the user experience.

BUSINESS UNDERSTANDING

Enterprise Calendar and Scheduling

EMBEDDED ANALYTICS

PERSONAS

Persona-Inspired Insights

Persona-inspired segments analytics is used to uncover trends in data and derive UX insights.

- What do they need?
- What is the most important report/insight for their role?
- What decision will be supported by the insight?

Interpreting Analytics from 3 System Segments

Behavioral – User Experience

- Uncovering these behavioral patterns can focus and inform user-research activities such as qualitative usability testing.

Process – Business Functions

- Analytics in context of the business processes providing users with insights on demand and up to date delivering and engaging user experience.

Performance – System Functions

- Analytics in context of the systems processes.

BUSINESS UNDERSTANDING

Enterprise Calendar and Scheduling

EMBEDDED ANALYTICS

TRIANGULATED DATA

Demographics

Role:	[redacted] **Executive 2b**
	Division Manager / Project Manager
Division:	[redacted]
Location:	[redacted]
Department:	[redacted]

ECS Analytical Objective:

- Inline a report to identify how many …… exist with a ….. that …….. or ……. out and are in open …….

ECS Analytical Goal:

- [redacted]

[redacted]

Persona

Business Objective

Demographics

Role:	[redacted] **Executive 2b** **Division Manager / Project Manager**
Division:	[redacted]
Location:	[redacted]
Department:	[redacted]

Application Usability Objectives:

[redacted]

Application Usability Goal:

[redacted]

New Jersey Courts
Independence • Integrity • Fairness • Quality Service

[redacted]

Persona

Application Usability Objective

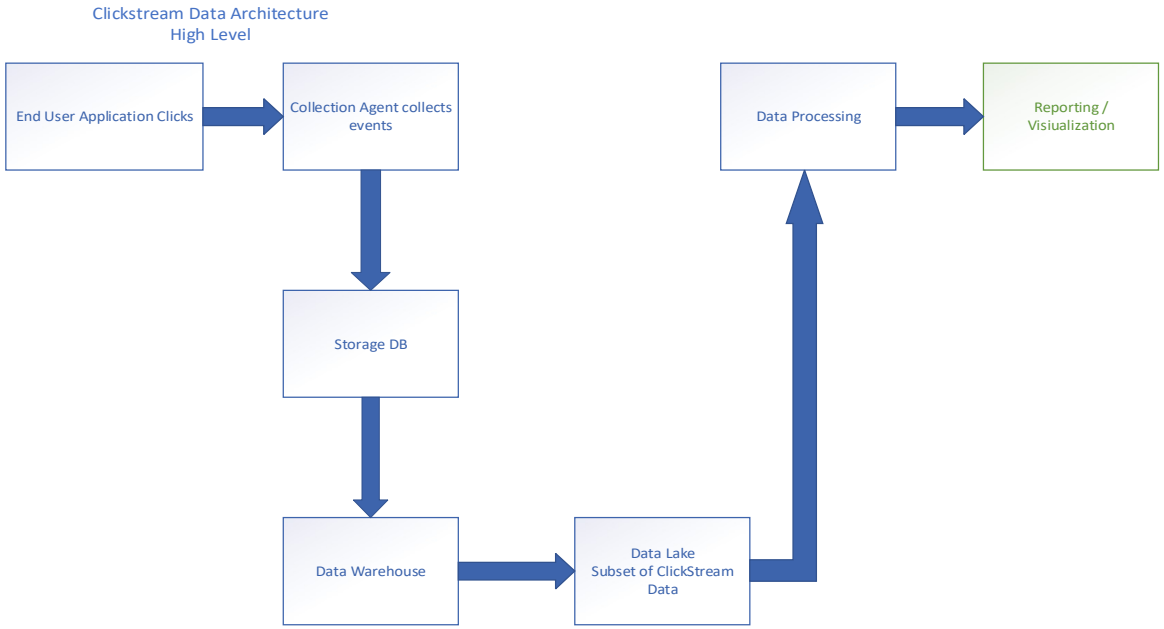
- Consistent and uniform data and processes.
- Increase scalability.
- Potential to optimize the exploration of data sets and data management.
- Increase efficiency through the of reuse data.
- Higher confidence in data through certified and quality-assured data.
- Data security.
- Clear and transparent communication through standardization.

DATA UNDERSTANDING

Enterprise Calendar and Scheduling

EMBEDDED ANALYTICS

DATA GOVERNANCE



Collect clickstream in three categories:

- Screen related clickstreams
- Business process/functionality related clickstream
- User journey related clickstream

Use the [redacted] identification elements as their unique ID values.

- [redacted] supports automated test against any [redacted] pplication and can help us test the performance of a control such as a radio button or a check box.
- [redacted] will help us create a guided tour to highlight the features of user forms and portals.

CLICKSTREAM DATA

Enterprise Calendar and Scheduling

DATA GOVERNANCE

CLICKSTREAM DATA ARCHITECTURE

Thank you!

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