Market for Analytics och Business Intelligence-platforms (ABI-platforms) – part 1

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Main source

- This presentation is based on:
  - Howson, C., et al. (2019) Gartner Group's report "Magic Quadrant for Analytics and Business Intelligence Platforms"
  - Kronz, A., et al. (2022) Gartner Group's report "Magic Quadrant for Analytics and Business Intelligence Platforms"
  - Schlegel, K., et al. (2023) Gartner Group's report "Magic Quadrant for Analytics and Business Intelligence Platforms"
  - Schlegel, K., et al. (2024) Gartner Group's report "Magic Quadrant for Analytics and Business Intelligence Platforms"

Traditional BI vs modern ABI platforms

- The Gartner's report of 2019 makes a difference between traditional BI platforms and modern Analytics and BI platforms (ABI)
- **The traditional BI platforms** - require a significant **support from IT staff**, for example, to predefine data models, store och prepare data for analysis, etc
- **Modern ABI platforms** – emphasing **self-service** for business users interested in data analysis - called **citizen data scientist,** or **business analyst** by Gartner

[Howson et al., 2019]

Modern ABI platforms

- **Modern ABI platforms** – are ”charaterized by **easy-to-use tools** that **support the full analytic workflow — from data preparation to analysis, visual exploration and insight generation**”
- **Modern ABI platforms –** support **agility** in the **analytic work**
- **Modern ABI platforms -** provide “**augmented analytics**”

[Howson et al., 2019]

Modern ABI platforms

- **To summarize**: Modern Analytics and BI platforms aims to:
  - support user's self-service
  - support agility in the analytic work
  - provide easy-to-use tools
  - provide visual exploration and insight generation
  - support the full analytic workflow, and
  - provide "augmented analytics"

[Howson et al., 2019]

Augmented analytics (AA)

- **Augmented analytics (AA)** can be seen as a **umbrella term for several analytics and BI techniques that support – and partly automate - the different parts of the analytic workflow,** that is, the workflow from data preparation, via data analysis, to the presentation of the result of the analysis
- AA especially make use of **machine learning (ML**) and **natural language processing (NLP)** techniques

[Howson et al., 2019]

AA makes use of NLP/NLQ

- **Natural language processing (NLP) makes it possible for BI users to generate queries in plain language via text or voice** – without writing queries in SQL or a script language.
- An example of a question to ask in plain language: “Which are our ten most profitable customers?”
- This solution is often called **Natural language query (NLQ)**
- Gartner claims that **NLP/NLQ will boost the ABI software adoptions to new groups of users in organizations**, for example, the front-office workers

[Howson et al., 2019]

AA support Self Service Data Preparation

- **Self Service Data Preparation techniques** using ML can support the user in carrying out data prepations without the need to writing code. It can help the user to better understand how different datasets are related but also warn the user to not connect certain data sets
- Data preparation and data modelling are complex and time consuming task which requires expert knowledge

[Howson et al., 2019]

AA makes use of Visualisation and Narration

- **Visualization** – innovative and smart visualizations support the user in analyzing data and identify patterns in the data
- **Narration** – means that techniques using ML, provide the user with written analysis of data sets or graphs. This helps the user to interpret the data

[Howson et al., 2019]

Trends 2022

Trends 2022

- ABI platforms is **augmented by artificial intelligence**, thereby supporting **additional findings** as well as **automatation of many of steps** in the **users' decision making process**

[Kronz et al., 2022]

Trends 2022

- ABI platforms provide **self service**, that is, less technical people should be able to use the platforms.
- ABI platforms provide **low/no-code applications and workflows**
- Sometimes you see the term/phrase **data driven decision making** related to ABI platforms

[Kronz et al., 2022]

Trends 2022

- ABI platforms continue to **improve data preparation functionalities** – such as support for **drag-and-drop data preparation**
- ABI platforms enable users to **easily make use many different data sources** including **different cloud sources**

[Kronz et al., 2022]

Trends 2022

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ABI support decision-making by fostering collaboration between:

- **Analysis** is the process of systematically examining data using various methods and techniques to identify trends, relationships, and anomalies.
- **Visualization** is the foundation for presenting data in a clear and easily understandable form.
- **Insights** represent the meaningful conclusions derived from data analysis
- **Storytelling** focuses on creating an engaging narrative around data to effectively communicate results and drive understanding.

[Kronz et al., 2022]

Trends 2022

- ABI platforms support **real time data & analytics** – that is support the immediately access relevant information
- ABI platforms show an **increased interest in capture info about the user behaviour,** that is track the users' usage of the applications
- ABI platforms support **security**, including creating user profiles, administrering access and authentication

[Kronz et al., 2022]

Trends 2022

- ABI platforms support **data governance** – that is the platforms can **provide applications that improve the data quality, handle procurement of data, and make use of data catalogs** to easy find the content, etc
- Sometimes the term used is **data quality management** for the part of data governance focusing on data quality

[Kronz et al., 2022]

Trends 2022

- ABI platforms make use of **cloud ecosystems,** in order to build and manage analytic applications in the cloud
- Sometimes you see the term **Analytics-as-a-Service (AaaS)**

[Kronz et al., 2022]

Trends 2023

Trends 2023

- **Analytics collaboration.** More and more ABI platforms are **supporting a larger spectrum of users to be involved in the analysis and decision making**
- ABI platforms should **support the the citizen data scientist (for example, a less technical business person) to collaborate with the data scientists** in a broader data science and machine learning ecosystem

[Schlegel et al., 2023]

Trends 2023

- **Central Metric Store.** According to the Gartner report, **creating and communicating metrics (or performance indicators) are in the core of ABI platforms**, but has been **overshadowed by the focus on data visualization** in the last decade
- Therefore, The ABI platforms should **support the users of ABI platforms to create and define common and aligned metrics**
- Metrics support the **communications of performance measures through out the organization**.

[Schlegel et al., 2023]

Trends 2024

Trends 2024

- Most ABI platforms of today have **drag-and-drop design interface**. A major change in 2024 is that **more ABI vendors are now developing and providing conversational and text-based interfaces** where user can ask – or type in – what questions they want to investigare and what type of report they want to have - NLQ
- Many ABI platforms provide **easy to use, low-code/no-code automation of workflows and applications**.

[Schlegel et al., 2024]

Trends 2024

- **Increased focus on integrate Generative AI** with the ABI platforms – for example, integrate with OpenAI and other AI chatbots, or develop their own chatbots
- **Increased use of Copilots.** A copilot is a term used to describe an intelligent assistant, often powered by artificial intelligence (AI) and machine learning (ML), that helps users perform tasks more efficiently by providing recommendations, automation, and insights.

[Schlegel et al., 2024]

Trends 2024

- The **importance for an ABI vendor to have its own cloud and/or application ecosystem**.
- Why it is important for customers that the vendor has its own ecosystem: An ABI vendor with its own cloud and/or application ecosystem offers **reduced complexity and costs, seamless integration, enhanced performance and security, faster deployment, continuous improvement** when a customer want to use the ABI platform together with other applications or services from the vendor

[Schlegel et al., 2024]

Trends 2024

- The **importance for a ABI platform to also be cloud agnostic** – the ABI platform should be able **to use different cloud ecosystem** – such as AWS (Amazon Web Services), Microsoft Azure, Google Cloud Platform (GCP)

[Schlegel et al., 2024]

Trends 2024

- **Some ABI platforms** can be **embedded within digital workplace/business application**
- This means that ABI platforms can be **integrated directly into workplace/business applications that employees use in their daily work**, such as customer relationship management (CRM), enterprise resource planning (ERP), and collaboration tools.
- This **reduce the need for users to switch between tools.**

[Schlegel et al., 2024]

Trends 2024

- **Embedding ABI platforms - may require that that the ABI platforms are composable** – that is, they are **modular and flexible**, making it possible to **build and customize analytics solutions by combining different components or services** according to specific business needs.
- **Composability** ensures that the platforms remain **flexible and can adapt to different application ecosystems**, enabling organizations to **scale analytics solutions efficiently**.

[Schlegel et al., 2024]

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Magic Quadrant – in part 2