G.iQ

Maximizing Insights from Your Data:

Leveraging Generative AI for Enhanced Analytics

CDAO Germany 2024 | Roman Swoszowski

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G.iQ

Gen AI is the new tech revolution

Klarna

AI Assistant

Sebastian Siemiatkowski
@klarnaseb

This is a breakthrough in practical application of AI!

Klarnas AI assistant, powered by @OpenAI, has in its first 4 weeks handled **2.3 m customer service chats** and the data and insights are staggering:

- Handles 2/3 rd of our customer service enquires
- On par with humans on customer satisfaction
- Higher accuracy leading to a 25% reduction in repeat inquiries
- Customer resolves their errands in 2 min vs 11 min
- Live 24/7 in over 23 markets, communicating in over 35 languages

It performs the equivalent job of 700 full time agents... read more about this below.

Cognition

AI Developer

Cognition
@cognition_labs

Today we're excited to introduce **Devin, the first AI software engineer**.

Devin is the new state-of-the-art on the SWE-Bench coding benchmark, has successfully passed practical engineering interviews from leading AI companies, and has even completed real jobs on Upwork.

Devin is an autonomous agent that solves engineering tasks through the use of its own shell, code editor, and web browser.

When evaluated on the **SWE-Bench** benchmark, which asks an AI to resolve GitHub issues found in real-world open-source projects, Devin correctly resolves 13.86% of the issues unassisted, far exceeding the previous state-of-the-art model performance of 1.96% unassisted and 4.80% assisted.

Gen AI can

generate text & images

generate code

summarize large volumes of information

generate synthetic data

Gen AI cannot

be certain about anything

produce novel output

be unbiased

do math

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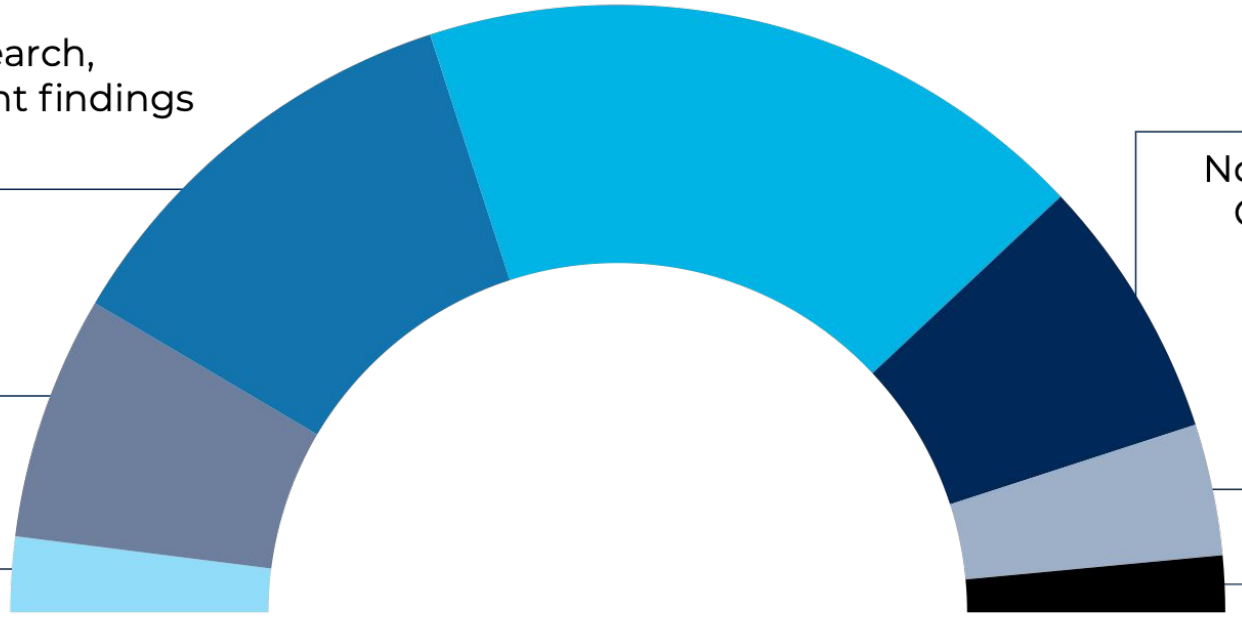
cannot
perform
analytics

Gen AI

**can
augment
analytics**

Key features



Conducted initial research, and plan to implement findings
23%

Experimented in isolated projects
13%

Integrated into some processes
4%

Fully integrated across operations

n = 132

14%
Not currently exploring GenAI, but we plan to

7%
Conducted initial research, and we have no plans to implement

3%
Not currently exploring GenAI, and we have no plans to

Source: Gartner 2023

How can Gen AI accelerate data analytics?

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- data prep automation
- data enrichment
- data interpretation
- conversational interfaces

data prep automation

automatically identifying and correcting inconsistencies

filling in missing values

suggesting transformations to improve data quality

leverage natural language processing to interpret and execute data cleaning tasks described in plain language

data enrichment

synthesizing additional features or data points that complement existing datasets

providing deeper insights or filling gaps in the data

utilize patterns and relationships within the data to generate relevant and contextually appropriate content

generate summaries, textual descriptions, or categorical data

data interpretation

natural language explanations for complex data patterns

making insights more accessible to non-experts

automatically generate reports and visualizations that highlight key findings and trends within the data

facilitates a deeper understanding of the data's implications

conversational interfaces

assist in crafting complex data queries through natural language processing

making analytics more accessible to users without technical expertise

provide contextual explanations and visualizations for analytical findings

making data-driven insights more understandable and actionable

Case study #1

Boosting market intelligence with Gen AI

An independent research and consulting company compiles comprehensive reports on emerging technology trends in the automotive industry.

These reports empower product planners and strategists with the confidence and clarity necessary for making informed decisions.

Challenges:

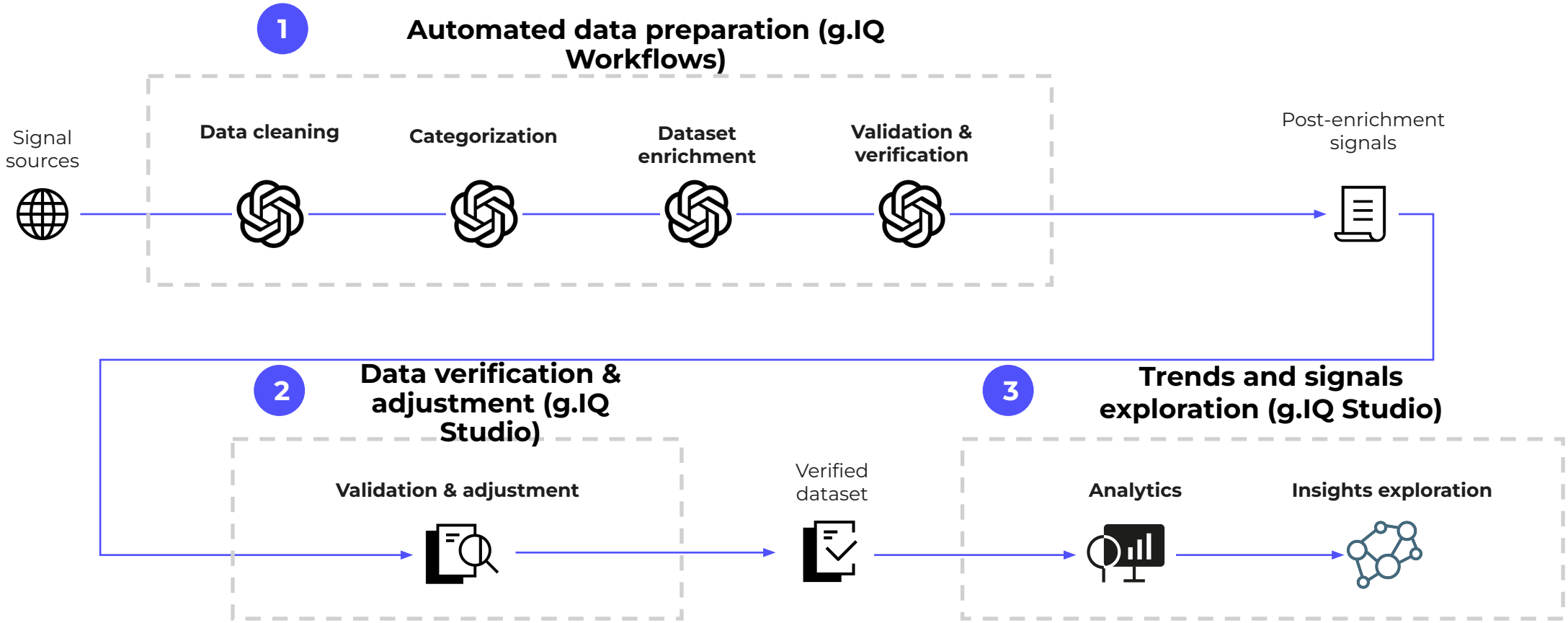
- Long delivery cycles (3 months)
- Low level of automation – a lot of manual work involved
- Low accuracy – many important signals are missed
- Simple keyword-based categorization of signals

Outcomes:

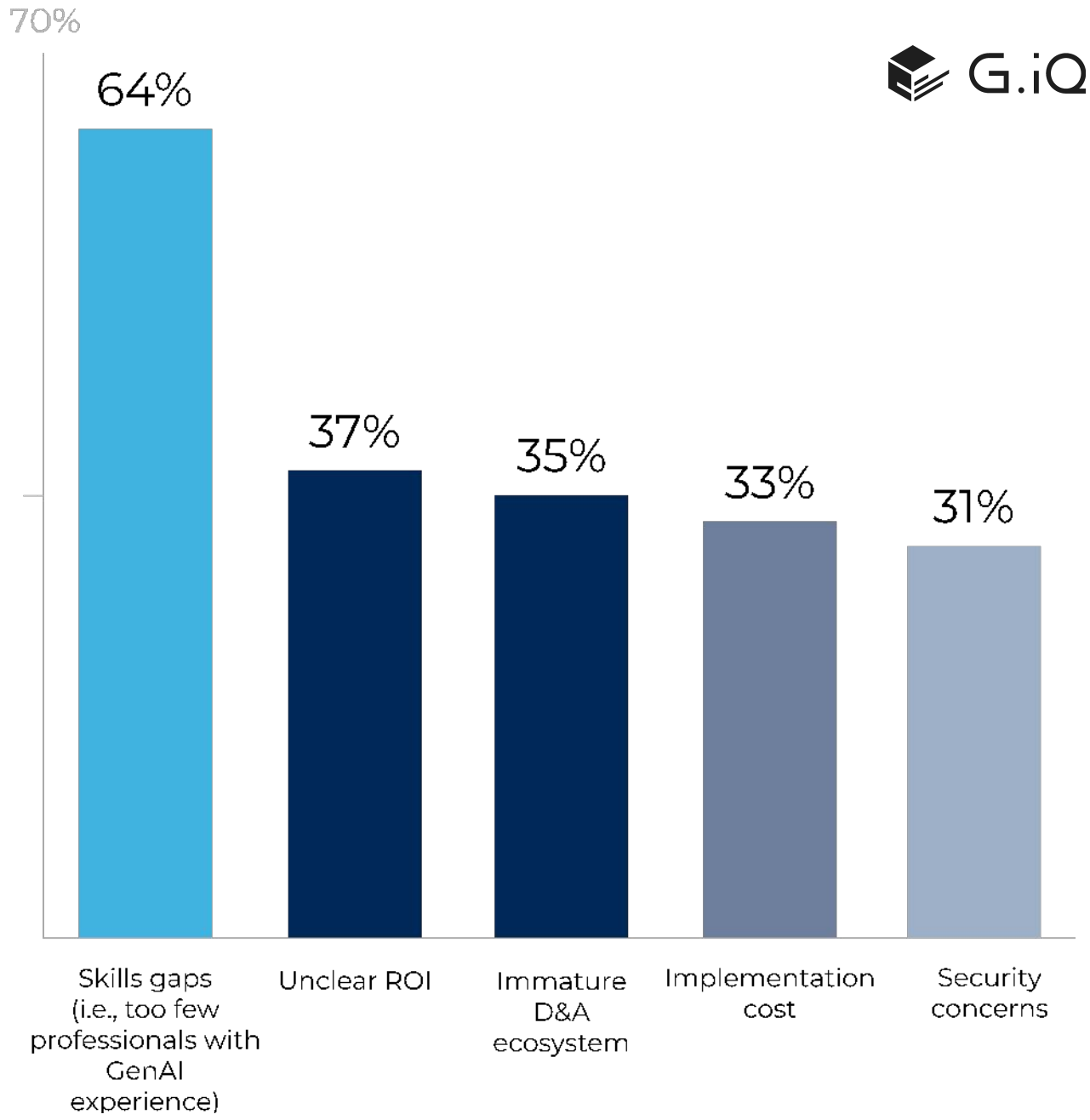
- Combining g.IQ capabilities: Gen AI automation and advanced graph analytics
- Expediting the report creation process
- Significantly enhancing the precision of technology launch signal detection

Case study #1

Gen AI-assisted data enrichment



Companies see skills gaps as a main barrier to adoption of GenAI in D&A



Source: Gartner 2023

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AI value realization is difficult

Complexity of measuring AI impact

unclear business value

fuzzy scope & timeline

unpredictable costs at peak usage

quantifying intangible results
immediate & long-term outcomes

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All depends on the data

Case study #2

A short story of AI done wrong (finance data forecasting)

A global manufacturing company wants to enhance its financial forecasts for better planning and improved business adaptability.

More accurate forecast of incoming invoice payments could help optimize their budget tracking.

Approach:

- Step1: PoC - verify feasibility and potential value (how much forecast could be improved using AI)
- Step 2: Implement and productionize forecasting model
- Step 3: Extend solution to other business cases

Outcomes:

- The project total duration was over 2 years
- Forecasting accuracy was very good on historical data, but poor with production data
- Never-ending data understanding and discovery followed by model re-design and finetuning

Case study #3

Fail Fast, Improve Faster: Optimizing Manufacturing Test Processes

A company specializing in motion control technology is facing challenges with the efficiency of backdrive testing stations in one of their production lines.

They want to lower rejection rates and boost the efficiency of the testing process.

Approach:

- Use data from preceding stations to dynamically fine-tune the operational parameters of backdrive machines
- Implement an AI-driven automated solution that brings tangible benefits

Outcomes:

- Quickly identify gaps in the approach by using associative graph algorithms in g.IQ
- Quality and completeness of the input data collected from the testing stations is insufficient
- Avoiding unnecessary costs of iterative ML process

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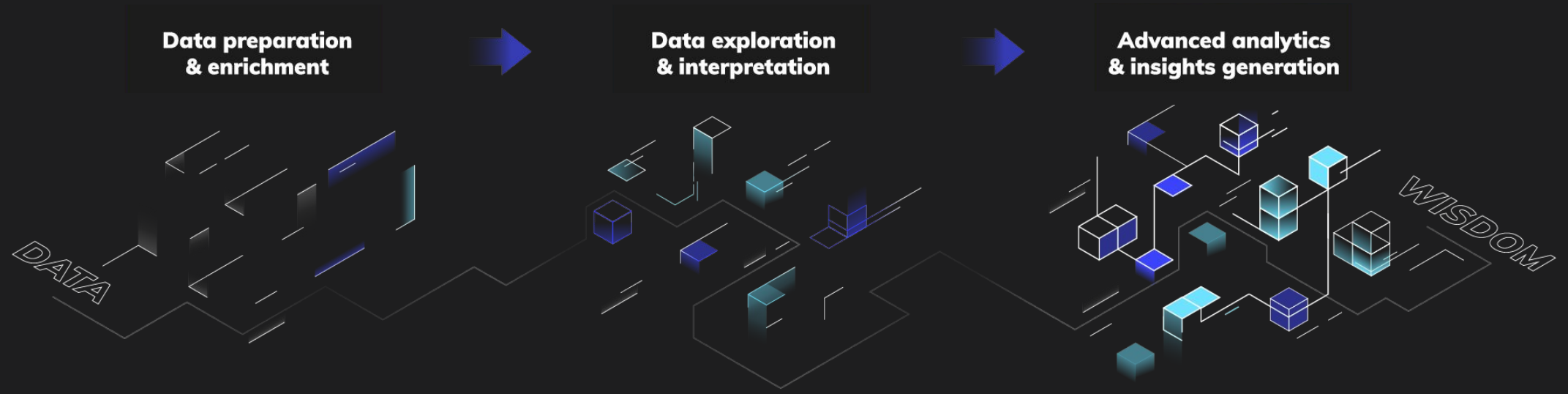
Transform Data into Wisdom

Draw insights. Take actions.



Booth #10

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