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The AI Advantage: Top 4 Use Cases in Customer Experience

Reduce Costs, Find Efficiencies, and Improve Customer Service with AI Automation

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> Businesses operate better whenever automation is introduced. Customer experience AI represents the most effective way to resolve customer inquiries and tasks automatically, massively improving employee productivity.
>
> **MELISSA SOLIS, CEO AT INBENTA**

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Executive Summary

AI is set to reshape how businesses communicate and engage with their customers.

Beyond monitoring intelligent transactions, managing supply chains and other back-end activities, AI is opening the door to new efficiencies in customer engagement.

By leveraging AI to automate responses and complete tasks, businesses can drastically lower the time, cost and effort of handling customer requests. On the flip side, AI automation has the potential to enhance self-service, improve staff training and boost customer experience overall.

Much of the early progress in customer experience AI has been through chatbots, keyword search and sorting. But with the introduction of deep learning, access to massive datasets, advanced computing power and, most recently, Generative AI, a new era of AI efficiency has arrived. And with it, the growing interest of executives, investors, analysts and the business community at large.

Many see the integration of AI into business workflows — including direct customer interactions — as the manifestation of the next Industrial Revolution. Leading firms are already touting their AI bona fides, with more than 80% of Fortune 500 companies reporting that teams are now actively using ChatGPT.[1]

Concern over the use of AI, however, is also growing as regulators become involved.

Legal concerns over AI hallucinations, copyright and privacy are today subjects of litigation and regulatory scrutiny. Legislation to regulate AI is already underway with with the historic agreement of the European Union on the European AI Act on Decmember 8, creating the world's first comprehensive legal framework on AI. In the U.S., the White House recently released the Safe, Secure the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence and the EU Artificial Intelligence Act. Businesses looking to integrate AI, especially Generative AI, need to take precautionary steps now to mitigate present and future compliance risk.

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> Companies should take an incremental rather than a transformative approach and focus on augmenting rather than replacing human capabilities.
>
> **Harvard Business Review**   "Artificial Intelligence for the Real World," by Thomas H. Davenport and Rajeev Ronanki
> "

The following white paper explores how companies can capture the benefits of AI automation to enhance customer experience, the roadblocks and compliance challenges associated with implementing AI, as well as four of the most compelling use cases for AI in customer operations settings.

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[1] ChatGPT's debut," August 28, 2023. URL Reference: https://www.cnbc.com/2023/08/28/openai-chatgpt-enterprise-launches.html

AI Definitions

AI

Artificial intelligence (AI) is a broad term used to describe algorithms that use computer processing, coupled with data, to complete tasks that would normally require human intelligence.

Black Box

Refers to AI algorithms that rely on numerical weights to train machine learning efforts, typically associated with Large Language Models and Generative AI.

Chatbot

A software interface connected to a text-based AI system able to simulate conversations. Not all chatbots use the same AI technology, and they vary in their ability to understand and respond accurately.

Conversational AI

A type of text-based AI that uses Natural Language Processing, machine learning and a robust lexicon to process inquiries. Conversational AI is explainable, allowing programmers to peer into the algorithm's logic.

Generative AI

Broad term for AI that uses statistical models, machine learning and massive datasets to generate novel content (including text, image and audio).

Hallucinations

Inaccurate or misleading responses provided by AI, typically associated with Large Language Models.

Large Language Model

A text-based Generative AI that uses statistical models, machine learning and massive datasets to deliver written responses to user prompts.

Lexicon

A database of words and their meanings, along with semantic relationships, that are used to train Conversational AI.

Machine Learning

The practice of using algorithms and data to train AI in a way that imitates how humans learn, with the goal of improving the algorithm's accuracy.

Natural Language Processing

An AI algorithm capable of understanding language nuances and user intent. Natural Language Processing uses machine learning to improve the accuracy of its responses.

Generative AI vs. Conversational AI

The power of customer experience AI is in its ability to automate and enhance customer interactions. To do this effectively, the AI being deployed needs to understand a customer's inquiries, including the underlying intent of the customer's request, and respond accurately. There are two main types of text-based AI capable of understanding and responding to user requests:

Conversational AI

Conversational AI was developed to facilitate conversations between a user and a language algorithm. Conversational AI uses Natural Language Processing, machine learning and a robust lexicon to understand customer inquiries by deconstructing user inputs, comparing them against a database of words and their semantic relationships and connecting them with pre-programmed responses.
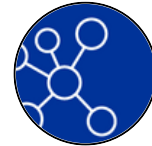
Generative AI

Generative AI was developed to generate novel content in response to user prompts. In text-based exchanges, Large Language Models (LLMs) are deployed that leverage statistical models, machine learning and massive datasets to train the algorithms' content output.

While both AI tools enable companies to automate customer interactions, there are three important differences:

1

Conversational AI is explainable (meaning you can trace the reasoning behind the algorithm's response) while Generative AI uses statistical weights to generate responses, making it a 'black box.'

2

Generative AI, or LLMs more specifically, excel at generating new content from simple prompts. Generative AI's main objective is to create content that responds to a prompt, while Conversational AI's main objective is to answer a customer's inquiry until it's resolved.

3

Used in an enterprise setting, Conversational AI is typically connected to a back-end system and capable of completing tasks, like changing account information or facilitating a transaction. A similar feature for Generative AI is likely on the horizon.
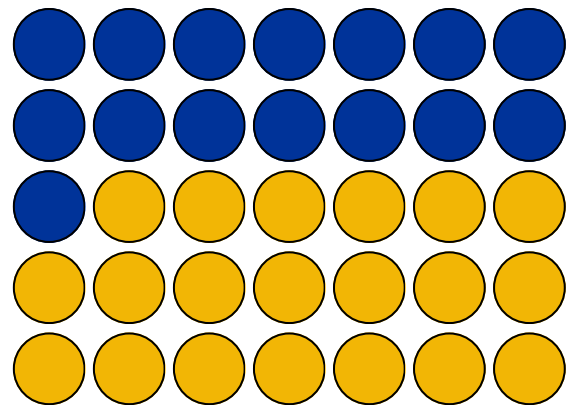
Meeting Customer Expectations

Every generation has different expectations of customer service. Meeting the expectations of today's customers — Millennials and Gen Z in particular — can be daunting. Overall, most customers today expect to have their needs met in real-time. They also have a lower tolerance for poor customer service. According to a global survey from Microsoft, nearly two-thirds of customers said they'd stop doing business with a brand if they received poor customer service.[2] In a separate survey, from Salesforce, 83% of consumers reported they expected to immediately interact with a customer service representative.[3]

Millennials and Gen Z are also less brand loyal than previous generations. According to research published in Forbes, 37% of Gen Z describe themselves as brand loyal vs. 56% of baby boomers.[4]

Brand Loyalty by Generation
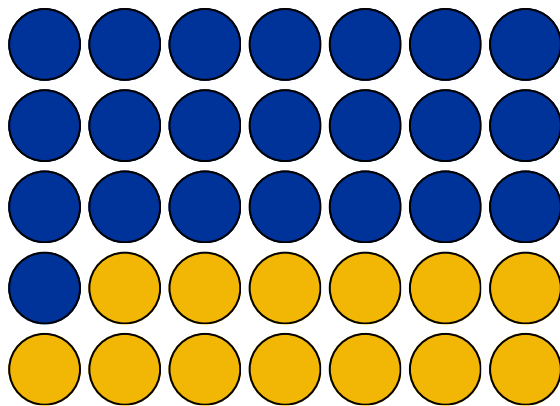
37% OF GEN Z

56% OF BABY BOOMERS

The more fickle customers become, the more important it is to meet (and exceed) their expectations.

Customer service automation gives companies much-needed support and the ability to resolve customer inquiries and complete tasks automatically, enhancing customer experience through self-service tools and freeing up live customer service support for more complex and challenging tasks.

Importantly, customer experience automation isn't just limited to chatbots. Customer experience AI can be used to enhance many different touch points in the customer journey, from search to knowledge management.

[2] Microsoft, "Global State of Customer Service," 2019. URL Reference: https://info.microsoft.com/ww-landing-global-state-of-customer-service.html

[3] Salesforce, "State of the Connected Customer Report," 2022. URL Reference: https://www.salesforce.com/resources/research-reports/state-of-the-connected-customer/

[4] Fortune, "3 Things You Need To Know About Gen Z And Brand Loyalty," August 10, 2022. URL Reference: https://www.forbes.com/sites/forbesagencycouncil/2022/08/10/3-things-you-need-to-know-about-gen-z-and-brand-loyalty/

AI Roadblocks & Compliance Challenges

While some companies are scrambling to implement AI into their customer experience journey, others remain hesitant due to implementation roadblocks or concerns over compliance.

In the case of Generative AI, significant concern surrounds accuracy and the hallucination rate of LLMs. Reports show that text-based Generative AI platforms like ChatGPT can hallucinate — i.e., provide misleading, false or nonsensical responses. In an enterprise setting, providing an inaccurate or misleading response, particularly to a customer, represents a major compliance and reputational risk.

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Another concern over the implementation of AI-enabled customer experience solutions is related to cost. Negative economic conditions require companies to more closely scrutinize non-core business costs, which can include technology vendors. But if companies looked at the ROI that customer service automation provides, they'd realize these concerns are misplaced. Instead of relying solely on live agents to handle customer inquiries or complete simple tasks, a mixture of chatbots, interactive voice response (IVR), enhanced search capabilities and FAQs can resolve some customer issues automatically.

The result is that simple questions and tasks are deflected away from live agents in favor of automation, lowering the volume of inbound requests and allowing companies to respond to more customer inquiries more efficiently without additional headcount.

For some companies, the know-how required to implement and maintain customer experience AI solutions is also a concern. For example, who at the organization knows the best approach to launching a chatbot? Or who is the most knowledgeable about the organization's FAQs and can effectively update an AI-enabled knowledge database? In the experience of many companies implementing a new customer experience AI solution, existing customer service staff are often well-equipped to be retrained and retooled for these tasks. Some AI vendors also provide consulting services that can help in this effort.

The final and most pressing concern for the enterprise use of customer experience AI, mostly around the use of Generative AI, is the potential for compliance risk. Copyright and privacy litigation targeting Generative AI platforms is already underway. Companies using Generative AI and LLMs need to ensure they are doing so in a compliant manner. It is recommended that companies develop compliance protocols now to address any potential, upcoming regulatory risk.

Customer Experience AI Use Cases

In the next section, we'll review four of the most compelling use cases for customer experience AI in an enterprise setting. They include both internal and external use cases, ranging from AI in customer service, in a contact center, with product knowledge, and as a productivity multiplier.

Customer Service

Contact Center

Product Knowledge

Productivity Multiplier

Customer Service

To automate customer service tasks, companies are deploying chatbots and virtual assistants powered by AI. With these tools, customers can engage in text-based conversations with a chatbot to have their questions answered or tasks addressed automatically. By adopting these technologies, companies can reduce inbound requests to live agents, saving time and money.
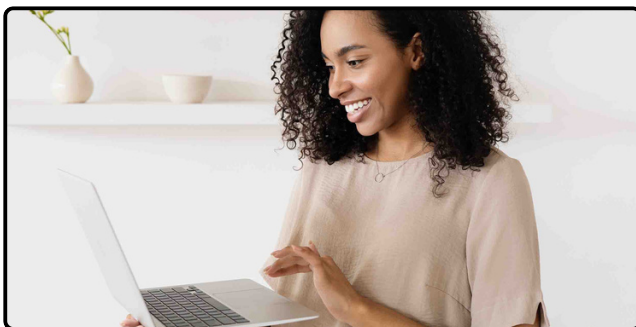
Automate Customer Conversations

Conversational AI and LLMs, deployed through a chatbot, can automate customer conversations and resolve repetitive customer inquiries without the need for agent intervention.

Automate Tasks & Transactions

Conversational AI, connected to a back-end system, can automate tasks and complete transactions, like setting up an account, making a payment or changing a password.
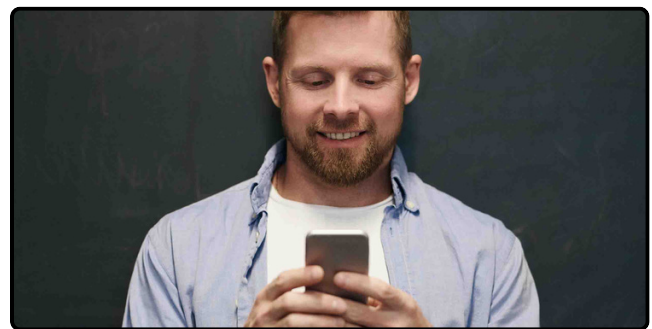

Address Changing Customer Preferences

Overall, the ability to provide alternative support channels — through chatbots, social media, text message, etc. — can help address the changing preferences of customers who value instant text-based responses over phone conversations.
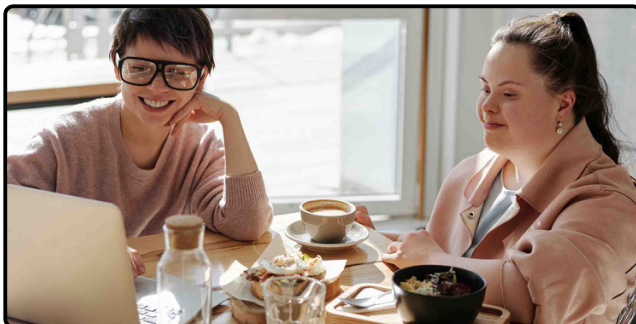
Contact Center

In a contact center, customer service agents can benefit from the use of AI both internally (to better organize and respond to customer inquiries) and externally (to reduce the number of inbound requests by deflecting customer queries using chatbots, enhanced FAQs and other resources). The easier it is for a customer to find what they are looking for, the less likely they are to contact center support.
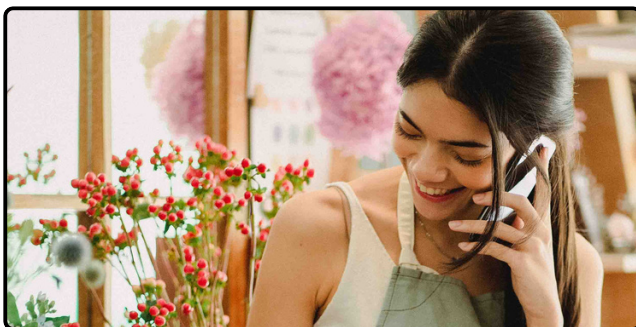
Deflect Agent Escalations Using Chatbots

Commonly asked questions and repetitive tasks can easily be deflected from live agents to chatbots, allowing agents to focus on more complex customer issues.

Organize Customer Service Requests

Using Conversational AI to sort through customer inquiries, contact centers can organize inbound customer service requests by topic or severity, prioritizing them accordingly.
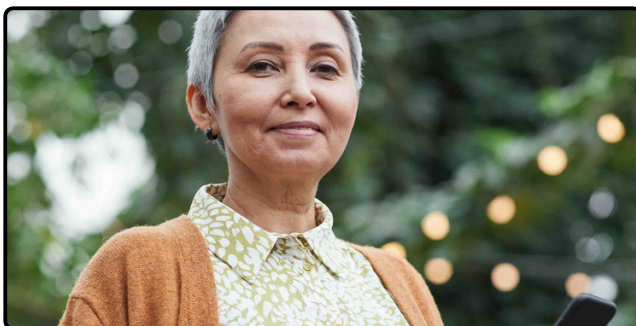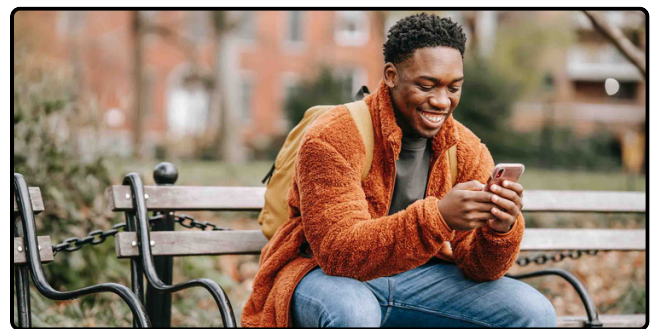
Answer Agent Questions with Chatbots

Chatbots can also be used internally by contact center agents to surface answers and provide a consistent response. Many contact centers use chatbots as an AI sidekick.

Product Knowledge

Beyond chatbots, customer experience AI can also be applied to enhanced knowledge management tools, like smart FAQs. This lets companies more effectively showcase and share product knowledge, making it easier for customers to discover existing content. Conversely, AI-enabled customer service conversations can identify product knowledge gaps.


Enhance Discoverability of FAQs & Helpful Content

Conversational AI embedded into search can help surface useful content and answer questions using existing content and FAQs.

## Track Searches & Inquiries to Identify Knowledge Gaps

Using Conversational AI to sort through customer inquiries, contact centers can organize inbound customer service requests by topic or severity, prioritizing them accordingly.
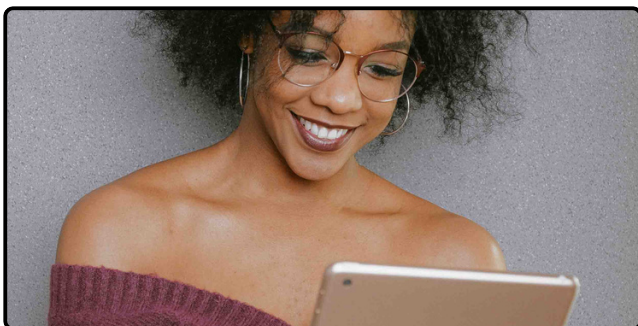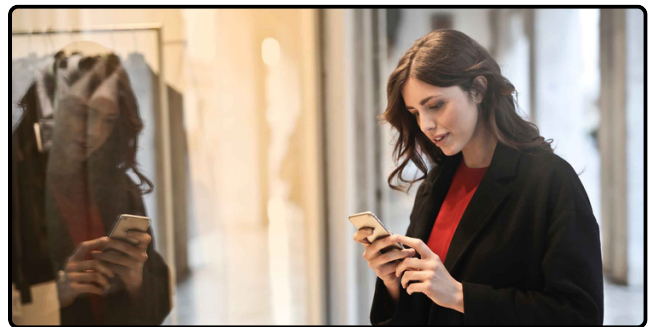

Provide Step-by-Step Product Tutorials

In addition to FAQs, many companies are now using visual media, including interactive product tutorials, to guide users through product demos.

Productivity Multiplier
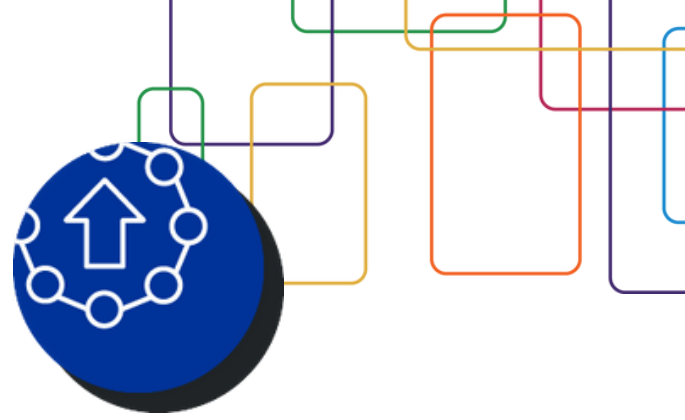
Overall, AI used across customer experience touchpoints – whether through chatbots, within contact centers or as a knowledge management tool – can be seen as a productivity multiplier. AI automation helps companies manage simple yet repetitive tasks that currently require agent intervention. Removing these 'annoyances' lets companies focus on more challenging and productive activities.
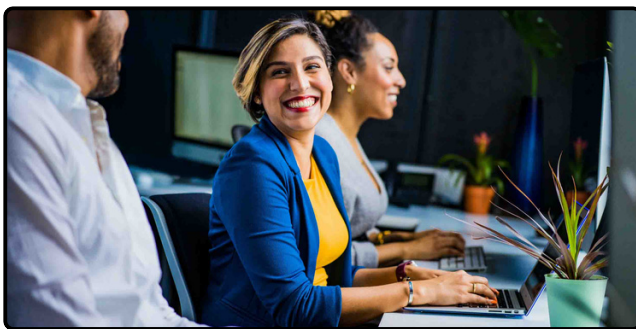

Reduce Repetitive Tasks & Create More Productive Teams

By letting AI automate simple, repetitive tasks, customer support organizations can reduce burnout, improve employee retention and create a more productive work environment.

Use AI to Search and Surface Answers Instantly

Using Conversational AI through chatbots or search features, customers and employees can spend less time searching for answers and more time being productive.
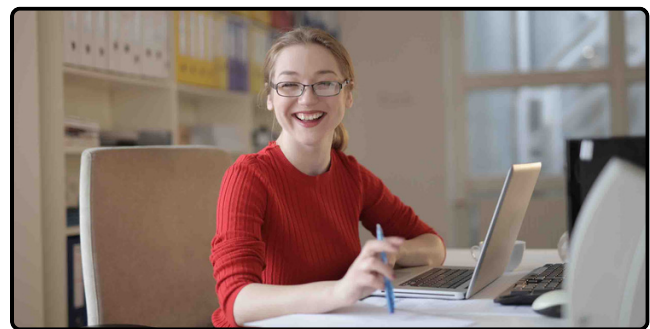
Reduce Time and Effort for Frontline Staff

AI can help automate conversations and the completion of tasks to streamline operations, helping organizations reduce the time and effort required of frontline staff.

Inbenta is an AI platform purpose-built to optimize customer experience

Inbenta helps companies improve customer experience at scale through an AI platform that can automate customer interactions, provide better self-service options and enhance the searchability of product information. Inbenta is also focused on delivering future-proofed AI solutions that address compliance risk, regardless of industry.

Chatbot
Utilize a chatbot that can autonomously engage in complex customer conversations, answer questions and complete tasks.

Search
Incorporate a user-friendly search functionality that makes it easy for customers to find the right content.

Knowledge
Organize your company's content, making it fast and simple to find, with a knowledge management tool.

Benti
Optimize customer engagement across multiple platforms with a centralized case management and ticketing system.
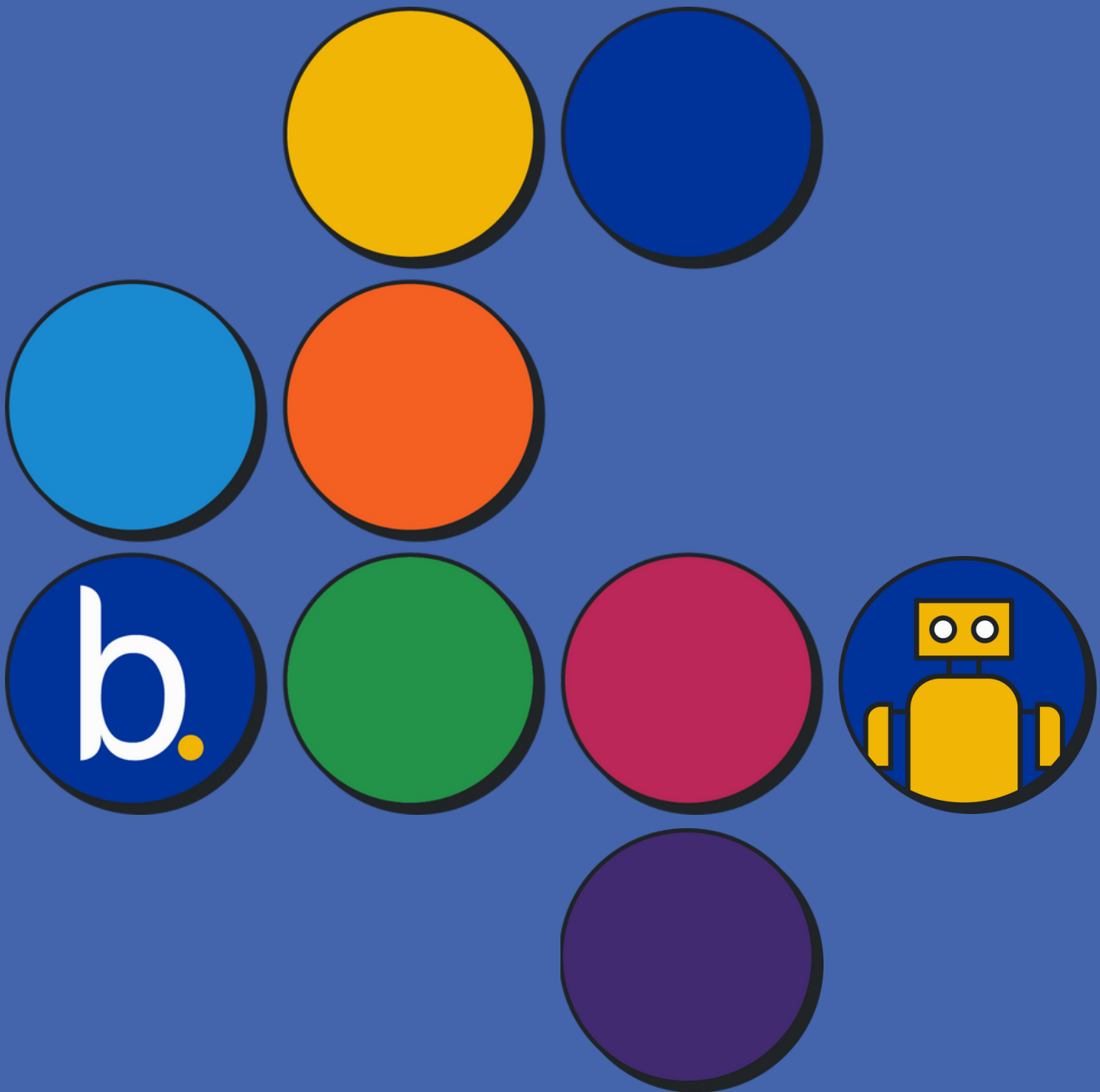
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