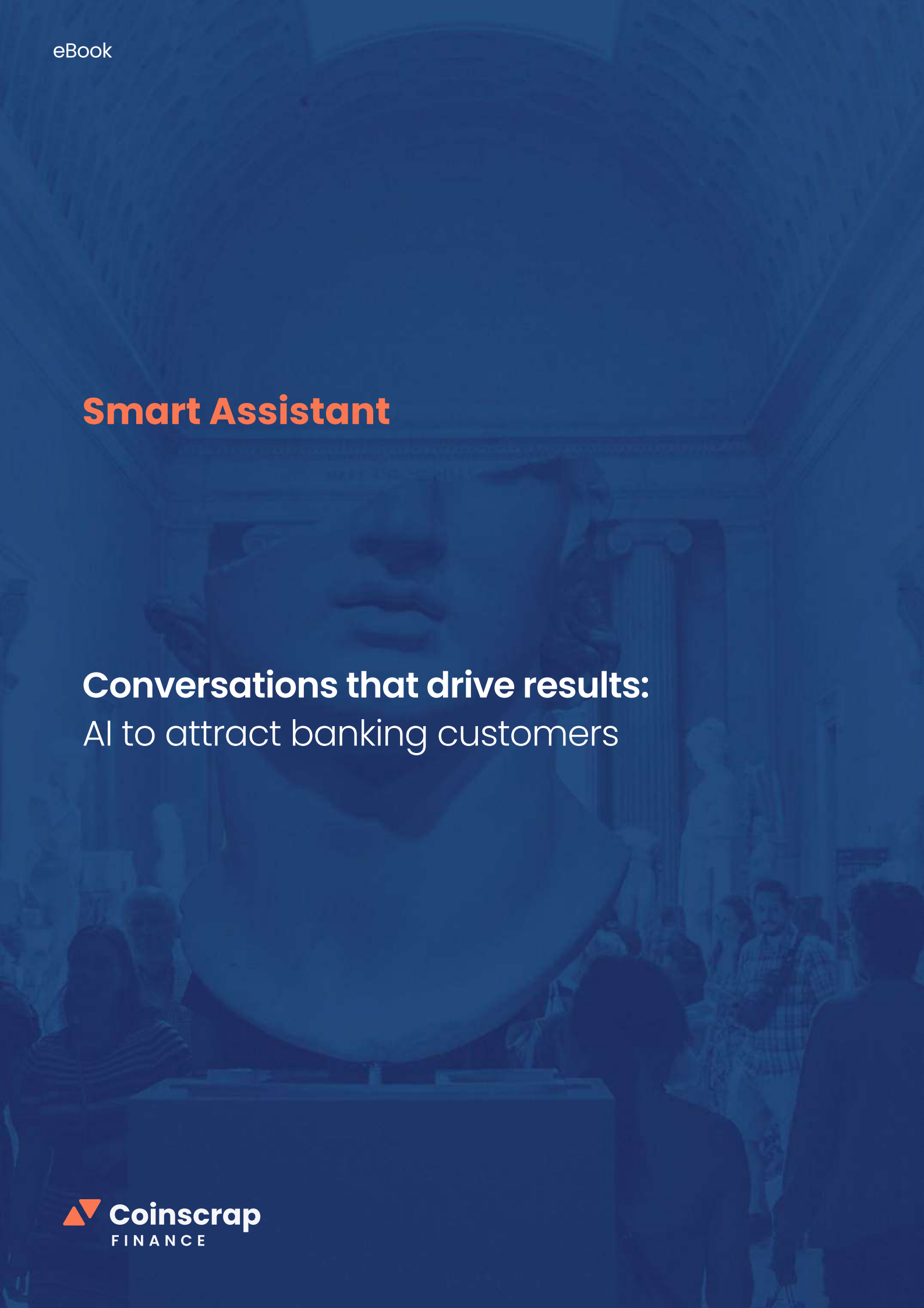
eBook

Smart Assistant

Conversations that drive results:
AI to attract banking customers



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David Conde,
CEO & cofounder.

Traditional banking reinvents itself Silicon Valley style

If someone had told me a decade ago that a 168-year-old bank would redesign its app ***using Apple technology and an artificial intelligence like ChatGPT****, I would have given them a dictionary to look up the word "unbelievable."*

And yet, here we are: BBVA has just launched the improved version of its "Blue" assistant and the media have begun to wonder ***what will happen next in the financial industry****.*

The truth is that all ***this innovation has a single goal: to improve the relationship with the customer****. To encourage conversation. Just like works of art, banking apps are not something static. They should generate emotions, debate, reflection, and ultimately help us to understand ourselves.*

This ebook has been created to show ***the future of digital banking****. At Coinscrap Finance, we know that the most powerful AI on the market is nothing without a good dataset.*

Now, the uncomfortable question: ***What will the rest of the banks do after this launch?*** *Innovation doesn't seem to be within everyone's reach, does it? Fintechs have spent years bringing agility and technology to a traditionally static sector.*

It remains to be seen how many institutions are able to adapt and pick up speed now that the trendsetters are showing the way. The lesson is clear: either you integrate ***AI to create experiences as personalized as a Spotify playlist****, or you become the Nokia of finance.*

The rules have changed. Are you ready to step onto the field?

The revolution of conversational AI in finance: from chatbots to BBVA Blue and the future of banking



Conversation is taking center stage in the financial experience. It's no longer enough to offer products and services; now users expect their bank to listen to them, understand them, and respond–all in real time.

The new BBVA app, launched in May 2025 in Spain, isn't just a technical improvement in this sense: it reflects a deeper transformation. **Conversational artificial intelligence** has gone from being a promise to becoming **the new standard for financial service.**

Features like a virtual financial coach, **hyper-personalized responses within the platform**, and integrated savings tools not only impress, but meet a real demand: users want help managing their personal finances as well as immediacy and understanding.

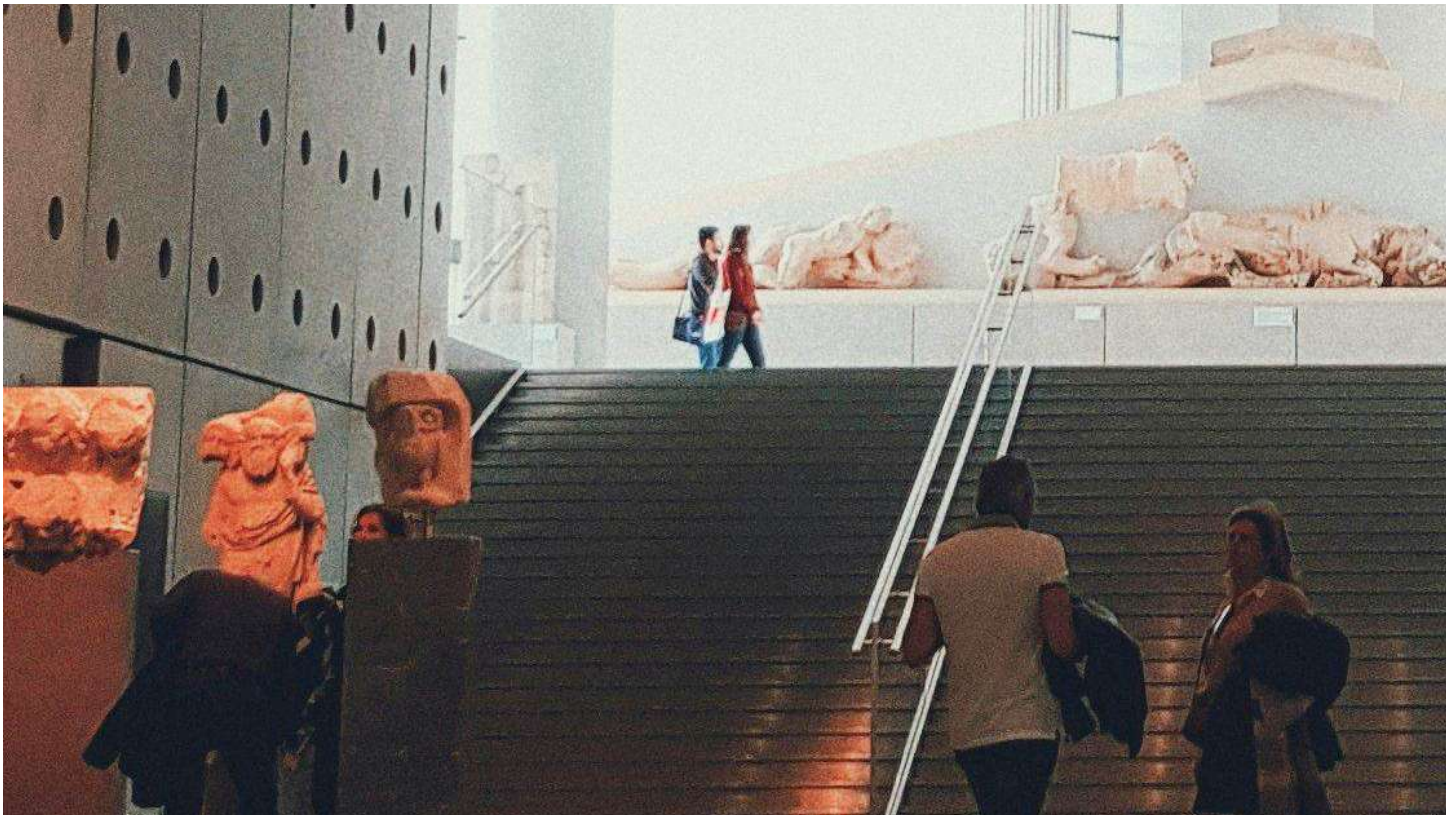
But how did we get here? Let's look back to see **how financial technology has evolved** in recent times.

From the first bots to new intelligent assistants

In 1991, **First Direct bank in the UK launched Midland Money-sense**, a rudimentary rule-based AI system. Three decades later, the **first banking chatbots (2010–2016)** answered simple questions with pre-programmed phrases.

The real change came with machine learning: banks like Capital One or DBS began to use AI not only for customer service, but also to personalize experiences and detect fraud. **By 2020, 60% of financial institutions were already applying AI in their services**, according to the European Banking Authority (EBA)[1].

1 https://www.eba.europa.eu/publications-and-media/publications/special-topic-artificial-intelligence



2021–2025: Entering the conversational era

Today we are talking about banking AI capable of conversing. How is this achieved? Thanks to the combination of **natural language processing** (NLP), **machine learning** (ML), and secure access to customer data. These tools understand questions like "How much did I spend on restaurants this month?" and can respond in milliseconds.

The BBVA case is not unique. Intelligent banking assistants **understand context like a human**, execute complex operations, and deliver valuable results. In other words: they turn data into intelligent decisions. **For users, this is a huge advantage** because it makes it easier to manage their finances, and for banks, it means meeting consumer expectations.

2026–2030: Intelligent banking will consolidate

As indicated by the Bank of Spain,[2] **the financial sector has adopted AI as a key element for efficiency and innovation**. After the rapid digitalization of the last five years, AI has become a transversal technology across the value chain of the financial system.

2 Balsategui, Iván, Sergio Gorjón, and José Manuel Marqués. (2024). "Artificial Intelligence in the Financial System: Implications and Advances from a Central Bank Perspective." Financial Stability Review - Bank of Spain, 47, Autumn. https://doi.org/10.53479/38235

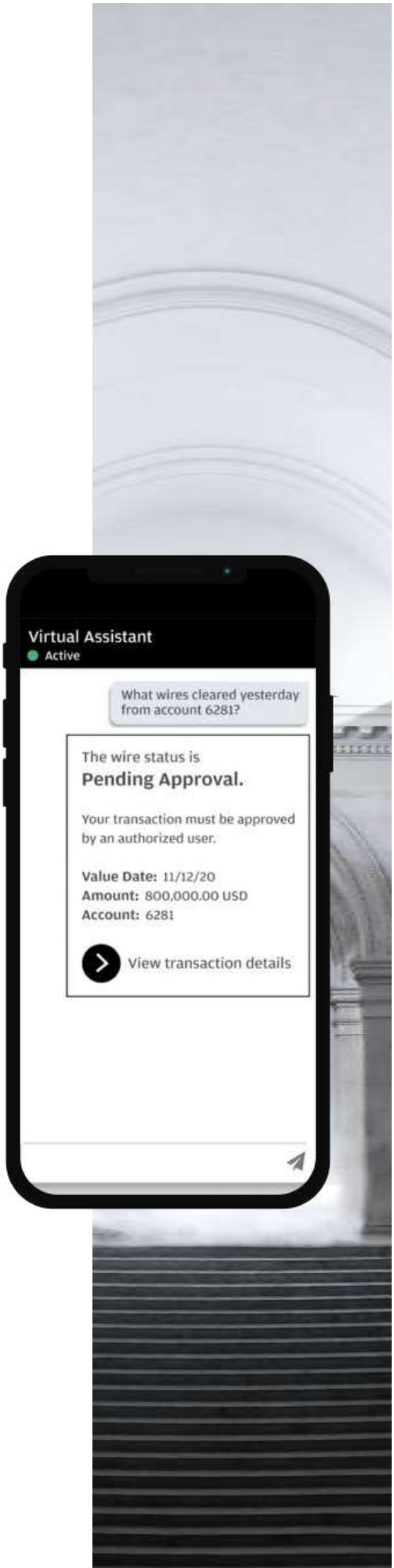


Over the coming years, this technology will not only **optimize processes**, but **will radically transform the customer experience**, improve decision-making, and increase operational efficiency. Its main contributions include:

- **Enhanced trust:** explainable algorithms that strengthen the client relationship.
- **Fluid and contextual interaction:** conversational assistants that understand intent and respond in real time.
- **Emotional client management:** analysis of tone and language to offer proactive support in stressful financial situations.
- **Personalized financial education:** content adapted within apps, according to profile and knowledge level.
- **Reinforced security:** data protection through multiple layers of encryption and biometrics.
- **Hyper-personalized offering:** products adapted to the user's real needs thanks to predictive analytics.
- **Early risk detection:** identification of missed payments or fraud through anomalous patterns.

Far from replacing the human dimension, AI will allow financial institutions to be closer, more proactive, and more precise. A new era where intelligence will be both artificial and profoundly strategic.

Here are the **most innovative developments on the market:**



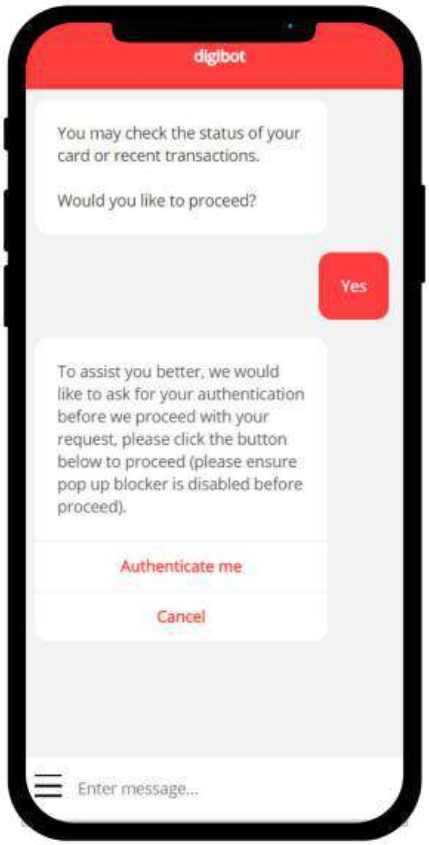
JPMorgan Chase:
A conversation worth millions

In the financial heart of New York, JPMorgan Chase has bet big on generative artificial intelligence. Its virtual assistant **can manage the vast majority of customer inquiries autonomously**, understanding not only what they say but what they really mean.

Need to transfer money, save for your vacation, or solve an urgent question? **Just ask in natural language**: *"Help me set aside $200 each month"* and the system gets to work to make it happen.

The best part is that it learns along with them: **it adapts to their financial history, automates processes, and improves daily** thanks to constant interaction.



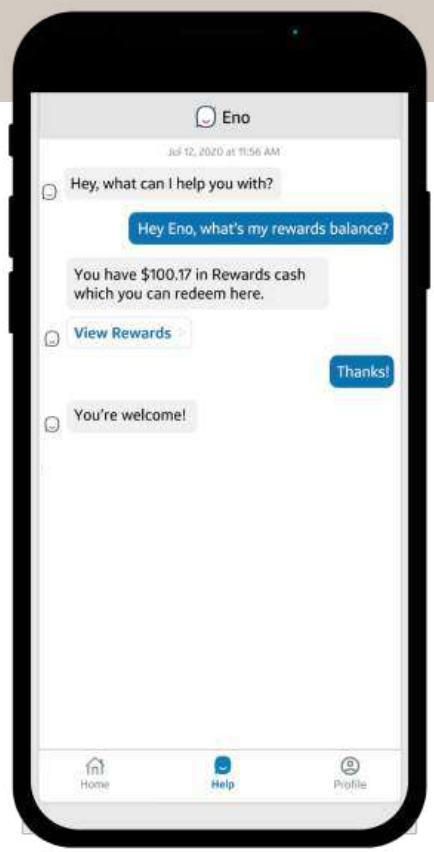


DBS digibank: the financial future is already in Singapore

DBS, the largest bank in Southeast Asia, hasn't fallen behind. Its virtual assistant, digibot, combines generative **AI with a very clear vision: making your financial life easier**. And it succeeds.

The entity is recognized for its broad adoption of artificial intelligence, with **more than 800 AI models implemented in 350 use cases**, including process automation and customer service.

What makes digibank unique is its proactive approach: it **detects needs before the user is aware of them**. If there's idle money, it suggests ways to increase profitability. If it detects an unusual spending pattern, it sends an alert. Intelligence that not only responds, but accompanies.



Capital One Eno: the silent guardian of your finances

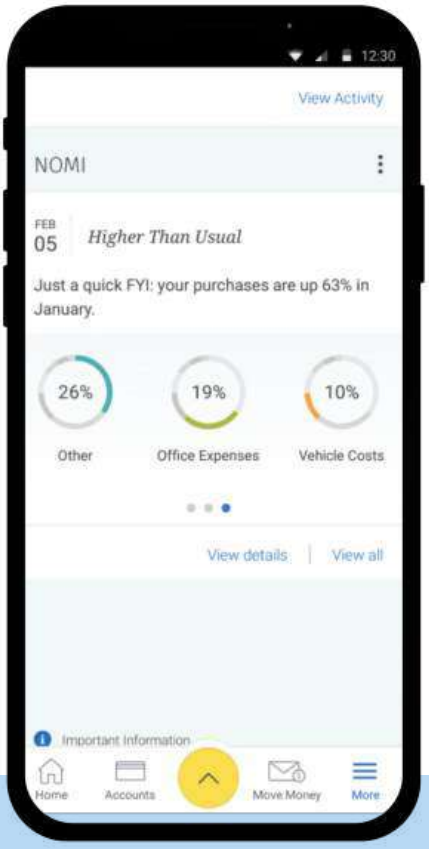
Eno, Capital One's virtual assistant, **takes the idea of "prevention" to another level**. It can detect when "something strange" happens in an account–before anyone notices– and send a warning.

Available by chat, email, or SMS 24/7, Eno monitors transactions, offers savings tips, and resolves issues instantly. It can also execute payments, block cards, and solve problems seamlessly.

More than just an assistant, **it's like having a personal advisor who never sleeps** and anticipates problems before they exist. And it doesn't overwhelm you: it only talks to you when you really need it.



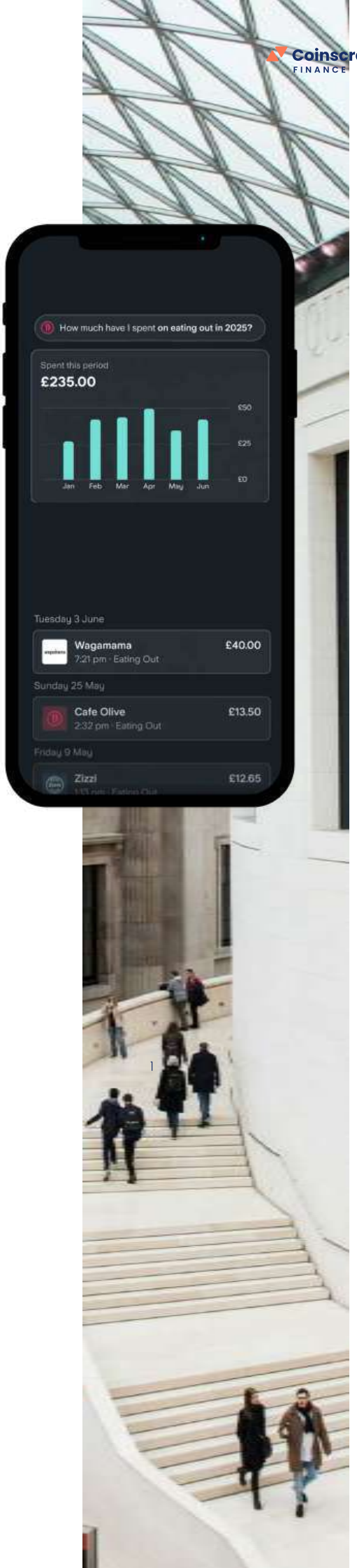




NOMI: the assistant who takes care of your wallet without you asking

The virtual agent at Royal Bank of Canada (RBC) is a clear example of how **artificial intelligence can improve users' financial health effortlessly**. Integrated into the mobile app and online banking, it analyzes spending habits in real time, detects anomalies, and suggests **personalized saving opportunities.**

Thanks to machine learning, NOMI not only informs but anticipates and accompanies. **It has been awarded for its capacity to educate users on finance** and help them make smarter decisions easily.



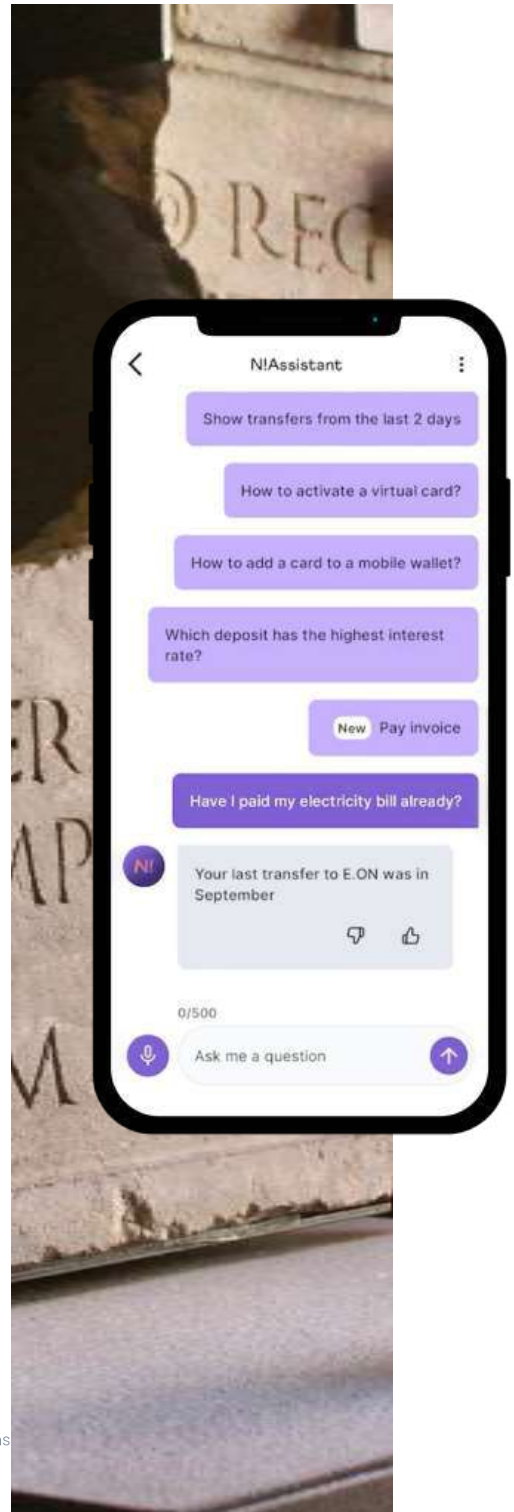
Spending Intelligence: the AI chatbot from Starling Bank

Starling Bank has just launched **its new AI chatbot**, which answers questions about users' spending as if talking to a friend. Questions like: ***"How much did I spend on coffee this month?"*** or *"Where did my salary go?"*

They just have to ask. The magic is powered by Gemini, Google's artificial intelligence. All integrated into the app, free and ready **to help them understand (and control!) their money**. According to Starling, the first step to saving is to clearly see where money goes. And now, it's easier than ever.

All these assistants share a central idea: ***conversational AI is no longer an extra; it's the new standard for the banking experience****. t's not just about automating, but about listening, anticipating, and accompanying clients with empathy and efficiency.*

The result? ***More agility, more satisfaction…*** *and finally, banking that truly speaks the same language as its users.*



N!Assistant: the financial copilot of the 21st century

Nest Bank presents its new smart banking ally. Designed to make clients' financial lives much simpler, it **analyzes accounts, pays bills**—with just a photo—**schedules transfers, arranges meetings** with an advisor, **and understands what they say**.

Thanks to GPT-4, it doesn't give generic answers but maintains context and converses naturally. No robotic chats: **everything flows as when talking to a trusted expert**. It's like having a financial advisor available 24/7, always ready to lend a hand with economic matters.

CASE STUDY

How is an AI model trained for the banking sector?

Training a model involves a rigorous process that demands accuracy, regulatory compliance, and maximum data protection. Below, we explore the training stages and the best practices already implemented by the world's most innovative banks.



Data collection and preparation

The first step is to collect large volumes of information relevant to the task at hand: transactions, credit history, fraud patterns, customer interactions, etc. In banking, it is essential to have **high-quality, clean, and representative data**. Given the sensitivity of financial information, strict anonymization and security mechanisms are applied.



Model and algorithm selection

The type of AI model is chosen (e.g., neural networks, decision trees, regression models, or clustering algorithms) depending on the **problem to be solved: fraud detection, credit scoring, customer service**, etc. The choice depends on the nature of the data, the bank's objectives, and the requirements for accuracy and explainability.



Model Training

During training, the model analyzes historical data and adjusts its internal parameters to minimize prediction errors. For example, in fraud detection, the model learns to distinguish between legitimate and suspicious transactions. **Training is done with a specific dataset** (training set), **while another subset** (validation set) **is reserved to ensure the model does not overfit** and maintains predictive capability.



Validation, Tuning, and Testing

The model is validated with data not seen during training to assess its accuracy, robustness, and generalization ability. **Metrics such as accuracy, sensitivity, specificity, or area under the ROC curve** are used. If the model doesn't meet the desired standards, hyperparameters are adjusted, other algorithms are tested, or the training data is enriched.



Implementation and Monitoring

Once validated, the model is deployed in the real banking environment to operate with live data. **Continuous monitoring is crucial**: data and IT teams track performance, detect deviations, and update the model if market patterns change or new threats (e.g., novel fraud schemes) emerge.

6

Bias control, explainability, and regulatory compliance

In banking, transparency and fairness are key. Models must be auditable and explainable: banks must be able to justify why an AI made a certain decision (such as denying a loan). **Potential biases are detected to prevent unfair discrimination, and all processes are documented** to comply with financial and data protection regulations.

7

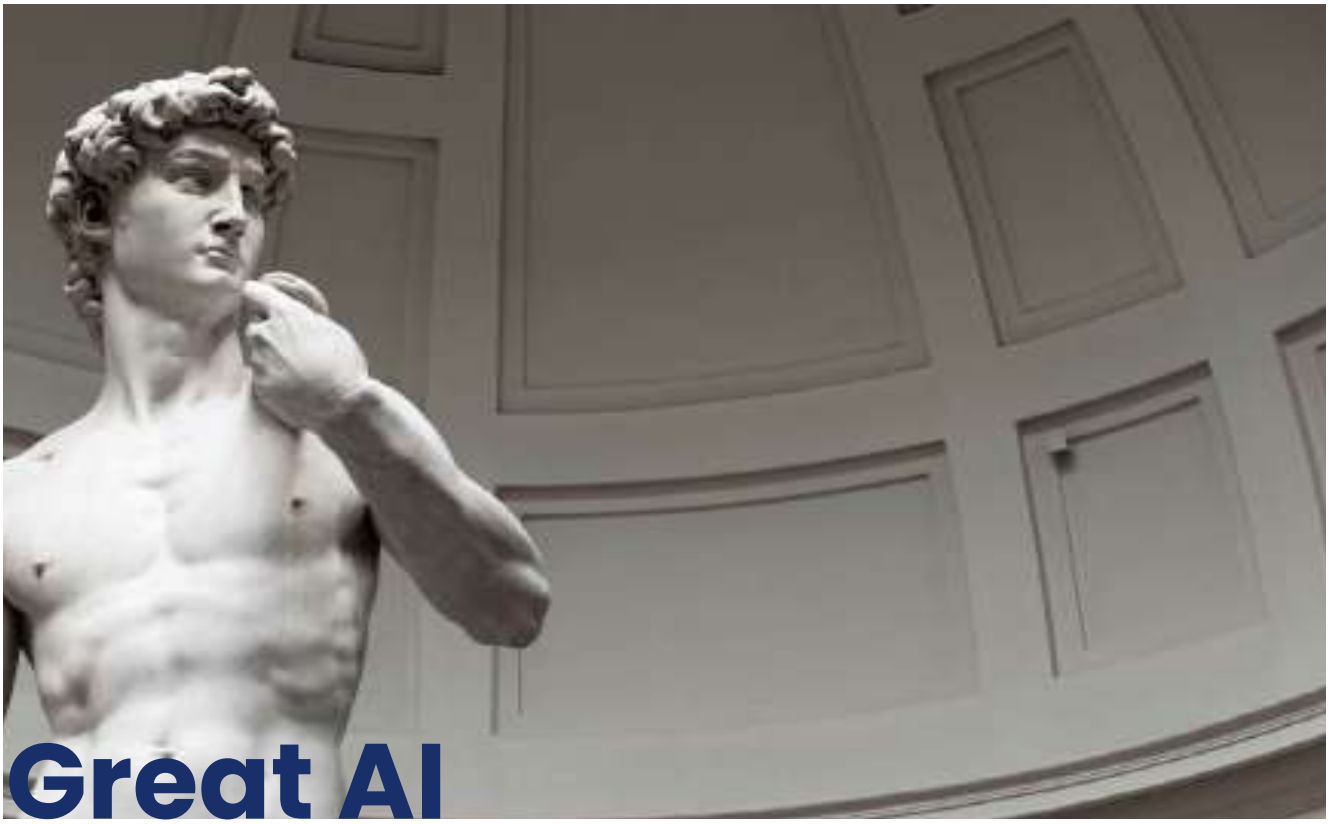
Operations and continuous Improvement (MLOps)

Model management in production, or MLOps (Machine Learning Operations), involves **periodically updating, tuning, and retraining models** to maintain their effectiveness and alignment with business objectives and regulatory changes. This requires collaboration between data scientists, analysts, IT teams, and compliance.

*"Designing an artificial intelligence engine involves a deep understanding of people. **At Coinscrap Finance, we use behavioral finance principles** in our developments."*



Founders, from left to right: Dr. Óscar Barba, CTO; David Conde, CEO; and Juan Carlos López, CPO.



Great AI
starts with the best database

In 2025, banks are no longer satisfied with conversational AI that simply "responds." What they really need is an AI that understands each user, interprets their financial context, and provides useful answers within seconds. For this to happen, an optimized, clean, and deeply contextualized database is crucial.

At Coinscrap Finance, we have spent years perfecting this. Our AI engine, **COCO**, has been trained on millions of real transactions to **categorize, enrich, and extract financial insights with an accuracy above 95%.**

It's not a generic model: **COCO** is specifically designed to understand financial language in all its complexity.

The result? **Lighter, faster, and above all, more reliable artificial intelligence.** **COCO** not only classifies income and expenses; it adds layers of context such as merchant location, transaction frequency, or expense nature, and **generates actionable indicators that allow services to be adapted, needs to be anticipated, and a truly unique experience** to be offered.

Thanks to this curated and enriched data structure, our generative AI layer operates on a solid foundation: it accesses the most relevant information in milliseconds and **responds precisely, without errors or hallucinations.**

Because in banking, **trust is everything.**

Technology for a more personalized, intelligent, and **customer-oriented service**

On digital platforms, listening to the user is not just a duty—it's the compass guiding every innovation. As a fintech, we make it our daily mission to pay attention to **our clients' pain points:**

> *– "We receive **too many queries regarding unrecognized charges, duplicate transactions**, or unclear movements. The ticket volume is high and consumes valuable resources from our customer service teams."*
>
> *– "Our **users can't easily find the information they're looking for**. Navigating between transactions and categories is unintuitive, which negatively impacts the use and perception of our app."*
>
> *– "We have **competitive products, but it's hard to identify the best moment to offer them** to users without being intrusive."*

*Sound familiar? **These and other concerns are common in banking. To solve them, it's crucial to focus on the end-user experience.** By addressing this specific aspect of online banking, we solve 90% of the problems.*



More efficient customer support channels

Automating the resolution of frequent inquiries through conversational search **that explains each transaction clearly** and provides context is the current trend. This leads to fewer calls, fewer emails, and greater efficiency for CX departments.

Fluid, intuitive, and satisfying user experience

It's important to let users search the way they think, with questions like: ***"How much did I spend on transport this month?"*** or *"What was that charge of €105.22 for?"* This improves the accessibility of digital platforms, increasing engagement and satisfaction.

Clearly differentiated value proposition in the market

Banks offering a **unique conversational experience**, based on transactional data updated in real time, can stand out from the competition. API integrations add an intelligent layer to each customer's information.

High conversion on strategic financial products

Detecting purchase intent through user searches lets you **trigger relevant recommendations at just the right time**. Frictionless contextual marketing, right at the moment the customer is already considering the product.

Ability to turn data into actionable value

Thanks to conversational AI tools, banks turn transactions into knowledge: they **categorize, contextualize, and provide personalized summaries**. Users understand their finances and banks capitalize on their data.

Take advantage of every search to **enrich the customer experience** and grow your business!



Smart Assistant

We bring you **a radically new way to interact** with your users.

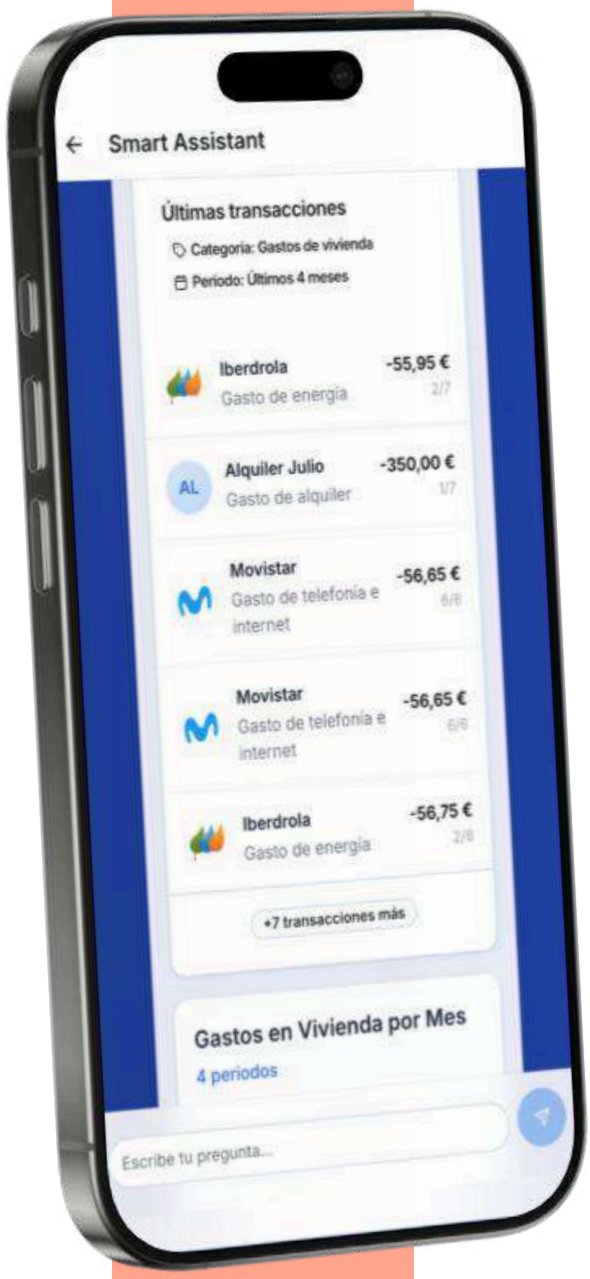
You'll be able to listen, understand, and act accordingly. This new digital paradigm puts **innovation at the service of business**, enabling your data to perform at its best with the highest efficiency in the market.

At Coinscrap Finance, we knew the industry didn't need yet another generic chatbot. That's why we chose a different path: **combining our transactional intelligence with the power of conversational AI**. That's how Smart Assistant was born.

62% of global consumers[3] use a digital banking app to check their daily transactions, which is why it's essential to incorporate **a channel that captures actionable insights**.



3 2024 Payments Observatory Report by Ditrendia.



You'll never have to guess **what's most important to your customers**

They'll tell you with their searches! This solution transforms the banking experience: it contextualizes, interprets, and responds in natural language, **powered by a leading enrichment engine.**

And most importantly, **it's fully compatible with the main technology infrastructures on the market: Azure, Google Cloud, or AWS.** This guarantees an easy, secure, and scalable integration, with no need to modify your current architecture.

Ready to design personalized offers, strengthen long-term relationships, and create unique experiences within your digital platforms?

Smart Assistant

Technology that turns every interaction into an opportunity.

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Harness the power of
transaction data

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bankinter Allianz Unicaja lulo

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