



# Meet AMELIA

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Your first digital employee





Amelia is the only AI  
ready to transform  
entire processes  
at scale, from  
intelligent front  
office conversations  
to smart back office  
execution

# Who is Amelia?

Amelia is the most human and comprehensive AI platform on the market. She connects conversations to data and processes to give every customer the best end-to-end experience possible. It also means she can increase the effectiveness of your operations by getting work completed more efficiently than ever before.

When you employ Amelia, you don't employ a single "agent" at a time, you get to switch on an entire digital workforce. A workforce that scales to fit as much volume in operations as you need, no matter how unpredictable the peaks and troughs of your demand. And as Amelia learns fast, she can become an expert in any role you need her to fill - all the way from the front office through to the back office.

Employing Amelia does far more than speed up pockets of your organization; it's a catalyst for business transformation that throws open an entirely different business model for the future. It's an opportunity to remove many of the constraints which limited your business in the past and accelerate your progress towards growth in the digital economy.

# AI lies at the core of tomorrow's digital winners

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In the future, companies will compete through the strength of a digital workforce.

The productivity benchmarks that set market leaders apart from the competition will be set at new levels and the bar for customer service will be higher than we have ever seen it before.

We are living in an age of hyper-intelligence where we can search and uncover insights that were previously too obscure for us even to imagine. In the blink of an eye, we can bring together a constellation of data points and transform them into actionable positive decisions. At any time of the day, we can have meaningful conversations and collaborate with digital colleagues who are equipped to help us.

Already we see new digital-infused companies realize market values that are far greater than their traditional competitors in industries as wide ranging as taxi booking through to in-store shopping and hotels. Their success is predicated on putting digital at the core of their business and forging a new digital path to take customers all the way from initiating a request through to fulfillment. The key rule is to leverage technology to overcome the inherent physical constraints of our bodies and minds.

With Amelia at the heart of business operations, companies have the link they need to bring the benefits of AI into every part of their value chain. She is the integration point that optimizes the flow of information between customer-facing systems, data platforms and core enterprise systems. Amelia's comprehensive understanding of a company's processes and systems means she can act rapidly to tie conversations with clients, suppliers and employees together and translate them into a single, streamlined series of actions. The result is straight through processing of optimized decisions.

# How can Amelia impact your business performance?

High performing companies outpace their competition in more than one business dimension. As the AI economy begins to mature, the speed and scale at which new companies flourish will continue to accelerate.

Amelia has a direct impact on the key ROI metrics that shareholders and management teams prioritize above all others.

## Increased Revenue

A great user experience opens the door to increasing revenues. Every contact with Amelia is an opportunity to reinforce customer loyalty by ensuring each of your customers has personalized support whenever they need it. For new customers, the ease of interacting with Amelia makes it possible to convert interest into a decision to buy at the most appropriate time. For internal employees user experience is no less important as it creates the context for being more productive.

## Increased Insight

Amelia helps your organization make optimal decisions that ensure you don't miss opportunities or waste time and resources on missteps. What is more, you can be confident that decision making is consistent, allowing performance outcomes become more predictable.



## Increased Productivity

Full automation of high volume, repeatable processes means your cost base is sustainable no matter how fast you grow. Amelia is constantly analyzing the best way to deliver the requests of your customers in line with the goals of your organization. With faster response times, Amelia ensures time to market cycles are shrunk to a minimum so that you can grow new markets.

## Increased Agility

Adapting to a changing environment can be slow when your organization is weighed down by manual processes. Amelia's ability to absorb new rules and data rapidly allows the companies she works for to make course corrections continually. For example, new regulations can be quickly incorporated and new rules implemented to capitalize on changing market dynamics.

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# What are Amelia's unique skillsets?

## Conversational intelligence

Working in more than 40 languages, Amelia can interact with the most complex dialogues across any channel from voice to mobile and online chat. Even when customers switch between different requests and topics in a single conversation, Amelia stays on track. Like a human, she thinks ahead to understand where conversations are heading and uses spread-activation to deliver quicker and more intelligent responses. As Amelia detects a customers' mood, she is also able to adapt the content of her responses and her expressions to create a truly personal experience for each customer.

## Advanced analytics

Through her new abilities to analyze data, Amelia generates business intelligence drawn from individual interaction combined with data held in enterprise core systems. She uses advanced analytics like machine learning to assess large amounts of data and act on new insights allowing her to make real-time decisions that provide better outcomes.

## Smart workflow

Amelia is not limited to interacting with co-workers and customers but also integrates with enterprise systems like SAP and Oracle, allowing her to orchestrate all the actions necessary to deliver the complete outcomes and streamline execution of back-end processes.

## Experience management

Amelia is aware of the full context of every conversation so she can adapt her social tone and actions accordingly. She selects the most appropriate of her multiple knowledge engines at every step of the conversation in order to keep dialogue fluid and help customers reach their goals faster. Instead of treating existing customers as strangers, Amelia uses facial recognition to begin new conversations with the full knowledge of all a customer's previous contact history. Most importantly, when Amelia needs to escalate a call, she passes on all relevant information to her human colleagues so they can continue the conversation smoothly without forcing customers to repeat themselves.

## Supervised automated learning

Amelia has an expanded inventory of learning and self-learning tools to help her extract knowledge from large documents and historical records, making her easier than ever to train. She constantly improves performance and updates her knowledge base through advanced machine and deep learning to provide enterprises with faster time to value.



More than  
50 global  
organizations  
are employing  
Amelia



# The science behind Amelia

Amelia represents a major breakthrough in cognitive technology. Her mind emulates that of a human so that she can engage with people on a human level using completely natural language.

IPsoft has been researching the anterior and posterior neo-cortex functions of the human brain for more than 15 years in order to recreate a virtual mind that is capable of the same sophisticated level of comprehension, decision making and expression. Just like a person, Amelia stores her knowledge of the world in her memory. Unlike a person, she can process that knowledge at a scale that reaches beyond the limits of human beings.

## Semantic Memory

Amelia stores facts, concepts, and the associations between them in her semantic memory. Just like a human, this is the bank of knowledge on which she draws during every interaction. Her ability to absorb new knowledge takes very little time. From standard operating procedures to policy documents, she reads information and then applies this to conversations in order to guide users through complex scenarios.

In her logic memory, Amelia holds common rules and references that help her derive one element of information from another fact. For example, she can deduce who is now in possession of a product purchased by someone else as a gift. The richness of her logic understanding helps her develop a more precise understanding of a conversation. Amelia's logic memory has

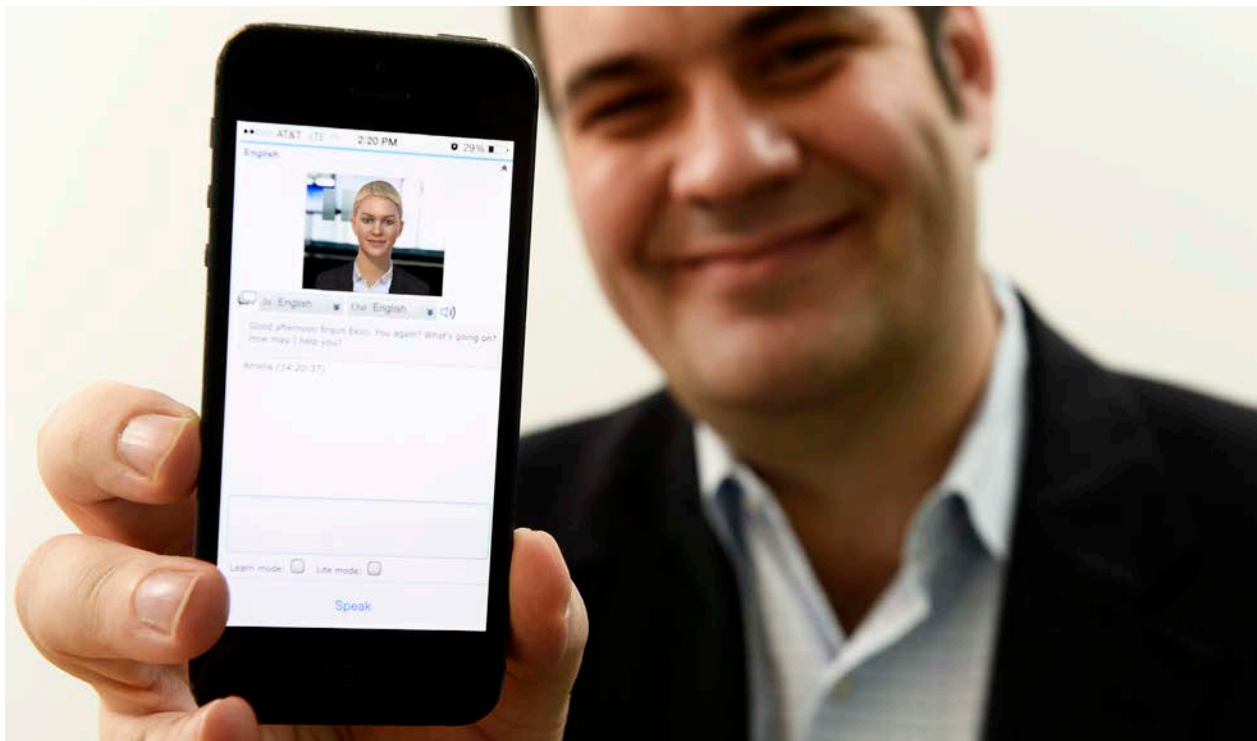


thousands of common rules and new ones can be built dynamically by Amelia and she uses external resources to do initial validation. This allows for rapid industry and customer specific implementations.

## Episodic Memory

This is where Amelia stores past experiences and conversations, in a similar way that humans remember things that have happened to them. These memories allow Amelia to build on the experience of countless previous conversations to spot the intent of a customer and determine what steps to take in order to help them. Amelia's ability to engage in dynamic multi-turn dialogues becomes increasingly effective and flexible, as her episodic memory increases.





## Process Memory

Amelia is not confined to following a rigid, linear process as she can mimic the human brain through spread activation. As a result, she can dynamically navigate business process flows without having to follow a step-by-step process to achieve the desired outcome. This allows Amelia to follow an individualized process flow based on the unique information exchange within every conversation. It also allows her to jump from one process to another, if the conversation requires her to do so.

## Affective Memory

Research shows that a better customer experience is directly tied to empathy shown by the agent handling the call. By incorporating a standard psychological model, Amelia is aware of the emotional state of the person she is speaking with. This then drives her verbal responses as well as facial expressions and even gestures.

## Analytical Memory:

Unlike a human, Amelia is able to take full advantage of the vast amounts of data available to her in order to drive individualized decisions in real time. Amelia has been pre-trained with standard predictive models such as fraud, pricing, next best action and churn prediction. New customized models can easily be created in order to support the specific business environment in which she is working. Amelia also measures her impact on customer satisfaction, accuracy and presents improvement opportunities.



# Amelia:

## Curriculum Vitae

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Amelia is already helping executives transform their businesses and move beyond the constraints that previously held them back. She has experience working with more than 50 organizations across the world and in industries as wide ranging as financial services, leisure, travel, healthcare and government.

### Global telecom provider

This global telecom provider had a scale challenge. It has embarked on a digital transformation journey by providing best in class IT service for its 107,000 staff. Amongst its English speaking staff, Amelia covers 82.1% of IT Service Desk requests and since going live has held more than 80,000 conversations. She has resolved more than 69.4% of these conversations end to end. She is now preparing to provide the same high quality support to the company's German and Spanish employees in their native language as well as expanding her knowledge in order to support external customers.

### SEB

One of the largest and most innovative banks in the Nordics, SEB, was looking for ways to expand and strengthen its online and digital strategy. In order to achieve this, SEB decided to offer digital services through Amelia to its 4 million retail banking customers. Today,

customers chat with Amelia in Swedish and English on a wide range of requests from managing change of address to providing password resets for accounts. Amelia is accurately resolving more than 85% of the queries that are addressed to her.

### Fortune 100 insurer

With so many complex regulations surrounding insurance policies, it can be challenging for new agents to get up to speed on the details required. Executives at this Fortune 100 US insurer looked for transformative innovation to decrease new agent training time while helping them to respond to customer queries more quickly and accurately. Amelia is integrated with their customer-facing teams, where she helps them provide accurate policy information fast. IT management managed to drive Amelia to hit 92.88% success in just one month, compared with prior technology registering 29% after a year.

### Gaming company

Being one of the world's largest online gaming companies means you have to adapt quickly to fraud techniques. The Director of Innovation wanted a sophisticated agent to connect with gamers and block phishing attempts. Amelia cannot be socially engineered, so she is the perfect choice for initial contact and account verification. She is now verifying user identities at 100% accuracy and has received an 86.72% satisfaction rating.

## Spanish bank

A large Spanish multinational banking group needed to streamline operations and improve customer experience. IT executives saw an opportunity for cognitive technology to simplify the process for 2 million customers to report and resolve unauthorized card transactions. Customers now speak with Amelia in their native Spanish, where she accesses core systems to identify disputed transactions and follows their process to drive investigation. So far Amelia hit 99.16% accuracy, enabling the bank to automate 80.8% of these fraud reports from start to finish.

## US insurance company

The CIO of a large US-based insurance company knew driving innovation would differentiate from his competition. When he launched a new digital-only auto insurance offering, he saw an opportunity to incorporate state of the art support using AI. He integrated AI into his 24x7 chat support, offering faster responses at substantial cost savings. When their customers contact support online, Amelia is one of the prolific agents on the line. She handles queries from over 3,000 users per week -- and achieves 93% accuracy.

## Dutch health insurance

One of the major health insurers in the Netherlands needed to improve its customer support. It needed to manage the extraordinary rise in volumes during the mandatory annual enrollment process. To ensure that the insurer can maintain distinctive customer experience, the CIO's innovation team decided to pioneer the use of cognitive agents to address the complex needs and requests of customers. In pilots, interacting in Dutch, Amelia accurately resolved 90.41% of questions of policy reimbursement questions. 70% of those users stated that Amelia was so effective that no additional follow-up was required. Amelia is now live.

## Enfield Council

Enfield Council provides services to 350,000 residents in one of London's largest boroughs. They face continual pressure from climbing service demand against a backdrop of central government budget cuts. The IT management faced the unenviable task of delivering more services with the same resources. They recognized the potential for AI to deliver a better outcome and chose to drive digital transformation. Amelia will be a new channel for residents to access information and services. Her first role will be to provide guidance on planning permissions, and in training she has achieved more than 85% accuracy.

## Procurement service provider

An international provider of best-in-class procurement services manages 25 billion euros in spend for its shareholders and clients across 40 countries. Its CEO is passionate about the use of analytics and AI to provide cutting edge procurement services to clients. As part of this effort, the company is co-developing a digital negotiator by employing Amelia. She will help optimize negotiations with vendors by creating leverage from the company's procurement expertise.

At the offices of largest medical supplier company, there are over 3,400 visitors each month. Common activities such as guest Wi-Fi access and granting permissions to file shares and USB ports had multi-day turnaround times. The company's CIO saw the promise of self service through Amelia and put her to the task. Today, Amelia performs at a 95.9% success rate for handling visitor requests, and has reduced resolution time for Wi-Fi access to under 30 seconds.

Amelia is an artificial intelligence platform that can understand, learn and interact as a human would to solve problems. She makes it possible to automate knowledge work across a broad range of functions. With Amelia able to shoulder the burden of tedious, often laborious tasks, she partners with human co-workers to achieve new levels of productivity and service quality.

To find out more, visit  
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