



Technology FAQ

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General Technology

This FAQ will provide you with a general understanding of the technologies used to build the Finn AI offering.

Glossary of Terms

AI	Artificial Intelligence
API	Application Programming Interface
CBDB	Conversational Banking Database
ML	Machine Learning
NLP	Natural Language Processing
NLU	Natural Language Understanding

What is Artificial Intelligence?

At the highest level, AI is the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, natural language understanding, decision-making, and translation between languages.

Finn AI focuses on conversational AI, which incorporates natural language understanding and decision-making. This involves utterances (what bank customers say), intents (what they mean), and entities (specific references such as the name of a bank product, amount, or other details). This is the basis of the unique conversational design methodology used to build Finn AI.

What is Natural Language Understanding?

NLU deals with machine reading comprehension. It is the process of disassembling and parsing input, which is very complex because of the occurrence of unknown and unexpected features in the input. When designed properly, NLU can determine the appropriate syntactic and semantic schemes to apply to the input.

What is Natural Language Processing?

NLP is used by a computer program to understand human language as it is written or spoken.

Since Finn AI provides conversational AI for banking, our proprietary approach to NLP involves breaking down a sentence to determine a bank customer's intention. Then we map the intention back to a pre-existing core retail banking intent. These intents connect to over 500,000 utterances we've already built and have stored in the Finn AI Conversational Banking Database (CBDB).

Additionally, Finn AI will identify an entity within the sentence (such as a product name, amount, location), so we can provide a detailed and accurate response to the bank customer.

The Finn AI taxonomy / conversational design methodology was developed by banking domain experts to cover most banking-related queries. We also support a range of small-talk queries so our customers can customize and personalize the experience for their customers.

What is Machine Learning?

ML allows systems to automatically learn and improve from experience without being explicitly programmed to do so.

Our team of Data Scientists use state-of-the-art deep learning models with algorithms that accurately identify banking queries. These models are continually refined and modified to improve performance for every customer.

What is conversational design?

Finn AI is built using conversational design, which incorporates a variety of Natural Language Processing (NLP) and Natural Language Understanding (NLU) methods. This allows Finn AI to understand the human language as it's spoken. With our singular focus on banking, we've been able to construct 500+ core intents and more than 500,000 utterances specific to banking.

Finn AI Technology

This FAQ will provide you with information that is specific to Finn AI technology and infrastructure.

How does Finn AI host its operations?

We use Amazon Web Services (AWS) Virtual Private Cloud (VPC) so we can provide our customers with a cloud-based model. This means they don't need to invest in expensive infrastructure to leverage Finn AI and also provides for a faster time to market. Finn AI can be deployed on-premises if this is preferred or necessary due to data security compliance requirements.

The AWS VPC integrates easily with third-party systems using HTTP APIs with Transport Layer Security (TLS) encryption. The server is configured for the following integrations:

Inbound

- Messaging platform

Outbound

- Messaging platform
- NLP processing system
- Google Maps API
- Data provider / aggregator
- Uptime monitoring and analytics

Further details on Finn AI security is available in the [Finn AI Security FAQ](#).

Additional technical and security information is available on the [Amazon Web Services website](#).

Describe the Finn AI technology architecture.

A detailed Finn AI Technical Architecture whitepaper is available upon request.

Does Finn AI provide SDKs?

Yes. We have SDKs for the following scenarios:

Native iOS and Android

- No third-party access to logged data
- Secured access between the user's device and Finn AI
- Secured access between Finn AI and our customer's data center
- Can persist per customer requirements

Web SDKs

- Content submitted is sent securely to Finn AI and from Finn AI to the customer data center after processing
- Web widget content is accessible to other scripts allowed to run on the same page from the domain (online banking or web hosting provider) and from user's installed browser extensions
- Can persist per customer requirements

Does Finn AI support APIs?

Yes, Finn AI can link to most APIs. This is necessary when our customer is enabling specific features that require different types of access. For example:

- Core read and write access for money movement (transactional)
- Data aggregator for account balances, categorization, etc.
- Action-based personal financial management capabilities (financial wellness)

Which channels / platforms are supported by Finn AI?

We have built Finn AI to support the existing channels that your customers already use – such as Facebook, Twitter, WhatsApp, etc., as well as new ones as they come online.

How long does it take to implement Finn AI?

Implementation times are dependent on the feature set that is being deployed, so this can range from 3 months (unauthenticated access for things like frequently asked questions), to up to a year (significant and broad interactive capabilities). Another factor is the customer's existing infrastructure which may require additional support.

Is Finn AI available in other languages?

Yes, we have successfully deployed Finn AI in multiple languages including Spanish and French. Most languages can be supported with sufficient seed data and model training on the front end. We understand the importance of regional nuances and incorporate native speakers and local testers to ensure the customer experience reflects the vernacular and unique requirements of the region.

How is Finn AI prepared for deployment and how does it stay up-to-date?

Finn AI is constantly learning and in training.

Pre-deployment includes question and answer sets that we obtain from our customers. In support of a faster time to market, we only require information and questions that are unique to the customer, such as product names, fees, branch and ATM locations, etc.

We provide the bulk of this information by leveraging over 500,000 utterances we've already built and have residing in the Finn AI Conversational Banking Database. This existing store expedites the process significantly for our customers.

During post-deployment, our team of Data Scientists regularly reviews questions received by banking customers, allowing them to identify opportunities to add new content. This is a never-ending, progressive process that ensures Finn AI is always aligned with the language and the needs of the bank customers.

What happens if Finn AI is unable to help a bank customer?

Finn AI has been built to integrate easily with human customer care representatives (CCR) from the bank. We call this "Pass to a Human". In a scenario where Finn AI is unable to answer a question, it is routed to the CCR who can pick up where Finn AI left off. We even provide the CCR with a record of the interaction between Finn AI and the bank customer so they can initiate a faster time to resolution.

The outcome is beneficial to the bank customer and to Finn AI. Leveraging our Machine Learning models and algorithms, Finn AI learns from the experience and refines future responses in similar scenarios to improve accuracy.

Can the Finn AI experience be customized to reflect the bank brand?

Yes, Finn AI is a white-label technology that is fully customizable to support the brand and visual requirements of any customer.