LOOP Q: KEY DIFFERENTIATORS

Our cognitive computing platform independently interprets natural language. It reasons and extracts the meanings, concepts, and their relationships contained in small or large datasets.

Loop Q is an unsupervised artificial intelligence platform that allows organizations to capitalize on the power and potential of their dark data. This unstructured digital information they are holding is "dark" or incomprehensible to computers, this means that organizations do not have the ability to know what's in it or understand it without the expertise of a human employee.

Key Differentiators

Unsupervised Learning

Loop Q uses proprietary algorithms based on deep learning and classical symbolic reasoning, which together learn the underlying structure of language and workflows from unlabeled data with no human guidance and without requiring expensive and time-intensive human-generated labels. (To learn more about Unsupervised Learning check out our Machine Learning Primer).

No Configuration Required

Q understands unstructured data and creates a model from scratch without requiring pre-defined dictionaries, hard-wired parsing, or extra programming. It does not require any prior knowledge of words, sentences, or the syntactic structure of the language(s) being used within the ingested data.

Domain Specific Learning and Reasoning

The platform performs deep understanding of data across any specific data domain. The domain boundary and the depth of semantic understanding are self-defined by the knowledge contained within the dataset that is ingested during the unsupervised learning phase. The output of the learning phase is a unique model exclusive to the data domain (no industry models), we call this a Loop Cortex. Loop Q reasons on the Loop Cortex, this understanding is the foundation for the cognitively-enabled applications, like Cognitive Robotic Process Automation (Cognitive RPA), that are built on top of Loop Q.

Works in any Language

Loop Q understands human language—including rapidly-evolving writing or wording conventions, slang or jargon, and enterprise-specific lingo—directly from the ingested data. Loop Q learns its insights without translation, or the pre-programming of language rules and dictionaries, learning the language(s) as a human native speaker. An immediate advantage of our proprietary dictionary-free technology is its applicability to comprehend any language, including Chinese, Italian, Japanese, Spanish, Korean, Arabic, and more. The platform can also understand languages used by machines in their interactive communication, such as IoT and sensor data (fog computing).

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Key Differentiators (continued)

No Need for Spellcheck
Text generated by humans can be plagued with different spellings, whether typos (e.g. freindly for friendly), misspellings, or cultural differences in spelling conventions (e.g. behavior vs behaviour). Loop Q automatically understands the misspellings in the ingested data without needing any explicit spelling correction algorithms. In fact, the inclusion of such errors in the data increases the human-capacity understanding of the domain by Loop Q.

Automatic Concept Discovery and Understanding
Broad-coverage lexical resources (e.g., Wikipedia) can be extremely useful for natural language understanding. Although they often contain a great amount of detail, they rarely capture the deep nuances of each organization's conceptual world or the domain-specific meanings of the words and phrases used in an organization's corporate culture. Loop Q automatically discovers all the domain-specific concepts and their relationships in the ingested data.

Ready-to-use Structured Output
A Loop Cortex is a ready-to-use model of all the unique concepts and their relationships autonomously discovered in small or large datasets by Loop Q. This model is the knowledge foundation that powers the organizations cognitively-enabled applications.

Ready-to-use Structured Output

A Loop Cortex is the knowledge foundation that powers the organizations cognitively-enabled applications. The Cortex enables the conversion of unstructured text into ready-to-use structed output. As new data becomes available, the Loop Cortex automatically and autonomously updates to ensure that the most relevant information is always included within the model.

Deployment Model

On-premise: An on-premise agile platform that allows you to keep your sensitive data within the enterprise perimeter for easy, secure, and compliant deployment while handling deep semantic understanding at scale. Loop Q is offered as an on-premise dedicated GPU-powered hardware and softwares physical appliance.

Cloud: For cloud deployment, the Loop Q appliance is deployed in a secure datacenter, accessible via API.

Embedded: We have engineered a light-weight deployment of the proprietary algorithms of Loop Q. It performs real-time complex analytics at the edge of the network. The embedded version can be deployed at the chip layer, operating system layer, or application layer on IoT devices, smartphones, robots, and connected cars. Contact us to learn more about the embedded deployment model.