Best Practices for Intelligent Search

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Scott Parker has a deep history in the enterprise software business helping organizations to succeed by becoming Information-Driven. He was a founding member of the IBM Watson Group where his team engaged clients to explore the art of the possible around augmenting human intelligence in all areas of the enterprise. Scott joined Sinequa at the beginning of 2017 where he works relentlessly to make sure stakeholders across knowledge-intensive industries understand the real and potential benefits of becoming Information-Driven.

Sinequa provides an AI-powered search & analytics platform that enables organizations to become information-driven. This means having actionable information presented in context to surface insights, inform decisions, and elevate productivity, consistently and reliably. Our platform consists of packaged technology that allows this to happen quickly and without sacrificing context or quality as typically happens with "lossy" approaches involving data migration.

Let's explore some of the best practices for becoming information-driven using intelligent search by leveraging the experience Sinequa has gained working with large customers within knowledge-intensive industries.

Pursue Ubiquitous Connectivity

An intelligent search solution should be able to find answers, information and

insights wherever they might reside. In any significantly sized organization, this requires a broad portfolio of connectors and convertors to support ingesting and processing content and data from a diversity of repositories and business applications. With all of this content and data being ingested and updated on a regular basis, the resultant index can be optimized to connect information along topical lines.

Connecting information along topical lines across all repositories allows information-driven organizations to surface the collective expertise of the organization and make it transparent. This is especially valuable in large organizations that are geographically distributed. By connecting people with expertise, the overall responsiveness of the organization increases. This means everywhere, from the folks driving innovation in Research & Development, to the Service and Support folks helping customers, to the Marketing & Sales folks

bringing in new business. The results can be spectacular. Time to proficiency decreases as new employees, and even existing employees learning new skills, have ready access to the expertise needed to take things to the next level.

Automate Interpretation of Meaning

A key to connecting information and surfacing meaning is linguistic processing, which performs a number of important functions, including:

◆ Automated language detection
◆ Lexical analysis (part of speech tagging, compound word detection) and syntactical analysis (disambiguation, lemmatization of nouns, verbs, adjectives)
◆ Automatic extraction of dozens of entity types, including Concepts and Named Entities like people, places, companies, etc.
◆ Text mining agents integrated into the indexing engine that detect regular expressions and/or complex "shapes" that describe the likely meaning of specific terms and phrases and then normalize them for use across the enterprise.

Be Open to External Innovation

In the context of becoming information-driven, an open platform means customers can leverage their own vocabularies, ontologies and taxonomies in order to accelerate deployments. They can also leverage specialized ontologies from third parties, which can be used during ingestion to enrich documents as well as at query time to enhance the user experience.

Invest in Self-Learning

As we know, Machine Learning (ML) is becoming increasingly critical to enhance and

improve the relevance of information provided to end users. This is done during ingestion but also constantly in the background as humans interact with the system. The reason ML has become essential in recent years is that it can handle complexity beyond what's possible with rules. ML helps organizations become information-driven by:

◆ Analyzing and structuring content to both enrich and extract concepts such as entities and relationships, which can subsequently be used for further enrichment and human navigation
◆ Modifying results through usage, essentially incorporating human behavior into the calculation of relevance
◆ Providing recommendations based on both what is in the content (content-based) and by examining users' interactions (collaborative filtering).

Align Solution with End User Goals

Most organizations striving to be information-driven want to end up with an intelligent agent that employees can consult for institutional knowledge that can be readily applied to the task or situation at hand. However, even the most intelligent of agents will not be useful without a well-designed user experience. So, what is good design? At Sinequa, we know that good design is aesthetically pleasing and understandable in that it makes use of the user's intuition. We also know that good design is unobtrusive and perhaps most importantly, that good design is contextual to the user's goals.

Conclusion

These are some of the best practices for becoming information-driven using AI-powered search, which Sinequa has observed while building our platform and working with large customers within knowledge-intensive industries. At Sinequa, we believe these practices, intelligently applied, serve as the primary enablers for organizations seeking to become information-driven. ∎

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