

An Automated Editor Guides People To Best Practices

ML-powered guidance helps craft clear rules for data management



ABOUT SYNITI | Data Migration That Boosts Data Value

Syniti helps large organizations migrate data into new systems. Formerly known as BackOffice Associates, the company's 2019 change to Syniti signifies that data is now important to every executive.

For clients, Syniti's value goes beyond the act of data migration itself. "There's a lot of companies that can move ones and zeros," says Tyler Warden, VP Product Management. "Our differentiated value to the market is that it's hard to know what ones and zeroes to move, what those ones and zeroes mean, and why they should be moved."

Syniti helps companies capture the underlying philosophies, decisions, and rules about data that arise during migration, and then stores that information in the cloud. That knowledge allows people within the business and technical teams to spend less time finding and cleansing data, and more time doing analysis and making decisions. "The value proposition is that by subscribing to our cloud, all of the data activities at that organization run 20-70% faster because of the knowledge that's captured and re-used."

CHALLENGE | Writing Migration Rules Efficiently

During a data migration, there are rules for data formatting, values, relevance, readiness and many other business and technical requirements. A simple rule could be that every employee needs a first and last name, or that a value must be greater than zero. In practice, rules can be more complex, and vary with each customer.

Rules are often represented in code and technical requirements. Then, users turn that code into natural language that others can follow. It's an extremely intensive job to extract these rules, describe them in documents, and eventually implement them in data activities during and beyond migration.

Syniti wants to use machine learning to help guide people to the best practices of business vocabulary and business rule creation. Success means Syniti's customers will be able to execute these data management initiatives much more efficiently and at scale. Ultimately, with enough analysis, some rule creation could even be automated, and best practices could be further packaged as another accelerant to data initiatives.

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**Tyler Warden,
VP Product
Management**

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PARTNERSHIP | A “Clear Path” Toward “Concrete Differentiation”

Syniti partnered with Infinia ML, a team of machine learning experts that used logistic regression to determine the importance of rules as well as an ML-based code for tagging parts of speech.

“When we think about parsing, natural language, ranking, and semantics, these are all in the machine learning space,” says Warden. “We knew we needed some research by experts. We also wanted to get expertise outside of our engineering organization. I had high expectations for the team, and they exceeded them.”

“Infinia ML brought mathematical rigor and strong thinking about practical techniques, setting the stage for more machine learning in the future. They really took ownership of the problem.”

The initial result was a user guidance system that flags errors and prompts people to improve based on the best practices of rule creation and Syniti’s experience. The results “went over very well with the stakeholders on our side,” says Warden. “We see a very clear path on where this would end up in our product. This feature would be very concrete differentiation that nobody else in the space has.”

OUTCOME | Turning “Magic” Into Reality

In fact, the technology worked so well that one stakeholder doubted it was real, recounts Warden, “In a way I think that disbelief is good,” he says. “To quote Arthur C. Clarke, ‘Any sufficiently advanced technology is indistinguishable from magic.’”

The next step is to move the technology into production in the real world.

“We’ve got to turn the code into a microservice we can support, get it into our stack, do code reviews, test it, put a UI on it,” says Warden.

He hopes to get the tool into production as a beta feature first, allowing users to turn suggestions on and off. From there, the tool could be strengthened after feedback and become more widely used in production.

In the long term, the goal is to transform human-written statements into crisply-written rules automatically. But Warden is clear: “The vision is not about replacing people. This is about augmenting them with as much guidance and help as possible.”

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