Analysis

Transform Tribal Knowledge with Intelligent Automation-Driven AI

Part 3 of the Intellyx Intelligent Automation Series, for Krista Software

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Of all categories of technology, artificial intelligence (AI) has to be the most elusive to apply for productive work.

No technology vendor wants to leave AI out of their solution offering, so claims of AI could represent anything from an autonomous black-box expert intelligence (if you believe it) to a few algorithms that process choices from clearly defined alternatives (which is really just basic software logic). Neither end of that spectrum is particularly useful today.

Let's take AI down to its core value proposition. It should be able to take in training data through some form of machine learning and make decisions so that actions can be taken at an appropriate speed or scale to achieve intended outcomes.

Tribal knowledge gets in the way of AI relevance

AI in practical use today tends to focus on doing one discrete task really well, and really quickly. AIOps helps IT Ops teams filter massive streams of system logs and alerts to find significance. An AI cybersecurity detection routine could spot unusual user behavior on a network in near real-time.

Once we go beyond these specialized forms of AI that have already proven productive within the IT realm, enterprises still struggle with adoption of AI for more multi-functional business use cases.

You could get paranoid and attribute some part of an organization's resistance to AI to a cultural dislike for our future android overlords, or a concern about replacing workers, and the like.

Given that businesses are constantly required to deliver more productivity with fewer employees, and pivot faster due to competitive forces and a flood of incoming information, we want to look at AI as something that helps us to do our jobs better.

Most organizations, as well as the people within them, would appreciate more assistance from AI, but they never get started. So why can't we make this happen?

Tribal knowledge seems to trump the potential benefits of further AI adoption every time.

Institutional inertia: the way things have always been done

As an organization grows, it doesn't just hire more people and pay for more infrastructure. It also bulks up with increasingly complex processes for getting work done. As more people, processes and technology are accreted, they inevitably make pivoting the organization harder, as interrupting the status quo could be risky to ongoing business.

Every organization has that super admin, or program manager, or chief of staff who has 'tribal knowledge.' They've been around a long time, and always know who to talk to and what to do to get procedures done.
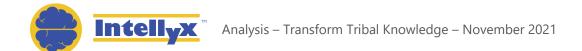
I've worked at a few enterprise software startups that grew into mid-size companies. By the time the company has more than 10 salespeople on staff, it will certainly also need some kind of Customer Fulfillment or SalesOps role on board. Let's call her Jess.

Jess needs to issue the licenses to customers, and it's becoming a bottleneck. At the end of every quarter, salespeople are up at all hours trying to get Jess to fulfill this key requirement of last minute deals.

How could we accelerate this essential process with automation or AI, if Jess is the only way this business can function? Ostensibly, the sales guy should click a button in their CRM, and the system issues licenses to X number of people at this address.

But wait, there's a lot more tribal knowledge that needs to happen here that only Jess knows how to do…

- When a deal status is closed in Salesforce, make sure the regional sales manager, and their executive approves the deal, especially if the deal is a certain size or has custom requirements.

- Then check the customer PO from a few days ago to make sure the balance and ordered items matched the invoice.

- Look for signed orders and/or customer approvals in document repositories.

- Look in the ERP or accounting system to see if the order is pending, or if the payment or check has landed, depending on terms.

- Confirm the license agreements weren't changed with legal, and include all ordered products and negotiated conditions.

- Make sure the HR system is notified for sales credit and commissions.

- …. and many more steps before sending the keys, sending welcome emails, and confirming that customers got the software.

As you can see, the above process crosses several solution domains, each of which may or may not require communicating with a person or different system. There is not a binary yes/no for issuing the licenses. That means every possible step could contain exceptions or occur in a different order as well.

AI alone would require too much training data to consistently make the right decisions for this type of 'fuzzy logic' work.
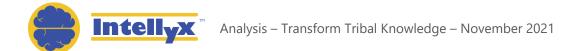
What is the risk of an automation system or AI just passing an order, and doing it wrong? Perhaps a discontented customer and losing a future sale. Or worse, a revenue recognition error that causes bigger problems at a future board meeting.

Intelligent automation for outcome orientation

Organizational procedures become calcified into institutional inertia. People get stuck in their ways of getting things done because retraining everyone would be too hard, and this allows the company to continue doing business as usual.

But there is a major risk here. *What happens if Jess goes on leave, or leaves the company?*

When tribal knowledge reaches its limits, companies seek to pick up the slack with more automation. Generations of automation tools (such as BPM, DPA or RPA) have become pretty good at completing tasks by integrating data across systems, but fail at successfully integrating people toward achieving outcomes.

Once all of the tasks that could be automated are automated, all of the steps that involve asking for an outcome, starting a process, or chasing down the right people at the right time become the most evident bottlenecks to productivity.
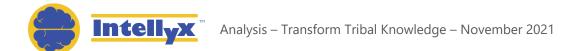
What if intelligent automation could align AI and systems with people to deliver on outcomes, instead of expecting people to align with the systems?

Horatius Group is a brokerage dealing with mergers & acquisitions transactions for founder-led companies within a very specific size and profile range. Their form of tribal knowledge would be a handful of individuals who 'know an appropriate deal when they see it.'

With thousands of new investment possibilities passing by daily, there is simply no way these experts could take a good look at each of them at scale, much less have MBAs churn through megabytes of data, financial statements and marketing materials to qualify enough relevant opportunities worth approaching.

In this use case, they ask a conversational IA system from Krista, which looks into multiple systems and launches all the right steps upon scanning opportunities in that unfiltered pipeline of companies, while informing machine learning selection processes by asking the right due diligence questions to find preferred profile characteristics.

Working together with conversational AI, IA assists Horatius Group with predictive pattern matching to increase the speed and accuracy of their selection process, presenting analysts with the 'needles in the haystack' of companies that are worthy of detailed human attention, with a far greater likelihood of achieving mutually beneficial investment outcomes.

The Intellyx Take

Digital transformation is essentially the retirement of tribal knowledge and manual processes — in favor of digitalization of every aspect of the organization around technology that meets customer needs and realizes positive business outcomes at modern scale.

To succeed in this transformation, technology needs to keep humans in the loop, and humans need to inform technology with the latest thinking.

AI working in tandem with intelligent automation can align humans, tasks and data around achieving positive outcomes for companies and people.