

AI Agents are Rewriting the Future of Banking Data, Says Smartstream

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Intelligent semi-autonomous AI agents promise a powerful solution to many challenges with the financial space. But their need for good-quality data is also highlighting the shortcomings that remain within some institutions' data architectures.

This apparent chicken-and-egg situation is one that Thomas Steinborn, chief product and technology officer at Smartstream, believes can only be resolved by going back to the basics of data management.

"There still is a lot of 'human in the loop' in the sense of actually getting to the data in the first place," he told Data Management Insight. "The world will very, very soon be changed by AI agents, and this is a massive shift in terms of how the industry would look at the problem.

Artificial intelligence may be transforming data processing for financial institutions but AI's tendency to hallucinate with a potential to make misinformed or wrong decisions is highlighting the fundamental need to combine tried and trusted data management strategies deployed at financial institutions with guard-railed agentic reasoning to get the benefits of both worlds.

Useful to a Degree

AI agents promise to automate mundane tasks, freeing up human capital, but that is as far as they can go at the moment, Steinborn said.

"What it doesn't do right away is give all the AI agents all the necessary semantic information," he said.

Agentic AI, he argues, cannot fully discern the meaning of data. A data contract is essentially a digital handshake that defines the structure and quality of data before an agent processes it.

The problem is compounded by inherent data quality issues and semantic drift over time. Agents can't identify semantic changes, such as when data aggregation rules or definitions are adjusted from one year to the next.

Agents also have their limited knowledge of data contracts, which include critical elements like service level agreements (SLAs), data freshness, and time zones. Without this, an agent might make decisions based on yesterday's data or incomplete information, leading to reconciliation errors if settlements are missing or data is not fresh.

Agents to the Rescue

Agentic AI is, however, proving invaluable in other aspects and can be expected to adapt to its shortcomings.

A blindspot that agentic AI is able to solve is the transfer of operational knowledge between generations of workforces. Organisations have traditionally relied on acquired knowledge being passed on in a form of ongoing succession that is rarely codified. The difficulty comes when experienced operatives leave suddenly without having educated replacements or when talent can't be found to replace them – a labour-market challenge that has beset the industry for many years.

In that situation, locking knowledge into the minds of people is an impediment to automation and innovation.

However, by letting AI agents monitor workers as they conduct their business each day, they can institutionalise this knowledge and enable access to it from all over the enterprise.

"We can actually shift this conversation because ultimately if you go and observe what the people are doing with the systems that they're interacting with over time you're actually learning the process," he said. "Let the agent be more of an assistant...because in the same way institutionalised knowledge today is in people's heads, the definition of institutionalised knowledge tomorrow is living in a well-defined agent specification."

Freeing the Communication Space

The integration of AI agents is also set to dismantle another long-standing issue: workflow stagnation. In complex banking operations, processes often become bloated with communication overhead, as Steinborn described it.

Any increase in communication stifles agility and efficiency, he said. However, with AI agents handling most of the workflow, radically simplifying and streamlining processes that were initially designed for human scalability.

While the challenges are formidable, Steinborn is optimistic about the pace of change. Smartstream already offers AI-led automation solutions but is also developing agentic capabilities that will possess the semantic information that they need to know the meaning of any data point. It is also working on agents that understand data contracts.

"I fully expect that this year we're going to see adoption and deployment going to the 20 per cent to 30 per cent range," he said. "And then in 2027, I expect the agents will become mainstream, so more than 50 per cent of organisations will be using agents."