

Leading an Invisible Accounting Revolution

How Sage is transforming accountancy through technology

Summary

Catalyst

Modern trends in technology are impacting every sphere of activity, not least in accountancy. The accountancy world, which is sometimes perceived as having ticked the "done" checkbox, is – in reality – undergoing a transformation as deep as in any other sector. Artificial intelligence (AI), along with its sub-branches of machine learning and deep learning, is impacting end-user interaction with accounting systems via conversational and voice bots. Meanwhile, on the back end, the use of automation for processing massive amounts of data is an ideal task for AI technology. Cloud is the root technology behind the transformation taking place, and while moving accounting systems to the cloud is commonplace, the new opportunity is in opening up of service APIs to provide targeted (i.e. personalized) accounting solutions which can be customized, for example, to deal with particular regulatory and compliance environments and the particular needs of various geographies. Ultimately, accounting, payments, payroll, and HCM software is evolving to minimize interactions with end users. This is being driven by automation behind the scenes and automated data flow between these systems, removing the need for manual entry of information.

Tied to these technologies are two associated technologies: blockchain and the Internet of Things (IoT). Blockchain technology is still at an early stage, but it promises to transform how frictionless processes can take place, so that money transfers, for example, can flow in an automated manner while being auditable and compliant. The IoT is transforming logistics by providing an opportunity to track goods across the supply chain and connect to an accounting hub, in order to offer superior efficiencies and lower costs. The ultimate goal of real-time accounting that can also be used to predict finance requirements begins to be possible and ties in with two other trends: continuous budgeting and agile accounting. Ultimately invisible accounting is feasible by leveraging these technologies in combination.

Sage is at the forefront of bringing such technology to its target SME market. This report provides an overview of how these technology trends are impacting accountancy and explains how Sage is exploiting these trends. This report will be followed up with a full white paper exploring these trends in greater depth.

Ovum view

The movement away from seeing technology as a supporting activity is challenging the view of management guru Michael E. Porter (*Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, 1985) and his description of the value chain within an organization. Whereas the value chain is still valid in its concept, the role of technology has entered what Porter terms "primary activities" and is, therefore, moving away from a clearly delineated supporting function that can be isolated and marginalized, toward becoming an intrinsic part of the fabric of the organization. This transformation and integration is happening in discrete functions within organizations. Accounting, or finance, can change its relationship within organizations by a) becoming an exemplar of innovation through its use of technology, and b) through its ease of use, and fast and responsive services, facilitating the needs of the modern organization (e.g. embracing continuous accounting in agile service and product development).

Going beyond cloud computing, which is now a given starting point for many organizations, the use of AI and other innovations lead to Sage's vision for invisible accounting: a seamless and automated

accounting process. This will lead to an era where fast and responsive accounting is possible, by allowing continuous budgeting in agile product development, for example. This makes modern accounting a differentiator and key facilitator in successful SMEs.

Key messages

- AI/machine learning offers automation in new areas, improving accuracy, scalability, and efficiency, all at lower costs.
- Cloud computing is now pervasive, but we are entering a key inflection point for SMEs.
- The conversational user interface (i.e. voice and messaging) is creating a new, invisible era for accounting.
- The IoT represents the prospect of real-time accounting.
- Blockchain technology promises to lead to frictionless supply chain movements.

Sage's invisible accountancy and continuous accountancy begin to be feasible by leveraging the latest technologies.

Intelligent accounting: The role of AI and bots

Intelligent digital assistants are transforming accounting system user interfaces

AI technology is bringing intelligence to bots. The latest generation of assistants can understand conversation threads, have multiple users, and undertake multistep tasks while being contextually aware. Conversational interfaces made possible with the latest AI technology (e.g. deep learning) allow for easy data entry and fast processing.

The consumerization of messaging apps such as Facebook Messenger, Slack, and WeChat, and voice interfaces such as Amazon Alexa and Google Home has made consumers comfortable and familiar with the convenience of the conversational interface. Enterprise workflows can build on this interface to provide complete automation and interaction via each user's favorite channels.

Sage is leading this paradigm shift by launching the world's first conversational bot, Pegg, with more than 20,000 new-to-Sage users. Pegg is now being integrated into existing Sage products such as Sage One, 50, and 200.

Back-end systems can be swiftly processed in real time using a combination of big data and machine learning technologies to support the conversational interface, enabling minimal interactions with end users. Furthermore, the rise of freelancers highlights the need for consumer-like user experiences for business technology as well – the use of personal smartphones at work has proven to be a good example of how consumer technology has outpaced business systems.

Sage is challenging the stereotypical notion of female assistants and gender-biased machine learning through the creation of relevant, ethically sound, and diverse AI. These recent developments in AI will be developed into further automation and AI-driven decision making and applications of computer vision.

Cloud will be the innovation platform through its development of market-specific ecosystems

The cloud computing market has reached a maturity position where it is now not seen as the disruptor, but also as the incumbent technology to be challenged. In 2017, it will be a mixed year for cloud computing as it continues to address business challenges with new solutions and services. However, this picture differs by region and market segment; for example, the SME sector in EMEA reports that the biggest workloads currently in the cloud are email and office productivity, according to 61% and 59% of respondents, respectively (see Ovum's ICT Enterprise Insights 2016/17 – Global: IoT and Cloud survey). The lowest adopted workloads are commercial applications such as ERP and accounting systems, with 30% reporting using those in the cloud today, and 34% stating plans to adopt them within the next 24 months. Sage, with Sage Live and Sage One, has recognized this move and has positioned itself as central to the development of accounting-specific ecosystems and their move to the cloud.

The IoT represents the prospect of real-time accounting

Moving accounting from a historical business indicator to a predictor of business performance

Ovum's ICT Enterprise Insights 2016/17 – Global: IoT and Cloud survey found that the top two drivers for organizations adopting the IoT are improving customer experience and engagement (27% of respondents) and improving operational efficiency (26% of respondents). One of the key challenges for the accounting industry is to reduce the friction of administration tasks and one approach is to connect the financial data to the physical environment, which is exactly what the IoT enables. Ovum considers that once these two separate worlds are connected, a multitude of opportunities will be exposed, enabling accountants to develop ways of accelerating the adoption of new business models. This ability, however, is not restricted to a single vendor, as those with an extensive ecosystem of partners and technologies will be best placed to accelerate this transformation. Sage has been active in this market with Sage Marketplace. A recent example of connecting financial data and the physical world is the Sage–TomTom collaboration to deliver real-time accounting for companies with fleets of vehicles. This collaboration uses both cloud technology and connected vehicle technology to drive cost savings for customers and it allows the organizations to create a more modern and responsive accounting environment.

Blockchain will lead to the proliferation of alternative financial models

Distributed ledger technology opens new automation possibilities for bookkeeping

Blockchain – more correctly, distributed ledger technology (DLT) – has already moved beyond the proof-of-concept stage in some areas of financial services (particularly in the post-trade processing of

securities transactions and banks' internal audit processes), but the biggest impacts on P2P and B2B are still on the horizon.

Financial infrastructures such as exchanges and clearing houses have been able to move rapidly to adopt the technology because they consist of a relatively small number of entities carrying out closely defined transactions in a highly regulated environment. The benefits are largely through the simplification of processes, the adoption of mutual standardized workflows, and the elimination of intermediaries.

Coupled with the international adoption of real-time payments and IoT-generated transactions, this is likely to have two effects: cheaper, faster, and fully audited real-time versions of existing payment mechanisms (e.g. card networks and cross-border bank transfers) and a proliferation of alternative models in areas such as trade finance, where "smart contract" implementations of DLT promise to replace existing paper-based mechanisms.

The biggest limiting factor will be the absence of appropriate international regulation and working practices. One of the myths about blockchain-derived ledger technology is that it is somehow already audited. This is not true because the mechanisms validate the transaction and ensure that all parties have the same copy of the record, but this simply removes the ledger entry and reconciliation of the bookkeeping process (as will open banking APIs for non-blockchain ledgers). Accountants and auditors will still need to ensure that local tax and other regulations are being applied and that they are advising their clients appropriately.

Appendix

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We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum's consulting team may be able to help you. For more information about Ovum's consulting capabilities, please contact us directly at consulting@ovum.com.

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