



Human-centred automation

A must for firms in the financial sector

Shane Reid

In a world of increased automation and advanced technologies, it can be hard to keep up. While automation promises lower costs and higher productivity,¹ the idea of fully automating critically important processes might be a step too far for a financial services firm.

It is one thing for algorithms and machines to capture and analyse data. It is another for nuanced decisions and complex problems to be handled without human intervention. For finance businesses handling large amounts of critical data, automation alone may not deliver the level of assurance or service clients have come to expect.

This is where human-centred automation comes in.

What is human-centred automation?

In 1996, Christine M. Mitchell [an academic at the Georgia Institute of Technology's Center for Human-Machine Research] described human-centred automation as:

*"... automation whose purpose is not necessarily to automate previously manual functions (i.e., gear shifting), but rather to enhance user effectiveness and reduce error."*²

Automation is a vital tool in helping humans undertake more important work, but that does not mean taking staff out of the equation altogether. Human-centred automation harnesses machine learning to improve processes while making people a central part of the design and execution of automated processes.³

By streamlining certain processes, such as data capture and verification, human-centred automation frees staff from manual tasks. This gives them the opportunity to use their full skillset to take on higher-value work, such as exception handling and process improvement.

It also provides finance businesses more scope to automate manual processes without compromising quality, compliance or service.

Human-centred automation through the finance lens

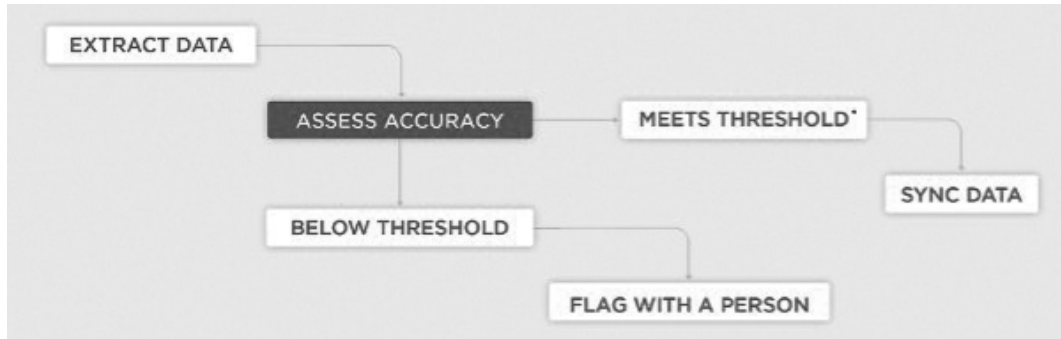
It is no secret that unorganised data and information flow pose a serious risk to business productivity.⁴ Outdated administrative procedures, manual data entry and unnecessary document searches take up valuable resources. This prolongs routine processes and slows overall business responsiveness.

A human-centred approach to automation combines machine learning with human supervision to deliver a more intelligent approach to automation.⁵ By streamlining document capture and verification, employees are freed from unnecessary manual tasks and available to manage more complex work.

The origins: robotic process automation

Robotic process automation (RPA) is not new. It is used to create rules-based scripts where 'bots' perform repetition-based specific tasks, with well-defined, structured inputs and specific rules. However, RPA is rigid and can only perform what it has been pro-

Figure 1. Thresholds and the scope for human intervention



Source: Umlaut

grammed to do. Thus, it may not offer sufficient flexibility nor the scope for customisation to account for the often-complex ‘grey areas’ of a business’s operations.⁶

Intelligent automation: filling the gaps

Intelligent automation supplements artificial intelligence, machine learning and rules-based automation technologies to ‘fill the gaps’ and automate more complex processes while achieving greater accuracy, a higher degree of reliability, fluidity and lower tech debt. It goes beyond using a single bot for specific tasks—often one a result of legacy systems and technology—to help handle increasingly complex processes.⁷

Importantly, this “digital assembly line” divides work between people and machines based on their relative strengths and what the task requires. Moreover, future variations or changes can be incorporated in an agile manner, without impeding existing processes or adding to costs, or creating complexities for operational or tech teams.⁸

As an example, take mortgage pre-processing. With machine learning, application and supporting documents can be automatically classified and captured to minimise manual data entry and verification. This more accurate information can be used by mortgage specialists to make faster and more informed decisions, building their business and improving the client experience.

A human-centred approach to automation can unlock improved operational agility, increase job satisfaction and deliver an enhanced client experience.⁹ In an increasingly competitive world, adopting human-centred automation could be the difference between a financial services firm thriving or failing.

Figure 1 shows how human intervention can be brought into play in accordance with certain data thresholds being met or not.

Advantages of human-centred automation

Combining machine learning and human functionality, human-centred automation can reduce or eliminate resource-intensive manual processes.

As an illustration, by harnessing a solution like Umlaut’s Hyperscience, firms in the financial services sector can automate document capture to increase data accuracy and reduce human error. With exceptions routed to approved staff, employees are free to take on high-value work without the unending repetitiveness of manual data entry. The ‘neural networks’ of such software is designed to do everything a human can; just faster, and more accurately.

To elaborate, such technology:

- negates the need to sift through multiple pages to extract desired data points
- applies powerful machine learning tools that ignore unnecessary fields and descriptions, to provide only the data needed, without any distractions
- uses a firm’s entire document library to pull metrics on any area of the business, allowing identification of strengths, weaknesses, and opportunities for development
- enables collection of information quickly, easily, and with a much higher degree of accuracy without wasted hours involving people
- allows information to be extracted from virtually any document format including handwritten pages, emails, faxes, PDFs, images, invoices, and forms—even if documents are handwritten or in poor condition, such software can identify and pull out the information needed
- sets limits for what users want the technology to do, and the degree of staff input
- runs consistent quality assurance checks on both the software and human processes to ensure optimum efficiency and compliance.
- includes the capacity to customise processes to meld with existing procedures, configure accuracy thresholds, automatically alert team members when action is needed, and manage quality assurance capabilities with confidence.

Increase job satisfaction

Reducing or eliminating manual processes opens up new opportunities for teams.¹⁰ Instead of wasting time on repetitive tasks and inefficient processes, they can go back to serving clients and doing work that matters. Human-centred automation helps reduce backlogs and stress lev-



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The quote

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els, enables more meaningful customer interactions, and helps staff utilise their full skillset and lend their expertise to ongoing process improvements.

Improve data accuracy

Humans tend to make mistakes during repetitive tasks which machine learning can eliminate. Meanwhile, exception management is best left to human operators with the ability to make nuanced decisions. By working together, machines and humans can more accurately and quickly capture data. Where there is a need to interrogate data, staff can jump in and quickly resolve any exceptions to ensure ongoing data quality.¹¹

Enhance client experience

Using human-centred automation, organisations can streamline operations, improve customer service and drive better human outcomes. By reducing errors and speeding up document processing, staff can be freed up from manual tasks so as to focus on providing next-level service to clients.

Benefits of human-centred automation

Insurance

A human-centred automation tool like Hyperscience can help an insurance firm reduce costs, mitigate loss risks and stay competitive. By quickly and accurately parsing [software that converts/builds input data (often text) into a data structure] unstructured document formats, it is possible to speed up claims processing to better serve clients when they need it most. Automatically classifying and extracting critical information from handwritten forms helps when making time-critical decisions. Meanwhile, automatically validating submitted information against master data makes it easier to send a claim for approval or further review.

Mortgages

Human-centred automation can help manage rising client expectations by automating the mortgage application process. Its applications include controlling costs, streamlining operations and offering an improved experience by eliminating manual processing while still maintaining high-quality control.

To illustrate, Hyperscience converts semi-structured and unstructured document formats into actionable data to drive faster, more reliable decisions. Thus, it is possible to seamlessly integrate data with business processes and workflow systems so critical information is available for review at every stage of the process to expedite pre-approvals.

Summary

Intelligent automation represents a strategic shift regarding how organisations respond to clients' needs while remaining competitive. Moreover, it enables the ability to automate increasingly complex financial services processes, from input to actionable data, without com-

promising on accuracy or client service. Human-centred automation speeds up document processing, improving the accuracy and timeliness of data and decisions and allowing more resources to focus on customers and enhance their overall experience.

With fewer manual tasks and administration processes, it is easier to win over new clients with superior attentive service, while harnessing high-accuracy data extraction to mine data for further analysis and action. **FS**

Notes

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