

AI - The Next Frontier For Tax, HR And Global Mobility

Artificial intelligence (“AI”) is embedded in so much of our home and work lives that it’s hard to avoid the conclusion that it is now a fundamental part of the fabric of our society. An amazing feat really given its relative immaturity as a weapon of revolution. Much of it imperceptible, and therefore frequently goes unnoticed, and yet we engage with AI knowingly, but also often unknowingly, as we go about our daily lives. With our smart phones, we are continuingly training a machine to understand our buying habits and areas of interest which has had a profound impact on commerce.

For businesses, using AI to drive a strategic agenda has become an increasing area of focus, resulting in greater levels of investment in an innovation agenda of some description, with AI usually at its heart. Bold statements are typically made about an organisation’s need to become AI-fuelled and data-driven. Chief Data Officers are being appointed as a statement of genuine intent to deliver a programme of change where data is viewed as a core asset, harvested to drive efficiencies, growth and competitiveness.

There are challenges though, and some are significant. Surveys report a degree of frustration at the pace of change or the business impact achieved. This can sometimes erode confidence and belief, as the arrival of the promised return on investment stretches further into the future. However, it doesn’t currently appear that this is materially dampening a spirit of adventure, with investment levels holding. Instead what

we are seeing is greater realism as to the extent and pace in which AI can become foundational technology in the near term.

The question increasingly becomes less about whether AI should be considered as a strategic option, but rather how significant a part AI will play in any given area of business and the appropriate levels of investment in it. This question is perhaps harder to answer for more traditional corporate support and compliance functions such as tax, HR and global mobility, where a perceived lack of direct ‘market impact’ often restricts investment in more experimental areas.

Breaking Down AI Capability

In better understanding AI, and considering the appropriate use of it, it should be remembered that AI is an umbrella description for an ensemble of tools and techniques that can perform tasks historically undertaken by humans. In tax and



MACHINE VISION

Machine Vision is used to extract and process data from a variety of sources and is being increasingly used to help convert unstructured data into a structure that facilitates data analysis and Machine Learning. Data sources might be invoices or financial reports in PDF or other text-based documents. Optical Character Recognition (“OCR”) is the underlying technology used and, when combined with Machine Learning techniques, it can enhance or enlarge a dataset. It should be viewed as a capability that adds value as it allows fragmented data in an organisation to be captured and harvested.



MACHINE INTELLIGENCE

Machine Intelligence is an area of AI which is beginning to gain traction in tax (and other technical areas) because of its ability to democratise subject matter expertise. In essence, the complex decision-making process performed by a domain expert can be captured in a sophisticated knowledge map that then enables a machine to guide the non-expert through what is typically an area of high technical complexity. This is an emerging technology in the area of tax law, principally because of the need to build trust and confidence in the machine’s ability to respond accurately to the inputs of the non-expert. As complexity increases and the professional is put under greater pressure, Machine Intelligence will step in to help bridge a growing resource gap. Building trust, transparency of process and decision making is pivotal in ensuring the optimal adoption.



MACHINE LEARNING

Machine Learning is the most common technique deployed within tax and HR and this is principally because of its classification and prediction abilities. For Machine Learning to be effective, it’s important to recognise the large appetite machines have for data. The machine learns by being fed examples of data previously classified and learns by finding patterns and features in the data that are influential in arriving at the classification given. It’s an iterative process, trial and error, but a learning process that can be performed at great speed and if the data quality is good, then high levels of accuracy can be achieved. Once that learning process has been completed, you have a Machine Learning model that can be deployed on new, previously unseen, data. If the nature of the data, year on year, is broadly similar, then model performance in terms of prediction accuracy should be very high and when combined with a robust human review methodology, a transformed process that embeds AI is born.

related domains, we have seen three core AI techniques emerge to help solve a number of challenges faced by professionals:

- Machine Vision
- Machine Intelligence
- Machine Learning.

Once there is understanding as to which areas of AI are appropriate, there is the need to engage fully in the model build process. This requires a collaboration between data scientists and those in the business that understand existing processes and have domain expertise. Getting the right balance between experts in data and the domain in question, as well as of tasks performed by humans and machines, underpinned by a methodical review process, has allowed businesses to participate in AI and achieve some quick wins.

The Challenge And Opportunity For Key Corporate Functions

So, what is the challenge? Why can't AI's 'fairy dust' be freely scattered across an organisation to quickly deliver results? The answer isn't straightforward, but tends to narrow to data, expertise and perhaps most critically of all, culture ⁽¹⁾, areas which are not always easy to identify and address. This is why fatigue is commonly experienced after the proof of concept ("POC") stage. The POC is usually the first step in any AI project, where data is gathered and analysed to prove that the concept being explored is viable for reaching the anticipated goal. Successful POCs will often elevate expectations because they deliver impressive results that appear even more compelling when extrapolated into a real-world impact. However, issues of execution risk quickly surface and can be difficult to navigate, especially where there are multiple dependencies and those tasked with delivering a transformation agenda don't have full ownership, visibility and an explicit mandate to execute. The 'thrill' of early promise can quickly evaporate, as transformation leaders become challenged or even paralysed by internal forces that can be difficult to manoeuvre. Typical challenges that can inhibit AI impact include:

- A POC being scoped around good 'clean' data that doesn't necessarily reflect real world data sources
- Data sources can be fragmented because of legacy systems and processes that weren't constructed to be optimised for the application of AI
- Internal data science expertise necessary to develop and deploy AI solutions is typically in high demand and often focused on client facing initiatives
- If the AI play is too bold, disruption, cost and change management may become overwhelming which can contribute to paralysis; and
- On analysis, the business case for AI based transformation can appear to lack clarity of purpose and ROI.

It would be a mistake, however, to allow these challenges to halt advances in this area. What often happens is that these challenges lead to strategic tilting, with an agile and tactical approach surfacing as a more productive path. This means a focus on discrete use cases that offer a healthy balance of impact, managed cost and minimal disruption which can provide the key to unlocking what has become, in reality, a cultural challenge to become AI-fuelled. If it finds the right use case, the business can safely examine the role that AI can play. It acclimatises the business to change and helps to build confidence and a narrative that can be shared, fuelling momentum and leading to broader adoption. The downside is that this smaller scale innovation can feel incremental and organic, with no high-profile 'big bang'. That may well need to be a price worth paying, as a data-driven transformation strategy to deliver AI is a long-term process that requires patience and fortitude. Only then can AI become truly foundational and help alter an organisation's corporate DNA.

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What does this all mean for corporate support functions focused on compliance and people management? Well, the same principles apply, but there is significantly more to consider. Tax processes, for example,

can often be an extension of wider finance processes, and as such it can be difficult to isolate a purely tax-based AI use case, as there is generally some level of impact or dependency on core finance systems. That's typically where the data sits, and data is the 'oxygen' that fuels AI. For global workforces, this challenge is exacerbated further, where data on globally mobile employees often resides in a number of systems, ERP/talent systems for domestic purposes, as well as platforms geared around the mobility life cycle. Organisational support functions therefore need to work collaboratively with colleagues in departments such as finance, payroll and group HR; this is easier to achieve where there is a common purpose, and some level of mutual dependency.

Exploration Through AI

Corporate functions are becoming increasingly curious about the role of AI and this is often because of the pressure placed upon them to innovate (for innovation, read automation, as that's the area where most interest and use cases sit). Machine Learning is increasingly being explored as a means to reduce the manual effort typically involved in the analysis of data for downstream processing and decision making. Machines, correctly and diligently trained, are excellent at classifying data and can do so with great speed and increasingly, superhuman levels of accuracy. Advances in AI have been rapid over the last five years and this certainly helps with its democratisation. One area in particular has advanced incredibly quickly and that's Natural Language Processing ("NLP"). In essence, NLP is simply the process by which text is converted into numbers which can then be read by machines. Specifically, the advances have been in a machine's ability to understand context and with that comes a far wider playing field for AI which allows the promise of AI to be genuinely realised in new areas. In tax, for example, the need to understand the nature of income and expenditure so its tax treatment can be determined is an area where a significant amount of time is spent. Machines can become experts in this area of tax by learning how the relationship between income and expenditure is described and the associated tax treatment. You can easily extrapolate this capability for use cases in the area of globally mobile employees, where understanding and identifying the taxability and payroll treatment of assignment reward and benefit components in various jurisdictions can be a major challenge.

Given the amount of transactional data flowing through an organisation's finance systems that requires tax and payroll analysis, AI can play a proactive role in significantly reducing the manual effort in carrying out this analysis, whilst also improving accuracy

and reducing risk. As tax administrations move more purposely towards the digitalisation of tax, there will be an increasing need for AI to step in and support those focused on meeting these new compliance challenges. Those professionals who embrace AI and navigate the challenges they face with patience and focus should find they are better equipped to deal with the changing world ahead.

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Functions that started deploying Machine Learning to solve classification challenges are now exploring what else it can do. Teaching a machine to perform a specific task is one thing, but what else can a machine do when confronted with a large data set? Exploration is one such aspect and they explore in a way with which humans simply cannot compete. Machines can find patterns in data, make connections and perform clustering techniques to aid deeper analysis. What insights can be derived by examining expenditure patterns across the divisions of a large group? Does it reveal dysfunction in the procurement process or validate the need to implement one? From a talent perspective, how can AI be used to deliver insights on organisational culture, help with retention and shape a people and purpose agenda? AI is increasingly becoming a weapon to help tax, people and finance functions deliver greater value, especially when driving a far greater data-orientated strategy and being confident in deploying AI techniques. Clarity and transparency are, however, key and at the heart of good governance - over the data itself, in terms of where it is stored and how it is accessed and used. Businesses that are starting to experience operational gains within existing processes are reflecting and

considering more broadly how these could be re-engineered, how data sources could be amalgamated and optimised to facilitate even greater AI adoption.

Developing The Future Model

Currently the role of AI in tax and related service areas could be viewed as emerging rather than established, but there is no doubt that AI is going to play an increasingly important role in the future. Adoption may be slow to begin with, however, it will pick up as businesses build expertise, gain experience and confidence through experimentation, and ensure that process improvements are genuinely realised.

This can require re-imagining processes and ensuring that the hand-off between machine and human is optimised, which in turn requires critically assessing how machine-generated outputs are validated, and that there is a clear audit trail of decision making. Although this may mean that human review processes initially appear over-engineered, it is important in building organisational trust in the new, automated process. It also reinforces the need for patience and to treat AI-fuelled transformation as a long-term project.

Deployment of AI as a central element of a focused transformation strategy will permit a move away from simply using it to plug resource gaps or help connect sub-optimal data systems. Rather, taking a more holistic view will allow functions to consider the art of the possible, and deliver the profound changes that AI can bring to the future of tax, HR and mobility services, and to the roles of those professionals delivering them. Now is the time to embrace AI, and successfully navigate the next frontier!

Reference:

(1) This topic is covered more fully in the Deloitte article 'Workforce Analytics – An Appeal For A Holistic Approach' in Issue 84, Winter 2020, of International HR Adviser

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