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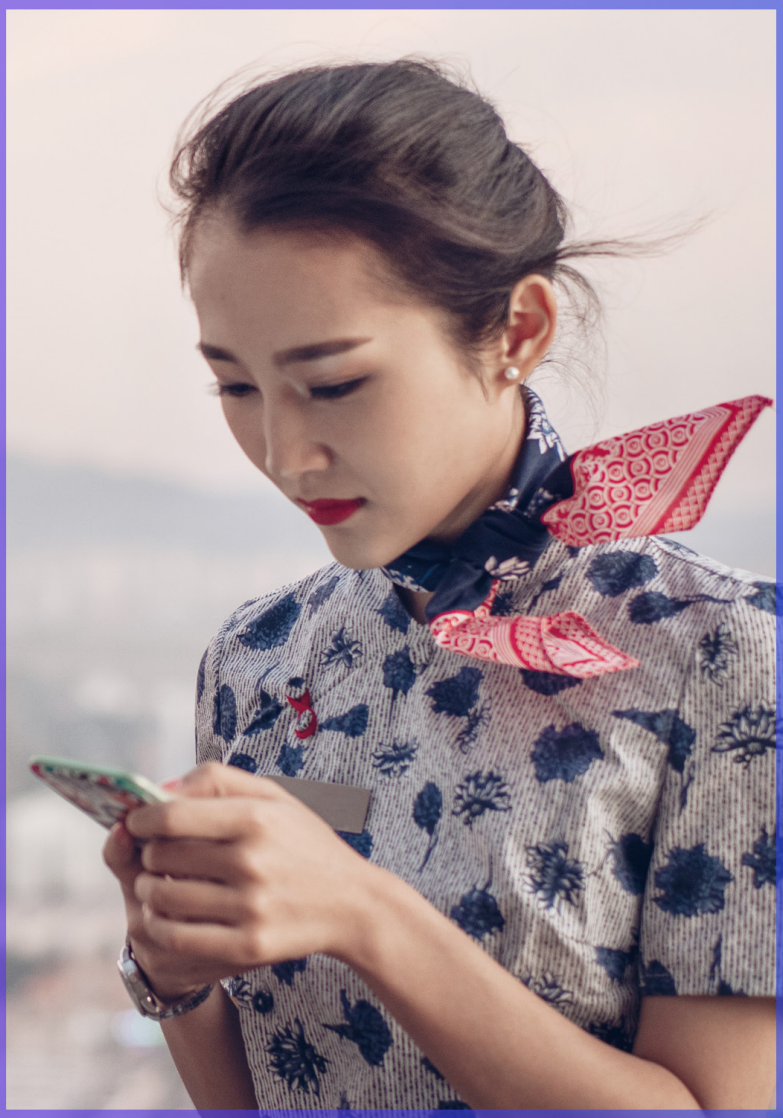
The use of generative AI tools in the tax profession — After the initial hype — fear, foe or friend?



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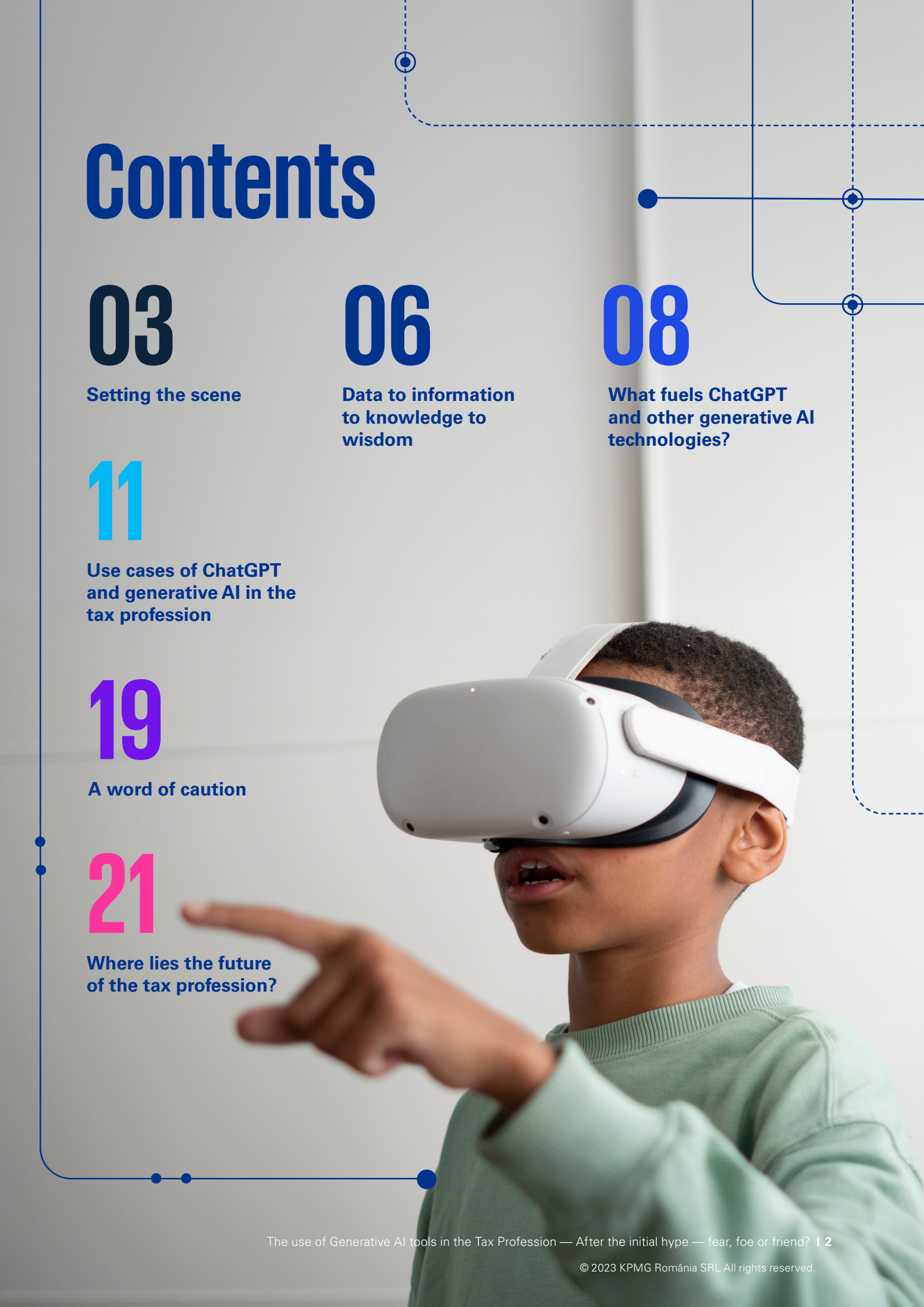

Setting the scene

By now, it is no secret that generative AI tools like ChatGPT have taken the world by storm. Seemingly every other LinkedIn post involves fellow tax professionals seeking to compare the insights generated by ChatGPT with those of us mere mortals, in an effort to demonstrate that ChatGPT is either inferior, or a foe which risks our very existence. Likewise, every other media article on ChatGPT seems designed to tap into the fears of their audience: sentient automation going off the rails, the downfall of our systems of education, fears of a further purge of white-collar knowledge workers and many others. And for some people and organizations, the reactions are somewhat predictable: diminish, deny, reject and ban. In this article, we look at the use of generative AI tools like ChatGPT for assisting tax professionals, after the initial hysteria or hype has subsided, and with a view to making predictions on the impact it may have in the medium to long-term.

Whilst the extremes in the range of initial reactions both in the professional community and in the media are understandable, they both miss the point. They are reminiscent of the anxiety and hyperbole which surrounded the early days of Google, which even led one of the authors of this article to write to his local newspaper in 2009 in such a state of fear that it prompted him to proclaim that "ignorance used to be bliss". [1]

Beyond the fear and hyperbole, the constructive impacts of generative AI technologies to knowledge workers and businesses are numerous.[2] For the tax profession, it is essential to evaluate how these technologies can and might enhance what tax professionals and organizations are capable of doing.

While much of today's hype is focused on ChatGPT, our focus for this article is on the use of generative AI technology, of which ChatGPT is currently the leading consumer-based App. It is too early to predict whether ChatGPT will retain its title as the market leader in this field. It is also relevant to note that the public release of ChatGPT is only a year old at this point, and predictions about its future usage may be prone to underestimation — the pace of progression of generative AI technology is simply breathtaking. However, just as George Orwell's 1984 was uncannily prescient in its predictions, we hope this article follows a similar pathway (though perhaps without the element of fear which '1984' can invoke).

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[1] See Ignorance used to be bliss (smh.com.au) published by the Sydney Morning Herald on 3 February 2009.

[2] See "Generative AI models — the risks and potential rewards in business", KPMG International, April 2023 published at Generative AI models — the risks and potential rewards — KPMG Global

The central point of this article is to encourage tax professionals to learn how to work with generative AI tools, to drive forward greater levels of knowledge and insights, and to spur actions which can drive an outcome, a decision, a change, a new process, a transformation or some other logical progression. In other words, the objective is to find out how it can complement or enhance our work, not compete with it. Some commentators have described ChatGPT as a 'virtual assistant,' liking its use to little better than Siri, Alexa and other similar voice activated assistants. This description minimizes the capabilities and potential applications of the technology. Other commentators have voiced more extreme views both casting the technology as some sort of out-of-control tool that may bring doom to those who use it, or as an antagonist in a professional drama, secretly trying to undermine humans and ultimately take over. Whereas the reality is exciting, it also likely much more mundane. ChatGPT may better be described as an extension of yourself, of your teams and of your organization. One could think of it like having a know-it-all colleague without all of the annoying attributes. Some companies are beginning to describe and brand the technology as a co-pilot — a digital colleague that is at your command and there to collaborate on your journey to meet your objectives.

Just as the early days of search engines provoked a modicum of fear that 'robots would steal our jobs', the potential of generative AI is barely even known let alone realized. In the authors view, we are witnessing the dawn of a new era. The use and application of generative AI by the tax profession will likely be permanent, substantial and transformational. Bill Gates, the founder of Microsoft and someone not often prone to hyperbole, has commented that ChatGPT (and artificial intelligence more generally) is as "…fundamental as the creation of the microprocessor, the personal computer, the internet and the mobile phone."[3]

[3] As reported in the Wall Street Journal, 22 March 2023.

Data to information to knowledge to wisdom

A brief history of computing

From the earliest efforts in computing to the most recent innovations in computer technology, humanity has sought to extend the abilities of our minds to enhance what we can do both as individuals and together as groups or teams. Initially these efforts were focused on performing lengthy calculations to derive meaningful answers within useful timeframes. As the potential for computers became more readily understood, the focus of computing evolved to include storing knowledge, making predictions, bringing together disparate knowledge and connecting people. Today, in addition to all these capabilities, computers are now beginning to mimic some of the thoughts, ideas and language of humans — offering the possibility of bringing the collective knowledge and experience of humanity to any idea or problem that arises. That is getting a little ahead of ourselves though.

To put a framework around the power of computing to support our work as professionals, it is useful to reference the hierarchy known as the DIKW pyramid[4]. The DIKW pyramid seeks to represent the structural relationships between data (D), which lies at the base of the pyramid, then information (I), knowledge or insights (K) and finally wisdom (W) at the apex. Each level of the pyramid is regarded as a precursor to the next and may be regarded as essential components in effective decision-making. Here we track the progression of technology through the DIKW pyramid.

The rise of search engines

For many years, within the DIKW pyramid framework, businesses toiled in the data and information layers. Much of the time they focused on accessing data and information without much focus or sophistication on knowledge, insights or wisdom. Limitations in both the physical way in which data was stored and technology itself made it almost impossible to proceed any further.

The introduction of search engines was an inflection point for their efforts and represented a fundamental shift in the ability to access data and information. Prior to this, search engine information was generally locked away in libraries, books and other written materials. Up until the late 1990s, interested parties needed to painstakingly search through libraries, law textbooks and legislation to try to access the most current tax related data and information. Any expectation for knowledge and insights was limited. The advent of internet search engines rapidly changed those perceptions. By creating a portal into the published data and information of the world, search engines not only became mechanisms for locating and accessing data and information, they also generated a growing demand for the creation of content itself. Companies like Google laid the early foundations for knowledge and insights and for the next phase of computer evolution that we are experiencing today.

The advent of generative AI

With the introduction of generative AI, we have progressed to the next stage in the evolution of computer technology, moving from data and information up to knowledge and insights. Generative AI is defined as any type of artificial intelligence that can be used to create new and original text, images, video, audio, code or synthetic data.[5] Generative AI's ability to draw logical, rational conclusions from data, information, and patterns therein, allows models such as ChatGPT to build on the vast universe of data created activities put in motion by predecessors.

We believe that much of the excitement, and the fear, around generative AI is rooted in this progress up the DIKW pyramid. As these technologies get closer to the apex, they start to demonstrate capabilities which many professionals identify as similar to their own. It is in these similarities where we think the real value is found for the tax profession.

We believe that much of the excitement, and the fear, around generative AI is rooted in this progress up the DIKW pyramid.

[4] The origins of the DIKW pyramid are not certain, with some people tracing it to a TS Elliot poem "Choruses" which appeared in the pageant play "The Rock" in 1934. See DIKW pyramid — Wikipedia accessed on 8 April 2023.

[5] Rouse, Margaret. "Generative AI." Technopedia 01 February 2023. https://www.techopedia.com/definition/34633/generative-ai.

What fuels ChatGPT and other generative AI technologies?

In this article, we briefly explore some of the use case examples of generative AI both in the tax profession itself, and in areas outside tax which will enable and accelerate the capabilities of tax professionals. However, before doing so, it is important to understand the data model which underpins ChatGPT (and other generative AI models).

As briefly mentioned earlier, ChatGPT is an artificial intelligence chatbot launched in November 2022 by OpenAI. To describe how it works, we asked ChatGPT itself:

Tell me how ChatGPT works.

ChatGPT is a large language model that uses deep learning techniques to generate human-like text. It is based on the GPT (Generative Pre-trained Transformer) architecture, which uses a transformer neural network to process and generate text. The model is pre-trained on a massive dataset of text, such as books, articles, and websites, so it can understand the patterns and structure of natural language. When given a prompt or a starting point, the model uses this pre-trained knowledge to generate text that continues the given input in a coherent and natural way.

ChatGPT uses deep learning techniques which are pre-trained on massive data sets. However, to describe ChatGPT as being akin to the world's biggest hoover of data is to underestimate its raw power. The natural language processing capabilities of ChatGPT's artificial intelligence enable it to process and present information in a human-like manner.

The most recent model is called GPT-4 (i.e., Generative Pre-Trained Transformer 4). GPT-4 is a multi-modal large language model. In more basic terms, that means that GPT-4 can understand data and information found in image and text inputs. It has been trained on significant data sets to achieve "human-level performance on various professional and academic benchmarks". The precise number of datasets and their composition have not been publicly confirmed by Open AI, however the previous version, GPT-3, was trained on 175 billion parameters, including 300 billion words or 570GB of data from books, web texts, and other internet data sources.

Let's use a highly simplified example to show how it works, and most importantly, how it learns.

Imagine a couple who have been married for 40 years and are now in their late 70s. One imagines that their relationship is such that the wife can easily complete many sentences started by the husband, and vice versa. It is 6pm on a Friday night and they are due to go to their local club for dinner, a ritual they have repeated for many years. The wife turns to the husband and says: "Are you ready…?" The missing words here happen to be "to go to the club". In this instance, the wife can predict, with a high degree of accuracy, the remaining words of the sentence. The wife's ability to do so accurately reflects her many many years of experience with her husband.

ChatGPT is a little like this. ChatGPT is able to make predictions at each step of the journey, but unlike the example of a married couple, it is based on billions of data points ingested along the way from all individuals and relationship types. The outputs from ChatGPT are able to be improved constantly through a process by which the model is initially 'trained', is 'rewarded', its learning is 'reinforced', it is 'supervised' and it is 'evaluated.'[6] In this sense, it's a little like a child going to school.

ChatGPT goes further though. Let's return to the earlier example of our elderly married couple. After 40 years of marriage, not only can the wife predict the husband's sentences (and vice versa), but we often see how they may start to use common phraseology; how their daily routines complement one another; and how their tastes in food may even converge.

[6] See How ChatGPT Works: The Model Behind The Bot | by Molly Ruby | Towards Data Science, accessed on 20 April 2023.

In short, the couple have mastered the art of both verbal and non-verbal communication, somewhat overcoming the paradox that 'men are from Mars and women are from Venus'. Along similar lines, ChatGPT may provide us with the ability to overcome not only barriers to language (in a literal sense), but also overcome our differences in phraseology, technical competency, and nuances of language. That is, it enables humans to communicate in the language of their audience, not only to improve relationships; but more relevantly, the collective capabilities of business professionals.

Perhaps more relatable for most tax professionals is that the foundation of ChatGPT is a highly complex series of mathematical equations or predictions on a level which cannot be generated by mere human computational abilities. Those foundations do not limit its capabilities merely to solving mathematical problems, but it extends to areas like poetry, art, music and game playing. Some commentators have even noted its ability to write computer source code, significantly advancing the pace of innovation and development.[7] Closer to home, OpenAI president Greg Brockman demonstrated how GPT-4 could ingest the entire US tax code and calculate a hypothetical couple's tax liability for a particular tax year.[8]

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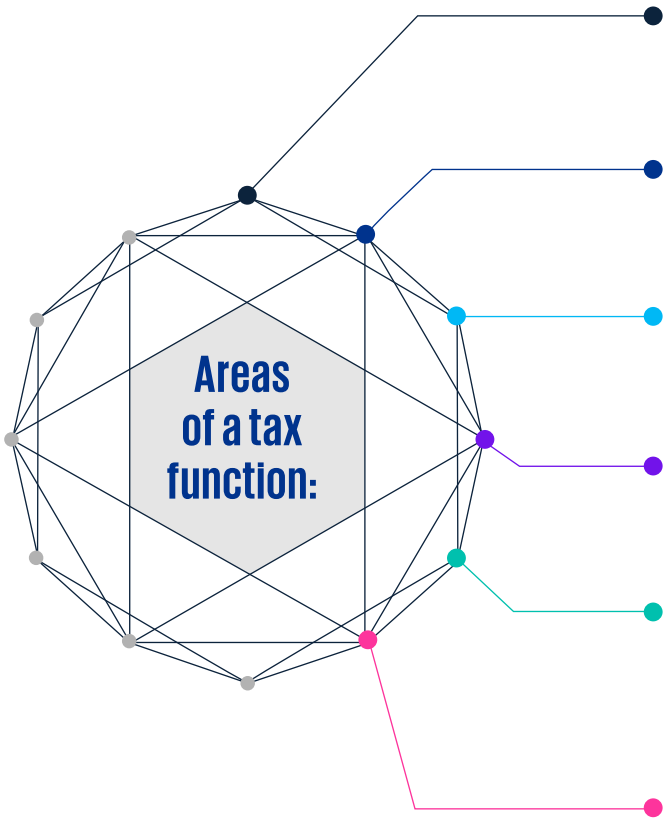
[7] See How to use ChatGPT to write code | Pluralsight, accessed on 28 April 2023.

[8] See GPT-4 Can Ace Standardized Tests, Do Your Taxes, And More, Says OpenAI (forbes.com), accessed on 23 April 2023.

Use cases of ChatGPT and generative AI in the tax profession

In this article we analyze the possible applications of generative AI technologies through the following 6 different areas of a tax function:



Tax compliance, where tax professionals prepare compliance returns for filing with a tax authority;

Tax controversy, where tax professionals may represent a taxpayer subject to an inquiry, an audit, objection, or tribunal or court process;

Tax advisory, where tax professionals may advise, consult, or perform planning activities in relation to specific fact patterns;

Transactional activities, where tax professionals may carry out tax services related to transactions or reorganizations, such as an M&A deal;

Knowledge management, where tax functions may be able to more effectively and systematically collect, organize, store, and share tax and non-tax related information, expertise, and resources; and

Business integration, where tax functions may be empowered to extend their capabilities to work cross-functionally to drive strategic decision-making and overall business integration in collaboration with other departments and organizational business leaders.

Given the similarities in the high-level processes, management of data and associated knowledge management principles between different tax types (for example, between indirect taxes and transfer pricing), we consider that the above functional framework is better at elucidating the possible applications of generative AI tools. Although there certainly are micro-applications that might uniquely apply to one or another, they are beyond the scope of our analysis and commentary.

Tax Compliance

In its simplest form, nearly all types of tax compliance activities involve a process by which (a) data (often from multiple sources) is captured or ingested; (b) data is computed and/or reconciled; and (c) an output is produced (usually) in the form of a tax return or other compliance filing. There are invariably challenges at every stage of that process — for example, in the data capture and ingestion stage, significant human expertise is often required in knowing what data field to ingest, its relevance, its meaning, and the identification of anomalies and omissions.

Generative AI tools (including working alongside traditional tax compliance tools) have the potential to streamline and render obsolete many of the very time-consuming aspects of any tax compliance process. While many pre-existing tax technology tools can, at least in theory, automate much of these processes, typically where they reach their limitations is in providing a narrative as to the analysis and meaning of the information which is ingested and the output that is generated.

This is where generative AI steps in. It can not only enable the necessary automation, but it also can support the human analysis which is required to give it meaning and to generate action. When applied in this way, generative AI can enhance the capabilities of both existing compliance technologies and the human contributions to compliance processes.

It should be noted that there have been reported instances of early versions of generative AI performing poorly in carrying out mathematical computations. However, it can be assumed that these represent initial teething problems only. As the models are trained on more and more sophisticated data sets and mathematical formulas, these issues have been and should continue to diminish over time. When combined with the oversight and direction of tax professionals, even with these potential problems, the introduction of generative AI into tax compliance likely will result in significant efficiency gains.

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Tax Controversy

Tax controversy is generally focused on the representation of a taxpayer's interests under the review of a governmental authority. For taxpayers, controversy matters have many challenges, including how to interact with governmental authorities in an efficient manner to produce fair outcomes. Much of the pain commonly experienced in controversy matters can be alleviated by proactively anticipating challenges in advance of formal controversy activities and through effective communications during such proceedings. Both represent fertile areas for generative AI tools to excel and save considerable time.

Effective controversy processes typically bring together a variety of information and knowledge to validate the taxpayer's past filings, including organizational policies, business activity information and data, tax law and procedures, and previous experience with governmental authorities.

In advance of tax controversy matters, generative AI can help tax professionals to identify, react to and report on potential areas of controversy risk based on this information. During tax controversy matters, generative AI can aid tax professionals by anticipating the needs of tax authorities and help to prepare information and communications accordingly. Let's take the example of a submission being prepared to a tax authority, seeking to argue a technical position on behalf of a taxpayer. Generative AI can be used to identify and cite relevant legislation, case law, or rulings in preparing those submissions. It can also be used to anticipate the possible areas of inquiry and questions from the tax authority and suggest possible responses given the data and information that is available.

The knowledge, experience and judgment of individual tax controversy professionals can be augmented by generative AI tools. In a practical sense, these tools can aid in identifying what types of factual information should be collected, determining the probative value of evidentiary material, anticipating and understanding of the objectives of the tax authority and the methods they may use — essentially, the tradecraft of being a tax disputes expert.

It is important to recognize that tax authorities may also seek to deploy generative AI tools, firstly, in identifying risk factors which warrant further investigation through audit, and secondly, in carrying out the audit itself. Indeed, the power of generative AI could, at least in theory, allow tax authorities to move away from self-assessment and back to the era of review and evaluation of every return being filed. Having said that, even with generative AI tools at its disposal, the human component needed to augment the technology would likely still be significant. The Australian example of the 'Robodebt scandal' is a salutary lesson to other authorities of the limits of automated decision-making in tax administration.[9]

In a tax litigation context the often laborious (and expensive) tasks of preparing for documentary discovery and analyzing the information provided by the opposing party can be substantially rationalized through the use of generative AI tools. Indeed, many lawyers have been at the forefront of experimentation in the use of artificial intelligence tools given the opportunity to produce substantial efficiencies and savings.

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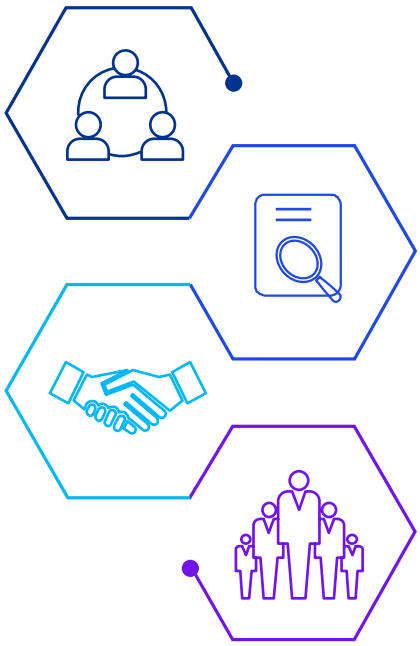
[9] Royal Commission into the Robodebt Scheme, Australian Government, 2023 see: Royal Commission into the Robodebt Scheme, accessed on 26 July 2023.

To an extent, the foregoing analysis of deploying generative AI tools in the context of tax controversy matters potentially narrows the perspective to existing controversy frameworks only. It ignores the impact that generative AI tools may have on the way tax controversies may evolve. More specifically, generative AI tools may allow for:

More consistent communications with tax authorities across tax types and jurisdictions, with data and issues shared from one area and leveraged into another.

The ability to bring the most current and effective arguments in the handling of any controversy matters.



A higher level of awareness of possible issues before they surface, and the ability to anticipate queries and investigations and risks before they occur.

An ability to communicate with a tax auditor or public or judicial official on their terms, using language and approaches that will likely resonate most effectively with the audience.

Tax Advisory

The principal objective of tax advisory and planning initiatives is to align with the organization's strategic goals. These efforts are commonly achieved by offering tax insights for crucial business decisions and by formulating positions and operational guidelines for the tax function. While tax advisory and planning primarily concentrate on value creation and risk management, they also encompass numerous operational performance aspects that feed into reporting, compliance and controversy.

As with other areas of tax, advisory faces several issues that inhibit the tax function from making its desired impact: accessing complete and accurate data, acting and communicating as a single tax function, generating advice and insights at the pace of the business, maintaining awareness and involvement in key business issues, communicating complex tax issues to non-tax professionals and many others.

Generative AI technologies can provide instant access to aggregated knowledge and insights, enabling tax functions to focus more on value creation and strategic activities. Here are some key areas where AI can make a significant impact:

- **Tax planning and structuring:** the ability to analyze complex tax scenarios, optimize tax structures and provide valuable insights for effective tax planning;
- **Business decisions:** Quickly access and analyze data. Evaluate the tax implications of various business decisions, helping to ensure that tax considerations are factored into the decision-making process;
- **Manage Risk:** These cutting-edge technologies can provide instant access to aggregated knowledge and insights, enabling tax functions to more effectively manage risk, including in a consistent 'whole of organization' way;
- **Operational guiding principles:** establish a set of guiding principles for the other subfunctions of tax that are aligned with the overall tax function strategy. Operational updates and actions guided by function-wide principles rather than historical practices;
- **Stakeholder communications:** Create audience tailored communications for different stakeholders within the organization, such as the C-suite, managers or teams from tax and finance departments. Translate complex tax information into easily understandable and audience-relevant information;
- **Cross-functional teaming:** Create broader awareness of business activities and help anticipate the needs, questions and values of leadership and colleagues across tax and the rest of the organization.

Transactional Activities

The primary objectives of tax professionals and tax advisors in transaction work generally is to minimize tax risks, ensure tax efficiency and optimize the resulting tax structure. Transaction work can involve a range of activities, from due diligence and planning to compliance and ongoing risk management.

Transactions have similar objectives and challenges to advisory and planning. However, the nature and pace of the transaction work often imposes additional constraints that limit input and holistic planning which might be considered in more ideal circumstances. These factors can lead to missed opportunities, unwanted risks and hidden short- and long-term costs that result from rushed activities before, during and after transaction work.

Generative AI can be a valuable collaborator in transaction work, helping tax professionals to access better information, make more informed decisions and communicate complex tax concepts and strategies more effectively to stakeholders with different backgrounds and levels of understanding. There are several ways in which generative AI might assist before, during and after transactions.

Here are a few examples:

- Aiding in accessing and analyzing broad tax and business data;
- Summarizing tax due diligence findings;
- Explaining tax planning strategies;
- Simplifying tax modeling results;
- Drafting tax negotiation points;
- Designing and communicating tax integration plans;
- Preparing and presenting post-transaction tax optimization opportunities;
- Explaining tax risk management; and
- Simplifying ongoing tax compliance and reporting.

Knowledge Management

To be effective as a tax professional requires a broad range of knowledge, not just tax domain expertise. Knowledge of the relevant industry, business models and activities, commercial objectives, policies and strategy all factor into the impact a tax professional can make. It is what some companies refer to as being 'commercial' in approach.

The core focus of knowledge management for tax is to bring the most current, complete and accurate information available to all business problems or ideas. It involves the long elusive idea of capturing and converting the knowledge and experience of the individuals employed or engaged by a company into an asset that is available to all. Despite no shortage of effort, the knowledge management function has only been able to get part of the way to its objective.

Both the aspect of tax domain expertise, as well as organizational and industry knowledge arise from the knowledge management tools we each use every day. Whether that's a subscription to a tax news service, an industry periodical, or just what we experience from our daily activities, our brains effectively process and accumulate vast quantities of knowledge during our professional careers.

Unfortunately for most tax professionals and organizations, years of specialization and segregation in tax have resulted in the development of narrowly focused skills and knowledge that are decentralized across the tax function. That may be acceptable for carrying out specific tax activities, but it is generally a limiting factor more broadly.

Bridging the divide between geographic divisions, different subfunctions and different specialties is a rare event. Tax professionals often lack elements of a commercial approach to enable tax to create strategic value for its business. Changes in laws, administrative procedures, business activities, market conditions, leadership edicts, resource models, staffing gaps and on and on and on, all make the knowledge management problem even more challenging.

There is hope though. Generative AI tools are fueling a rebirth in knowledge management. Generative AI can not only assist with the accumulation of this knowledge, but also in more effectively drawing insights or conclusions from it. And in a world in which changes in rules, regulations and business models evolve at lightning speed, tax professionals may finally feel like they can keep up. While there are limitations in current iterations of these tools, these are likely to be temporary limitations only.

With advancing capabilities to record, organize and share information from every meeting, email, document, call or other form of information exchange, these activities have the potential to not only serve their original intended purpose, they also can add to a collective organizational intelligence that is accessible through simple plain language prompts. With potential value in any exchange of information regardless of form, the days of too many useless meetings, calls and emails might be something that only the "old timers" talk about some day.

Consider this — generative AI tools provide the opportunity for new entrants to the tax profession to rapidly upskill their knowledge and to efficiently generate insights and learnings from others in areas they may have been unfamiliar with. They can enable a 'crash course' in understanding a client's business in the taxi en route to the meeting. While this may seem exciting to new entrants to the tax profession and potentially accelerate their careers, the flipside is that the base level of expected knowledge and expertise of tax professionals may rise.

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Business Integration

The objective of becoming more business aligned, value creating and strategic have long been the focus for many tax functions. Other than being bullet points on a tax function vision statement, these ideas remain aspirational and likely seem a little disconnected from the day-to-day reality of most tax functions. Revenue, costs, profit, risk management, regulatory compliance and even public perception are all areas in which the tax function could make a material impact.

Several obstacles have inhibited progress to date: complex and disaggregated data, limited real-time insights and analytics, complex and changing laws and regulations, functional and cultural business siloes, and limited strategically focused resources within tax. Even when these obstacles are temporarily overcome, tax professionals often struggle to communicate the impacts of complex technical tax matters to non-tax professionals.

A word of caution

Similar to all new technologies (but perhaps more so in the case of generative AI), it is critical that we give forethought to the ethical boundaries of its usage, the regulatory frameworks within which it must operate, and the privacy and confidentiality considerations governing its usage. It is beyond the scope of this article to navigate these issues in detail in a business context generally. The creation of 'safe usage guidelines' is expected to become the norm in many organizations as a means of helping to ensure proper and effective use of generative AI applications.[10] In the context of the tax profession more specifically, several immediate considerations come to the fore:

- In many jurisdictions, the role of the tax professional or tax agent is regulated, licensed and/or monitored, usually with the purpose in mind of serving the public interest through the maintenance of quality and ethical standards. When we introduce generative AI into our daily work, we need to give careful consideration to how those quality and ethical standards will be safeguarded;
- Domain knowledge for most tax professionals usually sits within the jurisdictional boundaries in which the tax professional resides, though admittedly developments in areas like BEPS2.0, digital economy taxation measures and transfer pricing are blurring those boundaries. But public access generative AI tools understand no jurisdictional boundaries. How this will impact upon the training and regulation of the tax profession remains to be seen;
- When using AI tools, confidential or privacy information may be ingested into the tool and used to train it. Such information may later find its way into the public domain, or in the hands of competitors or adversaries. As such, the use of generative AI tools need to be (virtually) ringfenced in private environments,[11] so that while the AI functionality may be available to its users, the queries or outputs from it do not leave the secure environment;
- Responses received through generative AI tools are also prone to error, and as discussed later, these are referred to as 'hallucinations'. Ensuring the source of information which is produced by AI is known, validated and tested, will be an increasingly important discipline.

While debate about the ethical boundaries around the use of generative AI is both warranted and appropriate, 'banning' the use of such tools is reminiscent of medieval times when it was taboo to talk about the earth being anything but flat. In short, those who wish to ban the use of generative AI in an overly simplistic way stand to be subsumed by those who embrace its usage responsibly and ethically, including through the issuance of safe use guidelines.

[10] KPMG International, April 2023, see Generative AI models — the risks and potential rewards — KPMG Global

[11] Chat GPT professional now has 'incognito' mode that reportedly does not save user conversation histories and is not used to improve its artificial intelligence. See OpenAI rolls out 'incognito mode' on ChatGPT | Reuters accessed on 11 May 2023.

Where lies the future of the tax profession?

In this article we have focused on the use of ChatGPT in the tax profession. But to be clear, ChatGPT happens to be the most widely known use case example of generative AI technology. So when we focus on the use of ChatGPT in the tax profession, we are not betting on the idea that ChatGPT will forever be the market leader in this area, nor are we suggesting that the use of ChatGPT alone will achieve the outcomes suggested here.

In many cases, it will be the combination of artificial intelligence with other technology tools and solutions. By way of example, Microsoft's CEO Satya Nadella recently announced that it is deploying OpenAI tools in its Microsoft Office suite of products (known as Copilot 365) — Excel, PowerPoint, Word, Outlook and Teams, and is reportedly already testing this with 20 companies around the world.[12]

Another common business usage of ChatGPT will see its deployment in private environments — in other words, in being able to draw upon the learnings from information in the public domain, while at the same time protecting queries raised with the tool so they are ringfenced within a private cloud environment. This underpins Microsoft's announcement with KPMG to integrate Microsoft Azure's OpenAI service into KPMG Digital Gateway, which is the KPMG global platform for Tax.[13]

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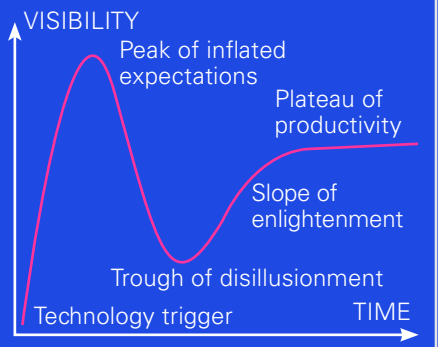
[12] See Microsoft announces Copilot: the AI-powered future of Office documents — The Verge, accessed on 23 April 2023.

[13] "KPMG and Microsoft enter landmark agreement to put AI at the forefront of professional services" dated 11 July 2024 — see KPMG and Microsoft enter landmark agreement to put AI at the forefront of professional services — Stories, accessed on 26 July 2023.

What is the future of the tax profession in a world inhabited by generative AI tools? Let us pose a few theories:

01

Let's recognize that we are at an early stage of inquisitiveness or scoping out its potential use cases. It is what Gartner refers to as the initial 'technology trigger' stage of the 'hype cycle' surrounding generative AI.[14] It is fair to say that except for early adopters, most tax professionals are probably playing with it almost like it's a video game or contest. This initial thrill will likely pass and experiences can grow in maturity. However, inquisitiveness by a broad group of users is an important building block to support the next stage. But as we have said, the aim should be to challenge ourselves to how we can use generative AI to enable, augment or enhance services, not compete with them.



02

In the next phase, we envisage generative AI tools being deployed pretty readily, in managing relatively routine queries handled by tax professionals (in private environments). Think of the time it takes to process an email or other query we receive, draft an answer, validate or check it and then send it. Many of these queries could be handled in a fraction of the time through the use of generative AI. In this sense, its use as a virtual assistant may be most apt, at least in the near term.

03

Generative AI can also be deployed to prepare summaries of meetings, insights on a client's business and even proposals and presentations. In other words, look to use generative AI tools as an efficiency saving exercise initially, rather than it being transformational at this point.

04

Tax authorities, though likely to be concerned around the potential for misinformation or 'hallucinations' as it has been described, could also benefit from the deployment of generative AI tools in handling routine initial queries from taxpayers. Clearly though, there is a lot more work to be done in coming to grips with challenges in areas like data privacy and building trust and audit trails of its responses.

05

As the technology matures (and our experience in how to work with it), it is not difficult to foresee the use of generative AI in common with other technology tools. For example, if and when a future generative AI tool is enhanced by or paired up with either an ERP system or in a tax compliance engine — such as KPMG is deploying with OpenAI in its Digital Gateway tax platform, then the opportunity to pursue transformational change in areas like tax compliance services, moves closer to reach.

06

In each stage of this maturity curve, there will be a further change taking place in the background. That further change is our ability (or willingness) to trust the technology. Procedures and measurements around how we build trust through validations, sources and other checks will likely become more structured and expected.

07

As generative AI tools continue to develop, they can disrupt certain areas of the tax profession, just as previous technological advancements made the jobs of elevator operators and telephone switchboard operators redundant in days gone by. However, while the media headlines will frequently focus on those roles made redundant, the newly emerging jobs less commonly attract the headlines. While routine roles in processing tax compliance may be numbered, and the nature of tax consulting services clients are willing to pay for will likely evolve, this is not to suggest either discipline being entirely wiped out. Rather, the labor involved in processing these steps will need to evolve into roles focused on creating, testing, controlling and monitoring of these artificial intelligence driven processes.

08

All of this is before we get to the humanistic components. Words such as "empathy", "experience", "judgment", "prediction", "action" and "implementation" are all components of what tax professionals implicitly do each day. At their core, generative AI tools are programmed to mimic remarkably similar humanistic traits. The objective will be to augment one another, to bring out the very best of human and machine collective capabilities.

09

The roles of tax professionals in areas like "problem solving", "storytelling", "communicating", "planning", or "logical reasoning" may all come to the fore. Humans will need to bring "inquisitiveness", "agility", "active listening", "adaptability", "creativity", "leadership", "inclusiveness", "vision", "inspiration", "humility", "collaboration" and "empowerment" skills to the table.[15]

Far from being a threat to tax professionals very existence, generative AI tools represent to the tax profession the very best opportunity to utilize the toolkit of skills that drew many of us into the profession in the first place. In short, it can enhance, augment and empower the tax professional of the future.

[14] Source: see the Gartner Hype Cycle, accessed at Gartner Hype Cycle Research Methodology | Gartner.
[15] See Future-citizen skills | McKinsey, accessed on 20 April 2023.

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