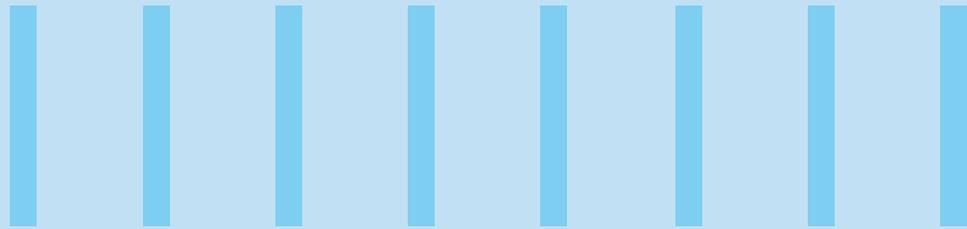




HOW AI CAN DRIVE OPERATIONAL EXCELLENCE AT PROFESSIONAL SERVICES FIRMS



Artificial intelligence (AI) is anything but a monolithic technology. AI is a collective term for several technologies allowing computers and other machines to mimic human thinking, learning and conversation to perform tasks at industrial scale and speed. AI technologies include neural networks, machine learning, deep learning, speech recognition, general intelligence, natural language processing, computational linguistics, natural language understanding, machine vision, and expert systems.

Professional services firms can leverage AI technologies to significantly enhance client service / experience, add incremental value while managing costs and improving outcomes. While all types of AI may not be relevant for Professional Services firms, Natural Language Generation (NLG) and conversational AI hold promise.

Megatron-Turing NLG 530B (jointly developed by NVIDIA and Microsoft) and Open AI's GPT-3 (open-source Generative Pre-trained Transformer model) are stellar examples of NLG tools. Google's LaMDA (Language Model for Dialogue Applications) is a fine example of a conversational AI tool. With 530 billion parameters, Megatron-Turing NLG 530B is the world's largest transformer-based language model. LaMDA has 137 billion model parameters that can be 'trained' to use external knowledge sources. It specializes in dialogue applications, including open dialogue, thereby facilitating LaMDA-based models to mimic human conversations.

NLG uses AI algorithms to produce written or spoken content from datasets. Traditional software can also analyze a huge volume of numerical data, but the ingestion of data, interpretation and reporting demand intensive human effort. NLG provides computers with the ability to analyze diverse datasets and identify patterns as well as produce output that humans can make sense of. Significantly, powered by AI, computers perform at exponentially higher speed than humans ever can.

NLG software reduces the time and effort required for tasks simply because these systems can analyze more data sources and larger datasets in a significantly shorter timeframe. In addition, these systems produce summaries that teams can easily use. Consequently, Professional Services firms can mine insights to deliver superior service to clients with a leaner team. Junior staff can focus on high-value work rather than investing time and effort in identifying sources of information.



How Professional Services can leverage AI

Let us understand how NLG can be a game-changer for Professional Services firms, specifically at accounting / tax, legal and consulting firms.

Accounting / Tax firms

Accounting / tax firms work with a huge volume of client financial data every month / quarter / year. The current delivery model requires individuals / teams to study data samples and use spreadsheets or similar tools to analyze data. The next step is to apply their professional knowledge, judgement, reasoning skills and decision-making abilities to interpret findings, assess their potential implications and recommend actions. While some data may be available in systems and can be easily extracted and ported in digital formats, other data may be in physical form or digital images (invoices and contracts). In this case, teams may be required to pore over the data and enter relevant elements into their software. Once a baseline analysis is established, senior staff (including partners) review findings and advise clients appropriately.

AI tools make it easier for audit teams to flag transactions, accounting entries and other documents such as contracts and lease agreements that need further analysis. Related party transactions can also be identified, in the context of complex, cross-border legal structures.

Deal advisors can use AI to review a large number of contracts and identify potentially grey areas of clauses in the context of M&A transactions. It is key to structuring value-creating deals for stakeholders.

As enterprises foray into new markets with reconfigured supply chains, the number of transactions with suppliers, partners and customers is set to increase exponentially. As the digital payments ecosystem matures and BaaS-based business ecosystems become mainstream, AI tools can be used by accounting and tax firms to proactively identify frauds and mitigate risks such as non-compliance of regulations.

The current auditing model involves periodic review of the client's financial systems. With AI tools, accounting firms can provide continuous auditing, which makes it easier to address errors of omission and commission. Junior staff can accelerate learning and contribute to strategic aspects of accounting. It will add more value to clients, while also reducing the effort and cost of performing tasks that require intensive manual effort. Such AI tools also enhance the in-house finance team to gain deep insights faster, so that resources are allocated with better efficiency.

Law firms

At law firms, under the guidance of seniors, paralegals and other junior staff pore over external and / or in-house databases for hours / days to identify relevant case laws, legal precedents, and judgements by various courts. They then prepare summaries used by the litigation and / or other teams to advise clients and make a case in courts. AI can significantly accelerate this process. It ensures that a broader set of information can be evaluated, so that lawyers are better briefed and prepared. Consequently, a technological intervention enhances the likelihood of better client outcomes.

Significantly, AI tools help conduct more effective and thorough searches related to Intellectual Property (IP).

In several countries, the authenticity of real estate records is suspect. AI can promptly establish the veracity of ownership rights, thereby saving significant time and money of clients.

Assessing liability risk, avoiding conflicts of interest, and ensuring that partners and their teams uphold consistently high standards of ethics are fundamental for law firms. AI tools can help law firms monitor governance in near real-time, thereby enabling timely proactive action to mitigate risks.

Consulting firms

Writing clear proposals articulates a consulting firm's capabilities, experience, track record, and understanding of the client situation. Based on the client context and scope of work, a high degree of customization is required (compared to proposals for providing audit, tax, accounting, or legal services).

NLG-based software can promptly produce a sound working draft of proposals, drawing from a review of past proposals and additional voice, text or image inputs provided by client teams. The stakeholders can then refine and submit the proposal. Over time, this capability reduces a Professional Services firm's overheads, thereby making its pricing more competitive. Firms equipped with these capabilities can submit a larger number of proposals without adding to headcount. It will help Professional Services firms win more client assignments, while also boosting revenue productivity per consultant / partner.

Consulting teams can formulate better hypotheses by analyzing various kinds of client data during the scoping / discovery phase of their engagements by using AI tools. In turn, it will help the consulting firm develop robust solutions. Consulting firms work with a wide range of clients across industries. As these clients become more data-driven, they will capture diverse types of data. Consequently, consulting teams will have to analyze diverse datasets (data from shopfloors, hospitals, and retail stores captured by IoT sensors). AI tools enable such tasks with speed, efficiency, and reliability.

Consulting teams can use AI to generate first-cut presentations that comply with the firm's branding guidelines, besides creating a 'storyline' for communication with the client. The first-cut version can then be refined by client teams.

Conclusion

Professional Services firms should leverage the transformative potential of AI in their operations. The sweet spot for firms is combining the technical expertise, reputation, and client relationships of individuals (partners or senior managers) with the efficacy of AI.

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