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Artificial intelligence and the tax practitioner

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Synopsis

The advent of artificial intelligence (AI) and machine learning (ML) has sparked concern that many jobs are at risk of automation. The recent launch of ChatGPT is one example of the recent developments that have brought this issue into even sharper focus. This paper contributes to this debate in the context of the tax profession. Our methodological approach redefines the appropriate loci of analysis as a combination of individual tasks and career stage, rather than focusing on the tax role at a macro level as is done in other studies. We use these revised loci to perform a meta-analysis of existing studies to better analyse the likelihood of tax role automation. The change in focus of analysis reveals several insights which have heretofore been obscured.

Introduction and Background

Rapid, disruptive technological change is a dominant feature of modern life. Societies, countries, and economies are in a continual state of flux driven by the creative-destructive energies driven by rapid technological innovation. Today, AI and ML are some of the most prominent nascent technologies driving social and economic change for the next generation.

This prospect is viewed with uncertainty by all and with trepidation by many. While some suggest that AI will lead to a golden age of prosperity, others forecast that it will have numerous negative impacts, ranging from the dystopian to the apocalyptic. What unites commentators is a general acceptance that current forecasts are too uncertain to serve as reliable guides for planning and policy formulation.

One area of concern is the impact of AI-enabled automation on the labour market, particularly traditionally secure, high-status professions associated with middle-class employment. Some suggest that labour market dislocation due to technological innovation is neither new nor particularly concerning. Others posit that AI systems will supplant human employees in the same manner as the internal combustion engine did the horse.

Many studies in this area forecast that tax work is highly susceptible to being automated. Gaining a more nuanced understanding of the impact of AI on the role of the tax practitioner was the aim of this paper.

Methodology

We examine the impact of AI on tax work using a two-phase process. First, employing three distinctive data collection methods, an aggregated master list of the distinctive tasks carried out by tax practitioners at different career stages was created. The second phase was to develop a probability estimate of the likelihood of each task being automated. There is considerable debate about the validity of the estimation approach used by virtually every published study forecasting the likelihood of labour automation. To overcome this, we used average estimates from a range of studies. A probability estimate of automation was subsequently calculated for

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each task identified as being a component of the role of tax practitioner.

Outcomes and Findings

There is general acceptance that AI automation will have a significant impact on tax practice. Our analysis supports this, with several of the tasks traditionally associated with tax practice seen as being highly susceptible to automation. However, our study demonstrates that blunt analysis at the occupational level hides important granularities. Our analysis forecasts that some tasks are very likely to be automated while others remain unlikely, at least for the foreseeable future. This suggests that the tax practitioner role won't disappear, but it will need to evolve.

Our study suggests that the effects of automation will be felt differently at different stages of a traditional tax career pathway. The tasks performed by early career practitioners are those most vulnerable to AI automation. This raises questions that stakeholders within the tax profession need to address.

First, how will tax practice be repopulated if traditional pathways to career advancement are dislocated? Significantly fewer individuals are likely to be needed at the tax trainee level. How then will tax practitioners replenish their more senior ranks if the bottom rungs of the career progression ladder are populated by significantly fewer trainees?

Second, the automation of repetitive and less cognitively demanding tasks may seem to be a positive development for employers and employees alike. However, this perspective fails to consider the knowledge and skill developed by performing these tasks. In an extreme case, firms may face severe skills shortages years after engaging in significant automation. Higher order skills may atrophy and disappear because a lack of entry-level positions is rupturing the supply pipeline of employees capable of performing such tasks. Several remedies for this challenge can be prescribed. Educational institutions may be expected to adopt their offerings to close the skills gap. A more radical possibility is that employers will allocate tasks to employees despite their relative inefficiency to foster the knowledge required for the development of higher order skills.

Third, entry-level tax positions have traditionally been gateways to well remunerated, high-status roles. The relatively large number of such positions has generally served to encourage social mobility. However, in a situation where AI automates these tasks, organisations will need significantly fewer entry-level employees. This may result in "who you know" becoming more important in obtaining one of the far fewer, albeit higher status positions. This would have a detrimental effect on meritocratic social mobility.

A final consideration is the impact upon the desirability of pursuing a career in tax. A reduction in the number of entry-level positions means the career pyramid will become narrower. Individuals would need to achieve promotion within their organisation at a speed dwarfing even today's fast pace or risk being left behind. The profession may evolve towards a position where a small number of individuals perform high-value tasks and are remunerated accordingly, while the other 95% are relegated to performing low-value tasks that cannot be automated but are, nonetheless, poorly paid. In other words, a rational, risk-weighing decision maker may deliberately avoid a career where the chances of obtaining "good" money are low because they require a combination of difficult skills that take time to acquire, coupled with relatively few opportunities. In the long run, the reduction of opportunities may have a significant deleterious effect on tax practice as a whole.

The use of technological innovations, such as robotics and AI, will not diminish the need for tax practitioners to have technical tax expertise. Practitioners who can leverage technology to manipulate large volumes of data efficiently will free up valuable time for tax planning and the evaluation of key tax and finance performance indicators for their clients or employing organisation. They will also need to add value in other ways. Building relationships, influencing decisions across business functions, and communication skills will become essential competencies.

Forecasting the future is a notoriously uncertain endeavour. Prognostications regarding the impact of AI on tax practice must be treated with scepticism. This study provides a more nuanced analysis of where particular stress points may emerge in the profession. When this analysis is considered together with numerous other studies forecasting significant disruption within tax practice, it sounds a clear call for significant reflection amongst all relevant stakeholders about the future of the tax profession.

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A full copy can be obtained at http://jota.website/index.php/JoTA/article/view/295

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Forthcoming Research Bulletin
Title: Protocol for establishing and evaluating a public and patient panel for organisation science and management principles in healthcare

Authors:
Claire Harnett, Nuala Ryan, Briga Hynes

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