

15 October 2024



ICAS Research Funding Opportunity

**The Impact of technological advancements on
professional judgement**

Introduction

As part of our Shaping the Profession strategic initiative, we are seeking to explore the impact of technological developments, including AI, on professional judgement. The ability to exercise professional judgement is widely described as being central to the role of professional accountant, not only as it relates to auditing and assurance but in every aspect of accountancy.

For example, this is reflected in the International Education Standards for Accountants 2019 Handbook of International Education Pronouncements, which see this as a key competence for professional accountants and define this concept as:

“The application of relevant training, knowledge, and experience, within the context provided by auditing, accounting, and ethical standards, in making informed decisions about the courses of action that are appropriate in the circumstances of the audit engagement.”

Beyond audit and assurance, professional judgement is required of the professional accountant across a wide range of matters including ethics, financial and wider corporate reporting, and business decision-making in general. It therefore plays a key part in the day-to-day professional activities undertaken by a professional accountant, regardless of their role and the sector in which they operate.

Since the establishment of the accountancy profession in 1854, professional accountants have sought to utilise technological advancements with developments such as the calculator, mainframe computers, portable computers, electronic spreadsheets, and the internet amongst others, all playing a significant part in shaping the functioning of the accountancy profession and indeed, wider business and society. They have also had a significant impact on how professional accountants have performed certain activities, and on their respective roles. Although professional judgement has changed in many ways¹ what has arguably not evolved is how we understand, control and assess professional judgment in light of those advances, and how we educate accountants to apply professional judgement.

Recently, the arrival of further technological advancements such as:

- generative artificial applications (Gen AI) and other forms of AI
- robotic process automation (RPA)
- blockchain, and
- data analytics, as technology is allowing the use of much more extensive forms and volumes of data

have allowed for greater digitalisation of approach across business and wider society, as well as enhancing the accountant’s ability to interrogate and interpret data to help better inform decision-making. It is anticipated that such advancements will continue at pace in the years to come, however, it is not yet clear what the impact on professional judgement will be. This is a matter of major importance to ICAS and the wider accountancy profession as well as other professions.

Questions have already begun to be raised as to whether this presents a threat to professions i.e. can AI or other technology tools exercise professional judgement? On the other hand, can developments in AI present professionals with the ability to enhance their judgements? This is currently evident in the medical profession for example where AI has the ability to interrogate scans of patients more accurately than humans, and indeed for professional accountants with the ability to interrogate entire populations of transactions. Further, technology is enabling decision-making at much greater speed and volume efficiency (we can apply professional judgement much quicker and therefore arguably to far more decisions than previously).

¹ Including factors such as greater collaborative approach, use of specialists, more sources and types of data used in decision-making etc.

Research topic

Research proposals are therefore invited to consider relevant issues in this space, to allow us to understand more about the potential impact of technology primarily on the exercise of professional judgement by professional accountants. We however believe that there will be commonalities with, and learnings relevant to, other professions, and proposals including such extensions and considerations will also be welcomed.

Examples of questions that are of interest to ICAS, without limitation, can be found in Appendix 1.

Of particular interest to ICAS, to be addressed in proposals, is how to mitigate the risk of the project findings being out of date by the time the research is completed, given the pace of technological advances.

Research methods

While our preference is for a qualitative project, ICAS welcomes all research methods, and applications are invited beyond the academic community and are accepted from around the globe. Although we invite proposals which include considerations from international jurisdictions, it is important that the UK features as one of the jurisdictions examined. The rationale for the choice of jurisdiction(s) should be included in the research proposal.

The proposed research may be based on case studies of professional judgement leveraging technology, in order to disseminate practical examples to supplement findings and policy recommendations.

Although we expect the proposed research to identify a certain commonality of what is required in 'professional judgement' and of the potential impact of technology in its application, applicants may consider segmenting their research proposal according to the different roles of accountants, and therefore the different contexts in which professional judgement may be applied.

Steering group

The project will be overseen by an ICAS Steering Group which will work with the successful applicant(s) to finalise the parameters of the research. The Steering Group will support the applicant(s) throughout the duration of the project and will oversee the project on behalf of ICAS.

Potential impact of project

ICAS will use the report arising from this call to inform public debate and policy development. This project could help to influence the future direction of the discussions underway globally on the topic of professional judgement and how this may be influenced by increasingly advanced technological developments such as generative AI. The research will be of interest not just to ICAS but to the Financial Reporting Council (FRC) and global standard setting bodies such as the International Ethics Standards Board for Accountants (IESBA) and the International Auditing and Assurance Standards Board (IAASB). The findings may also impact on other professions and their respective regulators, where professional judgement is also applied.

Terms of agreement

A final draft of the report arising from the project is to be delivered to ICAS in December 2025, although an earlier timeline is encouraged².

Authors will be required to make short presentations of interim and key findings to the ICAS Steering Group, the Research Panel, the Ethics Board, the AI Working Group and other relevant panels. A presentation of findings at ICAS sponsored events may also be required.

It is essential that the research report should consider the public interest in these issues, and to draw conclusions, implications and formulate recommendations of interest to policymakers, regulators, members of the profession and wider stakeholders.

Draft reports will be reviewed by the Steering Group, practitioner and academic reviewers, with a view to publication by ICAS. These should be a maximum of 10,000 words in length.

ICAS encourages these required outputs to be supplemented by other more interactive and/or innovative delivery media, such as webinars, short videos, etc. following discussion and approval by the Steering Group. We also invite ideas from researchers on other innovative ways in which the research outputs could be presented and disseminated, in addition to or to replace the traditional research report.

Grant funding of up to a maximum of £25,000 is available to undertake this project, which may be payable as a fee to an individual, a business or a university.

Timelines

- Commencement of project: 1 January 2025
- Final draft report to the ICAS Head of Research: December 2025

Given the objectives of this project, it will be critical for any proposal, and execution thereof, to adhere to the above timelines. ICAS will be pro-active in monitoring progress.

Expressions of interest

If you are interested in undertaking a project in this area, please email research@icas.com attaching a [call for research application form](#) (available at [icas.com](https://www.icas.com)) and a proposal together with summary CVs no later than 23:59 (GMT) on 24 November 2024.

Your application should:

- explain why you believe you or your team are suitable individuals to undertake the project;
- demonstrate your level of, or access to, knowledge and expertise in this area and how this will be leveraged in your proposed methodology;
- state how any team will be structured and responsibilities for completion of the report.

The proposal should identify the specific topics which you will focus on and include:

- details of the proposed research questions and methodology;
- a brief review of prior research/literature (academic and other), if any;
- how the project will advance current knowledge on the topic;
- the extent to which the research will be breaking new ground or building upon work which has already been undertaken;
- a summary of the key issues which you believe are likely to arise from the project;
- the anticipated impact and influence of the project; and

²Should a longer timescale be required, the rationale for it should be clearly explained and supported in the research proposal.

- the amount of grant, in sterling, which you require to complete the project imperatively with a breakdown of the estimated costs.

The Guidance Notes for Research Applicants (available at [icas.com](https://www.icas.com)) explain what should be included in the proposal.

The research proposals will be considered by a panel of academics and non-academics. Presentations will be required by shortlisted applicants in order to reach a final decision. The shortlist will be advised by ICAS on 28 November, and applicants should ensure that they are available for such presentations on 11 or 12 December. The final decision will be communicated shortly thereafter.

For further information about this funding opportunity please contact the ICAS research centre: research@icas.com.

Future research

Beyond this specific funding opportunity and timescale required, we will welcome and consider future proactive applications on the topics raised.

Appendix 1- Example of areas of interest

Skills

- Will the increasing use of technology, including AI, impact on the factors relevant to be competent in exercising professional judgement? In other words, will professional competence, and the ability to apply professional judgement, be reliant on the ability to use and interrogate AI? Will some degree of technology proficiency be a pre-requisite for ensuing professional judgement?
- To enable professional judgement to be applied in a rapidly changing world will accountants need to upskill and have knowledge of technologies such as AI systems, blockchain and cryptocurrencies?
- Automation of detailed transaction-level tasks may mean that traditional entry-level roles that deal with accounting transactions are not as available. How will the future generation of professional accountants therefore develop the experience needed to build a solid technical foundation from which to develop professional judgment? Questions to consider include “What will the new ‘entry level’ consist of?” Can training needs be met in part through simulations using augmented reality?
- Anecdotal evidence suggests that stakeholders are nowadays placing more value on non-technical professional skills (commonly called “soft skills”), such as critical thinking, communication, collaboration, and professional judgment. In times of increasing digitisation of information, and digitalisation and automation of processes, should the focus of professional accountant training be on the skills and competencies that favour humans over machines, such as demonstrating curiosity and an inquiring mind; understanding situational nuance; displaying empathy and emotional intelligence; contextualising information; applying creative, intuitive, and strategic thinking; and promoting ethical decision-making?

Value of technology in aiding professional judgement

- To what extent do professional accountants utilising technological systems believe that the use of such applications is impacting on their professional judgement, i.e. do they believe it is an enabler and enhancing their ability to exercise judgement or do they believe that it is diminishing or even replacing their professional judgement?
- To what extent can technology, including AI, aid decision-making? When drawing parallels with the medical profession where AI can enhance the consultant’s ability to make a call for their patient, based on AI’s ability to pick up minutiae or scan huge volumes of information, how can this be extended to the accountancy profession at large where both quantitative as well as qualitative factors are relevant. Can a parallel also be drawn with other professions, such as the legal profession?
- Is there a risk of automation bias i.e. that professional accountants will merely accept the output from a technology tool without giving due proper consideration as to whether it is reasonable and appropriate in the given facts and circumstances?
- Where a technology tool may interpret data and apply judgement:
 - can independence be maintained, for example is it taking all the facts into consideration rather a selection [and a potentially biased one] of them? And can it distinguish fact from fiction?
 - Is there a risk of automation bias i.e. that professional accountants will merely accept the output without giving adequate consideration as to whether it is reasonable and appropriate in the given facts and circumstances?
 - will society accept those judgements on accountancy, assurance and tax related matters without these being subject to scrutiny by an appropriately qualified professional? Do/will individuals become the checkers, and is their a role for professionals in this?
- Machines are – or will become – better and faster than humans at most of the transactional, analytic and prediction tasks that humans frequently perform today. Does this augment or devalue professional judgement?

Value of human professional judgement

- Will/to what extent will human professional judgement remain relevant and value in a world driven by technology?
- Can the risk of automation bias, where it is derived from algorithms potentially 'tainted' by the conscious or less conscious biases of those coding those algorithms, be mitigated so as to not unduly 'lead' the ensuing professional judgement, and how?
- Is there any current evidence available to suggest that AI in the near to medium future would be capable of asking questions, critically analysing responses, interpreting information, evaluating risk, building capacity, and prioritising resources as each of these also requires clear communication and professional judgment, as well as an inquiring mind and/or professional scepticism? If so, does this present an existential threat to the accountancy profession and indeed many other professions and occupations?
- Will technology advances increase the need for human exercised professional judgement? For example, professional accountants in charge of oversight of AI applications can behave ethically and having an inquiring mind in asking questions to ensure that the AI under consideration is fit for purpose, that the data inputs are fair and "free" from bias (i.e., that at least the bias is acknowledged and accounted for when evaluating the outputs), and that the information or output generated by the AI system makes sense.



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