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Sage submission to the Consultation on the Centre for Data Ethics and Innovation

Introduction

Sage, the UK's largest technology company, is the market and technology leader for integrated accounting, payroll and payment systems, supporting the ambition of entrepreneurs and business builders. Sage helps drive today's business builders with the most intelligent and flexible cloud-enabled software, support and advice to manage everything from money to people.

Daily, more than 13,000 Sage colleagues in 23 countries work with a thriving global community of over 3 million entrepreneurs, business owners, tradespeople, accountants, partners and developers to champion the success of business builders everywhere. And as a FTSE 100 business, we are passionate about doing business the right way and support our local communities through the Sage Foundation.

Sage is currently using Artificial Intelligence (AI) to enable our mission to make admin invisible so our customers can spend more time doing what they love – building and growing their businesses. In 2016, Sage launched the first accounting smart assistant Pegg, a gender neutral chatbot. Pegg handles customer support queries, intelligently automates tasks and provides proactive, predictive insights. Pegg was developed in line with the Sage Ethics of Code. These are Sage owned protocols which support the organisation in the ethical development of AI for business, published by Sage in June 2017[1]. The Sage Foundation is also using AI to help combat Gender Based Violence in South Africa by detecting early signs of abuse

Sage is pleased the Government is seeking to act swiftly to ensure we have the right governance frameworks for new technologies such as artificial intelligence. We welcome the opportunity to respond to this consultation.

Executive Summary

Sage supports the establishment of the Centre for Data Ethics and Innovation and welcomes the opportunity to respond to this consultation. Sage shares the Government's ambition for the UK to be at the forefront of global efforts to harness data-driven and artificial intelligence technologies as a force for good – and believe the Centre has the potential to be a driving force to achieve this goal.

These technologies are already widely used by consumers and business alike. And we are already seeing many of the benefits of the development of AI, such as providing vital intelligence to small businesses that would not otherwise be able to afford a CFO or CMO, or automating tasks that would have previously taken entrepreneurs away from their customers

If developed ethically and responsibly, there is the potential for AI to deliver significant social good economically and in areas such as health, social care and education.

Nevertheless, we cannot simply expect that AI will enhance our lives without a proactive effort to establish strong and agile frameworks to tackle ethical principles of AI, to protect users and build a secure foundation for the future.

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[1] 'The Ethics of Code: Developing AI for Business with Five Core Principles', Sage
https://www.sage.com/~/media/group/files/business-builders/business-builders-ethics-of-code.pdf?la=en

At Sage, we have already [developed a set of core principles for AI](#) and have developed a roadmap for creating AI corporate governance and ethical frameworks through our AI whitepaper - *Building a Competitive, Ethical AI Economy*[2].

These principles share the Sage beliefs that AI should be free from bias, should reflect the diversity of all its users and level the playing field for workers. The Centre for Data Ethics and Innovation can play an essential role in ensuring that all AI is developed in an ethical and responsible manner – and is applied so it creates fresh opportunities to enhance our lives.

In summary:

- We support the Centre's aims and objectives and very much welcome its independent nature. The Centre has an opportunity to show international leadership. This opportunity should be seized to ensure the UK maintains its reputation as operating at the forefront of ethics in data-driven technologies and AI.

- We firmly believe the Centre for Data Ethics and Innovation should establish a proactive engagement strategy. It should actively seek out opportunities to receive the views of stakeholders from the technology community and beyond, aiming to be a partner that stakeholders trust and want to turn to with any ethical challenges.

- We agree with the proposed outline of activities for the Centre. But the Centre should also have public trust and embedding ethical understanding in digital skills within its remit. We also think there could be a future role for the Centre to advise on how students can be taught AI ethics through the curriculum.

- Regarding the proposed areas of focus, we believe these would benefit from being more tightly defined. For example, within the definition of "Fairness", we believe there should be greater clarity and a stronger focus on ensuring AI and data-driven technologies are created free from bias as a crucial component of the development stage.

- It is understandable that the Centre will need to pick core priorities in the first two years. The establishment and implementation of voluntary codes of conduct for businesses and other organisation is in our view the number one priority. As highlighted by our AI whitepaper, "*Building a Competitive, Ethical AI Economy*", a holistic approach to ethical AI by businesses is key to its future success, but it is not a simple exercise for any organisation. We published this roadmap in August based on a discussion with global tech companies, developers, politicians, academics and charities. Key areas of focus included creating corporate governance frameworks; making AI accountable; building trust through transparency and empowering the workforce.

- The Centre should embrace technology – such as virtual town halls and quarterly webinars – to make it accessible and ensure public engagement is as broad as possible.

- We welcome the Centre's commitment to transparency. However, due to the changing nature of the technologies it seeks to advise on, reporting should be done at least annually. This will ensure that the Centre's recommendations are sufficiently responsive and relevant to current technologies.

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[2] Sage AI Whitepaper, 'Building a Competitive, Ethical AI Economy' http://www.sage.com/~/media/group/files/business-builders/ai-white-paper-aug2018.pdf?la=en

![Sage logo]

1. **Do you agree with the proposed role and objectives of the Centre?**

Sage welcomes the establishment of the Centre for Data Ethics and Innovation. We are supportive of the Centre's objective to independently advise government on establishing effective governance regimes to ensure AI and data-drive technologies are developed and implemented ethically. The establishment of the Centre offers the UK an exciting opportunity to enhance its status as a country at the forefront of developing emerging technologies ethically. We strongly support the ambition for the UK to become a world leader in the development of safe and ethical innovation in AI.

Sage welcomes that the Centre will be established on an independent footing. This will help ensure it quickly gains the trust of the public and industry and delivers on the commitment to draw on the best expertise from business, academia, citizens, consumers and civil society. As acknowledged by the consultation, there is already significant knowledge and best practice examples for the Centre to support and build on. The Centre should look to enhance this good work from the existing technology community and wider academic ecosystem.

Sage agrees that the overall goal of the Centre's recommendations should be to deliver the best possible outcome for society. To do this, we agree that there is a need to promote innovate uses of technology and data, while also ensuring that this is done in an ethical manner.

The consultation notes that the Centre will have a clearly defined role to "convene, connect and build upon the best evidence, insights and practices available" and will "engage closely with citizens."

To realise this, the Centre should develop a strong strategy for engagement and community outreach to enable proactive and positive engagement with the broad range of stakeholders it will need to consult. The Centre will need to ensure active and regular engagement with stakeholders to ensure that its recommendations are current, relevant, and create strong frameworks for accountability, without stifling innovation.

We echo the remarks by the former Secretary of State for Digital that "trust builds a strong economy." Sage would welcome a stronger emphasis on the importance of the Centre in improving public understanding of artificial intelligence. Research by Sage showed that currently 46% of UK consumers have admitted they have "no idea what AI is about"[3] It will not be possible to gain trust if the public does not fully understand data-driven and AI technologies. We would urge the Centre to take an active role to broaden understanding and knowledge of AI across the UK.

2. **How best can the Centre work with other institutions to ensure safe and ethical innovation in the use of data and AI?** Which specific organisations or initiatives should it engage with?

As stated in our response to Question 1, a proactive engagement plan that seeks to establish positive working relationships with both industry and consumers will be crucial to the success of the Centre.

We would greatly encourage engagement with technology companies already undertaking best practice ethics work and initiatives that will allow the Centre to make an early impact. This will help the Centre to gain initial buy-in from stakeholders.

For example, Sage has already produced a roadmap for a corporate governance framework for developing and implementing AI ethically. This can be found in our AI whitepaper – "Building a

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[3] 'Optimism and Ethics, An AI Reality Check', Sage https://www.sage.com/~/media/group/files/business-builders/sage-ai-report.pdf

[competitive, ethical AI economy](link)". Our whitepaper recommended that industry leaders should work closely with AI experts and developers to put ethical principles into practice by:

- **Building, testing and deploying AI technologies destined for the world responsibly** – in order to secure public trust, government support and an innovative future.
- **Communicating AI's diverse value and benefits to diverse sets of people** – and that AI advocacy must permeate from the boardroom to the office front desk.
- **Demystifying the inner workings of AI** – as we alleviate public concerns over potential risks and explaining how businesses use the technology to deliver value to customers.
- **Uncovering ethical approaches to AI that apply to specific industries and companies** – in order to safeguard the longevity of human interactions with AI technology.
- **Educating users** – including employees, customers, public sector officials and society in general – about AI and clearly explaining the technology's applications.
- **Ditching jargon** when talking to potential technology buyers, customers and the larger community about AI – using simplified language to explain AI and point to clear examples for non-technical audiences.
- **Creating branding standards for businesses working with AI** – ethical AI extends to accurately portraying an organization's AI-driven technologies, capabilities and services.

Supporting and building on initiatives such as these will allow the Centre to gain momentum and early progress towards its overall objectives.

Furthermore, engagement will need to extend far beyond the direct technology community. We would also encourage the Centre's representatives and spokespeople to consider how it can receive input from the wider business community and consumers who will ultimately be applying and using AI. For example, consumer groups such as "Which?" could help further general understanding of AI and how this fits with the Centre's work if a constructive working relationship could be established.

To achieve the UK Government's goal of the UK being a world leader in the responsible development and implementation of AI – we would also encourage cooperation with international bodies. For instance, engagement with stakeholders such as the European Commission will help ensure the Centre is a regular participant in global conversations regarding ethical frameworks.

Finally, we would like further clarity to be given as to how the Centre for Data Ethics and Innovation will link up with other bodies working in this area– such as the AI Council and Office of AI – and wider regulators such as the ICO. If the Centre's work is to translate into direct, real-world actions – concrete and transparent processes between these bodies will need to be established.

3. **What activities should the centre undertake?** Do you agree with the types of activities proposed?

We agree with proposed outline of activity put forward for the Centre. The three areas of focus proposed for the Centre offer a robust and logical starting point for work and engagement to begin.

However, we do not believe the Centre should be restricted to these areas alone. Over the longer-term, we do think there could be consideration for a role for the Centre to advise on how AI skills can be taught ethically – whether this occurs in schools, further education, higher education or business. A focus on advising on gaps in regulation and the development of codes and frameworks alone misses the opportunity ethical AI to be firmly rooted in UK culture.

Taking schools as an example, there are already significant numbers of young people who are exploring the possibility of a future career in artificial intelligence. For example, according to YouGov research undertaken on behalf Sage in April this year, 1 in 4 young people aged 8 to 18 are

considering artificial intelligence as a future career[4]. If ethical practices are to become set among the population over the long-term and implemented in full across our future workforce, then the Centre will need to be able to advise how ethical training is embedded within the curriculum and training.

The curriculum in this area will likely be subject to frequent change to ensure students are learning skills relevant to constantly changing technology, so it would be important for the Centre to regularly update its guidance and recommendations in this area.

Sage has begun to undertake work to introduce ethics at the starting point of a young person's AI education and training. In 2018 we launched a series of events showcasing AI for young people, Sage FutureMakers Labs, which is run through Sage Foundation in partnership with charity Tech for Life. The programme educates young people on the diverse range of skills required for a career in AI and it includes ethical design as part of the course curriculum.

As outlined in our response to question 1 – we would also like to see the Centre take an active role in improving understanding of AI – to help build trust in new technologies and broaden the public discussion.

4. **Do you agree with the proposed area and themes for the Centre to focus on?**
   Within these or additional areas, where can the Centre add most value?

Those developing and implementing AI and data-driven technologies can face significant challenges. For instance, where AI has been developed without using diverse data sets, it has replicated and entrenched the biases of humans. In other areas, there are concerns that algorithms are significantly influencing human decisions – but are developed without full transparency and their workings are often little understood by the consumer.

Sage has undertaken significant work to identify the core principles and themes needed to develop artificial intelligence ethically and responsibly. In 2017, Sage outlined 5 principles to keep corporate AI accountable through "the Ethics of Code: Developing AI for Business with Five Core Principles" – which are as follows:

- **AI should reflect the diversity of the users it serves –** both industry and community must develop effective mechanisms to filter bias as well as negative sentiment in the data that AI learns from - ensuring AI does not perpetuate stereotypes
- **AI must be held to account, and so must users** – users build a relationship with AI and start to trust it after just a few meaningful interactions. With trust, comes responsibility and AI needs to be held accountable for its actions and decisions, just like humans. Technology should not be allowed to become too clever to be accountable.
- **Reward AI for 'showing its workings' –** Any AI system learning from bad examples could end up becoming socially inappropriate. We have to remember that most AI today has no cognition of what it is saying. Only broad listening and learning from diverse data sets will solve for this. One of the approaches should be to develop a reward mechanism when training AI. Reinforcement learning measures should be built not just based on what AI or robots do to achieve an outcome, but also on how AI and robots align with human values to accomplish that particular result.
- **AI should level the playing field** – Voice technology and social robots provide newly accessible solutions, specifically to people disadvantaged by sight problems, dyslexia and limited mobility. The business technology community needs to accelerate the development of new technologies to level the playing field and broaden the available talent pool.

[4] https://www.sage.com/en-gb/news/press-releases/2018/04/sage-research-reveals-uk-plc-is-set-for-talent-boost/

- **AI will replace, but it must also create** – There will be new opportunities created by the robotification of tasks, and we need to train humans for these prospects—allowing people to focus on what they are good at, building relationships, and caring for customers. Never forgetting the need for human empathy in core professions like law enforcement, nursing, caring, and complex decision-making.

We believe that this provides an easy to understand, but comprehensive and actionable framework for those looking to develop and apply AI. The Centre's proposed areas and themes do loosely touch on many of these issues – but to be effective these proposed areas will need to be more tightly defined and prioritisation will need to occur.

For example, looking at "Fairness", this proposed area acknowledges the opportunity of new technologies to identify and minimise unconscious biases. We would like the Centre to build on this by specifically mentioning that it will have a strong focus on ensuring AI is created free from bias, from the start of its development stage through to application.

Looking at "data access", we very much welcome the Centre's interest in creating data sharing frameworks and data trusts. We would encourage the Centre to provide more detail on how they will look to facilitate this process, and this should form a significant focus area. While there is a need to acknowledge existing regulatory frameworks, the Centre could offer significant value by ensuring that small businesses can compete on a level playing field by having better access to data.

5. What priority projects should the Centre aim to deliver in its first two years, according to the criteria set out above?

We of course acknowledge that an initial focus for the Centre will be to forge new relationships, review priorities and establishing baselines of research and analysis.

Nevertheless, the Centre has a real opportunity to hit the ground running by working with industry partners on developing and promoting voluntary codes of conduct and ethical principles, underpinned by a strong culture of corporate governance. It is vital that the Centre begins work in this area as soon as possible as application of AI becomes more widespread. This should be its number one priority.

There is plenty of ongoing work in this area that the Centre could support and promote to achieve early outputs and gain momentum. For example, in previous answers we have mentioned our roadmap that organisations can use to establish ethical frameworks for artificial intelligence, found in our AI whitepaper - *Building a Competitive, Ethical AI Economy.* Our suggestions to businesses developing and applying AI include:

- **Create a governance framework:**
    - Agree board ownership and accountability
    - Make ethics part of your tech strategy
    - Map key stakeholders (employees, customers, partners, suppliers)
    - Regularly monitor and test
    - Make accessible and transparent to stakeholders

- **Make your AI accountable:**
    - Prioritise trust and credibility
    - Make a human responsible for non-human decisions
    - Consult an ethics expert
    - Meet high quality assurance standards
    - Monitor performance and test for risks

- **Build trust through transparency:**
    - Explain how you are using AI
    - Ditch the jargon: make it clear and simple
    - Share your positive vision and success stories
    - Certify employees to adopt AI successfully and ethically

- **Empower your workforce:**
    - Map your future skills demand
    - Engage colleagues in job adaptation plans
    - Create a reskilling framework
    - Assess recruitment strategies
    - Invest in the workforce of tomorrow

This existing roadmap can be capitalised on to encourage other organisations designing or using emerging technologies to establish specific ethical frameworks. The process could perhaps be formalised by creating a voluntary code of conduct aimed at larger corporations and FTSE 100 companies within the first two years of the Centre's operation.

Similarly, best practice can also be spurred on by quickly establishing and distributing sectoral examples of best practice when developing data-driven and AI technologies ethically. These would be of significant value to small businesses and would allow other companies to develop pilot projects ahead of establishing more formal governance structures.

6. **Do you agree the Centre should be placed on a statutory footing? What statutory powers does the Centre need?**

We welcome the Government's ambition to establish the Centre on an operational footing as soon as possible. As previously mentioned, AI is already being widely developed and implemented. There should be no delay in establishing the Centre and beginning its work. It is essential the opportunity is seized to establish ethical development of AI at the relatively early stages of its use among businesses and consumers.

The consultation mentions that statutory powers may be necessary in future for the Centre to deliver its mandate. Any statutory powers should be implemented after further consultation with citizens, consumers, business and other public bodies. It is incredibly important that robust frameworks can exist, while allowing new technologies to thrive, so we would recommend government seeks a broad evidence base rooted in consultation.

7. **In what ways can the Centre most effectively engage stakeholders, experts and the public?** What specific mechanisms and tools should it use to maximise the breadth of input it secures in formulating its actions and advice?

In our answer to question 1 we expressed the need for the Centre to view proactive engagement with citizens, consumers and business as a vital role to gain the level of insight needed to develop effective recommendations.

We therefore welcome the commitment to regularly engage in and host expert panels, roundtable discussions and consultations, along with commissioning research. These forums will provide the platform needed for the Centre to engage with stakeholders frequently and on a sustained and consistent basis.

We would also recommend the use of technology to broaden the ability of the Centre to reach large numbers of stakeholders at once. For example, virtual town hall events could be held to seek the views of citizens and consumers – and quarterly webinars could be conducted to provide updates for the Centre's work and ensure transparency in its workings.

Proactive, engaging communications supported by a variety of spokespeople to represent the Centre will help drive engagement.

8. **How should the Centre deliver its recommendations to government?** Should the Centre make its activities and recommendations public?

Transparency will be vitally important if the Centre for Data Ethics and Innovation is to enhance trust in data and AI and deliver on its remit.

We firmly agree that the reports and recommendations of the Centre should be published at the point of delivery to Government and open board meetings would be a very helpful and welcome step.

However, we believe more can be done to make the Centre more transparent and effective. To keep pace with technological change, the Centre will almost certainly have to provide more regular updates and recommendations than once a Parliament and have a strong links to other important networks like the Office of AI, the AI Council, universities, online platforms and business associations.

Reporting where the Centre reviews its work and provides an assessment of the ethical landscape should occur at least on an annual basis. This will allow regular scrutiny of the Centre's effectiveness to ensure it continues to deliver against its objectives, along with ensuring governance frameworks are agile, effective and relevant to current technologies.