Steering Committee workshop report

Report of workshop held on 30 October 2019

November 2019

Overview

In the first workshop the following areas of agreement appeared:

- The strategy needs to be focused and not try to do everything for everyone;
- AI in Scotland is both an enabling technology and an industry;
- The strategy needs to be ambitious and not constrained by fears or current limitations;
- The vision for Scotland is for 'socially just' AI that is embraced by society;
- There is space for Scotland to be a global leader/role model – top five in the World – "have you heard what they're up to?";
- The strategy should reflect ambitions in the National Performance Framework; and
- Scotland has the capacity to succeed (and there is commonality between the diverse interests represented in the room).

To achieve the vision a number of pre-conditions began to emerge if Scotland wishes to achieve its vision for AI:

- Trust is vital and transparency is key to this – but not so much transparency that it affects competitiveness – 'a Scotland kite mark on a small black-box'. What do we mean by transparency?
  - o purpose of algorithm needs to be transparent but not everyone needs to understand the algorithm;
  - o everyone needs to understand when they are interacting with AI - informed consent;
  - o established standards/guidelines and a legal framework;
- Scotland's AI ecosystem needs to be more joined-up and Scotland needs a clear pitch and pathway – this is how we do it, this is what you need to do, this is who you should talk to;
- Scotland needs to recognise and promote what it already has 'we're the best kept secret';
- Scotland's population must be digitally and AI literate and this starts in the education system; and
- Strategies too often fail to achieve their ambition, the conditions for success need to be created alongside the strategy content. The strategy should provide a facility for recourse in the development of AI in Scotland.

A key challenge for the second workshop is to identify where Scotland's strategy should focus over the next five years. The challenge of creating a focus is substantial because AI is both an enabling technology that could be applied almost anywhere and an industry that could generate economic benefit (employment and GVA) in its own right. The diversity of opportunity is both a strength and a weakness in this process. However, some emergent ideas on where to focus appeared:

- Need to focus on creating guidelines/principles for AI in Scotland;
- Need to focus on areas where there is lots of data;
- Need to focus on areas of most importance to citizen;
- Need to focus on the outcomes, not AI per se, AI is just a tool;
- Need to focus on creating the incentives to make it happen;
- Need to ensure that activity meets objectives i.e. activity is equalizing and inclusive; and
- Need to balance economic and societal benefit.

The remainder of the report provides further detail on discussions in the workshop.

SWOT analysis

What are Scotland's AI assets?

- Have components of an AI ecosystem:
  - Scottish Universities punch above their weight in AI research
  - There is political will to harness AI
  - Strong businesses and industries in Scotland lever in elements of AI e.g. Skyscanner, FinTech and DigTech
  - Scotland's size and the proximity of different stakeholders to each other makes it easier to work together and take a holistic view
  - Culture of innovation and creativity
  - A trusted culture (rather than a culture of trust?)
  - Data assets (NHS, insurance, UK Biobank)
  - Ability to attract and retain talent 'great place to be'
  - DDI investments e.g. Edinburgh and SE City Region Deal
  - Widespread digital adoption
  - Publicly supported institutions e.g. enterprise and skills networks, centres of excellence.
- Political and societal focus on human rights on and social justice (opportunity?)
- Cultural intolerance of bull***t requires grounded development (opportunity?)

What does Scotland need to improve on?

- Components of the AI ecosystem are not sufficiently robust or joined up
  - Approach to AI often from an academic perspective, makes it difficult to connect it to real people
  - There is unhealthy competition between universities
  - Challenging to maintain status outwith London – disconnected
  - Public sector landscape is fragmented which will affect adoption of AI
  - Potential issues with digital infrastructure to fully enable AI beyond the central belt
  - A lack of trust in AI – seen as taking power away from the people and concerns about its use in the workplace
  - Challenging to attract and retain people who chose, or leave for, better opportunities elsewhere
  - Talent pipeline needs to start much earlier, at least to undergraduate level, ideally back to secondary school and in a perfect world primary education
  - Cultural reluctance to adopt technology – 19/20% not digitally engaged
- Scotland's global pitch is weak
- Scotland is a nation of tech 'users', AI is done to the people of Scotland not with them
- Lack of legislative power in Scotland – most relevant regulation is reserved as is immigration policy. Rules and parameters may sit better at European level.

What external features can Scotland take advantage of?

- UK (and Edinburgh) already ahead of the pack, can aim high, top 5 in the world
- Willingness of big tech and potential global partners to collaborate
- Potential for Scotland to be a world leader in ethical data usage in AI
- Window of opportunity to set rules of the game for Scotland
- AI can help to meet other goals, e.g. climate change targets

What external obstacles could Scotland face?

- Lack of influence and control e.g. politically and internationally, e.g. nature of major AI development and tech firms, most US-based
- Market concentration
- Other countries have more capacity to invest
- Uncontrolled development of AI could create a backlash and broaden inequality
- Access to and use of personal data – public opt-out vs private opt-in (e.g. Facebook) risk that innovation happens in private spaces

Vision: developing a view of the future

The following ideas were put forward during a discussion on the future. These ideas have not yet been interrogated.

Imagine it is 2030 and Scotland has delivered its AI strategy successfully...

Scotland's citizens

- Scotland has undergone a "second enlightenment" – the first enlightenment questioned how to run a nation-state for the benefit of the citizen – AI means we revisited and reinforced this focus
- Scotland aimed for the difficult stuff that really made a difference to citizens, not just the low hanging fruit
- Scotland's society is more equitable, and Scotland's citizens are empowered by AI
- Scotland's education system has been democratised by AI
- Scotland's citizens are AI and data literate
- You talk to anyone on the street and they can tell you how their lives have improved through AI – 'better than the old days'
- Citizens' interactions with the state are information rich and open
- Fear of AI has disappeared, and citizens can participate in informed debate about the ethics of AI
- There are enough jobs in Scotland so that people can stay, as many as want to
- Scotland is trusted as a safe place for citizens, and Scotland is a global benchmark for using AI for citizen benefit

Scotland's organisations

- AI in the health sector is augmenting clinical decision-making and peoples' job satisfaction and skills
- Policy decision-making in Scotland is powerfully evidence-based due to the power of AI to provide better data
- Public procurement supports indigenous AI development firms, helping us to grow and nurture our own SMEs
- Scotland's SME sector has embraced AI
- Data is accessible to developers whilst being mindful of ethical and legal considerations
- The organisations that design systems are transparent and accountable and AI systems have a kite mark that is trusted
- Businesses have relocated to where AI talent is and there is colocation of AI users and AI developers
- AI can be bought off the shelf and is easy to adopt without requiring specialist skills
- AI has complemented and built on existing approaches to service delivery

Scotland's global position

- It is clear to an international audience why they should invest in Scotland
    - Scotland's USP is that it innovates responsibly
    - Scotland is the safest place to be and invest
    - Scotland is a global centre for responsible innovation
    - Scotland has attracted substantial investment
- Scotland is a benchmark against which other nations can measure themselves
- Scotland is unable to keep up with visa applications, investments, visits etc. as everyone comes to Scotland to do AI or to learn how it's done. And even in 2030, we're not done yet!