Office for Students **OfS**

Report from the Horizon Scanning Panel

Issue

1. The board is kept informed of the Horizon Scanning Panel by receiving a report on the outcomes of each meeting. The enclosed report summarises the outcomes of the meeting held on 24 February 2020. This report will be supplemented by an oral report given by the chair of the Panel.

Recommendations

2. The board is invited to receive the report of the Horizon Scanning Panel.

Main points from February meeting

3. The chair conducted mid-point Panel effectiveness interviews to review performance of the Panel to date. Overall, the Panel is perceived as worthwhile with valuable contributions. However, the Panel's work to date has been reactive and exploratory; in its second year it should be more strategic, diverse and focused along themes to increase the Panel's impact on the OfS.

4. The Panel agreed to spend the next year looking at two themes: the future supply and demand of higher education; and the purpose of higher education (and associated meaning of quality in this context). In both instances, the Panel will seek to advise the OfS in a way that contributes to the development of the new OfS strategy.

5. The Panel discussed a presentation from external member Hasan Bakhshi on his report 'The Future of Skills, Employment in 2030' (Bakhshi and Lima 2018), and identified possible areas of further exploration in its application to higher education.

6. The Panel discussed a paper on Preserving Provision and identified possible factors for OfS and DfE to consider in future discussions.

Further information

7. Available from Sir Michael Barber.

Horizon Scanning Panel report

February 2020

Summary of mid-point panellist interviews

8. The Panel received a short paper summarising the themes that emerged from the Panel effectiveness interviews conducted. The paper included recommendations for the Panel to discuss.

9. The Panel discussed the following points:

    a. It would be helpful to put more structure on the Panel's discussions, and there is good practice available on how to do so, e.g. using different facilitation models at meetings and/or via project work between meetings. The Panel could also identify future facing questions that the OfS wants answers to, and structure meetings around these.

    b. The logic of the Panel is that it is a distinct/different group able to offer a fresh perspective and review data/information, rather than to produce it - a facilitator of information rather than an expert in it.

    c. At board level, thinking ahead currently focuses mostly on the financial sustainability of institutions (on a 3 to 5 year horizon). There would be benefit in this Panel scanning widely and understanding what might happen in a 5/10/15 year horizon; and the Panel has already touched upon elements of this.

    d. Executive members could join future Horizon Scanning Panel meetings.

    e. The Panel could capture long term signals/risks (covering both key threats and opportunities) in a log and/or the OfS risk register as appropriate.

10. **Next steps** involve:

    - Sir Michael Barber, Josh Fleming and Alexandra Chourchouli to explore how to best capture signals/risks; identify and categorise signals/risks emerging from previous Panel meetings; and continue to do so in future Panel meetings.

Future focus for the Horizon Scanning Panel

11. Following discussions with the chief executive and directors' group about how to maximise the Panel's utility, the Panel received a paper setting out the executive's most significant recommendation – for the Panel to identify up to two themes to focus on for the year – and inviting comment and discussion from the Panel on the subject. The rest of the executive's feedback was reflected in the mid-point interview paper under item 3. The two themes identified were

    a. factors affecting the future supply and demand of higher education and

    b. the purpose of higher education in a changing world (with particular reference to what quality means in this context).

The Panel was invited to consider three operating approaches for the coming year. Firstly, the thematic approach suggested by the executive. Secondly, unbound (but structured) scanning, similar to the first year of the Panel's existence. And thirdly, a possible combination of the two previous options.

12. The Panel discussed the following points:

    a. The new OfS strategy is being developed and will be in force from April 2021. It would be useful for the OfS strategy to be influenced by what happens beyond a 3 to 5 year horizon.

    b. The third operating approach looks appealing. The two themes identified are very broad, which will help the Panel decide where to focus/the parameters and how to make links.

    c. The Panel needs to be more rigorous around thinking about, for example, 10/20/30 year trajectories. Equally, the Panel can influence shorter-term action, e.g. via the OfS project pipeline and the new OfS strategy.

    d. What are the links to the OfS Quality Assessment Committee and Provider Risk Committee, e.g. around themes emerging from regulation of individual providers? The question of what quality means is not straightforward, e.g. it could partly be about students getting graduate-level employment. The Panel could debate the relevant theme to help the OfS define quality under the Regulatory Framework.

    e. A foresight project using scenario analysis or other methods was suggested. The first stage would be to assimilate resources in a structured way. The Panel could collectively come up with a good reading list.

    f. The Panel could explore its focus further to making links to strategic planning, e.g. by further building on existing links to the project pipeline.

13. Overall, a more structured and thematic approach was favoured. The Panel could start by looking at the themes around supply and demand, and the purpose of higher education/meaning of quality, with the aim to also influence the new OfS strategy. The Panel agreed to adopt the two themes and use a more structured approach, while keeping the option for wider scanning open.

14. **Next steps** involve:

    • The Panel will invite Nolan Smith to the next Panel meeting as part of the supply and demand theme.

    • David Palfreyman to provide literature references to help the Panel start a discussion on quality.

    • Josh Fleming to speak to Hasan Bakhshi to explore how to use a more structured approach between and during Panel meetings.

Future of Skills

15. The Panel received a presentation from Hasan Bakhshi about the report he had co-authored 'The Future of Skills, Employment in 2030' (Bakhshi and Lima 2018). He noted

that there are a number of reports in this space which considered the future of employment and the extent to which occupations are at risk of automation (e.g. Frey and Osborne, 2017; McKinsey, 2017; PwC, 2017).

- The methodological approach taken by his research team was novel in that it combined expert human judgement with active machine learning, which results in a more nuanced forecast than other methods have produced.

- The research begins with trends analysis - seven drivers of change were identified:
  - Technological change
  - Globalisation
  - Demographic change
  - Environmental sustainability
  - Urbanisation
  - Increasing inequality
  - Political uncertainty

- These trends interact closely with each other (e.g. globalisation and urbanisation) and all have an impact on future labour markets. Automation is only one part of the story of the future of employment. The trends material was used to inform discussions at foresight workshops, supported by machine learning to apply predictions across many occupations and their constituent knowledge, skills and abilities.

- Previous research, such as that of Knowles-Cutler, Frey and Osborne (2014), suggested that 35 per cent of jobs are at high risk of being replaced by automation, with only 40 per cent of jobs being at no or low risk of being replaced by machines.

- The Bakhshi and Lima study's prediction was in contrast more uncertain in terms of the impact of automation. Only one in five workers were predicted to be in occupations facing a likelihood of decline but only 8 per cent were employed in roles where there could be confidence of growth. Hasan Bakhshi's view is that previous studies go too far in their prediction that automation will eliminate jobs, and not far enough in terms of understanding how diverse sources of structural changes will interact with labour markets (e.g. how demographic change will impact on employment related to healthcare, housing, recreation, etc).

- A chart plotting correlation (using the Pearson coefficient between past change in the importance of workforce skills and likelihood of future growth) identified that for most occupations it is not possible to be confident about growth or shrinkage of demand for skills. In this context, there is a considerable challenge for educators and policymakers around how to prepare people for future labour markets.

- A key finding from the research was that there is a strong relationship between higher-order cognitive skills and future occupational demand. The future

workforce will need broad-based system thinking skills in addition to the more specialised job features needed for specific occupations.

- There was acknowledgement that this finding accorded with thinking about the purposes of higher education - of the 120 Job Features that higher education should be focusing on, those most in demand are higher-order cognitive skills (such as originality, fluency of ideas, active learning) and systems thinking. In addition, it was noted that social/interpersonal skills were also very important and their importance would continue to grow in the labour market.

16. The Panel then had a break-out discussion focusing on the two themes agreed earlier in the meeting intersected with the Future of Skills report. The following points were fed back (providing avenues for further exploration):

Supply and demand
- Pedagogical implications - how will higher education embed future skills/attributes in courses? There are implications for course structure, such as the balance between static and dynamic course content, and the extent to which static course content needs to be applied in a dynamic way.

- The report emphasises the importance of data. Policy makers need to do more to understand the labour market and cast their nets wider when looking for sources of insight.

- Institutions will focus on what they can 'sell'; the current student funding system may not be suitable for the growing number of mature learners that this research suggests we need.

- It is unclear whether the current system has the right incentives to align provision and future skill needs, including at the level of complementary (and non-complementary) skills/knowledge. Student information has a clear role to play.

Purpose of higher education
- One conclusion you might take from this report is that one of higher education's roles is to equip people to thrive in this future labour market, either through equipping them with the skills directly, or by helping them better navigate the uncertainty.

Preserving provision

17. The Panel received a paper in the form of a shorter version of a presentation on preserving provision that went to January board to a) show the Panel how they have influenced the OfS's thinking and b) invite the Panel's views on important considerations in the event of provision being ceased (noting that it is the central government's rather than the OfS's role to determine what constitutes an important factor). Josh Fleming briefly introduced this item:

- Following discussions that were in part prompted by the Horizon Scanning Panel's reflections on subject trends, the OfS is in dialogue with the Department for Education (DfE) about the concept of 'preserving provision'.

- The OfS has been clear and maintains its position that it will not bail out failing providers; the ideas presented here are to help frame discussions with other parts of government.

- It is for central government to reach a view on how value is conceived, not the OfS. At this early stage, however, the Panel is invited to consider the ideas in this paper and make suggestions to inform discussions with DfE.

18. The Panel then had a break-out discussion focusing on 'What factors should the government consider when thinking about preserving provision'? The following factors were suggested:

- The extent to which the reason for the provision ceasing is a temporary issue or a systemic one

- The extent to which the provision ceasing will lead to monopolistic behaviour

- Is the provision important to specialist health services

- Does the provision contribute to a minimum level of supply in expertise in a domain, such as languages

- The public role of the provision in preserving cultural heritage

- The option value of the provision according to the Treasury Green Book

19. In addition to these factors, the following points were made:

- The conception of purpose of higher education is critical to determining which factors to consider

- The level of evidence available and required is also relevant to which factors matter

- It is possible to 'skill up' from low numbers, but not from zero

- Any intervention comes with a risk of moral hazard, and as a result there may be few areas and instances where it would be net beneficial to do so

- It is surprising there are not already frameworks in place to consider this situation

20. **Next steps** involve:

- Josh Fleming to reflect the Panel's comments in discussions with DfE.

Artificial Intelligence

21. The Panel received an additional paper from Rose Luckin on Artificial Intelligence and comments were invited from the Panel. The paper will then be shared with the board/executive.

22. **Next steps** involve:

- Josh Fleming to lead on setting and communicating a deadline for the Panel to share comments with Rose Luckin.

- Josh Fleming to receive the amended Artificial Intelligence paper from Rose Luckin and submit to May board.

<u>Future meetings</u>

23. The next meeting will take place on 18 May 2020.