Consultation on the Development of a Digital Learning and Teaching Strategy for Scotland

Analysis of Responses

Craigforth

The Scottish Government
Riaghaltas na h-Alba

Contents

Executive Summary

The Consultation

1. The Scottish Government consulted on the development of a digital learning and teaching strategy for Scotland. The strategy will be the first comprehensive statement of Scotland's strategic approach to ICT in education.

2. The consultation document set out five underlying principles that will inform the strategy content, and four broad themes around which it is proposed the strategy will be structured. Specific priorities for action were identified for each theme. The consultation asked seven substantive questions; two related to the strategy's overall principles and themes, four to the priorities for action identified under each theme, and a further question invites respondents to raise any other issues.

3. The final number of submissions received was 139, including 76 from group respondents and 63 from individual members of the public. The group respondents included academic and research institutes, education administrative bodies, education sector respondents, local government respondents, private sector organisations and third sector organisations.

The Strategic Principles and Themes

4. The **five underlying principles** proposed for the strategy are local leadership, national support; partnership working; opportunities for all learners; evolution; and integration.

5. The clear majority of respondents felt that these are the right principles for the strategy. Respondents highlighted the particular significance of the balance between local leadership with support and guidance from the Scottish Government, the emphasis of equality of access to digital learning and teaching, and the identification of learners as the primary beneficiaries of the strategy.

6. Support for the principles was strongest amongst academic/research, education sector, local government and private sector respondents. A total of 17 respondents thought that the strategy was not founded on the right principles, including five third sector respondent and nine individuals.

7. The **four strategic themes** around which it is proposed the strategy will be structured are empowering leaders of change to drive innovation and investment in digital technology for learning and teaching; improving access to digital technology for all learners; ensuring curriculum and assessment relevance in a digital context; and extending the skills and confidence of teachers in the appropriate and effective use of digital technology.

8. The clear majority of respondents felt that the four themes are the right focus for the strategy. The primary focus for those expressing support was around equality of access to digital technology, and extending teachers' skills and confidence in the use of digital technology. As was also evident in relation to the strategic principles, support for the strategic themes was strongest amongst academic/research, education sector, local government and private sector respondents. Third sector respondents and individuals accounted for the majority of those who disagreed with the identified strategic principles.

Priorities for Action

9. The consultation document identified a number of priorities for action in relation to each of the four strategic themes, and invited respondents to comment on these.

10. A large majority of respondents agreed with the priorities for action identified in relation to each of the strategic themes. Support for the priorities for action was strongest amongst academic and research institutes, education sector respondents, local government respondents and private sector organization. Education administrative and third sector respondents and individuals were most likely to disagree with the proposed priorities for action.

11. Despite the strong support for the priorities for action set out in the consultation document, a substantial number of respondents suggested amendment or additions to these. The majority of group respondents in particular highlighted issues which they felt were not sufficiently represented by the proposed priorities for action, and/or suggested additional priorities for action. These comments and recommendations focused around a number of common areas:

- Agreeing a broader definition of 'leaders' of change;

- The need to improve and expand digital access for learners and teachers. This included learners' access to digital technologies inside and outside educational establishments, and improvements to digital resources, bandwidth and infrastructure;

- A better definition of and greater emphasis on the core digital skills and literacies required for learners;

- The need to balance widening access to digital technologies with digital safety and security;

- A greater role for learners, and their parents and carers in digital learning and teaching;

- The need for clarity around the role of digital learning and teaching in relation to curriculum design, research and assessment;

- Teacher training in digital technologies, in the context of Initial Teacher Training and Career Long Professional Learning; and

- Addressing questions around resourcing and sustainability for implementation of the strategy.

Common Themes

12. While respondents showed strong support across all elements of the consultation document, most highlighted points for consideration or amendment for the final strategy. These ranged from requests for further detail on specific points, to themes which were felt to require greater emphasis and suggestions for change to proposed elements of the strategy. Across these suggestions, a number of common themes emerged as having informed responses across all parts of the consultation. We highlight the key themes below.

13. **Equality of access to appropriate digital technologies and infrastructure** was identified as a significant factor for the successful delivery of the strategy. Respondents referred to significant variation across Scotland in learners' digital access outwith school, and to inconsistency in access to and the quality of digital technologies within educational establishments. It was suggested that failure to address inequalities in digital access could result in uneven implementation of digital learning and teaching, potentially exacerbating inequality across education.

14. Respondents raised questions around **resourcing** of the strategy specifically in relation to achieving equality of digital access. Sustainability and affordability were also highlighted in relation to the resourcing required to improve leaders' understanding and skills around digital learning and teaching.

15. The importance of **learners taking a central role in development and implementation of digital learning and teaching** was a common theme across consultation responses. This was in relation to the need to ensure that approaches take account of how learners are using digital technologies inside and outside of educational establishments, and also recognising the insight and experience that learners have to offer in shaping digital learning and teaching.

16. The importance of **engaging parents and carers** was also highlighted as a significant theme for the strategy, and one which some suggested required greater emphasis. Respondents highlighted the need to ensure that parents and carers understand the value of digital technologies for their child's learning, and are equipped with the skills to support learners.

17. The **role of digital learning and teaching across the curriculum** also informed a range of consultation responses. This included a particular focus on developing learners' digital capacity and literacy, over and above the core skills required to use digital technologies, to prepare learners for the changing requirements of society and the labour market in relation to digital skills.

18. The **scope of the strategy** was also highlighted across a number of specific consultation questions. This included reference to the potential value of the strategy taking greater account of experiences and learning outwith schools, and particularly in further and higher education sectors. Respondents also referenced scope for a more inclusive definition of 'leaders'.

Introduction

This report presents an overview of findings from an analysis of responses to the Scottish Government's consultation on the development of a digital learning and teaching strategy for Scotland.

The Consultation

The Scottish Government consulted on the development of a digital learning and teaching strategy for Scotland. The strategy will be the first comprehensive statement of Scotland's strategic approach to ICT in education. The consultation document identifies five underlying principles that will inform the strategy content, and it is proposed that the strategy will be structured around four broad themes, with specific priorities for action identified for each theme.

The consultation asked seven substantive questions; two related to the strategy's overall principles and themes, four to the priorities for action identified under each theme, and a further question invites respondents to raise any other issues. Six of the questions included a 'closed' yes/no element, but all had an open element inviting written comment. The consultation period ran from 24 September 2015 to 17 December 2015.

Overview of written submissions

The final number of submissions received was 139. Of these, 76 were submitted by group respondents (55% of all respondents) and 63 by individual members of the public (a substantial number of these being individuals with experience of working in the education and/or research sectors). A profile of respondents by type is set out in the table below.

	Profile of Respondents by Type
Respondent Type	
Academic or Research Institute	5
Education administrative bodies	13
Education sector	12
Local government	20
Private sector organisation	6
Third sector organisation	19
Other	1
Groups (Total)	*76*
Individuals	63
TOTAL	**139**

Eight broad respondent types have been used for the main analysis (seven types for group respondents, and one for individuals). A full list of group respondents is provided as an Annex to this report, and the main points to note about the composition of the groups are:

- **Academic or Research Institutes** accounted for 5 respondents, three of these being based at Scottish universities. As noted above, a number of individual respondents appeared to have links with or experience of the research sector;

- **Education administrative bodies** accounted for 13 respondents, and include a mix of public bodies, and professional or representative organisations.

- **Education sector** accounted for 12 respondents across early years, schools, college and university sectors.

- **Local government** accounted for 20 respondents, 17 local authorities and three membership or representative organisations.

- **Private sector organisations** accounted for six responses, all involved in the field of digital learning and teaching.

- **Third sector organisations** accounted for 19 respondents. This grouping incorporated a mix of organisation types including some with a specific education focus, membership organisations and campaign or equality groups.

- One **'other' group** respondent (Children & Young People's Commissioner Scotland).

Structure of the report

The remainder of this report presents a question-by-question analysis of submissions. Each section provides a summary of key points from the relevant section of the consultation document, and presents the results of "closed" Yes/No questions including a breakdown by respondent group. An overview of written responses is also provided for each question. This considers respondents' views on the content set out in the consultation document, including any issues or concerns raised. We also provide a summary of respondents' suggestions in relation to additional principles, themes or priorities for action.

The consultation included an additional question asking respondents to provide their contact details if the Scottish Government wished to discuss their experiences and views further. While all responses to this question have been recorded, this has not been included within the analysis presented in this report.

It should be noted that the purpose of the report is to reflect the balance and range of views expressed through the consultation. It does not seek to provide any policy recommendations.

Strategic Principles

The consultation document proposes five key principles on which the strategy will be based: local leadership, national support; partnership working; opportunities for all learners; evolution; and integration.

The first consultation question sought respondents views on these principles.

Q1. Is the strategy founded on the right principles? Are there other principles that should be considered?

A total of 130 (of 139) respondents answered Question 1. The clear majority, 87% of those answering this question, felt that the strategy is founded on the right principles. Support for the strategic principles was strongest amongst academic/research, education sector, local government and private sector respondents. A total of 17 respondents (13% of those answering) thought that the strategy was not founded on the right principles, including five third sector respondents (around 1 in 4 of this group) and nine individuals.

Is the strategy founded on the right principles?	Question 1: Response by Respondent Type			
	Yes	No	No comment	Total
Academic or Research Institute	4		1	5
Education administrative bodies	10	1	2	13
Education sector	10		2	12
Local government	18	1	1	20
Private sector organisation	5	1		6
Third sector organisation	12	5	2	19
Other			1	1
Groups (Total)	*59*	*8*	*9*	*76*
Individuals	54	9		63
TOTAL	**113**	**17**	**9**	**139**
Percentage of those commenting	**87%**	**13%**	**-**	**100%**
Percentage of all respondents	**81%**	**12%**	**7%**	**100%**

General comments on the Strategic Principles

Eighty-eight respondents made a further comment at Question 1. While most of those commenting supported the strategic principles, it is notable that nearly all of those answering 'no' at Question 1 provided further comment, as did a number who had not answered the yes/no question.

A number of respondents used written comments to re-iterate their support for the five proposed principles, including reference to a number of key aspects of the strategic principles. The most common are noted below:

- Support for the balance between local leadership of digital learning & teaching, with support and guidance from the Scottish Government. This included reference to the potential for collaborative support across local authorities to maximise expertise and minimise cost. A small number of respondents also suggested that there is potential to make better use of local knowledge and talent across public and private sectors to further develop the digital ecosystem.

- Support for an emphasis on equality of access to digital learning and teaching, and opportunities for all learners.

- The fit between the digital learning and teaching strategy and the Scottish Attainment Challenge and the focus on raising attainment for all learners.

- The identification of learners as the primary beneficiaries of the strategy.

- The focus on inclusive partnership working across a broad range of stakeholder groups.

- The importance of continual response to the rapid change in technology, and to innovative uses within learning and teaching.

The majority of those providing further comment at Question 1 raised issues, points for clarification, or suggestions for amendment to the strategic principles. This included reference to a number of broader points which had informed their view of the consultation document, and the strategic principles specifically.

The long-term sustainability and affordability of the strategy was the most widely referenced issue, with a range of respondents suggesting that the strategic principles should be clearer in acknowledging the challenges to be faced in delivering against these principles. This included responses across all respondent types, but resourcing appeared to be a particular concern for local government and individual respondents. Comments were most commonly focused on the need for planning and investment in access to digital technology, particularly in relation to delivering equality of opportunity for all learners. Respondents also made reference to the importance of rigorous evaluation, and training for current and future teachers. Several respondents asked whether the Scottish Government would be making additional funds available to support delivery of the strategy.

Linked to concerns around the need for investment, several respondents suggested that connectivity and equality of access to digital technology will be vital for successful delivery of the strategy. Again this included a cross-section of respondents, but was most likely to be referenced by local government and education administrative respondents. These respondents wished to see clearer acknowledgment that existing digital infrastructure will be a barrier to access for learners across many parts of Scotland. The strategy should also include appropriate links with local government digital strategies, and take account of the planning and investment that will be required to improve access.

A small number of respondents made reference to the definition of 'digital learning' on which the strategy and its principles will be based. These respondents recommended that the definition should be broader, for example incorporating reference to digital literacies and developing digital creators (rather than a focus only on digital consumers and skills for work and life).

Respondents also made reference to the importance of clearer links between the strategic principles and other relevant strategies, policies and initiatives. This included specific reference to the National Improvement Framework, Curriculum for Excellence (and the four capacities specifically), How Good is Our School?[1], Digitally Agile National Principles for CLD[2], Information Literacy Framework for Scotland[3], the Royal Society's report 'Spreading the Benefits of Digital Participation'[4], and the Policy Monitoring Framework produced by the 'Education ICT for Inclusion' project[5].

Views on specific strategic principles

Respondents expressed a range of views in relation to the specific strategic principles set out in the strategy. Below we summarise the key points raised by respondents in relation to each of the principles in turn.

The first strategic principle is **local leadership, national support**. This highlights the importance of local leadership at a local authority and school level, with guidance and support provided by the Scottish Government and Education Scotland. While respondents were broadly supportive of the importance of leadership to the strategy, a number of points were highlighted on the detail of this principle:

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[1] Education Scotland (2015) *How good is our school? 4th EDITION*, Livingston: Education Scotland

[2] http://www.digitallyagilecld.org/

[3] http://www.therightinformation.org/framework-home/

[4] The Royal Society of Edinburgh (2014) *Spreading the Benefits of Digital Participation*, Edinburgh: The Royal Society

[5] European Agency for Development in Special Needs Education (2013) *Information and Communication Technology for Inclusion – Developments and Opportunities for European Countries.* Odense, Denmark: European Agency for Development in Special Needs Education

- One of the key questions raised by respondents was around who was to be included within the group of 'leaders', including specific reference to use of the term 'Senior Leaders' within the consultation document. This was also discussed in greater detail in relation to the 'leaders' theme.

- Respondents expressed a range of views around the balance between local leadership and national support. A small number suggested that the strategy should guard against the potential for support at a national level having a negative impact on 'ground up' sharing of practice from those with expertise in contemporary digital tools. Others disagreed, including education administrative, local authority and third sector respondents. These respondents suggested that the strategy should place greater emphasis on support at a national level, including suggestions that stronger national leadership may be required to ensure effective implementation of DLT approaches across all parts of Scotland. Reference was also made to the need for Scottish Government guidance to help resolve difficulties around data protection, online safety, and network security limiting use of digital learning and teaching.

- One education sector respondent suggested that this principle could be strengthened by recognising the existing knowledge held by learners, teachers, parents and stakeholders across all sectors, and the potential for sharing of knowledge and innovation (possibly facilitated by Education Scotland).

The **partnership working principle** recognises that there must be a shared role in ensuring children and young people are prepared for life after school, and the importance of partnership work and sharing of responsibilities between all stakeholders. Those providing comment at Question 1 were supportive of the need for partnership working in delivery of the strategy, and written comments focused on the detail of how this will operate in practice:

- One education administrative respondent suggested that understanding of the term 'partnership working' varies considerably, and the strategy should be clearer around what this is expected to look like specifically in relation to digital learning and teaching.

- A number of respondents suggested that the principle specifically should be based on a broader view of the key partners involved in delivering the strategy. This was a particular concern for education administrative and education sector respondents, and included suggestions that the strategic principles make clearer that digital learning and teaching has a significant role beyond schools to include the college and higher education sectors. Respondents also made reference to other partners including providers of initial teacher education and professional education for teachers, third sector and private sector organisations, and library services. Related to this point, a small number of respondents highlighted the importance of equity of access to the existing digital ecosystem for all partners, including college sector, higher education sector, third sector, and private sector.

The **opportunities for all learners principle** states that digital learning and teaching approaches must work to improve learning experiences and outcomes for all learners. There was strong support amongst respondents for inclusion of this strategic theme, including a small number of the view that this principle will be key to the overall success of the strategy. Issues raised by respondents were primarily focused on further strengthening the principles, and addressing potential risks to its successful delivery*:*

- The importance of connectivity and equality of access to digital technology was referenced by several respondents including academic or research, education administrative, local government and third sector respondents. These respondents felt that connectivity and equality will be vital for the 'opportunities for all' principle, and highlighted the potential risks presented by the variable quality of existing digital infrastructure across Scotland.

- A number of respondents suggested that the principle should include more explicit reference to 'equity for all', as a stronger principle than 'opportunities for all'. This was a particular concern amongst third sector respondents, who noted that giving all learners the same opportunities to access digital learning and teaching could still result in the exclusion of some learners. These concerns included specific reference to those from deprived socio-economic backgrounds, those in remote rural areas, to children and young people with additional support needs, to those with Protected Characteristics, and to adult learners. One third sector respondent highlighted the importance of a robust Equality Impact Assessment prior to the strategy being adopted.

- Another group respondent suggested that, while the strategy's primary focus is on digital learning and teaching, it should acknowledge the relationship between digital and non-digital learning. This included for example the potential for expansion of digital learning to free up resources to create non-digital resources for learners less able to engage with digital media.

- One education sector respondent suggested that opportunities for all learners should be the strategy's first principle. Other principles should support and enable those opportunities.

The **evolution principle** references the fast changing nature of digital technology, and the need for continual update and refreshment of approaches to digital learning and teaching in response to ongoing development of technologies. While a number of respondents made reference to the rapid evolution of digital technologies, relatively few made specific comment on this strategic principle:

- One third sector respondent suggested that the principle should acknowledge the good digital learning and teaching already in place and the extent to which experience to date can inform 'future-proof' principles for digital learning and teaching.

- An academic or research respondent felt that the principle could go further by focusing on adapting to innovations and approaches across living, learning and working practices (rather than evolution of existing practices).

- A local authority respondent suggested that the strategy should include reference to timescales for implementation of updates to technology.

The fifth and final strategic principle focused on **integration**. This principle states that the approach to development and implementation of new technologies should be based on open standards and form part of Scotland's public sector digital ecosystem, to maximise scope for cooperation. Relatively few respondents made specific comment on the integration principle, with these primarily focused on the need to balance integration with innovation, and questions regarding the role of the public digital ecosystem*:*

- Several respondents, while noting the importance of integration, highlighted a need for care to ensure that a focus on integration and standardisation is not at the expense of creativity and innovation. This included concerns raised by a third sector respondent around potential for a focus on open standards and sharing of common services to lead to exclusion of parts of the learner population.

- An education administrative respondent suggested that the integration principle should be expanded to include integration and cohesion. This was with a particular focus on the strategy being developed in parallel with other significant education initiatives, such as the National Improvement Framework, and the Developing the Young Workforce Programme.

- A small number of respondents suggested that equity of access to the existing public digital ecosystem (including for college sector, higher education sector, third sector, and private sector) would be important for successful delivery of the integration theme.

Additional strategic principles suggested by respondents

A substantial number of respondents highlighted specific issues and themes which they felt should be better represented by the strategic principles. This included some themes which were highlighted in later sections of the consultation document, but where respondents felt earlier reference to these would benefit the strategy.

The main issues which respondents felt should be better represented by the strategy, within the five suggested principles or as additional principles, are summarised below:

- Several respondents referenced resilience, online safety, and responsible and ethical use of digital technologies as requiring greater prominence within the strategy, including suggestions that this should be a discrete principle. These respondents highlighted the importance of ensuring learners have an understanding of the uses and potential risks of these technologies, in addition to the skills required to make use of them.

- A small number of respondents made reference to the importance of a clear pedagogical justification of all teaching strategies, and suggested that the strategy should place greater emphasis on the need to integrate digital learning and teaching into core learning and teaching approaches. This included reference to a need for sound research to underpin the use of digital technology in learning and teaching.

- The role of children and young people as partners should be better recognised by the strategic principles. This included specific reference to the leadership principle (young people as local leaders), and partnership working (young people as a key partner in the strategy). Reference was made to the Leaders of Learning Project as potential model here.

- The importance of parents and carers in delivering the strategy was referenced by a number of respondents, including the need to raise the capacity and understanding of parents and carers around digital learning and teaching. This included particular reference to those with additional support needs or communication requirements, and those from socio-economically deprived backgrounds.

- A small number of respondents highlighted child rights as an underlying principle for the strategy. This was seen as significant in ensuring the focus of the strategy remains on the intended outcomes for learners, rather than the means of achieving these outcomes. One respondent also suggested that a stronger role for child rights within the strategy would be consistent with the potential role of digital learning and teaching in promoting children's rights to access information that is important to their health and wellbeing.

- A small number of respondents referred to 'participation' as a fundamental principle, including elements of the partnership working and opportunities for all principles, but extending beyond these. These respondents suggested that participation should be about ensuring learners have the skills and understanding to make informed choices about use of digital learning.

- Assessment was highlighted as an important theme throughout the strategy, and one which could be better reflected in the strategic principles.

- Flexibility in terms of the range of devices that can be used within approaches to digital learning and teaching, including 'bring your own device'.

- Recognition that learning takes place in a range of contexts, within school and other, informal settings. Life-long learning was also suggested as a separate strategic principle, to ensure there are no boundaries to digital learning and teaching.

- One respondent suggested that the strategy is an opportunity to make a commitment to supporting open educational practice, and enabling digital learning and teaching to benefit from the sharing of open educational resources.

Strategic Themes

The second consultation question sought views on the four themes on which it is proposed the strategy will be focused:

- Empowering leaders of change to drive innovation and investment in digital technology for learning and teaching;

- Improving access to digital technology for all learners;

- Ensuring curriculum and assessment relevance in a digital context; and

- Extending the skills and confidence of teachers in the appropriate and effective use of digital technology.

Q2. Are the four key themes identified the right ones to focus on? Are there other themes that should be considered?

A total of 126 (of 139) respondents answered Question 2. The clear majority, 86% of those answering this question, felt that the four themes are the right areas for the strategy to focus on. Support for the strategic themes was strongest amongst academic/research, education sector, local government and private sector respondents. A total of 18 respondents (14% of those answering) felt that the right themes had not been identified, including five third sector respondents (around 1 in 4 of this group) and ten individuals.

Are the four key themes identified the right ones to focus on?	Yes	No	No comment	Total
Academic or Research Institute	4		1	5
Education administrative bodies	7	2	4	13
Education sector	10		2	12
Local government	18	1	1	20
Private sector organisation	6			6
Third sector organisation	11	5	3	19
Other			1	1
Groups (Total)	*56*	*8*	*12*	*76*
Individuals	52	10	1	63
TOTAL	**108**	**18**	**13**	**139**
Percentage of those commenting	**86%**	**14%**	**-**	**100%**
Percentage of all respondents	**78%**	**13%**	**9%**	**100%**

Question 2: Response by Respondent Type

General comments on the Strategic Themes

Eighty-one respondents made a further comment at Question 2. While most of those commenting supported the strategic themes, it is notable that nearly all of those answering 'no' at Question 2 provided further written comment, as did a number who had not answered the yes/no question.

Those providing comment included a number of respondents who restated their support for the four proposed strategic themes. The primary focus here was around access to digital technology (the second strategic theme), and extending teachers' skills and confidence in use of digital technology (the fourth theme). This included particular reference to the importance of ensuring inequality of access to digital technology does not undermine delivery of the strategy, and the importance of a clear commitment to a fully resourced skills training programme in ensuring that teachers take ownership of the strategy.

These issues were also evident across comments from respondents raising concerns around the proposed strategic themes - particularly education administrative, local government, third sector and individual respondents. A number of respondents made reference to access to digital technology as being a potential barrier to delivery of all four themes. This included in relation to learners' access to digital technology and internet connectivity in the home (e.g. in disadvantaged and remote rural areas), but also variable digital access across learning establishments. Respondents made specific reference here to internet connectivity, provision of digital technologies, policies around ICT use and security, and adequacy of ICT support.

A small number of respondents also questioned the relationship between the four strategic themes, and the five evidence-based priorities set out in section 6 of the consultation document. It was suggested that the strategy needs to be clearer on how each theme will address the five priorities, and a wider suggestion that the four themes could be more outcome-focused and measurable.

Views on specific strategic themes

Respondents raised a number of points specific to one or more of the four strategic themes. This included for example suggestions to extend their scope, to modify the description of each theme set out in the consultation document, and to add cross-referencing with other aspects of education policy or legislation. We provide an overview of the key points in relation to each theme turn below.

The first strategic theme is **empowering leaders of change** to drive innovation and investment in digital technology for learning and teaching. Those making comment on this theme were broadly supportive of the need to empower leaders, but did raise a number of points for consideration and potential amendment to the strategy. This included some overlap with issues raised in relation to the first of the five strategic principles considered in the previous section ('local leadership, national support'), perhaps unsurprising given the commonality of focus.

- Several respondents suggested a need to be clear on the scope of 'leaders', including recommendations that this incorporated those active in communities outwith education establishments, and those driving innovation in Scotland's digital infrastructure. This view appeared to be linked to a concern that driving change in digital learning and teaching will require leadership from a range of stakeholders with the required expertise in digital technologies – including, but not limited to 'traditional' education leaders. Alongside comments regarding the scope of the group of 'leaders', an education administrative respondent suggested that there is a need for clarity on leadership roles and responsibilities, to ensure the strategy is taken forward effectively.

- One education administrative respondent made reference to a need for empowerment and leadership at all levels to ensure a collaborative approach to driving innovation in digital learning and teaching. It was suggested that clarity of vision and a shared understanding of leadership will be required to ensure effective use of digital technology for learning and teaching.

- One local government respondent suggested that while leaders should be empowered to drive innovation, there should be a range of criteria for effective digital learning and teaching solutions. This included scalability within and across local authorities, user safety, and data security.

- A private sector respondent noted references within the strategy to the need to ensure effective combination of the four themes and related actions. It was suggested that the inter-connection between themes should be a significant focus of any measurement of strategy impacts, and could fall within the remit of leaders.

The second strategic theme focuses on **improving access to digital technology** for all learners. As noted earlier, this was identified as a key theme for the strategy by a broad range of respondents, including those in favour of and those suggesting amendment to the proposed strategic themes. Again there was some overlap with issues raised in relation to the strategic principles considered in the previous section (specifically 'opportunities for all learners').

- Several respondents identified access to digital technology as being of fundamental importance to the strategy, including one education sector respondent suggesting that this should be the primary theme for the strategy.

- Respondents also repeated concerns around variation in internet connectivity and access to digital technology, and the extent to which this will have an impact on realisation of the strategic theme. This included reference to variable internet connectivity (particularly those in rural and/or disadvantaged communities), variable access to Glow, bandwidth limitations and costs for exceeding usage limits, a lack of dedicated educational support for digital technologies, and what was seen as restrictive corporate approaches to ICT provision. These were most commonly raised by education administrative and local government respondents. Respondents made reference to the need for investment to address this issue.

- A number of education administrative, third sector and local government respondents suggested that this theme should be strengthened to focus on 'equity' of access to digital technologies. It was suggested that the strategy should include a clearer focus on 'closing the gap' in digital access, including particular reference to those whose access to digital technology is limited by living in disadvantaged communities, by long term health conditions or disability, and by the cost of digital devices and connectivity.

- One education administrative respondent suggested an explicit reference to access to 'digital resources' within this theme (in addition to digital technology).

- A small number of education sector respondents raised concerns that a focus on equality of access to digital technology should not be interpreted as implying standardisation of digital learning and teaching technologies and approaches. In contrast, one education administrative respondent suggested that access could be improved through consideration of a national standard for the range of providers of digital technology.

The third strategic theme focuses on **ensuring curriculum and assessment relevance** in a digital context. Relatively few respondents made specific comment on this theme, although a number of the suggestions for additional themes discussed later in this section have links to curriculum and assessment.

- A small number of education administrative and individual respondents suggested that the curriculum and assessment theme should make explicit reference to e-assessment. This was seen as an important aspect of work to ensure that assessment approaches reflect changing learning and teaching approaches. Respondents highlighted a range of other potential benefits including helping to drive greater use of digital technologies in teaching and learning, a better fit with measurement of learners' progress in developing key digital skills, and improving performance monitoring and reporting.

- Several local authority respondents expressing support for this theme noted the importance that digital technologies and digital skills are embedded at the heart of the curriculum, alongside literacy and numeracy, in recognition of the importance of digital skills in the labour market.

- Several respondents highlighted the potential for effective delivery of the curriculum and assessment theme to achieve reductions in teacher workload, and indeed cautioned that the strategy must ensure that delivery does not result in increased teacher workload.

The fourth strategic theme is **extending the skills and confidence of teachers** in the appropriate and effective use of digital technology. A substantial number of respondents made specific comment on this theme, and there was a view amongst some respondents that this was a key theme for successful delivery of the strategy, alongside improving access to digital technology. The key points raised by respondents in relation to this theme were:

- Several respondents (including academic/research, education administrative and education sector respondents) suggested that the scope of this theme is expanded to include the range of other professionals who contribute to learning, to ensure skills are developed in a systematic and planned way across sectors. These respondents suggested that the strategy includes specific reference to support staff, 'teacher educators', and Community Learning & Development practitioners.

- A number of academic/research and education administrative respondents suggested that greater clarity is needed on how teachers will be led and supported in improving their understanding and use of digital technologies, and that there is a need for a revised approach to teacher education. This included reference to failure rates for ICT training, difficulties for CLPL provision to 'keep up' with learners' use of digital technology, and a suggestion that the focus on initial teacher education over a number of years has shown limited impact. It was suggested that greater focus is needed on creating a learning environment where teachers and learners can move forward together in their use of digital learning and teaching tools.

- Respondents made reference to a range of potential approaches to ensuring that teachers are able to make effective use of digital learning and teaching. This included reference to collaborative working, establishing peer learning and support opportunities, and considering how links with the digital technology sector could help to draw on their expertise. A small number suggested there is a need to address potential barriers to teachers taking up CLPL opportunities, particularly difficulties associated with staff shortages.

- One education administrative respondent highlighted the requirements placed on teachers associated with use of digital monitoring and reporting, and suggested a focus on ensuring these are user-friendly, have a positive impact on workload, and teachers can access learning opportunities.

- One education sector respondent expressed concern that the language used in setting out this theme implies that teachers should focus on using digital technology 'appropriately and effectively', in contrast with leaders whose focus is on 'innovation'. It was suggested that the strategy should include a greater emphasis on innovation at all levels, including for teachers.

Additional themes suggested by respondents

A large number of those providing written comment at Question 2 raised issues or themes which respondents felt were not sufficiently represented by the description of the four themes set out in the consultation document. This included a small number of respondents making specific recommendations for additional discrete themes, but the majority of those providing comment did not distinguish between issues as additional strategic themes, and issues that could be better emphasised within the four proposed themes. As such we have provided a single combined list of the themes which respondents raised as requiring greater prominence within the strategy.

Respondents made reference to a large number of specific points in this regard, but these were generally focused around the following areas.

- **Digital Safety** was highlighted as a significant theme by a number of respondents – including local authority, private sector and third sector respondents. For learners this included reference to issues such as good practice with security details, and online behaviours such as digital citizenship and disclosing private information. One respondent noted that inclusion of these principles within digital learning would also provide learners with transferable skills for subsequent employment, for example maintaining document security, appropriate online communication.

- Several respondents expressed a view that the four proposed strategic themes do not give sufficient emphasis to the **central role for learners** in digital learning and teaching approaches. These respondents made specific reference to learners as producers and collaborators in digital learning, in addition to users of digital learning technologies. It was also suggested that a focus on the role of learners was also consistent with the need to ensure digital teaching approaches fit with modern learners, and how they engage with digital technologies across all aspects of their lives.

- Responses across nearly all respondent types highlighted the importance of **engagement with parents and carers**, including development of their skills in using digital learning tools, and suggested that this required greater emphasis. It was suggested that the strategy should be more ambitious around parents' role in supporting digital learning, and the importance of improving parents' understanding of use of technology for learning.

- The need for a **clear definition of 'digital literacies' and 'digital capacities'** was referenced across a number of responses (particularly from education administrative respondents) as a fundamental principle across all strategic themes. These respondents highlighted a range of skills or literacies for learners and teachers, in addition to core knowledge concerning the use of digital technologies. This included for example reference to developing critical skills to evaluate digital technologies and information, and maintaining digital identity and wellbeing.

- Several respondents (particularly academic/research, education administrative and education sector) suggested that the strategy should be clearer on how **digital learning and teaching is to be based on sound pedagogical principles.** This included a suggestion that the strategy should be more explicit about the pedagogical approach and associated values on which the strategy expects use of digital learning and teaching to be based. A small number of respondents also expressed concern that focusing on digital technologies and tools, rather than teaching strategies and intended outcomes, risks a superficial approach to digital learning and teaching.

- Another respondent suggested that there should be an acknowledgement that some learners would have their right to education best met through **non-digital means**. This included how digital and non-digital approaches to learning and teaching should be balanced.

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- **Resourcing and sustainability** were seen as vital themes for implementation of the strategy, including suggestions that these should be given equal status alongside the four proposed themes. Resourcing was highlighted by a range of respondents including education administrative, local government and third sector respondents. This included particular reference to current limitations to local authority budgets, and limited availability of central and support staff.

- A small number of respondents wished to see **greater prominence for equity across the strategy**, including specific suggestions that equity of access to and provision of digital technology is incorporated as a discrete theme. This included reference to access to digital infrastructure, and equipment.

- **Development and sharing of a robust knowledge base** around use of digital technology in learning and teaching was mentioned by a small number of education sector and local government respondents. This included gathering and dissemination of research evidence around the impact of digital approaches, and on how children and young people use digital technologies outside educational establishments.

- One third sector respondent recommended that **improved educational attainment for all** is added as a discrete theme within the strategy, although it should be noted that improving attainment and potential to reduce the attainment gap was an implicit theme across a number of responses to Question 2.

- An education sector respondent suggested that the strategic themes could include greater emphasis of the **importance of creativity and play** in digital learning and teaching.

- A private sector respondent suggested the potential to provide **community benefits** through developing and sharing of technology programmes.

Strategy Priorities for Action

Consultation questions 3 to 6 sought views on the priorities for action set out in relation to each of the four Strategic Themes:

Q3. Do you agree with the priorities for action outlined in the 'leaders' theme? Are there other actions that should be considered?

Q4. Do you agree with the priorities for action outlined in the 'access' theme? Are there other actions that should be considered?

Q5. Do you agree with the priorities for action outlined in the 'curriculum and assessment' theme? Are there other actions that should be considered?

Q6. Do you agree with the priorities for action outlined in the 'teachers' theme? Are there other actions that should be considered?

The 'Leaders' Theme

The consultation document provides an overview of the rationale for the 'leaders' theme, and sets out a number of proposed priorities for action on which respondents are invited to comment. These proposed priorities for action are:

- Support senior leader collaboration and networking in identifying what approaches to the use of digital technology work and how to achieve change;
- Ensure that innovative schools collaborate and share their practice for the benefit of the wider community;
- Identify an appropriate approach to sharing research on digital technology in learning in a way that is most accessible to senior leaders and practitioners; and
- Ensure that our vision for digital technology use is adequately captured and reflected in school improvement guidance and the approach to school inspections in Scotland.

A total of 125 (of 139) respondents answered Question 3. The majority, 78% of those answering this question, agreed with the priorities for action outlined in the consultation document. Support for the priorities was strongest amongst academic/research, local government and private sector respondents. A total of 27 respondents (22% of those answering) felt that the strategy had not identified the right priorities for action under this theme. This included four education administrative respondents (around 1 in 3 of this group), five third sector respondents (around 1 in 4 of this group) and thirteen individuals.

Do you agree with the priorities for action outlined in the 'leaders' theme?	Yes	No	No comment	Total
Academic or Research Institute	4		1	5
Education administrative bodies	5	4	4	13
Education sector	9	1	2	12
Local government	17	2	1	20
Private sector organisation	5	1		6
Third sector organisation	10	5	4	19
Other		1		1
Groups (Total)	*50*	*14*	*12*	*76*
Individuals	48	13	2	63
TOTAL	**98**	**27**	**14**	**139**
Percentage of those commenting	**78%**	**22%**	**-**	**100%**
Percentage of all respondents	**71%**	**19%**	**10%**	**100%**

Commentary on Proposed Priorities for Action

Ninety-one respondents made a further comment at Question 3. While most of those commenting supported the strategic themes, it is notable that nearly all of those answering 'no' at Question 3 provided further written comment, as did a number who had not answered the yes/no question.

A number of those providing further comment re-stated their support for the 'leaders' theme, and the proposed priorities for action. For some this comprised a simple statement of support for the importance of the theme as a whole, but others made reference to specific aspects of the theme and priorities for action. This included the value of collaboration and sharing of innovative practice, the importance of local leadership and need to empower leaders to drive real change in use of digital technologies, and the strategic vision being reflected in school improvement and inspection guidance.

The majority of those commenting at Question 3 raised issues or suggested amendment to the priorities for action. Broader issues raised by respondents were primarily focused around potential barriers to delivery:

- A number of respondents raised concerns around the need for adequate resourcing to support delivery of the strategy, including the ability of leaders to drive change. This included reference to improving equality of access to digital technology, and the resourcing required to improve leaders' understanding and skills around digital learning and teaching. Several

respondents also noted that local authorities will be faced with challenging funding decisions in delivering against the priorities for action. Similarly, it was suggested that schools may have to seek partnerships across communities and local businesses to take these priorities forward.

- An education administrative respondent also raised concerns around the introduction of a further national priority for education, in the context of current workload burdens for leaders, and increasing demands in relation to school improvement plans.

Relatively few respondents made comment on the detail of specific priorities for action, for example compared to those identifying additional priorities for action and themes deserving of greater prominence within the 'leaders' theme. Nevertheless, respondents did raise a number of substantive points in relation to each of the four identified priorities for action. These are considered in turn below.

In relation to the first priority for action - **support senior leader collaboration and networking in identifying what approaches to the use of digital technology work and how to achieve change** – the key points were:

- A small number of third sector and individual respondents suggested that leaders take a genuinely collaborative approach to sharing of innovative approaches, and expressed concern that to date this kind of networking has focused more on 'showcasing' innovative approaches rather than a joint sharing of practice. Approaches suggested to ensure a more collaborative approach included involving other partners and sectors alongside education leaders, and a peer collaboration approach enabling similar schools to share good practice.

- Several respondents commented on the value of extending collaboration and sharing of good practice beyond 'senior leaders'. An education administrative respondent suggested that sharing of practice must happen at all levels if it is to build digital capacity. A private sector respondent also suggested that this kind of collaboration is already taking place between those innovating in the classroom, but that this is often away from senior leader networks. However, these respondents were united in a view that senior leaders must involve practitioners and others in these collaborative networks. In addition, a private sector respondent recommended that leader collaboration is extended to include engagement with innovative companies, SMEs and start-ups.

- A small number of education administrative respondents made reference to existing networks and bodies as having the potential to support leaders in developing collaborative networks.

- An education administrative respondent suggested that the priority is expanded to include reference to identifying approaches to improving digital literacy. This reflected a view that digital literacy skills will be fundamental to the successful implementation of the strategy.

The only substantive points raised in relation to the second priority for action - **ensure that innovative schools collaborate and share their practice for the**

benefit of the wider community – focused on improving existing sharing of practice. This included concerns that some sharing of practice between schools is not genuinely collaborative in nature. It was also suggested that while sharing of innovative practice between schools is taking place to some extent (and should be encouraged further), sharing within schools is often more limited. This was identified as a potential focus for leaders.

In relation to the third priority for action - **identify an appropriate approach to sharing research on digital technology in learning in a way that is most accessible to senior leaders and practitioners** – the key points were:

- A small number of respondents suggested specific means by which research can be shared. This included a local authority respondent of the view that an online community such as Glow would be the most appropriate basis for this, and an education administrative respondent suggesting Education Scotland's Knowledge Team as having potential to support sharing of research.

- A private sector respondent suggested that there are a number of routes available for leaders and practitioners to access research reports, but that what can be lacking is guidance to make sense of research results and to translate this into practice, particularly in the context of time-pressures on leaders and practitioners. It was suggested that updating of media literacy skills may have a greater impact.

- An education sector respondent suggested that the strategy could do more to support and encourage leaders, practitioners, and learners to enter critical dialogue and undertake enquiry into uses of digital technology.

In relation to the fourth priority for action - **ensure that our vision for digital technology use is adequately captured and reflected in school improvement guidance and the approach to school inspections in Scotland** – the key points were:

- A small number of education administrative and third sector respondents questioned what this priority for action would mean in practice. This included concerns that the schools inspection process may not be the best approach to ensure timely monitoring of implementation of the strategy, and concerns around the prospect of school inspection reports recording difficulties with access to ICT where this would be better addressed at a local authority level.

- An education administrative respondent suggested that the approach to school inspections should do more to incorporate use of digital technology, for example by using network sharing functions offered through Glow, alongside onsite visits.

- A third sector respondent suggested that this priority for action is extended to ensure inclusion of digital technology across all inspection processes, including the Education Scotland Learning Community Inspection model.

Additional Priorities for Action

Most of those providing a written response at Question 3 highlighted issues which respondents felt were not sufficiently represented by the description of the priorities for action under the 'leaders' theme. This included specific recommendations for additional priorities for action, although few of those commenting made a clear distinction between issues as additional priorities for action, and issues that could be better emphasised.

The issues and additional priorities highlighted by respondents grouped around a number of broad themes. We consider these in turn below.

<u>Scope of the theme and defining the group of 'leaders'</u>

The most commonly cited issue in relation to the theme was around who is to be identified as a 'leader', and suggestions that dialogue was required to agree a definition of this group. A substantial number of respondents across all respondent groups identified this as an issue requiring further consideration. However, this was most likely to be a concern for academic and research, local government, third sector and individual respondents.

A range of points were raised here, including reference to national and local government, head teachers, heads of department, teachers, learners, parents/carers and those working in the private sector as being well placed to play a leadership role in relation to digital learning and teaching. There was a particular focus on teachers as leaders of change, recognising the innovation and development taking place in the classroom, and the scope for teachers to act as 'champions' for use of digital technology. It was suggested that the strategy could provide a clearer plan to encourage and share emerging practices from the classroom. It was suggested that the full range of 'leaders' should have the opportunity to, and be expected to, contribute to delivery of the strategy.

A small number of those commenting on the range of 'leaders' for the strategy also made reference to recognising that expertise and innovation in use of digital technology currently does not often sit with senior leaders - and the importance of making best use of this expertise. In this context, one academic/research respondent suggested that a change in culture and behaviour is required across education hierarchies which recognises where this expertise sits.

A number of respondents, primarily those in the education administrative and local government respondent groups raised issues around the scope of the strategy. This included some who specifically questioned the extent to which the strategy text appears to be focused on the schools sector. These respondents suggested that the strategy must be expanded to include the further education and higher education sectors, recognising the number of learners in these environments, and the potential for innovation and learning points from these sectors to support developments in schools. Some also suggested that colleges are in a particularly strong position as regional bodies, to act as leaders of collaborative working and integration across local authority boundaries.

In addition to a clear definition of 'leaders', several respondents suggested that the strategy should place greater emphasis on the range of partners who can provide support and guidance to leaders, including those who may already be playing a role in driving innovation within schools. This included specific reference to the Scottish Information Security Officer, school librarians and archivists, and learning technologists.

Integration with the wider strategy

A small number of respondents (including education administrative and education sector respondents) highlighted points around how the proposed priorities for action are integrated with the wider strategy. This included a call for greater clarity on how the proposed actions relate to delivery of the wider strategic aims and principles, and around presentation of the proposed priorities for actions (for example potential for use of good practice illustrations). It was also suggested that the strategy could be clearer on how the proposed priorities for action will fit with the National Improvement Framework, Scottish College for Educational Leadership and the General Teaching Council for Scotland – particularly in light of the strategy highlighting the importance of these for the 'leaders' theme.

Widening digital access

Several third sector respondents felt that the strategy should be clearer in encouraging senior leaders to consider the needs of learners from disadvantaged households, in planning investment in digital learning and teaching. Respondents also suggested that the strategy is an opportunity for leaders to recognise the importance of learners having access to digital technology outside of education establishments, and for leaders to advocate widening digital access.

Both of these points reflected views on the importance of access to and use of digital technologies outwith educational establishments, a point highlighted across a number of other consultation questions. For the 'leaders' theme, it was suggested that this could include a focus on research into the digital learning and teaching approaches that work best for those from disadvantaged backgrounds, and encouraging schools to share innovative practice.

A small number of education administrative respondents also suggested a priority focused on the role of Education Scotland, SQA, SCEL, GTCS and other partners in supporting and promoting use of digital technology in learning and teaching, including assessment.

Professional standards and effective use of digital technologies

Consistent with points raised for the strategic principles and themes, respondents highlighted the importance of leaders focusing on building skills and confidence to achieve desired outcomes - rather than only on using the newest technologies. This was a particular focus for education administrative, education sector, local government and private sector respondents.

These respondents highlighted the importance of the focus on practitioners' skills, and ensuring the experience of the learner is at the centre of decisions on use of digital technologies. Several respondents also suggested that the strategy must include greater emphasis on leaders identifying ways to improve what schools do, rather than simply using technologies to do the same things. A small number of respondents made specific reference to the importance of leaders across all stakeholder organisations having a clear view of what makes for successful learning and teaching using technology.

A small number of respondents (including two education administrative bodies) referred specifically to the extent of variation in professional standards across the education sector in relation to digital technologies, as a potential barrier to delivery of the strategy. Raising understanding and confidence amongst leaders in use of digital learning and teaching and its potential impact, were seen as vital to the successful delivery of the identified priorities for action. A stronger focus on digital learning within initial teacher training, ongoing CLPL activities and also as part of the qualifications for headship was also suggested.

Driving partnership working and collaboration

Partnership working and collaboration were highlighted by a small number of respondents (in particular education sector and local government) as significant for the successful implementation of the strategy. This was seen as an area where leaders should be in a position to drive change. Several respondents suggested that the 'leaders' theme should do more to recognise the importance of a shared understanding and 'buy-in' to the strategy from a range of Council services and other service providers, to enable leaders to drive change in digital learning and teaching. These respondents highlighted the extent to which leaders' ability to drive change will be dependent on a shared commitment across partners including other Council services, corporate ICT services, other ICT providers, Quality Improvement services, and other support services.

Other

An education sector respondent suggested emphasis on the potential for schools to bring wider community benefits, acting as leaders of their communities in improving digital skills and effective use of digital technologies.

A third sector respondent suggested that the inter-connectivity of the four strategic themes should be a key focus for leaders, given their unique position to take a broad view of progress across all four themes.

A third sector respondent suggested that the strategy emphasises the importance that senior leaders are aware of legal obligations to use digital technology in providing access to the curriculum, and supports leaders to make this provision.

The 'Access' Theme

The consultation document provides an overview of the rationale for the 'access' theme, and sets out a number of proposed priorities for action on which respondents are invited to comment. These proposed priorities for action were:

- Collaborate with partners, including local authority education and corporate services, to develop standards and guidance around learner access to digital technology in schools;

- Facilitate the sharing across local authorities of approaches to school infrastructure that put users at the heart of the design;

- Continue investment in high speed broadband through the Scottish Wide Area Network (SWAN);

- Consider future arrangements for Glow, ensuring the tools and services remain relevant and useful and continue to meet the requirements of the education system;

- Continue to provide a route to market for schools and local authorities for the procurement of digital devices;

- Explore the potential for other framework agreements that provide access to, for example, digital resources, services and support; and

- Work with stakeholders to establish channels through which partnerships can enhance the provision of access to digital technology.

A total of 124 (of 139) respondents answered Question 4. The majority, 82% of those answering this question, agreed with the proposed priorities for action. Support was strongest amongst academic/research, education sector and private sector respondents. A total of 22 respondents (18% of those answering) felt that the strategy had not identified the right priorities for action under the 'access' theme. This included two education administrative respondents, three local government respondents, five third sector respondents, and twelve individuals.

Do you agree with the priorities for action outlined in the 'access' theme?	Yes	No	No comment	Total
Academic or Research Institute	4		1	5
Education administrative bodies	6	2	5	13
Education sector	10		2	12
Local government	15	3	2	20
Private sector organisation	6			6
Third sector organisation	10	5	4	19
Other			1	1
Groups (Total)	*51*	*10*	*15*	*76*
Individuals	51	12		63
TOTAL	**102**	**22**	**15**	**139**
Percentage of those commenting	**82%**	**18%**	**-**	**100%**
Percentage of all respondents	**73%**	**16%**	**11%**	**100%**

Commentary on Proposed Priorities for Action

Ninety-six respondents made a further comment at Question 4. While most of those commenting supported the priorities for action, it is notable that the majority of those answering 'no' at Question 4 provided further written comment, as did a number who had not answered the yes/no question.

Most of those commenting here welcomed a national strategy that took a long-term view of infrastructural and developmental needs. However, several respondents felt that the consultation document was insufficiently imaginative, consistent, long-sighted or sustainable – this included education administrative, third sector and individual respondents. Some called for greater freedom for teachers to innovate their approach to procurement and implementation of digital technologies. An individual respondent suggested that, rather than the government intervention proposed, allowing schools to access the free market would be more effective.

While most of those commenting on the detail of the 'access' theme focused on additional priorities for action and themes requiring a more prominent role in the strategy, several respondents made general comments on the theme and associated priorities for action. These included:

- The importance of integrating provision, moving beyond the schools system to include other relevant services such as libraries and community centres, embedding digital technologies within the education framework and sharing data, including through programmes such as ALISS.

- Greater consistency of approach in buying, supporting and refreshing infrastructure was highlighted as a significant factor by several respondents – including education sector, local authority and third sector respondents. A small number of respondents suggested that sharing of best practice across authorities (and inter-service) would be important to delivering the national strategy – although others felt that this could compromise the diversity and innovation of providers.

- Inconsistency of access to digital technologies for learners was highlighted as a risk by several respondents, both inside and outside of school, with reference made to variable approaches to ICT provision, and limited mobile network coverage in some areas. These respondents also highlighted disparities between access to digital equipment at home and at school as a potential issue for the strategy, and called for greater consistency of access across diverse settings.

- Greater awareness among education leaders was seen as key to embedding technology into the education frameworks, including a role for key agencies such as Education Scotland (HMIs) for example in terms of integrating the strategy into their inspections.

- Sponsorships and industry partnerships were welcomed by several respondents as both a resource and a means of ensuring provision reflected the digital landscape that learners (and teachers undergoing training) would find beyond school or college. This included a small number of local government, private sector and individual respondents. However, a local government respondent also noted that this should be carefully managed to avoid disparities in provision.

- Some respondents appeared disappointed at the scope of the consultation, particularly a perceived lack of direct consultation with learners on developing standards and guidance. This role could extend beyond just information gathering to recruit learners as ambassadors for digital technology or collaborators in designing services.

Additional Priorities for Action

Most of those making comment at Question 4 highlighted issues which respondents felt were not sufficiently represented by the description of the priorities for action under the 'access' theme. This included specific recommendations for additional priorities for action. There were seven main themes emerged across these comments, and these are considered in turn below.

Bandwidth and infrastructure

The most commonly mentioned additional priority related to infrastructure – this was highlighted by around a third of those providing written comment at Question 4, across most respondent types. This included particular focus on the provision of bandwidth, up-to date hardware and high quality broadband connections to ensure parity of access across all parts of Scotland (including rural and deprived areas) to ensure learners enjoyed the same level of support and provision.

The importance of SWAN was particularly highlighted, seen as the basis on which other access, curriculum/assessment and teaching priorities could be realised. The role of Procurement Scotland and framework agreements was highlighted as important for the process of selecting and acquiring resources to improve infrastructures, though a small number of respondents were sceptical of centralised procurement systems.

Several respondents (including education sector, local government and individuals) felt that the strategy should place more emphasis on greater consistency and the implementation of shared standards, support and guidelines across educational levels, regions and institutions, moving away from pilots and projects to a mainstream approach. This included references to reducing bureaucracy and complexity in the procurement and implementation of ICT facilities, and making it easier for institutions to make savings by sharing resources.

A small number of respondents also called for a more competitive market to ensure greater choice and value in digital technologies, and this appeared to be linked to concerns expressed by some around the focus on Glow. Potential models suggested by respondents included reference to the digital learning policies in Norway and the 1998 document Implementing the National Grid for Learning[6].

Several education administrative, local government and third sector respondents highlighted the extent to which the multiple user IDs and profiles required across the current ICT infrastructure create barriers and confusion for learners and teachers. These respondents suggested a move to single integrated 'one stop' or 'digital identities' that moved with a user through the system, linked to a cross-sectoral approach across all levels and modes of education.

Finally in relation to infrastructure, a number of respondents noted that ongoing budget cuts create real difficulties for local authorities in making the necessary investments for connectivity, hardware and support. This was referenced by respondents across education administrative, local government and third sectors. Respondents questioned whether the actions set out under the 'access' theme were achievable. Reference was made to supplementary funding to help some authorities meet requirements – in particular rural local authorities who have to meet proportionally greater costs than their urban counterparts.

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[6] Scottish Executive (1998) *Implementing the National Grid for Learning*, Edinburgh: Scottish Executive

Glow and other digital resources

Glow was a significant focus for a number of respondents. This included education administrative, education sector, local government, third sector and individual respondents.

For those expressing a broadly positive view of Glow, its continued evolution and improvement was seen as partiucularly important, including reference to local authorities requiring good quality advice and support to maximise the value of Glow. Several respondents suggested that Glow needed to be easier to access, from a number of different locations.

Other respondents were less positive about the role of Glow, some significantly so. These respondents made reference to the cost of Glow, the fact that it is closed beyond the schools system (e.g. to colleges or parents). A third sector respondent suggested that this meant that Glow is out of step with other trajectories in education, in particular the creation of digital commons and open environments by universities. A small number of respondents (education administrative and individual respondents) suggested that negative experience of the initial implementation of Glow continue to shape the perceptions of its users.

Several respondents also suggested that other digital environments and platforms should be open to schools in addition to Glow. These respondents made reference to Dropbox, Wordpress, Tumblr and Snapchat, and Augmented Reality Apps as 'real world' platforms that could play a role or even perform better. A small number of respondents felt that digitisation of materials such as UShare and the Resource Programme used by the College Development Network should be a better represented priority within the 'access' theme.

External access

The capacity for learners, their parents and teachers to access digital technology outside the classroom was a significant theme for a substantial number of respondents.

Several respondents saw open network access as an important pre-requisite for the priorities for action set out in the strategy – although this included some issues around security and administrative barriers. Improving access to broadband at home was seen as a related infrastructural issue that could also act as a barrier to access, perhaps to the same extent as the affordability of digital devices. In this regard, the inability of some learners to access devices at home was referenced by a small number of third sector respondents as leaving individuals ill-prepared for learning environments increasingly built around these devices.

External access was also mentioned by an education sector respondent as having potential to facilitate study at home, and ensure continuity between assignments and group work. Making better use of social media was also mentioned by an individual respondent as important, not just as a tool, but in recognition of its widespread use outside of school and in the workplace.

A small number of education sector, third sector and other group respondents suggested approaches to improve external access. These included grant schemes and tax breaks to assist learners and parents in buying technology or setting up internet access at home, use of libraries to help bridge digital gaps and disparities in access.

Bring Your Own Device (BYOD)

The Bring Your Own Device (BYOD) agenda was referenced by a number of respondents including those across education administrative, education sector, local government and individual respondents. BYOD was seen as in important link between home and school, encouraging home and independent study and the acquisition of skills and digital literacy. This priority was also linked closely to ensuring Open Network and cloud access so that students with their own device can enjoy consistent and high-quality access where it is needed.

These respondents suggested that the BYOD approach acknowledges that learners often have their own devices and that, rather than a distraction, they should be harnessed in the learning process. Some suggested that variable approaches across schools was a challenge for BYOD and wider access and inclusion. However, it was also noted that BYOD could be a cause of disparity for learners who are less able to afford mobile devices.

Funding incentives, tax breaks and market benefits were referenced by a small number of respondents, including education sector and local government respondents. These comments acknowledged that local authorities may need additional central support to implement BYOD, perhaps through a national framework to ensure all learners can access devices.

Additional support needs and equalities

A number of respondents across a range of respondent types, commented that learners with additional support needs must be considered in any attempt to improve access to digital learning. Many of these respondents felt that wider implementation of digital learning and teaching (and approaches such as BYOD) could achieve significant benefits for learners with additional support needs. However, some respondents felt that learners with additional support needs, and equality more widely, were not sufficiently explicit within the consultation document.

Comments on additional support needs were also linked to infrastructural considerations – for example that text to speech, subtitling or alternative input methods were available and could be adapted into ICT systems. Several third sector respondents noted that learners with disabilities are often already literate with and dependent on digital technologies, and this should be better recognised and researched.

Several respondents suggested that equalities issues are intersectional; language barriers, gender and class combining to affect how learners could access digital learning. Carers were also identified as a group suffering significant access issues.

Security

Security was identified by a number of respondents as a necessary counterpart to improving access, and to themes such as external access and Bring Your Own Device (BYOD). It was noted that these themes all raise implications for keeping learners safe online and ensuring data security. A small number of education administrative and local government respondents suggested this should be expressed more strongly in the strategy.

A small number of local authority respondents also raised concerns around the variation and inconsistency in how security policies are applied, between different local authorities, and even between services within the same authority. This was seen as having an impact on how children and young people experience digital learning and teaching.

Separate home-school wi-fi networks, consultation with information security officers and clear codes of conduct were identified by a small number of respondents as potential approaches to meeting security concerns, without constraining access. Most of those commenting on access and security acknowledged that a balance would have to be found, and that this could be challenging.

Digital skills and literacy

Skill levels and 'literacy' with digital learning was seen as another important factor in ensuring access for learners and teachers, including for education administrative, third sector and individual respondents. This included specific reference to competence, social awareness and the ability to evaluate content and information. These capacities were also highlighted specifically in relation to school support staff such as administrators, in addition to teachers.

The skills and capacities required by individuals to access learning were also linked by respondents to wider employability and skills for digital industries. It was suggested that the skills developed in using digital technology to learn, should also be seen as core skills for learners moving through the education system and into the workplace.

The 'Curriculum and Assessment' Theme

The consultation document provides an overview of the rationale for the 'curriculum and assessment' theme, and sets out a number of proposed priorities for action on which respondents are invited to comment. These proposed priorities for action were:

- Work with stakeholders to review the aspects of Curriculum for Excellence relating to the use of digital technology, considering their place within the curriculum structure and ensuring that they are relevant, ambitious and forward-looking;

- Work with SQA and other key partners to support, develop and embed approaches to assessment that make full use of digital technology; and

- Explore ways in which digital technology can support the individual needs and capabilities of learners, and provide feedback to practitioners that is specific to the individual learner.

A total of 122 (of 139) respondents answered Question 5. The majority, 84% of those answering this question, agreed with the priorities for action under this theme. Support was strongest amongst education sector, local government and private sector respondents. A total of 19 respondents (16% of those answering) felt that the strategy had not identified the right themes, including four third sector respondents (around 1 in 5 of this group) and thirteen individuals.

				Question 5: Response by Respondent Type
Do you agree with the priorities for action outlined in the 'curriculum and assessment' theme?	**Yes**	**No**	**No comment**	**Total**
Academic or Research Institute	4	1		5
Education administrative bodies	6	1	6	13
Education sector	10		2	12
Local government	18		2	20
Private sector organisation	5		1	6
Third sector organisation	11	4	4	19
Other			1	1
Groups (Total)	*54*	*6*	*16*	*76*
Individuals	49	13	1	63
TOTAL	**103**	**19**	**17**	**139**
Percentage of those commenting	**84%**	**16%**	**-**	**100%**
Percentage of all respondents	**74%**	**14%**	**12%**	**100%**

Commentary on Proposed Priorities for Action

Ninety respondents made a further comment at Question 5. Most of those commenting supported the priorities for action, although it is notable that the majority of those answering 'no' at Question 5 provided further written comment, as did a number who had not answered the yes/no question.

Responses to the Curriculum and Assessment theme were among the more complex and various. Several respondents, including education administrative and individual respondents, implied that this theme was the most in need for further development. Respondents also made a range of comments in relation to the theme and its priorities for action, including some common themes also evident across other parts of the consultation. The key points emerging were:

- Suggestions that the strategy is insufficiently forward thinking in terms of adaptive, individual and collaborative learning. The Scottish Government should consider implementing a digital entitlement within CfE.

- The approach should do more to acknowledge what is already being practiced in the field. This included a suggestion that the second and third proposed priorities for action are already happening in the education system.

- Implications for teacher learning should be more explicitly addressed.

- The strategy does not include sufficient recognition of the contribution to delivering the curriculum made by a range of roles including librarians, youth workers and college lecturers.

- A more balanced approach should recognise that ICT is not a solution to all issues, and that only a mixture of old and new techniques will meet the needs of all learners, and prove cost effective.

- The strategy should go further in making digital learning a responsibility across all parts of the curriculum.

- Subject areas such as Computing Science can suffer from this cross-curricular emphasis on acquiring or embedding digital skills, if the distinctions between generic digital competences and the specific needs and values of disciplines such as Computing Science are not acknowledged or understood. This has potentially significant implications for industry and the ability of the curriculum to deliver a skilled specialist workforce.

- The Building Society Report from Education Scotland should play a central role in the strategy.[7]

- Finally, it was noted that the Curriculum and Assessment theme implies major changes in how the curriculum is designed, developed and delivered. A small number of respondents, including education administrative bodies, suggested that the timing of such a review was misjudged, given current pressures on the education system and teacher workload.

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[7] Scottish Executive (2014) *Building Society: young people's experiences and outcomes in the technologies*, Livingston: Education Scotland

Additional Priorities for Action

A substantial number of those making comment at Question 5 highlighted issues which respondents felt were not sufficiently represented by the description of the priorities for action under the 'curriculum and assessment' theme. This included specific recommendations for additional priorities for action. These suggestions were generally related to three broad themes - digital assessment and feedback, digital literacy, and curriculum design and research. These are considered in turn below.

Digital assessment and feedback

This was the most commonly referenced of the additional priorities, discussed in detail by a substantial number of respondents across all respondent groups. These respondents expressed a common view that e-assessment had the potential for a significant impact on digital learning and teaching, but that there was still work to be done to ensure a greater range of e-assessment methods and approaches, and a commitment to validity and accessibility, especially for those with additional support needs. The main points raised in relation to digital assessment and feedback were:

- E-assessment should be a specific priority in the strategy, in recognition of the new considerations that digital methods raise for current assessment processes.

- E-assessment is only possible if there is sufficient equipment to facilitate it, and as such has a strong dependence on the 'access' theme.

- Feedback should also be a specific priority, including its use in Electronic Management of Assessment (EMA) and Open Badges. It was also suggested that the capacity for digital learning to offer specific, individualised feedback should be explored, including implications for home work and independent study.

- In addition to assessment through digital means, it was suggested that more work is needed to understand the digital skill sets required, and to embed these in assessment processes.

- The second priority for action (working with SQA and partners to support, develop and embed approaches to assessment that make use of digital technology) should be expanded with stronger statements on validity and accessibility.

- The value of digital methods in interrogating assessment data, tracking student progress and planning interventions should be explored.

- Further research is required around how learners engage with digital assessments and whether these are as valid as paper-delivered tests.

Several respondents (including education sector, local government and third sector respondents) commented that progress on e-assessment appeared to be slow, and suggested that significant progress is still required to establish e-assessment as an everyday part of the system.

<u>Digital literacy</u>

Several respondents noted that the strategy requires baseline digital skills shared by all learners, to allow them to engage with Curriculum for Excellence (CfE) and be prepared for the general workforce. However, these respondents also highlighted the importance of the curriculum delivering workers with more specific skills for the industries that service digital technologies.

Ensuring an appropriate balance between digital literacy, and protecting and improving digital subject areas was a significant issue for those commenting under this theme. It was suggested that, to strike this balance, the curriculum must be flexible, interdisciplinary and agile. This included reference to a competence-based approach along the Finnish model.

In terms of more specific suggestions for priorities under the 'curriculum and assessment' theme, the following suggestions were made:

- Digital literacy should be specifically mentioned as something to be incorporated across the curriculum, including computational skills and deeper understandings of the digital world.

- Personal and social skills needed for 'the digital world' should be carefully scoped and addressed in the strategy.

- Subjects related to digital technology should continue to be encouraged and identified as distinct subjects for study, potentially as a STEM subject. Related industries should be involved in designing, revisiting and shaping the curriculum, and have potential to provide benefits in improving digital skills across the curriculum as a whole.

- Coding was seen by some as a skill that should be better emphasised within the strategy.

- Digital literacy should be linked to other literacies (particularly health literacy) in recognition of their shared focus. This was also highlighted in relation to Scotland's Digital Future: Delivery of Public Services.[8]

- Clear progression routes in digital skills and literacy should be mapped out for all levels of the curriculum.

<u>Curriculum design and research</u>

The final priority area raised by respondents in relation to the 'curriculum and assessment' theme focused on inclusion of greater detail within the strategy on curriculum design and research. A substantial number of respondents across respondent groups addressed how the strategy required the relationship between specific subjects, other areas of the education system and life outside of school, to be changed or re-evaluated.

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[8] Scottish Government (2012) *Scotland's Digital Future: Delivery of Public Services*, Edinburgh: Scottish Government

It was suggested that digital technology should become a core subject, on a par with physical education and religious and moral education.

Several respondents suggested that the Scottish Government investigates how STEM subjects and Skills Development Scotland are already working to address digital skills shortages in Scottish industry. A small number of respondents suggested that Computing Science should be promoted more widely as a subject, and contextualized with research into other STEM fields, although an individual respondent suggested that there is skepticism in the industry over ICT as a specialist subject and that clear distinctions are needed between these subject areas. The role of digital technologies within subjects not perceived as STEM or technology related should also be explored. This included for example, geography where GIS is an important open software programme. Digital learning and teaching could also be embedded into youth work and its system of awards and qualifications.

A common theme across these responses was the need for more curriculum-based research to better understand the relationships between skillsets, subjects and potential needs for further qualifications. This research and consultation needed to directly involve teachers. It was suggested that a clear structure is required for research, innovation and dialogue to support the goals of the proposed changes to the curriculum.

The implementation of digital learning and teaching also raises a number of pedagogical issues that should be given specific attention within the strategy. This reflected earlier concerns regarding over-emphasis on tools and technologies, and insufficient attention to how these could be combined to ensure an effective curriculum. It was noted that homework already makes greater use of digital technologies, yet teachers had little time and space to evaluate its impact on learning, feedback and progress (i.e. on how pedagogy was extended by digital means). In this context, respondents suggested creation of clear benchmarks and 'level illustrations' to support tracking progress in digital learning, enhancement and expansion of pedagogical frameworks, and examination of how those with additional support needs, high achievers and others whose pace of learning may be very specific could benefit from digital learning based pedagogies.

Finally, the following areas were noted as particularly important for a curriculum review:

- The position of Glow and its role within the 3-18 learning experience.
- Reviewing how ICT can be used to enhance learning, and embedding digital literacy in the curriculum's core literacies.
- Creating structures for ongoing curriculum review in the specific area of digital learning, so that the system can keep pace with change.
- Changes to systems used by major stakeholders such as SQA to better support digital learning.

The 'Teachers' Theme

The consultation document provides an overview of the rationale for the 'teachers' theme, and sets out a number of proposed priorities for action on which respondents are invited to comment. These proposed priorities for action were:

- Open a dialogue with Initial Teacher Education (ITE) providers to agree an approach for embedding digital learning and teaching in ITE, in line with the GTCS Standards for Registration;

- Work with key partners to ensure a range of professional learning opportunities are available to teachers at all stages to equip them with the skills and confidence to use technology effectively, in line with GTCS Standards for Career Long Professional Learning;

- Liaise with relevant stakeholders to promote greater use of national online learning spaces and professional learning communities to support teacher networking and dialogue; and

- Ensure there are stronger links with relevant European and global networks to improve the two-way sharing of information, advice and dialogue between educators on a global scale.

A total of 120 (of 139) respondents answered Question 6. The majority of those who answered (83%) agreed with the priorities for action. A total of 20 respondents (17% of those answering) felt that the strategy had not identified the right priorities for action under this theme.

	Question 6: Response by Respondent Type			
Do you agree with the priorities for action outlined in the 'teachers' theme?	**Yes**	**No**	**No comment**	**Total**
Academic or Research Institute	5			5
Education administrative bodies	6	2	5	13
Education sector	8	1	3	12
Local government	17	1	2	20
Private sector organisation	4		2	6
Third sector organisation	10	3	6	19
Other			1	1
Groups (Total)	*50*	*7*	*19*	*76*
Individuals	50	13		63
TOTAL	**100**	**20**	**19**	**139**
Percentage of those commenting	**83%**	**17%**	**-**	**100%**
Percentage of all respondents	**72%**	**14%**	**14%**	**100%**

Commentary on Proposed Priorities for Action

Eighty-six respondents made a further comment at Question 6. The majority of those commenting supported the priorities for action, although it is notable that the nearly all of those answering 'no' at Question 5 provided further written comment, as did a number who had not answered the yes/no question.

The majority of those providing substantive comment on the 'teachers' theme favoured the priorities set out by the strategy – including education sector, local government, private and third sector respondents. Indeed a small number of these respondents suggested that an embedded national approach was long overdue. The emphasis on Initial Teacher Training (ITE) in particular was welcomed, and this was reflected in the extensive commentary from several respondents (including local government and private sector organisations).

Nevertheless, respondents identified a number of potential issues or barriers to implementation of this theme. The key points emerging here were:

- The challenge presented by the generational mismatch between 'digitally native' learners, and teachers.

- The approach set out under the 'teaching' theme should include major stakeholders and industry partners, and enhance the current GTCS Standards. The strategy should also highlight the importance of teachers meeting both the GTCS Standard and the Standard for Full Registration.

- The theme should not exclude other educators such as youth workers, school librarians and support staff. A number of respondents (across a range of respondent types) expressed disappointment regarding the consultation document's narrow focus on school teachers.

- An academic/research respondent expressed concerned that the language of the document appeared to imply that digital learning could replace (or had the potential to replace) effective teaching.

Those objecting to or raising more substantive concerns regarding the 'teachers' theme expressed some scepticism regarding the relevance and emphasis of the priorities. Some felt that the focus on ITE was misplaced, and that Career Long Professional Learning (CLPL) was more relevant. A small number of respondents also expressed a preference for a 'ground up' approach where teachers could experiment more freely, as opposed to a 'centralist' approach.

It was also suggested that the strategy makes unnecessary changes, for example ITE already makes extensive use of digital platforms, tutor driven innovation and professional communities were already in operation. Moreover, a local government respondent suggested that it was unrealistic to revise ITE programs to the extent implied by the strategy. A small number of respondents also suggested that it was unrealistic to ask teachers to take on the new agenda at a time of diminishing time and capacity to study or up-skill.

Additional Priorities for Action

A range of those making comment at Question 6 highlighted issues which it was suggested were not sufficiently represented by the description of the priorities for action under the 'teachers' theme. This included specific recommendations for additional priorities for action. These suggestions were generally related to the following five broad themes.

Initial Teacher Education (ITE) and Career Long Professional Learning (CLPL)

The most commonly mentioned priority in relation to the 'teachers' theme focused on teacher training in digital technologies – either in the context of Initial Teacher Training (ITE) or Career Long Professional Learning (CLPL). Views varied in relation to the relative priority of ITE and CLPL, but there was a common view amongst those making comment here that both are integral to meeting the priorities set out under this theme.

The close relationship between ITE and CLPL was referenced by several respondents. It was suggested that setting minimum skills standards would provide a basis for auditing skills throughout a teacher's career. The following specific points were made in relation to ensuring teachers maintain a sufficient skill level:

- Embed professional development in digital learning within GTCS standards.
- Raise the skill levels required of teachers, but ensure there remains sufficient focus on fundamental skills.
- Technologies used in ITE courses should mirror – or closely resemble – those used in school classrooms.
- Flexible (and possibly free) CLPL and refresher modules should be readily available across all staff levels.
- Consider different modes and streams of skills training – for example online methods do not work well where skill levels are very basic.

Upskilling and support for the existing workforce was seen by several respondents (including education administrative, education sector and third sector respondents) as an important element of delivering the national strategy. It was suggested that, while newer recruits will be increasingly comfortable with digital technologies, many teachers are less at home in a digital environment than their learners. In relation to this development of skills, a small number of respondents suggested that the emphasis should not be on teachers achieving expertise or 'digital for digital's sake', but on giving teachers the confidence in digital technology and the ability to design and plan effectively. These skillsets should be linked to pedagogy and be subject to ongoing refreshment in both formal and non-formal settings.

Respondents suggested a number of infrastructural measures in relation to development of teachers' skills. These included addressing the potential for current workload to constrain teachers' ability to upskill, developing links to international and european frameworks, considering the value of learners as ambassadors and

advisors to teachers around ICT skills, portable Glow profiles across teacher training and work contexts, and links between the strategy and existing learning communities and professional networks.

<u>Staffing, Facilities and Resources</u>

Staffing, facilities and resources emerged as a significant theme in the context of ensuring support structures are in place to enable teachers to use digital technology as an everyday part of their practice. It was suggested that access to computers in schools can still be a problem for teachers due to persistent issues around limited supplies of hardware, low bandwidth or lack of connectivity.

In addition to physical resources, a number of education sector, local government and third sector respondents suggested that systemic and organisational changes would be needed to support teachers in taking time to train, collaborate with others on learning materials, and improve their skills in the context of resource and staffing constraints.

Respondents noted a number of potential measures around securing adequate resource levels. These included rolling out national digital empowerment initiatives; ensuring local authorities commit to funding specialist support and minimise the effects of cuts; ensure that a baseline level of equipment is readily available; incentivise teachers to take up digital technologies and seek out training and CLPL; and simplify ICT systems and access points for teachers, including single login and linking up learning environments and systems.

<u>Promoting best practice</u>

A substantial number of respondents suggested that best practice should be given specific attention. These respondents suggested that encouraging teachers to improve their methods, create communities of practice and share ideas with their peers will be critical to embedding digital learning and making it sustainable. This also needed to be made relevant to the specific professional interests of teachers. Best practice that could be contextualized to show the value of assistive technologies to subject areas.

Normalising use of social media and digital hardware was seen as a particularly important element of the approach to the 'teachers' theme. A small number of individual respondents suggested that the sharing of best practice on platforms such as Twitter or Facebook may help to achieve this normalisation. It was also suggested that learners themselves could be incorporated into communities of practice, and lead developments in digital areas.

Specific measures suggested by respondents in the context of supporting and promoting best practice included:

- Creative use of Glow, Future Learn and other online portals.
- Targeted support for those teachers who do not meet GTCS standards.

- Fostering the notion of teacher leadership and innovative practice, in reference to appropriate frameworks (i.e. the Framework for Educational Leadership[9]).

- Promoting benefits to be derived from existing national online learning spaces and professional communities, encouraging teachers to get involved.

- Collaborating with teachers to assess need and potential for digital technologies in their teaching, and prepare appropriate responses.

- Several respondents highlighted the extent to which best practice is found on an international level, and emphasised the importance of practitioners being permitted to access networks, communities and industry partnerships across as wide a base as possible.

Librarians and support staff

As noted earlier, a number of respondents expressed disappointment regarding what was seen as the consultation document's narrow focus on teachers. This appeared to be a particular concern in relation to the role of school librarians. A number of detailed responses suggested that librarians are already a key part in supporting digital learning as trained information professionals (and often more skilled than many teachers). These respondents sought stronger role in the strategy for librarians and other support staff.

This included suggestions that librarians, for example, should also be able to access CLPL to allow them to up-skill and keep pace with new technologies. This was seen as having potential to provide much needed support and mentorship to learners and teachers.

Beyond school libraries, it was suggested that staff in mainstream library services, youth workers and other community educators are also excluded from the current document. Recognising their role and the value of existing initiatives such as the People's Network was seen as important in making the most of available resources and provide necessary support and context for digital learning outside of school.

Glow

Glow was identified as a significant issue under the 'access' theme, and a number of respondents also commented on Glow's variable reputation amongst teachers in relation to the 'teachers' theme. Recognition of this perception was seen by some as an important first step to improving trust in and use of the resource. Several respondents also made reference to specific approaches in relation to improving use of Glow. These included promotion of Glow through case studies of teachers who had used the resource to enhance their teaching, making Glow more flexible and accessible (for example Glow profiles that can follow teachers through their career).

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[9] http://www.scelframework.com/

Other Comments and Issues Raised

The final consultation question provided respondents with the opportunity to add any other comments in relation to the subject of the consultation.

A total of 98 respondents provided comment here, raising a broad range of points. This included comment from a large majority of group respondents, and particularly education administrative bodies, education sector, local government and third sector respondents.

Is there anything else you wish to add about the strategy?	Question 8: Response by Respondent Type		
	Comment received	No comment received	Total
Academic or Research Institute	3	2	5
Education administrative bodies	12	1	13
Education sector	9	3	12
Local government	19	1	20
Private sector organisation	4	2	6
Third sector organisation	14	5	19
Other	1		1
Groups (Total)	*62*	*14*	*76*
Individuals	36	27	63
TOTAL	**98**	**41**	**139**
Percentage of all respondents	**71%**	**29%**	**100%**

Points raised elsewhere in the consultation

The 98 respondents making comment included a number of respondents across education administrative, education sector, local government, private sector and third sector respondents who restated their support for the strategy. These respondents highlighted the potential for the strategy to drive significant progress in use of digital learning and teaching, and expressed positive views in relation to specific elements of the strategy.

In terms of more substantive issues raised at this question, these were primarily re-iterating key points raised in relation to earlier consultation questions - typically points relating to more than one aspect of the strategy. The main such issues raised by those making further comment are highlighted over the page.

Concern around resourcing of the strategy was the most common theme. Comments were primarily around calls for 'realism' about what can be delivered within current resourcing, and the investment required to achieve the level of change sought by the consultation document. This included questions around where responsibility for resourcing of the strategy will sit, and a suggestion that there is a need to promote the status of digital learning and teaching as a responsibility across all curriculum areas. It was suggested that failure to deliver the required investment could result in uneven implementation, potentially exacerbating inequality across education.

The importance of access to digital technologies inside and outside school was also highlighted as a key issue for delivery of the strategy. Reference was made to variation across local authorities in the importance assigned to digital learning and teaching, and in local authority approaches to digital technologies more widely. Specific concerns were raised around the extent to which 'risk averse' approaches to ICT use and digital connectivity, barriers in ICT procurement, and insufficient funding for hardware have a negative impact on schools and learners, and constrain innovation.

The importance of developing learners' digital capacity, literacy and citizenship - over and above core skills in how to use digital technologies was also a focus of comments. This reflected a view that digital learning and teaching must be embedded across all parts of the curriculum, and designed to prepare learners for a future where the skills required by society and the labour market are unpredictable, and likely to change over time.

A small number of education administrative and education sector respondents reiterated questions around the scope of the strategy. This was primarily focused on the extent to which the strategy is focused on the schools sector. These respondents suggested that the strategy could take greater account of experiences across further and higher education sectors.

A small number of education administrative and third sector respondents made reference to the importance of learners being supported to shape approaches to digital learning and teaching. This included suggestions that the strategy needs to more explicitly recognise the insight and experience that learners have to offer.

The importance of engaging parents and carers was also raised by a small number of respondents. This reflected a view that the strategy places insufficient emphasis on the role of parents and carers.

The potential role of digital learning and teaching approaches in promoting equity was mentioned by a small number of third sector respondents. This included scope for digital learning and teaching to support inclusion of those for whom health or support needs are barriers to engagement in the education system.

An education administrative respondent wished to see clearer links between the strategy and wider education policy and strategy, particularly the aims of the

National Improvement Framework, and potential for the strategy to contribute to reducing the attainment gap.

Additional points raised by respondents

In addition to the above points which had already been considered in relation to earlier consultation questions, respondents raised a number of other issues around the vision of the strategy and key aspects of the strategy's implementation. The key points of note were:

- A small number of education administrative and local authority respondents expressed a view that the strategy could take its vision further. This included a view that the consultation document's language and presentation could be more engaging and inspiring, and suggestions that the final strategy should be 'more imaginative', 'more radical', 'more inclusive' and have 'greater ambition'.

- Respondents raised a range of points around implementation of the strategy, action planning and measuring progress. There was a common view amongst these respondents that clear action plans and monitoring processes are required to provide guidance for those taking the strategy forward. Several made more specific reference to the approaches required to measure progress and success including for example a suggestion that 'traditional' data sources or collection methods may not provide a full account of progress (such that new digital research methods will be required), and a reference to use of Insight in measuring progress as excluding the independent and further education sectors.

- A number of respondents made reference to a broad range of specific research reports and policy papers of relevance to the strategy. These were primarily focused on the potential role of digital technologies in improving education outcomes (including some references to research that questions the potential impact of digital learning and teaching), and the value of specific digital learning and teaching approaches. Respondents also highlighted a number of areas where it was felt that further research is required.

- The importance that the strategy integrates with the range of ongoing development agendas in Scottish Education, and more widely with work to develop digital participation across the population, was raised by a small number of education administrative and other group respondents. This included some concern around the scope for the education system to take on more change at present.

- One academic respondent expressed concerns that the timing of the strategy is late, and there was now a need to recover lost momentum within Scottish education in relation to digital learning and teaching.

Annex 1: Group Respondents

Respondent	Respondent Type
SCHOLAR Forum	Academic or Research Institute
School of Education and Social Work	Academic or Research Institute
School of Education, University of Strathclyde	Academic or Research Institute
Springfield Primary School/ Bonnytoun Nursery	Academic or Research Institute
University of the West of Scotland, School of Education	Academic or Research Institute
AHDS	Education administrative bodies
Association for Learning Technology	Education administrative bodies
Association of Directors of Education of Scotland	Education administrative bodies
Association of Support for Learning Officers	Education administrative bodies
CILIP in Scotland	Education administrative bodies
College Development Network and Colleges Scotland	Education administrative bodies
Community Learning and Development Standards Council for Scotland	Education administrative bodies
Educational Institute of Scotland	Education administrative bodies
School Leaders Scotland	Education administrative bodies
Scottish College for Educational Leadership	Education administrative bodies
Scottish Qualifications Authority	Education administrative bodies
The General Teaching Council for Scotland (GTCS)	Education administrative bodies
Voice Scotland	Education administrative bodies
ASL technology service	Education sector
Bathgate Early Years Centre	Education sector
George Watson's College	Education sector
Midlothian Council (Learning Technology Team)	Education sector
Moray House School of Education	Education sector
Renfrewshire Council Adult Learning & Literacies	Education sector
School of Education, University of Stirling	Education sector
SSERC	Education sector
St John's Primary	Education sector

Respondent	Respondent Type
University of the Highlands and Islands	Education sector
West College Scotland	Education sector
West Lothian Council	Education sector
Aberdeen City Council	Local government
Aberdeenshire Council	Local government
Angus Council People Directorate	Local government
Argyll & Bute Council	Local government
COSLA	Local government
East Ayrshire Council: Economy and Skills	Local government
East Dunbartonshire Council	Local government
East Lothian Council	Local government
East Renfrewshire Council	Local government
Education and Children's Services, Western Isles Council	Local government
Education Resources, South Lanarkshire Council	Local government
Fife Education and Children's Services	Local government
Moray Council	Local government
North Ayrshire Council	Local government
North Lanarkshire Council, LLS ICT and Digital Services Group	Local government
SEEMiS and Local Government Digital Transformation Board	Local government
Shetland Islands Council	Local government
SOLACE (Scotland)	Local government
South Ayrshire Council	Local government
Stirling & Clackmannanshire Education Service	Local government
iTeach	Private sector organisation
NoTosh Limited	Private sector organisation
RookieOven	Private sector organisation
Show My Homework	Private sector organisation
Smart Science Education Inc.	Private sector organisation
Thinking to Success Ltd.	Private sector organisation

Respondent	Respondent Type
Association for Media Education in Scotland (AMES)	Third sector organisation
CALL Scotland	Third sector organisation
Changing faces	Third sector organisation
Child Poverty Action Group in Scotland	Third sector organisation
Children in Scotland	Third sector organisation
e-Learning Foundation	Third sector organisation
Field Studies Council	Third sector organisation
Games4Ed	Third sector organisation
Health and Social Care Alliance Scotland (the ALLIANCE)	Third sector organisation
Mindroom	Third sector organisation
National Deaf Children's Society	Third sector organisation
National Parent Forum of Scotland	Third sector organisation
NSPCC Scotland	Third sector organisation
respectme	Third sector organisation
Scottish Library and Information Council	Third sector organisation
Scottish Parent Teacher Council	Third sector organisation
The Royal Society of Edinburgh	Third sector organisation
Young Scot	Third sector organisation
YouthLink Scotland	Third sector organisation
Children & Young People's Commissioner Scotland	Other