



Parents and Carers workshop

12 December 2007

Full report

1. Overview

The session at Bristol Zoo on 12 December 2007 for parents and carers had three goals:

1. Identify which of the 11 challenges from the Beyond Current Horizons programme they thought was most important to research further.
2. Identify other relevant challenges.
3. Discover what they as parents wanted from education in 2025.

To achieve this, the 26 parents performed three tasks in small groups:

- Firstly, an icebreaker to identify their own technology usage and what they wanted to stop, start and keep in learning environments where their children would attend.
- Second, they were given a set of challenges, ie areas to investigate relating to the education system, and asked to identify the most important to investigate. That is, those that would *have* to be considered in order to create the learning environment they wanted to see.
- Finally, they were given modelling materials and asked to build their ideal, or worst, learning environment of 2025.

The key findings from the day were:

- Education should focus on the students and produce people capable of socialising and interacting.
- Teachers are key to desirable education environments.
- The most important challenge to investigate was how new technologies will influence our understanding of identity and community.
- Given the concern about assessment, a new challenge is required on how assessment should change in line with changes in technology and society in the next 18 years.
- There should be a standard curriculum which takes into account students' learning styles and incorporates basic skills, exercise, and creative activities.
- If we are asking for stakeholders to consider the challenges already identified they need to be concrete and easily understandable.
- It is hard to think about the future – groups tend to focus on what they want now, rather than what should exist in 2025 and beyond, which may not be same.

The rest of this report details the workshop, participants and outputs.

2. Details of the workshop

2.1 Participants

Parents with children under 3 were viewed as stakeholders within the Beyond Current Horizons project as their children would be going through the education system between now and 2025. Thus they have a vested interest in ensuring the formal education system provides a positive experience for children and contains elements they feel important to ensuring a child's success academically and socially.

Twenty six parents participated: two men and 24 women. All of them had at least one child under 3, many of which came to the workshop. Although nursery staff looked after the children the parents were free to go to their children or bring them into the activity area.

The workshop was publicised at local SureStart centres, various nurseries, local libraries and through word of mouth. The participants knew in advance there would be childcare, lunch, access to the zoo, a £10 Early Learning Centre voucher, and that transport costs would be reimbursed. The goal was to gather parents from various economic and social backgrounds within Bristol.

Many of the participants already knew each other as they belonged to the same antenatal group. They felt this to be an advantage as it was easy to talk. The majority of participants came from a white, educated, middle-class background. In addition to the researchers hoping for a wider range of participants, one of the parents also commented that this was undesirable and unrepresentative.

The participants formed five groups with five or six people in each (Groups A to E), and worked with the same moderator throughout. The moderators were all researchers; four of them were also mothers.

2.2 Stop, start and keep

2.2.1 Description

This exercise was intended to be an icebreaker. The Stop, Start, Keep prompts were displayed prior to the start of the workshop in order to give the participants time to think about their responses. The task involved the participants giving their name, the names and ages of their children, their technology usage and what they would stop, start and keep in the education system. Not all parents could think of examples and some had multiple suggestions for each category. This activity lasted for approximately 15 minutes.

2.2.2 Results and discussion

This showed that those present were predominately technology-literate. All of them used a computer - eight said they used the computer every day despite being on maternity leave: "it's my window onto the outside world". Technology was used for personal activities and work. The technology for personal use included the internet - for finding things out and shopping - laptops, mobile phones, e-mail, cameras and music (eg iPods). For work they used specific technology, for example for nursing, when translating, scanning, and for administration tasks.

The parents had similar aspirations for education systems. The things to **stop** in the current education were:

- Testing (at least two parents in every group suggested this) (11 mentions)
 - "I think we're pushing children into competing against standards way before necessary. If anything this stifles imagination and innovation"
 - "So much testing. It's a terrible strain. It's demotivating for kids who don't do so well, kills their confidence"
 - "Preparing kids to pass tests instead of focusing on useful learning"
- The postcode lottery (mentioned by three of the five groups) (6 mentions)
 - "Currently too difficult to get kids into the better schools – current entry criteria is not working"
 - "Children should have equal learning opportunities"
 - "Division between rich and poor schools"
- Large class sizes (1 mention)
- Admission paperwork (1 mention)
- Discrete subjects (1 mention)
- Bullying, segregation (1 mention)
- 'Cut and paste' culture (1 mention)
- "Pumping money into buildings instead of people" (1 mention)
- The emphasis on computing (1 mention)

The parents wanted to **start**:

- More relevance and focusing on the 'basics' (6 mentions)
 - "'Electives' in life skills, for example, how to pick up a phone and call a big company. How marketing works"
 - "People who apply for jobs with me have very poor spelling and grammar. They can't write"
 - "Social skills"
 - "Problem-solving tasks rather than exams about dry information"
- Learning through play and using imagination (4 mentions)
- Teachers working with students (3 mentions)
 - "More time for teacher to spend quality time with kids"
 - "More teachers so smaller classes"
 - "Smaller schools"
- Giving parents confidence that all schools will be good and information about these schools (2 mentions)
- Craft activities, like home economics, sewing and cooking (2 mentions)
- Working with families (2 mentions)
- Teaching languages earlier (1 mention)
- Forest schools (1 mention)
- More time outdoors (1 mention)
- Teaching responsibility for own learning (1 mention)
- Sex education (1 mention)
- Links between health and education (1 mention)
- Direct payments for education (so parents can put their money towards private or public education) (1 mention)

There was an equal amount of diversity when it came to things to **keep**, apart from the insistence that exercise was vital in education:

- Outdoor play, playtime and sports (12 mentions)
 - "Any outside activities to keep kids fit and active"
 - "Loads of sport"

- Celebrating diversity, citizenship and social responsibility (2 mentions)
- Diverse and creative curriculum (2 mentions)
- Passionate staff (2 mentions)
 - "The passion of staff who have chosen to work in education"
- Music (2 mentions)
- Time for imagination and play (1 mention)
- Extended hours (1 mention)
 - "Breakfast clubs etc"
- Classroom assistants (1 mention but agreed by all five in group)
- Work experience (1 mention)
- Kids in school (1 mention)
- Streaming by learning methods (1 mention)
- Creative activities (1 mention)
- Family culture (1 mention)
- Languages (1 mention)

2.2.3 Key findings

The parents had strong opinions about education. However, technology did not play a part in their vision of formal education. It was mentioned only once, and then to state too much was done in schools. What did seem important was the need for the reduction of exams and the maintaining (or increasing) of exercise. Although there were less mentions the parents were keen to have passionate teachers and classroom assistants with time to work with their children. They also wanted equal access to good schools. There was an emphasis on having a diverse and creative curriculum – focusing on basic skills as well as craft activities and learning through play.

The parents appeared to want these suggestions implemented now, rather than seeing them as long-term goals for the system to be achieved by 2025.

2.3 Diamond 9

2.3.1 Description

This task was designed to address the goal of identifying which challenges from the Beyond Current Horizons programme they as stakeholders thought was most important to research further.

Initially there was a presentation elaborating on some of the previously identified challenges, and each moderator had been given the agreed challenge descriptions in advance so they could explain further if asked (see 0). Then each group was given a set of diamond-shaped cards containing these 11 challenges and blank cards to write their own if they wished. They were asked to arrange only nine of them in a diamond shape by importance. The most important challenge to address in order to achieve their desired education system should be placed at the top, the next two most important underneath and so forth down to the least important (see Figure 1). They had 35 minutes to discuss and agree the order of the challenges.



Figure 1: Group E final diamond 9

The majority of groups chose to look at a challenge, discuss it, then discuss another challenge and rank it in relationship to the first and thus build up the diamond incrementally.

In order to calculate the order in which the challenges should be addressed across the groups, the cards placed in the top row by each group were given one point, those in the second row were given two points, the cards in the third row were given four points, the fourth row, seven, and the bottom row, nine points. Those not included were given 10 points. The challenge with least points was considered most important.

2.3.2 Results and discussion

The overall order in which the parents believed the challenges should be addressed was:

- How will new technologies influence our understanding of identity and community?
- What skills will we need to fully participate in increasingly virtual, visual and complex information societies?
- How might the balance between state and commercial delivery of education change in the context of technological development?
- How might all forms of work change in the context of developments in technology?
- How might childhood change over the next 18 years as a result of developments in technology?
- What sorts of education systems, methods and institutions do we need to help people cope with increasing complexity?
- How might new technologies help education to meet the needs of a changing population?
- Which technological developments may be most important to society over the next 25 years?
- How will developments in technologies change the way we use physical and virtual spaces for learning?
- What will we need to know in 2025 and beyond?
- How might technologies help the education system respond to significant society-changing events, eg pandemics, climate change, cyberterrorism and economic failure?

Although one list was produced, the groups had differing views about the importance of the challenges. No challenge was viewed as always being in the top three to investigate, and no challenge always appeared in the bottom three or was disregarded (see 0). The probable reason for these varying opinions, given the similarity of backgrounds and technology usage, is the difficulty in comprehending a range of challenges in such a short time. As one said:

“I think this phrase, like most of them here, can be interpreted in too many ways. Does the word ‘skills’ relate to learning about the technology; or learning about the complex information needed to access the technology? It’s all way too ambiguous.”

Examples of these differences in interpretations of the challenges is illustrated by the discussions around ‘How might new technologies help education to meet the needs of a changing population?’. Group D placed it at the top of their diamond; their interpretation of the challenge was that it was necessary to include everyone in education and therefore you had to know how technology could be used by everyone. Group C placed this challenge on the middle row. They viewed it as trying to find a method to link diverse groups in different countries and investigating what opportunities this would

bring, the impact of translation systems, and how technology could make education more inclusive given that more children could have special needs or disabilities in the future. After minimal discussion Group A felt that this challenge was not worth investigating as it would be done anyway, even if it was by private businesses, and placed it at the bottom of the diamond. Overall this challenge was ranked seventh, and therefore would not have been recommended as a challenge to investigate further. However, this challenge cannot be concluded as unimportant without an elaboration of what was meant by the challenge from all groups.

In addition to the confusion of what a challenge addressed, some of the participants argued that future education environments would be dependent on things *other* than issues arising from new technology. Technology was actually viewed as secondary, eg: "I don't want too much technology, certainly not at the expense of social interaction", "Using a computer is isolating and solitary. You don't work as a team or speak to people directly", or "You need more than technology, you need specialist teachers – and to keep the social side". The parents seemed to agree interpersonal skills are more important than technical skills, which can be picked up at any age and relate to all aspects of life.

The discussions held during the exercise suggest that the challenges presented were too complex, and should focus on the key goals of education: "Schools get distracted by 'new stuff'. What's needed is to cover the basics – reading and writing." And given the discussions, another challenge is getting the right teachers: "Teachers take precedence over technology".

2.3.3 Key findings

It can be concluded that the initial descriptions of the challenges were too complex for the stakeholders to understand without more time and background. This impacted how the challenges were ranked. This suggests that focusing on the future is complex, especially in areas with which you are not familiar, and future workshops need to spend time elaborating on concerns in order to get meaningful feedback.

However, despite the differences in interpreting the challenges, those viewed as most important were described as having a strong social aspect, ie understanding of identity and community, skills to participate in increasingly virtual, visual and complex information societies, and the balance between state and commercial delivery of education. The discussions emphasised the non-technological aspects of these challenges, for example, what the spaces should be like, the social skills required, the role of teachers. All the groups were keen to reduce the technology focus - education in 2025 should have a strong social aspect.

2.4 Models

2.4.1 Description

The groups were given a pack containing plasticine, coloured paper, pens, glitter and post-its, and given around 35 minutes to create their ideal or worst learning environment. They then had to present it to another group. To assist them they had the following prompts:

- Who/what is teaching?
- What subjects are they learning?
- Who is learning? (mixed age groups, individuals, same location, different locations)

- How do you know what they've learnt?

Those building the models complained that the materials needed to be more drab in order to create their vision of the worst learning environment.

2.4.2 Summary of ideal learning environments (Groups B and D)



Figure 2: Group B ideal learning environment

Group B preferred to discuss rather than build their environment (see Figure 2). They designed an environment for 5-7 year-olds in which teachers would be key to learning. Not only would they be passionate about their subject and learning, they would also be valued, have more time for lesson planning, and some space to personalise their approach to the curriculum. The actual curriculum covered would be standardised.

The children would work in clusters according to their learning style with lots of

outside play. The school would teach martial arts as part of the formal curriculum. If technology were used it would be as engaging learning exercises on computers. This was the only technology explicitly mentioned. Finally, assessment would start later, be formative, and would be personalised due to the stronger relationship between teacher and pupil.

Group D's model had four areas, each a different colour, for different activities (see Figure 3). The areas were:

- Technology (the inquiry area)
- Relaxation and quiet times
- Nature (a forest space)
- Creativity (which allows learners to "get their head round the content" in the other areas)

There is communication in each area and also within the yellow circle which brings all the learners (15 maximum) into a "circle of knowledge". The learners are able to choose when and what to do within the four areas.



Figure 3: Group D ideal learning environment

Teachers would not profess to know everything but would share an understanding that we learn from other people. Other people “from the community” (for example business people and parents) would be involved in providing learning contexts – both by coming in to the learning space and by hosting learners in their own settings. Opening up in these ways would involve risk which the current health and safety legislation does not allow. However, risk is something that an educational system should incorporate according to Group D.

2.4.3 Key findings

To summarise, both groups wanted to produce an environment where children are happy and secure, and assessment is formative and personal. Both models and the discussions were strongly influenced by ideas about education which feature in Early Years settings, which they believed should underpin models of schooling for older learners. The two ideal environments had the following in common:

- Beautiful environments (light, open spaces, colourful)
- An area for learning outdoors
- No formal desks – but places where students can work in clusters
- Learning in small groups of similar ability or interest rather than by age
- Teachers would be facilitators and have the respect of their students
- Teachers would support students according to their preferred learning styles
- Teachers would have ongoing professional development training and mentoring
- Teachers are passionate about their subject
- Teachers have time for lesson planning and space to personalise their approach to the curriculum and have scope to do what they think is interesting
- Students who want to learn
- Assessment is personal, it is discussed, and covers a range of skills – not just academic
- The environment is based on principles for early years learning, ie creative and playful development of skills, qualities and approaches.

2.4.4 Summary of worst learning environments (Groups A, C and E)

Group A created an environment for babies (see Figure 4). They would be in a windowless room, in a depersonalised synthetic environment, from 8am till 6pm as both parents work and caring is not valued. The babies are positioned in front of a screen with an avatar (not a real person) on it. This is a woman (because it is felt that babies will better associate with female role models) and it's always the same avatar, blond hair, young, smiley.



Figure 4: Group A worst learning environment

'Learning' occurs passively by gazing at the avatar. These physiological responses (eye movement and gaze intensity) to different on-screen stimuli are monitored to see which they 'like' more. Babies' responses are compared between individuals to rate their progress in comparison with others. There are lots of adverts in between learning

much as you could which you would then be tested on. There would be constant comparative ranking – “You are doing worse than your neighbour by x% - try harder” and meaningless statistics - “You are doing 2% better than yesterday”. “Vacuum packed” lunches would be served at the desks. At the start of each day they had aerobic exercise in cubicles (jumping up and down etc). Finally, for 10 minutes every 2.5 hours they were allowed to MSN each other.

2.4.5 Key findings

The three worst environments have the following in common:

- There would be no person teaching, advice and instructions would be textual or by an avatar
- There would be lots of comparisons of ability – even amongst the babies
- There would be no development of social skills
- There would be no creativity by students
- Students would be constantly monitored
- Content would be from external organisations and take no notice of individual learning styles.

This would imply that the learning environment should be social, take account of learning styles, have appropriate content and be taught by real people without constant testing and comparisons. There should also be some form of enjoyable exercise.

2.4.6 Discussion

Despite prompts about non-typical technology, eg smart pills, genetic modification, nano technologies, smart clothes etc, all the future environments that were designed used technology available now, for example laptops, avatars, online activities and monitoring technologies. This may suggest that they believe learning environments will be behind cutting edge technology in 2025, or they may be focusing on the easier task of designing an environment that could exist now. However, given the conversation the parents are more concerned about interactions with peers and teachers rather than integrating technology, despite having just discussed the possible roles technology could inhabit in the previous Diamond 9 exercise.

There is also a requirement for assessment. But unlike the SATs discussed in the icebreaker exercise, the examinations should be formative and personal. Viewing exams as a means to deciding appropriate careers is to be avoided. As are curriculums designed by commercial organisations – yet they believe there should be some standard curriculum.

Perhaps most importantly all the models emphasised the ‘socio’ side of socio-technological change. The absence of teachers and working with other students in the worst environments, and their importance in ideal environments, suggests these aspects are key to creating an ideal learning environment in 2025.

3. Issues arising from the workshop

Whilst the workshop was limited in terms of the number and backgrounds of the parents, it did demonstrate how difficult it is to focus on education in 2025 and beyond. Parents were concerned with technology available *now*; for example, the difficulties in policing internet usage, the influence of television, the need to understand website production in order to find employment.

Additionally the participants found it hard to grasp the challenges in their current format. They felt they were too abstract and open to interpretation, and often attempted to answer them rather than viewing them as areas of possible future focus for research which needed to be ranked in order to create their ideal learning environment. This suggests future workshops ought to spend more time elaborating the challenges and encouraging participants to think about their ideal learning environment prior to reviewing the challenges in order to assist ranking them.

Assessment was an area of concern throughout the day. This suggests a new challenge: how assessment should change with the changes in technology and society in the next 18 years. The privatisation of assessment was mentioned in the challenge about state and commercial delivery of education, but the parents were more concerned about how they were conducted and how the results were used.

The largest concern, however, was the technology focus throughout the day; the parents feared technology is being chosen and lauded more than social skills and interaction. The parents wanted their children to develop social skills. This was echoed in what they wanted to keep in schools – in all the groups parents said they wanted to keep social activities, ie play times, fun lessons, sports, breakfast clubs, outside activities. It was reflected in the challenge identified as most important - understanding of identity and community. Finally, it was reflected in the negative use of existing technology shown in the models - the focus was on interpersonal and social skills.

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Appendix A: Challenges identified by Futurelab

How might childhood change over the next 18 years as a result of developments in technology?

This challenge should address the overarching question: In what possible ways might childhood change over the next 20-50 years? Sub-questions or areas for exploration may include: What changes in family and domestic life might emerge? How might gender roles and employment practices lead to changes in childhood experiences? How might the use of digital/bio or medical technologies influence child development and childhood activities? What are the major risks and opportunities facing children over the next 20-50 years? How does childhood, work, leisure and learning change in this timescale? Another focus might include a theorisation of how children may have interacted with technology over this period and the implications of this for their social relationships, for their relationships with parents and teachers, for their relationships with information and media, for their cognitive and socio-cultural processes. This focus will explore the 'neo-millennials' argument and examine how this might play out over the next 18 years, for example, exploring how children are learning with and through technologies (of different sorts) outside the school setting, exploring how their relationships with parents may change, understanding the nature of early years experiences. It will also examine the difficulties and problems with this argument.

What will we need to know in 2025 and beyond?

This challenge would focus specifically upon questions of knowledge – how it is produced, where, in what institutional settings, how it is regulated, how might disciplinary boundaries erode or change? It would explore questions such as: How might relationships between amateur and professional change? What are the implications for education of just-in-time knowledge and learning, increase in pace of change of knowledge, concentration of media ownership, potential emergence of censorship, changing or loss of trust in state education, development of mass knowledge production practices, changing ownership of knowledge, access to knowledge, development of specialised bespoke 'industrial' knowledge located with private companies, management of diverse knowledge resources and media? It would explore *what* children might need to know, when, and how this might be accredited. It might explore how qualifications and knowledge might be interrelated in future and how this might change over a lifetime.

How might new technologies help education to meet the needs of a changing population?

This theme focuses on questions of demographic change, in particular lowering fertility, migration, increased aging societies, increased mobility within and between nations, immigration patterns. It addresses questions such as: Who will be the future learners in 2025 and beyond? What role might developments in digital and bio technologies play in demographic change? If 50-70 year-olds are needing to work, if patterns of work are very flexible and changing, what sort of learning is going to be required and how do we do it and what sorts of examples are there? What about supporting learning across and between different age groups? How do we educate a massively diverse cultural and linguistic population in schools?

How will new technologies influence our understanding of identity and community?

This theme would focus specifically upon questions of how 'identity' and 'community' might develop in relation to the development of networked, pervasive and personal technologies. It might ask how individuals will manage the complex modalities that may be available for communication, how identity and community change in the context of constant connectivity, how individuals and families maintain and develop relationships over distance through use of digital technologies. It would also explore how individuals might manage the interface between 'virtual' and 'real' environments and interactions. Questions of individual data, privacy, surveillance and ownership of data by state, individual and private sector and how this is managed would also be examined in this challenge. Questions of what people will need to learn and know to operate as individuals and in communities in these changed contexts will need to be explored.

What skills will we need to fully participate in increasingly virtual, visual and complex information societies?

This theme would focus specifically upon questions of modalities of communication offered by developments in information and communications technologies. Specifically, it would explore what forms of multiliteracies might be required to navigate, negotiate and interpret a changed media landscape. It would explore how individuals and groups would engage with knowledge, information and each other through different communication channels (for example, immersive, simulated, visual, aural, kinaesthetic, remote, face-to-face) and how these different modalities might encourage the development of new forms of cognition and communication.

How might all forms of work change in the context of developments in technology?

This theme would focus specifically upon exploring how 'work' might change over the next 18+ years. It should address questions such as: How might the processes of work be influenced by changing demographic patterns or developments in global economics? It should also address less conventional questions, such as how relationships between state/private and third sector organisations might lead to new working patterns and practices. It should also consider questions such as how gender might play a role in changing expectations about work – what work is valued? What work becomes commodified due to changes in the domestic labour force? What will you need to 'prove' you can do – and how will that be wanted?

How might the balance between state and commercial delivery of education change in the context of technological development?

This challenge would focus specifically upon the ways in which public/private relationships may change between the current time and 2025, particularly in relationship to the potential role of the private sector and the market in education, including the development (for example) of diverse curricula, the development of private market-led assessment and qualification systems, the emergence/development of 'third sector' educational provision, the development of international commercial education providers. This challenge might also examine the role of providers such as BBC/C4 and others. What role will digital technologies play in transforming public/private relationships in education? What role might digital technologies play in new forms of private sector education provision?

What sorts of education systems, methods and institutions do we need to help people cope with increasing complexity?

Problems currently faced by individuals and societies are more complex than simple linear relations of cause and effect; at the same time, information and knowledge is rapidly changing, there are also the possibilities of problems faced by individuals and groups that require radically new ways of thinking to solve them. How best might we enable individuals and groups to engage with complex questions and to think beyond linear cause-and-effect models of social and technological change? What are the methods that are most effective for supporting the development of skills and capacities to adapt, develop, retrain and respond to diverse and rapidly changing environments? How can we enable education to engage with complexity more generally in its curricula, pedagogies and institutions? How can the system build flexibility into its institutions? How might we use digital technologies to effectively inculcate and develop education for change? How might we use digital technologies to effectively enable rapid and responsive transformations in the education institutions we are working within?

Which technological developments may be most important to society over the next 25 years?

This challenge would focus specifically upon attempting to explore the various ways in which cutting edge technological developments in computing, biosciences, mathematics etc might interact with social structures and practices over the next 18-50 years, and to understand how subsequent changes in social practices might have implications for education. Technological infrastructure – ie semantic web issues – how this makes certain things possible rather than others. In particular, this challenge might explore areas of automation, brain/world interface, ubiquitous computing – and examine how these affordances might interrelate with existing or emergent social practices. This challenge would then explore what implications for education might emerge from any changes or continuities.

How will developments in technologies change the way we use physical and virtual spaces for learning?

This challenge would focus specifically upon attempting to explore how existing institutions – schools, museums, community centres, homes, religious centres, cities – might be changed over the next 18-50 years. What other institutions emerge? How these relate to each other? Clubs, informal sectors and spaces, outside institutions – what connections are possible?

How might technologies help the education system respond to significant society-changing events, eg pandemics, climate change, cyberterrorism, economic failure?

A number of major potential disruptions to existing work, education and social patterns have been identified as being of high likelihood in a large number of scenarios. These include: severe effects of climate change processes, lack of energy resources, pandemic, traffic gridlock, massive technology failure, economic failure, revolution. All such events would raise significant questions about how to manage education and the role of education in society. This challenge would examine these unlikely but major impact risks, and identify models that we already have in place to cope with them, gaps in planning and provision, and specifically examine whether having digital technologies in place increases or reduces the impact on the education system of such potential crises. This challenge would also offer an engagement with the diverse potential models of education that are already on offer which might demonstrate routes to maintaining education systems in these contexts. A specific question for this challenge might be: How might technology-enhanced learning be affected by such issues, and how might technology-enhanced learning help to ameliorate the impact of such crises?

Appendix B: Rankings for Diamond 9 exercise

Challenges	A	B	C	D	E	Total
How might childhood change over the next 18 years as a result of developments in technology?	1	7	2	10	4	24
What will we need to know in 2025 and beyond?	4	4	10	10	10	38
How might new technologies help education to meet the needs of a changing population?	9	4	4	1	7	25
What skills will we need to fully participate in increasingly virtual, visual and complex information societies?	10	2	1	3	1	17
How will new technologies influence our understanding of identity and community?	4	1	4	1	2	12
How might all forms of work change in the context of developments in technology?	2	4	7	3	7	23
How might the balance between state and commercial delivery of education change in the context of technological development?	4	2	9	1	4	20
What sorts of education systems, methods and institutions do we need to help people cope with increasing complexity?	7	7	7	1	2	24
Which technological developments may be most important to society over the next 25 years?	2	9	2	3	9	25
How will developments in technologies change the way we use physical and virtual spaces for learning?	7	10	10	1	4	32
How might technologies help the education system respond to significant society-changing events, eg pandemics, climate change, cyberterrorism and economic failure?	10	10	4	10	10	44

Key

The challenges were given points according to their location in the diamond as shown below.

