The Beauchamp Papers 3

Identity and Learning Part Two

The SoTo Research

Preparing young people to shape a future we cannot imagine

Andrew Hobbs

Acknowledgements

Identity and Learning: Part 2

Preparing young people to shape a future we cannot imagine

The Third Beauchamp Paper

Lynn Davies, Andrew Hobbs and Bernie Trilling

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This publication is made up of two volumes. This is Part 2.

Part 1 contains two introductory papers, on Identity by Lynn Davies, and on Learning by Bernie Trilling, along with a case study of a school building a learning culture for the 21st century.

This volume sets out in detail the findings of the research undertaken by Schools of Tomorrow into the concept of learner identity, and the impact of digital technology on this.

It examines the perceptions of students and staff in five English secondary schools.

The report is organised into three sections. They are preceded by the background to the research and its methodology and a concluding summary of potential implications for a school of tomorrow

Section 1 - Background

Section 2 - Identity

Section 3 - Social media and learning

Section 4 - Learning and digital technology

Section 5 - Implications for a school of tomorrow

A final chapter sets out Schools of Tomorrow's plans to take forward these ideas and thinking across 2014-15

Background

Origins

During the formation stages of Schools of Tomorrow, one of three themes identified early on for more detailed examination was the importance of the concept of learner identity. The small group of school leaders who met to discuss this theme identified three fundamental tenets for further examination:

1. Learner identity is a key aspect of overall identity, and is built and developed from the personal identity of the individual.

2. Identity is a central aspect of personal development that is increasing in significance. As such, it should become part of how schools support students.

3. The personalisation of learning requires that individuals develop an effective identity as a learner within an overall identity as an active, participating individual.

Discussion of these basic ideas recognised that learning and education is affected by, and will have to change, in response to the rapid social and technological changes of the globalised 21st century world.

The conversations also raised a number of additional questions:

- How is digital technology and social media changing how young people define their identities and how they learn?
- What is the role of schools in the globalised world of the first half of the 21st century?
- How can schools create a learning culture and environment that prepares children and young people for life?

These questions and the ideas that inform them relate to all four fundamentals of the Schools of Tomorrow Framework, specifically 'highly effective preparation for adult and working life', which the Framework defines as:

"All learners achieve increased responsibility and leadership for the conduct of their lives and learning, supporting their broader development as resilient, creative individuals, active citizens and enterprising workers in the society within which they will live". We decided to explore these questions further by interviewing students and staff in a number of schools in different parts of England. What follows sets out the main findings from these interviews and identifies implications for learning and education.

The research interviews

Five schools, from different parts of England, volunteered to participate in the research interviews. In total 65 students were interviewed and 17 teachers between May and July 2013. The young people were in Years 8 to 10 at the time of interview and selected by their school to provide a balanced sample of ability, interests and backgrounds. The socio-economic contexts and areas of the schools is varied, but does not include any schools in the central areas of large cities.

Students and staff were asked the same questions, set out at the end of this section, with an additional question being put to the staff on differences between how they learn personally and how they teach and facilitate learning. Supplementary questions were asked when necessary to clarify the meaning of the question or to elicit further detail to the responses given. The interviews were recorded as videos, which have subsequently been edited for use in different contexts. The process adopted was not designed or intended to draw comparisons between the schools involved nor do the research methods provide sufficient rigour to allow for firm conclusions to be drawn. However, the outcomes do offer an insight into the attitudes, thoughts and behaviour of young people and teachers and provide the basis for a number of implications to be drawn on a range of issues that are remarkably consistent with findings and writings elsewhere.

The interviews were divided into three sections:

1. Identity – to find out more about how people define their identity as an individual and as a learner.

2. Social Media and Identity – to learn more about how social media is used, how it is influencing how people behave and see themselves and whether it is changing how people learn.

3. Learning and Digital Technology – to discover more about how digital technology is changing how people learn and the implications of this for the future.

This structure for the interviews has been applied to the sections following in this chapter.

QUESTIONS USED IN THE INTERVIEWS WITH STUDENTS AND STAFF

Identity

- 1. Please describe your identity. What are the main factors that make you who you are?
- 2. How would you describe yourself as a learner?

Social Media and Identity

- 3. How do you use social media and how frequently do you use it?
- 4. Do your social media profiles accurately and completely describe your identity? If not, how do they differ?

Learning and Digital Technology

- 5. How do you use digital technology (i.e. computers, the internet, social media etc.) in your learning?
- 6. Has how you learn changed as a result of using digital technology? What further changes do you think will happen both in schools and in out of school learning?

Further question for staff

Are there any distinctions between how you use digital technology in your personal learning and in how you teach or facilitate the lesson?

Identity

"Identities are fluid in character, dynamic in nature and, therefore, complex in practice. Decisions about which one to prioritise do not take place in a vacuum. They are shaped by circumstance and sharpened by crisis."

Gary Younge – "Who are we – And should it matter in the 21st Century?"

"We're not trapped by the class or place or background we were born into - or at least in terms with how we feel about ourselves. People are almost creating their own identities."

Ben Page, Chief Executive of IPSOS Mori.

Introduction

In January 2013, the Department for Business, Innovation and Skills (BIS) published a project report entitled 'Future Identities - Changing Identities in the UK: the next 10 years'. It is a summary of recent research and evidence received from 'over 100' experts and stakeholders. The report states that the key message for policy makers is that:

"identities can be a positive resource for social change, building social capital, and promoting wellbeing, but they can also have a role in social unrest and antisocial behaviour."

The analysis of the paper comes to the conclusion that in the future "citizens will be globally networked, hyper-connected individuals, and this has substantial implications for what is meant by communities and by social integration". Identities will be "increasingly volatile and dynamic" presenting "challenges and opportunities"

The BIS Report focuses on identifying the implications for policy makers, including policy relating to 'skills, employment and education', but there are also implications that are equally relevant to schools for the future, for learning in communities and the preparation of young people for adult and working life. The report identifies three key themes of changing identities:

- Increasing hyper-connectivity, which means that people no longer see themselves as 'members of one distinct social group' but as members of several 'more amorphous groups';
- Increasing social plurality with the potential to *"diversify society into less integrated, more transient groupings, creating a plurality of groups and individuals"*;
- The blurring of public and private identities with reduced distinctions between work and home life and issues of privacy and individual liberty.

The interviews with young people and some of their teachers explored aspects of these themes and give insights to what they can mean for how we learn and go about our lives.

Responses from the interviews

The evidence from other research is that how people describe their identity or "Who am I?" is changing and influenced by a number of factors. This was reflected in the variety of responses given by students and staff in the interviews, although the indications are that there are also contextual factors that have significance. The evidence is that many people, particularly younger, white English people, are less likely to refer to nationality, social class and religion in defining their identity. A recent IPSOS Mori poll for the BBC found that more people are saying that neighbourhood ties and links with the global community are getting stronger, whilst ties with the UK are weakening.

One male teacher interviewed, of Sikh Asian ethnicity summarised personal changes in how he describes his identity:

"I think that as I have grown older that has changed, so when I was younger it would have been my ethnicity certainly and my sort of community that I was part of. As I have got older and I've diversified in all areas of my life, my identity's become more filtered, oh sorry, more watered down. So I am the sort of person who defines myself much more as an individual rather than attachments to any particular thing." This is reflected in how most young people described their identity, but there were some variations of significance.

Ethnicity and Nationality

Young people, whose ethnicity is not English, are likely to define their identity in relation to their ethnic background. This includes those who have a Scottish, Welsh or Irish heritage.

"I am black British. Parents are Black British but my grandparents will be Jamaican and Antiguan background."

Male, Y10

Very few describe themselves as "British" or as English:

"I was born in Leicester, British. I like sports. I guess I am Christian, yes."

Male Y10

In most cases, when someone gave a description of their identity related to ethnicity or nationality, they also identified cultural factors, values and beliefs that are important to them and who they are:

"Originally from the Caribbean from my parents. They influence me because how we listen to music, how we interact with each other, our attitudes towards other kinds of people of like different races. They emphasise like a work ethic and want you to be motivated to try and do the best you possibly can and things like that."

Male Y10

"I was brought up in India and I moved to Wales which means that I have like had different interactions with people from different cultures. My religion is Hinduism so I believe in reincarnation and karma."

Male, Y10

"I would describe my identity as being Welsh, primarily. I would see myself as a very working-class kind of person. Having been brought up in the South Wales valleys has made that quite important to have this kind of working class, get everything done, kind of atmosphere around everything. You have to work for everything you want and work very hard for it."

Female, teacher

Frequently, when white British, young people described where their parents came from they did not consider that this has become part of who they are:

"My family is Scottish, but I was born in Yorkshire and then moved here in like 2003. I have got a bit of Scottish in me but I am not Scottish."

Male, Y9

"I was born in Sutton Coldfield but my family is from different places, like my dad was born in South Africa and my mum was up in Leeds, so it's a split family and that. I don't see myself as South African or from up north, I just see myself as from around this area, from here."

Male, Y9

"My family are from Kuwait in Asia and I was born here"

Male, Y9

When young people are of mixed heritage, this can create other issues for their identity and who they are:

"I would say I am half-caste with mum being a Christian and my dad being a Muslim, but I would mainly say that I am non-religious, because I don't really do many religious things."

"Mum and Dad used to be strong, like really strong with their religion but because they can't be strong because of their marriage, I've not been taken to church or anything so I am not a strong believer in anything."

Female Y10

The young woman is speaking here about the impact upon her beliefs and faith but the implication is that it has affected her sense of belonging to communities and how others see her.

One of the schools participating in the interviews had a more ethnically mixed school population than the others and the indications are that this had beneficial affects upon the selfunderstanding and awareness of identity of all the young people. These young people demonstrated an increased understanding and appreciation of differences between ethnic groups and social and cultural influences, and their own values and beliefs. It would seem likely that this will help to prepare young people for life in a globalised world, although it would be presumptive to assume that this will be inherent in a multicultural context. Schools located in less culturally diverse communities should have considered how they can provide frequent interactions with other cultures and communities.

Area and Locality

For most young people in the survey an important aspect of their identity is defined by where they are from, and often draws attention to their normality:

"I am just an average girl who lives in Sutton Coldfield, Birmingham."

Female, Y9

"I am from Birmingham and I guess I am a normal boy. I live in a house with my mum and dad. You know, go to school."

Male, Y9

For others, who have moved into the area, their place of origin and relocation is significant:

"I'm from Canada. My mum got married when I was 7 and then we came here because we were going to see some of his family and then we were only going to be here for like 6 months and then it ended up being like 5 years."

Female, Y9

"I lived in Spain for a couple of years. Because my dad is adopted, he was born in Ireland and came over here."

Female, Y9

Some young people provided explanations of why the locality in which they live has greater significance for who they are:

"I mean if I went to a school in London or just a school in Birmingham, I would probably have turned out to be a completely different person to who I am now. Being a more smaller, rural school, you do get affected by that."

Female, Y9

Other young people identify an awareness of other benefits of where they lived:

"I would say I am quite privileged. I don't feel that I have grown up in some rough area. I have grown up with quite a nice life, nice things around me and that's helped me grow up quite well, I think."

Male, Y9.

"I think I am quite privileged and I enjoy what I have, definitely."

Female, Y9

There is also evidence from the interviews that locality affects the opportunities and hobbies and interests available to young people. For example, in one school, located in a rural area, horse riding was a common activity for both students and staff and an interest in nature and environment was encouraged and facilitated by where people lived and family interests.

What would seem to be important from this is that children and young people develop the self-awareness and ability to reflect upon how their own identity develops and how it could be different and change in other contexts, including in other parts of England that are not geographically very distant.

Faith and religion

The number who mentioned religion as an aspect of their identity was a very small minority.

"I go to church – Seventh Day Adventists every Saturday".

Male Y10.

"My religion is a big factor in my life.

Male, Y10

One female teacher described how her Christian upbringing still influenced her, despite the fact that she no longer practices any faith:

"My adopted dad was a vicar, we have quite a strong identity through the family of people who are Christian. I am lapsed, although I still sent my children to a church school and I would still encourage them to have beliefs and moral values that I can trace as coming from my upbringing."

In three of the five schools where the interviews took place, faith or religion was not mentioned by either students or staff. This confirmation of the secular nature of English culture today was also reflected in very limited references to values, moral codes or guiding principles for life. However, some young people were passionate about wanting make a difference in the world:

"Back again to my granddad, he was a soldier and he was in World War 2. I want to be a soldier too, for our country. That's what I believe to make a difference to the world and just try to make things better for people.

"I worry quite a lot when I watch the news from different countries and about stuff that is happening and situations in poor countries and stuff like that, and how it affects other people and how you empathise and put yourself in their shoes and how bad it would feel for you to be them."

Male, Y9

"I like to describe my identity as foregoing and I am really determined to do a lot of stuff. I know that like one person can't change the world but I do like the idea of trying to do that because I'll strive to do that."

Male, Y8

Lynn Davies presents the case for what she terms 'dynamic secularism'. In making her case, she draws attention to the fact that secularism is not the absence of religious belief or faiths, but the separation of church and state. In brief, dynamic secularism sees that *"a diversity of religious beliefs and lifestyle choices is seen as productive"* and *"it is accepted that we have multiple, hybrid and recombinant identities, and the system supports connectivity across these in the overall landscape."* (Davies 2014 pp. 96-97)

She goes on to consider the implications for 'control, values and learning' and offers two conclusions relevant here. Firstly, *"a secular school will need a value base which cuts across all religions to secure a platform from which decisions can be made, learning relationships forged, and creative and flexible learning can occur.*" Secondly, the purpose of a secular pedagogy is to 'foment uncertainty' with religion as an important but not exclusive component. Young people should develop critical thinking skills that equips them to question and challenge religious orthodoxy and where there is *"injustice, inequity and violence"*.

Parents, Family and Friends

Perhaps unsurprisingly, most young people describe their parents and family as being the biggest influences on who they are and their identity.

"My dad is an intelligent person who teaches me all kinds of things and my mum is a caring person, so she teaches me how to treat people."

Male, Y9

"My dad, like he pushes me towards new doors and new experiences for me. My family members because they are the ones who make me more confident in who I am and I feel more comfortable and that I can trust them."

Female, Y9

"Your parents obviously, they show you what to do and guide you to what you want to be when you are older".

Male, Y9

It is evident that most young people are aware of and value different elements of support and encouragement from different people. These differences are seen as important and appreciated and recognised as contributing towards the people they are developing into. One observation of those interviewed is that, as some recognised, they are largely privileged young people with secure family homes and a network of support around them. For those for whom this is absent or limited there will be inevitable consequences for their development and how they see themselves. This is an important aspect of well-being that will be explored in more detail elsewhere.

Being an individual is also important for many young people and being able to articulate their own views and beliefs:

"Well the factors that make me me, I think they come from a lot of different aspects, like my family influence me, my friends. So all of those things contribute to making me who I am, what I believe in, but obviously there are some parts of me that I don't take away from my family and friends, it's what I think and I believe."

Male, Y8

The role of school in supporting and encouraging individuality, together with the opportunities and strength of character to be different, is a complex one that cannot be located in one part of the curriculum or aspect of the school. It is also requires an ongoing dialogue between all key parties – the young person, home, family and other significant adults.

Interests and Hobbies

A recent IPSOS Mori poll for the BBC found that the aspect of identity that the largest proportion of people would tell a stranger about is "my interests and leisure activities." This is consistent with the responses given by staff and students in the interviews. Most young people and staff defined who they are by what they do, giving as examples sport, music, drama etc.:

"I'm a sporty person. My favourite sport is basketball. I play the saxophone."

Male Y10

"I am influenced a lot by TV and films, because films are quite a good passion of mine. I like reading books and comic books as well."

Male Y9

For some their interest and how they use their leisure time is influencing their thoughts about what they want to do in the future:

"I am most interested in art and design and want to have a future in art."

Female Y10

For others it is a way of presenting their individuality:

"I do cricket and snowboarding and things like that which is different to other people, 'cos they are both boys sports. I don't like doing girls sports. I find them boring. I like to know that I am not the same as other people."

Female, Y9

Another aspect of identity articulated as an interest is support for a football team or following another interest, which is again consistent with the IPSOS Mori poll.

As identity is defined increasingly by interests and leisure activities, so this is also affecting friendships and social networks. This is explored further in the later section on the influence of social media, but it is important to begin to consider the implications for social bonds and social control. In essence, if interests and leisure activities are now one of the main determinants of identity, then it is essential to recognise that this is largely determined individually. This both gives the individual considerable freedom but also the responsibility and risks associated with making continual, multiple choices.

The other main aspect of identity is the job a person does and, for young people, being a pupil or student. All the teachers interviewed described being a teacher as a main part of their identity, usually together with their family roles: "I suppose I define it in terms of my interests, my passions. A big part of my identity is being a teacher. I also teach dance – that's a massive part of my identity. Worryingly as not so much of my identity comes from my family or anything like that. I think work and interests and hobbies are a bigger part of my identity."

Female, Teacher

"Obviously I am a teacher, I'm a daughter, a girlfriend. With each identity I'll act in a different way."

Female, Teacher

Schools and teachers, therefore, also have an important role to play in making choices and preparing for working life, a point emphasised by one of the teachers interviewed:

"I was fortunate enough to go to an independent secondary school and I think that played quite a big part in shaping where I wanted to go. I had a very positive role model in my geography teacher who ultimately was responsible for my career choices I think."

Female, Geography teacher

Personality and attributes

Many young people define their identity in terms of their personality and their personal qualities and attributes:

"I am quite an outgoing person. I don't like to follow the crowd. I like to be my own person, so I would say I am both a leader and a team player."

Male, Y10

"I am quite smiley. I like to make people laugh."

Male, Y9

"I think I am quite loud, like they all think I am like quite confident and not shy. Like I am really bubbly and crazy."

Female, Y9

"I think I am someone quite confident, enthusiastic and I think I am quite independent. I would say I am quite friendly as well. I would say I have good leadership as I am quite confident."

Female, Y8

Sometimes this can reveal vulnerabilities as well, as independence and strengths:

"I'm quite a shy person but can be more confident with my friends.

Female, Y10

"Sometimes I don't know how to be myself around certain people."

Female, Y10

Teachers also referred to their personal characteristics to describe their identity and how this informs how they approach their work:

"My identity, I see myself as someone very creative, someone inspiring, funny possibly. Someone ready to give someone a chance."

Male, Music Teacher

It is important to recognise within this how personality, personal qualities and social and emotional intelligence can affect ones behaviour and who one can be. Personal, emotional well-being is essential for being highly effective in adult and working life.

Physical appearance and conditions

For some students and staff, physical appearance can affect how they see themselves and their identity both positively and negatively. It was a factor more frequently for females than males and was usually mentioned because it drew attention to themselves in some way:

"I feel I stand out because of my freckles."

Female, Y9

"A mixed-race girl with big hair. That's how people will know me."

Female, Y10

"Identity, I suppose whenever I think about myself I think about my height – I am very short."

Female, Teacher

"My identity is that I have got brown hair, I am a bit clumsy sometimes and forgetful sometimes."

Male, Y9

For anyone who is sensitive about their appearance, critical comments or having attention drawn to them in unthoughtful ways can be inhibiting and in the worst cases the basis for cruel bullying. Understanding individual sensitivities is often the basis for personal support and encouragement.

Further to this, two boys described conditions that set them apart from others. In both cases it would be possible for this to have a detrimental impact on their identity and performance without support to respond positively and confidently.

"Well, I have autism, so I don't know if that makes me special."

Male, Y9

"I have a heart condition, so I have to go the doctors every now and then. I'm having an operation soon but it's nothing to really worry about it's going to happen, so...."

Male, Y9

Personalised programmes to support additional needs should have as a core element the building of self-esteem and selfconfidence.

Another aspect of appearance, that can be important for some people, was explained by a teacher who had been adopted:

"Personal identity is an interesting one because I was adopted when I was a baby. I don't really identify with my birth family because I was adopted when I was very small. I always knew I was adopted. Since I have had my own children, I am aware that they look like me and the rest of my family don't and I am aware that they also have questions and they probe and ask.

Female, Teacher/Community Educator

Most of us, most of the time, take what we look like as an aspect of our genetic inheritance from our parents and grandparents. Physical attributes or distinguishing marks will be explained by reference to one of our parents or another relative. However, it is important to recognise that when genetic inheritance is unknown this can be a source for uncertainty and affect overall identity.

Gender

One of the fundamental elements of all our identities is our gender. A number of students and staff interviewed started by saying whether they were male or female, a girl or boy. This was not expanded upon by anyone, nor was it an aspect of questioning. However, other responses indicated gender differences in various aspects of identity and behavior. For example, female teachers referred to their roles as mothers; young people described differences in the influences from their mothers and fathers. One female student demonstrated a determination to counter gender stereotypes in her preference for sports often seen as 'boys sports'.

There was no particular evidence from the research to indicate that gender differences are any greater in some contexts than others, but schools should consider gender identity within their context to determine whether it is an important factor influencing identity formation.

In one of the participating schools, the proportion of young people coming from homes where they did not live with both their birth parents was very high. All these young people described this as a significant aspect of their identity, together with comments about their relationships with their birth parents, and in some cases their step-parents. In most, but not all, they were positive overall about what this means to them. It also gave confirmation to differences in familial gender roles, and emphasised the increased responsibilities experienced by single parents.

Identity as a Learner

It was when young people talked about their identity as a learner that differences in responses between schools became more apparent. In some schools, it was possible to recognise a 'shared language of learning', common to both students and staff. Where this evident, students are confident and articulate in talking about their identity as a learner. They demonstrated how they apply this to how they learn in different situations in other parts of their interview and show how their learning extends beyond school and the subjects they are studying. In other words, they demonstrate that they have the skills of 'learning how to learn' and can apply and reflect on this in learning different and new things. They have meta-learning skills.

One teacher linked her identity and way of doing things to the culture of the school in which she works, which is also reflected in responses from others interviewed:

"Passion, drive, enthusiasm, striving to always want to improve, and I think that is probably part of the school's culture that I think has been brought out in me. To reflect and look at our practice and to see in what ways there are that we can improve on results or experiences."

Female, Teacher

Many respondents gave personal characteristics to describe the kind of learner that they are. Examples of frequently used terms are hard-working, eager, keen, curious, enthusiastic, confident, creative. In some cases these terms were expanded on to explain how this affects their learning. For example, one teacher said they are "fickle" in their thinking and explained how she tries to be "more focused". Whilst a number of students mentioned how they tried to concentrate and manage distractions:

"Just listening and concentrating and managing my distractions a lot."

Female, Y9

For some students, predominantly from one of the schools, learning was synonymous with listening to the teacher and following instructions. Learning well was demonstrated by high marks and test results and the most frequently mentioned learning activity was revision for tests:

"I just like concentrate and listen to what they say and take it in and then like see if I can use it on something."

Male, Y9

Students demonstrated an identity as a learner by being able to describe their learning in a number of ways. Firstly, they

described themselves as *independent learners*, able and wanting to take responsibility for their own learning:

"I like being independent. I don't like lessons where we sit there and go through everything we need to know, just the teacher talking to you, because although I will remember things it is not nearly as interesting and makes me want to go to sleep."

Female, Y10

"If I need to work independently then I will work as hard as I can. If I have to read out of a book then I will concentrate because when I read I need like silence otherwise I get distracted."

Female, Y8

"I try to be a learner who can achieve by not just relying on the teachers but from my own revision, so you try to persevere yourself and try to be the best that you can in certain subjects."

Male, Y10

Secondly, and related to being an independent learner, is the ability to be *autonomous in learning*, applying different skills to new situations for oneself. For example, one girl described how she improves her saxophone playing:

"In music it's mainly doing. I listen to it a lot, start to understand it I suppose. Then you just practice it and keep practicing and then you'll get there."

Female, Y10

Thirdly, is the concept that learning is a continuous process and experience that can take place anywhere and anytime. One young man expressed it in these terms:

"I suppose that I learn from things that are around me. I pick up probably little things, if I see something remember it, if I hear something remember that – so if I listen I am learning."

Male, Y10

Whilst a young woman gave an example of how she learns from her part-time job:

"I think you learn like throughout your life, like you learn new things. Say, I have a job on a Saturday and you learn things like how to deal with people, customers I have and with situations when they happen."

Female, Y10

A teacher described it in a very similar way:

"For me, everyday I am learner, so everything is an experience and everything is a learning experience. So I am always questioning as well – so learn through questioning in a sense."

Male, Teacher

For another teacher it is a fundamental aspect of a meaningful life:

"Life would be boring if you weren't continually learning."

Female, Teacher/Community Educator

It is very easy to take the concept of *lifelong learning* as an indisputable aspect of what schools aim to achieve, and equally easy to forget to think about how to develop the skills and values that make it part of the life of every young person. Equally, lifelong learning is central to community learning and has to be applied to engagement with families and communities.

Fourthly, *confidence* as a learner should extend to many different situations, including new experiences. For some young people it was important to describe situations where they had less confidence:

"In lessons itself I am not that confident, especially in maths, I don't like getting involved that much. I like to write down and express in writing what I think." Being a successful learner is separate from being a confident learner and confidence has to be extended to the unfamiliar.

Fifthly, some students emphasised the benefits of *working collaboratively and in groups*:

"I like when I am in groups and work with other people, 'cause then there are like more ideas which we can combine. Talking about it is best, when ideas are combined and stuff then it is easier to work with."

Female, Y9

For others, it gives the opportunity to test out your understanding with other and to correct incomplete or mistakes in understanding, while some recognised that it is important to be able to work in a team and with others:

"I am pretty hardworking. Not naturally clever. I have to work pretty hard. I like learning in a team and I can learn on my own as well."

Male, Y10

Similarly, some distinguished between working in pairs or small groups from increased complexity of having a slightly larger group when there are more opinions and personalities to be taken into account. One young woman recognised that one of the best ways of making sure you understand something and to reinforce your learning is to have to explain or teach it to others:

"Probably like teaching other people what I've learnt because it kind-of-like makes you think about it more."

Female, Y9

This view was shared by a teacher who stated that she cannot teach something herself until she has applied and put it into practice herself, which leads onto learning preferences and the importance of active learning.

Sixthly, the majority of students and staff described their *learning preference* as a basic element of their learning identity. However, as one young man demonstrated, just being aware of your preferred learning style does not in itself improve your learning or have any real meaning:

"I'm a visual learner, apparently. I was told that from like a test."

Male, Y9

Some students, as demonstrated in other parts of their interviews, use their increased understanding of their preferred learning style to inform and improve their learning in different situations and to increase their awareness of how their learning is changing. For example, social media and learning networks provide the basis for continuing and extending collaborative learning, and digital media provides increased opportunities for learning visually and practically.

The proportion of students and staff who stated a preference for traditional, academic learning from didactic instruction and lectures was a small minority:

"I like quite a traditional way of lectures. I like lectures and taking notes and reading about it. I think you can get so much more out of it."

Male, Y10

Some went as far as to explain their difficulty with being taught in this way:

"As a learner I am very visual, I have to be able to see what I am doing in order to understand it. So if a teacher is say talking in maths and she is just talking and she is not using a whiteboard, I couldn't understand what she is saying, but if she is writing on the whiteboard and explaining it through that I could understand."

Male, Y8

Visual and active, practical learning were stated in the interviews as the preferred learning styles of both students and

staff. This was related in some cases to a preference to what are seen as practical subjects, for example design technology:

"Well, I like to learn sort of very practically. I don't like to just sit down somewhere and write. I like to sort of get up out of a chair and do, like, that's why I like DT so much, because it's fun and I like building stuff and my Dad's a carpenter and that got me into all that."

Male, Y8

Others described how they will turn complex ideas into diagrams or mind-maps both to increase understanding and to aid memorisation. One student gave the use of bullet points as providing a visual list that helped with revising and learning a topic.

Another form of practical and active learning for both students and staff is trial and error, also associated with learning from mistakes. Responding to a new situation by immediately doing something and seeing if it works was stated by many as how they like to become immediately engaged and actively try something out. It would appear that digital technology increases opportunities to learn in this way. Similarly, it seems that digital technology allows people to learn in a greater variety of ways, to have increased access to these and to provide the opportunity to make use of preferred visual and kinesthetic learning styles. Finally, some staff and students saw that how they think is part of their identity as a learner. For one student this helped to explain his interest in certain subjects, demonstrating a deeper understanding of the nature of the subjects and the skills required to be successful in studying them:

"I suppose I am a logical thinker, so I like a lot of physics and chemistry and stuff so I like to learn a lot about science and technology."

Male, Y10

More frequently, staff and students identified their creativity and how this would manifest itself in the subjects in which they are interested and in how they like to work.

Summary and Conclusions

All the indications are that in the hyper-connected, globalised world of the 21st century, individuals increasingly create their own identity, as an on-going process in each different sphere in which they operate. Aspects of identity are still shaped by our parents and families and the locality(ies) in which we are born and brought up, but the extent to which identities are prescribed by our ethnicity, social class, religion and, even gender, is much reduced. The implication of this for schools is that young people need to acquire the skills and abilities to redefine their identity in different contexts throughout their lives, including the capacity to build supportive networks that offer guidance and increase personal resourcefulness.

In the 21st century, individuals have greater freedom than ever before. Social control and pressures to conform from family, communities and faith organisations are greatly reduced, as people are able to choose friendships and social networks that conform to their interests, attitudes and predilections. This freedom to choose offers many opportunities but also considerable risks, especially for those who are vulnerable. The dominance of financial and consumer values in public life, and reduction of the influence of religions and other moral codes, raises the question of where and how young people will acquire values and principles to guide them through their lives. Schools have an important role to work with families and communities to facilitate the creation of local and global networks that have shared values and principles and a strong moral code that provides community values and collective norms. There is also a shared responsibility to provide mentoring, guidance and support to each child and young person, according to their need.

One of the main findings of the IPSOS Mori survey of changing identity is that people are becoming 'more local and global.' This apparent contradiction is the new reality, and more so for young people. It has many manifestations that are creatively being changed daily with each technological innovation. One is the multiple streaming of news 'events' from every part of the world in real time. News agencies and the media no longer filter and present a view of the world that is relatively free from challenge. Young people require the critical thinking skills to enable them to handle conflicting views and ideas without being seduced by political dogma, distorted ideologies or propaganda. The skills to question, analyse and enter into critical discourse, as well as the personal strength and resilience to resist group think and social pressures are essential in all aspects of life.

Establishing an identity as a learner in every student, that includes meta-learning skills and the knowledge of 'learning how to learn', should be a fundamental aim of a school of tomorrow. In a rapidly changing, complex world a passion to learn, question and challenge will provide the attitude, skills and resilience to welcome the future with excitement and enthusiasm.

Finally, young people require the ability to be able to say 'This is who I am, this is my identity' with confidence and conviction, to different people, in different contexts, throughout their lives. This raises a final question of how we conceptualise identity. Most of the literature on identity, and many people speaking about their own identity, use the term multiple identities. This is useful to describe differences in social roles and how we present ourselves and behave in different situations. This concept of identity seems to be rooted in a view that we have a core identity and adopt others in particular situations or develop them overtime as circumstances change. Implicit in this remains the assumption that identity is largely prescribed. Lynn Davies (2008) suggests (based on the work of Homi Bhabha) the concept of 'hybridity' as a more appropriate and constructive way of thinking about identity in the globalised context of the modern world, with an emphasis on the importance of culture. She quotes Bhabha that hybridity offers the potential of 'new combinations' and is 'at once a mode of appropriation and of resistance'.

Applying the concept of hybrid identity recognises that identity is constructed through a process of making choices. Each individual makes selections of influences, ideas, values, image, products, associations, presentation etc. to form and present their identity. How this is undertaken embodies a range of skills and abilities that can be acquired, supervised, questioned, discussed and challenged. It emphasises that it is an active process, within which risks can be identified and guarded against and the vulnerable can be offered additional support and guidance. From an educational perspective, it combines universal elements with targeted and specialist interventions.

Consciously or unconsciously, with beneficial or negative outcomes, schools contribute and influence the creation of the identities of all its members, including adults.

Social Media and Learning

"The human brain is wired to live in small close-knit tribal groups. The dynamics of those groups is what we are able to recreate with new technology. We're recreating tribal social dynamics with Facebook, Twitter and Mumsnet."

Kate Fox, Social Anthropologist

Introduction

Almost everyone interviewed, staff and students, has accounts on more than one social media site. As one student said:

"I have them on my phone, on my laptop, on my iPad. Everywhere really. All the time. Quite a lot, I'd say..... It's how people socialise these days."

Female, Y10

The expansion in the use of social media was described by the comment from one male teacher:

"It's become more integrated into our lives, because it has become more accessible."

An awareness and understanding of the pace of continuous change of technology and social media platforms was reflected in the comments of many staff and students on their use personally and by others:

"Now that technology is more advanced I would say that I use it (social media) more like at very night because I can use my phone and go on and check it for about 2 seconds if I want, so it is easier for me to get connected instead of having to go on the computer and start it up and then just 15 minutes on the social network site."

Female, Y9

However, a small number of, mainly male, students don't use social media. One male student considers it to be 'anti-social':

"I think social media is anti-social.....I don't want to be someone shut away only talking to people through the internet."

Male, Y9

Another explained that his parents would not let him have a Facebook account because it would be too distracting and consume too much of his time that he should be using for other things. For some, mainly younger, male students, Facebook is something they think they are not ready for yet, but X-Box Live is an important alternative that means they can enjoy playing games with friends made on-line:

"I use X-Box live as a social media as I am always talking with friends and sharing information over it and playing games and just hanging out with friends basically in your own room."

Male, Y9

The social media site used by almost everyone is Facebook, closely followed by Twitter. Instagram (which is owned by Facebook) is also used by a significant proportion of students, although its use appears to be more common in some schools and areas than others. This trend for localised use of certain sites can also be seen in the use of some other sites, particularly those designed for instant messaging (e.g. Kick Messenger, Snap Chat). This is unsurprising since the purpose of social media is to network with others and messaging platforms enable contact with people you already know, whilst others are more open and facilitate making contact with new social networks.

One site that involves joining new social networks is Reddit, which is built around communities of interest, and was mentioned by a small number of students. Another that allows for the creation of blogs and pages that others can comment upon is Tumblr, again used by small number of students. Some students also use Instagram as a way of posting photographs they have taken and sharing comments with others on the photo that range from a simple like/dislike to more critical appreciation of photographic skills.

The use of comments upon sites also reflects how some sites have an interactive aspect that allows for the sharing of opinions between people who have no other contact with each other. You Tube is the most widely used site that encourages the sharing of films, photographs and sound clips for comment. Some students also have or are planning their own You Tube channels where they can present their creative ideas either openly or to closed networks. Another site mentioned by a small number of students and teachers is Pinterest, which allows people to share thoughts and ideas on a 'pinboard'. It was clear from the comments of those who use this site that the process of sharing and exchanging was highly valued and very supportive with the potential for creativity and communication that might not happen in other forums.

One important question in considering the educational relevance and significance of social media are the purposes of the various social media platforms and how each is and can be used.

Facebook

Facebook is not only the most commonly used, but also the most frequently used site. Most respondents said that they use it everyday and sometimes for a significant period of time. As one female teacher said:

"Everyday. Without fail everyday.... Plus you would miss out on a lot if you didn't go on Facebook every day. You'd miss out on a lot of information that perhaps you needed actually." How Facebook is used is being affected by the devices that people and the degree of accessibility they provide, with smart phones allowing instant access, everywhere and meaning that people can send messages to friends that require quick responses. However, there are some indications of generational differences, with some older teachers admitting to difficulties in adapting to instant access, on-the-go:

"I'm not very good with smart phone technology. I'd much prefer to have my laptop or even my PC if I'm truthful. That kind of limits some of my use because I do tend, because for me it's not something you do when you are on the go all the time."

Female, Teacher

A number of students were also concerned about the potential for social media to be a distraction or to be addictive:

"I would say I use social media everyday. I'm not as addicted to it as some people but I'd say that sometimes you don't even mean it but you just check. It's just one of those things that you go on, and you have to see what people are saying." "I did have a Facebook account but I deactivated it because I felt I could get distracted pretty easily. I know that lots of positives can happen on social media sites, however sometimes bullying can happen, distracting messaging and it can become an addiction as well."

Male, Y10

The most common use of Facebook is to stay in contact with family and friends, whether this is people who live locally and are seen regularly, if not daily, or people who live some distance away. For many students and staff Facebook provides the means to stay in touch with family and friends, in some cases where contact would have been lost:

"Just to stay in touch with friends and people who have like emigrated abroad and to post pictures so that family can see it."

Female, Y8

"(To contact) my distant family because like my mum's family are mostly in London and my Dad's are around the UK so that's how I contact them."

Female, Y8

"I use it to keep in touch with ex-colleagues who've gone off and now are teaching in various parts of the world. I probably wouldn't have stayed in touch with them any other way. I also use it because I have nieces who are in their teens and 20's."

Female, Teacher.

However, there is some indication that how Facebook is used is changing or widening, particularly by staff. For some, change in use means less frequent use:

"I don't go on Facebook so much anymore."

Female, Y8

For others, it marks a shift to Facebook being used by groups to keep those interested or members informed. One example was provided by a teacher who is responsible for an overseas link:

"I manage, the school has got a link with Zambia and I created a Facebook page to do with that link. I use that as it's a good way of connecting with a large group of people, those who are currently in the school and those who have been involved with the link in the past."

Male, Geography Teacher.

Another female teacher gave the example of a club she belongs to:

"Facebook, I use it mainly to interact with friends. I don't use it as much as I used to..... I suppose I use like the pages on there most. My hockey club have like a page on there and they are always posting things like up-coming events, things that people need to be aware of, if anything has been cancelled for some reason. So it just a quite useful way to stay up-to-date with things I'm involved with, I suppose."

Female, Teacher

One teacher also gave an example of a Facebook group formed for professional purposes to share teaching ideas internationally:

"I do have on Facebook some sorts of groups of people who I have been working with in other countries and we get together to perhaps share resources on Facebook."

Female, Teacher

The indication from the responses in the interviews are that formally organized Facebook groups are not frequently used by young people or established by them, but some use social media to work together on homework or coursework: "If I'm like struggling with something and need help with homework as well, I can go on Facebook and ask them questions about the work."

Female, Y10

One female teacher reflected on how social media could be used more extensively to reinforce and extend learning beyond the classroom:

"I probably don't use social media as well as I could in terms of from the learners point of view. I could set up a Twitter group and get the A Level Biologists in. I have a number of colleagues who've got a school Facebook account and a personal Facebook account and the students can access their school, professional Facebook account and they use that for sharing information about trips, or conferences or things like that, and they keep those two separate. But it's obviously something that everyone is very wary of in the nature of the profession."

Almost all teachers mentioned the sensitive issues to be managed between personal and professional life that social media has introduced, which will be considered in more detail below as part of risks and dangers.

Twitter

Almost as many students and staff have a Twitter as a Facebook account. However, most respondents said that their use of Twitter is less frequent that Facebook. Uses of Twitter tend to be different than Facebook, although some do use it for messaging in much the same way as Facebook. However, Twitter is generally seen as being less personal and more about wider social networks. This might explain why some people find it difficult to relate to Twitter:

"I don't get Twitter at the moment. I'll try and learn as I go along"

Female, Teacher

Another teacher explained their use of the two platforms as follows:

"I use Facebook personally and use Twitter for my department."

Female, Teacher

Most people who have a Twitter account use it to keep themselves up-to-date with what they are interested in and to follow celebrities, sports people or companies they are interested in: "I think Twitter famous people and Facebook famous people and things like that they influence me and my friends and how we act and what we do."

Female, Y9

Others follow the news on Twitter, emphasising that it is live and immediate:

"I use websites, I have just one profile on Twitter, to keep track of things I am interested in and the news really. It's often quicker – you can get a notification and news websites and newspapers don't have that function."

Male, Y9

"Twitter is a good one because there is like a live feed there. As soon as you tap into it you know what is happening."

Male, Teacher

This is an indication of how the way in which people engage with events and the news locally and globally is changing. From the interviews, there was no indication of anyone engaging with news events and being politically active or commenting. Many people described themselves as 'followers' rather than posting themselves, although one teacher identified the attractions and benefits of 'micro-blogging'. However, one student suggested that the reasons for not tweeting himself were due to a lack of self-confidence and self-esteem rather than a lack of interest:

"I use it more to see what is going on rather than to share my opinions, as my opinions don't matter, I'm no-one of importance really, I'm just a student."

Male, Y9

Paul Mason based his book "Why it's still kicking off everywhere: The new global revolutions" on a blog he wrote in February 2011 that suggested twenty reasons why social revolutions were 'kicking-off' across the Middle East and other parts of the world. Many of these came from the influence of social media and how society is becoming increasingly 'horizontal' with established governments and corporations no longer able to exercise power, influence and control in the same way as in the past.

The Demos Report of early 2014 by Birdwell and Bani, 'Introducing Generation Citizen', described similar findings from their research into the attitudes of young people participating in the National Citizen Service. The report also draws attention to how societies throughout the world are becoming more 'horizontal' and how teenagers in the UK view the world differently: "Teenagers today are 'digital natives'. Social media and new technologies have transformed the way that they view the world, politics and possibilities for the future."

Some of the main findings were that 'today's teenagers are more engaged with social issues both globally and locally' and 'less engaged with traditional politics'. However they are motivated to make a difference through taking action:

"Our research suggests that teenagers are motivated to make a difference in their community but the tools they use and the approach they take is different from those of previous generations. They do not rely on politicians and others to solve the world's problems, but instead roll up their sleeves and power up their laptop and smartphone to get things done through crowd-sourced collaboration. They value bottom-up social action and social enterprise over topdown politics. As digital natives, they are accustomed to speed and responsiveness and desire a politics that engages them at the same pace. If given the right opportunities and support, today's teenagers might just transform our notions and expectations of active citizenship."

The strong indication from this is that an important part of how young people are educated for today's world and the future has to be how they use social media as active citizens. At its simplest, this might be how they follow and respond to developing news stories or respond to on-line petitions about local or global issues. A recent example of how young people have been active was the effective national campaign to end female genital mutilation, which would not have been possible without the use of a variety of social media platforms, eventually with the support of the traditional news media through The Guardian newspaper.

Another aspect of this is the emphasis that the government has been placing on the risks of young people being radicalised and recruited to violent extremism. Research by the International Centre for the Study of Radicalization and Political Violence (based at King's College, London) describes how social media, smart phone apps and other digital forms of communication are used to converse, share experiences and recruit young people. The government's focus has been particularly to prevent young people from going to Syria, often for humanitarian reasons, because of the risk that they might be radicalised whilst there.

Twitter is probably the social media platform that raises the most significant questions for active citizenship, which were concisely summarized by one male teacher:

"Obviously using technology is so important because it's so instant, and its out there, and anyone can access it at any point. So I think it's very important that we introduce it and encourage young people to use it but in the right way." Another teacher described how Twitter can be used to enhance the learning of students:

"Professional use, I really like to see a lot of my students use social media now to sort of connect. I try to use it as sort of like a learning tool. For example, through the school Twitter account I will let them know about things that going on in the media or to help them, like make sure you come along to this lesson prepared with this or that and they get that instantly. So I can send that out during the day or before the lesson, so I can connect up with them a bit better and you know share ideas."

Another teacher gave another example of the use they make of Twitter in learning:

"If I find something really interesting, like a document or some kind of video or anything related to my subject, I will post it on Twitter, and I encourage my students to look at that as well."

The indication from the responses of students and staff is that in schools where teachers are making use of social media to reinforce and extend learning, students are also transferring its use to other aspects of their learning independently. Conversely, when this is not modeled to them, then the tendency is for the use of social media to be limited to chatting and keeping up with friends, staying in contact with family and others who are not local and following celebrities and interests.

Uses of Social Media

As stated above, most people use social media to stay in contact with family and friends. As one Year 9 girl put it:

'Facebook and Twitter. I use it for gossip and to see the latest news between my friends and stuff."

Many, students and staff, stated that they tend not to post, describing themselves as being 'nosey' and 'followers'. One male student had a self-mocking tone when he said:

"I don't really tweet much either. I am not very social on social media, really."

Almost all young people showed a highly informed awareness of the risks of posting certain information on social media and when and how they do this. This seems to have some, but varied, affects on what is posted. This Year 8 girl gave a typical description of what she posts:

"I put photos on and pictures, and like what I am feeling but I wouldn't like write who I am." Some are more explicit and detailed in their posts, commenting on things that are important to them and expressing how they feel:

"I post about my life and what is happening and what I think of things and stuff. (Like) the environment and everything that is happening around me, about four times a week and I express my feelings."

Female, Y10

Some of the difference in what people write may be a reflection of age and maturity, but what they are encouraged to write about their thoughts and opinions is also likely to be a factor. For example, some students have their own blogs which are intended to be public and develop their writing skills and critical capacities:

"Me and my friend have a blog together about whatever springs to mind. If we have something we want to talk about then we write it and put it on there. It's like an online diary I suppose but just so other people can read. So I have written about films I like or music and I want to see if there are other people who like it too. I suppose you can use it to communicate with other people like you." A teacher gave a similar example of how he uses social media to inform his creative projects:

"I use social media to share ideas. I really like it because you can share like anything really with anyone around the world and create sort of like a café culture."

Male, Music/Media Teacher

A student gave a localised example of how social media can allow collaborative work begun in school to continue out of school.

> "Sometimes when we are in group work and we have a lot of homework to do with group work, so it is easier to like get together with like Facetime and everything."

Female, Y8

It is not difficult to see how this will be transferred to other contexts in due course. It is also important to recognize the role of the school in stimulating and supporting these learning skills through the curriculum. There are a number of social media sites specifically designed for educational purposes now available. One of these was described by a female teacher:

> "I use as part of teaching EdModo, which is kind of like a Facebook site but for actual teaching. I use that with students, so if I am going to set a piece of homework, especially for A Level. I put it on there and the students have to physically log in to say that they've got that piece of homework, so I can keep a track of who is accessing extra work to bump their grades up a bit more."

Using such sites, or creating a Facebook group shows young people how social media can be used for a range of different purposes, supports learning and develops their identity as learners.

Profiles and Identity

Almost all students are very careful about what they put on their profiles on social media sites, particularly Facebook, but it was evident that a number of different approaches are used to protect themselves. For some it is very important that they are truthful and presents an accurate portrait of their self: *"I like to think that my Facebook profile completely resembles me because I don't like to act fake for anybody. I like to be myself."*

Male Y9

Some protect their privacy and only give limited information about themselves, making it difficult for people to identify them and find out who they are and where they live:

"People can see what sort of things I'm interested in and that's it, but I don't share my whole life on there as I've been brought up to be quite a private person."

Male, Y8

"You can't learn a person's personality from a profile page but you can get the gist of what they are or who they are. I don't give away much on mine. I don't say where I live."

Male Y8

Others are less honest, and admit to providing inaccurate information, including their date of birth and what they look like:

"My profiles pictures not what I really look like 'cos I sometimes edit the photos to make them look good."

Male Y9

"(My profile) doesn't accurately describe my identity. I suppose people could pick up on my identity if they looked at my photos, if they were given access to it, by looking at things that I am interested in and what I am following but apart from that....."

Female, Teacher

A number of those interviewed recognised that their identity and what they are like as people is evident from what is on their site and what it says about them from postings over time:

"I try not to write too much personal stuff on there. I have my likes and dislikes on there and my friends and what happens in my life, photos and so you can learn about my identity from my profiles.

Female, Y10

"I think what gets posted there on a daily basis represents me quite well – it's posts from my friends it's pictures I've taken, it's things I'm interested in. So I think that represents me quite well but perhaps not the actual details that are on there, that I've written in but are not up-to-date in that respect."

Female, Teacher.

"I would say that Facebook does quite a lot (reflect my identity) because over the years it's collected a lot of photos, statuses and so on. So on Facebook it would be quite accurate identity."

"I do worry sometimes that it is not giving an identity of me as a person and learner – Facebook and Twitter."

Male Y10

A number of students expressed the view that some people are not honest and present an image of themselves which is very different from how they are in reality:

"I think people hide who they are on those sites. They pretend to be someone they're not.... They're different from who they are in real life.... People are more confident on sites talking to people than they are in real life..... It's easier to have a conversation with someone on-line than having to look at them." Female Y10

The reasons behind this appear to be complex and affected by a number of factors as explained by this student:

"'Cos I know that on a lot of social media sites people post stuff that they would not normally say in real life, 'cause I think that on social media sites people think they are a completely different person from they are in real life. So sometimes people may portray themselves as different from how they really are. For example, people might lie about their real life and real identity on-line, people may use different language on-line and their behavior sometimes changes... Maybe it's because they think no-one is watching them and they think they have a bit more freedom on-line. Maybe it's just a way of expressing their opinions that they are too scared to do in real life."

Male Y10

Some students explained that their behavior is different on social media, giving them more confidence than they experience in social situations:

"I'm quite shy but I feel quite open on like Facebook or Instagram. I don't know, I just feel your not kept in like a box."

Female, Y8

For others it can work the other way around:

"As a person at school I'm quite confident but when I'm like on social media I try like to not do it, so I would say I'm quite shy on the internet and everything."

Female, Y8

One explanation for this might be that social media provides more time to reflect and consider what you are going to say and how to present yourself, as articulated by one female teacher:

"If I do something (on social media) I sometimes think are you doing that because you want to present a certain image to somebody or to the rest of the world. So I think too much about stuff like that. It probably preempts me putting stuff on, because I think "oh no, no, no"."

Female, Teacher

There are some ethical questions raised by deliberately presenting inaccurate information and pretending to be someone you are not, especially if the purpose is to mislead or exploit others. However, there is an element that is no different from any other aspect of life when we try to present the best possible image of ourself. The danger is that on social media the ability to make assessments of another from appearance and body language are absent. However, it is also possible to see this as being beneficial in some circumstances.

Privacy settings and Security

A number of students described how they make sure that their security settings are set to limit access to their Facebook pages:

"On my last one (Facebook account) I was hacked somebody got my password and messed around with it all so I deleted it and created a new one with like all of the security I could possibly get on it."

Male, Y10

"I keep absolutely everything private. It wouldn't be a completed picture of my life but it would be more than I would be comfortable the whole world seeing. Hence the reason for keeping it private, but even so it is not completely secure. It is something to think about definitely."

Female, Y10

Others are much more relaxed about their security settings, seeming to take the attitude that 'it won't happen to them':

"Anyone can look at it really but only my friends really do." Male Y8 Others show a greater awareness, recognising how information about yourself can be given away inadvertently, particularly details that you only want to share with a few people:

"I don't have a lot of things about me on it because I don't want everyone to know and I don't put statuses like I'm saying I am going away. I'd rather put it in the past. It's just safer."

Female, Y10

"I never put anything on though, where I am at certain points, where this is posted from.... You hear about it all the time – people get bullied, people get found out. It's easier to keep it safer than to be sorry."

Male Y8

The responses from students indicate that many families are very aware of the risks and dangers of social media and provide guidance and assistance. It would also appear that guidance and warnings are given in schools, but despite this it is evident that some students are placing themselves at risk in ways that are easily avoidable, and making available details about themselves that would be better kept private.

All teachers are very aware of the personal and professional risks of social media:

"Since I've become a professional I've come away from the social media aspects of Facebook and so on because I feel there are too many ... er ... it's quite a sensitive issue and it's quite a sensitive nature, and I don't want to get myself into any kind of trouble, so I've come away from that. But at the same time I'm still using Twitter because I encourage my students to use Twitter and we've set up within my department – ICT department – a Twitter account."

ICT Teacher, Male

Some have chosen to manage this by creating a number of different accounts for the different parts of their life:

"I have different groups based on what I do. I try to separate professional with my friends and leisure, that's very important because you don't want that confused and obviously I know my limits and I want to stay within them."

Male Teacher

How far this is the creation of multiple identities or a strategy to separate personal from professional life is difficult to determine, but it is a question that everyone faces in managing social networks on social media: "What I've not got and a lot of people seem to have is multiple social identities that they use different accounts for different purposes and I've not got that."

Male Teacher

One possible solution is to recognise that different sites are designed with different purposes and goals in mind. As we become more sophisticated in our uses of social media, it is important to be clear about what purpose we want to use any site for, or whether we want and will use it at all:

"What I have to look at was in my goal, what am I trying to achieve by using this social media... If I don't need to use it, I won't use... I have to have a purpose to it. For example Twitter has to have a purpose to it, for example what am I doing it for – to enhance the learning of my students."

Male, ICT Teacher

Conclusion

Social networking through social media is becoming more accessible in an ever-increasing variety of forms. It is changing the nature of society and our relationships socially, professionally, as citizens and as consumers. Our private lives are made more public whilst social contacts can appear to be more impersonal and less direct. A more horizontal society results in changes to society's social systems, political governance and power and influence. Preparing young people to be effective throughout life in the world of tomorrow requires an additional set of social, emotional and inter-personal skills as well as those that gave success in the past.

One teacher warned about the dangers of an over-use or overreliance on technology:

"The major drawback of excessive immersion within technology is likely to be a falling off of the sense of social self, of social need, also the sense of social belonging. We are creating invisible digital walls of isolation and quite often between people who are physically extremely close."

This warns against the danger of forgetting that good interpersonal skills remain as important as ever.

Another teacher emphasized that the amount of information available is vast and some is posted with little thought or care: "Social media does have a negative impact on the way people are connected because of the way I think it does water things down... People might put things they don't necessarily mean, that they don't think are really that good. It's all about just getting it on there. There's so much of that it just waters everything down, so I myself try to put things on there that really matter and have an impact as I can't stand when I see so much bits of things that don't really mean anything."

Male Teacher

The ability to critically appraise, and reject and ignore, is also an essential skill both to protect from the risks of propaganda and exploitation and to maintain sanity.

Finally, social media can enhance learning, creating global networks and the exchange of ideas, thoughts and opinions. Young people with the skills of learning how to learn need to practice how to become effective participants and members of many different networks.

Learning and digital technology

"We feel guilty for all we have not yet read, but overlook how much better read we already are than Augustine or Dante, thereby ignoring that our problem lies squarely with our matter of absorption rather than with the extent of our consumption."

Alain de Botton, 'Religion for Atheists'.

Introduction

Digital technology is ever-present in almost every aspect of everyday lives so it is inevitable that it has become an integral aspect of learning and how we learn. Comments from the majority of students and staff reflected this. For example:

"Probably the best tool a student has on their belt to be honest, the internet and digital technology."

Male, Y9

"I think you couldn't learn now without using digital technology."

Female, Teacher

Many emphasised that how *"it's at your finger tips"* (Female, Teacher) providing quick and easy access from anywhere. Speedy easy access to facts knowledge and information was identified as one of the main uses of the internet, replacing the need for books and magazines:

"It's a quicker and easier way of finding out many things."

Male, Y8

This also has other implications for how we are as learners, as, for example, greater independence as a learner:

"With technology now you can do it clearly anywhere. Take out your phone and you can have answers straight in front of you - no waiting. You don't need to go and ask a person, a professional person about that research."

Male, Y10

However, there are some, even amongst young people growing up with the new technology, who find it difficult to adjust:

"I prefer like non-digital things as I find they are a lot more helpful, because sometimes computers can be very confusing as sometimes you don't know whether they are true or not."

Female, Y10

Perhaps one of the reasons for experiencing difficulties in using digital technology is the very wide range of uses that they can have for learning. It was evident from the responses of both students and staff that very few have an awareness of all of these and fewer make use of a wide range personally. However, most recognize that how they learn is changing from the use of digital technology and regard these changes as being very beneficial.

Standard computer programmes

Many students described how they use word-processing and presentation packages (Powerpoint) to produce their school work. In some cases this includes note-taking, which can take place in school as well as at home. Many students explained that the limited availability of computers in school restricted their use, but for the majority the use of a digital device is the norm for homework:

"You don't really use any of them in class, like an i-pad, or a phone or a laptop. You use it outside of school but that is when you've been set homework."

Female, Y8

Students also use a variety of devices for different purposes and interchangeably – smart phones, tablet computers, laptops and desk top computers. Many have a number of these personally, but some share computers at home with other family members.

One of the main ways that digital technology has enhanced learning that was repeatedly identified by a number of respondents is the benefits for visual learners. Some students use the camera on their phones to take pictures of work, to help them keep up with work in the classroom by recording what is on the board or displayed and to capture a task. Another student described how she takes it a stage further, particular in more practical subjects:

"I'm always using cameras in my learning, especially for hands-on subjects for my coursework ... to take photos of stages as I go, so I can piece together what I've done, so I know for future reference how to do something."

Female, Y10

The benefits for different learning styles are explored further below.

Homework

It was very evident from the responses of the majority of students that their homework is usually undertaken using some form of computer, which frequently results in learning being extended:

"I use computers and the internet to do my homework. I also do extra research for lessons if I feel I'm behind a little."

Male, Y9

However, there are some indications of differences between schools, which may reflect how homework is set and the degree to which the use of digital formats are permitted or encouraged. Some schools have their own computer learning platforms that are accessible by students from home, thus encouraging to students to have an approach to learning that is not restricted to the classroom or school:

"You can access files that you've done in on your school account when you get home and you can use that at home so it's useful for doing homework. If you started something in school you can then do it at home as well and then you can send it back and carry on in school."

Male, Y9

Some teachers, either individually or within subject areas, use different social media sites to extend the learning of their classes beyond the classroom. By creating groups on Twitter or Facebook, teachers inform their students of homework set; how to prepare for a lesson; and of further reading, You Tube clips, articles etc. to extend learning on a topic. Edmodo, which is an educational social network site similar to Facebook, is also used in some schools. However, some of the teachers interviewed expressed a reluctance to set up and use such social media groups because of perceived risks: "I think because there is so much pressure on teachers to get drawn into compromising situations I think it can be quite difficult to know where the line is. I think your first instinct is to protect yourself and not to do anything that could perhaps lead into trouble which is why perhaps they (social media) are not being used as effectively as they could be by people like myself."

Female, teacher

From the research, it would appear that it is now the norm for students to have their own laptops or tablet computer or, in many cases, both. Almost all students now regard computers as an essential tool.

"If you didn't have a computer at home it would be quite hard to do your school work."

Female, Y10

This being the context of learning today, the implications of inequities of access to digital devices will create inequalities of learning opportunities and disadvantages in the ability to attain. However, the indications are that few schools are using digital technology as part of learning, and not just to enhance learning. This is already creating differences between attitudes to learning, student independence in learning and how students extend their learning to develop their potential.

Revision

Revision, along with homework, was most frequently mentioned by students as one of their main uses of digital technology and the internet. Almost all students referred to sites recommended to them by their different subject teachers, for example BBC Bitesize, My Maths, Linguascope (language learning site). Some schools also have their own websites that contain revision materials for different subjects.

However, it was also evident from the responses of some students that they use these sites as a starting point and then undertake further searches to find other sites and learning resources:

"It's helped me so much with my revision. If we didn't have digital learning, I wouldn't have got such a high mark in my test because the stuff that I found on-line was in the test."

Male, Y8

Students are also increasingly using apps, some of which are recommended by teachers, but some are found by students:

"I use my phone quite a lot for apps. I've got some science exams this week and there are some apps I can use to revise and that sort of thing."

Male, Y10

How digital technology is extending learning opportunities is explored further in the sections below on YouTube and on the personalisation of learning.

Classroom learning

Many students made very appreciative comments on how classroom learning is becoming more interesting and exciting with the increased use of digital technology. The main benefits referred to were how learning has become more interactive and more visual with the use of Powerpoint presentations, film clips and interactive whiteboards:

"Stuff like the interactive boards or Logic (music programme) on computers brings a whole new aspect of learning to help you."

Male, Y9

Some talked about the pace of change within their short school careers:

"We didn't have a smart board at my old school until I was in Year 4 and when that happened everything really changed and the learning became a lot more easier because teachers were allowed to show Powerpoints and videos, instead of just having a white board or a chalk board."

Male, Y9

Others related the changes to specific subjects. For example:

"Back in my old school, when we had music we were using instruments and that, but when I moved up into Y6 we started getting Macs and things, so we were using Garageband instead of getting instruments out."

Male, Y9

However, it was evident from the responses from the staff interviewed that many of them are still hesitant or experience difficulties in integrating the use of digital technology into their teaching:

"I don't take nearly as much advantage of technology in the way that I teach others in the way that I use it personally."

Female, teacher

"I think it is a harder experience for me to then be able to provide them with the right experience of using digital technology within the classroom."

Female, teacher.

"I think I use a lot more in personal life – digital technology – than I would do in my teaching, because I'm still your old classic, traditional – you know you can be the teacher in the room using their personality and their power of persuasion. Performance is a vital ingredient in terms of getting points across and debate and discussion. I think the technology part is just a little added part not a central part to the teaching."

Male, teacher

The indication from the research is that there is an urgent requirement for extensive professional development in how to integrate the use of digital technology into learning within the classroom and to extend it, both related to subjects and beyond.

Research

The most frequent use of digital technology mentioned by students and staff was to search for information:

"If I don't know something I will just go onto something like Google and find it out. It saves going to the library and like getting a book. It's quicker going onto the laptop."

Male, Y8

This was also an area of considerable concern for teachers and identified the extent of use by students, but with a diversity of degrees of independence and sophistication demonstrated. Almost all teachers expressed concern about the amount of information that is available and the risks of unfettered access by students:

"I do think that the younger students that we are developing rely far to heavily on it (the internet) and they don't know how to look in a book and research things."

Female, teacher

"In my personal learning I can access far, far more than I would probably allow others to access. I can trawl through lots and lots of things until I find the right thing whereas if I'm facilitating for somebody else, I need to be completely sure that what I am allowing them or helping them to access is appropriate, is useful, is correct."

Female, teacher.

In some of the schools, it was evident that teachers tried to direct students to particular sites and to control use. In others it was recognised that research skills are an aspect of independent learning that require development:

"Quite often if I'm planning resources, I will use the internet to find the information and give it to the students and they will do the learning from that. That has an advantage 'cos I can control the information they've got. We do do research based lessons but you end up wasting a lot time – it's not very time efficient and you've got to get the balance between content delivery and skill development from a geographical point of view and developing their IT skills."

Male, Geography Teacher

As can be seen from the above, one of the concerns of teachers is the amount of time that can be taken researching and developing associated skills in lessons. Another concern is the nature of the skills required and when students are able to be taught and exercise them: "In terms of developing their learning and independent learning – asking students to go away and research a task and find out things and giving them such an open-ended task would be a very higher level skill, so I would choose the group and apply warily, I think."

Female, teacher.

What was evident from the responses of students, however, is that almost all of them undertake internet searches on a daily basis and have been doing so from an early age.

"Without being told exactly what to look at, you can go and look at different things and find things out for yourself."

Male, Y8

Students are becoming more independent in their learning, and enjoying it. This doesn't mean that students are no longer trusting and reliant on their teachers to a degree:

"Before digital technology and researching things on the internet you could only go on someone's word but now teachers can know a much wider range from what they can gather on the internet."

Male, Y9

It is also evident that they are very aware of risks and dangers, and that the information they find might be inaccurate or biased. Much of this awareness comes from their teachers, but families and peers also contribute to this.

Students described a range of strategies that they employ when making internet searches, many of which they have been advised to adopt in school, often in ICT lessons. These included:

- Appearance ("It looks a pretty good site");
- Clicking on the ones at the top of the list;
- Looking at when it was last updated;
- "Whether the website sounds like it knows what it is talking about";
- "Whether it is aimed at my age group";
- Comments on the site from other users;
- Using the most popular sites.

The implication from these responses is that awareness of the complexity of research is very high amongst students, but the skills they employ require development and are currently likely to be unreliable.

Software solutions are also used in some schools to help guide students to websites that are safe and reliable:

"We're using a website called TechnologyStudent.com which links you to websites that have been chosen for it, that have been tested to see that they are factually accurate."

Male Y10

There is also the question of the way that some of the advice is provided. This is perhaps best illustrated with reference to the use of Wikipedia, which many students describe making extensive use of. The common view is that Wikipedia is unreliable and contains much misinformation because anyone can contribute and add information. The fact that this is now constantly checked and edited is not mentioned, resulting in students developing an unhelpful attitude that does not help them develop essential critical thinking and questioning skills.

However, this was not the case in all the responses received, both from students and staff. Some reflect a practical approach that assesses and compares the information found from searches: "As you know some of the answers are fake, so what I usually do is look at quite a lot of answers and put them together to see if it's right."

Female, Y9

"You get more than one person's opinion and explanation. You get a couple of explanations – you get it from one website and you get another explanation from another website, so you can piece them together to figure out your own answers."

Female, Y10

A teacher explained how the internet is advantageous over a reliance previously on limited information from sources that might have not been accurate or reliable, whilst being able to search the internet means that different information can be compared:

"That affects my personal learning because I'm able to get the answer a lot quicker, and there is a lot more information available to me. Sometimes one of your sources that you got the information from could be wrong or incorrect therefore you're getting the incorrect information. Whereas now you have a wide variety of sources available at your finger tips that it is so easy to get and you can see that this person said A and this person said B and this person says A and B. So you kind of come to your own conclusions more and there is a bit more independence, even though there is a lot more information."

Male, teacher

Students and staff described how the internet encourages them to be more curious and to explore interests:

"If I have an interest I can explore that you know in ways that I couldn't do before."

Female, staff

"If I see a documentary and I think 'Oooh how did they figure that out?', I'll go on and I'll see how they did it. It makes you more independent as well."

Male, Y9

This has also made students and staff more questioning:

"It's made me more questioning of what I've been told."

Male, Y10

"I think my biggest thing is that I question how much can I believe what I'm reading and where's the bias coming from. So I'd want my students to also question things."

Female, teacher

Students also recognise that there are different views and experiences of events and that it is important to know and take account of these in coming to your own opinion:

"When there is a big news story we use social media a lot to find out the facts and find out other people's opinions on what the news story is and how it is going to affect people on a daily basis."

Female, Y9

The internet provides easy, immediate access to knowledge and information on a scale previously unknown and is available and used by children from very young ages. This means that they should begin the development of questioning and critical skills as they begin to undertake searches independently.

The implications from the research are that teachers are approaching the issues that arise from widespread internet searches from a subject perspective and individually. They also are tending to regard the skills required as 'higher level research skills' rather than essential skills to be acquired progressively from an early age. As one teacher summarized the issue:

""If we stick with textbooks and chalk and talk we are not preparing them properly for the world that they are going to go into and they are not very good at using Google and a search engine, for example, so teaching them techniques will be really important."

Male, Geography teacher

The suggestion from the research is that schools require a whole school approach that develops critical thinking and research skills across the curriculum and that each subject area contributes towards this.

You Tube and Learning

Many students and staff talked about the use they make of videos and films in their learning, usually using You Tube:

"I use a load of You Tube videos to understand how maths formulas work and how science works and stuff like that."

Male, Y10

In some cases, their use is frequent and makes extensive use of the tutorials and manuals to be found, which not necessarily related to school subjects. Examples of learning from You Tube videos included learning a musical instrument, snowboarding and tying a bow-tie. The visual and practical nature of the video format is preferred by both students and staff, plus the fact that you can pause and replay sections until it is fully understood:

"I like to learn as I'm doing things, so what is nice about You Tube is that you can pause a video and actually be there doing whatever you're doing."

Male, Teacher

"Yea, my learning has changed because now I like visual things to learn from so I like going on the computer and watching all the videos on how to do things. I find it more interesting and easier to learn in that way."

Female, Y10

Learning by watching films is also stimulating curiosity and encouraging some students to undertake further research of topics they are interested in:

"From that You Tube video I might go on other websites and research it further to get a better understanding......

New Scientist, that's a really good website, I read their magazine as well, so that's very useful. It's not digital but there are links. There are more articles on the website than they can put in their magazine." A number of students described how they watch tutorials and lectures aimed at degree and post-graduate level students, and whilst some find them too difficult and 'boring', others are able to explore areas of interest and develop some specialist knowledge and expertise. It is evident from responses to the questions about how learning and schools are changing and will be in the future that the accessibility of video tutorials and lectures is recognised by many as already having changed how they learn.

The personalisation of learning

A small number of respondents described how they use different aspects of digital technology to improve their learning. There is considerable variety in how this is achieved and the benefits. One teacher describes how she uses digital technology to inform her reflections on progress and to motivate:

"I use it (digital technology) to record a lot of things that happen. I use it then to perhaps look back and learn from things that I've done. I use it to push me further sometimes."

Female, teacher

Male, Y10

One student, recognising differences in learning styles, has help from his brothers to personalise his learning by finding different resources available on the internet:

"Cos they have different learning techniques for different people so they help me understand things that maybe my teacher does not explain like the best for me, personally and like helps other people better. Because I have four older brothers so most of them already went through the education process so they tell me websites that helped them and find things for me to help me in my personal subjects."

Male, Y10

Another described how he could 'catch up' on a lesson if he failed to 'take in' what was covered:

"I can not listen for a whole lesson. I can go home, type it in the internet, and get the basic gists of what he was saying in that lesson, so I've learnt the whole lesson but it was quicker."

Male, Y10

There was no real evidence from the interviews that schools are using the internet to personalise learning, as yet.

How learning is changing

There was unanimous agreement from respondents that how they learn has changed because of the increased availability and accessibility of digital technology. As one teacher succinctly responded, "Course it has". As identified above, many described that digital technology enables them to use their preferred learning style as a visual or active/kinesthetic learner. Others noted how it had improved their confidence and independence as learners:

"I would say socially with technology you become more independent as you have to search things for yourself, which means on your own not by listening so I would say without help you become more independent as a learner with digital technology."

Male, Y10

"The internet and technology has definitely changed my learning as it's made me more confident."

Female, Y9

A number noted the shift away from using paper based resources, although there are differences in whether this is regarded as 'a good thing' or detrimental. Some noted the benefits, particularly for the environment, whilst others said that they did not see the difference between looking at a book or something digitally:

"I don't see the difference between a book and the internet, because it's exactly the same but the internet can have fake answers and things on it."

Female, Y9

However, for others having fewer books and no longer a requirement to physically write is a cause for concern.

Some teachers observed other impacts on how we learn. The instant availability of information means that we no longer have to learn and remember things so much:

"We are becoming better at finding information, but we are becoming worse at remembering information, because we remember locations rather than remember the actual content. I don't have to store something in my head now because I just put it in my favourites list."

Female, teacher

However, the downside of the speed of instant access is that we can be swamped by the quantity and speed of constantly updating data and comment:

"Everything is so quick these days. You don't have the time to sit there perusing over something. Everything is so fast, everything has to be done so quickly. You have to read a story in 5 minutes and move onto the next one. Twitter is updating so quickly that you need to be looking at things you want before they end up right at the bottom of your page."

Female, teacher.

Another consequence, noted in different ways by different people is a tendency to read books and to collect information from one or a few sources much less. Instead, small bits of information are gathered from a range of sources. Some people commented that this means that they are reading much more, but by reading small sections from a wider selection of places. One teacher summarised the consequences as follows:

"I'm more inclined to dip in and dip out of current theories or ideas or policies or whatever's a hot topic – I'm more inclined to build a picture up quickly using the internet or Twitter feeds, resources that I find on-line than manually. It's much more accessible and I think that speeds up the whole process and sharing of information is also considerably quicker."

Female, teacher

A student identified, what he perceives as, another benefit:

"The information is more up-to-date so I get a better understanding of the topics I've learnt at school.... Data on the internet is always up-to-date if you use reliable sources then they are always up-to-date and always new things are happening."

Male, Y10

Whilst people may come to different conclusions as to whether these changes in how we learn are beneficial or detrimental, there is a consensus about the main trends. Given this, it is surely important to make sure that we prepare children and young people to learn and to continue to learn in ways that maximize their potential as learners fully using the digital technology available now and in the future. As one teacher noted, learning is no longer confined to certain contexts or controlled by certain institutions or groups:

"One of the key points about digital technology is that it's not just solely in the workplace anymore or in school, it's everywhere, 24 hours a day seven days Which I think is brilliant. Quite exciting actually."

Female, teacher

This also means that there are far fewer barriers to learning because of where you live, as it is also possible to engage with other learners from almost anywhere in the world.

How teachers are using changes in digital technology

Many of the teachers referred to their own post-graduate study when talking about how they use digital technology in their learning. There are a variety of means by which teachers gain and exchange of ideas with other teachers both from this country and from around the world. These range from a number of blogs and forums, which usually have an organised focus, for example a specific subject or a course to open forums on social media:

"I follow conversational feeds on Twitter." Female, teacher

Another teacher described how he makes use of information he obtains from social media to inform his teaching:

"I am interested in the information I receive that relates to something bigger.... I follow a middle eastern journalist called Racha Shabib who's very tuned into some of the issues around the Arab Spring and the Arab-Israeli conflict, because those are some of the themes that come into my teaching of the theory of knowledge subject."

Male, teacher

Another teacher described how they use computers to gather and save information that they can then use in their teaching:

"Also in terms of planning and my teaching I will use like Powerpoint. I have like storage where I can modify things for later on, whereas before I would only have bits of paper and more often they'd get lost or would be filed and I'd have issues finding them."

Female, teacher

Digital media is also helping with the process of assessing students' work, as it is no longer necessary to take home piles of exercise books to mark. Instead, teachers are able to mark and feedback work digitally, saving time and effort and creating a more efficient and less costly process.

Only one of the teachers interviewed gave an example of how they harness the power of digital technology to create an easily accessible learning resource for his students that contains a range of materials that could include links to videos and other materials: "One of the things that I have been implementing within my teaching is QR codes. I may use it for my Y11 revision, it includes the objectives for the revision session, it would include tutorials, it would include the content, you know the specification of what they need to learn and to have understood fully from the session."

Making use of such technological devices as QR Codes requires a higher level of knowledge, but they do not require a high level of skill to operate and, as the teacher went on to explain, the impact is significantly greater than the topic or revision exercise:

"It sort of says to the students "Look, this is what you're using your devices for in your personal life and this is what you are doing in your personal life. This is not something completely different from school. School can grow to be part of your personal life as well and it can grow to be something that you might work with socially and you can use these devices that you are proud of and excited by and you can use them within your learning as well."

Male, teacher

The responses from staff suggest that how teachers are using the changes in digital technology professionally largely come from their own personal experiences or interests rather than from any consensus of what is good practice or particularly effective. There are some clear trends and unforeseen benefits from the informal nature of the new networks that are emerged, but within this a lot is left to chance. Valuable skills and techniques are likely to be overlooked, and unlikely to be reinforced into common practice.

Issues and Concerns

Both students and staff raised a wide range of concerns about learning in schools both now and in the future and the implications of digital technology. There was not the time in the interviews, nor here, to do anything more than to identify the main implications for further consideration and exploration elsewhere. Starting with the limited way in which digital technology is currently used, one teacher suggested that teacher-led, classroom use tends to do little more than transfer a traditional learning task to a digital context:

"I think, with the students in the classroom, what we are getting them to do is less research and more 'there's is a task I want you to complete on-line'. The majority of digital resources in the classroom are used to consolidate learning or to illustrate a concept that is maybe a bit too non-tangible, a bit too imaginary for want of a better word. And you can get some nice animations of what's not visible with the naked eye."

Female, teacher.

Secondly, a number of teachers pointed towards the constraining factor of current assessment criteria and how this is inconsistent with the rapidly changing nature of the globalised world of the 21st century:

"If there is going to be this continued drive for like oldschool rigour, rote learning, retention of knowledge and facts, then I think maybe questioning, assessing of "Do I believe this, do I want to go with this", that might change the ratio of what we do, kind of thing.

So I don't know sometimes if we are assessing people in a way that isn't realistic of how they are ever going to use that information in real life. There are a lot of very talented students who can talk about a topic, who with all the resources around them can make really enlightened ideas, don't get to show that."

Female, teacher

As another teacher concluded:

"Currently digital technology is working alongside a more formal, rigorous exam system but I don't really know how digital technology can help bridge that and be robust and be secure."

Female, teacher

This is perhaps one of the questions requiring answering urgently.

A third issue is how far students are fully engaged in their learning and trusted to be responsible, independent and autonomous learners. This is one the major questions for the increased use of digital technology in learning and the development of the ability to learn how to learn. It was illustrated by comments about the potential for using smart phones in classrooms and as part of the learning process:

"I do see smart phones as being part of the learning process but it needs to be carefully thought out and it needs to be delivered in such a way that they are actually doing what they are supposed to be doing. Classes where there is that trust that they are doing what they say they are going to do."

Female, teacher

It is worth emphasising that students are using their smart phones, to a greater or lesser extent, as part of their learning and experience frustration and disconnect if this is limited or prohibited by schools. There are also indications that there are noticeable differences between how and the extent to which students use digital technology in their learning between schools. This suggests that schools have a significant influence on how students learn and in this case on how far they prepared for learning in the future.

Others raised more specific concerns about how digital technology is used. One teacher mentioned the increased risks of plagiarism:

"Another issue I have, especially teaching sociology, is plagiarism and sources that they get from the internet, because anybody can write and post anything, so I worry that they take what they see as gospel and ensuring that they do research it to the extent they are supposed to be is a difficult task."

Female, teacher

A number of students expressed concerns that socialising online risked people losing social and conversational skills:

"I think technology is quite worrying now. It's getting to a point where friends can't even talk to other friends even for 5 minutes without checking their phones to see what is happening elsewhere."

Male, Y9

Another student expressed similar concerns for adults and not just peers:

"I was in a restaurant the other day and all these people were sitting on a table and they were just on their phone and I was just like why can't they just talk but they're just on their phone. I don't understand why they would just do that."

Female, Y10

Whilst a teacher described it as social isolation, confined to personal spaces:

"I think it makes people more confined to their own homes, or their own spaces or their own bedrooms with just that computer on."

Male, teacher

This is a complex question for schools in considering the development of social and emotional skills. In the future, people will increasingly require excellent conversational and social interaction skills. These will need to be used effectively face-to-face and for on-line networks. Each will operate to different social norms, etiquette and conventions and be transferable to take account of different cultural and social contexts in a global world. There are increased risks for individuals if they spend too much time or become very practiced in one context and deficient in another.

Finally, one student raised another concern for the personal safety and privacy of everyone in the digital age:

"The flow of information will be quicker. Everybody is going to know everything about everyone else, because we will just be able to look each other up. Everyone has a like one of those footprints, so it will get bigger, bigger and bigger until you can't be anonymous anymore. There will always be some trace of you. I don't like the idea of somebody prying, even today when they just ask too many questions but if they could find out all about you without you telling them anything that's a bit worrying. It's the death of privacy."

Male, Y9

This very perceptive comment asks schools to consider personal safety and privacy in much wider ways than within the context of safeguarding and personal practice, and as a question about the global society in which we will live in the future. It is a question that goes to the core of the nature of citizenship.

Schools of the Future

There was general agreement amongst students and staff that schools would have to change to reflect the changes in society and in response to digital technology:

"I think in the future that school will be like remodeled and designed around the modern age."

Male, Y9

However, some think that change in schools will happen at a slower pace than in technology and society:

"I think that schools probably will change but gradually, not as fast as technology is moving."

Female, Y9

The widespread view is that learning will become far more centred around the use of technology (such as smart phones and i-pads) with a rapidly decreasing use of text books and paper-based materials. It was not surprising that a number of students identified the most immediate change as every student having a personal device: "I think that the way that technology will move on in terms of learning, I think there'll be tablets for every individual student and laptops and you can go home and take that and you can do school work on that."

Male, Y9

This was described by most students as being 'very helpful', but should also be recognized as being achievable almost immediately. However, on its own, it would do nothing more than provide the tools for developing learning.

One teacher described the core issue as relating to how knowledge and information is regarded within the learning process:

"It largely centres around a debate of flip-learning and this notion of where do we absorb content? Is content a necessary part of face to face learning in classrooms? Is content, provided it offers correct levels of engagement and it's specific to the task in hand, is I am sure something that learners today can pick up at home."

Male, teacher

In other words, the core function of teachers to impart knowledge and content is no longer necessary. If this is the case it raises the question of what is the role of teachers in the future? Are they necessary? One teacher answered these questions as follows:

"Within schools – I hope it never comes to this – it might be something related to having less teachers as it were, and people are more directed towards apps and websites to give them the information. There are so many ways of getting information from the internet you could very easily have an app that has all that combined together with videos, blogs, open forums, tutorials that people run through to actually learn the knowledge. All that is available at the moment, it's just bringing that into the classroom. If that happens then teachers will just be directors of those methods rather than teachers of the subject."

He went on to consider some of the wider implications for learning in life in very beneficial terms:

"As far as outside of the classroom I like to think it's making people more hungry for knowledge and it's giving them more ability to gain all this information relating to whatever they want to know about, so you're going to get into a situation where people become specialist in a particular area, a lot easier than they would be otherwise."

Male, teacher

Some students seemed quite excited by the possibility of learning on-line and the advantages that this could bring:

"I think if you had that smart technology for a teacher not to exist but it was computer based, it would be like having a teacher in the room and if it was that smart like a person that would be really good. Because you wouldn't just be getting a teacher, like it wouldn't have to learn it and it wouldn't make the mistakes that maybe a teacher would make or get answer wrong like let's say she was tired, but the computer wouldn't. It would know it."

Male, Y9

Others explored the idea of teachers in the future being replaced by holograms, which leaving aside the initial excitement of the futuristic technology, would also have other potential advantages:

"Holograms can't have feelings and they can't you know do stuff as human beings but if they were like for teaching purposes only then holograms might be better."

Male, Y8

Most students want learning to change but also were explicit in wanting schools to continue to exist and the invaluable elements that are key components of learning. They value the 'human element', with various aspects being identified, including personal support and being able to ask questions:

"I think it is generally nicer to have a human there because teachers aren't just there to teach us, they are also there for our support.... But we won't need teachers for every single aspect, as even nowadays you can get teachers who teach in a different country, like over a line, and if we can do this you can advance much further."

Female, Y9

"I think that sometimes learning face to face with a teacher makes it easier and you can ask questions which you can't do over a website really."

Female, Y8

Students value personal and individual responses:

"Sometimes you need teachers to go through it separately because you don't always understand it on the internet."

Female, Y10

Many of them also recognised their failings and need for a tutor to push, encourage and provide motivation and discipline:

"Sometimes you need the discipline there so people will actually will make you do it, because there are probably some people who probably wouldn't actually do it and they're better in school environment because they're pushed. I think I am probably one of those people."

Male, Y10

Students also recognise that schools provide the social experience of learning that cannot be replaced by virtual networks:

"It's important to socialise with other people. I mean I don't think I'd be the person I am today if I hadn't spent this many years with other children learning how to share, learning life skills as such. How would I get a job when I'm older if I've never spoken to anyone outside my family?"

Female, Y10

Students value highly that schools provide them with a focused environment within which to learn. However, this does not mean that learning cannot take place elsewhere and in contexts other than those associated with traditional classroom learning. One teacher speculated on how schools could be organised more flexibly to incorporate a number of different learning formats:

"As things become more expensive, buildings and things, it would be cost effective for them to hold lessons where students are at home and can access a lesson where you would only need one teacher in one room or a teacher at home..... So in a week's timetable there is a mixture of all different types, so if you have a video conference lesson there is a follow up with a seminar at school or the other way round."

Male, teacher

Whilst another emphasised the social aspects of learning:

"..... I think you can never replace that actual physical contact of actually talking and having a conversation with someone. It's not just about intelligence in terms of learning new things and reading, it's all the other learning that goes with it – how to develop relationships, how to develop your emotional intelligence, how you should behave in different social situations."

Female, teacher

If these two perspectives are put together, then the 'school', or learning centre, that you would have would be a very different learning environment from most schools today. One teacher described a different type of context and role for the (teacher) facilitator of learning that could take place virtually or in reality: "I could see where a group of learners, with someone facilitating the learning, were connected and were able to interact with simulations."

Female, teacher

Thinking further to the future, one student offered a vision that some might consider to be within the realms of science fiction, but given the pace of change, might not be that far in the future:

"With how powerful technology should be in the future, it might be like brain-powered stuff – like sending mental brainwaves to you to teach you or something.

"You could have something that connects to your head and it makes you visualize a window. Like we have computers with the screens, it's like a computer screen but you pull things out and put them in different places and gather information."

Male, Y9

Whatever, the advances in technology, there will remain the question of how far the physical resources in schools are able to keep pace. This is also likely to raise increasing questions of inequities of access, particularly if society continues to become more unequal and some people are able to benefit from the changes more than others.

Conclusion

Digital technology is changing how people of all ages learn. The speed and ease of access to limitless information and data has shifted the focus from knowledge acquisition to understanding, interpretation and critical analysis and evaluation. Within the curriculum the focus from an early age becomes on the acquisition of key skills for lifelong learning, particularly being able to learn how to learn.

The evidence from the interviews reflects the pace of change and the necessity for continual adaptability. It also indicates that teachers have been slower to make use of digital technology in their teaching and in how they facilitate learning than the use they make personally. A range of reasons and concerns were given to explain why this is the case, but this is also influenced by the approach to teaching and learning within the school. However, the current focus of assessment criteria was identified by a number of teachers as creating a mismatch with the nature of learning using digital technology. This raises a fundamental question as to how far government policy is requiring schools to assess progress using attainment criteria that are not appropriate for preparing for learning in the future.

The use that some young people are making of digital technology to enhance their learning in a variety of ways is

considerable, demonstrating their interests, curiosity, creativity and aspirations. However, the indications are that some schools are supporting and encouraging the development of independent, autonomous learners far more than others. How far schools have a teacher-led approach that is prescriptive and focuses on performance in tests and examinations appears to be very significant in this respect. There also appears to be a professional hesitancy amongst many teachers to recognise the capabilities of young people to learn for themselves and to trust them. More opportunities for dialogue between students and staff about learning are likely to have significant benefits, initially through increased understanding and respect in the context of lifelong learning.

However, it should not be forgotten that some individuals struggle with change and find adapting to using digital technology difficult:

"I don't like change really because it just messes with my mind a bit. I just try and stick with my old learning and my normal learning. I just try and stick to that path."

Female, Y10

Schools need to be rigorous in identifying these individuals early and in providing appropriate interventions and support. Similarly, the engagement with families will have to be informed by a deep understanding of the context of learning within families and communities. There is a very real risk that inequities in resources and knowledge and skills about how to use digital technology to enhance learning will create a poverty of learning for some families and communities.

Finally, it is appropriate for the concluding remarks to come from one of the students who summed up the challenge for educationalists everywhere:

"Everything is getting faster and everything is getting more powerful, and with that everybody's becoming less patient. People get accustomed to how fast it's going and they'll become less patient so traditional learning like lecturing, or learning just through books, will not be what people become accustomed to or like. So maybe learning will have to conform to what society will be like. Society will not change to what learning will be, it will be the opposite."

Male, Y10

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Implications for a school of tomorrow

The research findings suggest a range of possible implication for schools of tomorrow. These are summarised here.

PART 1 - IDENTITY

Defining identity

- 1. Outstanding schools of tomorrow ensure they have a deep understanding of how students and staff define their identity and consider the implications for how they relate this to their identities and learners.
- 2. Schools located in less culturally diverse communities will consider how they can provide regular interactions with other cultures and communities.

Area and locality

3. Children and young people need to develop the selfawareness and ability to reflect upon how their own identity develops, and how it could be different and change in other contexts.

Faith and Religion

4. Outstanding schools of tomorrow have a strong values base that underpins creative and flexible learning and informs the development of critical thinking skills.

Parents, Family and Friends

 Outstanding schools of tomorrow promote individuality and offer opportunities for character development, incorporating a dialogue between the young person, the home and significant adults, including from within the school.

Interests and Hobbies

6. Young people need a wide range of choices and opportunities to explore different interests and activities and to be encouraged to reflect on how this defines their identity. Outstanding schools of tomorrow support and encourage young people to network with others who share their interests, and to develop social and networking skills in different situations.

Personality and Attributes

 The well-being and confidence to 'be oneself' for all children and young people comes from secure attachments. Outstanding schools of tomorrow rigorously appraise the attachments of all students and provide additional support to those with a reduced sense of well-being.

Physical appearance and conditions

8. Outstanding schools of tomorrow provide personalised programmes to support additional needs, which should have as a core element the building of self-esteem and self-confidence.

Identity as a Learner

- Outstanding schools of tomorrow develop an understanding and awareness of preferred learning styles in students to help to improve the effectiveness of learning in different contexts.
- 10. Outstanding schools of tomorrow develop a shared language of learning as part of a strong culture of learning for the school and communities.

PART 2 – SOCIAL MEDIA AND IDENTITY

Use of Social Media

 As a precursor to using social media for educational purposes, outstanding schools of tomorrow audit local use of social media platforms and analyse which site is most suited to the intended purpose.

Facebook

2. Outstanding schools of tomorrow consider how they can make use of Facebook as a universal social media platform to facilitate learning groups; engage with communities and model to students networking potential.

Twitter

3. Outstanding schools of tomorrow in preparing young people as active citizens consider the uses of social media for social change and political organization, including the appropriate participation in live-streaming and micro-blogging. Outstanding schools of tomorrow will identify the skill sets required by young people to be successful, informed and active citizens who are safe and happy in a complex, rapidly changing globalized world.

Other uses of Social Media

4. Outstanding schools of tomorrow encourage and support students to post their thoughts, feelings and creative works (writing, musical, visual etc.) on appropriate social media platforms as a way developing their writing skills and other presentational skills and their identity as learners.

Profiles and Identity

5. Outstanding schools of tomorrow consider with students the information about themselves that they present on social media sites and discuss matters of personal privacy and security, providing additional mentoring to those identified as being at possible risk. This includes how this might be viewed as a 'timeline' by others; the ethics of providing misleading or inaccurate information; and what aspects of their identity they wish to present to different audiences.

PART 3 – LEARNING AND DIGITAL TECHNOLOGY

Homework and revision

- 1. Outstanding schools of tomorrow strive to ensure that all students have access to personal digital devices to support their learning and integrate the use of digital technology into all learning, encouraging flexible use in any context.
- 2. Outstanding schools of tomorrow develop the skills and attitudes for lifelong learning, making innovative use of apps and other media to support, motivate and engage families.

Research

3. Outstanding schools of tomorrow regard research skills as basic, core skills and have a whole school, cross-curricular approach that all subjects and teachers contribute to. Outstanding schools of tomorrow begin the development of questioning and critical-thinking skills from an early age and as a standard part of internet searches.

The personalisation of learning

 Outstanding schools of tomorrow develop an approach to support and encourage the personalisation of learning, making use of learning materials and programmes available on the internet.

How learning is changing

- 5. Outstanding schools of tomorrow have a policy and approach to learning that uses digital technology to ensure that it takes place anywhere, anytime and throughout life. They collate and share information about learning materials available on the internet with students and families as a means of increasing engagement in learning.
- 6. Outstanding schools of tomorrow encourage students to network with each other and with other learners from anywhere in the world.

Teachers' use of digital technology

7. Outstanding schools of tomorrow provide professional development for staff that shares personal use and practice to develop a consensus of good and effective practice and to build an innovative culture that encourages the use of digital technology integrated within learning and teaching.

Schools of the future

- 8. Outstanding schools of tomorrow have a policy and approach to learning and developing skills for life that balances the use of digital technology with the acquisition of personal, social and learning skills for well-being.
- Outstanding schools of tomorrow introduce into the organisation of the school more flexible ways of learning to make use of the potential of digital technology, preparing for education in the future.

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