An investigation into the skills needed by Connexions Personal Advisers to develop internet-based guidance

Full report

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Acknowledgements

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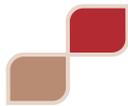
Executive summary

- The increased use of technology by young people is placing new demands on Connexions/ careers Personal Advisers (PAs). This small-scale, mixed-methods research study explored the skills and competencies required by PAs to deliver internet-based guidance and, importantly, gave young people the opportunity to express their views about how they want information and communication technologies (ICT) to be used in the future to deliver guidance services.

- Fieldwork involved 46 young people and 17 PAs and managers of Connexions services, across six dispersed geographical locations in England. Data were gathered from October to November 2009, using investigative frameworks developed from, and grounded in, the research literature.

- The current policy context emphasises the need to exploit the potential of new technologies and integrate their use into all aspects of guidance practice. Implicit may well be the assumption that its introduction will not only extend access to services by clients and customers by increasing the flexibility of delivery methods, but that it will also help reduce costs by lowering the demand for face-to-face support. However, the evidence base relating to benefits accruing from effective internet-based guidance is currently lacking.

- The use of ICT in guidance has gradually increased over the past four decades, but its use across different guidance sectors is variable, with the terminology used to describe this area of practice confusing. Rapid technological developments, like the introduction of Web 2.0 have exacerbated the overall lack of clarity. This issue needs to be addressed urgently, to ensure common understanding in discussions about this area of practice.

- Whilst new technologies offer considerable potential advantages to the delivery of guidance services, their introduction also poses challenges, like protecting the privacy and safety of young people.

- As the culture of self-sufficiency increases with the rapid growth in user (self-generated) content on the internet, thinking about who, exactly, is the expert is becoming more of an issue for guidance. This raises important questions about the future role of Connexions/careers PAs. Our research shows how young people still value them as experts and want to retain access to face-to-face guidance. However, PAs will need, increasingly, to demonstrate a level of proficiency in internet-based technologies at least equal to those of the young people accessing their expertise.

- Three key purposes of internet-based technologies in guidance have been identified: a resource; a medium for communication; and for developing materials. Connexions/careers PAs currently use the internet primarily as a resource; there is limited evidence of it also being used for communication (e.g. email and telephones). Developing materials for guidance is the most under-exploited purpose.

- Whilst little has been done on identifying the specialist skills required for differ types of internet-based guidance, more has been achieved regarding competency frameworks. This may be because the key skills of guidance remain broadly the same, with a slightly different emphasis being placed on some skills when used for different types of internet-based guidance. For example, in telephone guidance, highly developed active listening skills are crucial, together with an adaptation of the use of questioning skills.
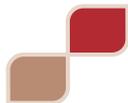
- Recently developed generic competency frameworks position the use of ICT as a core, or foundation, competency for initial training. In one specialist framework for internet-based guidance, competencies for using ICT to deliver guidance are distinguished from the competencies required to develop and manage the use of ICT in guidance.

- ICT user skills should be regarded as separate, but complementary, requirements for effective internet-based guidance services, alongside guidance skills. Awareness (of technological developments) and technical skills (to use different technologies) are central to the development of ICT user skills, with three other categories (social/ personal; cognitive/ physical; and technical) identified as the most common digital skills.

- Yet it should be remembered that evidence indicates that, in the future, the effective use of ICT *per se* will depend less and less on the specifics of user skills and more on a generic understanding around it. Skills and competencies form only part of the foundation of knowledge, understanding and confidence essential for the effective use of ICT in guidance.

- Research findings from this study suggest that increased use of internet-based services could well be an effective method for delivering online IAG services. However, the way young people access and use IT must shape any future extension of online services. For example, the majority of young people use ICT to gather information and communicate, which suggests online multimedia information, the provision of text-based online information and reputable links to both.

- Current levels of engagement with ICT for the delivery of services to young people by PAs are low and our research indicates that practitioners do not regard this as a pressing developmental need. However, the foundation digital skills needed to engage effectively and efficiently with technology are well developed amongst Connexions staff, with only certain technical skills requiring attention. Additionally, the guidance skills and competencies should be well developed, requiring training support only to transfer appropriately to different methods of delivery, rather than develop new expertise.

- Management has a critical role to play, providing strong system leadership and innovation in this area. ICT systems currently in use in services were identified by PAs as a major barrier to their more creative engagement with internet-based guidance. Those funding public services also need to ensure that resources are available to ensure that the technical infrastructure and technical support systems are fit for purpose and able to facilitate high levels of usage.

- The extent to which Connexions services are able to deliver efficient and effective internet-based guidance will always depend, in part at least, on the extent to which their clients are engaged and empowered. This aspect of provision is likely to be largely outside their control, since fundamental social equity issues are implicated.

- One other policy issue that needs to be addressed relates to the safety and privacy of young people accessing guidance services through internet-based technologies.

… technology influences the patterns of behaviour of service users in terms of both the manner in which services are accessed and the ways they are utilised.

1. Introduction

1.1 Background to the study

A recent review of the literature into the impact of careers and guidance-related interventions highlights the ways in which technology influences the patterns of behaviour of service users in terms of both the manner in which services are accessed and the ways they are utilised. The same review highlights the potential of technology to increase the impact of guidance services (Hughes and Gration, 2009). However, the increasing use of technology by key stakeholder groups of guidance services – especially young people – is placing new and increasing demands on Connexions practitioners. The need to profile current skill and competency gaps for this area of service delivery is recognised by CfBT and other major guidance providers, as is the need to provide appropriate training support to address any gaps identified. This research study was, therefore, designed to provide evidence of the skill and competency needs of Connexions practitioners for this area of practice. Additionally, it has provided young people from disparate geographical locations in England with an active voice in specifying their needs and requirements regarding their preferred delivery mechanisms for internet-based guidance services in the future.

1.2 Purpose, objective and research questions

The purposes, objective and research questions specified for this project follow. Purposes were to:

- research the skills and processes required by practitioners and managers to respond to the changing interface between internet-based guidance and individual user behaviours

- identify the additional or specialist needs of Connexions practitioners in providing careers and guidance-related interventions to young people through internet-based delivery methods.

The objective for the study was:

- to investigate the communication skills and other technical competencies needed to deliver guidance via internet-based methods.

Research questions that followed from the purposes and objective were:

- What skills and processes are required to manage and respond to the changing interface between internet-based guidance and individual user attitudes and behaviours?

- What additional or specialist needs of Connexions practitioners exist for the provision of careers and guidance-related interventions to young people through internet-based methods?

- What organisational infrastructure is essential to support the effective deployment of skill sets developed by Connexions practitioners?

- How can Connexions practitioners and their managers be supported at a distance in developing the skills and competencies required to manage and deliver effective online guidance-related interventions?

The next section reviews, briefly, the relevant policy context in which this research was carried out.

1.3 Policy context

Various recent publications set out the Government's vision of the UK being the best place in the world for young people to grow up in and participate in education (DCSF, 2007; DCSF, 2009a; Low and Kenyon, 2009). High quality, impartial IAG (Information, Advice and Guidance) is identified as having a vital role to play in realising this vision, because of its potential to assist young people in making learning and work decisions that position them for success in life, as well as providing the support necessary for them to manage personal, social, health and financial issues. The central importance of technology for the flexible delivery of such services was highlighted by the Skills Commission Review of IAG (2008) because it provides: a direct source of information without the need for intermediaries; speed and flexibility; and convenience and choice for users. The demand by users for internet-based methods for delivering IAG is similarly highlighted in the strategy for young people's information, advice and guidance:

> *'… young people today want and expect to secure IAG from a range of sources beyond formal careers advice. In particular, they want to access information online, and to make use of new interactive technologies: web-based information is now a key route for young people.'*
>
> (DCSF, 2009b, p.13)

This same strategy document is emphatic about the crucial role that internet-based services will play in the future delivery of IAG: 'Our IAG offer for young people will exploit a range of digital technologies' (DSCF, 2009b, p.38). It goes on to explain how a coherent range of attractive and engaging methods of accessing services remotely will be made available, which meet the needs and expectations of young people. To ensure provision is, indeed, attractive and engaging to young people, end-user design is emphasised as a key development principle for internet-based services: '… most importantly, we need to respond to what young people say about the kind of IAG they want' (DCSF, 2009b, p.13).

Of course, identifying the need to integrate the use of technology in the delivery of guidance services is neither new, nor confined to the United Kingdom. For example, the Organisation for Economic Co-operation and Development (OECD) discussed the need to harness information and communication technologies (ICT) to increase access and improve the efficiency of guidance services internationally some years ago (OECD, 2004). However, what is new is a greater requirement for services in England to design and develop cost effective and accessible careers resource facilities and services (including online and telephone helplines), viewed by policymakers as crucial for achieving increased youth participation, progression and attainment in education, training and employment.

This type of policy commitment focuses attention on the pressing need to exploit the untapped potential of ICT to enhance all aspects of educational service provision, including IAG. Over half of all learners (52%) over the age of 14 recently reported that they learn through the internet, with 22% using distance learning (DCSF and BIS, 2009). These statistics provide a powerful indication of the potential reach of ICT into the lives of children, but they mask some important differences between social groups. For example, whilst 97% of children from social class AB had internet access at home, this was limited to just 69% of children from social class E (Becta, 2008). This 'digital divide', along the lines of social class membership, poses a considerable challenge. So too does the need to integrate ICT more effectively into learning processes in schools, including IAG. For example, it has recently been found that whilst young people thought the Connexions Direct website was a

To address these and other challenges, the Government's 'Harnessing Technology Review 2008' has identified five high-level objectives for the effective integration of ICT in education.

'good idea', very few of the sample (n=135) had actually accessed the service (cited in Hutchinson and Parker, 2009, p.39). To address these and other challenges, the Government's 'Harnessing Technology Review 2008' has identified five high-level objectives for the effective integration of ICT in education. These are: technology-confident, effective providers; engaged and empowered learners; confident system leadership and innovation; enabling infrastructure processes; and improved personalised learning experiences (Becta, 2008, p.4). Findings from this research emphasise the importance of these objectives, to which reference will be made later in this report.

Implicit within the current policy emphasis on the importance of internet-based guidance may well be the assumption that its introduction will not only extend access to services by clients and customers by increasing the flexibility of delivery methods, but that it will also help reduce costs by lowering the demand for face-to-face support. Yet reliable evidence on the actual impact of introducing internet-based services is currently lacking (Barnes and La Gro, 2009; Watts, 2001), with an indication that the potential for cost saving is likely to be limited (Offer *et al*., 2001; Madahar and Offer, 2004). Much is still to be learned about this aspect of professional practice, with terminology that facilitates a common understanding of precisely what is meant by internet guidance undoubtedly an important first step.

1.4 Defining internet-based guidance

The use of terminology to describe this area of practice indicates how 'internet-based guidance' means different things to different people. For example, Evangelista (2003) refers generically to the 'use of the internet' in careers guidance (p.1), whilst the term 'e-guidance' is used by Offer (2004b) to describe 'a means of giving more guidance to more people, more often, at a distance' (p.1). Barnes (2008) writes broadly about 'the use of ICT in delivering career guidance' (p.1), with a European guidance report on the ethics of this area of practice using the terms 'web-based guidance' and 'internet guidance' interchangeably (Ariadne, 2004). The types of services listed under these overall terms also vary. Offer (2004b) includes four methods of delivering 'e-guidance': web chat, email, online discussion forum or message board and text messaging from, and to, mobile phones (p.1). Subsequently, eight internet-based methods were identified by Watts and Offer (2006) and Barnes, La Gro and Watts (2010): email, chat, newsgroup, website, SMS (text messaging), telephone, software (i.e. CD-ROM and free-standing computer programs) and video-conferencing. This doubling of the number of methods identified within a short period of time indicates the speed at which technology is advancing.

Perhaps linked to the wide range of services included under the term 'internet-based guidance', there is a gap in our understanding of what the effective use of internet-based services in careers guidance practice actually comprises. Additionally, there is a lack of consensus regarding the competencies required by practitioners to deliver these services (Barnes and La Gro, 2009). Findings from the research reported here provide insights to these crucial issues, since they help us to understand the ways in which internet-based services are currently integrated into IAG practice, how young people would like to have these services integrated into the delivery of their IAG services and also highlight Personal Advisers' skills gaps for the effective use of internet-based guidance.

1.5 Structure of the report

In addition to this first section, the report contains a further six sections, including the conclusion. The second section reviews current evidence relating to technological advance and its relevance for the use of internet-based services in the delivery of career guidance services. Section 3

focuses specifically on what we know about the skills and competency profiles required by practitioners from previous work in this area. Section 4 presents details of the research study at the heart of this investigation, including the methodology and approach to analysis. The fifth section presents the results of the research into young people's use of internet-based guidance services across six Connexions organisations, whilst section 6 discusses results from the research that explored the perceptions and experiences of Personal Advisers and their managers of internet-based guidance. The seventh and final section presents the conclusions from the study, together with recommendations.

2. The digital landscape

'The digital landscape has been transformed over the last decade. Businesses, public services, individuals and families all use computers; digital facilities have shaped the way our economy is run and the way we live our lives. Our young people have grown up as digital natives and millions of adults have now joined them.

It is a story of technological advance and rapid change; of government investment and private-sector partnerships. We all know that the pace of change will not slow down.'

(Department for Business Innovation & Skills (BIS), 2009, p.8)

2.1 Young people's use of new technologies: current evidence

There is a movement towards widespread access to advanced internet-based services through phones and/or mobile devices, with young children exposed to new technologies from birth. This technological transformation has produced a society in which electronic information networks provide the potential for social interactions that are unrestricted by time or space. Children are developing a wide range of skills, knowledge and understanding that represents a significant shift in cognitive preferences (Vass, 2008). Texting, for example, is replacing speech for a large part of communication that takes place amongst young people. It is immediate, accessible, private and gives young people unprecedented control over how they communicate with their friends and family. Ninety five per cent of young people claim access to a mobile phone, with texting now playing a key part in their social lives. It is used by nine out of ten (89%) 11 to 21-year-old mobile phone users at least once a day and over half (54%) use it at least five times a day.

Although simple base-level phones are still available, devices increasingly offer a range of functions way beyond phone-calls and SMS text-messaging. These include: email; web browsing; MP3/video player; radio/TV reception; global positioning and maps, buddy location; still/video camera; games console; book reading; word-processing and other Smartphone capabilities; low-value vending machine purchases, barcode scanning; e-ticketing with barcode ticket sent by SMS; diary, planner and appointment reminder; wifi connectivity; and bluetooth capability (Attwell, Cook and Ravenscroft, 2009). Research shows how young people use ICT not just for communication and consuming information, but for creating and sharing knowledge (Lenhart and Madden, 2005). Internet-based services are becoming an important part of many aspects of users' lives cutting across socialising, study and work (Greenhill, 2008). These uses include: sustaining social interactions and a sense of community; supporting the generation and communication of cultural/social capital; being a hub for the discussion and generation of ideas; disseminating knowledge; sharing materials; providing entertainment; sustaining and expanding a knowledge network (Attwell and Costa, 2009).

Indeed, the rapid development and use of new internet-based technologies and media, particularly social software and the 'read write web' are challenging the present structures and purpose of current educational institutions (Attwell, Cook and Ravenscroft, 2009; Price, Roussos, Falcão, & Sheridan 2009). The ban on mobile phones in classrooms in England, for example, was criticised in a recent article in the *Observer* newspaper (11 October, 2009, p.5) as both unsustainable and undesirable, because of the way this ban prevented the enhancement and enrichment of formal learning by the integration of mobile technologies. As well as challenging formal educational

… social networking, web-chat and online video content all offer ways for young people to gain insights into different careers.

practices, an increasing trend is towards new technologies being used extensively for informal learning – where learning takes place in response to problems or issues driven by the learner and is sequenced by the learner and controlled by them in terms of time and pace (Attwell, Cook and Ravenscroft, 2009).

The IAG strategy document acknowledges the familiarity of young people with the new technologies and identities the need for service delivery to reflect these new realities:

> *'IAG must be delivered flexibly, reflecting the needs and the preferences and lifestyles of this generation of young people. Most young people today, having grown up with the internet and mobile phone technology, are highly technically capable and confident users.'*

> (DCSF, 2009b, p.38)

Despite, however, the trend in openness and rise in user-generated content with the use of these new technologies, we need to remember that audiences still value professional content producers (Greenhill, 2008). This is important when considering the introduction of internet-based guidance services, but where professionals are accessed online, they need to demonstrate a level of proficiency in internet-based technologies at least equal to those of the users accessing their expertise.

2.2 Web 2.0: implications and challenges for guidance

At the heart of the developments in technology is Web 2.0. This has changed the way people interact and has profound implications, potentially, for the delivery of guidance. It has, however, barely begun to impact on the way services are delivered. Three main purposes have been identified for internet-based guidance. These are: as a resource; as a medium for communication; and for developing materials (Barnes, La Gro and Watts, 2010, p.3). When reviewing these purposes, it becomes apparent how Web 2.0 technologies can be harnessed, with the IAG strategy making some of its uses explicit:

> *'Technology has considerable potential to transform access to high quality IAG, enabling young people to acquire relevant information quickly and at the times that suit them. For example, social networking, web-chat and online video content all offer ways for young people to gain insights into different careers. Interactive technology enables much more personalised delivery of IAG, responding effectively to young people's interests.'*

> (DCSF 2009b, p.38)

Web 2.0 technology offers various functionalities, including the ability to aggregate user data, track and filter content, collaborate, 'mash-up' data or construct a social network. It comprises:

- **Blogs** – consisting of a simple webpage with brief paragraphs of opinion, information, personal diary entries, or links (i.e. posts) arranged chronologically with the most recent first in the style of an online journal. Blogs can be written hourly, daily, weekly, etc., and communicate to an unlimited number of readers.

- **Wikis** – a webpage or set of webpages that can easily be edited by anyone allowed access. A wiki is a collaborative tool that facilitates the production of group work and provides a history of previous versions of text.

- **Tagging and social bookmarking** – a tag is a description that is added to a digital object (e.g. website, picture or video clip), though not as part of any formal classification system. Social bookmarking systems allow users to create lists of 'favourites' or bookmarks to store centrally on a remote service. These favourites can be tagged with keywords.

- **Multimedia sharing** – one of the biggest growth areas has been amongst services that facilitate the storage and sharing of multimedia content. (Flickr, YouTube and Facebook are popular applications of this technology.)

- **Audio blogging and podcasting (usually in MP3 format)** – these are usually recordings of talks, interviews, lectures, or radio programmes, which can be played on a desktop computer or a wide range of handheld MP3 devices. This technology is increasingly being used in education.

- **RSS and syndication** – allows users to find out about updates to the content of RSS-enabled websites, blogs or podcasts without actually having to go and visit the site, since information is collected and 'piped' to the user in a process known as syndication.

(Anderson, 2007)

The development of these technologies has been characterised by six key features. These relate to the shift that has occurred from building a global information space to creating functionalities with more of a social facility. The first of these features relates to *individual production and user-generated content*, reflecting an exposure culture, where getting noticed has become an important goal. Second, *harnessing the power of the crowd*, where anybody can contribute their knowledge or experience to the solving of a problem or development of a resource. Third, is *data on an epic scale*, with the development of powerful search engines that provide access to unimagined information resources. The fourth relates to the *architecture of participation*, which occurs when the service itself improves through normal use of an application (e.g. Google search, where the system has been designed to take the user interactions and use them to improve the service itself). Fifth, *network effects*, related to the effects of the sheer scale of interactions the net facilitates. Lastly, six, *openness*, with a range of legal, regulatory, political and cultural developments surrounding the control, access and rights of digital content (Anderson, 2007).

With the next generation technology (Web 3.0) already on the horizon, the need to begin to align new technologies with service delivery for guidance is becoming more urgent. The use of the internet as a resource, especially for labour market information (LMI), is already common in Connexions/careers services. Yet the potential to use technology to interrogate a wide range of sources, judge the efficacy of different sources, integrate data from a range of sources and disseminate creatively in different forms for different audiences has not been fully realised. The use of technology for communication with users in guidance remains embryonic, with emails and text messaging playing only a marginal part in the interactions between PAs and young people. Developing different types of materials is probably the most under-developed purpose for internet-based guidance services currently, with considerable untapped potential for the enhancement of materials for young people. Knowledge could be refined, shared and stored within organisational structures so that it is not lost (e.g. when individual employees move on) and could be formally developed and enriched by collaborative endeavour.

However, along with the potential of internet-based guidance services, there come challenges. For example, as the internet fosters and supports the establishment and growth of new groups
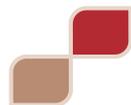
To perform any of these tasks successfully, however, young people are likely to require support from a technologically confident and effective facilitator.

and communities, identity, privacy and safety for young people will become increasingly important. Additionally, as the rapid growth in user (self-generated) content increases, the culture of self-sufficiency will challenge thinking of who, exactly, is the expert. In an era when every young person could potentially access information on the web, how does this re-configure the role of the Connexions Personal Adviser? Finally, the debate about intellectual property has relevance anywhere that information is produced by collaborative effort. Information produced by employees of a particular organisation could be regarded as the intellectual property of that particular organisation – yet can potentially be easily accessed freely available over the web (Anderson, 2007).

The potential impact of new technologies on guidance services is therefore significant, as are the challenges it brings with it. So what do the individual recipients of Connexions/careers services, the young people themselves, require of these technologies?

2.3 Youth culture, identity, ICT and guidance

The proliferation of the use of ICT has combined with other factors (like changes in family structure and decline in manufacturing industries) to bring about profound shifts in how young people make sense of themselves. For example, the traditional move from identifying with the family to a single peer group has now been replaced by a move from identifying with family to multiple peer groups, many of which are virtual. ICT also ensures that young people now have access to an instant, international, dynamically-shifting and vast range of stories and forms of knowledge that can inform their identity management. These identities are rarely unified, but rather multiple in nature and increasingly fragmented (Murakami, 2008).

All of this has relevance for young people's transitions into and through the world of work. It has already been noted (section 1.1 above) how the availability of technology influences the way that clients access and use guidance services. It also has the potential to support transitions, for example, by helping young people identify transferable skills, to connect them to the job market and support the development of the critical analytic skills for negotiating their way through both their virtual and physical worlds (Riley, 2008). To perform any of these tasks successfully, however, young people are likely to require support from a technologically confident and effective facilitator. It is also suggested that they will need help with learning how to engage with technology without getting lost or overwhelmed, as well as protection from bullying facilitated by technology, invasion of privacy and advertising (Riley, 2008). Even where the role of ICT expands to respond to the needs of young people in transition there is, therefore, a continuing need for professional support from PAs.

This professional support will need to adapt and accommodate the different requirements that young people have of technology. A fourfold typology that emerged from recent research helps us appreciate the levels of differentiation that occur in the engagement with ICT amongst young people. These four types of relationships comprise:

- **Digital pioneers** – advanced and innovative users of the potential of technology
- **Creative producers** – building websites, posting movies, photos and music to share with friends and family
- **Everyday communicators** – making their lives easier through texting and MSN
- **Information gatherers** – typically Google and Wikipedia addicts, for whom cutting and pasting are a way of life.

(Green & Hannon, 2007, p.11)
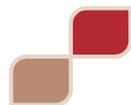
Of relevance to the current research study is the way in which internet-based guidance is currently being integrated into mainstream service delivery, via the telephone, chat-lines and email, with the face-to-face service remaining available as an option.

These styles that young people have of interacting with technology need to be considered when designing and implementing internet-based services for young people, though a crucial factor in implementing effective guidance services will be the PAs and their managers. They typically see the world very differently from their clients and yet it is often these adults who mediate the type of ICT used in guidance and the ways it should be used. The relative lack of impact of technology in education to date highlights not only the importance of providing young people with a more active and central voice in determining the nature and role of ICT in their learning experiences, but also the need to shift away from focusing too much on hardware and more towards relationships, networks and skills (Attwell, Cook and Ravenscroft, 2009; Green and Hannon, 2007; Riley, 2008).

The research reported in this study has attempted to address this issue by giving young people a voice (see section 5, below). One other way of developing our understanding of the potential role and impact of internet-based services on guidance is to learn from the experience of others. The next section presents brief details of how the national career service in New Zealand has started to integrate internet-based guidance services for its clients.

2.4 Learning from others: a case study from New Zealand

'Career Services' is the name by which the national organisation that delivers careers guidance support in New Zealand is known. It is a government-funded organisation that regards itself as 'New Zealand's leading provider of independent career information, advice and guidance'. It aims to provide all people living in New Zealand with 'access to the best careers information, advice and guidance to achieve their life goals'.

The Career Services website (http://www2.careers.govt.nz/home_page.html) is well used and has become a focal point for service delivery. Of relevance to the current research study is the way in which internet-based guidance is currently being integrated into mainstream service delivery, via the telephone, chat-lines and email, with the face-to-face service remaining available as an option. Telephone guidance, based on the UK model,[1] is a particular feature, with text-based services being developed alongside this facility. Internet-based services are described on the Career Services website as follows:

> *'Advice Line*
> *Our Advice Line is a small team of trained career advisers located in central Wellington. We're here to help you with your career planning. When you contact us (by phone or online via web chat or email), we'll assess your situation and suggest career options suited to your needs. If you need more in-depth support, we'll make an appointment for you to talk to one of our guidance staff either over the phone or in person. We're open from 8am – 8pm weekdays, and on Saturday from 10am – 2pm.'*

The introductory pilot for the telephone guidance ran from July 2007 to the end of February 2008. It involved one experienced consultant who was based at the Career Services advice line. During the pilot year, the practitioner dealt with 226 clients. The process of introducing this telephone service highlighted potential advantages for clients together with challenges it poses for practitioners. Flexibility emerged as the key advantage of this service for clients, with practitioners needing to use already acquired skills in slightly different ways as well as develop some new skills (England, van Holten and Urbahn, 2008).

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[1] The Careers Advice Service (formerly learndirect), can be accessed at: http://careersadvice.direct.gov.uk/
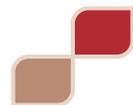
The Quality Standards Manual for the Careers Guidance Services is currently being re-written with sections on telephone guidance and online guidance being developed.

Following the successful pilot, the Advice Line (contact centre) team has grown to 15. This team currently offers a service to clients of all 'ages and stages' all around the country, both by telephone and face to face. Careers practitioners have had 'significant training and coaching in asking more open questions, making greater use of the interactive tools on the website with the client, identifying client need and referral processes'.[2] The practitioners actively involved in delivering this new service have indicated how the conversations they have with clients are more direct than those they have face-to-face. The pace is more intense, with pauses and silences amplified, and rapport is being built up throughout the call (rather than at the early stage of the interaction). Practitioners have also reported that this method of delivery is more demanding on their energy. Supporting practitioner self-care has consequently become more of a priority for the service.[3]

The Quality Standards Manual for the Careers Guidance Services is currently being re-written with sections on telephone guidance and online guidance being developed. This manual contains minimum quality measures for service delivery by telephone (e.g. total delivery time will not exceed 1.5 hours per client, including administrative tasks); an outline structure for a phone career guidance sessions (that is, a six-stage model of guidance); and the key skills required (micro-counselling skills; excellent listening skills; solution-focused counselling skills and the ability to use scaling questions).

Text-based guidance options are advertised on the Career Services website in the following way:

> '**Chat online about your career options**
> *Looking for information or want some personal help? Chat online to a career adviser, who can give you independent advice to help you with career planning. Our advice line is open from Monday to Friday, 8am to 8pm, and on Saturdays from 10am to 2pm.*
>
> **Email us**
> *Use the form to the right [online questionnaire] to ask us a question. We'll respond within four hours if you email us between 8am and 5pm Monday to Friday.'*

Career Services has also recently piloted a curriculum vitae (CV) feedback service, from October 2008 to January 2009. As part of this pilot, young people (under 25) were offered an email-based feedback service on 'starter' CVs, which were created using a particular CV tool.[4] The feedback was provided by a team of four practitioners with different levels of expertise in guidance and one team leader in the advice line. The offer of email feedback came at the end of the CV tool, as a client saved their CV. The response from pilot clients was overwhelmingly positive, with clients reporting how they felt more confident about putting together their CV as a result of the feedback received. Professional practice observations, detailed in the internal evaluation report on the pilot, included:

- the importance of shared team values;
- the advantages of combining the skills and expertise of staff at different levels in the organisation;
- the ability to adapt practice to a more condensed and intensified medium than face-to-face or telephone guidance;
- the impact on delivery of not having background contextual information about clients;
- working with a client within an advice context rather than a full guidance context;

[2] Quoted directly from an email exchange with Gill England, the Practice Adviser for Career Services (10.01.10)
[3] Van Holten, A. & England, G. (2009). 'Transforming practice – career guidance by telephone'. Workshop delivered at the IAEVG International conference, Wellington, New Zealand.
[4] The CV tool used by Career Services is known as 'CV4Me'.
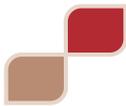
Email may be the most important, unique method for communicating and developing relationships since the telephone.

- the shift required by the pilot team around comfort levels with the final product being a starter CV and the service delivered being about learning;
- the value of quality monitoring and peer feedback.

An important feature of the shift towards internet-based guidance was the introduction by the Career Services in New Zealand of a needs assessment model, based on the client's self-efficacy, confidence with self-help via the web and level/complexity of need. As part of their change management strategy, Career Services created a blog for staff, where careers practitioners could express their feelings, ask questions and have debates around the use of technologies in service delivery.[5] The animator placed the following question on the blog:

> *'Email may be the most important, unique method for communicating and developing relationships since the telephone.'*

> (John Suler, *The Psychology of Cyberspace*, 2004)

Most career practitioners agree that one of the career profession's foundational and ongoing principles is that a face-to-face, facilitative relationship is an essential component for effective career counselling. There is also an unwritten assumption that visual clues and non-verbal communications are superior to written text in forming and maintaining an affective relationship. Do career practitioners believe that face-to-face interactions are deemed more effective than online ones, and John Suler and other online advocates are talking nonsense?

One response is typical of the views expressed by PAs who participated in the research undertaken for this study (see section 6, below):

> *'I'd have to say I sit firmly in the face-to-face camp here. So many cues are picked up at both a conscious and subconscious level that just can't be gained otherwise. I focus a lot on interview techniques in my work, and relationship building, body language, eye contact etc. is best learned while it is being demonstrated. Sure there's some great online tools, but counselling involves all the senses (…except maybe taste!).'*

The other response provides a different viewpoint:

> *'Surely it's about the needs of the client? For some, yes, face-to-face is always going to be the preferred option but having an OPTION of telephone guidance or online or self help or group planning or a combination of these surely means that we are more responsive to the needs of our clients. One of the real beauties of having this flexibility is that someone who lives in a remote area is still able to access services.'*

> *'For some people it might be that they start in a face-to-face environment and then move to telephone or email, or perhaps it's the other way – they start with email and as they develop their confidence and trust they may feel "ready" to meet face to face.'*

Whilst this service's engagement with flexible methods of delivery, including internet-based guidance, is relatively new, it provides an illustration of a large, national service addressing the staff capability issues that this venture implies, in a measured way. From this and other respects, it can be regarded as an interesting and excellent model of practice.

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[5] To follow the full online discussion about internet-based guidance, go to:
http://www2.careers.govt.nz/6339.html?&no_cache=1&tx_mmforum_pi1[action]=list_post&tx_mmforum_pi1[tid]=56&tx_mmforum_pi1[page]=1#pid310
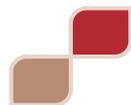
Where services deliver different types of internet-based services effectively, like telephone and web-based guidance, it is instructive to note that there is a tendency to develop specialist practitioners to operate in these areas.

2.5 Summary

The fast-changing digital landscape is increasingly exerting pressures on guidance services to embrace the potential offered, not least because technology-based services are now normalised into the lives of the user group they serve. Web 2.0 offers facilities to support collaboration, facilitate contributions and build communities, yet Connexions[6]/careers services in England have barely begun to exploit these facilities. There are, however, examples of practice, both nationally and internationally that help increase understanding of how delivery mechanisms can be introduced and built. Where services deliver different types of internet-based services effectively, like telephone and web-based guidance, it is instructive to note that there is a tendency to develop specialist practitioners to operate in these areas. It should also be remembered that whilst the use of these technologies undoubtedly offers considerable advantages, their introduction also poses challenges. Some relate to protecting the privacy and safety of young people. Others relate to building the capability and confidence of the practitioners delivering these services as well as ensuring appropriate levels of supervisory support for them. A third important category of challenges relates to high-level management support necessary for the shift in emphasis required by these services. This includes not only professional training support for practitioners, but ensuring that the technological infrastructure and technological support systems for the delivery of these services are adequate and fit for purpose.

The next section focuses on the existing evidence on the use of internet-based guidance, as well as the skills and competencies required to deliver effective internet-based guidance.

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[6] It should be noted that a clear distinction has been made here between Connexions Direct and Connexions services.

3. Skills and competencies for internet-based guidance services

'The expansion of ICT-based interventions demands new skills and a re-definition of existing skills on the part of careers guidance staff.'

(Barnes & La Gro, 2009, p.75)

3.1 Introduction

The use of internet-based services to deliver high quality, impartial guidance is increasingly emphasised by policy (see section 1.3 above). However, the use of these services in practice not only varies in the UK between and within the four home countries, but also between sectors of the guidance community that provide services for adults compared with those who provide services for young people in England (Barnes and La Gro, 2009, p.1). Where the use of internet-based guidance is fully integrated into other methods of delivery, including group work and face-to-face, it appears that the higher education sector is the most highly developed.[7] Careers services located in higher education institutions have been proactive for a number of years in developing the use of 'e-guidance' interventions with clients (e.g. Madahar and Offer, 2004). Alongside the steady increase in levels of usage of internet-based services in different parts of the guidance sector, there has been a 'proliferation of projects focused on enhancing the skills of careers guidance practitioners in their use of internet-based services' (Barnes & La Gro, 2009, p.75).

This section will first, review the published evidence on the use of internet-based guidance and second, discuss the types of skills and competencies required by practitioners in delivering internet-based services to their clients.

3.2 Using ICT in guidance

The gradual up-take in the use of ICT in guidance over the past three decades is well documented (for example, Becta, 2001; Closs and Miller, 1997; Hunt, 2003; NCET, 1994 and 1996; Offer, 1998), with a historical overview of its integration into practice from 1970 to 1997 also available (Offer, 1998). Additionally, literature is available on: implications for policy of internet-based practice (e.g. Commission of the European Communities, 2008; OECD, 2004; Watts, 2001; Watts and Offer, 2006); implications for guidance of internet-based practice (e.g. Evangelista, 2003 and 2006; Offer, Sampson and Watts, 2001; Plant, 2002); practical guides and checklists for using different methods of internet-based guidance (e.g. Offer, 2002; Madahar and Offer, 2004; Offer, 2004a, 2004b and 2004c; Sampson, Carr, Panke, Arkin, Minvielle, and Vernick, 2003; Sampson, 1997); checklists for evaluating the quality of different internet sources for guidance;[8] and bibliographies focusing on different aspects of ICT in guidance.[9]

However, because of the speed at which digital technologies are developing, keeping up to date with those most apposite for guidance, as well as understanding their potential impact, represents something of a challenge for service providers. Moreover, it has been noted that the skill sets

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[7] The Careers Advice Service (previously learndirect) offers telephone and web-needed guidance support, though does not offer any face-to-face interventions. The training needs of practitioners who offer only telephone and text-based guidance is significantly different from the training challenges associated with training practitioners offering a full range of integrated services. Whilst acknowledging the success and importance of the Careers Advice Service, examining the skills and competencies required for this delivery framework is beyond the scope of the current research study.

[8] For example: Evaluating the quality of websites; evaluating information; evaluating internet research sources.

[9] Bibliographies available include: ICT skills for guidance counselling: a bibliography from the UK; telephone based services & ICT in IAG: brief literature review; use of information communication technology (ICT); and E-Guidance in Information, Advice and Guidance.

of both guidance practitioners and their managers for responding to the changing interface between internet-based services and users' behaviours are currently 'broadly underdeveloped' (Hughes and Gration, 2009, p.7). The potentially detrimental impact on the guidance sector of this deficit is confirmed by an evaluation of the skills needs and training supply for careers guidance commissioned by Lifelong Learning UK (LLUK), which concluded that:

> *'At present, there is widespread acknowledgement and anticipation that the occupation is moving in the direction of more widespread ICT-based provision of Career Guidance services to customers and clients. However, the knowledge base of the Career Guidance workforce which is necessary to use ICT technology can be lacking… This is not conducive to the direction in which the occupation as a whole is moving, with its intended shift towards better and more substantial ICT-based public access through the internet and telecommunications.'*

(Cobbett, Dodd, Miller, & Shearer, 2009, para. 8.1.3)

The evidence is clear. Adequate training and staff support is both crucial and urgent for guidance services wishing to deliver a fully integrated service with an effective internet-based component. Equally important, however, will be high quality technical infrastructure and technical support; genuine commitment from all levels of management; as well as the systematic monitoring and evaluation of service delivery (Bosley, Krechowiecka and Moon, 2005).

Given the speed of change of internet-based methods to deliver guidance, the new generation access networks on the horizon (Department for Media, Culture and Sport and the Department for Business, Enterprise and Regulatory Reform, 2009) and the current skills gaps amongst the careers guidance workforce, what do we know already about the skills and competencies required for internet-based guidance?

3.3 Skills and competencies for the use of ICT

Evidence on the skills, together with the competency frameworks within which these skills would be situated, is currently limited for the careers guidance sector. The term 'competency' is used commonly as a catch-all term for skills, knowledge or attitudes that enable people to perform their job successfully. It is achieved through formal or non-formal education, work experience, vocational training or other means. A 'skill', therefore, contributes to competency in a work role and refers to a technique that contributes to the capacity to do something well. Skills are usually acquired or learned, rather than being innate. The distinction between skill and competency is important because it helps us understand that whilst many of the competencies needed by Personal Advisers to deliver internet-based guidance compared with face-to-face guidance are common, some skills may vary slightly – and the skills that vary will depend on precisely which internet-based service is being used.

A further useful distinction is between the skills and competencies required to deliver guidance and those required to use ICT. To deliver internet-based guidance, PAs will need both. For an understanding of the ICT skills and competencies required for internet-based guidance, it is necessary to look beyond the guidance to the ICT sector. Three main categories of e-skills have been identified:

- **ICT practitioner skills**: referring to the skills required to design, develop and maintain ICT systems
- **E-business skills**: referring to the skills necessary to exploit ICT for new business opportunities
- **ICT user skills**: required for the effective application of ICT systems by individuals. In general ('digital literacy').

(CEN, 2008)
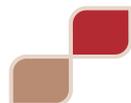
Bringing about fundamental attitudinal change in the workforce, at a number of levels, will be an essential first step.

Of these, user skills are clearly the most relevant for guidance, since practitioners will need to use ICT to deliver internet-based services. A recent national review of ICT user skills adopts the term 'digital life skills' to refer to the skills necessary for 'using a computer to safely enter, access and communicate information' (BIS, 2009, p.6). This review noted that (despite a number of successful projects and initiatives) a strategy is still lacking that addresses the digital skills gaps that have been identified in the general population and that the digital divide is widening for those most at risk, specifically: adults over 65 years old, the socially excluded; and those with few or no qualifications. A key barrier to upskilling the adult population for the technological challenges ahead is attitude to ICT. 'Resistors' and those who are 'not interested' are two problematic groups of adults who currently have access to ICT, but who do not use it. The notion that some adults who have access to technology persistently refuse to engage is relevant to guidance. Indeed, any workforce development strategy for this area of practice that limits its focus to the skills and competencies of practitioners is destined to fail. Bringing about fundamental attitudinal change in the workforce, at a number of levels, will be an essential first step. This applies not only to members of the guidance workforce (practitioners and their managers) who refuse to engage, or avoid engaging, with ICT, but also to those who believe that face-to-face interventions are superior to internet-based services and irreplaceable in terms of the overall benefits to clients (see also section 6, below).

So what are the ICT user skills required by the guidance sector to deliver internet-based guidance? A basic entitlement to digital life skills for all adults is proposed as the way forward, nationally, as follows:

- Awareness (i.e. of ICT technology and terminology)
- Practical skills (i.e. skills required to operate internet-based services).

(BIS, 2009, p.34)

A more detailed specification of 'digital skills' is listed below in Table 1, claimed to be the ones most commonly identified by teachers, parents, academics and children (Green and Hannon, 2007, p.36):

Table 1: Digital Skills		
Social/Personal	**Cognitive/Physical**	**Technical**
Communication	Multi-tasking	Hand-eye coordination
General knowledge	Logical thinking	Technical confidence
Creativity	Problem-solving	Web design/content creation
Collaboration	Trial and error learning	
Self-esteem		
Parallel processing		
Persistence		
Peer-to-peer learning		
Risk-taking		

Yet another approach, which focuses on the next-generation user skills, identifies two broad competency groups, which 'represent the underpinning foundations of personal e-confidence assumed to be required by all users' (Kay, McGonigle, Patterson, & Tabbiner, 2009, p.15). These are:

- **Digital Literacy** – including safe and social conduct
- **Digital Independenc**e – including management of the IT environment.

Three further broad and complementary areas of competency are associated with these two competency groups:

- **Enquiry** – including the ability to investigate resources
- **Participation** – including the ability to collaborate
- **Production** – including the ability to create media.

Thirty four linked competencies, within five groups, are specified as follows (see also Appendix 2 for further detail):

A. Enquiry
B. Digital Literacy
C. Participation
D. Production
E. Digital Independence.

(Kay *et al.*, 2009, p.16)

3.4 Skills and competencies for internet-based guidance

There is, then, a general and national challenge to be met before the UK population (particularly adults) is equipped for the digital age. The guidance workforce is part of the adult population, with many of the same generic ICT skill development issues. Some will require basic digital life skills training and a proportion will fall into the category of adults who have access to the internet, but who either 'resist' using it or are simply not interested. For internet-based guidance, in addition to these ICT user skills and competencies are the specialist skills and competencies required for guidance.

There have been a number of investigations into the skills and competencies required by guidance practitioners. Of course, the minimum standards required to practise guidance in England are specified by training organisations that accredit different qualification routes for the sector. For work-based training, these are expressed as competencies;[10] for off-the-job training, they are expressed as learning outcomes.[11] These vary as regards the particular emphasis placed on the skills and competencies required to use ICT. Ensuring that the use of ICT is positioned at the centre of initial training, whether work-based or off-the-job, is essential for future progress in the area.

Quite apart from the national qualifications framework, some studies have also been completed at the European level (e.g. Barnes, La Gro and Watts, 2009; Cogoi, 2005; Cedefop, 2009; McCarthy, 2001; McCarthy, Moller, and Beard, 2003; McCarthy, 2004; Reid, 2007), as well as at the international level (e.g. Lalande and DeBoer, 2006; England, Van Holte and Urbahn, 2008).

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[10] See, for example, the awarding bodies for the NVQ4 in Guidance (the Open University; City & Guilds; Edexcel; OCR; and SQA): http://www.icg-uk.org/nvq4.html
[11] See the Qualification for Career Guidance at: http://www.icg-uk.org/iqs/dlsfa.view/dldbitemid.598/QCG_and_QCGD.html
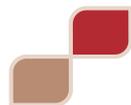
*ICT-based
training which is
specifically tailored
to the context of
Career Guidance
is lacking.*

Additionally and importantly, attention has also been given to ethical principles and guidelines for e-guidance delivery and usage (Ariadne, 2004; Vuorinen and Sampson, 2009). Yet overall there remains a lack of shared purpose and principles. Establishing these should begin with an attempt to come to some agreement on a common set of values (Greenhill, 2008).

Of those studies that highlight the importance of internet-based skills and competencies, many position the usage of ICT as core, or foundation, rather than optional. For example, a study of accreditation frameworks across Europe identifies: 'work effectively with ICT and keep understanding current' as a core competency (Reid, 2007, p. 64). The guide on the accreditation of career guidance produced from this study similarly identifies 'use ICT for career guidance purposes' as an element to be assessed common to every task within the overall framework (Reid and Ford, 2008). A second European study identifies: 'information and communication technologies', which are categorised as foundation competencies (i.e. competent use of various media: telephone and video communication; email and messaging; access to internet for resources; and use of the internet for interactions) (Cedefop, 2009, p.78). One other international study of competencies for educational and vocational guidance practitioners also positions the 'ability to use computers' as a core competency (Ferrer-Sama, Manzano and Repetto, 2008, p.154). European and international studies all, therefore, promote the importance of regarding internet-based competencies as core (or foundation) competencies for guidance practice, rather than as a peripheral or specialist skill area to be developed as an optional extra.

Despite this general consensus around the importance of ICT for guidance, there remains a gap in our understanding of the particular skill needs of career guidance, which are firmly grounded in a framework for guidance practice:

> *'ICT-based training which is specifically tailored to the context of Career Guidance is lacking. For example, whilst ICT competency training such as the ECDL is available, this is not provided through a grounded Career Guidance framework, and as such does not ensure the targeted development of skills specific to using a computer for Career Guidance purposes.'*
>
> (Cobbett *et al.*, 2009, para. 8.1.3)

An exemplar of competencies for internet-based guidance comes from a European project that has been developed as part of a training pilot with ten participants working across a range of guidance contexts (mainly Connexions). This framework does make reference to relevant theoretical frameworks (Constructivist and Experiential). The pilot was delivered in a higher education context for students on a postgraduate course in guidance (see Appendix 1 for further detail). It provides a map of ICT-related competencies for guidance practitioners under two broad competencies:

- Use ICT to deliver guidance
  - Use media software in the guidance process to meet clients' information needs
  - Use ICT media and software in the guidance process to meet clients' experiential learning needs
  - Use ICT media and software in the guidance process to meet clients' constructivist learning needs
  - Use ICT media and software in the guidance process to meets clients' communication needs
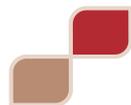
… further research is required to explore effective ways of supporting practitioners so that they can acquire the knowledge of how to use and adopt technologies.

- Develop and manage the use of ICT in guidance
  - Develop your use of ICT-related guidance solutions
  - Manage your use of ICT-related guidance solutions in a service context.

(Barnes, La Gro & Watts, 2010)

This framework is acknowledged to be at a developmental stage, with further work on an accredited module envisaged as one possible way forward. So far, however, work in this area has neglected well-established criticisms of the competence-based approach to work-based learning (e.g. Wolf, 1995). One of particular relevance in this context is the exclusive focus on level (whether a certain competence has been reached or not) rather than incorporating the notion that competence can be developed at a number of levels (including those below as well as above the assessed level). A developmental approach to competence would incorporate the concept of expertise existing across a range of criteria (e.g. through 'tec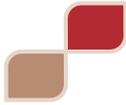hnically able to perform a task but with limited practical experience' to 'world class', where individuals are able to think through, and if necessary, bring about changes in the ways that tasks are tackled). Such an approach incorporates a commitment to continuous improvement, essential for this area of competence development (Brown, 2008) and is particularly relevant for internet-based guidance, both because it is an under-developed area and because skill sets will need to change rapidly in response to technological change.

3.5 Summary

Significant work has already been done on identifying the skills and competencies required for internet-based guidance, though these need to be regarded as two separate, but inter-related domains. One relates to ICT user skills and competencies needed by guidance practitioners in their work. The other relates to more generic guidance skills and competencies, some of which are relevant to internet-based guidance and can be transferred from one method of internet-based guidance delivery context to another. A consensus has emerged from the work done so far that the use of ICT needs to be regarded as integral to the overall professional capability required by a guidance practitioner. Progress is also being made on identifying the more generic guidance skills and competencies that need to transferred to this area of practice.

Despite the significant progress that has already been made on the identification of competencies and skills, further research is required to explore effective ways of supporting practitioners so that they can acquire the knowledge of how to use and adopt technologies (Price, Roussos, Falcão, and Sheridan, 2009). Evidence also indicates that the effective use of ICT will depend increasingly less on the specifics of user skills and more on a generic understanding around it, with skills and competencies forming only part of the foundations of confidence and adequate competence of ICT use (Dixon, 2009).

The next section introduces the fieldwork carried out for this study, explaining what was done, when, where and how.

4. Research study

A small-scale, mixed-method empirical study was undertaken into internet-based guidance as part of this investigation. The study explored the attitudes, perceptions and skills of a sample of Personal Advisers (PAs) and managers of Connexions services, together with a sample of young people. Data were gathered from participants during October and November, 2009. This section provides an overview of the methodology used to collect the data, sampling methodology, and development of the investigative frameworks, and gives some background to the research participants.

4.1 Sampling methodology

Purposive sampling methodology was used to recruit young people, with the help of PAs and managers from six fieldwork locations selected for the project. Participating Connexions services were identified to ensure variety in terms of delivery contexts and geographical locations across England. The key principle of informed consent guided the approach to fieldwork, with senior management contacted initially to negotiate access. Working constraints of practitioners and school timetabling were taken into consideration throughout. Advice was taken from each Connexions service regarding the particular location from which data should be collected, within the available timeframe. Consequently, four schools were visited to secure access to young people, as well as Connexions offices in two locations.

4.2 Development of investigative frameworks

Two investigative frameworks guided the data collection to ensure a consistency of approach across the six data collection sites:

- One for use during focus groups with young people. The objectives here were to explore the usage of internet-based resources by young people, their experiences of internet-based guidance services and their preferred methods of receiving guidance services. Various proformas were developed, to provide participants with structure and interest during the focus group discussions (see Appendix 3).

- The second investigative framework was for the collection of data from face-to-face interviews with PAs and managers. Here, the purpose was to examine the skills, competencies and organisational processes required by Connexions PAs and their managers to engage effectively with internet-based approaches to guidance (see Appendix 4).

Both frameworks were informed and underpinned by findings from the literature review.

4.3 Data collection and sample

Young people
Data were collected from a total of 46 young people across six fieldwork sites. Some of these young people were identified by a lead in the school and/or PA, whilst others volunteered to participate in the focus groups. In one instance, a group of young people who met regularly to discuss Connexions services agreed to a researcher joining the group and leading a discussion. The focus groups were held in school classrooms, PA offices located within the school and at Connexions Access Points. Focus group sizes ranged from five to eight participants; two focus groups were held in London (East Croydon) as a group comprising 15 participants was too large.
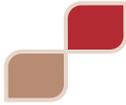
With the exception of two young people who were in employment, all were participating in compulsory education, post-compulsory education at college or undertaking work experience as part of their vocational training.

In all instances, a PA was present for all, or part of, the focus group discussion, but they did not participate. Focus groups lasted between 35 and 60 minutes.

Before the start of each focus group, participants were informed about the study (receiving a project summary sheet) and issues of confidentiality and anonymity were explained. Each participant was asked to sign a consent form to say they understood the project and how their contributions were to be used. Where appropriate, and permission had been sought, focus group discussions were recorded. Each young person who participated in the focus group discussions received a certificate of attendance. All requested a summary of the project findings.

Of the 46 young people participating in the focus group, 21 were male (46%) and 25 were female (54%) (see Table 2, below). The young people were aged between 12 and 17 years old. The groups were diverse in terms of minority ethnic groups, socio-economic background and different ability levels. With the exception of two young people who were in employment, all were participating in compulsory education, post-compulsory education at college or undertaking work experience as part of their vocational training.

In addition to the face-to-face focus groups, the DCSF Connexions Direct website, which runs a chat room for a Youth Panel, posted a set of questions to the young people participating in the online chat. Questions were provided by the project team and focused on:

- How individuals may get help, information and advice about careers, such as individual interviews with Connexions PAs
- How they would like to get help with careers and job searches
- Whether online information about jobs was considered trustworthy and what more information they would like
- Possible ways in which information, advice and guidance could be delivered online, such as through the use of email, online chat rooms and online experts available to answer questions
- Individual preferences regarding the way PAs communicate and offer services.

An anonymous transcript of the chat room discussion was provided for analysis.

Table 2: Participant characteristics by location, gender and year group									
Location	Total	Gender		Year group					
		male	female	Y8	Y9	Y10	Y11	Y12	Y13
Derbyshire	8	4	4				8		
South West	6	3	3		3	2	1		
Northumberland	6	2	4		2	2	1	1	
South East	6	4	2			2	2	2*	
London (East Croydon)	15	5	10	3	3			3	6
London (Harrow)	5	3	2			2		3	
Total	46	21	25	3	8	8	12	9	6

* These two participants were in full-time employment, but equivalent to Year 12.
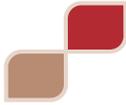
Diversity of the sample of young people was also evident in terms of socio-economic background and minority ethnic membership.

Personal Advisers (PAs) and Managers

Data were also collected from 11 PAs and six managers. The manager of each participating Connexions service agreed to be interviewed and also identified and approached PAs within their service to participate in the study. Interviews lasted between 30 minutes and 75 minutes and took place within either local Connexions offices or schools. Only one interview was conducted by telephone and in two instances PAs were seen as a group. Interviews were digitally recorded, where feasible. All participants were informed about the study (receiving a project summary sheet) and issues of confidentiality and anonymity were explained. Each participant signed a consent form.

In total 17 PAs and managers participated in the research, of which three were male (18%) and 14 were female (82%). All managers interviewed were experienced, with four or more years in post and variously held a Diploma in Careers Guidance, Qualification in Careers Guidance and/or a NVQ Level 4 in Guidance. All had participated regularly in continuing professional development activities and some had achieved additional qualifications, such as the Diploma for Personal Advisers. Eight of the PAs had qualified with a Diploma in Careers Guidance, Qualification in Careers Guidance and/or a NVQ Level 4 in Guidance. Of the remaining three, two were working towards their NVQ Level 4 in Guidance and one was a trainee PA who wanted to work towards their NVQ Level 4. A range of PAs were interviewed, including guidance PAs based in educational establishments, intensive and specialist PAs working with hard-to-reach groups, community PAs and PAs working at the Connexions Access Points.

4.4 Analysing the data

Each field researcher wrote up their interview and observation notes, producing summaries of the emerging themes. Where appropriate, data were recorded in Excel to enable easy comparison of data from each fieldwork location. Researchers then worked closely together to ensure the accuracy of interpretation and understanding, comparing notes and using interview recordings.

Analysis of data involved using an analytic framework derived from the literature review. Members of the project team coded the data manually to identify emerging themes and validate findings from the literature. This involved validating, further, the typologies of young people's use of ICT and the skills required for the competent use of ICT (Green and Hannon, 2007). It also focused on the usage of ICT by employees in organisations (including guidance organisations) developed from the MATURE project[12] and compared the competencies that Connexions PAs and managers identify for this area of their work with those categorisations already existing.

4.5 Summary

This small-scale pilot study adopted a mixed-method approach to data collection and analyses. Data were collected using investigative frameworks developed from, and grounded in, the literature. Six sites across England were visited to collect data from different geographical areas, which were rural or urban. Diversity of the sample of young people was also evident in terms of socio-economic background and minority ethnic membership. The age range was from 12 to 17 years. In addition to the sample of young people, 17 Connexions PAs and managers were interviewed about the skills and competencies required to deliver internet-based services. Focus groups with 46 young people provided an insight into their experiences and their expectations of careers guidance services. Results from the analysis of these data are presented in sections 5 and 6.

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[12] See Attwell, G., Bimrose, J., Brown, A. and Barnes, S-A. (2008) 'Mature Learning: Mash up Personal Learning Environments', Mashup Personal Learning Environments (MUPPLE08), 78–86, [Electronic/Internet Publication] http://ftp.informatik.rwth-aachen.de/Publications/CEUR-WS/Vol-388/attwell.pdf

5. Young people's use of internet-based services

Forty-six young people, aged between 12 and 17 years, participated in focus groups for the research and provided data on the types of careers guidance services they can access, their experiences and future expectations for services. Findings are also included from the analysis of the transcript from the online DCSF Connexions Direct youth panel discussion. An important element of these focus group discussions was to gain an understanding of how young people use ICT and access the internet.

This section provides analyses of the focus group data, focusing on: patterns of technology usage and access to the internet; levels and patterns of usage of internet-based technologies; young people's preferences for internet-based careers guidance provision; and young people's experiences of accessing guidance provision. Finally, it examines the evidence on young people's perceptions of particular internet services (such as chat rooms, podcasts, Facebook), together with the potential of these types of technological services for use in internet-based guidance.

5.1 Patterns of technology usage and internet access

Focus group participants were asked about where, and how, they accessed the internet and their levels of usage.

All participants were able to access the internet. The majority could access the internet at multiple sites: school, college and home. Only a few had their access restricted to facilities based at school. Accessing the internet from public locations, such as libraries, internet cafés and Connexions offices, was less common.[13] Several reported how schools block particular websites, such as Google. This was regarded as overly restrictive and hampered their ability to undertake work in some areas. For many, these types of restrictions were seen as a minor inconvenience, as they simply accessed sites at home. Only one focus group recognised the need for monitoring of internet usage and understood the need for restricted access at school. None of the young people reported restrictions on their personal access of the internet from home, but a few reported that parents/carers informally monitored time spent at the PC and encouraged them towards alternative activities if they had used the PC for too long. Some also explained how PCs were in open spaces at home, so that parents/carers could informally monitor browsing. As access at certain locations is restricted (e.g. school), there was a strong preference for accessing the internet from home.

None of the young people felt they spent excessive amounts of time on the internet. Some male focus group participants reported that they could spend up to five hours a day playing games and doing homework. General usage on a PC was estimated to be approximately two hours a day, most of which would be on the internet. The majority of young people reported that they accessed the internet daily or weekly.

5.2 Levels and patterns of usage of internet-based technologies

Advancements in technology permit access to the internet through a variety of devices, such as mobile phones and games consoles. This has become increasingly widespread with users less restricted in how and where they can access internet-based services. However, there are cost restrictions for many young people as charges for these services through these devices can

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[13] One Connexions Access Point reported that for some groups of young people the Access Point was the only place in which they could access a PC, the internet and a printer.

be high. Young people were asked about personal ownership of these devices and whether they used them to access the internet. Accessing the internet using mobile phones (n=12, 26%), games consoles (n=13, 28%) or portable media players (n=10, 22%) was uncommon amongst the participants (see Table 3, below).

The majority of young people in the sample (n=44, 96%[14]) owned a mobile phone. As expected, mobile phones are primarily used for telephone calls, texting and listening to music. Only one focus group participant reported that they used their mobile for video calls. Young people reported using a range of functions/applications on their mobiles, such as the camera, clock, radio, satellite navigation, alarm clock and playing games. However, only 12 young people (26%) reported using their mobile to access the internet. Costs of accessing the internet using a mobile were considered to be prohibitive. Mobile phone costs were paid by either parents/carers or the young people themselves. Bills ranged from £5 to £40 per month.

Differences in the use and attitudes towards new technology and mobile devices emerged, particularly when comparing older participants of the focus groups with the younger ones. Older participants made more intensive use of mobiles for web browsing, game playing and accessing social networking sites. Importantly, they used them for activities other than social contact and communication.

Table 3: Young people's access to digital technologies

Technology	Derbyshire n=8	South West n=6	Northumberland n=6	South East n=6	London (East Croydon) n=15	London (Harrow) n=5	Total n=46	%
Mobile phone	8	6	4 ~	6	15	5	44	96
calls	8	6	4	6	15	5	44	96
text	8	6	4	6	15	5	44	96
video	1						1	2
photos	8	5	2	4	1	5	25	54
music	8	6	4	6	11	5	40	87
internet	1	1	1	2 #	6	1	12	26
other*	1			6	8	5	20	43
Games consoles	8	6	4	6	10	5	39	85
online (not restricted)	3	2		2	4	2	13	28
online (restricted)								
Portable media player	6	4	2	6	9	4	31	67
online (not restricted)	2	1		6	1		10	22
online (restricted)								

* 'Other' refers to a range of functions/applications used on mobile phones, such as the camera, clock, radio, satellite navigation, alarm clock and games.
# Young people also used their mobile phones to access emails.
~ Two young people did not respond to the question.

[14] Two focus group participants did not respond to the question regarding mobile phone ownership.
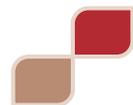
Accessing and using the internet is, for most, a daily or weekly activity and integral to social networking, communication, entertainment and seeking information.

A total of 39 of the young people (85%) owned a games console, but only 13 (28%) used this device to go online and none had access restrictions. Those using their console to go online did so to access the online multi-player games. A similar number of young people owned portable media devices (n=31, 67%), with only 10 (22%) using the device to go online. Again, none had restricted access. Overall, there was a preference for accessing the internet via a PC due to ease of navigation on a larger screen.

As part of the focus group discussion, young people were asked to complete a survey (see Appendix 3) on the types of internet services they used. This was to explore young people's engagement and confidence with the internet, plus whether any of the services were used to deliver internet-based guidance services. Popular internet services with young people included YouTube (n=44, 96%), MSN (n=42, 91%) and Facebook (n=40, 87%). MSN and Facebook are predominately accessed daily and YouTube weekly. Other popular services accessed less frequently included itunes, Bebo and online multi-player games. (For more detailed information on internet services accessed and frequency of use, see Appendix 5.) These services were accessed mainly as part of socialising and keeping in contact with peers and relatives, for entertainment purposes and for researching both general topics and direct searches linked to schoolwork. The speed at which these services offered communication and messaging was a recurring theme.

The levels at which young people are using the internet to purchase goods is much lower than general engagement with the internet. The majority of young people do not, or rarely, purchase items on the internet (n=30, 65%), compared with nine (20%) who reported that they often purchased goods on the internet.[15] Young people predominately use well known, branded websites to purchase goods such as music, films and books.

Overall, there is a high level of engagement amongst young people with ICT for various purposes – particularly the internet and online services. Accessing and using the internet is, for most, a daily or weekly activity and integral to social networking, communication, entertainment and seeking information. This suggests that utilising internet-based services could be an effective method for delivering online guidance services. However, the ways young people access and use ICT also need to be considered.

5.3 Young people's preferences for internet-based provision

To understand young people's preferences for internet-based IAG provision, there first had to be an understanding of how young people use ICT and the type of relationships they have with technology. A fourfold typology has been identified from research into the use of ICT by young people (Green and Hannon, 2007, see section 2.2 above). This typology of users (digital pioneers; creative producers; everyday communicators; and information gatherers) was used with the focus group participants to help us firstly understand young people's competence and confidence levels in using technology and secondly, identify their preferences for using technology (see Appendix 3 for the handout used). Of the 46 participants:

* 18 (39%) identified themselves as a mixture of *information gatherers and everyday communicators*
* seven (15%) as a mixture of information gatherers, everyday communicators and creative producers
* five (11%) as information gatherers and five (11%) as everyday communicators
* three (7%) believed that were a combination of all four

[15] The remaining seven young people (15%) did not respond to the survey question.
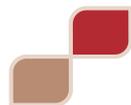
Despite high levels of ICT competence and usage, the young people in the focus groups expressed an overwhelming preference for face-to-face interaction and communication with Connexions PAs.

- one individual identified themselves as a mixture of an *everyday communicator* and a *creative producer*
- seven individuals did not respond or were unsure.

An exploration of this typology with young people confirmed how young people interact and use ICT for a variety of purposes. The majority use ICT to gather information and communicate, with its use for creative purposes, or for more adventurous purposes, less common.

Despite high levels of ICT competence and usage, the young people in the focus groups expressed an overwhelming preference for face-to-face interaction and communication with Connexions PAs. Many valued face-to-face sessions with Connexions PAs. For younger members of the groups, this was particularly important as they had concerns about a strange adult contacting them by phone, email, text or communicating with them online. Whilst older participants also valued the face-to-face contact, some felt that after initial face-to-face contact with a PA, email, telephone or text were acceptable forms of communication. Face-to-face contact was preferred initially as young people wanted to 'check out' the PA, as part of a process of building a trusting relationship.

5.4 Young people's experiences of accessing IAG provision

The IAG services that young people currently accessed were explored, together with their experiences of delivery. Whilst participants were aware of Connexions services, they also used a variety of methods independently to seek information on careers and jobs. A strong preference for using the internet to search for careers information emerged.

The majority of participants were aware of Connexions Direct and services offered. Compared with older members of the focus groups, younger members were less aware of services offered through Connexions websites. Year 9 and 10 students had typically been involved in group sessions about careers and options presented by their PA, whilst Year 11 and 12 students had had experience of individual interviews with a PA. Focus group participants had used the service for queries about potential careers. There was some awareness that Connexions could be contacted by telephone, but no one in our sample had actually contacted the service using this method. One young person reported that they had used the 'email an adviser' feature on the Connexions site, but had been disappointed when they had not had a response and had got the information they needed from other sources. Two reported emailing colleges with enquiries about particular courses and similarly had not received any responses.

Various school-based guidance activities had developed their understanding and awareness of options, jobs and careers. These included: introduction to Jobs4U and computer-aided guidance programmes; enterprise days; skills festivals; and open evenings at colleges. There was a positive response to their use of computer-aided guidance programmes and online careers programmes, such as Kudos, Routes Ahead and Fast Tomato, accessed during careers sessions led by PAs at school. Presentations from people employed in different occupations were also highly acclaimed. Young people particularly valued the opportunity to ask questions and enter into a dialogue with employers.

Many participants were aware of materials available in the careers libraries at their school or college and had used them to find information. There was a mixed response on the quality and quantity of information currently available. Others explained how they would not consider using a
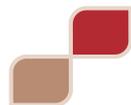
*It was generally
believed that
there was greater
potential for
careers information
to be provided on
the internet.*

library to search for information, since they used the internet routinely to research potential careers. Google was a popular search engine. Only a few expressed concerns about the reliability and validity of information found on the internet. Judgements on the quality of information were based on: reputation; how professional the website appeared; and on being able to trace company information on different sites. Some members of the Youth Panel[16] online chat reported that they looked for contact information on websites to check for reliability. Pop-up advertisements were regarded as suspicious, indicating a less than reputable website. The Connexions Direct website was used as a starting point for searches, because links were viewed as reliable. Links to further information were also considered important by members of the Youth Panel online chat. Although there was general dislike of the Connexions Direct website in terms of style and navigability from those who had accessed it, the available information and links to other sources were valued. Older participants of the focus groups reported accessing a variety of sites providing specific resources for careers guidance, including Prospects and UCAS. Online information accessed from the internet included: salaries; working hours; and holidays. Interestingly, the need to access information on qualifications was not raised as an issue.

The experiences of young people accessing guidance provision online led to discussions about the potential role of technology and their preferences for future possible delivery, which are explored next.

5.5 Perceptions of the potential role of ICT in IAG delivery

Focus group participants were asked to consider the potential role of ICT in guidance delivery and provision. There was some concern that face-to-face services would no longer be available, if ICT was introduced. One group in particular was concerned that the provision of more internet-based services would be at the cost of face-to-face services. Another group and those young people participating in the DCSF Connexions Direct Youth Panel online chat, were concerned that services should be delivered over a secure website. Discussions with focus group participants were, therefore, based on the idea that the internet could be used to extend existing provision and services.

Provision of online (multi-media) information
The potential use of the internet to deliver guidance provision was keenly debated by the young people participating in this study. It was generally believed that there was greater potential for careers information to be provided on the internet. They had either not received hard copy of information they needed, or hard-copy information received was too overwhelming and had, consequently, been discarded. Access to multi-media information would address a number of issues highlighted, including the needs of young people requiring literacy support and who value information delivered in different formats. Online information valued by the young people includes:

- Better online access to job vacancies, together with text notification of training or employment opportunities organised by region and type of job;[17]

- Information on where to find, and how to access, work experience. This is an important component of applications to college, university and jobs and also offered the best opportunity to assess whether a career in that occupation was worth pursuing;

- Online information that is short, easy to read and digest, but is also personalised; and

- 'Talking heads' or podcasts of people in particular jobs. However, many qualified this by adding that they would rather have face-to-face meetings so there is the opportunity to ask questions.

[16] From the DCSF Connexions Direct website.
[17] This was also identified as a particular need from the participants of the DCSF Connexions Direct online Youth Panel discussion.
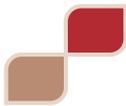
Young people were aware that Connexions Direct offered an email service and that they could email their school PA, but some had experienced non-responses and others were concerned about receiving emails from unknown sources.

Online information was regarded as 'convenient' by participants of the online Youth Panel chat, but this needed to be followed up with face-to-face communication, particularly when it came to applying for jobs and courses.

Chat rooms

The potential role of chat rooms in delivering services was also raised in the focus groups and Youth Panel discussion. Young people liked the idea of being able to ask questions and get an instant response. The idea of individual web-chats on a secure website with a local adviser was popular. A few had concerns about how they would find out about times and topics of chat rooms; one group suggested advertising in schools. Others were worried about security and certification issues. It was the view that the ability to ask questions can help with career decision-making. Suggested topics included: finding part-time work; university courses; and course-specific chats (e.g. medicine and NHS work).

Email

Young people were aware that Connexions Direct offered an email service and that they could email their school PA, but some had experienced non-responses and others were concerned about receiving emails from unknown sources. However, the idea of an email newsletter from the careers services detailing events, opportunities and resources in the local area was met enthusiastically.

Facebook

Facebook is a high-use service by the majority of young people participating in the focus groups. However, the majority of young people disapproved of the idea of Connexions having a 'Facebook' account. Facebook was seen as their space, and even if accessing a group was optional, it was seen as an intrusion into their space. Facebook was viewed as fun and about connecting with friends. Only two focus groups were interested in the idea of a Connexions Facebook and then only with the proviso that they could access it on demand. However, within these two discussions there was disagreement about the possible size of such a group and whether it should cover a region or county. These issues were not resolved.

Findings suggest that differentiated service provision based on age is the way forward. For instance, younger age groups are more concerned with gathering information about possible careers, and how this might affect their choice of subjects at school. This information could be delivered online and/or via email accounts. Older age groups are more likely to be concerned with the availability of courses, work experience or jobs. This information could be accessed through mobile devices. It is also important to note that mobile access to labour market information may be more important for those who do not intend to go on to higher education or those who are following a vocational programme. In all cases, PAs would need to be able to access up-to-date information and deliver it effectively and efficiently. Many older focus groups members believed there was potential for more personalised careers materials to be delivered through the internet.

5.6 Summary

There is a high level of engagement amongst the young people with ICT and it is, for many, integral to their social networking, communication and entertainment. All of the young people who participated in the focus groups were able to access the internet either at home, school or college and this activity was on a daily or weekly basis. Accessing the internet using mobile devices and games consoles is not widespread, but this is likely to change in the future as the costs of
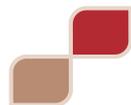
There is a general preference for accessing the internet via a PC, due to ease of navigation on a larger screen.

service and technology reduce. There is a general preference for accessing the internet via a PC, due to ease of navigation on a larger screen. Although parents/carers are monitoring young people's usage of PCs, personal access to the internet was not restricted at home. The speed at which online services enable communication and messaging, together with the range of available information, were recurring themes.

The findings from the focus groups suggest that integrating internet-based services could be an effective method for delivering online IAG services. However, the way young people access and use ICT should shape the methods of future online service delivery. The majority of young people use ICT to gather information and to communicate, which points to online multimedia information, the provision of online information and links to reputable sources of information. Differentiated service provision would need to be considered for different age groups of young people. Further, PAs would need to coach young people in how to judge online labour market information and be competent themselves. The potential use of ICT in guidance provision explored online (multi-media) information (which has a personalised element), chat rooms, email communication and Facebook. If these types of services are to be considered, PAs would need to develop skills and competencies in online communication and information sources.
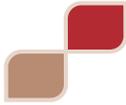
6. Personal Advisers' and managers' perceptions and experiences of internet-based guidance

The attitudes, perceptions and skills of a small sample of 11 Personal Advisers (PAs) and six managers of six different Connexions services were also explored as part of this study. This section presents findings for this part of the investigation, focusing on both the current and prospective use of internet-based technologies in service delivery; current patterns of ICT usage; and their (self-assessed) digital skill and competency profiles. For details of how data were collected, the demographic and qualification profile of the participants, please see section 4, above.

6.1 Current use of internet-based technologies in service delivery

The current use of internet-based technologies in service delivery for guidance is currently limited. Of the three purposes of the internet in guidance that have been identified (as a resource, as a medium for communication and for developing materials, Barnes and La Gro, 2010, p.3), its use as a resource was the most common. Most participants used the internet routinely for researching information for their work role. Some of this research was undertaken as personal research to extend their own knowledge (e.g. to search for factual information to be included in a Powerpoint presentation or for a parents' evening), but much was undertaken in direct response to client enquiries. Many PAs coached young people in their use of various websites for particular purposes – some by simply providing the url for sites recommended as part of guidance to research and some by sitting next to young people during a guidance interview and coaching their usage. URLs and/or information about the types of websites that needed to be researched were often included in Action Plans provided to young people after guidance interviews. Types of internet resources used included: CV writing; KUDOS; Jobs4U; UCAS; Unistats; job and work experience vacancies; and Area Prospectus.

The use of technology as a medium for communication was more limited amongst the participant sample. Email was used to a limited extent with young people, though more heavily used to communicate with other PAs. Where it was used with young people, this tended to depend on a relationship that had already been established. Texts were used typically to remind particular young people (those who were regarded as needing this type of prompting) of a particular appointment or commitment. Again, the point was made that text was used only with young people with whom a relationship had been established. One PA indicated that her employing organisation had a chat room on its website, but that she had no idea whether or not it was used by young people since she had never used it herself. A number of PAs indicated that Connexions Direct[18] offered young people the option of making contact using a range of technologies (phone, email, text, chat room, message board), implying that since this facility already existed, there was little point in duplication. The use of telephones was barely evident, except for specific tasks – like tracking progress. A number of PAs indicated how the use of telephones to contact young people had become increasingly problematic as a result of the profile given to safety issues for young people. This was thought to be particular problem for male PAs – where phoning young people (particularly young girls) at home to find out 'what they were up to' was regarded as suspect by parents. Another problem with the use of telephones was cost. If voicemail messages were left, they were often not accessed by the young person because of the cost of using voicemail services. This was, unsurprisingly, a particular problem for young people from lower socio-economic backgrounds.

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[18] Access at: http://www.connexions-direct.com/index.cfm?gclid=COaJ88HZ5Z4CFRKY2AodcQyoJg
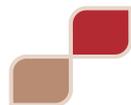
Many identified time as a restrictive factor in exploiting the internet more as a resource, or for using it to develop materials.

The use of the internet to develop resources was not identified by participants. Restrictions placed on PAs by the technology available to them could have been a contributory factor. One PA, who reported herself to be confident and skilled in the use of new technologies, indicated that the technology available to her in the workplace effectively ruled out its innovative use for any creative purpose. The hardware available to PAs in one Connexions company did not have sound cards, which presented a considerable restriction on its usage. One other PA spoke about the unreliability of technology in the schools in which she worked. So even where she was able to obtain material which included, for example, a video of someone talking about their occupational role, it was always 'hit and miss' as to whether the technology available in school would be available, working and compatible with anything she produced in the office. Using technology in careers education was therefore seen as a high risk strategy. Yet another PA talked about the use of Virtual Learning Environments (VLEs) in one school, to which they could not get access because it was a school-based system that excluded them.

Participants in this study recognised that their use of internet-based technologies was currently very limited in their work. Did they, therefore, see the potential to develop further this aspect of their practice in the foreseeable future?

6.2 Prospective use of internet-based technologies in service delivery

When asked about the prospective use of technology in their work role, participants were circumspect. Managers could see that increased levels of usage were inevitable in delivering services, partly because of policy pressures. They could also see barriers to implementation in terms of: the technology infrastructure available within their organisations; constraints on resources likely to be available in the near future to upgrade; the capability of the workforce, which required investment; and safety and privacy issues for young people. The pressurised operational contexts in which they worked simply defined other, more pressing, priorities, with a tendency to squeeze out any systematic focus on this type of developmental issue.

PAs were similarly cautious. Like their managers, they were quick to identify barriers to implementation that were out of their control, like the technological infrastructure to which they had access and the unpredictability of technology in the schools in which they worked. Many identified time as a restrictive factor in exploiting the internet more as a resource, or for using it to develop materials. So far as exploiting it more for communication purposes, most expressed the view that it was their strong preference – and more beneficial to young people – to deliver guidance face-to-face. They were able to identify, quickly and easily, reasons for maintaining the continued level of face-to-face interactions, with little or no usage of internet-based guidance. Rationales for retaining the status quo often represented a combination of factors. The benefits of ensuring that every young person who needed guidance was able to receive it when delivered systematically in a school context, rather than ad hoc, in a manner that required the young person to self-refer, was frequently cited. So were the benefits to the young people of being able to interact with an impartial, expert professional. This was not only regarded as a reliable method of providing the advice and guidance required, but also gave the young person the experience of interacting with an adult – providing a valuable opportunity to practise and develop interviewing skills.

Some PAs were able to identify potential internet resources that would motivate them to engage more with ICT. These included: work experience opportunities; podcasts; and standard information leaflets online (rather than in hard copy). One PA could see the potential value of ICT in delivering services to young people who are hard to reach.
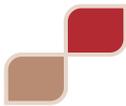
… a five-fold typology has been developed to describe the ways in which employees develop, share and store knowledge relevant to various employment functions.

6.3 Patterns of ICT usage

The patterns of ICT usage by PAs and managers were explored, using a framework developed as part of a separate research inquiry.[19] From fieldwork carried out across a range of employer organisations, including careers organisations, a five-fold typology has been developed to describe the ways in which employees develop, share and store knowledge relevant to various employment functions. This typology was used as a basis to discuss perceptions and attitudes to the use of ICT in this study.

A description of the typology in Box 1 follows:

Box 1: Knowledge-maturation typology	
Serendipitous	Knowledge sharing and maturing is ad hoc and haphazard. Knowledge typically developed and shared as part of a development process for a product or service within the organisation or as part of training. IT is used in an ad hoc manner and serves as a tool to support work processes.
Conscious	Communicating and sharing information both internal and external to the organisation accords with an explicit (organisational) strategy and is shared or disseminated in many different formats. IT is used in a conscious and, almost, planned manner so is well integrated into work processes.
Network	A heavy reliance on information/knowledge being shared within local networks. Individuals play a central role in this process of knowledge maturation as holders of the information and knowledge, determining what would be shared, when and with whom. Individuals often unaware of what they know, or how they acquired this knowledge. IT is integrated to the networks and sharing of information: for instance, groups have been set up in email accounts.
Isolationist	Information and communication throughout the organisation is limited to an individual or team and not shared across the organisation. IT is used to perhaps store information, but functionality is not necessarily taken advantage of.
Visionary	Where an individual, or group of individuals understand the potential and possibilities for the use of ICT in the process of knowledge maturation both within the organisation and externally, but who are currently constrained by policy, finances or organisational culture.

PAs and managers (n=17) were asked to read these descriptions and comment on whether any represented an accurate portrayal of the way they interacted with technology in the workplace. Respondents found the typology easy to understand and applicable to their own situations. Most indicated that their style of ICT usage typically represented a mix of types. Specifically, responses were:

- Serendipitous and conscious (n=5)
- Serendipitous (n=1)
- Conscious and network (n=4)
- Conscious, network and visionary (n=1)

[19] The MATURE project (2008 – 2012) is a European funded (FP7) investigation of the ways in which ICT can support knowledge maturation within organisations. For further information, go to: http://mature-ip.eu/
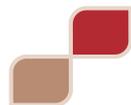
Whilst it is useful that existing work positions ICT competency unequivocally as foundation (or core), this has not helped identify particular skill sets.

- Serendipitous, conscious, and network (n=3)
- Serendipitous and visionary (n=1)
- Isolationist (n=1).

[Please note: there was one non-response.]

Many noted how their use of ICT was 'conscious', in the sense that there were routine and mandatory functions that had to be performed and that required a minimum level of engagement with technology (e.g. inputting data and production of Action Plans). However, the type that was most commonly identified, in combination and on its own, was 'serendipitous'. This provides a tentative indication that participants commonly interacted with technology, but reactively – that is, not in a way that was strategic, systematic or integrated into their professional roles. One PA who identified her style of ICT usage as 'visionary' explained that this is how she interacted with technology in her private life, but that she was prevented from operating in this way in the workplace because of the limitations placed on her by the technology available. One manager identified 'serendipitous' as their dominant style of interacting with technology, going on to disclose that they did not like having to use it at all. One other manager indicated that they worked predominantly in an 'isolationist' way because they had to work with much confidential information that could not be shared or worked on collaboratively.

Patterns of ICT usage reflected, therefore, routine requirements for participants to engage with technology for mandatory purposes (e.g. inputting data into management information systems), but when it came to its use in a proactive, innovative and creative way to deliver guidance, this was constrained and restricted – often by the contexts in which they operated. Given that PAs did not see increased engagement with technology as an immediate professional priority, what was their view of their current skill levels for this area of practice – should the requirement to deliver services more efficiently and flexibly become a reality?

6.4 Digital skill profiles of PAs and managers

Little research exists on the existing skills and competencies required by PAs to deliver effective internet-based guidance. Section 3, above, explored how specialist research is limited to the identification of broad ICT competencies, as part of investigations into the competencies (or standards) required to deliver guidance. Whilst it is useful that existing work positions ICT competency unequivocally as foundation (or core), this has not helped identify particular skill sets. A more detailed specification of 'digital skills' is provided by Green and Hannon (2007, p.36), which are claimed to be the ones most commonly identified by teachers, parents, academics and children. In the absence of any other analytical framework, this was used to encourage PAs to undertake a self-assessment of their digital skills profile. A summary of this self-assessment can be found in Table 4, opposite.

From this self-assessment, it can be seen that the overwhelming majority of participants scored themselves either as 'high' or 'medium' for most essential digital skills. It is only the skills of web design and content creation for which a majority scored themselves as requiring most support. This is encouraging, since it indicates that PAs are well positioned to develop the confidence and additional skills to engage effectively with this area of practice. The framework also supports the argument that the effective use of ICT will depend increasingly less on the specifics of user skills and more on a generic understanding, since skills and competencies form only part of

There is also a need to explore effective ways of providing support for practitioners so that they can acquire the knowledge of how to use and adopt technologies.

Table 4: PA and manager self-assessed digital skills competency			
Digital Skills (n = 17)	**Self assessed competency level:**		
	high	**medium**	**low**
Social			
Communication	16	1	
General knowledge	8.5	8.5	
Creativity	8	8	1
Collaboration	16	1	
Self-esteem	12	5	
Parallel processing	5	11	1
Persistence	13	4	
Peer-to-peer learning	13	4	
Risk-taking	2	14	1
Sub-total (%)	**61**	**37**	**2**
Personal Cognitive			
Multi-tasking	9	8	
Logical thinking	8	8	1
Problem-solving	8	9	
Trial and error learning	7	10	
Sub-total (%)	**47**	**51**	**1**
Physical Technical			
Hand-eye coordination	9	7	1
Technical confidence	2	9	6
Web design/content creation		5	12
Sub-total (%)	**22**	**41**	**37**
Total (%)	**50**	**41**	**8**

the foundations of confidence and adequate competence of ICT use (Dixon, 2009). Training support is, therefore, required to raise levels of confidence and awareness of already existing skills and competencies and how they can be used (digital literacy), together with some training input on relevant practical skills, like web design or content creation (BIS, 2009; Kay *et al*., 2009). Additionally, training support that focuses on the transferability of existing key guidance skills (like summarising and listening skills for telephone guidance) is indicated. There is also a need to explore effective ways of providing support for practitioners so that they can acquire the knowledge of how to use and adopt technologies (Price, Roussos, Falcão and Sheridan, 2009).
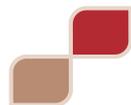
Fortunately, the skills needed to engage effectively and efficiently with technology seem to be well developed amongst Connexions staff, with only specialist technical skills under-developed.

6.5 Summary

Findings from this small-scale research study provide valuable insights into ways that the existing skills and competencies of PAs and their managers to deliver internet-based guidance can be supported and developed. Indications are that current levels of engagement with ICT for the delivery of services to young people are low and (with some notable exceptions) that neither practitioners nor their managers regard this as a pressing developmental need for the immediate future. Fortunately, the skills needed to engage effectively and efficiently with technology seem to be well developed amongst Connexions staff, with only specialist technical skills under-developed. It will, however, be essential to win the hearts and minds of practitioners by persuading them that the benefits of up-skilling for these methods of delivery outweigh the investment of effort and resource required to make the transition to more flexible methods of delivery. One PA commented on how their future use of ICT would depend on the benefits derived being greater than the effort required to engage with it. This would be true for most of the participants in this study and has implications for the extent to which they are likely to participate in voluntary training. Yet training support is clearly needed to ensure that PAs are able to see themselves, and as importantly be seen by young people, to be technology-confident and effective expert providers.

Research findings from this study also emphasise the central role of management, providing system leadership, change management and innovation in this area and ensuring that the technical infrastructure is fit for purpose, able to support high levels of sophisticated usage. This also has implications for the funders of public services who regard internet-based guidance as a policy priority.

Finally, it should be emphasised that the extent to which PAs are able to deliver efficient and effective internet-based guidance will always depend, in part at least, on the extent to which their clients are engaged and empowered. This aspect of provision is likely to be largely outside the control of Connexions services, since fundamental social equity issues are implicated regarding equal access to technology, in the same way that policy issues regarding privacy and safety are implicated.
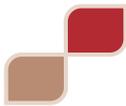
Researching labour market information using web-based technologies to research, aggregate, present and disseminate for different purposes for guidance practice is not commonly specified.

7. Conclusions and recommendations

Future guidance practice

Technology has changed the way we live our lives and the rate of this change will only accelerate. New technologies have brought a profound shift in the use of the internet from being primarily a resource, to providing support for varied types of interactions with others, independent of time and space:

> *'Collaboration, contribution and community are the order of the day and there is a sense in which some think that a new "social fabric" is being constructed before our eyes.'*
>
> (Anderson, 2007, p.4)

Given that the target client group of young people for Connexions/careers services has become accustomed to using the internet routinely, they will expect the support that they require to make successful transitions from education into the labour market to be delivered flexibly, with the option of accessing these services through the internet: 'It's the careers world that's going to have to accommodate technology, not the other way round' (Vuorinen, 2009). This represents a challenge for Connexions/careers services, for which engagement with internet-based guidance services is currently at a relatively low level.

A training and education programme to raise awareness of the potential of internet-based guidance services amongst Connexions PAs and their managers, together with encouragement to seek training support to address skill gaps is urgently indicated.

Terminology for internet-based guidance

A degree of ambiguity exists around the terminology currently used to describe the use of ICT in guidance. Internet-based guidance, web-based guidance and e-guidance are three examples of descriptions used in the literature. Further, internet-based services listed under these descriptions vary. Commonly, emails, telephone lines and chat rooms are regarded as key internet-based guidance services. Researching labour market information using web-based technologies to research, aggregate, present and disseminate for different purposes for guidance practice is not commonly specified. Emails, telephone lines and chat rooms are increasingly available to young people through Connexions websites, though the extent to which PAs engage with their use with young people seems patchy. A more comprehensive listing of internet guidance includes: email, chat, newsgroup, website, SMS (text messaging), telephone and software (i.e. CD-ROM and free-standing computer programs) – though this does not include all options available through Web 2.0.

Connexions organisations wishing to motivate PAs and their managers to integrate new technologies into practice with young people will need to specify more precisely what is meant by the use of the term 'internet-based guidance' in their delivery context.

Young people's expectations

Children and young people are developing a wide range of skills, knowledge and understanding that represent a significant shift in the ways they interact and communicate. Ninety-five per cent of
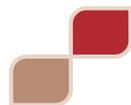
The potential of harnessing Web 2.0 technologies to enhance services to young people has been largely neglected by Connexions services to date.

young people now claim to own a mobile phone, for example, with the use of texting a common medium for communicating. New technologies are being used by them to: maintain social interactions and a sense of community; contribute and collaborate for the production of content for various purposes; disseminate knowledge; share materials; provide entertainment; and sustain and expand knowledge networks. Research evidence indicates different preferences of varied age groups of young people, with those who are older expressing a clearer preference for the use of mobile devices (e.g. mobile phones with internet access).

Young people of different ages routinely make use of different types of Web 2.0 technologies; the purposes seem to vary slightly by age. This differentiation needs to be reflected in the internet-based services made available to young people by Connexions.

New technologies for guidance

Recent policy documents provide a clear mandate regarding the urgent requirement of Connexions services to move towards more flexibility in their delivery of services. This urgency, however, was not reflected in the responses of participants in this study, from whom there was little indication that their practice needed to shift more towards internet-based guidance in the foreseeable future. Many PAs used the internet extensively as a resource in guidance. A smaller number used telephones and emails to contact young people, rather than using these two methods as a medium for delivering guidance. The safety of young people was highlighted as a limiting factor for more extensive use of these technologies. The use of the internet to develop materials was found to be the least well developed purpose for internet-based technologies, partly because of the restrictions of technology available. For example, the lack of sound cards and/or the incompatibility of schools' ICT systems with Connexions' systems place restrictions on what is possible.

The potential of harnessing Web 2.0 technologies to enhance services to young people has been largely neglected by Connexions services to date. However, greater engagement with a greater range of functionalities will minimally require carefully planned training support, commitment from senior management, adequate technical support and (in some cases) investment in technological infrastructure. Attention will also have to be paid to privacy and safety issues.

Skills for internet-based guidance

A distinction needs to be made between the generic guidance skills required by Connexions PAs to deliver internet-based guidance and ICT user skills. Generic guidance skills need to be transferred selectively and adapted to different operational contexts. For example, telephone guidance requires highly developed active listening skills to establish client need, whilst skills of analysing text-based communication are required for the same purpose when working with text-based methods such as email and chat rooms. Other guidance skills are common across all methods of internet-based guidance (e.g. empathy, contracting, challenging), with ICT user skills (to operate a telephone helpline or to lead discussions in a chat room) needed in parallel. Generic digital skills classifications are helpful in identifying skills gaps amongst PAs. Using one such classificatory system, the research study found that the established digital skills profiles of PAs were encouraging, with only specialist technical skills (like web design) identified as a particular gap.
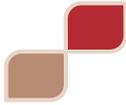
Developing and refining the skills needed for internet-based guidance is clearly necessary, though the focus of successful training is likely to be on the transfer and adaptation of currently existing skills (rather than the development of completely new skill sets) together with awareness raising and increasing motivation. The particular skills that need to be developed will depend on the type of internet-based service being offered.

Competencies for internet-based guidance

European and international work has provided various templates of broad sets of competencies for guidance, in which ICT competency now features as 'core' or 'foundation'. At the national level, the use of ICT should also be integrated into all forms of initial training as centrally important. However, a competency-based approach to up-skilling and re-skilling in this area needs to address well-founded criticisms that emphasise the importance of adopting a more developmental approach to capacity building, rather than one that encourages the belief that competence has simply been acquired or not acquired. Further, there is currently a lack of any coherent and comprehensive identification of skill sets for internet-based guidance that is firmly grounded in a framework for guidance practice.

ICT competencies need to be embedded as a central element of national standards and qualification frameworks. There is an urgent need for competency training to be grounded in a solid framework of guidance practice and for a developmental approach to be taken that incorporates a commitment to continuous improvement.

Perceptions of young people

Young people who participated in the research expressed an overwhelming preference for face-to-face interaction and communication with Connexions PAs, despite high levels of ICT competence and usage. For younger members of the focus groups, face-to-face contact was important as they had concerns about an unknown person contacting them by phone, email, text or communicating with them online. Older members also valued the face-to-face contact, though after initial contact with a PA email, telephone calls or text were acceptable forms of communication. However, the use of the internet via Connexions for delivering information was attractive to young people and increased use of chat rooms was regarded as desirable.

Internet-based guidance services offered by Connexions/careers services need to be differentiated according to the age group of young people. The majority use ICT to gather information and to communicate, which points to the need for well developed online multimedia resources, the provision of high quality online information and links to reputable sources of information.

Barriers to implementation

Both managers and PAs were cautious about further engagement with internet-based guidance. Reasons given related mainly to privacy and safety issues for young people. In addition, the technology available placed restrictions, sometimes severe, on the manner in which ICT could be used for guidance delivery. The core values and attitudes of many PAs focused on their belief that

face-to-face guidance is a superior means of interacting with clients. It would appear that neither managers nor PAs felt under particular pressure to change their practice towards increased use of ICT.

However, the extent to which PAs are able to deliver efficient and effective internet-based guidance will always depend, in part at least, on the extent to which their clients are engaged and empowered. This aspect of provision is likely to be largely outside the control of Connexions services, since fundamental social equity issues are implicated regarding equal access to technology in the same way in which policy issues regarding privacy and safety are implicated.

Overcoming existing barriers to the implementation of effective internet-based guidance practice need to be prioritised and addressed at both the national and organisational levels.

Appendices

Appendix 1: Summary of the ICT skills 2 map of ICT-related competencies for guidance practitioners
(Barnes and La Gro, 2010). Reproduced with kind permission

Table 5: Summary of the ICT Skills 2 map of ICT-related competencies for guidance practitioners
Unit 1: Use ICT to deliver guidance
1.1:   Use ICT media and software in the guidance process to meet clients' information needs 1.1.1:   Select and use visual, audio and text-based information 1.1.2:   Make visual, audio and text-based information for clients 1.1.3:   Enable clients to select and use visual, audio and text-based information for themselves 1.1.4:   Enable clients to create visual, audio and text-based information 1.1.5:   Share information with other partners in clients' networks of support
1.2:   Use ICT media and software in the guidance process to meet clients' experiential learning needs 1.2.1:   Select and use ICT media and software that will give your clients access to virtual and simulated career experiences and situations 1.2.2:   Create experiential learning activities and simulations for your clients using ICT 1.2.3:   Enable clients to access virtual and simulated career experiences and situations using ICT media and software
1.3:   Use ICT media and software in the guidance process to meet clients' constructivist learning needs 1.3.1:   Select and use ICT media and software to assist clients in structuring and managing their career thinking and development 1.3.2:   Create activities and resources using ICT media and software that will assist clients in structuring and managing their career thinking and development 1.3.3:   Enable clients to use ICT media and software to assist them in structuring and managing their career thinking and development
1.4:   Use ICT media and software in the guidance process to meet clients' communication needs 1.4.1:   Select and use ICT media and software for establishing and maintaining client communications 1.4.2:   Create activities and resources using ICT media and software for establishing and maintaining client communications 1.4.3:   Enable clients to use ICT media and software to establish and maintain communications with you and others who can help them in their careers 1.4.4:   Select appropriate channels for communicating and consulting with others who can support the client in the guidance process
Unit 2: Develop and manage the use of ICT in guidance
2.1:   Develop your use of ICT-related guidance solutions 2.1.1:   Use ICT media and software in different combinations to achieve guidance objectives 2.1.2:   Integrate ICT and face-to-face approaches, where appropriate, to ensure an effective guidance process for clients 2.1.3:   Identify the training and support needs of clients to enable their use of ICT in guidance 2.1.4:   Carry out administrative tasks related to the use of ICT media and software 2.1.5:   Monitor, review and evaluate ICT-related guidance solutions using ICT 2.1.6:   Address your own training and support needs to enable you to use ICT in guidance
2.2:   Manage your use of ICT-related guidance solutions in a service context 2.2.1:   Identify opportunities and constraints in the service's use of ICT in guidance 2.2.2:   Apply safeguards to protect clients using ICT for guidance purposes 2.2.3:   Identify ways of ensuring fairness and inclusion in providing a guidance service using ICT 2.2.4:   Maintain service records using ICT-based management information systems 2.2.5:   Promote community awareness and take-up of the service's ICT-related guidance provision 2.2.6:   Collaborate with professional colleagues in the delivery and development of ICT-related guidance 2.2.7:   Collaborate with ICT developers in the organisation and development of ICT-supported client services

Appendix 2: New Generation User Skills
(Reference: Kay *et al*., 2008, p.16)

Table 6: New Generation User Skills – 34 competencies
A. Enquiry
A1. Formulate questions as online enquiries A2. Find, gather and collate information A3. Research and evaluate online content and services A4. Manage references (e.g. bookmarks) in context A5. Explore a virtual scenario or simulation A6. Use information to support decision making
B. Digital literacy
B1. Understand online safety, security and privacy B2. Recognise social responsibility (ethics) B3. Understand and respect digital property rights B4. Compose communications to suit target recipients B5. Learn critically from reviews of published work B6. Organise, format and enter data
C. Participation
C1. Communicate and share information C2. Create and maintain an online identity C3. Submit ratings, reviews and recommendations C4. Contribute appropriately to networked community activities C5. Use shared applications C6. Work collaboratively online towards a goal C7. Moderate and manage the activities of an online group
D. Production
D1. Create digital artefacts (diagrams, designs) D2. Capture digital media (visual, audio) D3. Edit digital media (visual, audio) D4. Integrate (mash-up) applications and content D5. Publish digital content (web, PDF, e-book) D6. Enable content to be discovered online D7. Control versions of digital assets
E. Digital Independence
E1. Understand technology operations and concepts E2. Install, link and network hardware E3. Install and update software E4. Manage personal infrastructure and data E5. Use a range of digital and interactive devices E6. Make appropriate ICT tool selection E7. Explore and self-learn digital technologies E8. Synchronise devices and data

Appendix 3: Protocol to structure the focus group discussions with young people

1. Introduction

1.1 Personal introductions: who we are; where we're from; why we're here, etc.

1.2 Provide an overview to the project – drawing on the purpose, aims and objectives of the project as follows – (adapting language and delivery method for the target group).

The purpose of this project is to:

- Research the skills and processes required by practitioners and managers to respond to the changing interface between internet-based guidance and individual user behaviours.

- Identify the additional or specialist needs of Connexions practitioners in providing careers and guidance-related interventions to young people through internet-based delivery methods.

The objective specified for the research is 'to investigate the communication skills and other technical competencies needed to deliver guidance via internet-based methods'. Research questions that follow are:

- What skills and processes are required to manage and respond to the changing interface between internet-based guidance and individual user attitudes and behaviours?

- What additional or specialist needs of Connexions practitioners exist for the provision of careers and guidance-related interventions to young people through internet-based methods?

- What organisational infrastructure is essential to support the effective deployment of skill sets developed by Connexions practitioners?

1.3 Explain confidentiality, etc.

1.4 Ask permission to record discussion – explain about digital recorder.

1.5 Ask if there are any questions so far.

2. Contextual data

2.1 Note where the focus group being held (geographical location).

2.2 In what type of organisation? (Connexions office; school; other)

2.3 Basis of participation of the YP (Voluntary; part of a lesson group; specially organised; etc.)

2.4 Other people present (teachers; Connexions representatives; etc.)

2.5 Length of session

3. Demographic data

3.1 Age/Year Group   Y7   Y8   Y9   Y10   Y11   Y12   Y13
Other (specify)

3.2 Number of YP in the group

3.3 Gender balance

3.4 Other information about the focus group session

4. Use of mobile digital technologies (for accessing internet-based careers services)

4.1 Mobile phones:
Around one in eight young people who own or have access to a mobile phone say they use the mobile phone to go online (14%). Two thirds say they have 'open' access, whilst 27% say they have 'gated' access. (Ipsos MORI, 2009)

- Do they have mobile phones? For what do they use them: (calls; texts; video calls; photos; music, other?)
- For those who say 'yes', do they use them to go online?
- For those who answer in the affirmative – do they have 'open' access to the internet or 'gated' access? (e.g. No WAP browsing/online access at all; access only to certain websites; only 'gated' access).

4.2 Games consoles:
With 77% of young people in the UK having access to a games console, gaming is one of the most common forms of digital entertainment (Green and Hannon, 2007, p.35). One in six young people who own or have use of a games console say they use it to go online at least occasionally (16%). Boys who own or have use of games consoles are four times more likely than girls to say they do this (23% compared with 6%) (Ipsos MORI, 2009).

- Do they have games consoles?
- For those who say 'yes', do they use them to go online?
- For those who answer in the affirmative – do they have 'open' access to the internet or 'gated' access? (e.g. Internet for online games only? Only certain websites?)

4.3 Portable media player:[20]
Similarly, 15% of young people who own or have use of a portable media play say they use it to go online at least occasionally.

- Do they have portable media players?
- For those who say 'yes', do they use them to go online?
- For those who answer in the affirmative – do they have 'open' access to the internet or 'gated' access?

---

[20] A portable media player is an electronic device that can be used to store and play digital media files (ie.audio and video content). Some models are also internet enabled.

4.4 Where and how else do you access the internet?

Restricted access

5. Careers guidance (Information, Advice and Guidance) Services

For many young people, the use of digital technologies is deeply ingrained in their lives. They use them simply to make their lives easier. In particular, they use these technologies to: maintain existing networks; search for homework (on Google); play games.

5.1 What careers (IAG) services do you have available?

5.2 What careers (IAG) services have you actually used so far?

5.3 How are these services currently delivered?:

- face-to-face
- in group (where? school, college, Connexions office, other)
- by telephone
- by email
- by the internet (how?)
- through a library (e.g. paper-based information. Where? school, college, Connexions office, other)
- other (please specify)

5.4 Would they like to gain more access to these services using internet-based technologies?

If so, which careers services (IAG) would you like to have available?

Which technologies would you prefer to be used for these services?

**5.5** How would you like Personal Advisers/careers guidance providers to behave/ communicate with you?

6. Types of internet usage

6.1 Services currently used

Do they understand?

Web 2.0 refers to a 'second generation' of internet-based services that emphasise online collaboration and sharing among users, often allowing users to build connections between themselves and others.

Social networking refers to the aspect of Web 2.0 that allows users to create links between their online presence – such as a webpage or a collection of photos. These links may be through joining online groups or by assigning direct links to other users through lists of 'friends' or contacts.
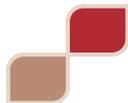
Which of the following are used? Regularly?

Social networking:

Bebo is a popular social networking site often for younger users with over 22 million registered members. It is estimated that about five people register every second (although a much smaller number of members are regularly active on the website).

MySpace is a fast-growing social networking site with over 100 million registered members globally. It offers an interactive, user-submitted network of friends, personal profiles, blogs, photos, music and videos.

Facebook is a social networking site that uses corporate email addresses, particularly university emails, to verify users as members of already existing social networks and then becomes an online extension of that network.

Piczo is another social networking and blog site distinguished by its 'walled garden' approach, protecting user privacy by not providing search facilities for users.

Online chat:

MSN is one of a range of services that allow text messages to be sent from one computer to another instantly so that a conversation can be carried out over the internet.

IRC or **Internet Relay Chat** is a communication tool similar to MSN in that it allows the instant exchange of text messages. However, unlike MSN it allows strangers from all over the world to meet online and to communicate.

Share and manage different types of media (audio, video, photographic):

Podcasts are audio or video recordings that are downloaded automatically by software on subscribers' computers every time a new edition is posted on a website. Easy to produce and distribute, the consumer can, and often does, turn creator.

YouTube allows people to post their own videos for others to watch, to give their opinions on the content that is there, and to make links between videos. YouTube has grown into an entertainment destination with people watching more than 70 million videos on the site daily.

Flickr is a photo-sharing website. Not only an online photo album, its focus on the art of photography encourages and supports the growth of social networks through common creative interests.

iTunes is music library management software that allows users to import music from CDs, organise it into playlists, play music, purchase it from an online store and load it onto their iPod.

Edit different types of media:

GoogleVideo is similar to YouTube. It allows users to upload their own content, provides access to stock content and a marketplace for music videos, TV episodes and trailers.

iMovie is a piece of software designed to make editing and producing professional-looking videos intuitive and quick, in order to reduce obstacles to home video creation.
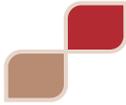
Writing and recording:

Wikis are websites where content can be edited by any visitor to the site. An example of a wiki is Wikipedia – an online encyclopaedia providing free content to all visitors and to which any visitor can add their own information or make corrections simply by clicking the 'edit this page' link.

Blog is a website that often takes the form of an online personal diary. The word 'blog' is derived from 'web log' and blogging subjects are as varied as human interests.

Del.icio.us is a social bookmarking website. It enables individuals to save their favourite articles, blogs, music and reviews; share them with friends, family, co-workers and the del.icio.us community; and browse other people's favourites.

Online gaming:

Online international multiplayer games take place in a computer-generated imaginary world. Players guide their custom-designed character through a virtual life. They are open-ended games that provide players with almost limitless possibilities. Popular examples include World of Warcraft and Secondlife.

Xbox and Nintendos are a cross between a VCR and a computer. These are machines whose primary, and until recently only, purpose was to run games. Either plugging into a television or existing as portable handheld units, these were often the first computers to enter the family home.

Purchasing goods:

• What sort of things do YP purchase on the net?
• What sites are used (e.g. Amazon, eBay, iTunes)?

6.2   Internet services: styles of usage
Typifying usage of the internet is not about identifying good or bad ways of using technologies. Nor is it about fixing young people into types. We would expect that many YP move through a number of ways of using the internet and below is a fourfold categorisation of describing ways of using internet technologies from the perspectives of the young people themselves (Green and Hannon, 2007).

Explore the following typology – which describes the YP best? What type do they most empathise with and why? Which do they agree or disagree with? Which approaches combine most often?

• **Digital pioneers** were blogging before the phrase had been coined: [pushing at the boundaries of conventional practice… one step ahead of the other children. These individuals have strong digital identities and are making the shift from consumption to creation. A range of characteristics is common to this type of activity: self-motivation, ownership, purposeful creativity and peer-to-peer learning.]

• **Creative producers** are building websites, posting movies, photos and music to share with friends, family and beyond: [c57% of YP create content for the internet (12 million). They report having done one or more of the following: create a blog; create or work on a personal webpage; create or work on a webpage for school, a friend or an organisation; share original content such

as artwork, photos, stories or videos online; or remix content found online into a new creation (Lenhart and Madden, 2005)]

- **Everyday communicators** are making their lives easier through texting and MSN.

- **Information gatherers** are Google and Wikipedia addicts, 'cutting and pasting' as a way of life.

6.3 Internet usage: Frequency?

How often do YP use technologies to access the internet?

- daily
- 3–4 times a week
- weekends only

- weekly
- monthly
- less often

Do YP's parents/carers restrict access to or time on the internet using a mobile device?

7. Ending

Ask if participants would like a summary of the project's findings? If so – where should this be sent?

Thank participants for all their help and time spent talking to us, saying how much we appreciate it.

Typology of IT usage
Everyday communicators

- use IT to make their lives easier through texting, emailing and MSN

Information gatherers

- use IT to gather information and to find out things using, for example, Google and Wikipedia
- use 'cutting and pasting' as a way of life

Digital pioneers

- have strong digital identities
- were blogging before the phrase had been coined
- use the internet to create and learn, rather than consume
- try and test out new websites, games, technology

Creative producers

- build websites
- post movies, photos and music to share with friends, family and beyond
- create blogs
- share original content such as artwork, photos, stories or videos online
- remix content found online into a new creation

Table 7: Internet services survey for young people
(if you answer 'no' to question 1, there is no need to answer the remaining questions)

Internet service	1. Do you use this internet service		2. How often do you use this service?			3. Do you find it useful?			4. Why is it useful?	5. How did you find out about this service? (e.g. from a friend, family, internet search)
	Yes	No	Daily	Weekly	Monthly or less often	Yes	Unsure	No		
Bebo										
MySpace										
Facebook										
Piczo										
MSN										
Podcasts										
YouTube										
Flickr										
iTunes										
Blog(s)										

Table 7: Internet services survey for young people *(continued)*
(if you answer 'no' to question 1, there is no need to answer the remaining questions)

Internet service	1. Do you use this internet service		2. How often do you use this service?			3. Do you find it useful?			4. Why is it useful?	5. How did you find out about this service? (e.g. from a friend, family, internet search)
	Yes	No	Daily	Weekly	Monthly or less often	Yes	Unsure	No		
Del.icio.us										
Online multiplayer games (e.g. Second life, Warcraft)										
Xbox/Nintendos/other consoles										
Twitter										
Other (please specify)										
Other (please specify)										

Do you purchase goods on the internet? (please circle)   Yes, often   Yes, every month   Rarely   No, never

Which websites do you use to purchase goods?   (e.g. Amazon, iTunes, eBay)

What sort of things do you purchase?

Appendix 4: Protocol to guide discussions with PAs and managers

1. Introduction

1.1 Personal introductions: who we are; where we're from; why we're here, etc.

1.2 Provide an overview to the project – drawing on the purpose, aims and objectives of the project as follows – (adapting language and delivery method for the target group).

The purpose of this project is to:

- Research the skills and processes required by practitioners and managers to respond to the changing interface between internet-based guidance and individual user behaviours.

- Identify the additional or specialist needs of Connexions practitioners in providing careers and guidance-related interventions to young people through internet-based delivery methods.

The objective specified for the research is 'to investigate the communication skills and other technical competencies needed to deliver guidance via internet-based methods'. Research questions that follow are:

- What skills and processes are required to manage and respond to the changing interface between internet-based guidance and individual user attitudes and behaviours?

- What additional or specialist needs of Connexions practitioners exist for the provision of careers and guidance-related interventions to young people through internet-based methods?

- What organisational infrastructure is essential to support the effective deployment of skill sets developed by Connexions practitioners?

1.3 Explain confidentiality, etc.

1.4 Ask permission to record discussion – explain about digital recorder.

1.5 Ask if there are any questions, so far.

2. Contextual data

2.1 Note where/how the discussion/interview is being held (geographical location / telephone or face-to-face)

2.2 In what type of organisation? (Connexions office; school; other)

2.3 Length of discussion?

3. Demographic data

3.1 Training/Qualification/Experience

3.2 Gender

3.3 Other information

4. Careers guidance (Information, Advice and Guidance) Services

For many young people, the use of digital technologies is deeply ingrained in their lives. They use them simply to make their lives easier. In particular, they use these technologies to: maintain existing networks; search for homework (on Google); play games.

4.1 What careers (IAG) services do you deliver?

4.2 How are these services currently delivered?

- face-to-face
- in group (where? school, college, Connexions office, other)
- by telephone
- by email
- by the internet
- through a library (where? school, college, Connexions office, other)
- other (please specify)

4.3 Do you think that any of these services could be delivered more flexibly, using internet-based technologies?
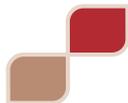
- If so, which careers services (IAG) could be made available more flexibly?
- Which technologies would you prefer to be used for these services?

4.4 What skills and competencies do you think you would need to develop to be able to do this?

The digital skills listed below in Table 8 are the ones most commonly identified by teachers, parents, academics and YP themselves (Green and Hannon, 2007)

Table 8: Digital Skills		
Social/Personal	**Cognitive/Physical**	**Technical**
Communication	Multi-tasking	Hand-eye coordination
General knowledge	Logical thinking	Technical confidence
Creativity	Problem-solving	Web design/content creation
Collaboration	Trial and error learning	
Self-esteem		
Parallel processing		
Persistence		
Peer-to-peer learning		
Risk-taking		

5. Styles of usage

Existing research indicates that PAs have different approaches to using internet-based technologies.

Do you recognise your style of usage in the fivefold typology below?

1. **Serendipitous knowledge maturation** – knowledge sharing and maturing is ad hoc and haphazard. Knowledge is typically developed and shared as part of a development process for a product or service within the organisation or as part of training.

2. **Conscious knowledge maturation** – communicating and sharing information both internal and external to the organisation accords with an explicit (organisational) strategy and is shared or disseminated in many different formats.

3. **Network knowledge maturation** – a heavy reliance on information/knowledge being shared within local networks. Individuals play a central role in this process of maturation as holders of the information and knowledge, determining what would be shared, when and with whom. Individuals are often unaware of what they know, or how they acquired this knowledge.

4. **Isolationist knowledge maturation** – information and communication throughout the organisation is limited to an individual or team and not shared across the organisation.

5. **Visionary knowledge maturation** – where an individual, or group of individuals understands the potential and possibilities for the use of ICT in the process of knowledge maturation both within the organisation and externally, but is currently constrained by policy, finances or organisational culture.

If not, how would you describe your own approach?

6. Other comments

Any other comments or observations that you would like to make?

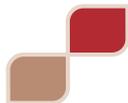| Table 9: PA and manager self-completion competency checklist					
Communication	High	☐	Medium	☐	Low ☐
Multi-tasking	High	☐	Medium	☐	Low ☐
Hand-eye coordination	High	☐	Medium	☐	Low ☐
General knowledge	High	☐	Medium	☐	Low ☐
Logical thinking	High	☐	Medium	☐	Low ☐
Technical confidence	High	☐	Medium	☐	Low ☐
Creativity	High	☐	Medium	☐	Low ☐
Problem-solving	High	☐	Medium	☐	Low ☐
Web design and content creation	High	☐	Medium	☐	Low ☐
Collaboration	High	☐	Medium	☐	Low ☐
Trial and error learning	High	☐	Medium	☐	Low ☐
Self-esteem	High	☐	Medium	☐	Low ☐
Parallel processing	High	☐	Medium	☐	Low ☐
Risk-taking	High	☐	Medium	☐	Low ☐
Peer-to-peer learning	High	☐	Medium	☐	Low ☐
Persistence	High	☐	Medium	☐	Low ☐
Other	High	☐	Medium	☐	Low ☐

Appendix 5: Levels and patterns of usage of internet services by young people

Table 10: Internet services used by young people

Internet services (n=46)	Number of using this services	Percentage using this service	Frequency of use			Is this service useful?		
			daily	weekly	monthly or less often	yes	no	unsure
Bebo	14	30	3	4	7	5	6	3
MySpace	5	11	1	1	3	1	2	1
Facebook	40	87	29	8	3	33	4	3
Piczo	4	9	0	0	4	1	2	1
MSN	42	91	25	12	5	37	3	2
Podcasts	3	7	1	1	0	2	0	0
YouTube	44	96	18	17	9	33	3	7
Flickr	2	4	0	0	2	1	0	1
iTunes	26	57	7	15	5	21	2	3
Blog	3	7	0	2	2	2	1	1
Del.ico.us	0	0	0	0	0	0	0	0
Online international multiplayer games	13	28	3	8	2	10	0	3
Xbox/Nintendo/other games consoles	34	74	13	14	7	22	3	9
Other: Skype	1	2	1			1		
Other: Google	3	7	2	1		3		
Other: Twitter	2	4		1	1	1	1	
Other: TV programmes	2	4		2		2		

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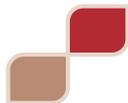
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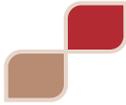
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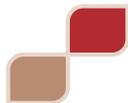
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