



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

Executive Summary

Jenny Bimrose Sally-Anne Barnes Graham Attwell



Providing education for public benefit worldwide

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

The views and opinions expressed in this publication are those of the authors and do not necessarily represent the views of CfBT Education Trust.

© CfBT copyright 2010

All rights reserved



Welcome to CfBT Education Trust



CfBT Education Trust is a top 50 UK charity providing education services for public benefit in the UK and internationally. Established 40 years ago, CfBT Education Trust now has an annual turnover exceeding $\mathfrak{L}100$ million and employs 2,300 staff worldwide who support educational reform, teach, advise, research and train.

Since we were founded, we have worked in more than 40 countries around the world. Our work involves teacher and leadership training, curriculum design and school improvement services. The majority of staff provide services direct to learners: in nurseries, schools and academies; through projects for excluded pupils; in young offender institutions and in advice and guidance centres for young people.

We have worked successfully to implement reform programmes for governments throughout the world. Government clients in the UK include the Department for Children, Schools and Families (DCSF), the Office for Standards in Education (Ofsted), and local authorities. Internationally, we work with educational ministries in Dubai, Abu Dhabi and Singapore among many others.

Surpluses generated by our operations are reinvested in educational research and development. Our research programme – Evidence for Education – aims to improve educational practice on the ground and widen access to research in the UK and overseas.

Visit www.cfbt.com for more information.

Welcome to The Institute for Employment Research, University of Warwick



The Warwick Institute for Employment Research (IER) was established by the University of Warwick in 1981. IER is a leading international centre for research in the labour market, exploring its relationships with the wider economy, education and social welfare systems. It deals with major issues of socioeconomic behaviour and policy in their local, national and international settings, often from a highly inter-disciplinary perspective. Since the mid-1980s, the Institute's research has diversified considerably involving research broadly related to careers, learning and identities. This diversification reflects the strategy of gradually broadening the methodological basis of the Institute's work in order to deal more effectively with research problems.



Acknowledgements

The Warwick Institute for Employment Research would like to thank:

- The young people, Connexions Personal Advisers and managers who gave their time to participate in this study.
- CfBT Education Trust for funding the research.
- Karen Whitby, Elaine Barnes, Anne Newton and Joanna van de Poll for their helpful project management, advice and support throughout.
- Dr. Deirdre Hughes, of DMH Associates, for being critical reader.
- The Research Advisory Group for their valuable feedback.

About the authors

Professor Jenny Bimrose, Warwick Institute for Employment Research

With over thirty years of experience in teaching, researching and managing in higher education, Jenny Bimrose has acted as a consultant for the Council of Europe on careers guidance and as a trainer and consultant with numerous UK careers organisations. She was Head of Centre for Training in Careers Guidance at the University of East London for about twenty years where she was, at different times, course tutor for part- and full-time postgraduate courses including a Master's programme, and Manager of an NVQ Assessment Centre. Early on in her career, she was a guidance practitioner who worked with a range of different client groups. She has managed a range of projects for different governmental and private organisations. Her current research focuses on supporting guidance practice by integrating theory with the practice of careers guidance, especially around labour market information and the use of ICT.

Dr Sally-Anne Barnes

Dr Sally-Anne Barnes is a Senior Research Fellow at Warwick Institute for Employment Research, University of Warwick. Her research interests include: careers guidance theory and practice; ICT-based innovations and applications; and qualitative research methodology and data analysis. She has managed a range of projects focused on researching and developing LMI for careers

guidance practitioners, as well as researching the implementation of technology in the careers guidance community.

Graham Attwell

Graham Attwell is the Director of the Welsh research and development organisation, Pontydysgu, and is an Associate Fellow at the Institute for Employment Research, Warwick University. His research focuses on the use of technology for learning, particularly on social software and mobile learning. Currently, he is researching and developing games- and portfolio-based approaches to careers advice, information, guidance and counselling.



Executive Summary

Introduction

Technology has already influenced, and will continue to influence...

Technology has already influenced, and will continue to influence, not only the ways in which guidance services are accessed by clients, but how they are used by them. This is placing new demands on Connexions Personal Advisers (PAs). Our research examined the skills and competencies that will be increasingly needed by Connexions PAs to develop their practice in the area of internet-based guidance. It also gave young people a

voice to identify how they wanted guidance services to use technology in the future.

The impact of Web 2.0 on internet-based guidance

has changed the way people interact and has profound implications, potentially, for the delivery of guidance.

At the heart of developments in technology is the shift from Web 1.0 to Web 2.0. Characterised by blogs, wikis, tagging and social bookmarking, multimedia sharing, audio blogging, podcasting and RSS feeds, Web 2.0 has changed the way people interact and has profound implications, potentially, for the delivery of guidance. However, it has barely begun to impact on the way guidance services are delivered by Connexions. With the next generation technology (Web 3.0) already on the horizon, the need to begin to align new technologies with service delivery is becoming more urgent.

In the steady shift towards more use of internetbased guidance, we should remember that with the exciting potential to improve services to young people, there also come challenges. Privacy and safety for young people is crucial and will become increasingly important. Additionally, the culture of self-sufficiency that has developed alongside the rapid growth in user (self-generated) content gives rise to the question of who, exactly, is the expert. In an era when every young person can access information on the web, what does this mean, exactly, for the role of the Connexions Personal Adviser? The issue of intellectual property is also relevant here. Where information (like labour market information) is produced by the collaborative efforts of PAs using internet-based technologies (maybe spanning organisational and geographical borders in perhaps one, two or more Connexions organisations) who exactly owns it?

Demand from young people for internetbased guidance

Progress towards achieving widespread access to advanced internet-based services through phones and/or mobile devices seems unstoppable, with young children exposed to new technologies from birth. Internet-based devices now offer a range of functions way

beyond basic phone calls and SMS text messaging with social interactions unrestricted by time or space. Young people use information and communications technology (ICT) not just for accessing information, but for creating and sharing knowledge.



Despite
high levels of ICT
competence and
the trend towards
more openness,
collaboration, peer
communication
and user-generated
content, the young
people still highly
valued their faceto-face contact with
PAs, because of
their professional
expertise.

All of the young people who participated in our study were able to access the internet either at home, school or college, on a daily or weekly basis. They also accessed the internet using various means (for example, mobile devices and games consoles as well as personal computers). Although many parents/carers were monitoring young people's level of ICT usage, the nature of internet access was not being restricted – irrespective of age group.

Overall, we found a high level of ICT usage by young people, with internet-based services an integral part of their social networking, communication and entertainment. Findings from our study also indicate how young people think that internet-based services could be an effective way of delivering guidance services more flexibly and effectively in the future. However, the importance of shaping these services in a way that reflects the current usage by young people is clear. So, for example, the majority of young people in our study use technology to gather information. This suggests

an increase in the use of online multi-media to develop personalised information, together with increased access to different types of high quality, online information. Additionally, it indicates the need for PAs to coach young people in how to distinguish amongst reliable, unreliable and biased sources of online labour market information. Other ways young people in this study felt their current usage of internet-based services should shape guidance services in the future related to chat rooms, online, multi-media, personalised information, and email communication.

Despite high levels of ICT competence and the trend towards more openness, collaboration, peer communication and user-generated content, the young people still highly valued their face-to-face contact with PAs, because of their professional expertise. However, where PAs are accessed online, they will need to demonstrate a level of proficiency in internet-based technologies at least equal to those of the clients accessing their expertise to maintain their respect.

Internet-based guidance

An important first step in delivering effective and efficient internet-based guidance services would be agreement about a common, up-to-date language to describe exactly what it comprises.

There is a strong policy steer for organisations delivering guidance services to young people in England to make greater use of internet-based services, despite there being much still to be learned about this aspect of professional guidance practice. For example, reliable evidence on the impact of introducing internet-based services is currently lacking and the potential for cost savings is unknown.

A range of internet-based services is, or could be, used to deliver guidance, including for example, email, web chat, SMS messaging, mobile phones, website, software and video conferencing. An important first step in delivering effective and efficient internet-based guidance services would be agreement about a common, up-to-date language to describe exactly what it comprises. Not only is there a lack of consistency in the terms currently used to describe this area of practice (e.g. web-based guidance; e-guidance; internet-based guidance), but the types of services listed under these terms vary. Once Connexions organisations are

able to specify which internet-based services they wish to offer to clients, then the training support required will be easier to identify. For example, one Connexions organisation may decide to increase its offer of guidance to young people via a telephone helpline, whilst another wishes to develop guidance by email and yet another decides to concentrate on supporting PAs to develop multi-media labour market information resources to deliver as part of group work with young people. Training requirements for each of these methods of delivery would be slightly different.

Where guidance organisations have already embraced technology in the delivery of services, there seems to be a tendency to invest resources in training a group of practitioners to specialise in particular areas of practice. For example, Career Services New Zealand has trained one group of practitioners to work on a telephone helpline service alongside their faceto-face work, whilst another group has been trained to offer email guidance.



Current use of internet-based guidance services

The use of internet-based technology for communication with clients remains embryonic, with telephone calls, emails and text messaging playing only a marginal role in the interactions between PAs and young people.

There has been a gradual up-take in the use of ICT for guidance over the past four decades, though wide variations in practice exist between different guidance sectors (such as Connexions services and higher education careers services) as well as amongst Connexions services.

The use of the internet as a resource, especially for labour market information (LMI), is already common practice across Connexions services. Personal Advisers routinely visit websites to access specialist information (for example, entry requirements for courses and jobs) and help young people both identify and use sites that will provide the information they require to plan for their futures. However, the expertise and confidence needed to search a wide range of sources, choose wisely amongst them and merge data creatively for different purposes using a range of technologies is still under-developed.

The use of internet-based technology for communication with clients remains embryonic, with telephone calls, emails and text messaging playing only a marginal role in the interactions between PAs and young people. Typically, these technologies are being used for administrative purposes (like checking on progress or prompting a young

person to keep an appointment) rather than for delivering guidance. The cost to young people was highlighted as one barrier to the more extensive use of these technologies in guidance – particularly the use of mobile phones for texts or calls. Another barrier is the personal safety and privacy of young people, since parents are increasingly objecting to PAs (especially male PAs) telephoning young people (especially girls) in the evening to follow up on their progress.

Material development is undoubtedly the most under-developed area of internet-based guidance practice, with considerable untapped potential for improving the quality of services for clients through the creative use of Web 2.0 technologies. This applies to a range of different areas of professional practice, including group work with young people, individual guidance, formal presentations (for example to parents and carers) and provision of labour market information that is customised to the precise needs of individual clients.

Skills and competencies for internetbased guidance

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.

This distinction between skill and competence is important in any discussion about what PAs need to deliver internet-based guidance, because it helps us understand that while most of the competencies needed to deliver this type of practice compared with face-to-face guidance are common, the application of some skills may vary slightly – depending on precisely which internet-based service is being used.



Existing competencies relevant to internetbased guidance

From recent work¹, it is clear that there is agreement that the competence relating to the use of ICT in guidance is core (or foundation).

Significant work has already been done on identifying the competencies required for guidance practice. From recent work¹, it is clear that there is agreement that the competence relating to the use of ICT in guidance is core (or foundation). Other core (or foundation) competencies for guidance are being able to:

- demonstrate appropriate ethical behaviour and professional conduct in the fulfilment of roles and responsibilities
- apply theory and research to practice in guidance
- develop one's own capabilities and understand any limitations
- communicate effectively with clients
- demonstrate awareness and appreciation of clients' cultural differences.

These six core competencies would remain constant requirements, across any method

of guidance delivery. Another relevant competency 'cluster' for guidance relates to client interactions. One other version of professional guidance competencies² suggests that these are common across the following different methods of delivery, including some that are internet-based: working with individuals or groups, face-to-face, by telephone or online:

- building the relationship with users
- enabling users' self-understanding
- building users' capability for career management
- exploring new perspectives
- forming strategies and plans.

So Connexions PAs will already have most, if not all, of the competencies required to deliver internet-based guidance from their initial training and/or continuing professional development (CPD). Does this also apply to skills?

Existing skills relevant to internet-based guidance

Skills required to deliver internet-based guidance fall into two categories: those that are required to use ICT in the delivery of services and those required to deliver guidance.

ICT User and Digital Skills

As part of our study, we asked Connexions PAs and their mangers to complete a self-assessment of ICT user (or digital) skills. The ICT user (or digital) skills thought to

be essential for dealing with the new and emerging technologies³ are:

- social (communication; general knowledge; creativity; collaboration; self-esteem; parallel processing; persistence; peer-to-peer learning; and risk-taking)
- personal thinking (multi-tasking; logical thinking; problem-solving; and trial and error learning)

http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/531/5193_en.pdf.

³ Green, H., & Hannon, C. (2007). Their Space: Education for a digital generation. London: Demos. Retrieved 3 August 2009, from http://www.demos.co.uk/files/Their%20space%20-%20web.pdf.



¹Repetto, E. (2008). International competencies for educational and vocational guidance practitioners: an IAEVG transnational study. International Journal of Educational and Vocational Guidance, 8, 135–195.

²Cedefop. (2009). Professionalising career guidance: Practitioner competences and qualification routes in Europe (No. 164, Cedefop panorama series). Luxembourg: Office for Official Publications of the European Communities. Retrieved 12 August 2009, from

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

Like core competencies, generic guidance skills required for effective internet-based guidance should already be well developed in qualified and practising guidance PAs.

 physical/technical (hand-eye co-ordination; technical confidence; web design/content creation).

Indications from our research are that the ICT (or digital) skills needed to engage effectively and efficiently with internet-based guidance are already well developed amongst Connexions staff.

Guidance Skills

Like core competencies, generic guidance skills required for effective internet-based guidance should already be well developed in qualified and practising guidance PAs. Examples of such skills are:

- contracting
- · active listening
- questioning

- challenging
- handling information.

Most of these skills would be transferrable across different types of internet-based practice, though some may require a degree of adaptation in particular operational contexts (see next section). For example, active listening skills would need to be developed to a higher level for telephone guidance, together with a greater use of open questions (though this may partly depend on the responsiveness of the client).

So what are the different or additional skills and competencies that are required for this area of practice?

Different or additional competencies required to deliver internet-based guidance

This framework is at a developmental stage, with further work on an accredited module envisaged as one possible way forward.

An exemplar of competencies required for internet-based guidance comes from a European project that has been developed as part of a training pilot. With just 10 participants working across a range of guidance contexts in England (mainly Connexions)⁴, 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.

Develop and manage the use of ICT in quidance

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

This framework is at a developmental stage, with further work on an accredited module envisaged as one possible way forward. It does, however, provide one useful template of ICT competencies needed to deliver internet-based guidance.

⁴Barnes, A., La Gro, N. and Watts, A.G. (2010). 'Developing e-guidance competences: the outcomes of a twoyear European project to transform the professional development of career guidance practitioners'. 25, Spring. Cambridge: Career Research and Development.



Different or additional skills required to deliver internet-based guidance

In the self-assessment survey carried out in the research undertaken for this study, the only generic digital skill not already well developed amongst the PAs and their managers was web design/content creation.

For PAs working with clients using different internet services, additional ICT/digital user skills, together with additional guidance skills, will be required.

ICT User and Digital Skills

Those delivering guidance through the medium of text (for example, by emails or web chat) will need to develop:

- · keyboard skills
- technical skills to work with the particular email programme (e.g. Outlook) or chat room facility used by their employer.

Those working through the medium of telecommunications will need to develop:

 technical skills to operate the hardware through which client calls are routed (likely to involve keyboard skills and the ability to use a headset).

In the self-assessment survey carried out in the research undertaken for this study, the only generic digital skill not already well developed amongst the PAs and their managers was web design/content creation. The need to develop these particular skill-sets in PAs would obviously depend on their relevance to the internet-based guidance services being offered by them. For example, if PAs wanted to develop and make available personalised (labour market) materials for clients using internet-based technologies, they may wish to develop these skills.

In developing a future workforce strategy in this area, the next generation of ICT user skills (that is, those that will be needed for Web 3.0) should also be considered for Connexions staff at all levels. Broadly, these can be referred to as digital literacy (including safe and social conduct) and digital independence (including management of the IT environment).

Guidance Skills

Additional generic guidance skills required to deliver guidance services through the medium of text include:

- skills to analyse text
- writing skills that are highly developed (e.g. ability to be succinct; to write in plain English; to structure the layout of text clearly)
- writing skills to convey warmth, build rapport and show empathy.

For telephone guidance, the key difference in the ways PAs would need to work relates to understanding differences in the process of delivery, rather than developing new skill sets. This is because the conversation with the clients on the telephone tends to be more direct. Pauses are amplified. Rapport building occurs throughout the call and the pace is more intense – so more demanding of the practitioner's energy. So the key skills are the same, though they will need to be adapted as required to the particular operational context (see above).

⁶ England, G., Van Holten, A., & Urbahn, J. (2008). Career guidance by telephone – a valuable tool for experienced consultants. Wellington, New Zealand: Careers Services. Retrieved 3 August 2009, from http://www.iccdpp.org/Portals/1/NZ%20Career_Services_-_Career_guidance_by_telephone.pdf



⁵ Kay, D., McGonigle, B., Patterson, W., & Tabbiner, B. (2009). Next Generation User Skills. Paper presented at the ALT–C 2009 'In dreams begins responsibility' – choice, evidence and change, Manchester (8–10 September 2009).

Implications for training for PAs

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.

Indications are that current levels of ICT use by Connexions PAs to deliver guidance 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. Findings from this study provide valuable insights to how the capability of PAs and their managers to deliver internet-based guidance can be supported and enhanced.

Undoubtedly the biggest training challenge is to win the hearts and minds of PAs 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.

In future, the effective use of ICT will increasingly depend 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. Fortunately, the skills and competencies needed to engage effectively and efficiently with technology are likely to be already well developed amongst

Connexions staff, with only certain specialist technical skills requiring attention. Yet training support is still urgently 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. So a key challenge will be to develop the confidence for PAs to transfer already existing skills to a mode of service delivery that currently is something of an unknown.

Related to this point will be the challenge to persuade Connexions PAs and their managers to regard their continuing professional development (CPD) to support this area of practice as developmental. So far, work on identifying the skills and competencies needed for internet-based guidance has focused on level (whether a certain competence has been reached or not), rather than considering 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 (for example, through 'technically 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 innovative changes in the ways that tasks are tackled). This type of approach to training would ensure that there was a commitment to continuous improvement - particularly important for this area of guidance practice because of the speed of technological developments.

Organisational support necessary to support effective internet-based guidance

Our research findings also highlight a crucially important role for organisational management in:

- providing systems leadership
- initiating a programme of change management
- encouraging and supporting innovatory practice
- developing workforce capacity in this area, through CPD.

There is also an important role for management in ensuring that the technical



infrastructure within which PAs work and the technical support available to them are fit for purpose. This final point is clearly relevant for funders of public services to note, who regard internet-based guidance as a policy priority.

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 young people 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 access to technology. In the same way, policy issues regarding privacy and safety will need to be resolved at the national level before real progress can be made in this area of practice.

Conclusion

Many of the current barriers to the implementation of successful internet-based guidance could be dealt with at a local level, but some will remain beyond the scope of individual Connexions services...

Whilst the development of the skills, competencies and confidence of Connexions PAs may be a necessary pre-requisite for the introduction of effective internet-based guidance services, it will not be sufficient. The following are also essential, with the maximum impact likely to be achieved where there is strong integration of all elements:

- Clarity of objectives which internet-based guidance services are to be delivered, by whom, to which groups of young people and for what purpose?
- Genuine commitment from senior management.
- Technological infrastructure that is fit for purpose.
- On-going, high quality technical support for PAs and their managers using internetbased services.
- High quality and timely training and staff development at both practitioner and management levels.
- A developmental approach to CPD, so that rapid advances in technology can be anticipated.
- Careful and on-going monitoring of service delivery in this area of practice.
- Regular evaluation of the impact of these services.

The focus of successful training and staff development is likely to be on the transfer of currently existing skills, rather than the development of new skill sets, together with awareness raising, confidence building and increasing motivation.

Many of the current barriers to the implementation of successful internet-based guidance could be dealt with at a local level, but some will remain beyond the scope of individual Connexions services – like the extent to which policy is able to address the existing digital divide in society, as well as the safety and privacy of young people who are encouraged to go online by statutory services for guidance about their career progression.



Recommendations

- ICT user skills and competencies should be integrated as central in both initial work-based⁷ and off-the-job training⁸ for guidance at the national level.
- An on-going continuing professional development (CPD) training and education programme should be available to Connexions PAs and their managers that raises awareness of the potential of internet-based guidance services and adopts a developmental approach.
- The focus of training support should be on the transfer and adaptation of currently existing skills and competencies, together with an emphasis on raising awareness and increasing motivation.
- 4. Skills and competency training for this area of practice should be grounded in a solid career progression framework that recognises the investment made by practitioners and employers in developing generic and specialist ICT skills and competencies for guidance practice.
- A common language and clear definitions need to be developed to describe this area of guidance practice (i.e. internetbased guidance; e-guidance; or webbased guidance?).

- Connexions organisations developing these services need to be clear about what, precisely, will be delivered in their particular operational context (e.g. text based; telephone-based; resource-based, a combination, etc.) and how this would link to centralised services.
- Internet-based guidance services should be differentiated to reflect the patterns of use by different age groups of young people.
- 8. Online multi-media resources, the provision of high quality online labour market information and links to reputable sources of information (e.g. with quality assurance kitemarks) are a priority for development.
- Genuine management commitment must be secured, together with adequate resources to support technological infrastructure and technical support that is fit for purpose.
- 10. Overcoming barriers to the implementation of effective internet-based guidance practice should be prioritised and addressed at both national and organisational levels. For example, urgent attention must be paid to privacy and safety issues for young people in their use of internet-based guidance.

Glossary of Terms

Audio blogging and podcasting (usually in MP3 format)

These are usually recordings of talks, interviews, lectures, radio programmes, which can be played on a desktop computer or a wide range of handheld MP3 devices.

Blogs

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.

Competency

Used commonly as a catch-all term for any skill, knowledge or attitude that contributes to competence or to a higher order competency,



⁷ National Vocational Qualifications and their successor.

⁸The Qualification in Career Guidance, offered by higher educational institutions.

obtained through formal or non-formal education, work experience, vocational training or other means required to perform a job.

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.

Multimedia sharing

A big growth area, this refers to services that facilitate the storage and sharing of multimedia content. (Flickr, YouTube and Facebook are popular applications of this technology).

Skill

Refers to a technique that contributes to the capacity to do something well. Skills are usually acquired or learned, as opposed to abilities, which are often thought of as innate.

Social bookmarking

A system that allow users to create lists of 'favourites' or bookmarks to store centrally on a remote service. These favourites can be tagged with keywords.

Tagging

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.

Web 1.0

Web 1.0 (1991–2003) refers to the state of the World Wide Web (WWW) and any website design style used before the advent of the Web 2.0 phenomenon. Web 1.0 began with the release of the WWW to the public in 1991, and is the general term that has been created to describe the Web before the 'bursting of the Dot-com bubble' in 2001, which is seen by many as a turning point for the internet.

Web 2.0

More about user-generated content and the read-write web. Users contribute, as well as consume, information, through blogs or sites like Flickr, YouTube, Facebook, etc. The dividing line between the content publisher and consumer has become increasingly blurred.

Web 3.0

The introduction of Web 3.0 sometime in the near future makes it impossible to specify exactly what it is likely to offer. It is thought it will provide a portable, personal web, which focuses on the individual with the personalisation of services at its centre. It is likely to consolidate dynamic content with intelligent searches, drag-and-drop mashups, semantic web (i.e. about the meaning of data), etc.

Wikis

A webpage or set of webpages that can be easily edited by anyone allowed access. A collaborative tool that facilitates the production of group work and provides a history of previous versions of text (e.g. Wikipedia).



CfBT Education Trust

Through the Evidence for Education programme, CfBT Education Trust is proud to reinvest its surpluses in research and development both in the UK and overseas.

Our aim is to provide direct impact on beneficiaries, via educational practitioners and policy makers. We provide a range of publications from practice-based intervention studies to policy forming perspective papers, literature reviews and guidance materials.

In addition to this publication the following research may also be of interest:

- Evidence and Impact Synthesis Paper: Careers and guidance-related interventions, Dr Deirdre Hughes, Geoff Gration
- Evidence and Impact Online Resource:
 Careers and guidance-related interventions,
 Dr Deirdre Hughes, Geoff Gration
- Evidence and Impact: Literature review of research on the impact of careers and guidance-related interventions, *Dr Deirdre Hughes*, *Geoff Gration*
- Integrated Youth Support Services in England: National Conference, Dr Deirdre Hughes
- Local Variations: A follow up study of New Arrangements for Connexions, Careers, IAG Services, Allister McGowan, A.G. Watts & David Andrews, National Institute for Careers Education and Counselling
- New arrangements for Connexions/Careers Services for young people in England, A.G. Watts, Allister McGowan, National Institute for Careers Education and Counselling
- Smoothing the Path: Advice about learning and work for disadvantaged adults, City and Guilds Centre for Skills Development and CfBT Education Trust

For further information or for copies of the above research please visit our website at **www.cfbt.com/evidenceforeducation** or contact our Research and Development team at **research@cfbt.com**.







