

How the internet changed career: framing the relationship between career development and online technologies

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This article examines the inter-relationship between the internet and career development. It asks three inter-linked questions: How does the internet reshape the context within which individuals pursue their career? What skills and knowledge do people need in order to pursue their careers effectively using the internet? How can careers workers use the internet as a medium for the delivery of career support? The article develops conceptual architecture for answering these questions and in particular highlights the importance of the concept of digital career literacy.

Introduction

The internet is a highly complex social, as well as technological, phenomenon which is increasingly interwoven into every aspect of life, learning and work. Consequently this article will argue that it is not sustainable to continue to view the internet solely as a tool which can aid (or challenge) the careers worker: rather there is a need to see the internet as an integral part of the social fabric and to recognise that it provides a major context in which career development is enacted. This article will set out a framework that can be used to situate discussions about the role of the internet.

'Career development' is a term that describes two linked concepts. Firstly it describes a process of moving through life, learning and work that individuals are undergoing with varying degrees of consciousness, purposefulness and support. An individual can be said to be developing their career without seeking help

(professional or otherwise). An individual's career develops whether they try and develop it actively or not. The ticking of the biological clock, the actions of others and the shifting of the wider political economy all change and develop the career of an individual. This article will therefore explore how the internet and associated technologies reframe the way in which individuals develop their careers.

'Career development' also describes the process of actively intervening in careers. This raises further questions about how the internet shapes both the content of career development interventions ('what do people need to know to pursue their careers in the internet age?') and the mechanisms by which the intervention is made ('how can we use the internet to provide people with support for their careers?'). These issues will be examined in turn and further conceptual architecture developed within each concept.

How does the internet reshape the context within which individuals pursue their career?

Computers have been used to facilitate communication and information sharing since the early 1960s (Leiner et al, 2009), but the transformation of this network of university and government computers into a popular medium only really happened when Berners-Lee developed, in 1989, and demonstrated, in 1990, the World Wide Web (WWW) (Odi, 2004). From 1990, the pace of change around internet technologies accelerated with the development of browsers (tools for reading and accessing the web) and search engines. However, Watts (2002) notes that whilst careers

How the internet changed career

work had always employed new technologies, first the mainframe and then the microcomputer, it was not until the late 1990s that the field began to make serious use of the internet.

Thinking about the role that the internet might have in relation to career development is therefore building on a short but highly compressed period of development. Twenty-two years ago nobody was using the internet as part of their career building. By the mid-1990s browsers and email enabled large numbers of people to use the web as a source of information and communication. Employers (Bartram, 2000) and learning providers (Gomes and Murphy, 2003) quickly recognised the value that the internet offered for them to make opportunities available to a wider audience. From the late 1990s careers services were also beginning to use the internet for the provision of information and services through the creation of websites (Watts, 2002). Furthermore, those individuals who grasped that the internet provided them with a new series of resources and opportunities for their career were able to gain competitive advantage over those who did not (Kuhn and Skuterud, 2000; Feldman and Klaas, 2002).

A further shift came in 2004 when O'Reilly developed the term Web 2.0 to describe a new approach to web development and the use of the web. Theorists of Web 2.0 stressed the constantly developing nature of the internet, the co-productive relationship between developers and users, and the social and user generated nature of the web. This period saw the creation of tools like Myspace (2003)¹ and Facebook (2004)² which involved different, more communicative and more social ways of using the internet. The development of social tools such as weblogs, wikis, and social networking sites created new ways of using the internet to communicate and new ways of communicating. Social media typically enshrined open and many-to-many approaches to communication that allowed the creation of new social and cultural forms. Furthermore the brand names associated with these

tools (Wikipedia³, Youtube⁴, LinkedIn⁵ and Twitter⁶) entered the popular consciousness.

Hooley et al (2010) identified eight trends in the Web 2.0/3.0 era that had the potential to impact on how individuals pursue their careers and on how they access support to do this. They described these trends as: community; collectivising knowledge; individualisation; recognising time and place; located in the cloud; free or almost free; diverse and integrated; and games. These trends have changed the way that people use the internet both for resource discovery and for communication. In 2009, total social network usage passed that of email (Morgan Stanley 2010); in March 2010, Facebook overtook Google as the most popular site on the web (Doherty, H., 2010). The way people are using the internet is changing and this in turn is influencing how people relate to each other, their employers and the state. Employers have been quick to recognise the possibilities that social media offers for recruitment (Doherty, R., 2010) and screening applicants (Brandenburg, 2008). How people manage the fact that vast amounts of personal data are now routinely available to their present and future employers is a major career development question.

While the speed of technological development has been rapid, the speed at which demographic penetration of technologies has taken place has been even more rapid. In 1994 the internet organised a network of around 3 million people. By 2011 there were 2 billion internet users (EConsultancy, 2012). In the UK alone, 30.1 million adults use the internet every day or nearly every day (ONS, 2010) with strong evidence that this number is increasingly rapidly (ONS, 2011). Furthermore, users are accessing the internet in new ways including through mobile devices.

It is important to recognise that whilst internet use continues to grow and to penetrate new demographics, it remains far from ubiquitous. The distinction between the internet haves and have

1 MySpace is an online social networking site that is strongly focused on music and entertainment. It can be accessed at <http://www.myspace.com/>.

2 Facebook is an online social networking site. It can be accessed at <http://www.facebook.com/>.

3 Wikipedia is an online socially produced encyclopaedia. It can be accessed from <http://www.wikipedia.org/>.

4 Youtube is an online film sharing site. It can be accessed from <http://www.youtube.com/>.

5 LinkedIn is an online professional networking site. It can be accessed from <http://www.linkedin.com/>.

6 Twitter is an online microblogging and social networking site. It can be accessed from <http://twitter.com/>.

nots is often referred to as the digital divide. The implications of this divide for individuals seeking to access employment and learning are clearly a subject of concern for career development professionals. In the UK there are around 10 million adults who have never used the internet with those in this group tending to be older, poorer and less educated (Race Online, 2012); although it is also important to note that both poor digital access and a lack of digital literacy can be found across the population. While lack of digital literacy is to some extent a consequence of disadvantage, it also contributes to perpetuating and deepening disadvantage. In other words many people do not know how to use the internet because they are poor and have not had the opportunity to learn, but the fact that they do not know how to use the internet keeps them poor by making it more difficult for them to access the labour and learning markets.

The ability to utilise the internet is a spectrum rather than a binary divide. At one end are 10 million adults who have never used the internet, while at the other are individuals with both high levels of familiarity with the internet and a strong understanding of how to leverage this to benefit their career. Individuals therefore need to be able to access internet technologies, to learn how to use them technically and then learn when and how to use them in ways that support social and economic participation (Carrick-Davies, 2011). How these abilities are then combined with existing career management skills is what defines an individual's digital career literacy.

It is possible to identify a series of ways in which the internet is shifting the context within which individuals pursue their careers. The internet is:

- **a career resource library** through which individuals can find information that informs and relates to their informational needs
- **an opportunity marketplace** where individuals can transact with opportunity providers (employers and learning providers)
- **a space for the exchange of social capital** within which conversations can be undertaken, contacts identified and networks maintained
- **a democratic media channel** through which individuals and groups can communicate

their interests and concerns to the wider world, raise their profiles and manage their reputations.

It is also important to recognise that all of these functions are underpinned by an individual's digital career literacy and their capacity to take advantage of the opportunities that the internet affords.

What skills and knowledge do people need to pursue their careers effectively using the internet?

It is possible to describe the knowledge, skills and attitudes that are employed to pursue a career and make use of the online environment as digital career literacy. Digital career literacy is concerned with the ability to use the online environment, to search, to make contacts, to get questions answered and to build a positive professional reputation. For example Strehlke (2010) has suggested that careers workers should explore clients' use of social networking sites and has provided a framework for doing this. Digital career literacy is already important to an individual's ability to pursue a career successfully, but it is getting more important. Careers workers who are not developing digital career literacy will soon find that they are not developing careers at all.

The concept of digital career literacy intersects with information and digital literacies as well as with career management skills. Information literacy is a concept which is used largely within the domain of information science to describe the ability of individuals to find, access, and utilise information (Webber and Johnston, 2000; Lloyd, 2003). A range of frameworks has been developed to provide tools for librarians and others involved in the development of information literacy (e.g. SCONUL, 2011). While it is possible to identify a number of generic elements to information literacy, there has also been recognition that information literacy happens within particular contexts and that career development (Hollister, 2005; Farrar et al, 2007) represents one of these contexts. However, as it is currently framed, the concept of information literacy has been critiqued for undervaluing socially transmitted forms of information in favour of

How the internet changed career

the ability to source information from printed or authoritative online sources (Lloyd, 2005; Tuominen et al, 2005). This is a considerable limitation in any attempt to repurpose the concept for career, where implicit and socially transmitted forms of knowledge and information are recognised as being of crucial importance (Raffo and Reeves, 2000; McArdle et al, 2007).

The concept of digital literacy is also useful as it builds on information literacy and recontextualises it within the digital environment. There is a strong inter-relationship between these two concepts to the extent that it is difficult to think about the getting and using of information without digital technologies. However, conceptualisations of digital literacy and associated frameworks (e.g. Eshet-Alkalai, 2004; Rosado and Bélisle, 2007) tend to add in a number of new concepts such as the ability to use ICT tools, the ability to use digital tools in learning, the ability to create content and the ability to interact effectively online. But as with the concept of information literacy, these concepts are rarely conceived or articulated within the context of career.

A third concept that it is important to consider in relation to the question of digital career literacy is that of career management skills. The term 'career

management skills' is used to describe the skills, attributes, attitudes and knowledge that individuals need in order to manage their careers. The Blueprint family of frameworks is perhaps the most successful articulation of a career management skills framework and has been iterated in the USA, Canada, Australia and most recently in England and Scotland (Hooley et al, forthcoming). The Blueprint framework thus represents an attempt to describe a set of career learning outcomes which can be focused upon at different times during a life journey. The learning areas that are described in Blueprint type frameworks can easily be reapplied in the context of the online environment e.g. 'I interact confidently and effectively with others' or 'I find and utilise information and the support of others' (LSIS, 2011). Furthermore in the case of the more recent iterations of the Blueprint, an attempt has been made to draw out the implications of the learning areas in an online context. However, these still remain secondary to a more general articulation of career management skills.

Each of these three concepts (information literacy, digital literacy and career management skills) is useful in thinking about how to develop effectively a career in the online context. However, even taken together they do not fully describe the skills and attributes required. Furthermore, the development of information literacy



Figure 1: The Seven C's of digital career literacy

- **Changing** describes the ability to understand and adapt to changing online career contexts and to learn to use new technologies for the purpose of career building.
- **Collecting** describes the ability to source, manage and retrieve career information and resources.
- **Critiquing** describes the ability to understand the nature of online career information and resources, to analyse its provenance and to consider its usefulness for a career.
- **Connecting** describes the ability to build relationships and networks online that can support career development.
- **Communicating** describes the ability to interact effectively across a range of different platforms, to understand the genre and netiquette of different interactions and to use them in the context of career.
- **Creating** describes the ability to create online content that effectively represents the individual, their interests and their career history.
- **Curating** describes the ability of an individual to reflect on and develop their digital footprint and online networks as part of their career building.

and digital literacy may not be perceived as being part of the domain of careers workers by either careers workers themselves or their clients. It is therefore useful to develop a statement of what is meant by digital career literacy to help careers workers to conceive career development programmes that address the new online context.

Figure 1 synthesises the key issues identified by information literacy, digital literacy and career management skills frameworks into a framework of seven elements for developing digital career literacy.

While it would be possible to deepen the articulation of this framework, it provides an initial mapping of digital career literacy. Digital career literacy can therefore be seen to encompass technical, cultural, social and presentational abilities which can be developed in the context of a career. If, as argued above, the internet offers individuals a career resource library, an opportunity marketplace, a space for the exchange of social capital and a democratic media channel; it is through the use of digital career literacy that the individual is able to make effective use of these opportunities. For example using the internet effectively as a career resource library is enabled by the ability to use new tools and sources of information (changing), to find, source and manage information (collecting), to understand and verify that information (critiquing) and by the ability to create networks that aid in the identification and accessing of resources (connecting and communicating).

To be effective providers of career support, careers workers will need to be able to support individuals in the development of these abilities. Inevitably this means that many careers workers will need to work on their own digital career literacy to enable them to provide this support from a position of expertise.

How can careers workers use the internet as a medium for the delivery of career support?

The internet also provides an important medium for the delivery of career support. This career support might be concerned with the development of digital

career literacy, but might also use the internet to deliver more general career support.

There has been considerable research and thinking about the way in which the internet can be used to deliver career services (Watts, 2002; Harris-Bowlsbey and Sampson, 2005; Venable, 2010). Hooley et al (2010) argue that the online environment can be used variously by careers workers:

1. to deliver information
2. to provide an automated interaction
3. to provide a channel for communication.

Delivering careers information

The internet offers a massive information resource for career explorers. Careers workers may be tempted to view the internet as a vast careers library stuffed with information about jobs and courses. Indeed many careers websites have been designed with the idea of recreating a conventional careers library, but without the limitations of space. However, this kind of technology also provides an opportunity to improve the quality of information, to harness the linked nature of the web to draw in external resources (such as employers' sites) and to provide a more media-rich experience through the use of pictures, audio and video.

Since the mid-1990s there has been a proliferation of career related websites which have sought to provide careers information in a variety of forms. Although there have been a number of evaluations or commentaries on particular career websites (e.g. Lambley et al, 2007; de Raaf et al, 2012) there has been little research that has sought to identify effective approaches for the communication of online careers information. There would be value in further research which examined the approaches used on different careers information websites and explored their relative effectiveness.

The internet as careers library is only one metaphor that can be used to describe the kind of careers information environment that it provides. An alternative would be to see the internet as a career marketplace in which traders with varying degrees of authority and integrity set out their wares. This understanding of the internet as a complex

How the internet changed career

marketplace returns us to the discussion of digital career literacy and particularly to the abilities of collecting and critiquing that were highlighted earlier in this article. Elsewhere Grubb (2002) has urged caution about celebrating the availability of online careers information without also recognising the skills and literacies that underpin the effective use of these. Empirical studies (Howieson et al, 2009) have also questioned the usefulness of information based careers websites without a strong supportive infrastructure for learning and development.

It is important not to 'throw the baby out with the bathwater' and to recognise and celebrate the value that online careers information now provides. An informed career explorer can quickly draw together information about labour market trends, occupational profiles and vacancies. They can also supplement this quantitative information with qualitative information such as career narratives, advice and opinion: all of which support career building if engaged with critically. This information is now readily available, when previously it was a considerable task for a specialist to assemble the material. Nonetheless it is important to recognise that there are limitations to what information can achieve without an informed consumer. Careers education and guidance can provide interventions that support the development of the informed consumer and address the inequitable distribution of digital skills and knowledge. Without the provision of these kinds of interventions, the ready availability of information may reinforce individuals' existing career thinking by simply offering them the tools to answer their immediate questions more easily. One social consequence of failing to challenge and problematise people's career thinking is a tendency towards social and occupational reproduction.

Providing an automated interaction

The second way in which online technologies might be used to deliver career support is through the development of an automated interaction. Automated interactions seek to recognise the individual and to deliver a service that is, to varying extents, tailored to their needs. The fact that this does not directly involve a careers worker, or indeed direct engagement with any human being, raises the possibility of efficient and scalable services. Automated interactions can be

used to facilitate the initial exploration and diagnostic elements of the traditional advice and guidance service: for example, it can facilitate psychometric, matching and reflective tools, and perform some initial diagnostic tests. There is considerable research that supports the idea that these kinds of automated interactions can be highly effective if administered appropriately (Tracey, 2010; Betz and Turner, 2011).

Technology can also be used to support people to develop their career learning skills: for example, through games and simulations that can be used to provide an interactive way of exploring the worlds of learning and work (Maxwell and Angehrn, 2008; Betts et al, 2009). Increasingly online games are also becoming a channel for communication between different players. Dugosija et al (2008) identified that the range of career benefits that individuals acquired from participating in online gaming, included increasing their social and professional networks.

Providing a channel for communication

There are online tools that facilitate communication and interaction between people. In some cases these online technologies have simply transferred offline practices (talking/writing etc.) online, in others they have resituated other technologically-mediated practices within the online arena (for example the move from telephone networks to Skype-type⁷ online synchronous audio technologies). However, many types of online communication have created entirely new modes of communication. The many-to-many social networks of Facebook and Twitter with their conventions of short personal updates and the sharing of photos, weblinks and resources have no direct offline equivalents. Consequently thinking about how to transfer career development online is unlikely to be simply a question of shifting existing practices into the online environment. Rather, it is likely to require a willingness to re-imagine paradigms and to innovate. It is possible to classify communication tools into three categories: those that facilitate one-to-one, one-to-many and many-to-many forms of communication.

⁷ Skype is an online synchronous discussion tool. It enables both video and audio discussions and one-to-one and many-to-many discussions. It can be accessed from <http://www.skype.com>.

One-to-one forms of careers practice remain an important tenet of practice amongst career guidance practitioners. That practice can be translated effectively to communication over the telephone (Page et al, 2007) and via the internet (Offer, 2004). Offer examined channels that could be used to do this, such as web chat, email, on-line discussion fora and message boards. Eight years later, the range of communication channels has increased further, but attempts to re-shape the paradigm of online one-to-one approaches to make better use of the online environment appear to remain largely the province of early adopters (Goddard, 2010).

One-to-one communication does not necessarily have to be with a careers professional to support career learning. There is considerable research which describes and evaluates the practices of various forms of online mentoring in the context of career development and human resource development (Bierema and Hill, 2005; Headlam-Wells et al, 2005). Finally, it is likely that much peer-to-peer career support is now conducted online.

One-to-many communications using technologies such as radio and television operate in broadcasts mode. One person (in this case the careers worker) has something to say and the many has simply to listen. However, technologies like blogs and video-sharing sites provide one-to-many communication channels with additional opportunities for interaction with the many. This can create a blurring between activities that are primarily about information giving and those that include more interactive advice or guidance. Career blogs provide a good example of this and offer an effective and efficient mode of delivery for career support (Hooley, 2011). Alternative one-to-many/many-to-one approaches include the use of other social media technologies to create video channels, Facebook groups and fan pages and other online activities that combine the delivery of information with interaction.

One-to-many/many-to-one communications also encompass the application of interactive e-learning techniques (Salmon, 2004). The use of interactive e-learning technologies by careers workers has so far been limited and has not been effectively evaluated. However, it is possible to make a strong argument that

the way in which interactive e-learning encourages discussion, reflection, engagement with learning materials and integration of learning into the learners' current situation would lend itself well to career development.

Finally it is also possible to see opportunities for careers workers in the **many-to-many** communications that exist online. Individuals are using online social networking sites to provide each other with peer support around career development (DiMicco et al, 2009; Din et al, 2012). This might include using tools like LinkedIn to form online communities of practice which transcend organisational boundaries and allow the exchange of intelligence around a professional community, or the development of internal communication environments perhaps using tools like Yammer⁸. One application of this is for careers workers to use these technologies to comprise their own communities of practice. However, seeking to intervene in other many-to-many networks to provide career support can be challenging. Further thinking about effective and appropriate ways for careers workers to intervene in and utilise online many-to-many environments is clearly of crucial importance. To be effective, careers workers will need to find modes of engagement that avoid accusations of colonising online social or professional spaces (Law, 2010).

Conclusion

This article has argued that the online environment reshapes the context within which individuals pursue their careers and that consequently this requires individuals to develop their digital career literacy in order to operate effectively within this context. This creates a new set of learning areas (the Seven C's) which careers workers need to both master and be able to support the development of in others. Finally this article has argued that the internet offers a range of mechanisms for career support that are based around the delivery of information, automated interactions and communication. As these issues have been explored, an attempt has been made to

⁸ Yammer is an internal social network designed for use within organisations. It can be accessed from <https://www.yammer.com/>.

How the internet changed career

synthesise existing knowledge on these questions and to propose frameworks for action that might be helpful to careers workers seeking to reframe their role in the light of these rapid shifts in the nature of career and career support.

A key theme is the importance of seeing the online environment as an embedded part of life and career. Online can no longer be seen as a parallel world where individuals take refuge from reality. Rather, online is interspersed with all aspects of life and career. Individuals blend these online and onsite contexts all the time with conversations and meetings even being conducted simultaneously in both. Given that people experience their careers as a blend of online and onsite experiences it is highly likely that they will seek, expect and respond to career support that recognises and utilises the potential of this blended environment.



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How the internet changed career

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