THE CAREERS & ENTERPRISE COMPANY

The evidence base for careers websites.

What works?

The Careers & Enterprise Company
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About this paper

This paper provides an overview of the research literature on the use of career websites with children and young people in a range of educational settings. It draws out lessons for good practice that may be used by young people, schools, colleges and other providers of career education in order to support the effective use of career websites.

Contents

In brief

There is some evidence which suggests that using career websites as part of broader careers education provision can impact positively on young people's career readiness and the quality and diversity of their social networks for careers purposes.

The evidence points to a number of findings which can be turned into lessons for practice.

- Information-based career websites need to exist in the context of a wider offline careers support program. They are not a replacement for professional career guidance.

- Career websites that provide automated interactions need to be embedded within a wider range of careers support services. Only by doing so can they increase users' awareness of career support or give users new ideas about careers by exposing them to multimedia resources.

- Where career websites are used to facilitate communication (e.g. through online guidance and counselling or through delivery based inside virtual worlds), this can lead to positive outcomes such as gains in career decidedness and self-knowledge, gains in satisfaction with future career prospects, and in career exploration behaviours (such as more frequent career searches).

- Career websites need to be integrated into careers education provision and into wider forms of career support (e.g. tutorial support and personal guidance).

Executive summary

Career websites can refer to a range of online learning tools and computer-assisted career guidance systems (CACGS). Such tools are designed to support young people's career learning and to help them to work out what to do with their future lives in relation to education and work.

Careers websites can be categorised in the following way:

- those that provide careers information and resources (e.g. CASCAID, iCould);

- those that provide online automated interactions to facilitate initial exploration and diagnostic elements of a traditional advice and guidance service (e.g. Fast Tomato, Kudos, Launchpad), as well as new kinds of automated experiences such as work simulations and online gaming (e.g. MeTycoon); and

- those that facilitate communication and the development of networks and relationships (e.g. LinkedIn, Hiive).

Existing studies have observed impacts associated with career websites across two domains:

1. Improving career readiness

2. The development of social capital

The use of career websites with children and young people is a 'potentially effective' intervention. The evidence to date relies on a variety of small-scale evaluations which suggest some positive outcomes for career website users.

Lessons for practice

1. Construct career websites for effective career learning.

2. Recognise that a range of career websites with different levels of functionality will be useful to young people at different times.

3. Do not assume that young people have high levels of digital career literacy or that they are capable of effectively using online resources unaided.

4. Think about whether and how to involve career professionals in the development and delivery of career websites.

5. Where possible embed careers websites into wider career learning activities.

1. **Introduction**

Careers websites refer to a range of online learning tools, including websites and apps, that are designed for young people to use to work out what to do with their future lives in relation to education and work.

Such tools may be accessed directly by young people to allow them to self-serve their career development needs or mediated via a career education programme or other form of career support. Research suggests that the use of career websites by young people can result in 'increased knowledge about the world of work, increased knowledge about the self, and increased certainty about educational career choices (p.183)'.[1]

The Careers & Enterprise Company has identified that there are a wide range of careers websites available to young people in England.[2] However, the usefulness of the information and services that they provide is limited both by poor design and by a fragmented market which means that schools, colleges, young people and their parents are unclear about what sites to use and how best to make use of them. In this paper, we will seek to address this and to provide a clearer, evidence based route for the effective use of careers websites.

At one point all career development services were delivered through either a meeting between two or more people or through the production of physical resources such as books. However, from the 1960s there has been an interest in using computers to do some of the work that was previously done by human beings

and from the 1990s the internet offered the opportunity to make careers resources and services available online.[3] From this point onwards the internet increasingly became a vast, but unregulated, careers library from which individuals could draw resources.[4] Sometimes this involved individuals accessing pre-existing careers resources (e.g. leaflets and reports) or those which had been created for other purposes such as government labour planning data or employers' websites. However, there was also a gradual growth in the number and type of dedicated careers websites that were available to support individuals' career building. Career websites now afford young people and the careers practitioners who support them quick and easy access to high quality career and labour market information as well as a range of other sources of support.

The various online resources that have developed offer users a range of different functions and functionality. Some are designed to support career educators, providing them with resources to use face-to-face, while others are designed to stand alone. Some facilitate interaction between human beings remotely, whilst others provide users with access to information or automated services without the need for mediation or interaction. As careers websites have increasingly been able to

1.   Harris-Bowlsbey, J. (2013). Computer-Assisted Career Guidance Systems: A part of NCDA History. *The Career Development Quarterly*, 61, 181-185.

2.   The Careers & Enterprise Company. (2016). *Moments of Choice*. London: The Careers & Enterprise Company.

3.   Watts, A.G. (2002). The role of information and communication technologies in integrated career information and guidance system. *International Journal for Education and Vocational Guidance*, 2(3), 139-155.

4.   Hooley, T. (2012) How the internet changed career: framing the relationship between career development and online technologies. *Journal of the National Institute for Career Education and Counselling*, 29, 3-12.

facilitate social networking, web-chat and personalised multi-media content the appeal of such sites has grown along with the assumption that they must be able to meet young people's needs.[5]

It is possible to construct a range of rationales for making use of the internet to support young people's career building.[6] Such online services can:

- transcend geography enabling young people to access services wherever they are;

- provide immediacy of access (e.g. whenever they want via smart phones and tablets);

- provide confidential and discrete services that enable individuals to make enquiries without having to reveal their needs to their teachers, parents or peers;

- provide flexible provision with a greater capacity to manage and respond to peaks in demand (e.g. students' need to access careers information and support on A level results day may quickly overcome a school's resources);

- provide 'specialist' information or services, for example, around the needs of specific sectors, students with special educational needs or unusual career choices; and

- potentially provide cost savings by making use of self-access, automation and economies of scale.

Taken together these rationales offer the promise of extending young people's access to services, increasing the flexibility of delivery methods and reducing overall costs, in part by reducing the demand for face-to-face support. However, robust evidence on the impact of introducing career websites as part of careers education is limited.[7][8] This paper will draw the existing evidence together and use it to make recommendation around the design and use of such websites.

5. Bimrose, J., Kettunen, J. and Goddard, T. (2015). ICT – the new frontier? Pushing the boundaries of careers practice, *British Journal of Guidance & Counselling*, 43(1), 8-23.

6. Hooley, T., Shepherd, C. and Dodd, V. (2015). *Get Yourself Connected: Conceptualising the Role of Digital Technologies in Norwegian Career Guidance*. Derby: International Centre for Guidance Studies, University of Derby.

7. Barnes, A., La Gro, N. and Watts, A.G. (2010). Developing E-Guidance Competences: The Outcomes of a Two-Year European Project to Transform the Professional Development of Career Guidance Practitioners. *Career Research and Development*, 25, 12-25.

8. Howieson, C. and Semple, S. (2013). The impact of career websites: what's the evidence? *British Journal of Guidance & Counselling*, 41(3), 287-301.

2. **What are careers websites?**

Careers website are online services that offer career information, including qualitative information such as career stories, diagnostic assessments or opportunities for interaction between individuals.[4][9]

In practice the term careers website covers a range of different online platforms and services which can be used in a number of ways for a variety of purposes. Because of this, different careers websites will have a range of impacts and can and should be used in accordingly.

There are three main functions that career websites can provide.[5][10][11]

Careers information and resources

Such resources may include quantitative, qualitative and multi-media content. (e.g. CASCAID, iCould)

Online automated interactions

Which facilitate initial exploration and provide assessments and diagnostics which are designed to replicate elements of a traditional advice and guidance services (e.g. Fast Tomato, Kudos, Launchpad). Such automated interactions can also provide experiences such as work simulations and online (serious) gaming which support career learning in new ways (e.g. MeTycoon).

Communication and interaction tools

Such tools facilitate the giving and receiving of advice and the development of networks and relationships. They may facilitate communication in a one-to-one, one-to-many or many-to-many format (e.g. LinkedIn, Hiive).

9.   Law, B. (2012). On-line careers work – hit and myth. *Journal of the National Institute for Career Education and Counselling*, 29, 13-20.

10. Hooley, T., Hutchinson, J., & Watts, A. G. (2010). *Careering Through The Web: The Potential of Web 2.0 and 3.0 Technologies for Career Development and Career Support services*. London: UK Commission for Employment and Skills.

11. Hooley, T. and Neary, S. (2016). The role of online careers work in supporting mental health. In Goss, S., Anthony, K., Sykes Stretch, L. and Mertz Nagel, D. (Eds.) *Technology in Mental Health: Applications in Practice, Supervision and Training* (Second Edition). Springfield, Illinois: Charles C. Thomas.

In addition to the functionality that is offered by careers websites it is also important to recognise the context for their use. Careers websites can be used by young people in a standalone self-service manner or mediated as part of other forms of career support (such as face-to-face advice and guidance, employer encounters or supported e-learning). While careers websites are typically designed to sit somewhere on the mediation spectrum it is possible for users to repurpose them and to deploy them in ways that were not originally intended by their designers.

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Careers websites can be used by young people in a standalone self-service manner or mediated as part of other forms of career support (such as face-to-face advice and guidance, employer encounters or supported e-learning).

Both the functionality and the context for careers websites means that careers websites do not comprise a single intervention but are rather a series of different interventions which are united by the fact that they make use of the online environment. Given this, it is likely that the evidence for the different forms of careers website and for the different ways in which they are used will vary.

Governments in the UK and elsewhere have sometimes seen careers websites as a way to offer career guidance more efficiently to a wider public. This view tends to see careers websites as a resource that can be used to directly replace both the work of career professionals and time allocated to career guidance in the curriculum. Such a view is obviously appealing as it holds out the promise of more efficient delivery of services. However, it is important to note that there is no evidence that supports this as an effective reform.[8] Furthermore, it is worth noting that, despite the rhetoric, there has been limited investment in careers websites by government in comparison to the amount of money that is spent on the delivery of face-to-face services. All of this reminds us that despite an almost 30 year history, careers websites are still emergent, with practitioners and policymakers often unsure about exactly how to make the best use of them.

Examples of careers websites

Careers websites that provide careers information and resources

Talking Jobs Website

Talking Jobs is an online video player that delivers a series of career case studies. It is a blended career-learning tool for teachers to help develop classroom discussion about work, stereotypes and society, and a guidance tool used as preparation for face-to-face sessions with careers professionals. The designer of the Talking Jobs site describes the rationale for his site as follows:

'teachers and careers professionals need resources which help students generate a broad and deep insight into people's working lives and experience irrespective of role or social background, and this needs to be delivered in a blended way... through exposure to ideas about careers from across all backgrounds' (p.51).[12]

www.talkingjobs.net
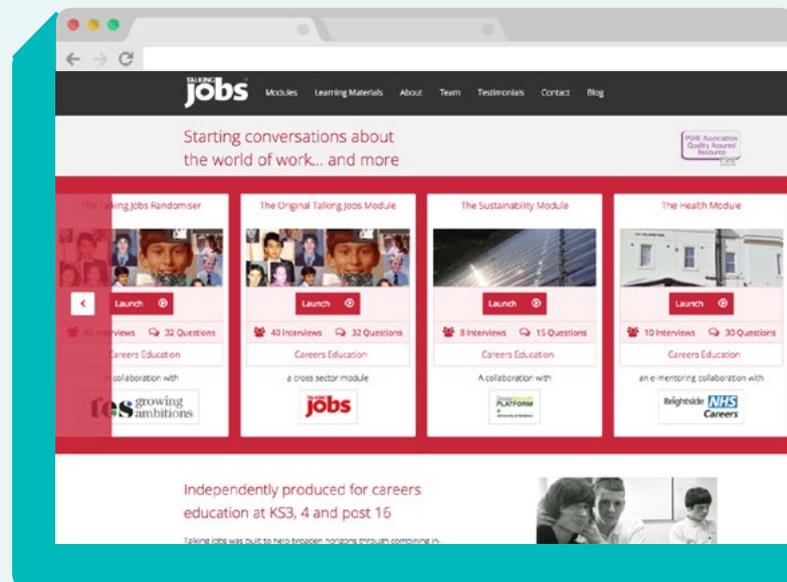
PlanITPlus

Features of this website include job profiles and job information, a CV-building tool, an interest guide, a telephone helpline and email service, e-chat functionality and an e-portfolio tool. PlanITPlus was primarily developed for school pupils and designed to be used within the curriculum, e.g. as part of Personal Social Health Education, as well as by pupils on their own or with the support of a careers advisor, teacher or parent. Like Talking Jobs, it is also an example of a mediated resource that is designed to support a career education programme.

www.planitplus.net
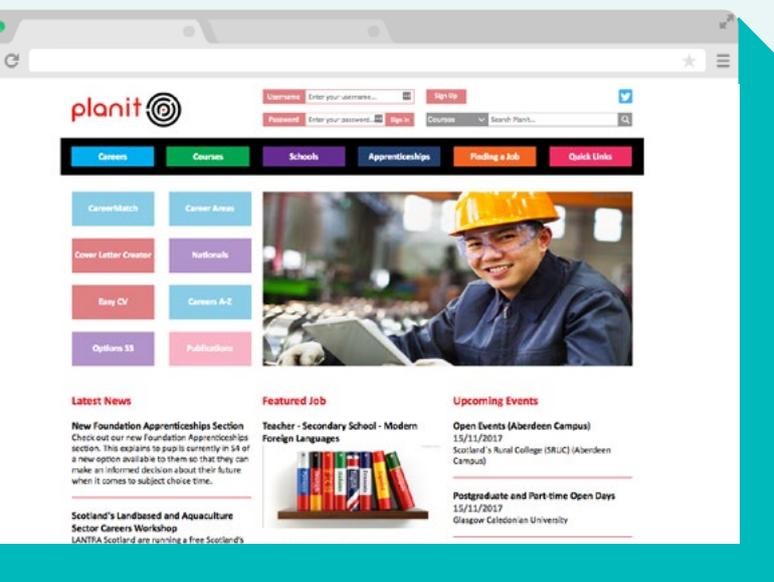
12. Manson, A. (2012) A developer's perspective on CEIAG. *Journal of the National Institute for Career Education and Counselling*, 29, 47-51.

Career websites that provide online automated interactions

MeTycoon

MeTycoon is a 'serious game' or digital game that simulates real world experiences and aims to allow players to develop skills as part of a wider career guidance programme. The game 'creates a role playing environment in which the player must offset their lifestyle choices against income requirements and job preferences, whilst unlocking skills and professions by experiencing more formal learning resources' (p.59).[13] MeTycoon allows a player to live a game-based 'life' (p.62).[13] It builds upon notions of role-playing and experiential learning to allow players to live a virtual life, gaining skills, qualifications, and jobs and deal with events as they occur. The MeTycoon game is built around pre-existing educational videos that provide information on a given career from an experienced professional in that field. It was thought that the videos may be viewed more times if they were embedded into a game.

playgen.com/play/me-tycoon
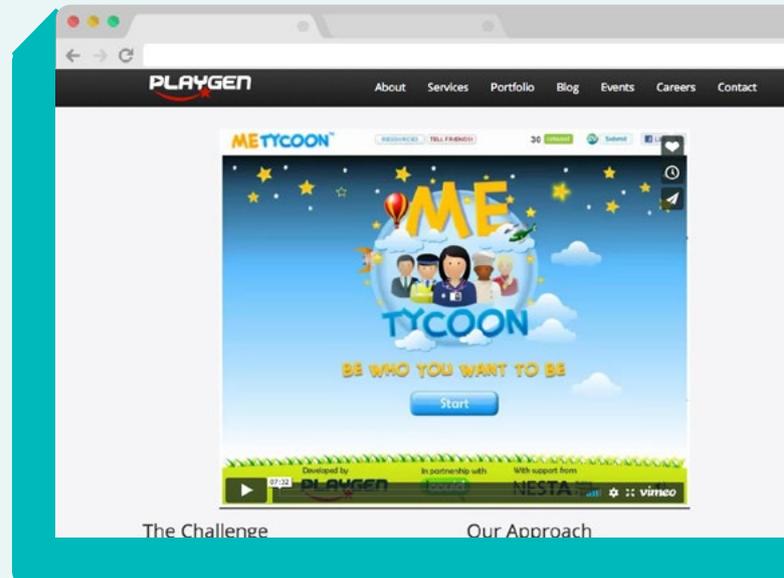
FOCUS-2

FOCUS-2 is a popular computer assisted career guidance (CACG) system used at several US colleges and universities.[14] It enables its users to use a variety of career-related features, including self-assessment and exploration of various career options. Its users are able to complete separate assessments involving their interests, personality, self-reported skills, values, and leisure activities. The result of these assessments are then linked to corresponding occupations. FOCUS-2 users are also able to research over 1200 occupations by name or industry, perform a search about university degrees, and view characteristics of two occupations side by side (e.g. expected salary, entry qualifications). In addition, over 500 short video clips that depict various work tasks are accessible. It is claimed that systems like FOCUS-2 offer users an individualised experience where they are able to be in personal control of career-related tasks linked to their career development.

www.focus2career.com
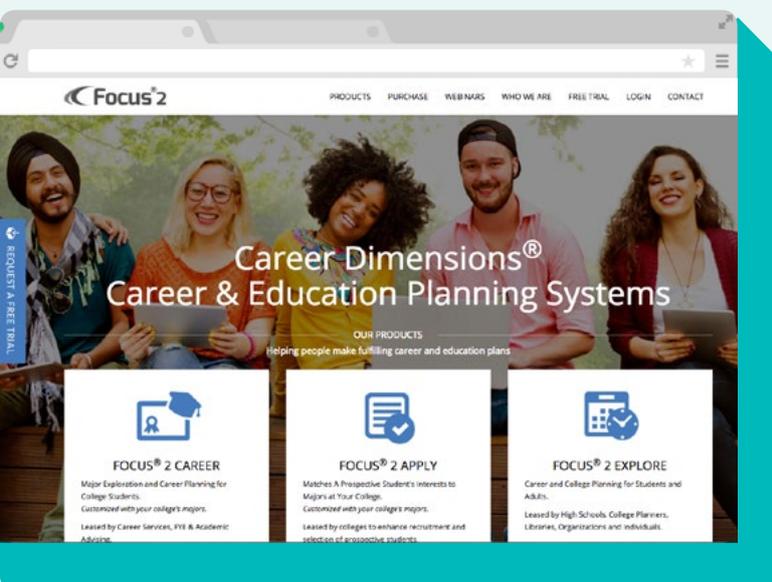
13.   Dunwell, I., Lameras, P., de Freitas, S., Petridis, P., Hendrix, M., Arnab, S. and Star, K. (2014) Providing Career Guidance to Adolescents through Digital Games: A Case Study. *International Journal of Games-Based Learning*, 4(4), 58-70.

14.   Tirpak, D.M. and Schlosser, L.Z. (2013). Evaluating FOCUS-2's effectiveness in enhancing first-year college students' social cognitive career development, *The Career Development Quarterly*, 61, 110-123.

Career websites that provide communication and interaction tools

Career HOPES

Career HOPES was a 4-week Internet-based career development intervention.[15] Career HOPES was designed as an experimental intervention to evaluate the effectiveness of interactive, communication-based career websites. It is a group counselling intervention that includes:

- automated interactive lessons and self-assessments;

- homework assignments; and

- group discussions in private online forums.

Inter-Life Islands

Inter-Life Islands are 'virtual worlds', based on Second Life, in the career guidance field that use creativity (individually and collectively) to help young people understand and navigate their key life transitions in conjunction with adult education professionals.[16] The Inter-Life project created two virtual island environments in consultation with user participants:

- Inter-Life Island 1 – for young people over the age of 18 to work on school-to-university and within-university transitions.

- Inter-Life Island 2 – for young people aged 13-17 to work on creative activities and skills development related to the challenges of a range of life transitions.

- The Inter-Life 'transition tools' included:

- virtual research communities;

- creative activities;

- digital image documentaries; and

- supervision and mentorship tools.

From the six examples of careers websites described three are illustrations of potentially self-service, standalone online resources that can be used by young people at their own pace (PlanITPlus, Focus-2, and MeTycoon) and three are examples of mediated services that are directly embedded into existing careers work led by careers or education professionals (Talking Jobs, Career HOPES and Inter-Life Islands). However, it should be noted that the literature recommends that the three potentially self-service online careers resources be used in conjunction with wider careers support services.[12] [15] [16] For example, this might involve young people bringing the results of their engagement with these standalone resources to discussions with careers professionals to help them to make sense of the information and to consider how to integrate it into their career building.

15. Herman, S. (2010). Career HOPES: An Internet-delivered career development intervention, *Computers in Human Behaviour*, 26, 339-344.

16. Lally, V. and Sclater, M. (2012). The inter-life project: intercultural spaces for young people to use creative practices and research to assist with life changes and transition. *Research in International and Comparative Education*. 7, 480-502.

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Careers websites can be used by young people in a standalone self-service manner or mediated as part of other forms of career support.

3. What impact do career websites have?

The current evidence base for career websites suggests that using career websites can be effective for young people. However, much of the evidence evaluated can be described as lower-quality evaluations which show better outcomes for programme participants (level 2 in the EIF evidence scale).[17]

The small body of published research on careers websites suggests that using careers websites as part of broader careers education provision can impact positively on young people's career readiness and the quality and diversity of their career-relevant social networks.[8 13 14 15 16 21]

In what ways do career websites improve young people's career readiness?

Most of the evaluations of careers websites found that the discernible impacts were in relation to career readiness. This includes improvements in young people's career decidedness and self-knowledge, increases in their satisfaction with their future career prospects, increases in career exploration behaviours, and improved confidence in making career decisions.[14 15] Other studies found that career websites increased users' awareness of the career support and advice that is available or gave them new ideas about careers by exposing them to multimedia resources (particularly video clips) about careers.[12 13] These findings were apparent across a range of different types of careers websites.

There were no studies that provided evidence that information giving websites alone could provide clear benefits to career readiness. However, there were some that found benefits from the use of automated interactions. For example, Tirpak and Schlosser[14] found that use of the FOCUS-2 was associated with statistically significant gains in participants' career decision self-efficacy (CDSE), demonstrating participants' increased confidence in engaging in career decision-making activities after using FOCUS-2, which supports findings by other researchers in relation to similar CACG systems. Dunwell[13] and colleagues and Hummel[18] and colleagues found that serious games websites can incentivise young people's approach to accessing career-related information (e.g. via videos and mini games), as well as transferring career information and skills during game-play. They suggest that serious games may be capable of stimulating a higher degree of intrinsic motivation amongst players to learn career skills. Dunwell[13] and colleague's study found that 87% of participants said playing the game had given them new career ideas and 66% said they had shared or discussed the game with friends. In total 408,347 career

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17. Early Intervention Foundation. Available from http://www.eif.org.uk/eif-evidence-standards/ [Accessed 9th August 2017]. Note the EIF have recently switched to referring to level 1 as 'NL2' however we have retained the older terminology for consistency.
18. Hummel, H.G.K., Boyle, E.A., Einarsdottir, S., Petursdottir, A. and Graur, A. (forthcoming). Game-based Career Learning Support for Youth: Effects of playing the Youth@Work Game on Career Adaptability. *Interactive Learning Environments*.

video playbacks were triggered, which highlights that this content was accessed and viewed extensively. This suggests that embedding pedagogic content in an interactive game might motivate players to view more conventional components such as instructional videos as part of the wider gaming experience.

The evidence is stronger with respect to websites that offer communication tools for young people to interact with careers professionals and other career supporters. A study of online mentoring found that mentees reported a range of benefits from participating in online mentoring including helping them to make decisions and changing their behaviour. Mentees also reported an increase in a range of skills and knowledge and reported that they understood more about their careers options and were more able to actively manage their careers.

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A study of online mentoring found that mentees reported a range of benefits from participating in online mentoring including helping them to make decisions and changing their behaviour.

Similarly, in a study with a control group, Herman[15] found that the Career HOPES website which offers embedded online group support facilitated by a qualified careers professional, led to greater gains in users' career decidedness and self-knowledge than the control group. Participants reported greater gains in satisfaction with

their future career prospects and in their career exploration behaviours. This suggests that the intervention had a positive impact on career decidedness, helping them to become more decided about their future career directions. The results also showed that the project had a positive impact on two indices of information quality: occupationally relevant self-knowledge and the frequency of career exploration behaviours. Herman[15] worked out that the effectiveness of the Career HOPES intervention is comparable to that of career classes, group counselling and career workshops. This echoes broader findings from statistical meta-analyses which have sought to examine the relative efficacy of different delivery modes.[19]

There is also some evidence that supports the use of online careers tools as mediated resources which can be combined with face-to-face career support. Howieson and Semple[20] found that the use of the PlanITPlus career website as a resource in schools over a three week period had a positive impact on young people's levels of awareness of the career support and advice that is available to them. The study also found that individual pupils' use of career websites varied according to their attitude to school. For example, those with a more negative attitude towards school were less likely to use a career website.

19.   Whiston, S. C., Sexton, T. L. and Lasoff, D. L. (1998). Career-intervention outcome: A replication and extension of Oliver and Spokane. *Journal of Counseling Psychology*, 45(2), 150-165.

20.   Howieson, C. and Semple, S. (2013). The impact of career websites: what's the evidence? *British Journal of Guidance & Counselling*. 41(3), 287-301.

21.   Dyson, E. (2012) Face-to-facebook: A blended approach to careers work, *Journal of the National Institute for Career Education and Counselling*, 29, 27-32.

22.   Lally, V. and Sclater, M. (2012). The inter-life project: inter-cultural spaces for young people to use creative practices and research to assist with life changes and transition. *Research in International and Comparative Education*. 7, 480-502.

In what ways do career websites increase social capital?

The internet provides a huge opportunity for young people to make contact with a wide range of people.

Two of the studies suggested that careers websites can impact positively on young people in relation to increasing levels and types of social capital for career purposes.[21] [22] A study on the use of virtual worlds reported that it can help the young people to understand and navigate their key life transitions.[22] The authors conclude by stating that they 'think that virtual worlds are a serious candidate for further consideration as digital tools in the careers and guidance domain. They can support sustained creative collaborative activity, the development of communities, and serious skills acquisition'. Lally and Sclater's[22] study suggests that 'linking' social capital is built between young people and a range of professionals when they interact together on the virtual world of Inter-Life Island 2.

Their study also suggests that 'bridging' social capital is built between young people and other young people when interacting in the specially designed virtual world. Bridging social capital is created when relationships are built between individuals that cut across different social groups (such as young people working with other young people outside of their usual peer groups). Linking social capital exists where relationships are developed between people at different positions within an institutional hierarchy (such as young people working with a range of adults from different organisations). The creation of both 'bridging' and 'linking' social capital is important for providing access to new ideas and resources that are otherwise outside of individuals' usual social circles.

Using careers websites as part of broader careers education provision can impact positively on young people's career readiness and the quality and diversity of their career-relevant social networks.

4. What are the lessons for practice?

The evidence base identifies two key areas in which careers websites have some level of measurable impact on young people (career readiness and developing social capital).[14] [15] [19] It also provides some good insights as to how careers websites should be designed and utilised.[8] [12] [23] [24] [25] [26] [27]

These evidence-based lessons can be summarised as follows.

Construct careers websites for effective career learning

Careers websites should not simply be about providing access to information and resources. As earlier research by The Careers & Enterprise Company has argued, young people are quickly overwhelmed by information and such information overload frequently leads to disengagement from career development.[2] Consequently careers websites need to construct a pedagogically thoughtful environment that can enable individuals to enhance their career development at whatever stage they are at.

Key elements of effective design include:

- providing relevant, targeted and personalised information;

- inclusion of self-assessment activities that can assist users in making meaning of the information provided; and

- integration of standalone resources with other forms of career learning to provide opportunities for purposeful

communication throughout the intervention to support meaning-making, prioritisation and action taking.[28]

More broadly published research suggests that careers websites will be improved if the developers apply knowledge from research in the fields of e-learning and e-counselling. Studies in these areas have given us some useful information that can be drawn upon when thinking about how to make best use of career information.[22] [23] [29] [29] For example, Salmon's[29] five-stage model provides a framework for a structured and paced programme of online activities, which offers support and development to learners at each stage as they build up expertise in learning online. It is possible that the developers of careers websites could increase learners' levels of engagement and satisfaction if they routinely build in clearer e-moderation processes, together with technical support, into career websites.[30] [31] This would allow young people to use career websites more confidently and effectively as part of their ongoing career development.

23. Rutten, M., Ros, A., Kuijpers, M. and Kreijns, K. (2016). Usefulness of social network sites for adolescents' development of online careers skills. *Journal of Educational Technology and Society*. 19(4), 140-150.

24. Andrei, A. and Scoda, A.D. (2017). How the potential of ICT is integrated in counselling and guidance throughout Romania. *eLearning and Software for Education*. 2, 316-323.

25. Osborn, D.S., Kronholz, J., Finklea, J. and Cantonis, A. (2014). Technology-savvy career counselling. *Canadian Psychology*. 55(4), 258-265.

26. Osborn, D.S. and LoFrisco, B.M. (2012). How do careers centres use social networking sites? *The Career Development Quarterly*. 60(3), 263-272.

27. Evans, J. and Rallings, J. (2013). *Helping the inbetweeners: Ensuring careers advice improves the options for all young people*. Iford, Essex: Barnardo's.

28. Howieson, C., Semple, S., Hickman, S. and McKechnie, J. (2009) *Self-help and career planning*. Glasgow: Skills Development Scotland.

Recognise that different careers websites and different functionality will be useful to different young people

Careers professionals and career informants who support the use of careers websites need to think carefully about which types of careers websites fit the needs of young people at different times.[12] For example, a website like Talking Jobs would be useful earlier in a young person's career journey to stimulate initial discussions about careers, followed by the use of automated inter-actions. Careers professionals and career informants should collect information about what careers websites young people are using as part of their monitoring of the wider careers environment (including websites that young people self-select and use voluntarily). Providers should ensure that feedback opportunities are provided to young people to discuss the outcomes of their engagement with a range of careers websites. This is important to enable young people to interpret the results and ideas that emerge.[28][32] This sort of personalised work with young people is important to ensure they are able to apply critical thinking in careers website use for reliable careers learning.

Do not assume that young people have high levels of digital career literacy or that they are capable of effectively using online resources unaided.

A study by Rutten et[24] and colleagues shows that young people often do not know how to practice online career skills effectively with social media tools. This and other studies suggest there is a need for professionals to actually demonstrate how to use social network sites to practice online career behaviours.[28]

Think about whether and how to involve career professionals in the development and delivery of careers websites

Several studies refer to the need for career professionals to play a more pronounced role in the development and delivery of careers websites.[19][24][25][26][27][28][33] Evans and Rallings[26] raised questions about some young people's levels of digital literacy and suggested that professionals need to be involved in both actively raising awareness of careers websites and supporting young people to conduct online searches and participate in online careers activities. This may lead to a need for professionals to be involved in continuous training in the use of ICT in relation to careers development and guidance. Andrei and Scoda[25] state that professionals need to pro-actively engage with continuing professional development to ensure they can both use technology and select and adapt online tools for

30.   Salmon, G. (2013). *E-tivities: The Key to Active Online Learning* (2nd ed.). London and New York: Routledge.

31.   Salmon, G. (2011). *E-moderating: The Key to Teaching and Learning Online* (3rd ed.). New York: Routledge.

32.   Ryan, N. and Hopkins, S. (2013). Combining social media and career development learning: An intensive tertiary preparation programme for disadvantaged youth. *Australian Journal of Career Development*. 22(3), 107-111.

33.   Kettunen, J., Vuorinen, R. and Sampson, J.P. (2015). Practitioners' Experiences of Social Media in Career Services. *The Career Development Quarterly*. 63, 268-281.

34.   Hooley, T., Hutchinson, J. and Neary, S. (2016). Ensuring quality in online career mentoring. *British Journal of Guidance and Counselling*. 44(1), 26-41.

different sorts of young people. Kettunen, Vuorinen and Sampson's[34] study investigates practitioners' experiences of social media in career services. They found that careers professionals' use of social media with clients followed different patterns. For example, it could be a means of delivering information to a client (e.g. posting a link to a resource). It could also be used for one-to-one communication (e.g. interaction through instant messaging) or as an interactive workspace (e.g. through a shared page

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Their study suggests that where social media plays a role in career services that 'it is important to expand the awareness of the varying models of career interventions with online technologies' (p.279).[34].

or group). They also found that the practitioners' approaches to using social media in careers services were related to different models of career intervention (e.g. preferences for individual, face-to-face interventions was linked to the first two uses of social media in career contexts). Their study suggests that where social media plays a role in career services that 'it is important to expand the awareness of the varying models of career interventions with online technologies' (p.279).[34] This suggests that it is important that teachers and careers professionals think carefully about how to integrate careers websites effectively into different models of career interventions.

Make use of the capacity of career websites to connect young people to those outside of their immediate network

Using online web services to develop social networks for career learning (e.g. through Facebook and virtual worlds) as part of wider careers education provision can help to meaningfully engage young people and build a stronger set of relationships around a wider service.[24][33] This can lead to positive outcomes such as gains in career decidedness and self-knowledge, gains in satisfaction with future career prospects and in career exploration behaviours (such as more frequent career searches). Hooley, Hutchinson and Neary[34] developed a framework of indicators for evaluating the quality of online mentoring. They point out that it is possible for online mentoring to be done well or badly and argue that the creation of a quality framework would help to ensure that mentoring providers were about to support good practice.

Where possible embed careers websites into wider career learning activities

Dyson[20] presents an example of practice that deliberately integrates the use of social media into wider face-to-face career learning provision (specifically an interactive Facebook page run by careers & employability advisers for young people in one geographic area). In this case, professional advisers used Facebook status updates to promote careers service opportunities to all young clients subscribed to the dedicated Facebook page. Communication between the advisers and young people through private Facebook messages

allowed for confidential exchanges to take place online. An online group chat facility also allowed group advice sessions to take place. Positive outcomes reported included increased regularity of client contact, allowing information to be communicated in real time and better engagement with marginalised young people. Dyson states that the approach breaks down the barrier a young person may face in accessing face-to-face support and over time the use of online interactions with a professional adviser can ensure that a client feels comfortable to attend a careers appointment in person. Anecdotal feedback from the young people involved was positive. They agreed that being able to talk to their adviser online through social media made contacting the service easier and simplified accessing employment opportunity information.

Dyson suggests that this kind of work encourages a more social way of engaging young people in career thinking. Dyson's case study puts forward that professionals' regular use of social media to engage with young people as part of employability support provision (e.g. setting up a Facebook page) can develop strong linking social capital between young people and the professional advisers, which also allows the advisers to more frequently raise awareness with the client group about a range of careers opportunities available to them. Other studies present similar findings.[22][31]

Careers websites need to be used as part of broader careers education provision if they are to impact positively on young people's career readiness and the quality and diversity of their social networks for career purposes. Information-based careers websites need a strong supportive infrastructure for learning and development and on their own are not a replacement for professional information, advice and guidance. Careers websites that involve automated interactions also need to be embedded within a wider range of careers support services if they are to increase users' awareness of the career support and advice that is available or give users new ideas about careers by exposing them to multimedia resources (particularly video clips and mini-games) about careers. Providers should make available opportunities for regular professional development to help career and education professionals feel confident when supporting young people to use careers websites as part of wider careers provision.

5. How should the evidence base be developed?

There have been repeated calls for careers policy to be informed by more extensive research on the use and evaluation of careers websites, but currently the value of careers websites in supporting users' career development remains untested and policy decisions are being based on unproven assumptions about their value.

There are relatively few studies that have examined the effectiveness of career websites on young users (under 18 years). There are some pre-existing literature reviews in the field of career websites that are part of published research reports, but none of these are extensive or systematic, and no statistical meta-analyses exist. There is also no information on the costs of using careers websites.

The small numbers of evaluations of career websites that exist focus mainly on users' satisfaction levels using self-perception measures and do not consider whether users benefitted in terms of improvements in their career-related skills. Thus, there is a need for future research to move beyond using self-perception measures of satisfaction levels alone. Other studies have explored users' views on careers websites and how they use them but have not examined impact.

We need to know much more about the use (or non-use) of careers websites by different individuals before we can be confident that careers websites make a positive contribution to supporting career transitions. We need more large-scale and longitudinal evaluations; increased use of randomisation and control groups; more information about the relative effects of different types of career websites; more studies focused on how effectively career websites are being used in the school classroom; and more interventions and evaluations that are designed in ways that support their replication in different contexts. The evaluation of the processes and outcomes involved in using different types of careers websites with young people needs to be built in from the start of future projects. It will also be important to encourage comparative studies that compare standalone career websites with mediated career websites.

We need to know whether all young people benefit equally from using career websites or whether a young person's socio-economic background or other demographic or contextual factors impact upon the benefits gained. Also, we need to find out whether the use of career websites helps young people with all types of career building. For example, do they provide more effective support for more linear career development routes than lateral ones (such as self-employment or portfolio working)?

Conclusion

There is some evidence to suggest that using careers websites as part of broader careers education provision can impact positively on young people's career readiness and the quality and diversity of their social networks for careers purposes. Where careers websites are used to develop social networks for career learning (e.g. through Facebook and virtual worlds), this can lead to positive outcomes such as gains in career decidedness and self-knowledge, gains in satisfaction with future career prospects and in career exploration behaviours (such as more frequent career searches).

The evidence points to a number of findings which can be turned into lessons for practice. For example, the use of career websites is not a replacement for professional information, advice and guidance. Their use must be embedded within a wider range of careers support services if they are to increase users' awareness of the career support and advice that is available or give users new ideas about careers by exposing them to multimedia resources about careers. The use of careers websites should be integrated into schools' careers education provision, and may be more effective for pupils when use, at least initially, is mediated and supported by careers and education professionals.

Further research is needed to substantiate and expand upon these findings. More studies need to be commissioned that examine the effectiveness of career websites on young users (under 18 years). Also, future research needs to move beyond using self-perception measures of satisfaction levels alone and we need to know more about the use (or non-use) of careers websites by different individuals before we can be confident that careers websites make a positive contribution to supporting career transitions of all young people. It will also be important to encourage comparative studies that compare standalone career websites with mediated career websites.

This information would help careers education practitioners to identify which careers websites are most useful for the young people they support and to work out how to strategically embed the use of these websites into wider careers provision.

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