Careers Services: Technology and the Future

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This report explores current practice and future potential for technically mediated service delivery in higher education careers services. In particular, it examines ways in which careers services might view their web site as an agent of change in terms of service positioning.

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Preface

This is the report of a NICEC project commissioned by the Higher Education Careers Services Unit. The aim of the project has been to explore current practice and future potential for technically mediated service delivery in higher education careers services, and in particular to explore ways in which careers services might view their web site as an agent of change in terms of service positioning.

The growth of technically mediated service delivery in the career guidance field is linked to the transformations which are taking place in patterns of service delivery in other sectors. Examples are the growth of e-commerce, the development of electronic banking, and the emergence of NHS Direct in the health service. In part these represent the potential for immediate access offered by new technologies; in part they reflect changes in patterns of social interaction; in part they stem from the growth of consumerism as a force in its own right.

In relation to career guidance, technically mediated service delivery can be viewed in three ways: as a *tool*, supplementing the various other tools used in career guidance services; as an *alternative*, replacing other elements of the service; or as an *agent of change*, altering the design of the service in fundamental ways *(Watts, 1996)*. Much current usage tends to be based on viewing it as a tool. Policy-makers tend to be attracted by seeing it as a potential alternative, which might offer substantial cost savings. Our view is that the most creative way of approaching it is as an agent of change, providing opportunities to redesign career guidance services as a whole.

The term "technically mediated service delivery" covers a variety of media, ranging from audio/video-tape facilities, through CD-ROMs, web sites and email, to telephone helplines. These media vary considerably in terms of the levels of customisation and interactivity (whether synchronous or asynchronous) that they offer. The greater the level of interactivity, the greater their potential as a change agent. This is likely to be enhanced by growing technological convergence. Hitherto the computer, the telephone and television have been viewed as separate technologies. But the advent of digital technology and enhanced bandwidth means that these three separate "analogue streams" are now converging into an integrated "digital river" *(Cunningham & Fröschl, 1999)*. The potential implications of this are profound.

The Internet has a pivotal position in this respect, which is why the project reported here has focused particularly on careers services' own web sites. The Internet is providing new options but also new forms of competition to most if not all organisations. Those that shun it may find that they have been sidelined and that their credibility has been undermined. Slevin *(1999)* argues that organisations should view the Internet as part of a positive engagement with risk.

For higher education careers services, the role of their own web sites is of particular significance because these sit at the interface between, on the one hand, their face-to-face services and the physical resources within their centres, and on the other, the web-based resources which now potentially provide the main sources of competition to them. Most of the latter tend to be national or international in nature. Careers services can use their own web site as information brokers to filter those they wish to access as added-value "global" resources, using this to enhance their distinctive "local" provision. In this way they can powerfully combine "high tech" with "high touch".

In these terms, we suggest that the approaches which careers services can adopt in developing their web sites can take a number of forms. One is *promotional*: promoting what the service offers off-line. The second is *adaptive:* delivering some of these existing services in on-line form. The third is *innovative:* delivering new services on-line which are not possible, or less feasible, off-line. The fourth is *synergistic:* to intertwine on-line and off-line services in new ways. These are by no means mutually exclusive: indeed, they may well form a series of stages in a developmental progression, with each stage building on the earlier ones. We suggest that the further a careers service moves through these stages, the more likely it is to be using its web site as an agent of change.

The present report starts by describing the state of play as at the end of 2000. An email plus telephone survey of services was carried out to review the current practices and the processes which had led to them; and a critical review was made of a sample of web sites. These were followed by a conference for HE careers services, and then - in the first half of 2001 - by action research in four services. This was supported by study-visits to Finland and the USA - the two most "wired" countries in the world *(Slevin, 2000, p.41)*. Details of the methodology and of the survey results are presented in Chapter 2; the remaining chapters elaborate themes and issues that arose from these experiences and the discussions stimulated by them.

Finally, we make a number of recommendations for the future. During the project the Harris Review Group's report on careers services in higher education was published. There is considerable synergy between their recommendations and our findings and proposals. We hope to have made a serious contribution to the response to that review.

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Executive summary

Why focus on technology?

Information and Communications Technology (ICT) is particularly important as a component of strategic thinking about the role of careers services in higher education. It makes them more visible than ever before, and more open to competition and comparison with others. At the same time it offers possibilities for connecting and co-operating at a distance with a wide range of stakeholders, clients and target groups. It is not surprising that at least seven of the Harris Review Group *(2001)* recommendations, and many other parts of the review, explicitly address the use of technically mediated services.

ICT also represents some of the most interactive resources a careers service has: a social technology that makes advisers' expertise potentially available to individuals and groups for 24 hours a day, seven days a week, and in flexible and individualised learning environments involving open and distance learning. The technical means are now available to track and record the routes taken by users through the on-line resources of a careers service. With such technical capability comes a variety of ethical and professional issues. Technology is not just another tool, but an agent of change.

What are the strategic priorities?

The environment in which careers services work is changing rapidly. Student numbers have increased, as have the pressures on staff. There is an increasing concern to reach out to new target groups previously under-represented in higher education and to support them once they are there. Mature students and ethnic minorities are among the groups particularly mentioned by the Harris Review, which also focuses attention on the needs of graduates after they have left university.

Innovative work is under way in a number of UK universities and nationally to develop technically mediated services that offer a strategic response to these challenges. However, in many the use of ICT has been relatively conservative, with web sites serving mainly to promote off-line services and provide information, and being developed largely on a reactive basis. Such an approach may overlook the ways in which ICT changes the environment in which higher education careers services operate. In particular, it presents new or elaborated strategic alternatives at five different levels:

- in setting up co-operation or competition on regional, national and global dimensions;
- in the organisation of the flow (and subsequent tracking) of users through a service's resources;
- in the detailed level of web-site design;
- in new one-to-one relationships between adviser and client, via email and at a distance;
- in the careers service's role in the curriculum and with the rest of the institution - including other staff in the university.

Local, regional, national: employer services and public/private partnerships

Chapter 3 describes how technology has opened up careers services to competition from commercial providers, including international companies. In effect, technology can be seen as having exposed the market nature of the placement process, challenging the structures based on alternative values which have previously to some extent shielded it.

In the face of such competition, it is more than ever important to think about what kinds of partnerships can be safely built and what it is important to protect. While acknowledging that no one careers service can afford to go it alone without partners, there are some tough decisions to be made: for example, about the level at which any given service is best delivered or any particular partnership entered into - locally, regionally, nationally or internationally? There is a clear rationale for local careers service web sites, but it needs to be articulated and based on an identification of its "niche market". Co-operation is more important than ever at national and international levels, in the face of present market forces. So are staff that are confident of their ability to develop and deliver technically mediated services.

Integrated, coherent and transparent services

To achieve a careers service that knows what its priorities are and can ensure that what it delivers serves these ends, it is necessary to analyse in some detail the way in which users come to, are received by, and move through the service and its resources. This includes all the services on offer, including one-to-one interviews, books, computer programs and web sites. It is important to anticipate the potential entry points and the subsequent pathways through the service and its resources: these have training and human resource development implications, but each variation potentially reflects a distinctive process of career planning and an associated model of guidance.

Until the advent of the Internet, it was a relatively simple matter to work out where users would access any careers service's resource system and where they

would go to from there. Careers services' web sites have now rendered this process more opaque, or at least more open-ended, with the possibility of unintended but parallel systems developing: users may start from more than one entry point, and thence be directed along many different routes. Tracing the flow of users through these systems can illuminate the (sometimes unintended) strategic priorities of the service.

To achieve such insights, data need to be collected on how the system is used, by whom, and for what purpose; who is having difficulty or is not being reached; and where they are. Technology significantly enhances a service's power to do this. At the same time, there are concerns about data privacy, confidentiality and ethics that must not be overlooked in the quest for a transparent service.

Needs-based or resource-based services?

A service may, in its web site and elsewhere, adopt a needs-based approach, seeking to identify the needs of users and to avoid over-serving some and under-serving others. This can be the first step to targeting: the web site can act as a first-line filter to channel those in greatest need for more in-depth services in the direction of face-to-face help, while enabling those capable of self-help to address their problems on-line.

The principles of such an approach and the related issues for web-site design are discussed in Chapter 5, which illustrates how particular features of web-page design and layout may echo fundamental principles that are familiar to practitioners in relation to face-to-face guidance interventions. The decision to adopt such alternatives entails strategic decisions about the role of the web site in the organisation of a careers service.

Email and related media - guidance at a distance

Over and above the traditional use of telephone or post, the Internet offers several ways of extending existing services to those for whom face-to-face guidance is not a practical possibility. This can be done via email, chat, on-line discussion and videoconferencing. The regular use of the last of these is dependent on the future development of resources and infrastructure, but email is already being increasingly used both by advisers and clients. Though it has limitations, there are many different ways it can be used to deliver guidance one to one and at a distance. There are national and regional experiments in operating email "helpline" services, for graduates in particular.

Mechanisms for ensuring the efficient use of an adviser's time in answering regular email inquiries include a process similar to the needs-based approach to web-site design, with users encouraged to reflect on their needs and the nature of their questions before sending the email. The use of a frequently-asked-questions system, and the registration of users, are other ways to ensure that advisers operate efficiently but are able to tailor their responses to the individual enquirer. Further uses of email include networking, mentoring, mass communication, and supporting telephone helplines. Ultimately, the nature of the target group, the context in which it comes to the point of sending an email, and the filters that can be set up to manage the system, are all likely to influence the strategic implications of a relatively new and untried medium that is certain to increase in significance.

The distance learning paradigm

Several careers services have already been using technically mediated services for some time to deliver career management skills and related learning programmes across their universities. This new variant of open and distance learning can be greatly facilitated by using such methods, so long as the traditional principles of good practice in such learning programmes are not forgotten. The most effective uses are likely to be those that pay attention to the need to integrate the technical systems as resources within a wider context of personal support from tutors, advisers and other learners. Interactivity is also a key advantage: a variety of on-line interactions with tutors, with the group or with the material itself can be created.

Building such a programme again raises strategic questions. It enables careers services to take an active part in the curriculum and the work of departments even when not physically present, to build a support structure for other staff to deliver such material and support students more effectively, or to bring new strategic partners from outside the university into direct contact with groups of students. Such options mirror the traditional off-line activities of careers services, but the immediacy and directness of on-line methods extend and sharpen the options.

Development costs may initially be high here, so it is important to get the strategic priorities right in the first instance. Nevertheless, the tide of official policy is flowing in the direction of careers services working more closely with other academic colleagues and within their university generally, and technology is already being used to good effect in this respect in several services. This is an area where co-operation and learning from others' experiences could be particularly valuable.

Chapter 1

Context and Rationale

1.1 The Harris Review

As the report of the Harris Review Group *(2001)* points out, the context of careers education, information and guidance in higher education is rapidly changing. There are pressures on services to develop in various ways, all of which need to be addressed and managed. The Review recommendations that specifically mention ICT are listed in Box 1.1. In addition, the Review expresses concern that institutional funding for the development of ICT often does not take careers service needs into account. It also talks of using ICT to improve communication with students in key target groups, of serving employers more efficiently via on-line systems, of technology as a means of "shifting access to information about employment directly into the hands of students themselves" *(para. 1.5.4)* and of targeting individual needs proactively using ICT.

Harris Review recommendations that specifically address the use of ICT

Recommendation 19
"Careers Services should consider how ICT can be used to improve communication with students in key target groups, to make them more aware of the services available and to offer them help. Email, for example, based on existing institutional databases of registered students, can be a useful addition to traditional methods of contacting students."

Recommendation 29
"The sector, building on the CSU research, should explore opportunities with DfEE to bid for funds through the Capital Modernisation Fund to improve its ICT infrastructure."

Recommendation 30
"Institutions should ensure that the needs of Careers Services for investment in ICT are taken into account when funds are distributed for the development of ICT capacity."

Recommendation 31
"AGCAS and CSU should continue to identify and agree the type and format of information which should be readily accessible through ICT. Generic information for any Higher Education student or former or prospective student should be freely available on the CSU Prospects web site."

Recommendation 32
"CSU needs to review its Prospects web site to produce greater synergy and extended 'hyperlinks' with the other sites, so that any student can access information irrespective of time and location. CSU should develop a single portal site, in conjunction with appropriate partners, giving access to national information on career planning and on careers and employment."

Recommendation 34
"CSU should identify with AGCAS ways of improving provision of, and access to, advice and support for students and graduates. Improvements should aim to enable support to be available 24 hours a day, 7 days a week where possible. An important element of this strategy should be an extension of, and increased awareness about, the Graduate Careerlines run by AGCAS members, and extended use of the Internet, including email."

Recommendation 35
"Institutions should ensure that they are taking into account the needs of, and services provided by, Careers Services when they are developing on-line services to employers."

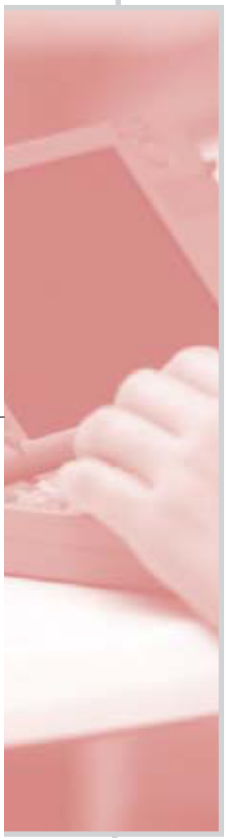
(Harris Review Group, 2001)

Box 1.1

1.2 The Implications of ICT

What then does ICT do, which makes it so important a component of strategic thinking about the role of careers services in higher education? There are a number of aspects to be taken into account.

Firstly, it makes careers services **visible** as never before. The initial use of the web site by careers services, as our surveys showed (see Section 2.1), was to do just that: make more people aware of the services offered and what the careers service was about. In a more important sense, ICT also makes it possible, as one head of service said, "to articulate the core competencies of the careers service": to stake a very public claim to what such a service can offer that is their particular, value-added contribution. Once on the Web, such a statement is visible world-wide, of course, and that has broader implications.



For one thing, it opens up the careers service to **competition and comparison** from outside. Previously, if a service was not serving its customers well, it might be criticised, but its users had few other places to which to go. The Internet, on the other hand, in theory at least, enables anyone to gain access to careers education, information and guidance from anywhere in the world; if better quality than is offered by a local service is available via a web site, then users can opt to go there. The web site may be run by the careers service at a neighbouring university, by a local Information, Advice and Guidance for Adults (IAGA) partnership, or by a commercial company based in the USA: it makes no technical difference - the response will be as immediate and the service as quick to access. A web-based guidance package run by a Finnish occupational psychologist from Helsinki (www.careerstorm.com) is now being offered in support of an American recruitment and placement agency on its British site (www.monster.co.uk) (see Section 3.2). A global free market in guidance has potentially been opened up.

At the same time, the Internet **links and connects** the existing services, their resources and (potential and actual) clients, implicitly if not explicitly (Box 1.2). A key principle regarding the use of the Web is its potential for connectivity - between career centres, students, employers, faculty, alumni and others. It offers the possibility of partnership and co-operation between services and of integration between resources, as well as the chance of serving new and hitherto relatively disadvantaged groups, and doing so more effectively and easily than ever before. Prospects Planner, a tool used individually within university careers services in the past, is now available across many universities' internal networks, and may even eventually become available in a web-based form across the Internet. Aspects of it - Quick Match, for example - are already available from the national prospects.ac.uk site, and linked to from many careers service web sites across the country.

The Web as support for group understanding and communication

"By building a hypertext Web, a group of people of whatever size could easily express themselves, quickly acquire and convey knowledge, overcome misunderstandings and reduce duplication of effort. This would give people in a group a new power to build something together."

(Berners-Lee, 1999/2000, p.162)

Box 1.2

ICT also makes it possible to **target clients** and stakeholders who, so long as they connect to the Internet (and students certainly do - see Box 1.3), are more accessible than before. Regional partnerships between careers services are growing up all over the country, with the aim of targeting local employers and small enterprise owners, linking them in to the graduate recruitment programmes that originally served mainly the interests of blue-chip companies. This is particularly important because the cost of contacting every small employer in an area by post or telephone would have been a major disincentive in the past; now it can be done in one on-line action.

Graduates, much discussed in the Harris Report, can be reached on-line at a distance more effectively than ever before. The national CSU Services for Graduates project, as well as developments on individual careers services' web sites with specific sections for their graduates and alumni, are examples that have a bearing on the Harris Review's recommendation 28 (which talks of careers services needing to work with other agencies to address the guidance needs of individual students and graduates who face particular barriers in the labour market). However, even wider collaboration and networking are now technically possible. Prospective students are another potential target group effectively reachable via ICT.

Key facts about student use of the Internet

98% of final-year students use the Internet.
62% use it every day.
84% of maths/IT students use it every day.
44% of arts/humanities students use it every day.
83% of final-year students who are actively looking for careers information use the Internet to do so.
75% say they will use the Internet to access careers advice and information after they graduate.

(MORI, 2001)

Box 1.3

Technology offers the most **interactive resources** a careers service can call on, short of face-to-face human contact. This makes it both an opportunity and a threat: a threat if it is set up as an alternative to human guidance; an opportunity if it is seen as working to support and extend the range of human interventions. One can interact, using ICT, with others on-line, with advisers and tutors, or with the material on the web site itself. As the Harris Report urges, innovative approaches are possible and should be explored.

"Flexible, individualised learning environments" - in effect, **open and distance learning** - can be constructed more effectively in the new media, based on student self-initiative and activity. At the same time, it can provide the support to meet individual needs at a distance, based on a variety of feedback mechanisms *(Manninen, 2000)* - including those which support off-campus, experience-based learning. Staff in universities are increasingly experimenting with learning in virtual environments; there is every reason to expect the same environments to apply to the learning of career management skills.

While the Internet enables all users to trace their own pathways through the World Wide Web, it also provides various means for **tracking and recording** the precise routes taken, the people who took them, the length of their stay, what they looked at, and so on. It enables transcripts of a group or individual discussion to be made and stored without any physical intrusion. This has both negative ethical/data protection and positive evaluation/quality-assurance implications. It should be possible to make much more transparent what is going on when users access the resources of a service and how they move through these resources to achieve their ends.

In all these ways, ICT potentially offers unprecedented **access** to careers service and other resources. The difficulty in realising this is less likely to be the one mentioned by Harris - lack of funds for hardware - and more to do with relationships with university computer services departments and lack of staff time and confidence to take a proactive approach. Our research suggested that although some less-well-resourced services might have a need for more hardware, a more important problem is the difficulty some careers services have in expressing their aims in the form of a worked-out proposal that will attract priority attention from the people in the university best able to help them make it happen.

There is also a need to consider the physical resources of the careers centre: where do you put the computers when you have them? Access to the "virtual careers centre" can be made awkward or impossible at times by a physically inappropriate environment, and the location where a person gains access can sometimes be as strategically important as how they do so. The views of careers services on access issues are recorded in Section 2.2.

1.3 Five Strategic Priorities

The ways in which ICT changes the environment in which higher education careers services operate, presenting new or elaborated strategic alternatives, can be seen at a number of different levels:

- in setting up co-operation or competition on regional, national and global dimensions;
- in the organisation of the flow (and subsequent tracking) of users through a service's resources;
- in the detailed level of web-site design;
- in new one-to-one relationships between adviser and client, via email and at a distance;
- in the careers service's role in the curriculum and with the rest of the institution - including other staff in the university.

Much of the thinking which took place during the project focused on these five strategic areas. These are outlined below and then discussed in detail in Chapters 3-7.

Local, regional, national - employer services and public/private partnerships.

Chapter 3 discusses some of the strategic issues facing careers services in higher education, mainly in the area of employer services. Clearly, as the report of the Harris Review Group *(2001)* argues, services "will need to provide significant added value to recruiters" *(para.5.3.1)*, and ICT can "offer enhanced opportunities to serve all student and employer customers more efficiently, effectively and impartially" *(para.1.1.3)*, but the latter three adjectives do not always align neatly alongside each other. What is the most efficient level at which such services should be delivered? Is there a case for local as well as national on-line databases of employers seeking recruits and students seeking work, or is the case for economies of scale irresistible?

As the Harris Report also rightly points out, "commercial interest has extended to include work placements and career advice and guidance" *(para.1.8.1)*, and such interest is likely to increase. "Institutions will wish to consider the advantages and disadvantages of such relationships.... It is important, however, that under any arrangements, standards are maintained, student access is inclusive and the impartiality of careers services is sustained" *(para.1.8.3)*. The strategic response of higher education careers services in the USA is explored in Chapter 3, alongside the implications and learning points for services in the UK.

An integrated, coherent and transparent service.

To achieve a careers service that knows what its priorities are and can ensure that the service it delivers serves these ends, it is necessary to analyse in some detail the way in which users come to, are received by, and move through the service and its resources - by which is meant all the services on offer, including one-to-one interviews, books, computer programs and the

web site. Until the advent of the Internet, it was a relatively simple matter to identify the hub or focus of any careers service's intentions - although the focal points have changed over the last decade as numbers of one-to-one in-depth interviews declined and were increasingly replaced by shorter, drop-in sessions with a duty adviser, or group work in the other departments of the university *(Watts, 1997)*.

Careers services' web sites have now rendered this process more opaque, or at least more open-ended, with the possibility of unintended but parallel systems developing. A user may access the service from more than one entry point, and be directed from there along many different routes. Services need to re-examine what is going on, it is argued, and may find it illuminating to monitor the flow of users through their resource systems, and the strategic priorities this reveals.

Tracking, monitoring, evaluating and recording are related activities, essential to an integrated service, and ICT offers many methods for carrying them out. If the needs of users are to be efficiently met and the right strategic priorities set, it is vital that data are collected on how the system is used, by whom, and for what purpose; who is having difficulty or is not being reached; and where they are. At the same time, there are concerns about data privacy, confidentiality and ethics that cannot be overlooked for the sake of a totally transparent service. In Chapter 4 we trace out some of the issues, and some of the solutions. As the Harris Report argues: "Careers services should consider whether their current methods of gaining customer feedback cover the full range of their services...." *(para.3.3.2)*.

Needs-based or resource-based services?

If, as the Harris Report urges, careers services "need to adopt a proactive approach to identifying and helping those students most in need" *(para. 3.1.3)*, issues about how needs can be identified via ICT, and specifically via a web site with its outreach potential to new target groups, should surely be addressed. It is argued that there are fundamentally different strategic implications when a service, in its web site and elsewhere, adopts a needs-based approach, seeking to identify the needs of users and to avoid over-serving some and under-serving others.

This is the first step to targeting: the web site could act as a first-line filter to channel those in greatest need of more in-depth service in the direction of face-to-face help, while enabling those capable of self-help to solve their own problems on-line. The principles of such an approach and the related issues for web-site design are discussed in Chapter 5. It is important, therefore, to get the "contract" with new users right, first time, on-line if necessary, since that is where many will first contact the services of the future.

Email and related media - guidance at a distance.

The Harris Report particularly urges the extension of existing services for graduates, including the CSU project of that name *(paras.2.2.9, 5.1.3)*. Email is one key medium for achieving this, though it has limitations, and there are many and various ways in which it may be used and its uses be framed. How can a careers service effectively control and utilise this new alternative to the telephone and the letter? What lessons can we learn from the experiments that have already taken place? Associated formats such as videoconferencing, chat and on-line discussion take their place alongside email as parts of the new spectrum of available service media for information, advice and guidance. These issues are discussed in Chapter 6.

The distance learning paradigm.

Careers education - career management skills delivered as a package of learning rather than individual guidance - can be greatly facilitated by ICT, so long as we appreciate that this is a new variant of open and distance learning and that the old standards for such learning design and delivery still generally apply in the new medium, "doing old things in a new way" (Box 1.4). Several careers services have been using ICT, and in particular the Internet, to deliver or support learning programmes that prepare students to manage their careers *(Harris Review Group, 2001, sections 1.5 and 1.6)*. Issues relating to these programmes are explored in Chapter 7.

Such on-line learning can be a response to the shortage of staff to deliver on the ground in some services, as well as a strategic decision to support the other staff of the university in their attempts to make students aware of the work-related relevance of their learning. It can also be an approach to "preventive treatment", ensuring that users when they reach the service are "expert patients" equipped to use specialist expertise more efficiently. This approach is now being adopted in relation to medical services: it can be applied in other areas too, including careers services.

Before addressing these five strategic priorities in more detail, we present the methodology of our project and the findings from our initial surveys.

Doing old things in a new way

"Despite the wired world's rhetoric of ever-accelerating changes, we may be expecting too much too soon. It's said that the first effect of changes in technology is that old things are done in new ways. Mark Curtis says, 'The deep changes are about connectedness, and that's where the long-term winners will be found.' In the meantime a bit more imagination and a bit more conversation might help us to start to dream again."

(Curry, 2001)

Box 1.4

Chapter 2

The Project

2.1 The Email and Telephone Surveys

The research began with an email survey of UK higher education careers services (77 replied out of a total of 155 email addresses contacted). This elicited mainly factual and baseline data. The ensuing telephone survey involved qualitative interviews with just under half of those who responded to the email questionnaire. All of this research took place in October-December 2000.

Characteristics of the survey sample.

The majority who replied to the email survey were working in institutions with more than one location and (less often) with more than one careers centre to run. They had high careers-adviser/student ratios - well into the thousands per adviser in many cases. The largest proportion of the time of these advisers was taken up with short sessions with students (displacing to a significant extent the traditional longer interviews of the past) and work with groups. Nearly 50% of the services had between two and four careers advisers. About a third of services (33%) said they had no staff with significant technical experience or IT qualifications. This still leaves quite a large number apparently claiming such staff, but this seems likely to have included people with any sort of computer knowledge or technical background. Well-developed technical competencies seem likely to be relatively rare among careers service personnel.

Technically mediated services offered.

Prospects Planner was available in almost all services, in the careers centre at least, although just under half (46%) had it on a network within the university (this figure has almost certainly grown since the time of the survey). Use of email and a web site were almost universal, followed by the traditional resources of audiotapes and videotapes. Other significant but not universally mentioned items included other computer-assisted guidance programs, on-line vacancy and employer databases, and the telephone. Some institutions had developed on-line modules on careers education, career management skills, or similar guidance-related learning.

Access.

In the view of the services questioned, the majority of students accessed the Internet from open workstations in their institution's library or other computer rooms across the campus, although use from home or a student room was also felt to be increasing. At the careers centre one often needed to book to use a computer. Student use of guidance-related technological services appeared to be largely on a self-help and unmediated basis, though some services offered group sessions based around such resources, as well as specific on-line course modules for insertion into the curricula of some subject departments in some institutions. This might then be mediated by academics of that department with some support from careers advisers.

For students in general, however, there did not appear to be any problem in accessing hardware or getting on to the Internet. Nor did most careers services, when questioned, feel that students needed any particular training or support either to access the Internet or to use the guidance and information services provided on it.

Careers services' web sites.

Reasons for setting up a web site.

These seemed to be most often to do with promotion of the service and its off-line resources, raising its profile and prestige within the institution, as well as acting as a noticeboard to convey information more efficiently and cost-effectively. A common aim had been to reach potential users who would otherwise not have availed themselves of the service, or who could not do so because they were part-time, on distance learning programmes, or unable because of work commitments to come in to the careers centre during office hours.

A 24-hour service of this kind was seen as being particularly useful in services on more than one location. More generally, it significantly increased the productivity of the service, e.g. in servicing vacancies and cutting down paperwork and the need for paper-based resources. It was also perceived as encouraging users of the off-line services to come better prepared to use these services effectively. Purely promotional aims were gradually giving way, however, to a more sophisticated rationale: many sites had been restructured radically after a year or two. A local web site was seen as an advantage point for a university in attracting prospective students and could also be an asset during quality assessment for a department.

Target groups.

There were four traditional target groups of a careers service web site - current students, academic staff, employers and former graduates of the institution -

often with separate sections devoted to each of these. A small number targeted prospective students as well. Content provided had usually been determined by anticipation of the more common needs of these target groups and the questions they were most likely to ask. However, web sites did not often offer users any facility to identify such needs on-line, nor indeed any special help facility in orienting themselves when they first used the site.

Facilities.

Almost all web sites provided a link to prospects.ac.uk, and offered careers information. On-line vacancy searching was also commonly available. While the actual use of on-line testing was rare, links to other sites offering this were more frequent, though they were usually made in the context of preparing for the selection and recruitment process, rather than as an aid to self-awareness.

Design and development.

Surprisingly, in view of the declared lack of technical expertise, the people who seemed to have the biggest input to this work were careers advisers and careers information officers, supported by other clerical staff of the service, rather than technical computer personnel of the university. However, the design and development of the site could often be influenced by the institution's own policies and requirements on content and design to a greater or lesser extent.

Evaluation.

In two-thirds of the services surveyed, no evaluation of the site had been carried out. Information about how students used the site was generally partial and rather anecdotal. Even hit rates for the site or particular pages were difficult to come by in some instances. Where they were available, it seemed that links pages, vacancy information and advice on CVs were generally the most popular features, although such figures are not always easy to interpret. In general, initial expectations seemed to have been fulfilled more often than not, although this was hard to quantify.

Effects on guidance and on general workload.

The commonest perception was that there had been little effect on the rest of the careers service's guidance work. The effect on workload varied widely. Set-up was costly in time, and in some instances maintenance was seen as demanding; but there were compensating reductions in other areas, such as the collection and administration of paper-based resources. Services might share the load across the whole team, or an individual staff member might be solely responsible for direct management of the site. Though computer hardware and software were generally available in interview rooms, the impact of such tools on face-to-face interaction with clients seemed to be regarded as minimal in most cases.

Substitute or addition?

The web site was seen as a substitute for some aspects of careers service work - paperwork, publicity, information giving. It also offered a gateway to other services available on the Web, or an addition to, and extension of, existing off-line services - around the clock where necessary. Effects might be different where the balance of courses was strongly vocational rather than academic, as students with a clearer vocational aim and greater computer literacy might make more use of it, it was suggested.

Strategic planning.

The web site had been on the agenda at strategy planning meetings in many services, though it was not entirely clear how this had influenced its development, structure or design. Commonly seen as falling under the heading of "information", the web site could also form part of strategy in relation to employers, academic staff, and non-traditional student groups, including the widening of participation, and outreach to prospective students and alumni in some cases.

Local/regional versus national.

There were strong arguments for local web sites, to convey information about local events, to sell or support local institutions, and to customise national data for local consumption, as well as to cater specifically for the needs of students on unusual courses offered locally. Local links to regional web sites, developed co-operatively in various parts of the country, were also valued, and vacancies for casual and temporary work as well as placement opportunities needed to be held and managed locally.

It was generally felt that there was no point in duplicating what reputable national web sites such as prospects.ac.uk offered. But examples still persisted where a user of a careers service web site might be directed to the local careers room for information, when more or less identical material from the same publisher was available only one click away on the prospects.ac.uk site.

Other links.

These would be considered if they:

- were regarded as being equally reputable, reliable and not requiring time and effort to keep track of;
- were of particular value to local students;
- comprised the web sites of employers connected with the university or attending a careers fair;
- did not offer commercial competition.

Prospects Planner.

This system was being used almost everywhere, and was particularly recommended where a student was relatively unfocused (in contrast to the web site, which was generally aimed at those ready to carry out

more specific research). It was seen by a majority of services as an adjunct to a guidance interview - either as preparation for it or as a follow-on from it. It was rarely considered a substitute for such an interview. Other computer-assisted guidance programmes were used in the main only in the few cases where Prospects Planner was not deemed appropriate - for example, with some mature students, or with HND Diploma students - or where the user had less time to spare. Adult Directions was the most commonly cited alternative.

Technically mediated service delivery.

Few in our sample were convinced that ICT could deliver all that was needed by all groups. Information, yes; guidance, no. Talking things over face-to-face was seen as the option of choice for both adviser and client, though it was acknowledged that devices such as the telephone or videoconferencing could come close to "the real thing". Where email was mentioned as a channel of guidance, it was not highly rated. Regarded as crucial were avoiding misunderstandings and enabling needs to be identified rapidly, and the perceived desire of most clients to "talk to someone" at some point and to get help tailored specifically to their needs. However, a minority of respondents were prepared to contemplate more radical shifts into on-line modes of operation, not least because users' needs could not be met adequately in other ways.

Training and development issues.

There was no call for significant inputs of training for users, advisers or students in the use of the Internet in a guidance context. Most felt that the need was for time to get experience hands-on and to become more fully aware of what was available both on the Web and in systems such as Prospects Planner. Several services, however, had planned sessions to enable staff to acquire specific web-page design and development skills.

2.2 The Critical Review

The sample.

A random stratified sample of fifteen higher education careers service web sites were selected for detailed critical review during December 2000. This was just under 20% of the total who had replied to the email questionnaire, and just under 10% of those services originally contacted. The sample included some very small services and institutions as well as much larger ones; some technically sophisticated web sites as well as some simple ones developed on a small budget. The project team believed the sample was broadly representative of the range of developments in the use of web sites by HE careers services.

Process.

Aspects of design, presentation of content, navigation and evaluation were considered. Particular strengths included consistency of design, limited demands on memory, appropriate reading levels, writing style, and targeted links to specific audiences from the home page. Greater use of graphics and visual material was recommended, and the common lack of any help feature or orientation assistance for the first-time user were noted as important limitations. More detailed documentation of the design process would have enabled better evaluation of the site by users. More frequent provision of a site-specific search facility, and more time-based features and notification of modifications to the site, were also recommended.

Content.

Most of the sites fell some way short of the ideal in terms of content, particularly when considered from a strategic-planning point of view. Five possible functions of a guidance web site were outlined by the research team as a framework for understanding careers services' use of the Web (Box 2.1).

Of these, only the promotional model, the "funnel", which channels users into off-line services, was common in this sample; site designs still reflected much of their original rationale (see Section 2.1) as a means of promoting the careers services to more users and increasing awareness of its resources among the target groups. While the funnel may be a sensible design for commercial providers who wish to channel users into the purchase of off-line services, it seemed an odd strategy in the light of constant complaints (and considerable objective evidence) of shortage of staff and resources to cope with rising student populations in many careers services.

The development of more **on-line and interactive** guidance facilities, as opposed to passive information, was recommended. This seemed a more promising strategy in the light of such strategic considerations as the increasing pressure on staff time and resources, as well as changes in the student population (sites adopted a rather conservative approach to the provision of guidance services at a distance or in relatively unmediated contexts). Greater use of on-line discussion forums and other communications channels linked to the site were also recommended, as well as the provision of diagnostic features and exercises to help users identify the needs which the sites were aiming to meet.

More sites had developed in the direction of **distance learning,** with the provision of on-line career management and development modules. This was welcomed, as was the evidence of attempts to customise content for specific groups of degree students and other users. However, effective outreach might require more radical revision of existing materials and links, and hard decisions might need to be made about whether some advice pages on job search and application techniques were really adding value to a local web site. There were cogent arguments for local sites, and many showed important features, but duplication of advice offered elsewhere on preparing a CV might not be one of these. There were several examples of links made with regional web sites

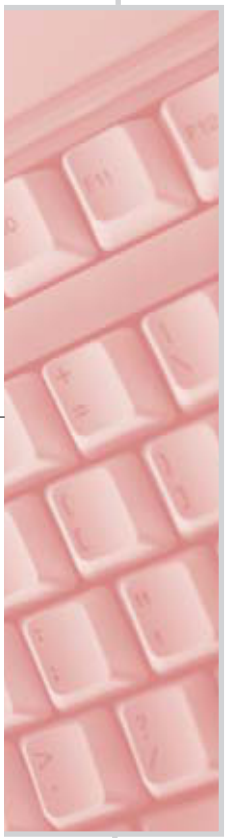
A typology of web sites

One approach to understanding careers service web sites is based on the perceived guidance functions delivered by the site. Such a web site has potentially at least five different purposes - representing alternative priorities in the creation of such a resource.

- The "Funnel" web site receives and attracts visitors who are then funnelled into existing off-line services. On the other hand, it may combine with the next variation to offer a series of filters which direct the flow of users to other sites or to off-line services.
- The "Diversion" web site is the mirror image of this. It aims to take pressure off the guidance service by linking users to alternatives, including other web sites where they can get help without increased load on services already in short supply. It implies both a genuine understanding of referral as a proper guidance activity (with properly thought-out links to properly identified and checked-out target sites) and good local or national partnerships or networks between guidance-related organisations. It also implies a self-help diagnostic system of some kind so that visitors can decide for themselves which referral link to take up.
- The "On-Line Guidance" site offers help on the site itself. This may be in the form of relevant information to meet standard presenting questions, or self-awareness-raising activities such as interest inventories, or a job seekers'/employers' database and so on. It could be combined with the "Diversion", and offer only some of the required services for a complete guidance programme or only to visitors in specific groups - e.g. those diagnosed as not needing individual guidance help from a specialist.
- The "Forum" web site aims to put people into contact with other guidance seekers and visitors to the site on the (client-centred) principle that people engaged in tackling similar problems have valuable experiences and ideas to exchange, and that all help for guidance seekers does not have to come from "experts". Such groups may be moderated or unmoderated. This may be an extension of existing group guidance activities. Again, some "diagnostic" facility to help those who do not know which group to join, and some self-referral for those with problems that cannot be accommodated on-site, would be a minimum back-up structure.
- The fifth type of guidance web site is the "Distance Learning" site: this is akin to both the on-line guidance site and the forum in some ways, but takes a more instructional stance than the former while integrating this with the use of off-line resources. The Internet may be used alongside printed texts, CD-ROM, video and other multimedia resources, which may be sent out via ordinary postal services, and used with or without on-line activity. The tutoring, feedback, and interaction with other learners, takes place via the Internet/email, so may the distribution of updates to the off-line material. Material with a relatively short shelf-life may also be supplied via the Net. It requires all the supporting structures of a normal distance learning programme, and is clearly not exclusive to a guidance context.

All of these strands may be woven together into one site, but all have elements of quality and standards implied by their purposes and built into their design.

(Offer & Sampson, 1999)



Box 2.1

deriving from co-operation between university careers services in some English regions, as well as in Ireland, Scotland and Wales.

A parallel study of on-line **services to employers of graduates** *(Offer et al., 2000)* showed that higher education careers services in the UK cited employers as target groups on their home pages nearly as often as they did current students. But in doing so, very few offered many on-line facilities, unlike their counterparts in the USA. The present sample broadly confirmed this finding. Labour market information was largely confined to first-destination statistics, with a reference to prospects.ac.uk for further data.

Web sites, like all guidance resources, are likely to be most effective when underpinned by a coherent rationale based on a **model of the guidance process.**

There was a lack of evidence of this on many of the sample sites. This was not surprising given the tendency to see the site as about promotion of off-line services and provision of information rather than the delivery of guidance per se.

A related issue was the sharp **distinction between "guidance" and "information"** which seemed to underlie the content and style of these sites. There is an argument for a less passive, more constructivist model of "information" as an interactive and genuinely guidance-orientated process to which web-based structures can make an innovative contribution. The user needs to be (inter)actively engaged with data and relate it to their personal knowledge base before it really becomes "information" for them. How to deliver this on a web site is a problem which guidance practitioners share with the designers of distance learning.

2.3 The Project Research Sites

Four higher education careers services were selected from a longer list of volunteers to represent a broad range of size and type of institution and geographical distribution. The project team worked with the careers services at the universities of Strathclyde, Sheffield, Leicester and Westminster, for three to four days in each case, with a view to developing aspects of their current plans for the strategic application of ICT. All of them critically reviewed, and made plans to develop, their web sites in different ways as a result.

There was considerable discussion at two of the services of career management skills modules, and how they might be delivered via on-line methods. The use of email also occupied a prominent place in discussions - particularly at Strathclyde, which was starting a CSU-sponsored local project delivering support to graduates by email. In each service, the place of ICT within the whole pattern of resources delivered by the service, and the consequences of setting different priorities within this pattern, was also discussed. Employer, vacancy and work placement systems came under scrutiny. Members of the project team met senior managers of the university in all four sites to discover more about the context of each service's work and the relevant developments in teaching and learning strategies that were likely to impinge on this work. Many of the issues that arose in the course of these various discussions have been incorporated in the following chapters.

2.4 The Study Tours

Two consultants of the project team, accompanied by the heads (or, in one case, deputy head) of service of the four pilot careers services, as well as the chair of the Joint AGCAS/CSU Research & Innovations Group and the Deputy Chief Executive of CSU, visited Finland for a three-day tour in March 2001. This took us to the Apaja Centre at Helsinki University, where an on-line guidance and career development learning programme is run at a distance for graduates across Finland; to Helsinki Polytechnic, to meet representatives of the polytechnic sector and discuss the JobStep employment/work placement system which has been derived from co-operative work between the polytechnic careers advisory services and a commercial provider; and finally to the careers service at Oulu University. A second visit in May 2001 took the same group on a week-long study tour to the eastern USA, where we visited representatives of university careers services at Florida State University (Tallahassee), the University of Florida at Gainesville, Duke University, the University of North Carolina at Chapel Hill, and the University of Maryland.

Our report aims to distill examples and ideas from all these sources.

Chapter 3

Competition and Co-operation - the National and International Dimensions

3.1 Valuable Resources

The present clients of HE careers services represent future human resources in high demand, particularly in a buoyant labour market such as the UK and USA have seen for the past few years. One social and economic function of publicly funded education and education and of associated guidance services is to prepare this "human capital" to sell itself at the highest "price" in the national and international graduate labour market. The outlines of this process as a fundamentally commercial transaction are clearer in the USA than the UK - services there are less coy about what they accept as a natural process. The walls of some American university careers centres are dotted with the plaques of corporate sponsors, and significant parts of their income are generated in this and similar ways. There is money in this business, in more senses than one.

3.2 Guidance as a "Loss Leader"

The Internet renders this an open market: anyone anywhere can offer careers guidance on-line without having to set up a physical presence on campus or even in their own country. Equally, any student anywhere can avail themselves of it. This is not just a matter of job-vacancy matching and placement services: "guidance" or "careers advice", too, is offered recruitment agencies. Sometimes what they offer is superficial, but it is becoming more substantial and significant as the competition among the big players increases. Monster (see Box 3.1) is a good example. In other cases, guidance or careers advice is also marketed directly, with varying degrees of intensity and commercial emphasis. Readyminds (see Box 3.2) is an American example, but there are potential UK equivalents.

One of the trends of the last few years, for example, has been the rise of media organisations as web presences. In the UK, the BBC and Channel 4 offer some significant examples. Linked to television as well as the Internet, for them, too, careers guidance is just another category of content in the education market.

The whole area of careers guidance in HE has thus been opened up to commercial and other media influences by access to and from the Internet.

3.3 Takeover and Rationalisation

The takeover of smaller companies by larger or more "efficient" ones is an integral part of the capitalist system. During our USA study tour, the recent takeover of the Job Trak organisation by the

"The world's leading career network"

Guidance on the Monster web site, in common with the practice of other leading on-line recruitment agencies, is offered as a "loss leader", offering "advice from the Experts" including "identifying your marketable skills"and "figuring out who's calling the shots in your career decision making - you or someone else". There is also a "Career Doctor" section which offers to "help you explore potential academic majors and the skills you'll gain from them" and "can also point you toward a major based on what skills you already have". The system offers a five-step model of guidance, from Self Assessment through Exploring your Options to Decision Making, Preparing for the Job Search, and Looking for a Job. Its UK version contains a prominent front-page link to Careerstorm, one of the more sophisticated on-line self-assessment sites on the Web, developed by a Finnish occupational psychologist who once worked for the Apaja Centre in Helsinki.

Box 3.1

Selling careers guidance

Readyminds (www.readyminds.com) gives clients "state of the art, customised career guidance (on-line, by phone, and/or in person) that helps them determine and secure occupations best suited to their strengths, goals and preferences". It claims that: "We're the premier nationwide service of this kind." It also offers to a "select group of companies.... a ground floor opportunity that includes.... targeted access to a key demographic population who (sic) is at a formative stage where lifelong buying habits and brand relationships are formed", providing "the chance to market exclusively to this growing population via an integrated marketing strategy within our community web site and on-line and off-line promotion.....".

Box 3.2

international recruitment and placements agency, Monster, was a regular topic of conversation with our hosts. In the USA the on-line systems that support work placements and employment are normally outsourced by university careers services to commercial "vendors". Job Trak, a relatively small and responsive vendor of such systems, allowing considerable scope for local customisation, was well regarded and was used by a large number of universities. It provided the placement services for finalists and the on-campus recruitment administration for four of the five services visited on our tour.

The US services had some concerns about how the powers now acquired by Monster would be used, realising that they could be in for an uncertain future ride with this new carrier. It was claimed that Monster already had more student CVs in its database than the university careers services themselves held, and that the default option on their web sites, where Monster was the provider, now added every new student's CV to Monster's national system, as well as to the local careers service's system. Such a provider can obviously exert an enormous gravitational pull. Other small companies of the JobTrak type remain and offer services to other American universities, but further takeovers must be a possible future scenario.

3.4 Facing Market Forces

In effect, technology can be seen as having exposed the market nature of the placement process, challenging the structures based on alternative values which have previously to some extent shielded it. In doing so, it has exposed what vendors might regard as the vested interests of the career centres to new forms of competition. In the USA, the vendors are increasingly felt to see the career centres, with their academic/professional concerns, as part of the problem rather than part of the solution. Their perceived aim is a classic case of "disintermediation": to remove the intermediary career centres from the process and to establish a direct customer relationship with the student and employer rather than the careers service. From a career centre perspective, the vendors' aim is "reintermediation": to insert themselves, rather than career centres, in the intermediary position. In both cases, relationship-building is seen as crucial: career centres want to maintain long-term relationships with students and alumni, in pursuit of their mission; the vendors want to maintain long-term relationships with individual clients, to feed their business.

There is no USA equivalent of the CSU/AGCAS partnership, and this makes the situation there rather different from the UK - parallels with the American experience may be taken too far. But UK higher education careers services, too, are nevertheless faced with a major example of technology as agent of change. If there is significant commercial advantage in delivering careers guidance to students in higher education (largely because of the power this confers on the guidance providers to sell to employers various kinds of access to the students they serve) it will very likely be attempted, as it clearly already is in the USA and elsewhere.

How should careers services react? What strategies might be adopted? In particular, what can be learnt from the experience of the USA? Is it simply the careers and current roles of guidance professionals that are at stake? What is in the best interests of the clients? The Internet makes possible global competition, in much the same way as it opens up for the most "enterprising" and well-equipped students the possibilities of a global labour market. What has been built up over years in the UK as a national co-operative structure could collapse at some point in the future under the pressure of competitive "market forces" delivered via the Internet, if these questions are not faced now.

3.5 Alternative Partners? Can You Go It Alone?

One reaction is to organise co-operatively and internationally, to provide alternatives that are perhaps more immediately acceptable to the guidance community and in accord with its traditional principles. One of the universities the team visited in the USA is still working with a different commercial supplier of placement services. There are several other such operators around, in the UK as in the USA, but the free global market in Internet-based recruitment must clearly raise some doubts about the long-term durability of such "public-private partnerships".

As one of our action research partners said when summarising the learning points from the project:

"We can't do on-line recruitment on our own - we need a partner.... We were being naive thinking we could do it without a third party (because of technical resources, among other things)."

Although the speaker was referring to her own service, the first-person plural pronoun may carry wider meanings. Is it the university as a whole, the careers service within it, AGCAS, or combinations of these and CSU, that needs to take the initiative here? One factor that has made the UK situation different from that in the USA is that the existence of AGCAS has meant that careers services have been more cohesive and able to act co-operatively. There is a recent tendency to break into regional and local groupings and alliances focused around web-site development and employer services (see Section 3.10 below): this could mean more or less partnership at a national level. In the face of the likely future competition, the strategic implications and advantages of the various options need to be teased out. The choice of partner is certainly key, and a choice of some kind is being forced, in part by the exposure due to technological development.

3.6 Competing and Co-operating

The conflicts and choices posed so far are not just commercial ones, although the competition for the market in graduate jobs and graduate employees obviously has commercial drivers. It is in this area that

the issues are raised in their sharpest form, partly because of the technical and staff resources required to develop interactive on-line databases to enable employers and potential employees to negotiate a mutually satisfactory match.

There is also potential competition in this area between services which all want their graduates to get the best of the job opportunities, and must be seen to be "playing for their university" in this respect by those who hold their purse strings. In doing so, careers services may be caught in the "prisoner's dilemma": whether to co-operate for the greater good of all, or to take such individual advantages as may arise, regardless of the longer-term consequences for all. The dilemma should not be as dire as this, but these tensions and the longer-term consequences of certain technologically mediated developments which can exacerbate them have to be recognised and acknowledged. For example, the recent adoption by a number of universities of the "TargetGrad" initiative, whereby employers are offered the option to email finalists in these universities who register to receive their communications, raises the issues particularly clearly.

3.7 ICT - Compatible or Divisive?

The wider "political" ramifications of such matters are not the prime concern of this report, but the role of ICT is. Even where competitive advantage is not an immediate issue, a head of service may be faced by a difficult decision - for example, whether to buy in an on-line system for employment and placement services from a commercial vendor, who offers an apparently good deal, or to go along with a nationally or regionally pre-existing system that does not have all the desired features. Such a decision has more than merely local implications. Will the system be compatible with others, or will incompatible technical solutions inhibit later co-operation and partnership? Will it undermine otherwise viable regional or national systems? Will it expose the service to the kind of problem US careers services faced when, having "outsourced" their employment and work-placement services to a chosen commercial vendor, they found themselves faced - as a result of the functioning of the market - with one they did not choose?

3.8 No Technophobes, Please

Confident and well-trained use of technology does not by itself protect one against commercial predators and competition, but the lack of it will be a significant disadvantage. All staff should be able to access, use, and help others use effectively, the resources that are available. If they can, then careers services are more likely to be driving developments, not just reacting to them, and to maintain the momentum of innovation, to "stay on the cusp of the paradigm shift" (Box 3.3). They are less likely to be ambushed by a competitor who claims to be "leading edge" or to offer "state of the art" resources. This can also help them to attract, motivate and retain staff with particular ICT skills, thus creating a virtuous circle.

In addition, it helps to position the careers service strongly within the university, whether or not the service actually develops the technical solutions itself. Proactive approaches to university computer services departments with ideas for using technology in innovative ways can get technical staff on-side, as well as attracting internal co-operation and interest.

A proactive approach

Wayne Wallace, Director of the Career Resource Centre, University of Florida, takes the view that if career centres are to survive, *"we need to stay on the cusp of the paradigm shift"*. As his service put it in their presentation to our group:

"The opportunity to create a "parallel" presence in both "physical" and "cyber" space has emerged rapidly. This has redefined the type of people we attract to the profession and what we and our clients expect of ourselves."

On the other hand:

"Technology will bankrupt any one of us that tries to own/control/develop it all. We will need to pick our targets and form strategic partnerships internally and externally to help us."

Box 3.3

3.9 Why a Local Web Site?

Even in creating its own local web site, however, a careers service needs to justify its own local provision in the light of what else is available on the Web in terms of the specific needs of its clients. There are, of course, strong arguments for local developments, and, as the earlier surveys showed, many services advance these arguments: local events and news that will interest only local users; local employers who want to recruit local people, especially for casual or temporary work; and the value of a local careers service Web presence and support via ICT for the activities of departments in its own university, especially when faced with quality assessments or when addressing curriculum-based activity and materials, unusual local courses or opportunities, local sponsors, the use of a local web site to communicate with and serve other local stakeholders, and so on.

Students are arguably predisposed to access their career centre's web site because it is endorsed by the college and addressed directly to their requirements: they trust it to provide a local gateway. As one of our hosts put it to us on the US study tour: "We take that chaos out there, narrow it down and tailor it to their needs." However, the "localness" of a local web

site should be the result of a clear rationale rather than of a lack of links to available national resources of good quality which could be just one click away.

3.10 Niche Market: Regional Co-operation

The identification of the characteristics of the precise niche markets to be serviced, and the added value delivered by a local careers service with regional collaboration, may be worthwhile. In some ways this is a real case for "information" being delivered as "guidance": national labour-market and learning-opportunity data exist; national web sites exist to provide such data; but the regional construction of the data could be what gives it an impact - a regional site can help regional students or employers to make sense of what the data mean for them, in Scotland (Box 3.4) or Wales, or in London or Yorkshire, or on particular local degree programmes.

3.11 National Co-ordination?

ICT, and in particular the Internet, is not intrinsically a divisive force. The creation of the World Wide Web was primarily intended to enable universal sharing of information. A national gateway on the Web could co-ordinate access to a multitude of local and regional developments and initiatives - attractive to major national employers or other providers seeking specific regional or local involvement, for example. But there are significant strategic and collaborative decisions to be made about the most appropriate level at which information should be stored and services delivered.

Proposal for a "regional" site

The development of the AGCAS Scotland site offers an example of the rationale for "regional" web-based services. It is intended to be a resource for small and medium-sized employers (SMEs) in the first instance - which constitutes the majority of graduate employers in Scotland. It will be marketed via Education Business Partnerships, in part by placing articles in their newsletter. SMEs tend to recruit locally and just in time; they do not often advertise in the major publications. Scottish Enterprise is funding the development of the web site, including a project officer. The officer is based at Strathclyde, and is researching SMEs and the cluster groups among them that already exist. The web site will be an output of this research. The menu for the web site may include general advice on recruitment of graduates, information about HE degrees and progression routes in higher education, frequently asked questions and answers, the benefits of part-time work opportunities and work placements to employers and students, and a section on Scottish Enterprise.

Analogous regional and local developments are in place or in development elsewhere - in Yorkshire (Graduate Link), Wales, Ireland, and parts of the Midlands and the North East of England.

Box 3.4

3.12 Critical Users: an Educational Strategy

The Web and the free market have made it impossible for careers professionals to control what guidance seekers use on-line to meet their needs. There are things to avoid: for example, putting a commercial provider's job placement dialogue box on the home page (as several US services did), without any indication as to where the boundaries of an impartial and client-centred guidance service end and a commercially-biased service begins. A user should know the nature and motivation of those who provide resources. Of course, there may be no more bias in a commercial provider's product than in those of the service it sits alongside - in which case such concerns are unfounded.

But the ultimate defence against intended or unintended bias in providers, professional or commercial, is the creation of educated, critical users. A part of the role of guidance services has always been to enable users to think critically about what is offered to them and to act autonomously in their own best interests, in full knowledge of the quality or otherwise of the resources they are using and the providers they are facing. The role of careers education/career management skills courses and materials, whether off- or on-line (see Chapter 7), is particularly pertinent here. The skills of critical use of web-based career planning materials and facilities could be added to such programmes with advantage.

3.13 Conclusion

Short- and long-term strategic responses to competition can thus be developed at all levels and in all areas of the service. The common elements are a critical and proactive approach to the use of ICT, its collaborative as well as its competitive possibilities, and the discussion of the most appropriate level - local, regional, national, or international - for the delivery of particular services. Within the UK we already have the components for a joined-up service via the Internet, with high quality material from AGCAS and CSU available on prospects.ac.uk.

Such a service, however, does not happen without teamwork and co-operation: a free market alone is not enough. If the higher education guidance community wants to position itself more strongly locally and regionally, and at the same time to maintain the impartiality and quality of its products and services, a national portal that offers the common elements of these, sustained as now by the individual co-operation of AGCAS services, must - as the Harris Review suggests - be elaborated as part of a common strategic plan.

Chapter 4

Organising and Recording the Flow

4.1 Traditional Pathways

When a student or other client or customer makes a contact with a careers service, the points at which they do so are particularly important from a strategic point of view. It is at these points that some form of "reception" needs to be organised, that commonly an initial negotiation about needs will take place, and possibly also that a "contract" of some kind will be drawn up about the service that will be offered - a face-to-face interview with a careers adviser, for example, or a session with Prospects Planner, or a promise to research the answer to an unusual question.

service by looking for a part-time job or work placement, or by seeking general help and advice because "I don't know what I want to do". A first contact might, on the other hand, be made by telephone or letter and not in person at all.

How does a user get from one contact point to the next? What recommendations are typically made by receptionists, careers contacts, advisers, in handouts and guides, directing the flow in one direction to another through the system, and defining the kind of need and kind of user for which each resource is seen as appropriate?

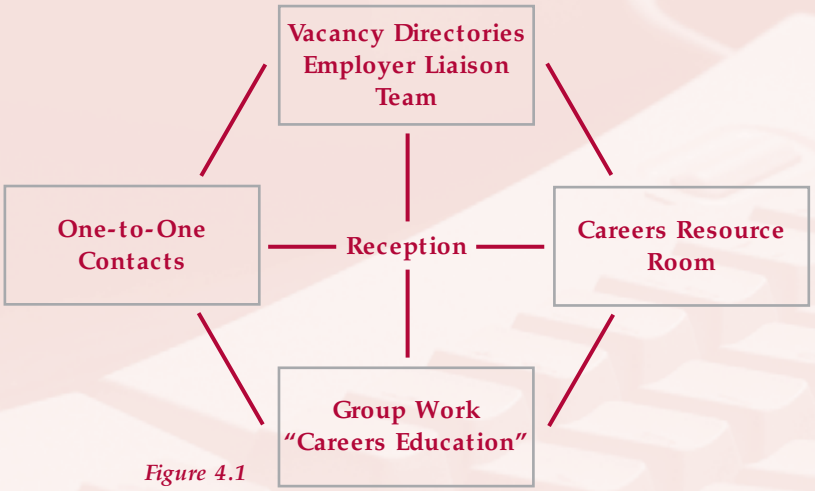


Figure 4.1

Traditionally this point has been the reception desk of the careers service - probably in, or adjacent to, the careers information room. A user may start there, move on to look at books or printed text materials, use a computer program or watch a video, have specific questions which lead to a brief conversation with a careers adviser or possibly to a longer one-to-one interview, and then back to the careers information room for follow-up work, or on to a CV-writing workshop, or to a work-experience placement or careers event with employers on campus, or perhaps to a practice interview or psychometric test session.

Alternatively, students might make their first contact with the careers service at a group session in their department, and arrive at the careers centre as a result of this. They might then begin their contact with the

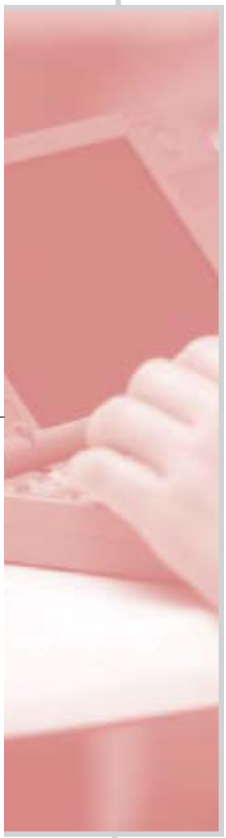
Figure 4.1 shows the traditional model with traditional components before the arrival of ICT. Here the hub of the service is a reception or similar "front desk", which could channel visitors in any of several onward directions to other resources. The lines show possible channels along which a guidance or information seeker could move or be moved. "Group work" is a generic term to cover all sorts of group-orientated events including some we address in more detail in Chapter 7. Clearly some things are missing from this diagram - it is only presented to show the possible core of a more complex set of flows.

4.2 Anticipating the Flow

It is important for a service to anticipate the potential entry points and the subsequent pathways through the service and its resources: these have training and

human resource development implications, but each variation and the rationale behind it potentially reflects a different process of career planning and an associated model of guidance. These alternatives will lead to different strategic emphases.

Thus if the usual starting point was in the faculty or department, resources might be shifted towards careers work in groups linked to the curriculum, with the aim of supporting careers contacts and tutors in departments; whereas the expectation that the first contact will be an individual arriving at a careers centre might imply more time and money being devoted to the development of face-to-face and one-to-one services by advisers. Equally, if most individuals on first contact ask about getting a job, handling an interview and writing a CV, the service will focus its resources differently from one in which the most common presenting statement is: "I don't know what I want to do". A service which feels the need to focus its strategy on contacts with first- and second-year students will set up the pathways between resources differently from one which sees the primary target group as finalists or unemployed graduates.



4.3 The Impact of ICT

ICT, in particular the Internet, has injected a new turbulence into this flow. It also offers a chance to look at how the existing assumptions work and to review the strategies behind them, to the potential betterment of both ICT and traditional services.

Prospects Planner (or its predecessors) has been available for many years but did not much affect the flow because it was generally located in a space under careers centre control. The system is now internally networked, according to our initial survey, in just under half of all careers services, but is still seen by advisers mainly as a preparation for, or follow-up from, an individual guidance conversation of some kind (see Section 2.1 and Box 4.1; also *Watts & Jackson, 2000).*

Prospects Planner, from open access on a campus network, to access only from one computer housed in a small, separate but windowless room in the careers centre - by appointment and only one person at a time. This variation appeared to derive more from variations in available space and money, or careers service access to IT support for university-wide networking, than from professional or managerial decisions within the service. However, where Prospects Planner can be freely accessed on a network - and in future, perhaps also via the Internet - it could be a new and significant entry point to the system or even a by-pass round it. How would the flow through the careers service resources system alter as a result? Would the sequences be different, and what implications would this have for the strategic positioning of resources?

The development of a web site poses this kind of issue even more acutely. As careers service web sites begin

Using Prospects Planner

At the University of Leicester, those who say initially that *"I don't know what I want to do"* may be offered Prospects Planner as a pre-interview/pre-drop-in preparation resource. Prospects Planner may also be referred to by an adviser or an information officer. There is a booking system for one machine in the careers centre, which is accessible to graduates. Two other machines are available there but only available to current students of the university. Prospects Planner is now on the university network and so can be accessed from many other points on campus, but it is not in an obvious place on the network, hidden among student services departmental software, and hence may be difficult to find, or at least to happen upon by chance. Prospects Planner is seen as a preparation for a face-to-face interview with an adviser, helping the student to get the most out of the interview and preparing the way for an approach less dependent on the careers adviser.

Box 4.1

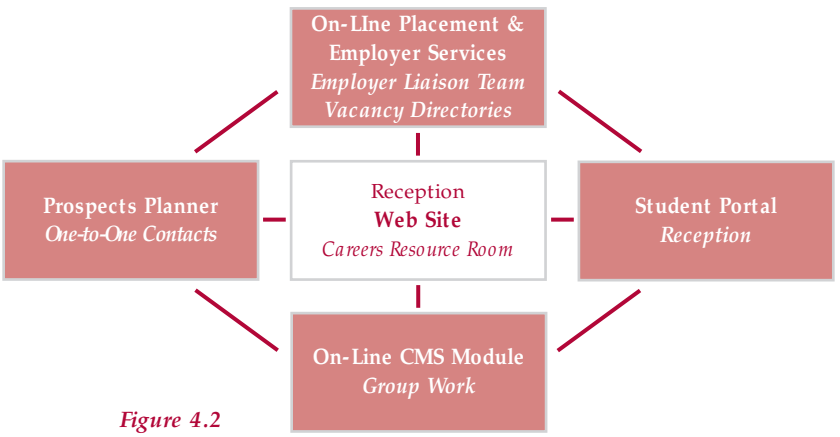


Figure 4.2

to offer more and more resources on-line which were previously only available through a physical visit to the careers centre, it becomes more urgent to examine the likely flow of traffic through a resource system that includes information and interaction on the Internet, alongside books and face-to-face interviews. An ICT-based model is developing alongside the traditional off-line structure. A user may now encounter the careers service first on their web site rather than at careers centre reception, and may engage in their first self-awareness activity or occupational exploration on-line at home or in the university computer lab rather than the carefully set out environment of the careers resources room, doing so without any recourse to a member of the careers service staff.

A key question is where to locate the "hub" of the resource system of a careers service - the point from which the flow of users emerges and to which it returns when in need of re-routing. Where does the central focus of the service lie? To which area does strategic planning direct most developmental energy, and what part of the system does the service try hardest to get right? In the past this might have been the one-to-one interview, but the last decade has seen a shift to the careers resources room and the "drop-in" session - an understandable strategic response to rising demands and limited human resources *(Watts, 1997)*. Is the web site the next phase in this development?

Five models represent possible structures of resource provision within a careers service using alternative hubs.

Model 1.

Figure 4.2 illustrates rather crudely what may be happening to the flow as a parallel ICT system is effectively imposed on top of the traditional model of Figure 4.1. In this case, the web site is central and acts as a hub for all the others - e.g. a person is likely to access resources via the web site (filling the traditional role of the careers resource room or reception area) from which they will be referred as necessary to the other resources (including a face-to-face interview). A person accessing any of the others directly is likely to be channelled back towards the web site for initial identification of needs and redirection to related resources.

The parallel functions of the traditional service are indicated in italics: in this respect, the traditional parallel to the web is the careers resource room. A receptionist or the student portal of the university, however, may also act as the receptionist and "gatekeeper" in either case, or the web site itself may carry its own "gatekeeping" function. This implies that more emphasis has to be placed on getting it right at these points, because a mistaken turning here will lead to less than ideal use of subsequent resources.

A service whose primary target groups were distance learners or graduates outside the university, or which operated across a number of relatively distant sites (as many services do), might consider this as a rational strategic model. Since four out of five finalists who are actively looking for careers information have used the Internet to do so, and even 75% of arts/humanities students have used it for this purpose *(MORI, 2001)*, such a model may represent a possible future scenario for many services. It is also a "default model" if careers services do not specifically plan otherwise. The remaining models suggest what the alternatives might be.

Model 2.

This structure (Figure 4.3) has the same components but in this version careers education, information and guidance work - via ICT or supported by it - is the hub of the system and the web site is displaced to one of the outer ring resources. In this model the hub is out in the faculties of the university, and effort is channelled mainly into the careers education/career management skills programme, either on-line or in traditional group work, or in a combination of both, perhaps in some form of distance learning. The aim is to "catch" everyone here before they reach the careers centre, and ensure they are well prepared for the effective use of the other resources, including the web site. This can now be designed with such "expert

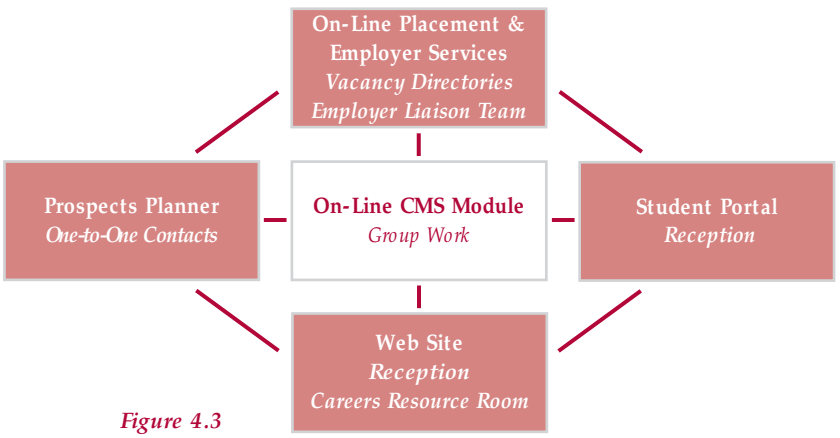


Figure 4.3

patients" in mind, with only minimal attention to the one or two who "slip through the net". Students, it is assumed, will have acquired the skill and knowledge to know how to use the resources of the careers centre or the web site before they come there, and will come with at least an initial focus for their work with the resources. Given that the first contact students are likely to have with the service in such a model will very likely be through the CMS module on-line, even the function of traditional "reception" points may be altered to channel users to and from this hub.

Problem exceptions to this will be identified and referred to in-depth work by the careers advisers. Where the careers service is positioned will depend to an extent on how ICT is used in the initial stages: mainly to support the work of academics and careers tutors in the departments; or as a means of delivering directly to individual students, bypassing the academic staff. The web site itself may even split up into pages that service different departments or schools. On our study trip to the USA we saw the beginning of something rather like this in the design of the web site and a relatively decentralised careers service at the University of Maryland: a number of careers advisers worked out in the individual faculties, were employed partly by them, and took responsibility for developing individual web pages for their subject areas.

Model 3.

In this model (Figure 4.4) the hub is a student portal or dedicated web page for each student, or a similar access point offered on-line by the university itself. Plans for the development of such a portal were mentioned to us by senior managers of the university in more than one of our pilot services. This could carry, for example, an electronically generated personal timetable, with course materials; it could encourage the creation of a progress file or portfolio; and it could also link the student to work from a career management skills module. Its function is both to front-end the student's experience of careers education, information and guidance, and at the same time to create a personalised record of interactions with the system, building a progress file.
Even without a formal student portal developed by the university, a careers service could opt to provide such an on-line gateway but it makes more effective sense as a means of bringing together aspects of the student's experience from the full range of their interactions with the university and focusing these around careers education, information and guidance.

Central to all this activity could be the concern to alert students to activities and opportunities to develop personal employability, to identify the work-related skills they already have or could acquire via their course, and to build on this a firm direction towards, and basis for, employment. In this case, all other resources contribute to this in various ways, but are ultimately tributaries to the main channel that leads from recording of personal achievement and progress towards work placement and employment, via the CV. "Relevance" is the key.

The web site is linked from and to a personalised portal, as a more public area where knowledge can be gathered, and is as concerned to help with the identification and acquisition of general key skills as with career interests or values; even these it treats as a means to the end of creating a winning CV and obtaining sustainable employment. It may be personalised for each student user and merge with the student's personal record in some way.

The careers service's position here may depend on the extent to which it has been able to be involved in, and actively contribute to, the nature of the student portal, and the percentage of links from the portal which lead to its services or web pages.

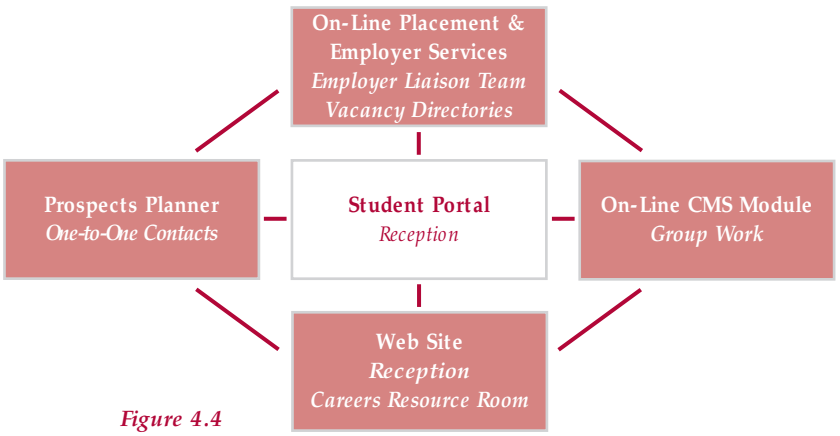


Figure 4.4

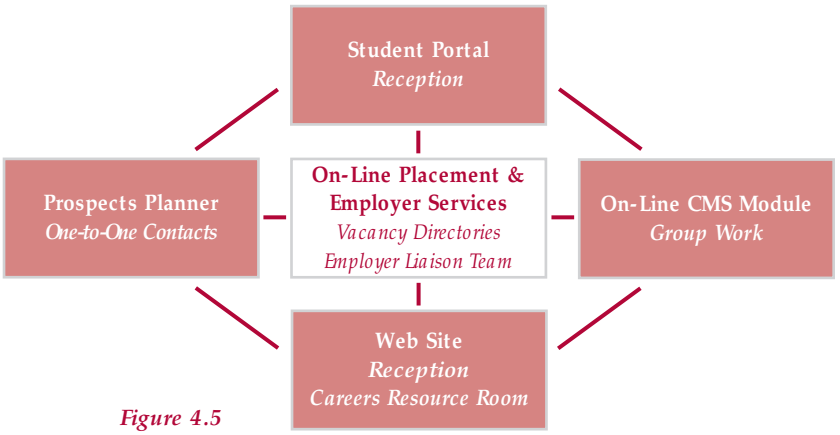


Figure 4.5

Model 4.

In this case (Figure 4.5), work experience, vacancy and employer databases - the work of the careers service's employer liaison team - are the hub of the system. This may be part of the web site, and may even dominate the home page since it is assumed that this is where every user starts. Getting a job is the overriding concern. Everything flows from that and towards that, as in Model 3, but without the stress on personal profiling. It is assumed that most users know what they want, and that if they do not, they will be referred back for remedial purposes to Prospects Planner or to a drop-in session or one-to-one interview. This might be especially appropriate where a majority of students are on vocational courses, for example. There might also be separate web pages or clusters of pages on employment for individual schools or course groups.

Model 5.

Finally, with Prospects Planner fully networked on the university's intranet, there is the theoretical possibility of this becoming the hub of the resource system (Figure 4.6). If Prospects Planner were to be available on the Internet this would be even more possible, and also a likely entry point for graduates and others not able to be present on the campus to use it. Here the one-to-one services of the traditional model are perhaps not a good parallel - this is more like a service which has abandoned reception altogether in favour of direct access to careers advisers, perhaps in open drop-in sessions. Hence the absence of a traditional equivalent to the student portal in the diagram. Prospects Planner operates here very like the "on-line guidance" function of the web site (where it could be situated, of course, in future) - as described in the typology presented in Section 2.2 - where everything else is an outcome of the core guidance interaction everyone is encouraged to pass through.

Implications: what's yours called?

In each of these cases, the strategic hub of the resource system shifts: from the careers resource room or reception area, to the placement and employer liaison services, to the departments and faculties, or even out to the wider university network.

In each case, we have presented separate, parallel systems overlaid on each other; but in practice, most careers services will set up connections between the two ICT and non-ICT systems. This makes the models more complex, but the same needs to envisage the flow and identify the hub arise. Not to be aware of the model one is following can mean that strategic planning aims at one process while practice delivers another. Awareness, on the other hand, means that synergy between resources can be planned and enhanced to get the most effective mix of resources used, in the most effective order.

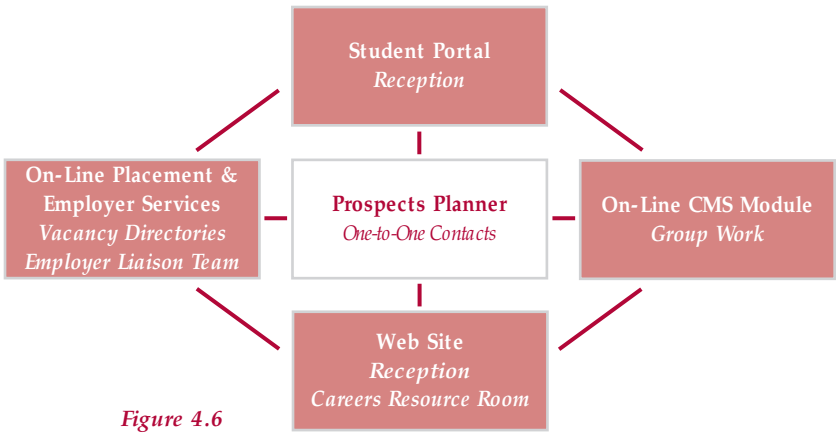


Figure 4.6

Web tracking at the University of Florida

The Career Resource Center at the University of Florida has set up a detailed system, based on web monitoring and analysis software, for tracking the ways in which its web site is used. Regular reports are produced on, for example:

- Activity levels by week, day of the week, and hour of the day.
- Most and least requested pages.
- No. of pages viewed per visit.
- Top entry pages.
- Top exit pages.
- Top paths through site.
- Most-accessed directories.
- Most-downloaded files.
- Most-submitted forms and scripts.
- Top referring sites/URLs/search engines.
- Browsers and operating systems used by site visitors.
- Most active organisations accessing the site.

Box 4.2

It is also argued that variations of each of these scenarios are possible but entail, in each case, different priorities in terms of how resources - in particular, ICT resources - are developed and used by the careers services, with real consequences for the position of the service within the university and perhaps even outside it. The design of the web site, especially, would need to reflect such strategic choices. The first of these models is likely to be closer to a "default" system - the type of flow that may develop if no conscious decisions are made or planning carried out. More and more users will access other resources in the first instance via the web site. Of course, there are other more radical scenarios in which the hub shifts outside the university altogether on to the wider web. These could be more or less a matter of concern in so far as the developments are fuelled by competition or co-operation, as discussed in Chapter 3.

Parallel or integrated?

One other fundamental strategic issue is whether in the longer term these ICT-based resources are seen as parallel forms of provision, attending to the different preferences and learning styles of different students (i.e. some will want to do as much as possible through the web; others through a face-to-face approach), in which case each needs to be comprehensive and self-sufficient; or whether they are seen as offering an integrated service, with different approaches being used for different functions, in which case duplication will be viewed as undesirable and will gradually be "rationalised". Operating a centre-based service and a web-based service in parallel could be costly.

4.4 Tracking, Evaluating and Recording the Flow

To a significant extent, the ability of careers services in the UK to track the flow of users to, from and around their web sites depends on the facilities provided by the relevant university computer services department or equivalent. Some have access to much more information than others. Few UK services can currently match the detailed analysis available to the Career Resource Center at the University of Florida (see Box 4.2) which runs its own server. Such data is unquestionably valuable for commercial and "political" purposes, and for helping services to defend themselves against competition or budget cuts, as well as being a strong basis for strategic planning and for proposals for future development.

In two-thirds of the UK services in our survey (see Section 2.1), no evaluation of the site had been carried out at all. Hit rates, where they existed, suggested that links pages, vacancy information and advice on CVs were generally the most popular features; but without more developed modes of evaluation, it is not easy to do much with this information.

In general, web-tracking statistical data must be treated with caution: it is often safer to draw relative comparisons than absolute conclusions (i.e. the figures may more accurately reflect the ratio of use between two web pages than the absolute number of times either page has been accessed by a single user). It is important to check that one is comparing like with like, and to understand some of the technical reservations about naive use of the figures, as well as the value of independent audit (cf. www.abce.org.uk) - as used, for example, to check the figures for prospects.ac.uk. In the absence of careers service technical control of the server, a discussion of the issues with computer services personnel, and agreement as to what could be achieved by way of management information and feedback, could be very valuable.

In the USA there is also growing interest in using technology to develop comprehensive records of students' engagement with the career centre. At one university, swipe-card technology is being increasingly used to log students' attendance at events like career fairs, as well as visits to the career centre. At another, work is being done on extending student records to include their profile and all engagements with centre activities. This means that any counsellor seeing a student can access this information; it should also, however, be valuable for evaluation purposes, making it possible to track how students' career development has interwoven with their use of the career centre's services. Such recording, of course, raises issues about data protection, and may not sit easily with some approaches to issues of confidentiality in counselling. On the other hand, the value for strategic planning, which may enable better services to be offered to users in the long run, is considerable.

A more pragmatic form of feedback and evaluation may be the use of a "this week's poll" feature on the front page of the web site (e.g. asking users to indicate from a list of web-site features which three are the most important). Response rates tend to be fairly low and potentially skewed, and therefore need ideally to be tested against other data sources. But such polls, as we shall see later (Section 5.3), can lead on to other forms of increased interactivity and responsiveness in the design of guidance interventions on the web and at a distance.

4.5 Recording Your Own Progression

The rise of records of achievement and progress files has a place alongside other modes of evaluation, tracking and feedback. Ultimately, if users keep their own records of progress, this is a mode of tracking which could fit even the most client-centred guidance model. Of course, there will always be issues of confidentiality, security and ownership, but progress files or portfolios could make negotiation with individual users into a real guidance contract and a hub of the system - as in Model 3 in Section 4.3 above.

An example of how progress files might be developed on-line is the Florida State University career portfolio project described in Box 4.3. The student portal is more common in the USA than in the UK as yet, and some universities there now require portfolios from their students. The FSU example shows how the process of recording can itself become a structure for career learning of the kind we address from another angle in Chapter 7. The recent development of a new UK web site (www.recordingachievement.org) for the Centre for Recording Achievement is an encouraging development in this respect.

4.6 Conclusion

Noting the implications of the flow of users between resources in the service draws attention to the need for an integrated and conscious strategy to ensure that the flow is not running in a different direction from the planned and desired pathways. Decisions in this area are not trivial and will affect training, staffing and financial commitments, as well as having an influence on the position of the careers services within the university and beyond. A related issue is the need for management information about the use of the resource system. Our initial survey showed that evaluation of web-site and ICT use is an area ripe for development at the moment among higher education careers services. It is possible to get very detailed feedback, but many careers services may have to settle for what their computer services departments will supply to them. Beyond that, feedback and evaluation also raise issues of confidentiality and ethics, but confronting these may lead to better services to individuals in the longer run.

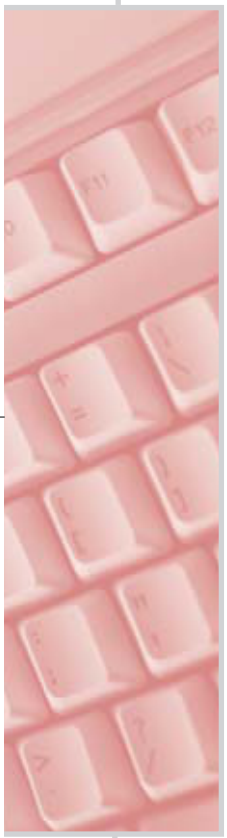
The FSU career portfolio

Intended as a way of certifying the skills which FSU students have and which employers want, the portfolio will be linked at relevant points to the web site. There was close co-operation with the administrative information systems on campus, so as to ensure integration with other systems already on line at the university. The portfolio details can be entered and built on-line, with a help facility offering examples of where to find evidence for nine transferable skills from participation in courses, jobs, voluntary work and so on. The nine skills are: communication, creativity, critical thinking, leadership, life management, research/project development, social responsibility, teamwork, and technical/scientific skills. The user can build a skills matrix, profile, résumé, references, artefacts (samples of work - e.g. a power-point presentation, or art work, possibly linked to a student's own web site) and examples. All this can be linked to other data in university records via their passwords in a secure area of the site. A student can access data on all classes taken at FSU and immediately transfer this to the portfolio. They can also grant access to specific users such as employers or parents to show them the profile.

At the time of writing the portfolio is still in development, but should be completed by 2002. There are ideas of using it with groups through academic advisers, where it could stimulate students to think about how their courses contribute to career aims. The university also sees it as helping retention rates by providing academic advisers with a means to maintain contact with students and keep track of their progress.

(Contact: jlumsden@ admin.fsu.edu)

Box 4.3



Chapter 5

Web-Site Design - Alternatives and Implications

5.1 Pragmatic and "Idealistic" Positions

There are two common approaches to the design of careers service web sites, both infused by what is usually claimed to be pragmatism. **Remedial pragmatists** will argue that the web site is only one resource among many. Users who are not ready for it should simply be funnelled into off-line services for face-to-face counselling if they have a problem. The site, they will say, should be designed so as to distinguish those who need such help and offer them an alternative, while the rest steam ahead with minimal input. The web site is only an alternative tool for some, or an additional resource for others once their "guidance" needs have been met. This often goes with the view that the web site is about "information" not "guidance", and that face-to-face interventions have no real equivalent on the web. It necessarily implies, however, some filtering or referral mechanism to ensure that those web-site users who need "guidance" are directed to it, and not offered "just information".

The second type of pragmatism is more thoroughgoing. **Radical pragmatists** will argue that what "works" can be justified in those terms. Most graduates get jobs in the end, one way or the other, and efficiency in delivering people to jobs is more important than sophisticated front-end scenarios which most people will not stay with long enough to get through. This position can be taken from a "conservative" direction, accepting the status quo and seeing the role of guidance as simply lubricatory. It can also be taken from a politically "radical" position, where the belief that guidance cannot change the context is seen as supporting the need for social and economic change in ways that go beyond the traditional role of guidance services *(cf. Watts, 1996)*.

There are, however, more **idealistic** alternatives ("idealistic" is here used in the sense of giving primacy to ideas and to structures developed from working out the implications of such ideas). Such a view might be that a web site, since it represents the service in an entirely unmediated context (cyberspace) and cannot determine its users in advance, requires full professional guidance to be made available to all, either on-line or via clear referral procedures from the web site, following the negotiation of a "contract" with the client based on (joint) identification of their needs. How this identification is to be done on-line, as it must be for at least some users, without losing a significant number due to the length or pedantry of the process, is then a key issue.

5.2 Needs-Based versus Resource-Based Approaches

Historically, higher education careers service web sites have evolved, as Mackert & McDaniels *(1998)* describe, from "a simple one page marketing scheme to a web site that serves as a direct service provider"; in that process "many philosophical decisions were made and concrete barriers overcome". A key philosophical decision which was highlighted particularly by the project study tour to the USA is that of whether to design your web site and other services along needs-based or resource-based lines. The former refers to a theory of web-site design developed and put into practice at the Center for the Study of Technology in Counseling and Career Development at Florida State University. The latter applies to most other services' web sites. The choice is more than an academic distinction: it has far-reaching strategic implications, which go beyond web-site design alone. Much of the rest of this chapter is drawn from a paper by Sampson et al. *(2001)* which outlines the principles of need-based design as practised at Florida State University.

As a result of good web-site design, Sampson et al. argue, the user should be able to quickly:

- perceive who would potentially benefit from using the web site;
- develop a mental model (or schema) for site navigation;
- locate resources and services that meet their needs;
- understand what to do with the resources and services they receive.

Resource-based web sites are organised on the basis of the content, resources and services provided. This kind of site comprises the vast majority of web sites in existence today. A resource-based site usually contains lists of resources and/or external links, with or without accompanying descriptive statements, which users must match, without assistance, to their self-perceived needs. Resource-based web sites are most appropriate for expert or experienced users.

There are clear advantages in such designs for the experienced or expert user who is familiar with the resources and links and quickly can get to where they want to go. Such a site also costs less to develop and takes a shorter time to complete. But a resource-based site assumes that a resource's title provides adequate information for users to determine if their needs will be met by that resource or by following a provided link. The process of assessing and matching user needs

to resources in order to maximise learning potential often takes a skilled careers adviser several years of training and practice to develop. However, web-site users are often expected to master this practice in a matter of seconds. This can result in frustration for some, or random linking and site hopping.

Resource-based sites often provide a long list of external links. This can quickly present an overwhelming amount of information, making it difficult for users to identify which external links will meet their needs. Using a schema to organise external links into conceptually related categories can minimise this limitation. However, the user is then confronted with the possibility of learning an often new, and potentially complex, classification system.

The needs-based web site, on the other hand, is organised on the basis of a three-part hierarchy where resources and external links are related to identified needs for specific categories of users. The top level of the sites, the index, is a list of potential kinds of users (level 1). For each type of user (or audience member), there is a link to potential needs associated with the type of user specified (level 2). For each user need there are one or more resources (assessments, information or instruction) identified to potentially meet the need (level 3). Each resource is also described, along with the outcome the user would get from it. External links may be treated the same way - they constitute simply another kind of resource. Links are pre-screened for quality, and the number of external ones is limited to avoid overloading the user with information. Effective use is valued more than comprehensive access.

In a fully developed needs-based site, the user can access a description of how to use and sequence the information obtained, as well as identify the circumstances where the user may need assistance from a practitioner in order to meet their needs. This is particularly significant - the site begins here to play a diagnostic function. Users are helped to see what their needs are as well as what resources will meet them. That includes potentially referral from the web site to off-line counselling if required. The design seeks to create an environment, through the proactive prompting provided, which will encourage users to seek help from a practitioner when needed. It also attempts to ensure that users are neither over- nor under-served.

What disadvantages does the needs-based design have? Without a site map or search facility or other navigational tool, it may frustrate experienced or expert users. It clearly also requires a great deal more time from the careers advisers who put it together. The process of operationalising the expert knowledge of careers advisers is not an easy task, but as staff members increase their familiarity with the need-based design process, they may find that the work becomes less difficult. The operationalising of expert knowledge is a learning function and is influenced by instructional design concepts.

Web-site designs should be based upon principles of learning rather than chasing the most recent technological feature on the horizon. Instead of simply asking "Can it be done?", web-site designers should also ask themselves: "Should it be done?" Technology is not unimportant, but is subordinate to the needs of the learner. The first step to creating a learning-based web site is to understand the relationship between learning and navigation processes. The idea is that the web site should be as easy as possible for users to navigate, so that the time taken for them to orientate themselves on the site is kept to a minimum, and the maximum time and energy is available for learning.

All this may seem uncontroversial to guidance professionals raised on the notion that identifying the needs of the client, making clear what the interview is to be about, enabling them to find appropriate ways of taking their concerns forward, and leaving them with a sense of what to do next, are marks of an effective guidance interview *(Bedford, 1982)*. Its radical edge, though not explicitly stated in these terms, derives from the implicit sense that there might, in this respect at least, be some analogy between a client-centred guidance interview and a web site. For many UK careers advisers, guidance, as opposed to "information", is something which by definition cannot be delivered on-line. These definitions may carry ethical overtones. Box 5.1 offers an illustration of this line of thought.

Is counselling on-line ethical?

The University of Florida Career Resource Center has been very cautious about doing anything on its web site which could be regarded as career counselling. This is because of the various ethical professional issues voiced by the relevant professional associations: "As a profession, counselling has not rushed to embrace technology". Part of the careers centre's commitment to professionalism has been its decision to employ as career counsellors only those who are licensed members of these associations. It has accordingly been cautious about doing anything which the associations might frown upon. As a result, the web site has been more preoccupied with the placement side of the centre's activities.

Box 5.1

The resource-based approach does not directly contradict the idea of on-line guidance, although it clearly can fit in more easily with the guidance/

information division, since the "resources" that are easiest to make available on-line are the less interactive and more "information-based" items such as books, handouts, and advice sheets. What it does, instead, is to make different assumptions about the users: a web site, it was assumed, will be visited by reasonably self-confident individuals who have a good idea of what they want from life and work, and in particular from the web site. The task is then simply to set out the stall clearly so that users can see quickly what resources or services are on offer. Once they know that, they will be able without difficulty to pick the one that meets their need. The only real problem is to ensure clarity and coherence or attractiveness in the display of resources: as with a shop window, the task is to catch the eye of the buyer and stimulate them to take a closer look.

This is still perfectly compatible with a client-centred approach. A key difficulty, however, is how the users who are not self-confident and in touch with their needs will fare, and how they will find out that the resources offered are not what they need, without wasting their time in random linking and page/site-hopping first - a process of trial and error that is the antithesis of guidance.

There are three main questions to be answered in developing a needs-based web site: these have a strategic relevance in relation to other services too. Panke, Carr, Arkin & Sampson *(2001)* offer web-design exercises to operationalise these three questions (the essence of their strategic approach is summarised diagrammatically in Appendix 1).

Firstly, who does (or should) the web site serve? The composition and situation of the target groups may influence significantly the content and design of the web site. Thus, if distance learning or mature or ethnic-minority students are a high proportion of the population at the university, there may be a case for customisation of some parts of the site to take account of their special needs. Organisations have a tendency to lump their users together, and may not focus on the specific learning needs of specific user groups. Although most higher education careers services in the UK start their web sites with a selection of target groups (typically, students, graduates, employers, and academics), they do not always provide highly differentiated responses beneath these headings, and students and graduates in particular are often treated the same despite their different situations. A target group should be properly visualised in terms of what makes it different from others, as well as what makes its members the same as each other.

The second design question is: what are the needs of users? Sampson et al. *(2001)* stress the importance of including front-line personnel (e.g. counsellors or receptionists) in the discussion, as they are often the most aware of the content and form of questions submitted to an organisation by its clients or customers. This must, of course, be set alongside the information derived from the literature of theory and research on the one hand, and from direct customer feedback from focus groups or similar on the other. However, the process of incorporating staff expertise makes the Web an "intelligent" mechanism for delivering resources. Box 5.2 on p.34 shows one example of a web-page design that clearly incorporates staff experience.

The third design question is: what resources exist (or should be created) that would meet each of the identified needs? Sampson et al. *(2001)* go on to elaborate this in terms of web-site design features under the headings of content, design, navigation, evaluation and technical considerations. Offer *(2000)* adds a further question - what phase of the guidance process or model the user has already reached - and suggests mapping guidance-related web sites against the two dimensions of level of support required by the user, on the one hand, and desired outcomes of guidance, on the other. If CV writing or job search is the main issue, it is obvious that the content of the web page will be different than for someone who does not know what they want to do at all.

Most web sites should work at the self-help level for at least some users. A key and interesting question is how "support" might be offered via the design of the web site itself for the rest, in relation to different phases in the guidance or career planning cycle. These questions and those posed by Sampson et al. *(2001)* delineate a two- or three-dimensional matrix (see Box 5.3 on p.35) that can be applied potentially to all resources, not just those that are on-line *(Offer & Sampson, 1999; Offer, 2000)*.

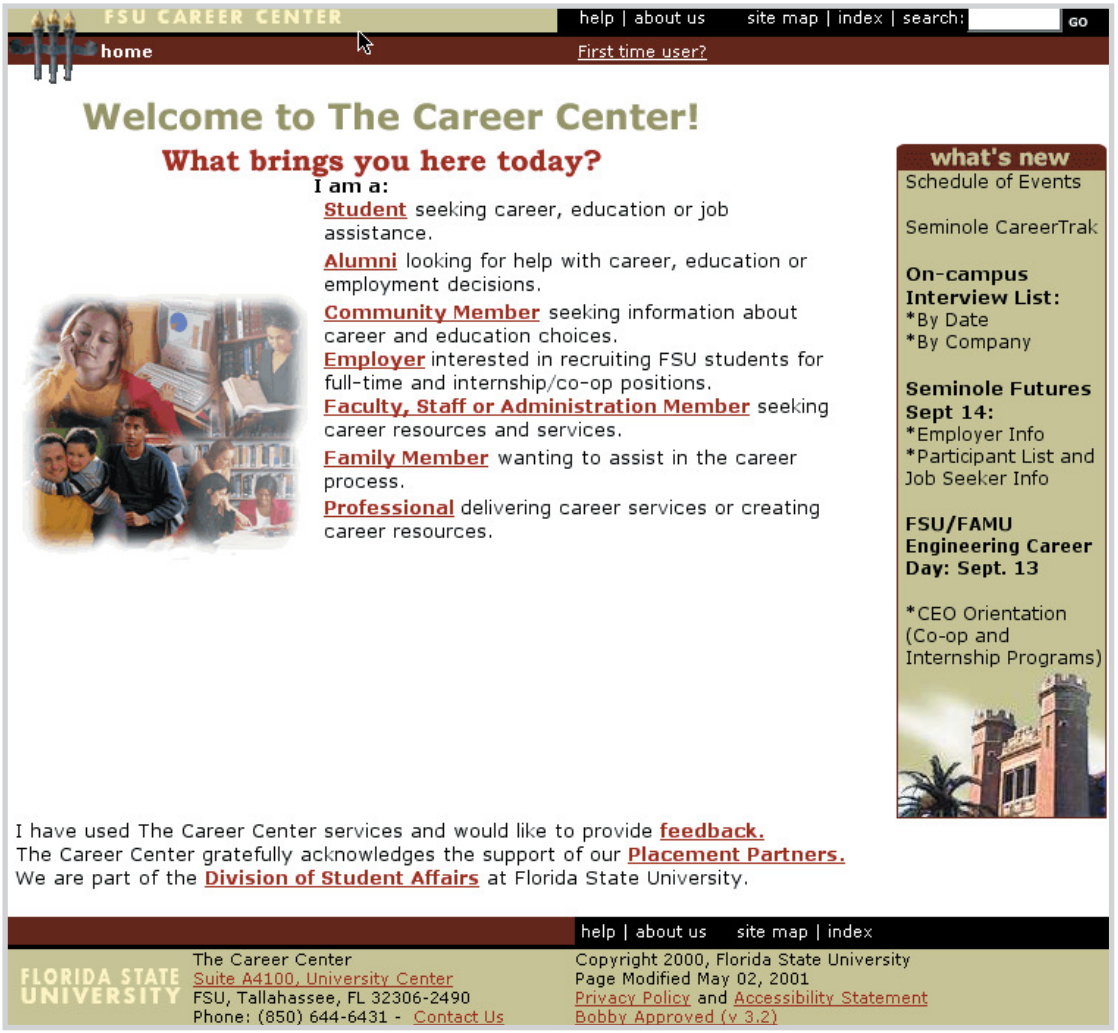
Teamwork.

From a management and strategic point of view, the stress placed by Sampson et al. *(2001)* on teamwork is particularly noteworthy. As they point out, having a web-site team allows for the control of a web site to be diffused throughout the organisation and limits the ability of any single person or department to dominate the site. A design team should include individuals representative of a variety of areas (e.g. information services, administration, and employer liaison). Staff members from the larger organisation should actively take ownership of web-site content for which they are expert, while design team members should remember the old adage, "people support what they help to create". The tendency in some British careers services, by contrast, has been for the most IT-literate person to control the development of the web site, while others simply got on with their normal routines. In the long run this is not likely to lead to an integrated resource, nor one that reflects the work of the whole service.

Social control.

Web sites may reflect the social and (internal) political agendas of the organisations that created them, instead of its most innovative and flexible aspects. While sites for specific new products and/or services may be less subject to such pressures, those web sites which are part of an organisation's strategic and

Identifying the target group - "What brings you here?"



Box 5.2

support systems may also be more influenced by social pressures. To counteract the pressures of social control on web sites, designers should try to clearly define the priorities in system development and refocus their activities toward the development of systems that not only support the status quo, but also create new markets, evaluate and redefine existing markets, and redesign current resources and services.

A non-exclusive model.

This approach has been dealt with at some length because it represents a major challenge to the dominant form of careers service web sites. The underlying philosophy, based on the principles of cognitive information processing *(Petersen et al., 1996)*, offers a coherent theoretical rationale for the reorganisation of wider service delivery *(Sampson et al., 1999)*. Critics often argue that a needs-based design contravenes received technical opinion that, unless users get where they need to get within two or three clicks, they will exit the site. The answer given by needs-based designers is that users are here led step by step in a process which engages them, so are willing to stay with it. Sampson et al. *(2001)* do not reject key aspects of the resource-based site, in any case: site maps, search facilities and other means of quick navigation can be added to the needs-based design without difficulty, and enhance its usability for the repeat or experienced and decided user. They suggest that rather than providing a single lockstep approach to design, the aim should be to stimulate critical thinking and help in initiating or continuing web-site design, and that it is possible to combine the best of the two approaches.

The critical thinking that is stimulated needs to take account of two issues in particular. The needs-based approach demands an answer to the question of how a user can be helped to identify their needs on the web. It also implies the underpinning use of a model of the guidance process.

5.3 Identifying the Needs

Identification of needs is as relevant on a web site as in the preamble to a face-to-face interview. There are at least three levels of support for (self-) diagnosis of needs in such a situation. At the first level, entirely unmediated, there may be clearly written menus, with

The resource matrix

The cells of this matrix have been filled in with illustrative ICT-based examples to show how ICT can contribute at all levels and in all phases of the guidance process. In practice, every careers service offering a comprehensive guidance service should be able to fill in these cells with resources of various kinds that deliver the specified guidance outcome, with the level of support or service required by the user and the resource. The definitions of guidance outcomes and levels of service can also be redescribed to suit specific target groups and contexts: "target group" then becomes a third dimension

Guidance outcomes

Level of support	Self awareness	Relating self to opportunities	Opportunity awareness	Decision learning/ making	Tactics: implementing decisions; transition learning
3. Full one-to-one support by specialist: careers adviser or other trained counsellor	e.g. psychometric testing with feedback from trained user	e.g. Prospects Planner as preliminary to one-to-one discussion with an adviser	e.g. discussion with careers adviser of labour market trends in relevant areas	e.g. selective psychometric testing, or use of specific ICT-based exercises plus one-to-one contact with adviser	e.g. discussion with adviser of application and job search techniques one-to-one
2. Support from tutor during classes or tutorials, OR by adviser in a group, OR by non-specialist staff, one-to-one, at the careers centre	e.g. CMS modular exercise with group feedback, OR Prospects Planner used at careers centre with staff support	e.g. CMS modular exercise with group feedback, OR Prospects Planner used at careers centre with staff support	e.g. CMS modular exercise with group feedback, OR Prospects Planner used with staff support, OR planned work experience placement etc.	e.g. CMS modular exercise with group feedback, OR ICT-based exercise used with staff support	e.g. exercises from Prospects Planner, OR other ICT-based material, used with staff support, OR CV check by email
1. Self help at home or in careers resources room, library etc.	e.g. Web-based practice tests or self-assessment exercises	e.g. Quick Match or similar web-based matching exercise	e.g. occupational or course information on prospects.ac.uk or Virtual Careers Library	e.g Web-based values inventories or decision learning/ prioritisation exercises	e.g. on-line application and job searching using CV/ vacancy/employer databases

Box 5.3

(Adapted from Offer, 2000)

options grouped according to obvious schema, and possibly elaborated by the use of hover text for any particular item. From this, clued-up users should be able to identify adequately enough their own needs and the resources likely to be relevant to them. The next level of support could be a set of frequently asked questions (FAQs) or similar statements to which an uncertain user could relate to identify a more precise question and be directed to an appropriate resource for a response. This could be particularly customised for particular target groups. What do people like me generally have concerns about? Can I identify with anything? Am I the only one who asks that? Box 5.4 on p.36 demonstrates one application of this principle to a specific target group.

Such a facility can be enhanced if it is possible to email an additional question to the careers service, which may store these and from time to time add new FAQs derived from them, or from "weekly polls" of

users, to the list. Care must be taken in the process, as Sampson et al. *(2001)* point out, not to simply replace the initial problem of orientation with another: overloading the user with possible questions. Finally, a few may be even more confused and need full face-to-face support, or a complex and systematic exercise, or an on-line psychometric instrument, to identify their real needs. The option to engage with any of those alternatives will be offered to those who still do not feel sure what to do at this point.

Identifying the user's needs (for mature students and graduates) using an FAQ approach

"Welcome to the site specifically designed to address issues affecting mature students and mature graduates in career choice and job search. CaSE see many mature students and graduates and have experience in supporting them into employment or further study.

- Are you undecided about your future career? Make a start on career choice. (Link)
- Worried that your previous experience will not be valued by employers? Find out how you can make experience count. (Link)
- Lack self confidence? Find out how to present a positive image to employers. (Link)
- Concerned that job adverts seem to be targeting young graduates? Find out how to undertake a creative job search. (Link)
- Too many rejection letters? Find out how you can address employer concerns about mature students in your written applications. (Link)
- How to manage the interview. (Link)"

(Careers and Student Employment, University of Westminster)

Box 5.4

5.4 Filters, Funnels and Diversions

The process suggested here can be seen as a series of filters: at each stage, another tranche of users moves off to find the resources they now know they need, and hopefully only a small number remain to seek the full specialist professional one-to-one service. This type of approach can function to divert the extra users from an already overloaded service, since more of them can help themselves on-line. At the same time, it can help identify those who potentially need individual face-to-face guidance and funnel them in the appropriate direction at an early stage.

The three levels may also be worked through as a kind of progression, with initial contact leading through progressive "filters" that divert some to one kind of resource provision and some to another. A user may prefer to start with a cautious look at the web site, and what the service offers; but on finding their needs only partially met, may opt for the next level of support. The pages/menus offering identification of needs should therefore be linked not only from the home page of the web site but from the bottom of certain other pages - to pick up those who would otherwise feel their search has come to an impasse. Whatever else a user experiences on a web site, it should never be a dead-end.

There is also a positive aspect: a user progressing in this way to a more supported level should reach there better equipped to make use of that support and clearer about their needs. A person who has worked through a needs-based web site should surely have become a more "expert patient" (to use the health service analogy) when they arrive at a face-to-face guidance interview or formulate their email enquiry, than otherwise. Is this one way of evaluating the effectiveness of such web-site designs?

5.5 The Model of Guidance

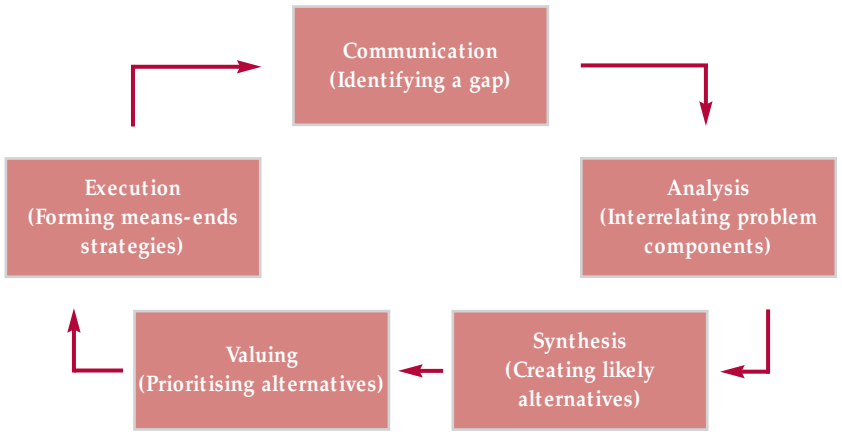
Without an underlying conception of what the guidance process looks like - what phases a user may be expected to move through and what activities or experiences are typical of each - it is likely to be very much more difficult to identify the resources that meet the needs. Those who "don't know where to start" are likely to be at the beginning of the road. They need a coherent account of the route ahead. Identifying and meeting the needs of someone who is already at the job-search stage is going to be rather different from the same diagnosis for someone who is at the stage of exploring their own skills, abilities and interests in a much looser fashion.

Of course, different models may suggest different ways of conceptualising the process, but the possession of any model is influential. Conceiving of the sequence of career choice as "explore, experience, employment", as was the case on one US web site viewed on the study tour, will necessarily produce a different web site from that of Florida State University where the CASVE cycle (Box 5.5) is the underlying model.

The model of guidance adhered to, and the (sometimes unspoken) emphasis given to one phase or other of it, will and should influence the design of ICT interventions. In the DOTS model which describes four main learning outcomes of guidance - ***D***ecision learning, ***O***pportunity awareness, ***S***elf awareness and ***T***ransition learning *(Law and Watts, 1977)* - and in the CASVE model there is an equal emphasis throughout on individual self awareness and the support that may be required for this. It is, therefore, logical to design a web site that focuses on how the person comes to be

The CASVE model

(Petersen et al., 1996)



Box 5.5

aware in the first place that there is a decision to be made and that they may need help with this even if they actually present with a need to write a CV or "get a job". Access to the web site is then at least partially framed by this emphasis.

The FSU web site, for example, takes a person through a step-by-step identification of the target group they belong to, the kind of decision they need to make, and hence the kind of support they will need to make it. There is a clear rationale offered for this, which is reflected in the layout of the site. A similar approach is taken in Prospects Planner (based broadly on the DOTS model) and to some extent also on prospects.ac.uk.

5.6 Links: Simple Conjunctions or Strategic Connections?

What do links do?

Whether resource- or needs-based, guiding people from one part of the service to another involves making links. Links on a web site provide several things:

- *coherence* - connecting one part of the site to another and back again, or to off-line services and resources, or to other relevant sites;
- *referral* - to other services or resources not provided on the site;
- *user control and choice* - the user can follow a link instead of the actual text or page structure in front of them, and can make the choice themselves;
- *focus* (as when a link leads to a more detailed account of some aspect) and *scope* (as when a link leads to alternatives or other ideas that may expand the range of options considered).

Strategic implications.

The use of links, however, represents a strategic choice that may well go beyond the design of the web site itself. As we have seen, in the example given in Chapter 2, the link to Job Trak - a major strategic decision to "outsource" - has had huge implications in the USA, possibly for the whole higher education careers community. A link can express and involve complex decisions about the nature of the relationship to the receiving site - perhaps partnership or team membership, or co-operation and shared principles. It could also be one-way or reciprocal, depending on negotiations.

The University of Florida has a special form to assess the quality of links, and a formal process for clearing them with its own web committee as well as for notifying the connected site of its decision, thus giving the fact of linking a heightened significance. The careers service at the University of Maryland uses career-related links to build special pages developed on a faculty-by-faculty basis to show the work-related nature of a particular major or course: the fact that such links are from degree-specific pages, not just from the careers service web site, strengthens its connection with teaching in the faculty. Duke University has created a listserv for the same purpose, using a different kind of (non-Web but Internet-based) link. Another form of linkage is the one offered by most of the US services seen on the study tour - to alumni. Here the link represents a positive attempt to build a network, in both the literal/technical and metaphorical senses.

Links as referral.

Each of these examples represents a significant choice, requiring a reason for the link and an explanatory context for the user, as well as creating a need for continued supervision and revision or maintenance. In many ways, this reflects the activity of referral as defined by the Guidance Council, and others, as a professional activity of guidance. Thus the Guidance Council standard for "referral" includes the criterion: "Clients are told about other organisations and referral is appropriate to the client's individual needs and circumstances" (*Guidance Council, 1999, part 3, section A13).*

The idea of applying these standards to Internet-based links such as listservs and networking databases may seem less strained than when referring to hypertext links on a web site, but there are some common elements: Sampson et al. *(2001)* recommend writing "outcome statements" (e.g. "learn what's involved in choosing a major") or "audience goal statements" (e.g. "looking for help with career decisions") for links, to clarify what a user might achieve by following a particular link on (or off) a web page. Nielsen (Box 5.6) also offers some useful guidelines.

Guidelines for link titles

- The goal of the link title is to help users predict what will happen if they follow a link.
- Appropriate information to include in a link title can be:

(1) name of the site the link will lead to (if different from the current site);
(2) name of the subsite the link will lead to (if staying within the current site but moving to a different part of it);
(3) added details about the kind of information to be found on the destination page and how it relates to the anchor text and to the context of the current page;
(4) warnings about possible problems at the other end of the link (for example, "user registration required" when linking to the New York Times).

- Link titles should be less than 80 characters and should only rarely go above 60 characters. Shorter link titles are better.
- Do not add link titles to all links: if it is obvious from the link anchor and its surrounding context where the link will lead, then a link title will reduce the usability by being one more thing users have to look at. A link title may be superfluous if it simply repeats the same text as is already shown in the anchor.

(Jakob Nielsen's Alertbox for 11 January 1998) (http://www.useit.com/alertbox/980111.html)

Box 5.6

Links to computer-assisted guidance systems (CAGS).

Many UK careers services link to Quick Match, a cut-down version of part of the Prospects Planner system. Florida State University was one of the few US sites to link directly to off-line CAGSs such as CHOICES. Other such systems - Prospects Planner, for example - may eventually be fully available on-line. This also will present issues for decision, particularly if the web site is seen as "just information" and interactive "guidance" is not considered appropriate in an unmediated context. What role will such CAGSs and their providers play in the public/private partnerships of the future, and what challenges will that present?

What is each resource or guidance intervention for?

A careers service should clarify not only the needs of users and the design of the web site in this respect, but, as was suggested in Chapter 4, where the site fits with everything else. Technology, as Sampson et al. (2001) state, should not be used simply because it exists. The question seems to be: how to select and justify a particular form of intervention or service delivery in professional and strategy/policy terms, and what rationale to offer for the choice between one such form of intervention and another.

An example of a practical attempt to tackle this problem could be a careers service's guidelines for reception staff on how to allocate callers between "quick queries" and "long appointments". This probably now needs to be extended to cover all types of guidance interventions, in view of the new forms of intervention presented by ICT, and in particular the web site. Since the web site is now an alternative "entrance" to the careers service, it needs a "receptionist" function and a means of ensuring that users get quickly to the resources and services they need, with minimal experience of trial and error.

5.7 Conclusion

Web-site design raises many issues of policy and practice that go beyond the technical issues. However, the needs-based approach impressed itself on some members of our study-tour group, in particular as a rationale "to underpin all developments - not just the web-site - something very helpful for both strategy and operational targets". Three key aspects of web-site design which need to be addressed, whichever approach one takes, are: the coherence, explicit or implicit, of the model of guidance that underpins the site; how the site helps to avoid over-serving some users and under-serving others by supporting (self) identification of needs; and finally, how the site uses links to connect, focus or refer the visitor, while leaving them in conscious control of their own navigation. As an alternative entrance to the service, the web site highlights the importance of what is often carried out implicitly and subconsciously, though often also skilfully, in the parallel system.

Chapter 6

One to One and at a Distance - the Use of Email for Careers Information and Guidance

6.1 The Changing Spectrum of Communications Media

Before the arrival of the computer, an individual could be helped individually by a careers adviser in a short or long face-to-face interview, by telephone, or by post. Any interaction that was not face-to-face had only two choices: synchronous voice-only communication by phone; or (considerably) asynchronous, time-consuming communication by letter. The telephone was the main "technically mediated" option in this spectrum, and still represents considerable potential for development, as the massive take-up of the Learndirect national helpline system for adult learners has shown (Box 6.1). A similar situation is likely to emerge in relation to the Connexions service for younger people.

The Learndirect helpline

The Learndirect helpline is probably the largest telephone helpline in the careers guidance field to have been developed so far in the world. By the end of 2000 it had responded to 2.4 million calls, operating from two large call centres in Leicester and Manchester, each with 110 "seats", plus smaller centres in Northern Ireland, Scotland and Wales. All use a single number. The helpline is open from 9 a.m. to 9 p.m. Monday to Friday and from 9 a.m. to noon on Saturday. The staffing structure is based on a distinction between three levels of adviser: Information Advisers dealing with straightforward "information" requests, Learning Advisers enquiries requiring "advice", and Lifelong Learning Advisers dealing with enquiries requiring "advice and guidance". The service does not claim to offer access to full in-depth "guidance". The argument that this is not feasible is, however, refuted by examples of successful practice in career and other forms of counselling by telephone elsewhere. The decision appears to be based more on perceived need to control the staffing and other costs of the helpline.

(Watts & Dent, 2002)

Box 6.1

Higher education has for some time had its own version in the AGCAS Graduate Careerline, though its use has not been on such a significant scale, and it has tended to be seen as a resource of last resort when other types of interaction were not available. When graduates phone in to a university careers centre, they may well not be told about Graduate Careerline as an alternative to a guidance interview on campus, and are more likely to be encouraged to visit a service elsewhere if they cannot come in to the one they are ringing. Face-to-face interaction is still seen as the gold standard of guidance practice; anything else is rated as being decidedly second-best.

Into this traditional spectrum of interactions, information and communications technology has now added several new variants. The spectrum for one-to-one communication now probably reads, in terms of the relationship between adviser and client: face-to-face, videoconference, telephone, Internet chat, email, Internet/intranet-based discussion forum, web site, post and print-based services. There may be some disagreements over the exact rank ordering: the important point is that ICT has significantly increased the number and range of media available to carry information, advice and guidance.

6.2 Videoconferencing: a Future Service?

Synchronous face-to-face interaction in real time is now technically possible in cyberspace via videoconferencing. This may currently be too expensive to access for UK services where geographical distance is not a burning issue - the exceptions being more remote rural areas of, for example, Scotland. In Finland, with a much smaller population spread out over a large area, it has been used from time to time by careers advisers working at Turku Polytechnic, when dealing with students in the archipelago served by the polytechnic, which has departments that may be up to 85 km apart; even here, "teleconsulting" as a mode of guidance has clearly been a relatively unusual occurrence, often hampered by technical breakdowns.

Videoconferencing, as our own initial survey showed, is at present mainly used in the UK higher education careers service sector to set up regional meetings between careers services, e.g. in the University of Wales. Experiments with its use for training purposes have also been undertaken, particularly in conjunction with international projects. At Weymouth College, in the further education sector, a European-funded project has demonstrated that it is feasible to deliver psychometric test feedback via videoconferencing at a distance, setting up special centres in further education colleges across the country where such feedback can be locally received from a trained adviser who operates from the Weymouth centre.

Videoconferencing remains a form of service with much growth potential. Its wider use will depend on significant further development of communications channels that can carry the extra payload of data required to disseminate video material, probably on the back of demands for its further use in wider teaching and learning strategies in universities.

6.3 The Advantages of Asynchronicity

Email, on the other hand, has already had a major impact, encroaching on the areas occupied by the telephone and the letter. Its asynchronicity represents both advantages and disadvantages. Unlike the telephone, you cannot find the line engaged or be unable to "get through", but equally you can only rarely expect an instant response. Careers services which offer email as a form of one-to-one enquiry service seem to set response targets of around three days to a week on average.

Enquiries and replies can be thought out and composed well in advance (though in general emails seem to be a more spontaneously reactive communication than the traditional letter), so the quality of the interaction can be higher: as in postal chess, you can "play above your normal level" both as an enquirer and, more particularly, as an adviser. A relatively new and inexperienced staff member has time to seek help and advice from other sources, can learn by doing the necessary research, and cannot so easily be "put on the spot" by a difficult question (this has implications for staffing and for training policy and practice; the fact that a record of the communication is retained also makes counselling supervision easier).

6.4 Spontaneity: Too Much Feedback or Too Little?

At the same time, others would argue, the use of email can never be as "spontaneous" as a face-to-face interaction or a telephone conversation. What seems to be intended by this objection is the reduced possibility of adjusting one's response as an adviser to take account of feedback, and hence the greater difficulty of clarifying a client's questions and needs, with the consequent danger of misunderstandings. It is also argued that it is more difficult to express immediate empathy or warmth in writing. Literary skills may help to reduce the difference between spoken and written competence, but the fact is that the present generation of careers advisers have been trained and selected on the basis of their face-to-face interpersonal skills rather than the quality of their writing.

One might argue, however, that "spontaneity" as a virtue has its limits: careers advisers often encourage a less rapid and immediately reactive approach to decision making in their clients, and this is quite naturally consistent with the use of email to discuss and think through an issue. On the other hand, email has been generally accused of encouraging too rapid and spontaneous a response at times, since the restraint of a non-verbal context that might give the "speaker" reason to pause and reflect on the possible impact of their words is absent. At the same time, email is sometimes felt to encourage vague and ill-thought-out enquiries, to which it takes undue time to respond. For the adviser, as well, the lack of immediate feedback can be a real loss: "You send it into a hole and you never find out what happened to it," as a careers adviser at one of our UK action-research sites put it.

6.5 Graduate Questiontime and Other Email Services

Email is not, however, simply one type of intervention. An interview can be for selection or research or guidance; for information or in-depth counselling; a preliminary to, or a follow on from, other activities. Email, similarly, can be used and framed by a careers service in many different ways. It can be integrated differently with other resources, as the example in Box 6.2 shows. It can deliver different types of service. Thus the CSU Services for Graduates project operates both Graduate Questiontime and the CV Surgery facilities by email, yet they are quite different activities: Graduate Questiontime is a relatively open-ended service providing advice and information, whereas the CV Surgery is a specific and focused intervention (Box 6.3). Moreover, Questiontime operates, as its name suggests, to answer questions: there is no attempt to model the face-to-face guidance interview or even the quick drop-in conversation with a careers adviser. Exchanges tend to involve one question and one answer. Only very rarely would this extend to a more leisurely exchange of correspondence with an enquirer, in the way that a face-to-face conversation might seek to build up rapport, allow time to develop understanding of the issues, summarise and feed back.

One very practical reason for this is the non-personal nature of the relationship: advisers are interchangeable (being part-time, each offering only about eight hours a week, often from home and at differing times of day, they would have difficulty in sustaining an effective on-line conversation by email alone) and anonymous. The relationship is with the service, not the person. Advisers working in the service simply pick up the next query from the mailbox when they log in; and although it is possible for them to trace who dealt with the original query in the case of a follow-up message, it is not feasible to ensure that the issue is addressed by the same adviser again.

6.6 Email at the Apaja Centre

By contrast, at the Apaja centre in Finland (see Box 7.2 in Chapter 7), users of the guidance service at a

distance are required to register with the service in the first place, and a deliberate attempt is made to personalise the process by having pictures of the advisers on the web site. Responses go back to the same counsellor. One email enquiry can involve as many as eight contacts, and an average of three, between counsellor and client. It was claimed that dealing with an email enquiry can take around one to one-and-a-half hours.

No FAQ facility is offered, unlike the Services for Graduates project, though - as in the Strathclyde careers service example (Box 6.2) - counsellors can save their responses personally and copy them to a new enquirer where the question is materially the same. The email and associated services at a distance offered by Apaja are much more clearly an alternative or substitute for face-to-face guidance, whereas the UK's Services for Graduates project is an additional resource which supplements overloaded in-person services.

Experiences of an email service

"One major difference I have noticed in the way that I advise via email to the way my colleagues advise face to face is the types of resources we refer to. Through an initial focus group and questionnaire contact with graduates of the partner institutions, it became clear to me that referral to further 'physical' sources of information was not deemed as desirable as referral to 'virtual' sources of information. Whilst I still do refer to information which may be available in information rooms of the relevant careers service, I always try to provide a virtual alternative, making not only the immediate information and advice as accessible as possible through using technology, but also applying the same concept to the follow up information.

"There are a number of other areas I could comment on regarding my initial experience of the West of Scotland service - such as the fact that I, too, save my responses in a way that I can refer back to them and simply edit relevant information for queries of the same nature; or that often vague emails have to be responded to with a number of questions for the graduate to ask themselves so that they can gain a clearer picture of their starting point rather than me trying to second guess the situation and providing unhelpful advice."

(Email from the Project Officer, Graduate Careers Email Service (West of Scotland), University of Strathclyde Careers Service)

Box 6.2

Graduate Questiontime and CV Surgery - CSU's "Services for Graduates" project

CSU has begun an email advice service for graduates (called Graduate Questiontime) with four careers advisers seconded part-time from their main services, dealing between them with 90-100 emails a week. The service has been developed in conjunction with AGCAS in the light of research which showed that the "mutual aid" agreement by which AGCAS careers services agreed to provide help to each other's graduate students had resulted in practice in an unacceptably variable response - in particular, only 27% offered unrestricted access to careers interviews for other institutions' graduates. In addition, use of the telephone service, Graduate Careerline, was relatively low and had recently been in decline.

Graduate Questiontime is part of a larger Services for Graduates project which covers a number of Internet-oriented interventions, including a CV Surgery which uses email to offer graduates an on-line check on their CVs and applications. This service is dealing with nearly 160 CVs a week at the time of writing, though seasonal variations can be expected. It is also integrated at various points with the prospects.ac.uk site: from the My Prospects section, graduates can log in to the CV Surgery or to "Life after Graduation" (an interactive guide to www.prospects.ac.uk, using the on-screen remote control to navigate through the web site to find information which is relevant to them).

In conjunction with Graduate Questiontime, a Career FAQs section has been launched recently - a searchable database of frequently asked questions by graduates to careers advisers. It has already received over 4,000 accesses and is growing daily. A Graduate Forum, an on-line bulletin board, will soon offer graduates a platform to discuss careers and other related issues and to share further study and job hunting experiences with other graduates. This will be moderated and facilitated (the two roles will be kept separate) by careers advisers. There will also be an on-line chat room where a user may be able to talk live with an employer or careers adviser as well as other graduates.

The Services for Graduates project also includes local projects such as a similar email service based at the Glasgow universities, involving the four West of Scotland universities as a regional alternative for Scottish graduates, with a part-time project officer. In addition, on-line discussion and chat rooms are planned for graduates in the North-East at Newcastle University.

(Phoenix, No. 94, Autumn 2000; No. 97, Summer 2001)

Box 6.3

6.7 A Fear of Losing Control?

One of the factors that can cause concern when email first begins to become an issue for careers advisers is the potential loss of control. Some of this is due to a fear of the sheer numbers likely to use this access method and the consequent loss of control of one's own time. Careers advisers, it was suggested at one service, could end up spending more time on email than on face-to-face work. Related to this is the potential ability of the user to "jump the queue" when a face-to-face enquiry might have meant a longer wait - especially if responses to emails are guaranteed, as many are, within a certain number of days.

There is also a sense that because email can be sent so easily, students in particular may be taking the easy way out; the service may accordingly fall into the trap of "doing too much" for the enquirer, when part of the service philosophy is to encourage autonomy and self-help ("when they come in, we don't usually take them to the information"). This is exacerbated by the possibility that in email responses, particularly if the question gives little background on the enquirer, an adviser may feel pressured to cover every option; whereas in a face-to-face drop-in or "quick query" session, they would have relied on immediate feedback as to whether a short initial answer was adequate to determine if they were under- or over-serving a client.

Some of these objections could be seen as applying equally to the use of the telephone. But whereas a telephone call, when the adviser is already talking to or dealing with someone else, may not be answered, and the lack of a response may dissuade the less serious caller, all emails will be received, logged and sit awaiting an answer even if the adviser is not there at the time. Voice mail is the telephone equivalent, perhaps, but not quite as easy and encouraging for the enquirer to use on a whim.

6.8 Managing Email

There are several ways of mitigating these consequences. A strategic decision as to why one would use email, for example, and for which target group, is one of the first steps to be taken. A request from a graduate living in easy reach of the university might be dealt with by an invitation to come in person, or by a telephone call; whereas a similar request for help from a graduate overseas would be more likely to be responded to by email. The context from which an email is sent is also important here: on the web site, an email address which invites all comers to use it as a channel, without indicating why or what kind of request can be dealt with, is asking for the kind of response that is feared.

Using filters.

On a web site it is however possible, as suggested in Chapter 4, to develop a filtering process that encourages users to think about and identify their needs more precisely. A simple preliminary screening process can be set up, e.g. a few drop-down menu boxes from which users can be prompted to select the relevant categories that describe them and the nature of their enquiry, providing the adviser with more information on which to identify those for whom email is or is not an appropriate way of giving the help that is needed. The current use by many services of a set of guidelines for information and reception staff on allocating callers to "quick queries" or "long appointments" may offer a practical analogy. So may the discussion on needs-based web-site design in Chapter 4. Identification of needs is as relevant here as in the preamble to a face-to-face interview, but is best done at the point where the user writes the opening email of the exchange - i.e. on the web site if that is where the email address is first encountered by a user.

The point is to ensure that enquirers are encouraged to avoid vague and all-encompassing queries: defining the nature of the request by reference to a list of possible categories may start an appropriate process of focusing. Then, when the enquiry finally reaches the adviser, it may make more efficient demands on their time and expertise.

Using FAQs.

The next level of support could be a set of FAQs or similar statements to which an uncertain user could relate to identify their precise question and be directed to an appropriate resource for a response (there is an analogy here with call-centre menus on the telephone). This is a facility that the Services for Graduates project has developed from the prospects.ac.uk site (Career FAQs), which could potentially be linked to by a local service. As well as helping the user, it should cut down work for advisers when answering standard questions that can then be simply referred for the less individually tailored part of the answer to the appropriate FAQ.

If the FAQs are grouped or clustered in some meaningful way, the user may begin to see the phase of the process they are currently in, and where they need to go next, without further intervention. Technically it is possible to develop software that will recognise and literally filter email enquiries of these types into different mailboxes, as in some existing email systems, but with more skilled monitoring based on a model of the guidance process. This use of FAQs, of course, links back to the principles of needs-based web-site design, discussed in Chapter 5.

If vague or unfocused questions still get through, another solution may be to send a standard response coupled with one or two questions from the adviser that will help to individualise the contact: e.g. "This is the standard response to your kind of query but if you can answer the following questions for me I may be able to help you more specifically...." An agreed and recommended set of links to such sites as prospects.ac.uk may be useful here too.

Even checking a CV on-line can be more time-consuming than doing it face-to-face unless some appropriate facilities are developed. In CSU's CV Surgery (see Box 6.3), the intention is to make it technically possible to write notes on the CV itself in an analogous way to what one might have done off-line, saving the time taken to produce a separate note with detailed cross-references.

"Ask Patrick" (Connexions - Cheshire and Warrington Ltd.)

The "Ask Patrick" facility was developed on the Cheshire Guidance Partnership web site to enable enquirers to post advice and information queries direct to a careers adviser and also to read questions and responses posed by other enquirers. The facility was designed to be as simple and as user-friendly as possible, and to reassure clients that a real person was dealing with their enquiries (though her name was not Patrick). The adviser was recruited specifically to respond to these enquiries. The essence of the facility was its "out of hours" focus. A dedicated phone line was installed in the adviser's home, and she was issued with a laptop with Internet access so that the queries could be picked up at any time.

Results as at November 2000 showed that there were 1,158 visitors to the web site who accessed the "Ask Patrick" facility. The majority were "non-contacts" where enquirers left no details or information, either through error or because they were simply trying out the system. As the system can be available through Connexions or the local IAG Partnership, users include both young people and adults. In one month there were 36 adult enquirers (compared with 66 young people), 23 of whom requested information (e.g. signposting to other sources of information, contact names and addresses of employers, training and education services). 13 enquirers were also seeking advice (e.g. which choices to make, or views on next steps for career advancement). A number of enquirers have come back to ask the advisers subsequent and supplementary questions.

A key feature is the collection of a brief profile of the user before they are given access to the email form, using drop-down menus. The service has also developed an evaluation questionnaire which can be sent out to users via email, and a draft quality-assurance procedure for on-line services.

(Ford, 2001)

Box 6.4

Open access or registration?

How the student got hold of the email address is important: a direct approach, side-stepping such carefully prepared defences, may be possible where advisers give out their own personal email addresses to students (which may be cautioned against for this reason), as well as where students are given the addresses by other staff of the university, or obtain them from the university's directory. This is a strategic issue in as much as the question of how open access to a service can afford to be, and how it handles high workloads, offers some hard choices.

The ease of access offered by ICT, as exemplified by email, has its down-side as well. How can principles of openness and accessibility be sustained if the "natural barriers" of time and place are thus removed? There also some concerns about personal security and even safety involved where personal as opposed to official email addresses are supplied. The use of "registration" to try to ensure the seriousness and traceability of enquirers is another appropriate tactic, and one adopted for all users of the Apaja Centre's on-line services, for example (see Box 7.2 in Chapter 7).

Keeping track.

Data on the current use of email by students and advisers will be very valuable in answering these questions. Many more services will soon start to keep records of the time taken to reply to an email, the nature of enquiries, and the decisions that advisers make in determining what is a suitable issue to be dealt with by email. Such data would be useful for training and evaluation purposes, as well as for the development of an FAQ and standard reply system. The research effort in collating and sharing these findings should be fruitful.

6.9 Progression Routes

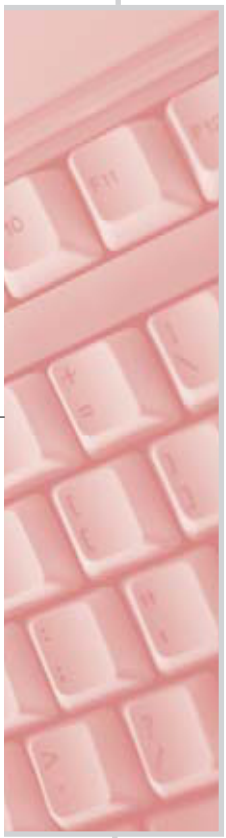
It may also be helpful to see an email enquiry as part of a progression. Some users will be just "testing the water" to get a sense of what they may be letting themselves in for, without committing themselves to an in-person contact *(Sampson et al., 1997)*. Some queries may then be dealt with by an invitation to use some other aspect or resource of the service - a drop-in session, for example. Policy guidelines on the place of email in the service and what constitutes the sort of question that will elicit such an answer may need to be drawn up. A "contract" of a kind can be negotiated with ICT-based users as well as face-to-face, but may require the processes that are "natural" in a face-to-face context to be made more explicit and conscious, to ensure that users are neither over- nor under-served and that scarce and expensive services are used efficiently.

Email should not be seen as a simple stand-alone tool in any case: it can be, and is, used as an on-line safety valve or back-up system on web sites where a need goes beyond the help offered on that site. The use of

chat facilities, and on-line discussions, as in the case of the Services for Graduates project, can offer intelligent alternatives and spread the load. As with web-site design, one way to avoid filtering every question into an already overloaded off-line service is to provide a forum where users may answer each other's questions, moderated and facilitated as necessary.

6.10 Mailing Lists and Other Uses

Other uses of email to be taken into account are much more common - in particular, to contact rapidly large numbers of students in order to advertise and inform about events. This is a more administrative use, but can also be frustrated by university regulations and restrictions. However, the power of email to communicate one-to-many is another variation on the theme, and is already used in this way by many UK services, more frequently than for individual advice and guidance.



At Duke University in the USA, listservs, to which students are encouraged to subscribe, are used to alert particular degree course groups to information that is of direct relevance to them, such as relevant jobs and internships, plus details of relevant career centre activities. Such listservs can provide a basis both for targeting and for building a relationship with subgroups. However, they must be used with caution, or students will come to regard messages from the careers centre as junk mail. One reason for some UK universities' restrictive approach to such uses may derive from that concern: some actually forbid mass emailing, and careers services working in them have to make special application to use an email list to send out multiple communications.

Data-protection legislation in Europe is generally tougher than in the USA, and at least one university took the view that the Data Protection Act proscribed the use of information held about students for sending unsolicited mail. This may change when, as several universities intend, student portals are developed (see Section 4.3, Model 3), with the possibility of a customised bulletin board within them. Responses to attempts to get students to join a careers email list on a voluntary basis have in some cases proved poor.

6.11 Keeping in Touch with Graduates - Networking and Mentoring

If universities can make it possible for their graduates to retain their university email addresses after leaving the university, the ability of careers services to reach out to their graduate population through this medium is clearly greatly enhanced. The proactive contact with individual graduates that can result, as continuing users of services and resources, is vital to a service that sees this as a strategic priority. In the USA, even more than in the UK, the use of ICT and email in particular to sustain links with alumni have been assiduous. This can be useful for developing progression data as well as developing services for such groups.

It can also be used to develop these groups as mentors to others, especially where mentors and mentees, who might not have been able to meet face-to-face, can interact on-line, thus overcoming geographical barriers and also potentially widening the range of mentors. In Oulu, a relatively remote area of Finland, the university careers service has an on-line programme for setting up and running a mentoring programme. This involves the use of email and telephone in recruiting mentors and evaluating the service; in addition, videoconferencing may eventually be offered to some mentors who are not from the area in order to make contact with their mentees. Email has also been used to form contracts between mentors and mentees.

Similar programmes are available in the USA, where parents are sometimes also targeted, and may even be used to mentor other people's sons and daughters. The University of Maryland in particular claimed to be one of the first to exploit the use of the web in building and maintaining such links with alumni, though off-line networking with alumni is commonplace for many.

6.12 Other Forms of Support at a Distance

While email is a comparatively well-tested resource, there are of course other modes of support that can be offered which combine email with chat, on-line discussion and bulletin boards. The TELSI project from Oulu, Finland, shows an innovative approach to the on-line support of students on work placement, even overseas, with the careers service again playing a leading role in developing this particular use of a technology already widely available in the university (Box 6.5).

6.13 Conclusion

It is important not to lose sight of the Internet as a social technology which makes human contact and service feasible over wider distances that may not always be purely geographical *(Tait, 1999)*. Contact by email is probably the most common experience of this at present, as well as the cheapest, but other forms will certainly increase. Lessons learned in the use of telephone helplines and telephone counselling may be relevant, and staff may have new training needs in coping with new media which alter the basis of their professional expertise.

Giving information, advice and guidance by email is not one identifiable, easily understood, process, but may be set up in a great variety of ways, both as the main channel of delivery and as a supplementary

system or "safety valve" to it, taking on needs that cannot otherwise be dealt with adequately at a distance or on a web site. The nature of the target group, the context in which it comes to the point of sending an email message, the filters that can be set up to manage the system: all have relevance to the strategic implications of a relatively new and untried medium that is certain to increase in significance as careers services respond to the Harris Report's vision of a careers service that "makes best use of new technologies to reach the greatest number of people" *(Harris Review Group, 2001, introduction).*

TELSI - supporting work and study placements

TELSI is an Internet-based open learning environment developed by the Continuing Education Centre of the University of Oulu. The acronym stands for Telematic Environment for Language Simulations. The package was originally developed for the purposes of language teaching within another European project. An extension of it (TELSIpro) can be used to implement a variety of educational project activities on the network. Users only need an Internet connection and a Web browser to get access; once in the TELSI environment, they can produce documents and modify them, share documents with other users, or communicate with the other users. The basic user interface involves three frames: (i) main functions - i.e. documents, mail, chat, and instructions about the use of the system; (ii) sub-menus of these functions, on the left of the screen; and (iii) a blank working space.

The University Careers Service at Oulu has used this package to design a system of support for students going on work placements relevant to their course. The first step is to bring together a group of students in a discussion of such matters as how to finance placements, and the meaning of such work experience/training. A prompt form is then completed by the student on screen, defining their goals and objectives for the placement. This can be shared electronically with the tutor and employer, both of whom can comment on-line on the student's input, thus setting up a three-way negotiation.

Students will write reports within TELSI, and keep a "diary" - this will be for personal consumption only and not even seen by the tutor, though it is possible to cut and paste sections from it to use elsewhere. There will also be a message facility and a chat room, and group discussions with a careers adviser can take place, invisible to the employer if necessary. Students should get credit for participation in discussions and for producing a report, though the enforcement of this depends on individual departments.

Where students are on placement or study abroad, there is the added dimension of an overseas tutor to be added to those involved. Sustained support at a distance, as well as sharing between students and communication between all the parties involved, is obviously a key feature. The transparency of the process is also encouraged.

Strategically, the careers adviser acts as the supervisor of the environment and as initiator of the process. Though TELSI is used for other purposes within the university, the careers service took the initiative for this particular application, though the education department had already used email to offer this kind of support in the past. The careers service worked in the first instance with the education and information studies departments in setting it up.

Box 6.5

Chapter 7

Distance Learning and Career Management Skills

7.1 The Rationale for Careers Education, Information and Guidance in Groups

One way in which a careers service can meet its objectives is to adopt educational (and group) as opposed to guidance (and individual) methods: moving out into the faculties, schools or departments of the university and delivering careers education, information and guidance (CEIG) to groups of students, preferably early on in their courses. The hope is that having absorbed the learning, they will be more effective users of the service later on, equipped with career planning skills that they can use lifelong, more aware of the relevance to their later work opportunities of the learning and skills acquired through their disciplines and on work placements, and hence more employable overall. Hustler et al. (1998) documented the development of the resources to do this and the nature of the career management skills (CMS) involved. More recently, the Quality Assurance Agency's code of practice for career education, information and guidance has lent additional leverage. It defines "career education" as "a range of teaching and learning activities associated with career preparation, development and planning".

The earlier surveys on this project confirmed a role for group interventions, along with a fall in the number of in-depth one-to-one interviews. 13% of services surveyed said that sessions with groups of some kind took up the largest proportion of their careers advisers' time. Although most services have been running such sessions, seminars and workshops for some years off-line, their delivery by ICT is a more recent phenomenon. Computer-based learning programmes, with or without accreditation, and on- or off-line, along with such "group" activities as on-line discussions, bulletin boards or chat sessions, took place in less than a quarter of the services surveyed.

7.2 Economies of Scale

While many services may have found themselves originally running group sessions as a basic economy of scale (telling them all once, rather than each of them many times), there have long since been more sophisticated rationales. One key reason for the use of ICT in this context is that it is possible (via the Internet in particular) to deliver services to more

A virtual learning environment for CMS

An experimental case-study of a small group using a virtual learning environment using computer-supported collaborative learning to develop personal and career management skills reported that:

"Each learning activity requires the learner to post written work, either as a message or attached document, to the discussion area for their respective learning set, to allow fellow learners to scrutinise their work. A key and consistent requirement throughout the programme is a period of reflection where each participant is then required to contribute a minimum of five comments relating to the work they and their peers have submitted to the discussion area. These comments may take the form of questions, statements, replies, clarifications, challenges etc."

In the subsequent evaluation, 80% of participants agreed that they had "acquired additional skills working collaboratively" compared to working on their own, and felt that they had been supported by others in the discussion groups, and that others had been willing to share personal thoughts and ideas. They also felt that they themselves had been willing to disclose personal ideas in the group. 70% said that they had enjoyed discussing issues on-line, while 40% felt they had helped others to develop their CMS skills. All agreed that "having to expose myself/my ideas has been beneficial to my learning and development", while 90% felt that "being able to access the programme outside normal daytime and classroom hours has enabled me to participate more than I would otherwise be able to in a face-to-face lecture or workshop".

(Blackmore, 2000)

Box 7.1

people over greater distances than ever before, and to do so 24 hours a day, 7 days a week. This appears to offer significant economies of scale, as well as a significant shift of control to the learner. Obviously such a claim has to be viewed in the light of some high front-end costs, but the argument is familiar to anyone who has been involved in the discussion of distance and open learning.

The author of one such programme comments: "Whilst student numbers in higher education continue to increase, careers service budgets have remained static and in many instances have even been reduced. Faced with reduced resources and an increased client base it is not surprising how the one-to-many delivery method associated with careers education programmes becomes more appealing than the resource intensive method of one-to-one careers guidance intervention" (*Blackmore, 2000* - see also Box 7.1). This may be a controversial position, though: others argue that the case for group work as an economy of scale is highly oversold, and there may be different rationales for "group work" via ICT than for "group work" per se. In either case the subsequent level of one-to-one interaction required may vary considerably.

One issue, therefore, which the development of on-line CMS/CEIG delivery raises is the desirable balance of group versus individual delivery. Learning from face-to-face interaction with the group - a key reason for group work in any case - has to be done differently with an ICT equivalent. It has to be specifically set up and encouraged, as participation in a discussion forum, chat room, or email list, or possibly via videoconferencing. This was often not evident in the on-line CMS modules reviewed in the UK. When it was, it seemed to work best when participants were required to interact in this way as part of the course assessment.

By contrast, in the Apaja Centre in Helsinki, on-line courses routinely involved a weekly on-line discussion forum and regular personalised feedback from tutors (Box 7.2). Apaja staff claim it takes longer to plan and deliver an on-line course (about twice as long) than a face-to-face one. Most courses offer credits. Learning is enhanced by giving a clearly-set-out timetable, clear instructions for working and assignments, and opportunities for discussion, offering group support for individual ideas. The high costs of the process are perhaps partly due to the heavy use of tutorial and

The Apaja Centre

The Apaja Centre in Helsinki was set up to provide an open learning environment where job seekers could design and implement individualised self-development and employment plans. Support for this process includes group as well as individual counselling, educational courses (some of which cover more general skills) and workshops provided by Apaja or other organisations, as well as internships or work-study experiences with prospective employers. There are web-based courses, as well as exercises on-line for self-help use. These are delivered to a range of learners: Apaja targets university graduates who are unemployed or underemployed or who face the threat of redundancy; the average age of users is 36; and some 20% graduated as far back as the 1970s.

The career planning courses were first run in 1997 and six have been completed in all. All are timetabled, very intensive, and involve typically six weeks' work, in modules of one week (a week being about 40 hours' work). There are about fifteen students per course, and at least one tutor, sometimes two or even three. One or two courses can be taken without a group - those that are more geared to work skills than to careers guidance (e.g."The Basics of the Internet"). Entry to the courses is decided by Apaja staff, who award places on the basis of need - there is a waiting list. All courses are tailor-made (i.e. not using any commercially provided platform such as Web CT) and at a distance, normally with no face-to-face contact. They centre around interactive exercises and discussions. About two students may be expected to drop out in the first week; another two during the rest of the course.

On-line discussion, often with an allocated theme, is a feature, and a real-time on-line discussion (not chat) is organised, usually for a couple of hours in the middle of the week. The tutor time involved is about five to seven hours a week, largely to mediate discussions and check emails. Students are usually asked to complete on-line exercises and assignments prompting both individual thought and group discussion. There is a basically "constructivist" (as opposed to psychometric) approach to these exercises, in that there is no set "answer" to an exercise but individual feedback is offered by a tutor to whom the completed assignment can be sent electronically. Alternatively, feedback can be given in a group discussion, where every participant can comment. A few tasks are entirely individual without any feedback. Tutors and students are expected to visit the discussion areas daily and current topics will be talked over there in some depth. The aim is to get everyone thinking. Students are very positive about the on-line discussions, and about the feedback from tutors.

Box 7.2

personalised feedback in relation to the number of learners involved, thus reducing any economies of scale - though it may still be economically justified, as in Finland, by outreach to people who might otherwise have had no help at all.

7.3 The Distance or Open Learning Paradigm

Where inter-participant activity is lacking, it is more difficult to distinguish what is simply on-line guidance on the web site from a specific CMS module. Web sites that deliver on-line guidance activities can be used to support the delivery of career management skills in a group, but an individual user may not in practice share much of the experience with others, unless specifically encouraged to do so. As with any other mode of distance learning, the nature and depth of the experience will often depend on the way in which learning material is framed, contextualised and integrated with other resources and modes of delivery.

The distance learning - or rather, open learning - paradigm offers important insights into the contribution to be made by ICT. As Ball & Manninen *(1999)* commented: "Open learning approaches to career management and guidance have until recently been comparatively little used and yet they offer the potential for action-oriented career planning and encourage increased ownership of the career management process by the individual learner." The Open University was one of the off-line pioneers in this field in the early 1990s and is now one of several careers services with open-access web-based materials to support the career learning process at a distance (http://www3.open.ac.uk/learners uk/learners-guide/careers/index.htm).

By definition, "open learning" means that the student controls the pace, place and time of the learning. Via the Internet and World Wide Web, that becomes true in an emphatic sense: an on-line career management skills module could be used 24 hours a day, 7 days a week, wherever there is access to the web by a learner, and at whatever pace they like to use it. If written to take advantage of the technical facilities available in web-based material design, it would also leave the learner free to pursue a wide variety of routes through the learning process.

7.4 Interactivity

Interactivity is one of the key components that makes ICT so attractive as a medium for distance and open learning. It is probably the most interactive resource a careers service has, apart from its own staff and direct work-placement or work-shadowing activity. The example of Apaja illustrates this: there is interaction with tutors and with the group, including individual feedback on every course from the former and a scheduled weekly interaction with the latter. Apaja has chosen to limit some of the freedom of pace, place and time, precisely in order to capitalise on such aspects. Nevertheless, the way it operates is costly in terms of learner and tutor time and effort. In part this is due to its underlying "constructivist" approach, which eschews "psychometric" alternatives, and requires individual human feedback for the exercises that an individual does on-line. Interaction with other learners and with a tutor dominate here, at the expense of interaction with the material.

One of the key components of distance learning, however, is the writing of interactive exercises and self-assessments which can deliver feedback to the learner without additional human intervention. These can be purely motivational - to keep the learner "turning the page" - or can offer feedback on progress at key points in the learning programme. Examples of various ways in which an open-ended exercise might have been completed can be offered to stimulate further open-ended thinking, if the aim is to avoid "psychometric" types of closure. These are not new insights, but the application of common distance-learning principles to the construction of on-line programmes.

7.5 Key and Transferable Skills

As well as encouraging flexibility of time and place, ICT may also facilitate the use of CEIG as a component of more broadly conceived "key skills" or "personal transferable skills" or "employability" programmes including work-based learning. Its use in itself represents a key skill, of course. The Internet and World Wide Web allow and encourage links to be made across traditional disciplines and boundaries in a way that printed text did not find so easy - inserting a hyperlink to a neighbouring source of advice or guidance or information is straightforward. What is not simple is judging the appropriateness of the link, and the significance of the connection at a particular point. Customisation is also an easier option with on-line material, so that generic content distributed via the Web might be downloaded and adapted for local or faculty-specific ends.

One interesting alternative approach on this question has already been raised in Section 4.5. The use of career portfolios or progress files linked to a student portal as at Florida State University (Box 4.3) could be the basis for group interventions as well as encouraging students to record, and seek evidence for, transferable skills; while academic staff are supported in demonstrating the employability content of their courses.

7.6 Positioning the Service: Supporting the Supporters or Doing It Yourself

This begins to raise some of the superordinate issues, in a UK context, about the positioning of the careers service in relation to other academic staff and the curricula, as elaborated by Hustler et al. *(1998)*.

A web-based module can reach all parts and all members of the university. One strategy is to use careers service expertise and knowledge on-line in this way to support the delivery of the material by other staff who do not have this expertise, but who have teaching skills/experience that careers advisers may not have, plus captive audiences within their own student body. The material may be delivered as a separate module via the tutorial system or as a curriculum component. It can be designed so as to be downloaded and used in text format, or as a set of files that can be customised by tutor or lecturer for their own department or course.

Different strategic scenarios can come into play: the careers service may choose to act increasingly as an expert consultant on the use of the material to those who deliver first-in-line CEIG services rather than to deliver these itself. Thus the careers service, instead of directly supporting the students, supports other staff, who in turn support the students.

Despite the high start-up and front-end costs of developing such material, "supporting the supporters" in this way may be a rational option for services with small staffing resources. The service may not even deliver a fully-worked-out learning module, but simply provide the essential "tool kit" of on-line components for it, which may then be put together differently in different faculties. Even a careful selection of existing web-based resources available to deliver different CEIG outcomes can be a start. Where staffing is a real problem in the service, however, there will be a "pain barrier" to be broken through to achieve the setting up of an on-line system that will make more efficient use of scarce human resources in the longer run.

Alternatively, a careers service may develop course team working and teaching with departmental staff, as well as materials also being customised for that department. This is a common situation off-line and may be initiated from either side. Initiatives within individual faculties may be subsumed by an overarching generic development on the web, as easily as general CMS components can be customised for subject-specific use. In some cases, staff in a particular faculty may have access to, and experience of, virtual learning environments not immediately accessible to the careers service itself.

7.7 An Extra-Curricular Approach

Web-based material may be used as a means of reaching students directly, thus "avoiding potential resistance from academic staff by providing the opportunity to 'go round the blind side' straight to the students" *(Hustler et al., 1998, p.23;* see also *Watts & Hawthorn, 1992,* for four models of curriculum-based delivery that reflect these alternatives). Such a strategy may have appealed when significant resistance was anticipated, but since the intervention of the QAA and the Harris Report the battle must surely be going the other way. There are also the problems of marginalisation to be tackled, and the difficulty of motivating students to use material that is time-consuming and not part of the immediate assessment and credit systems.

Even where a service does not adopt such an extra-curricular strategy (but much more so where it does), there must also be some consideration as to how the on-line CMS material relates to the main web site. Is it simply on-line guidance delivered from that site, which is an integral part of it; or does it represent a separate kind of intervention? Given that it may be used in self-help as well as supported mode, the user will need a coherent context and set of connections into which to place it and see what the next steps are. The development of the main web site will then also have repercussions for the CMS module (Box 7.3).

Developing a web site and a CMS module together

"One thing that's a learning point for us from the project is the close relationship between our main web site (Directions) and the CMS web-site we are developing. The CMS web-site is intended for self-help use, for use after a prompt by a careers adviser, and as a tool for other academic staff and personal tutors to support the development of their role.

"We originally envisaged developing the site from scratch, and even toyed with the idea of an on-line guidance element. By mid-2000 we had developed a template for what we wanted to do. In the course of exploring what others had done, we discovered that the site created by Reading University had many of the elements we were seeking, though it was used there in a very different context.

"By agreement with Reading we are adapting their approach but are being careful to link and integrate the CMS site with our main web site (Directions). Care is having to be taken to avoid duplication of some elements and any risk of confusion for users. The interactive CMS site will have a very different look and feel to it from the main Directions site.

"The development process is made more complex by the fact that our main web-site is itself going through a major re-design this autumn. In navigating through the complexities here, the insights gained from the project have been very helpful."

(University of Sheffield Careers Service)

Box 7.3

7.8 Bringing in New Faces

The fact remains that technology can bring stakeholders outside the university, even international employers and other global providers, directly into contact with students, despite physical distance and with greater flexibility of time. Asynchronous modes of communication, for example, mean that a busy employer can engage in an on-line discussion when it suits them, with students who may not be present simultaneously. This enables the careers service to draw on sources of learning for students to interact with, which are out of reach in real time and space: *"HR Managers from Nissan and BMW will be on-line on our web site all this week for discussion and debate about the international labour market and career progression in their sector."* It is said that students are often more willing to attend off-line group sessions led (even badly) by a high-profile employer, than to come to well-crafted sessions by careers advisers alone. The Internet makes it possible to mix both components in one learning experience. An interweaving of group and individual contacts can become part of the experience, as in a virtual careers fair or exhibition (Box 7.4).

A virtual careers fair

The Virtual Careers Fair at Florida State University lasts up to three weeks. Employers are charged $150 to participate. The fair replicates many of the features of live careers fairs: in particular, it is designed to focus energies in a compressed way. Students, for example, can submit their CV speculatively in the hope that this might lead to an email conversation. Much depends, however, on employers being briefed and committing the resources to make it work.

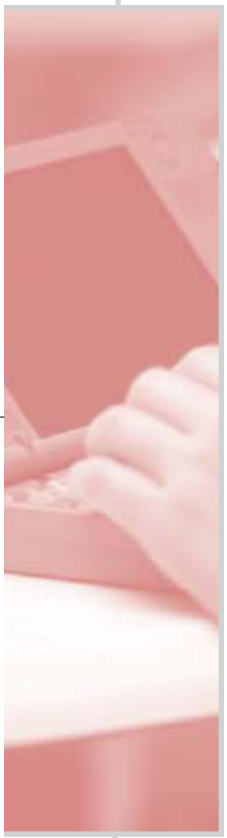
Box 7.4

Extra-curricular approaches may also have attractions if a careers service takes a strong stand on the principle of professional impartiality and independence within the institution. The same difficulties of marginalisation and motivation, however, remain to be overcome.

7.9 Conclusion

In practice, the current tide seems to be flowing in the direction of a collaborative careers service working more closely with other academic colleagues and within the university generally. Taking a lead in this area is an obvious way of enhancing careers service influence generally and diffusing the ideas of careers education information and guidance more widely through the whole curriculum. This does not necessarily require expertise in the latest virtual learning environment technology, but it does require a clear strategy and a coherent account of what the relevant learning outcomes and processes should be. This is more a matter of professional than technical expertise, including some understanding of the traditional principles of open and distance learning as applied in an ICT context.

There will be costs, some of them up-front and relatively heavy, as one would expect with open and distance learning programmes. However, the common core of interactivity which ICT can supply as a medium can be a judicious mix of feedback from learners, tutors and the material itself, while the responsibility for delivery need not fall entirely, or even at all, on careers service staff, providing that the appropriate strategic alliances can be formed.



Chapter 8

Conclusions and Recommendations

As we argued in the preface to this report, the most creative way of approaching ICT is as an agent of change, providing opportunities to redesign careers guidance services as a whole. Technology is not just an add-on - another resource like the others in the careers room: it raises strategic planning issues at every turn. Failing to address these does not relieve a careers service of the consequences of change - it merely ensures that when change happens, the service is not in control and may be caught off-balance. A proactive response and emancipation from technophobia are more likely to keep the careers service "on the cusp of the paradigm shift" (cf. Box 3.3).

Our seven recommendations have emerged from our study-visits and our discussions at our four action-research sites. They address each of the main areas from the report.

1. Careers services in higher education should develop clear and specific strategic plans and objectives for their use of ICT in delivering careers education, information and guidance (CEIG) as part of their overall strategic planning. Among other benefits, a proactive approach in developing and presenting these plans is more likely to engage active technical support for development, than are simple requests for more hardware.

2. Careers services in higher education should be supported in critically reviewing the design and layout of their web sites and in engaging with a variety of needs-based approaches to this task. Templates and guidelines could valuably be made available to support services in developing web sites based on sound theoretical and practical standards, and customised to meet their needs and those of their target-groups.

3. The relationship between prospects.ac.uk, as a national UK gateway to CEIG for graduates, and local and regional careers service web sites, should be carefully considered by CSU, AGCAS and individual careers services, to encourage links that are based on a clear strategic and guidance rationale and that facilitate student and graduate access to important information and resources. The totality of these national, regional and local sites should form a co-operative network of web sites.

4. Co-operative working relationships and links, such as those developed in the past between AGCAS, CSU and individual careers services, are a distinctive and valuable feature of the CEIG scene in UK higher education. They represent a combined resource which is envied by careers services in other parts of the world. Regional and localised technically mediated links have the potential to strengthen this national framework, and should be designed to do so.

5. Careers services in higher education should consider, where they have not already done so, the considerable possibilities which facilities such as email, chat and discussion forums offer for the delivery of guidance, and should develop strategic plans for using these facilities to reach out to appropriate target-groups and for integrating them with other resources and services. AGCAS and other relevant organisations should be encouraged to provide support for such activities, through training activities and relevant forums for sharing of experience, and through research into the activities' effects.

6. Careers services in higher education have already developed considerable career management skills learning material on-line. The use, adaptation or creation of on-line portfolios should be explored as one resource for career management. The expertise and experience of such work should be widely shared through a national network or on-line discussion forum, including attention to careers services' role in delivering support to teaching departments.

7. Careers services in higher education should monitor, track and evaluate, as carefully as is legally and ethically defensible, the use made of their services, both ICT-based and others, and should use the resulting data to review, clarify and amend their strategic plans, and the paths users take through their resources.

Appendix 1: An Implementation Model for Web-Site Design and Use

Poor implementation limits the effectiveness of service delivery. The seven-step implementation model shown in Box A.1 right (taken from *Sampson et al., 2001)* is intended to simplify a complex process. It aims to help staff to anticipate important issues and to design a sequence of activities leading to the successful implementation of a web site that effectively meets client needs.

The inherent assumptions of this implementation model are that: (1) good planning improves the design and use of web sites; (2) some planning is better than no planning at all; and (3) implementation is an ongoing process that can improve over time.

The seven sequential steps of the implementation model are:

- **Programme evaluation.** The process begins with an evaluation of how well the resources and services of the organisation are currently meeting client needs. Web sites reflect the strategic plans, either explicit or implicit, of organisations.

- **Web-site development.** Three key questions in developing content are: "Who does (or should) the web site serve?", "What are the needs of users?" and "What resources exist (or should be created) that would meet each of the identified needs?"

- **Web-site integration.** Web-site use is made congruent with the way in which services are delivered within the organisation. Staff evaluate how the system "fits" with existing or new services. A plan is then developed for connecting the web site with other organisational resources and services.

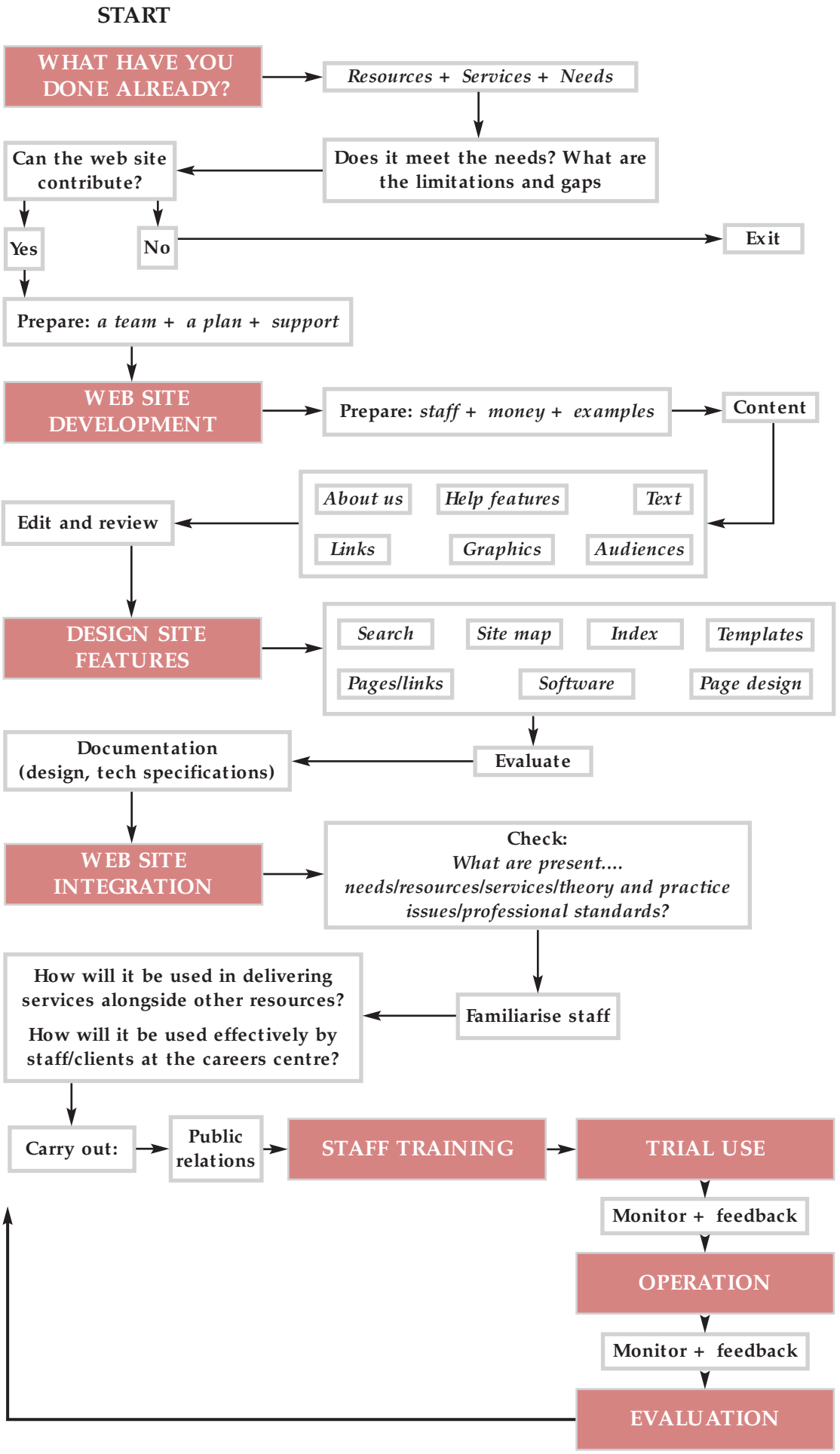
- **Staff training.** Staff are given the training necessary to integrate the web site with existing service delivery.

- **Trial use.** The effectiveness of the web site is evaluated with a group of trial users. Based on observations and interviews of the trial users, modifications are made to staff roles and operational procedures.

- **Operation.** The web site is used as one component of the total service-delivery effort of the organisation.

- **Evaluation.** Experience gained during operation is regularly evaluated, and the lessons cycled back via feedback loops to the earlier stages of the model.

Implementation Model



Box A.1

Appendix 2: Web-Site Addresses of Institutions Visited on Study Tours

Finland

Apaja Centre, University of Helsinki:
http://www.apaja.helsinki.fi
Oulu University Careers Service:
http://www.oulu.fi/careerservices
Academic Careers Services:
http://www.aarresaari.net
Polytechnic Careers and Recruiting Services:
http://www.jobstep.net

USA

Florida State University:
http://www.career.fsu.edu/
University of Florida:
http://www.crc.ufl.edu/
Duke University:
http://cdc.stuaff.duke.edu
University of North Carolina, Chapel Hill:
http://www.unc.edu/depts/career/
University of Maryland:
http://www.careercenter.umd.edu
Center for the Study of Technology in Counseling and Career Development
http://www.career.fsu.edu/techcenter/

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