
building on what we know

career learning on the net
colonise or inhabit?

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The Career-learning CAFÉ

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Bill Law (2010)
careers work on the net:
colonise or inhabit?

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how 'colonising' the net with conventional careers-work thinking is missing a bigger opportunity - which is to engage students and clients in critical thinking - probing and interrogating what they find - working with them as partners

a companion piece with
Bill Law (1992. 2010)
a career-learning theory

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now free-on-line at
www.hihohiho.com/newthinking/crlrnoriginal.pdf

an account of critical thinking in career management - thinking-feeling - processing stage-by-stage - leading to readiness for action

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framework

This is an examination of careers work's connections to the internet - both how it does connect and how it might. Some underlying frames-of-reference are sorted out below. Sometimes these frameworks are reflected, not only in what these pages say, but in how they are presented.

careers workers: The term refers to the people who set out to enable career management in a more-or-less formal way. They include careers advisers, careers counsellors, careers teachers, careers coordinators, career coaches and mentors, together with their managers, and the people who offer them professional support.

why? There is an increasingly wide range of influences on what people do about working life. Most of them are informal - many of them have no clear intention to influence anybody. They are friends and family, neighbourhood contacts, customers and clients, together with other-than-careers-work colleagues and managers. Such more-or-less informal, but nonetheless influential, links are made increasingly on the net. At the same time, much of what was once called 'careers education and guidance' uses more face-to-face formal settings and more applications of curriculum than that term can any longer contain. For all these reasons we need a general term which distinguishes the expanding sources of formal influence from the expanding sources of informal influence. In this monograph that term is 'careers workers'.

career-management on-the-net: The term refers to students and clients using the internet to work out what to do about their own working lives. That way of going about career management is becoming prevalent.

why? The challenges in managing a career are becoming increasingly demanding. People do not deal with that by seeking to get into a discipline called 'career studies' - that would be to take an academic interest in *career development*. But neither do they necessarily set about things by seeking what expert career professionals offer - that would be a branch of *careers work*. They are trying to work out what they can best do to sustain themselves in working life - and that is *career management*. They may or may not go to a career website - provided by experts - offering information, diagnosis and stories. The evidence here is that people are more likely to go to their contacts in social networking - a great many of whom are met on-line. Career-management on-the-net is getting separated from our understanding of career development. And the links between career management and careers work are also loosening.

non-linear thinking: This text is non-linear. You can digress into graphics, footnotes and deeper back-up data. Or you can by-pass them. The back-up data, signposted in the text, are evidence and ideas you need, if you intend to get into any sustained discussion of these issues. They are separately presented like a series of handouts.

why? Features like these mean that you don't have to take-in everything in one reading. You can follow the argument and return to the digressions. Internet pages are like that: they have links which take you off in other directions. Every website offers such links as a menu, tag cloud or embedded in the text. The internet is, then, more than page-on-page linear text: it is designed for multi-dimensional digression. This monograph is a faint mimicking of what you find on the net. The graphics, footnotes and information boxes used here are a nod to the usefulness of such departures - as and when they might help with your own thought and development work.

outside the bubble: There are a few references in this text. But the information boxes draw extensively on careers-work literature, and - more so - on literature outside the usual range of careers-work citations. It means that the argument can be informed by a wider range of perspectives, and it can be more deeply rooted.

why? Careers work has always drawn on a range of intellectual disciplines - until recently largely in psychology, sociology and economics. Indeed it is hard to argue that careers work is a distinct area of study; it is actually an applied field drawing on a range of intellectual roots. Recently those roots have massively expanded; and much of that expansion is into thinking concerning the use and usefulness of digital technology. And so, yet again, we need to look outside our own literature. One of the consequences is to take us beyond our own comfort zone - where recognised authors set out familiar ideas, in confirmatory terms. Indeed this monograph argues that the internet itself nurtures that kind of self-reassurance. And to succumb is to limit bases for action. We must not fall into that trap. Our students and clients need us to climb out of our bubble.

argument

People increasingly turn to the internet for what they need to know about working life. They look for clues - concerning both what is going on and what they can usefully do about it.

They can do this wherever they happen to be, using handheld on-line devices. It links them, whenever they choose, to websites which outline work-life trends, identify factors, diagnose traits, tell stories and offer advice. A good many of your students and clients are already there - and their number is growing. They are career-managers on-the-net.

This is not necessarily a bad thing. But it is not invariably a good one. It is true that the net can point to the growing range of possibilities for working life. It can also up-date material on an on-going basis. But it can also mislead.

As professionals, we need to know more about all of this. This monograph engages in a probing examination of what net enthusiasts claim - and what proves only to be part of the reality. It points to why you are best-positioned to do something about that.

It emphasises the critical importance of enabling people to probe and scrutinise what they find on the net. It argues that careers-workers do not need to be experts on the internet in order to do that - your students and clients may well already be ahead of you in that respect. Instead careers workers should be enabling people to interrogate what they find - engaging critical thinking. This is what careers workers are in the best position to do.

It means that we do not try to colonise the net with our exclusive expertise, we seek to inhabit the net - in partnership with our students and clients.

The more intense is people's experience of change and complexity, the greater our need to understand how they make sense of it. That was the argument when career-learning theory was first published (Bill Law, 1996, 2010b). But, now, the extent of change and complexity is greater than anything we dreamed of then. In 1996 the internet we now know had not yet been born. Now, it is where people are faced with an unprecedented range of influences. And those influences are being updated and replaced at an unprecedented rate of change.

This argument is part of collection setting out aspects of career-learning theory. This part applies those ideas to the development of critical thinking on the net. Whatever learning theory we work with, it needs constantly to be re-applied to that process of change and expansion. This monograph shows how career-learning theory is robust enough to accommodate that re-application to the internet. It also shows what that means in practice.

The issues are demanding. They are set out in table one (following page). It sorts out the key issues that this argument - at various points in its development - turns up. The table is designed to be useful your to examination of their importance for your own enquiries and development work.

table one
careers-work on the net - the issues

		starting points for your thinking ✓
contemporary challenge	the internet raises more issues for careers workers than are immediately obvious	<input type="checkbox"/>
	we can do better than re-present new versions of conventional practice	<input type="checkbox"/>
	digital technology has already outstripped most of what careers work has learned to do	<input type="checkbox"/>
	most career-learning happens on the net independently of careers workers	<input type="checkbox"/>
	we need better to understand what our students and clients are already doing	<input type="checkbox"/>
emerging factors	finding information for themselves empowers students and clients	<input type="checkbox"/>
	but what they find on the net can mislead them	<input type="checkbox"/>
	finding material is no more than the beginning of a journey towards understanding	<input type="checkbox"/>
	the net can make career-management a public performance, at the expense of a private inner-life	<input type="checkbox"/>
	critical thinking is the ability usefully to probe, scrutinise and interrogate what is going on	<input type="checkbox"/>
freedom and autonomy	there are two factors here - empowering with the technology and enabling in the person	<input type="checkbox"/>
	empowerment is for freedom to act, enablement is for autonomy in action	<input type="checkbox"/>
	and while freedom is won, autonomy is learned	<input type="checkbox"/>
	so ask 'which of these factors are careers workers in the best position to support?'	<input type="checkbox"/>
	the answer will shape our partnership with students and clients	<input type="checkbox"/>
new partnerships	it is unlikely that educators know more about technology than their students and clients	<input type="checkbox"/>
	understanding the limits of their expertise is increasingly critical for all professionals	<input type="checkbox"/>
	it is unlikely that their students know more about learning processes than their teachers	<input type="checkbox"/>
	understanding the limits of their experience is critical to students and clients	<input type="checkbox"/>
	partnerships between professionals and the people they serve are changing	<input type="checkbox"/>
colonising or inhabiting	the net has its own dynamics and will not be shaped or regulated by our thinking	<input type="checkbox"/>
	the choice: colonise the net with our processes, or inhabit it alongside our students and clients	<input type="checkbox"/>
	colonialists impose ideas, inhabitants share and adapt them	<input type="checkbox"/>
	inhabiting the net needs robust ideas for critical thinking	<input type="checkbox"/>
	robust thinking describes the 'how', explains the 'why,' and suggest the 'what' for action	<input type="checkbox"/>

what we can do

The internet began life presented as a series of more-or-less static pages. You could read or view them like lectures, handouts and monographs. But now we have *Facebook, YouTube, Second Life, Twitter, Linked-in, Skype* and *Warcraft*. These are not library or lecture-theatre events. They are where people meet their friends and find new ones, where plans are hatched, where alliances are forged, and where action is rehearsed. We have no idea how much farther that journey, already from quiet library to noisy forum, can be extended.

colonise or inhabit ^{*} : This monograph proposes a re-examination of the partnership between what we can do and what the net can do. It resists the tendency for careers workers to start by wondering how our work can best be served - by looking for ways in which it can enhance our work. Shaping our use of the net exclusively to the expression of our expertise is not a partnership - it seeks to colonise the net's potential for our purposes.

This is understandable, but the line taken here is different; it is to wonder how we need to change what we do in response to all that is now happening on the net. And that would be to inhabit rather than colonise the net. The issues posed here are not for how we adapt internet activity to what we do, it is for how do we adapt what we do to internet activity.

The net is post-colonial. To push the metaphor: former colonialists need to learn that they are no longer at the centre of things. And it is the case that our students and clients can readily find other sources of help. Our best way forward is to become partners - inhabiting the field with them. This is a new kind of professionalism. And the terms of its partnerships will clarify roles: of advisers and teachers; of informal and formal helpers; and of users and providers. We need a partnership in which we each bring what we are in the best position to offer.

It would be a step forward. Careers work has not made extensive use of the internet. Information box #1 locates the how and why of that.

information-box #1 *the extent of careers work on the net*

1. at first careers work grafted its professional process onto digital technologies;
2. educational attitudes to ict are in general instrumental and not overly impressed;
3. career workers do not make wide-ranging use of the net - neglecting its interactive forms;
4. findings like these seem to support more digital literacy in careers workers;
5. but students and clients use the net independently of careers workers;
6. career-workers do not judge efforts to become technically expert as cost-effective;
7. the range of possibilities for engaging with internet is becoming overwhelming;
8. professional preoccupations persist on how careers-work processes can be digitised;
9. students and clients make little use of dedicated careers-work sites.

examine this information in detail, free-on-line at
[www.hihohiho.com/new thinking/crlrnintrntbox.pdf](http://www.hihohiho.com/new_thinking/crlrnintrntbox.pdf)

*

internet metaphors: With technological change accelerating as it does, we will forever be sorting out our ideas about what we can best do on the net. Metaphors, conjuring concrete images, can be useful for visualising abstractions in that thinking. And past net-talk has visualised users as if they are like 'residents' or 'visitors'; and like 'natives' or 'immigrants'. The abstractions underlying these images are about the degree of familiarity, facility and confirmation that people experience on the net. But we should be careful about metaphors: more metaphors are invented than correspond with any reality. And this is why images of 'colonist' and 'inhabitant' must convey a reality with a distinctive usefulness. The abstractions these two images convey are not about how *accomplished* we are on the net (we're not that good): they are about our underlying *purposes* in engaging with the net - asking 'which kinds of intentions are more useful?'

technology and process: In getting to grips with the accelerating rate of net development, it will probably always be our students and clients who show us how best to find what it contains. From the evidence in information box #1, such a concession might come to careers workers as a bit of relief. We are already past the point where increasing careers workers' technological literacy would help. We can do something more useful than becoming technologically expert.

So what is that? The answer relates to a common-enough observation: we wonder what has gone wrong when a person says...

*... I don't know what to make of what I've found...
I don't know what to think about it...
or how to manage it'*

We may worry more when a person says ..

*.... 'this is exactly what I'm looking for...
showing I've been right all along...
and confirming all my plans'*

This are not issues for the technology. The technology is, at its best, a tool for discovery - which is always necessary, can be exciting, and is usually powerful. But it leaves another issue unaddressed - and that is for what people do with the technology.

What people do with technology is not a single event - such as making an intriguing or exciting discovery. It is a longer process, where discovery is no more than a starting point. It is the necessity of that process which gives us our way of working on the net. We are specialists in learning processes.

post-colonial partnership: Digital technology is producing material which is more useful to learning for career management than anything that careers work has yet produced. Mobile phones, cameras, texting, social networking are all ways of finding-out what is going on, where it is happening and what people are doing about it.

But none of this need leave careers workers with marginal roles. All educators understand how learning is a journey towards understanding, with several questioning steps - of which 'what have you found?' is just the first.

The argument here is that one of the most pressing needs is for people to be able critically to examine what they find on the net - probing, scrutinising and interrogating it - so that they can figure out what is credible, trustworthy, and useful. And that might take a person to where she or he says...

*.... 'I thought this is what I was looking for...
but I see it another way now...
so I'm going over my plans again'*

In our work such possibilities are set out in career-learning thinking. That thinking draws on an understanding of people's natural ability usefully to reflect on their own experience.

Working with students and clients on that basis puts careers workers in partnership which respects what students and clients know about the uses of the net, and respects what careers workers know about the learning processes.

This is not colonialism.

the story so far

The internet is an unfolding narrative - usually related in three stages. This is how Christian Fuchs and his colleagues (2010) relate it. They characterise it as calling, at first, on *cognitive* processes (named 'web 1.0'): then, on *communicative* process ('web 2.0'); and, now, on *cooperative* processes ('web 3.0').

unfinished journey: The internet is upgrading at a faster rate than anybody can keep up with. And careers work's record is not impressive. We have not made it more than part of the way from quiet library to noisy forum. Table two sets out examples of how far careers work has - and has not - related its off-line activities to on-line possibilities.

table two
careers-work on the net - the story

	the story	careers-work off-line	careers-work on-line
web 1.0	cognitive enquiring searchable sources for finding and using material	collections, libraries and lectures	data-base technology, texting and e-mailing
web 2.0	communicative interacting conversations in chat-rooms and blogs	interviews, discussions and workshops	tick-and-click self-diagnosis and action-planning - limited
web 3.0	cooperative changing sharing, probing and challenging activity	role-plays , simulations and community-linked projects	narrative-based websites - not really

Information box #1 (page four) helps to explain how and why the more interactive and accessible the net has become, the less people have turned to dedicated careers-work sites. In his account of the career-management use of the internet, Michael Larbalestier (2010) concentrates on web-3.0 social networking. He characterises students and client use as way of presenting self to others, of gathering information on available opportunities and of seeking help on possible lines-of-action. And he points to the risks - not least in the increasing vigour with which the commercial world tracks potential recruits - looking for information about people, ranging from substance abuse to belonging to 'pointless or silly groups'.

developing net-talk: Alongside these concerns there is a discussion about descriptions of web 3.0. Maybe it is more than an extension of 'interactive communication' into 'cooperating for change'? Some argue so - that web 3.0 is 'the semantic web' *.

But, whichever way we see it, careers work has not been active in web 3.0. Indeed, it's hard to claim that careers work is active in either web 2.0 or 3.0.

It is true that some of the career use of digital technologies invite a kind of web-2.0 questioning. But, for the most part, they do so in the sort of circumscribed terms used in conventional careers interviewing.

And there is a growing number of websites which set out career-management experience in narrative terms (Bill Law, 2010b). At first site they resemble the sort of web-3.0 talk and imagery you find on YouTube. But on YouTube they would be liable to being probed and re-worked. Visitors may even seek to undermine what the originators had in mind. YouTube is noted for its cut-and-paste 'mashups' of other people's work. They are questioning, ironic, and - at the extremes - subversive.

Colonists would not countenance such subversion. But inhabitants might - if they can see that student and clients can usefully learn from it. Or that careers-workers can. And we all sometimes can.

All of this poses a fair question about why the careers work has not done more with web 3.0 talk. But claims that it is done on a semantic web is irrelevant to the answers we seek.

* **the semantic web:** We are moving towards a step-change in the sophistication of how the web works. It would link-up what the net conveys well-enough that the interaction is indistinguishable from talking person-to-person - or people-to-people. This would be the semantic web, said by some to be web 3.0. Much of that necessary complexity in interaction has been beyond the capacity of the programming we have been using. But developing it now would mean that career management can be enabled entirely by machine, because its virtual conversations are just like a real conversations. That was digital-pioneer Alan Turing's ultimate test - where we can't tell the difference between the virtual and the real. Technological inventiveness is already mimicking reality well enough to pass that test - at least with some people, on some conversations. Contemporary programming can already recognise some of the myriad links in words-and-images that a person might use.

So, how does that compare with Christian Fuchs's way of seeing web 3.0? His analysis is framed in terms of what people do with the net - its underlying functions. However, a lot of what people say about the net is framed in terms how it is constructed - its underlying structures. Talk of cloud computing is like that, so is talk of the semantic web. But the two underlying ways of seeing things - structure and function - do not exclude each other. Each offers different starting points for careers work on the net. This argument starts with function - it asks what people do with the technology.

Nonetheless the question is useful - 'do we now have a true semantic web?'. It would mean that the machine does not just connect with you, it can figure out why you say what you say. It can inwardly appreciate ways-of-seeing different from yours. It can empathise when you get excited, surprised or angry. And it knows the difference between a question that is looking for a fact, one that asks for an opinion, and one that is just inviting a preference. The Turing test identifies where you can no longer know whether that interaction is with a carbon-based person or a silicone-based machine.

So how much do you want from your silicon-based friend? You already have carbon-based friends (people!) who are impatient with the kind of sterile combinations that silicon-based intelligence can make - generated in seconds, but taking hours to trawl. Any John Lennon gets bored with it; subtlety like Jane Austin's would get buried in its junk; you would wait a long time before you gasped at an audacity like John Milton's. Your silicon-based friends still need to recognise how, though it is possible to find such things to say, it not always helpful to say them.

But keep hope alive: there is a level of focussed, subtle, complex and comprehending engagement that the semantic web will yet achieve. So look forward to introducing yourself to your first silicon-based friend - some time after web 10.0. It will arrive quicker than most of us think.

empowering internet

learning and leverage: Careers work has not moved as far or as fast on-line as it might have done. Elsewhere there has been a more welcoming response - particularly with regard to the opportunities that web 2.0 and 3.0 offer.

Exponentially-growing digital technologies are argued to be empowering - releasing high levels of creativity. Information-box #2 sets out some of these claims.

information-box #2 *the net helping career management*

1. the internet is celebrated as liberating people from inept authoritarian interference;
2. it has, in gaming, untapped skill-development potential;
3. the net's interactivity empowers people for more satisfying relationships to working life;
4. it can especially advance the careers of the poor and the disconnected;
5. it draws on a range of skills which equip people for contemporary life;
6. it's interactive dialogue can deepen self-awareness;
7. it helps to form a self-image which can be shared and transferred into off-line life;
8. Its use of words and images are bridges between on-line and off-line life.

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It is easy to see all of this as 'empowering'. Each of the developments relocate users in a new relationship with sources of information and influence. People can access more material, engage in more conversations, and exercise more control. This is liberating.

power and people: And that sense of liberation is most exhilarating for people who are not used to consulting professional experts. There are people who don't feel at-ease in conversation with teachers and advisers. They seek settings where they feel at less of a disadvantage. The internet is good at simulating those kinds of encounter.

Some of the people for whom this is so do not find their experience well-enough understood by professionals. The internet offers them a new basis for independent thought, congenial association and attractive action. The term 'empowerment' speaks of the extended leverage on life that all of this offers.

But there is more to the net than that. What you find in one web location is complicated by what you can find in another. Everything is quickly overlaid with updating, elaboration, illustration, and contradiction. Indeed, web 3.0 is celebrated as the places where nothing is singular, agreed or enduring.

Alongside that kind of ideology a constantly widening range of commercial, political, cultural, and ideological groups have - themselves - colonised the net. And, overall, the reduced costs of dissemination and distribution have made it possible for the net to reach any number of separate and different niche positions - called 'the long tail'. Users can meet whom they want to meet, believe what they want to believe, and do what they want to do. Who can deny that this is empowering?

Empowerment means taking more control of how things are done. In career management terms that means more control of who gets to do what. The net appears to be doing that. It is doubtful whether teachers - and their curriculum - can be seen as in any kind of position to do that. They work in another way - less about that kind of leverage, more about something else.

limits of leverage: It is better to have power than not to have power - who would not applaud empowerment? But a cheering crowd can overlook things. And there are concerns: 'are we diluting what counts as "knowledge"?' And 'is that weakening our grasp on reality?'. Is it possible that empowering people to find what they seek can mean that they will miss what they need?

Information-box #3 sets out are various takes on this kind of doubt.

information-box #3
the net hindering career management

1. the assertion of property rights can distort what people put on the net;
2. producer interests may expose users to risk;
3. anecdotal evidence suggests that habitual use of the internet trivialises thinking;
4. some delicately-balanced learning may be inadvertently damaged;
5. the net's engagement of short-term memory alters self-awareness;
6. changed reading methods may distort what we notice in off-line experience;
7. there is no basis for optimism concerning the critical use of the internet;
8. the net creates commercially- and socially-defined enclaves which can limit horizons;
9. any social interaction can unfairly harm some poorly-positioned users;
10. the net encourages seeking what is merely familiar, comfortable and reassuring;
11. providers of internet services can have an interest in controlling what we seek;
12. the use of the internet may be an example of a general invasion of harmful technologies;
13. we may be over-impressed by the technology and not-enough interested in social value;
14. we might heed a deepening modern-life antagonism to the intrusion of machines.

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Information boxes #2 and #3 are counter-poised. The one (page 8) asserts the plain fact that it is more liberating to know than not to know. The other (above) asserts that liberation is not enough - and may actually damage what really matters.

liberty and autonomy: No genuine educator wants to shackle her students: people need to find a position from which they can *freely* act. And the net offers on-line positions like that. But every genuine educator also knows that people need to find a basis on which they can *autonomously* act. And none of what we have so-far assembled into information boxes suggests what we need to do about that.

Not all that is free is autonomous. Liberty without autonomy carries no guarantees that an action will be useful, fulfilling or sustainable. Careers workers are bound to be interested in the these different bases for action - levered freedom and learned autonomy (Bill Law, 1992). So the issue becomes...

*'how on any foreseeable internet
do we establish student-educator partnerships
empowering access
by enabling learning
for useful, fulfilling and sustainable action?'*

Resolving this would move careers-work-on-the-internet a long way forward.

learning on the net

The issues raised on the previous page cannot lightly be dismissed. Underlying much of what people are worried about, there is a concern for the plausibility of what people find on the net. Plausibility is not credibility: plausibility entices; credibility stands up to scrutiny.

plausibility and credibility: There is a sharply-troublesome version of this issue. Families are naturally concerned about the dangers to their children associated with net-based grooming - it is said to have overtaken obesity as a cause for concern. But both anxieties are rooted in how much trust children can place in what they see and hear. All of these issues - both wide-ranging-and-societal, both immediate-and-domestic - are about how people assign reliable credibility to what they find - off-line and, increasingly, on-line.

For, to be fair, the internet is not the only technology to pose these issues. The internet is media; and, like all books, articles and presentations, it mimics reality with virtualities. The significant fact is that it is an increasingly convincing mimic. The troublesome fact is that it can be accessed anywhere, any time, and without support. That's what information-box #2 reports like about it. It's what information-box #3 reports worry about.

Increasing liberating leverage won't resolve it: you don't improve credibility by upgrading your on-line device. You do it by asking questions.

*is this truth?
and even if it is, do I believe it?
and, even if I do, is it enough to go on?
and, that being so, might I go with it?
and, where I might, would it work out for me as it promises?
and, supposing it would, is that good news?
and, even if it is, could I find a better way?
so how sure can I be that really want to do this?*

Have I over-elaborated this? - such pedantry looks dauntingly complicated. But we take it in our stride: it's how we survived on the savannah, and it's what we do every time we safely cross a busy street.

Effective and sustainable career-management-on-the-net is at least as complicated. But net-based activity which can damage our careers has a less obvious profile than a predator on the savannah, and is less rigorously regulated than traffic on the street.

Plausible internet predators, commercial and other, will not go away. And the net's globalised locations means that regulation is not an option. The career-learning case starts elsewhere: career-management on-the net is best served by their own probing interrogation of what people find there. And for that we need a version of career-learning thinking. It points to the need to engage students and clients in becoming aware of how they reliably learn from what they easily find.

There are, it suggests, four thinking-and-feeling levels of learning:

finding things out	by experiencing and enquiring;
sorting them out	by linking things into 'like'- and 'not-like'- patterns;
checking them out	by concentrating on what people can then see is important to them;
figuring them out	by grasping how things got this way and - how they are best managed.

These are learning-to-learn processes. They map the exchange between technology and learning. They do not describe what we know, but how we know it. And pointing to them is not elitist patronage of students and clients, as though they are in some state of learning deficit. It is an invitation to draw on the abilities with which our evolutionary journey has equipped us. They are our inherited finger-hold on survival - our ability to learn. We neglect them at our peril - on the savannah, on the street, and on the net * .

technology and learning: To move forward on this we need to re-examine the interplay between structure and function. Few people understand the relationship between technological structure and learning function better than Jaron Lanier (2010). He was in a team that set the digitisation of experience moving. But he is not an enthusiast for what is happening now. His disquiet rests on a depth-of-understanding, and it is not glib - it is reflective, discursive, repetitive and, at times, speculative. I don't find it easy to track. But it's worth the effort - because he manages usefully to characterise all of features of internet usage set out in information-boxes #1-3. I've transposed each of his characterisations into career-management terms. They are in table three (following page).

Jaron Lanier is as concerned with the purposes that drive action as by the technologies which permit it. A consequence is that that the boundaries between the table-three rows are not water-tight - each feature influences, and is influenced, by the rest. However, dynamics are driven from centres-of-gravity, rather than from boundaries. And there is a distinct core to each element in Jaron Lanier's account. The overlaps notwithstanding, each of his digital issues corresponds with a distinctive career-management dynamic.

I've teased out ten. They are arranged in rows in table three. They lead - on the right - to a web-3.0 agenda for careers work.

But the middle column is the practical place to start. It describes aspects of behaviour which you may recognise in your students and clients. The left-hand column shows what Jaron Lanier sees as a dynamic factor in each behaviour.

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web 3.0 for research. The uses of web 3.0 as a research tool are increasingly mentioned. An example is career-narrative-based websites. These are where people set out in a public domain accounts of how they manage career. They are social documents - potentially valuable to our understanding of what people are making of their experience of working life. It is valuable material for the research-and-development in our work (Bill Law, 2010b).

A feature of career learning is its claim that it is rarely useful to move straight from a finding to a response. The four-stage process of career learning means taking one thing with another, and assembling them into a basis for action. This is, indeed, the same sort of strategy which is required of our research-and-development programmes - more exploratory, more interdisciplinary, more circumspect (Bill Law, 2010c).

table three
careers work on the net - a web 3.0 agenda

	web 3.0 can empower but...your students and clients are reinforced in...and would be helped by being enabled in...
1.	people get 'locked in' to self-perpetuating ways-of-seeing (Jaron Lanier - 2010, pp.2ff)	...embracing and coming back to what they find familiar and undisturbing	...welcoming and exploring alternative points-of-view
2.	on-off digital signals lose nuances of human interaction (pp.9ff)	...communicating through immediate 'agree'-'disagree' tick-and-click responsescommunicating in sustained and sequential terms
3.	careless cut-and-paste 'mashups' displace creativity (pp.19ff)	...getting bored with what is not immediate, spectacular or celebrity-iconic	...engaging careful and sustained application-of-mind
4.	the accumulating mass of on-line material can feel like 'everything' and 'everybody' (pp.26ff)	...believing that they know all that they need to know	...experiencing finding as beginning a process of knowing
5.	people occupy enclaves in a 'long-tail' of market niches circumscribing their tastes (pp.36ff)	...seeking reassuring confirmation of what they already believe	...learning from the surprising and the disturbing
6.	users can work only with what on-line sources disclose (pp.69ff)	...embarking on action without realising that something else is possible	...grasping that whatever they do they could do something else
7.	digital images are virtually whole but actually partial (pp.70ff)	...taking simple appearance for complex reality	...taking account of more than what at-first-sight seems obvious
8.	binary system 'run' or 'don't run' - they do not 'sort-of run' (pp.68ff)	...acting on what they can most readily see	...dealing with 'what if...', 'suppose I...' 'and maybe, but...' contingencies
9.	digital imagery misses the overlapping nuances of metaphors (pp.168ff)	...working with sharp-and-fixed branded self-imagesimagining a range possible selves in a range possible futures
10.	in all these ways we invite childlike dependency (pp.179ff)	...seeking uncomplicated answers from quick-fix sources	...anticipating and owning the muddled consequences of one's own action

reality checks: Let's not get carried away. Firstly, it would be unreal to argue that the middle-column consequences are wholly attributable to the factors that Jaron Lanier identifies. But, however they are manifested, he helps to explain career-management behaviour we might observe. And, if we notice them, we would be foolish to ignore them.

Secondly, in order to take the table-three analysis seriously it is not necessary to believe that these effects are inevitable and universal - they are not. They occur sometimes, with some people, on some uses of the net. And, for much of the time - information box #2 suggests - the 'pros' of social-networking advantage outweigh the 'cons' of risk and exploitation. But - information box #3 suggests - not always.

The sort of conversations that the middle-column calls up are, for the most part, no more than that - just chat. It is enjoyable to talk in these terms: where life can be 'as simple as that', and brings 'what it says on the tin', where 'just do it' is good advice, because 'who dares wins', and there are 'no problems, just opportunities', which mean you should always 'go for it', because you can 'follow your dreams', and 'wishing can make it so', for - whatever celebration of ourselves we seek - we are all 'worth it', and whatever we see as good is 'brilliant'. And who wants to stop people enjoying such party-talk wisdom? You would need to be a curmudgeon.

And that brings us to a further reality check. There is more to life than just the-bright-and-the-breezy. And on-line devices are more than just toys. Career-management on-the-net calls for more: it requires a commitment which other people have an interest in - and depend upon. And trying to manage it without disturbing or troubling yourself denies the realities of learning.

digital literacy: So where do we go from here? The net empowers - but it can harm. It has a dynamic of its own - and it is unrealistic to try to contain it. But we are responsible professionals - and there should be something that we can do. We can't hold back the technology - but we can enable people to work with it.

Column three in table three sets out those enabling responses. Education cannot offer leverage; it is not in our gift. But caring for students and clients is a matter both of empowering them for freedom and enabling them for autonomy. I argued on page 9 that there is more than one dimension to liberty. That 'more' is career-management autonomy - which is a learned acquisition.

So we must do most what we do best. And that is to enable learning from the net. Information box #4 reports speak of the need for critical thinking on the net. That capacity closely relates to what is necessary to our humanity - the ability to discriminate the useful from the harmful.

information-box #4
critical thinking for career management

1. the internet should present mind-broadening approaches to careers work;
2. it is tool, which students need to be helped to use - to expand their thinking;
3. it develops a social need to reflect on an unfolding public performance by a private self;
4. some immediate responses are for teachers positively to teach useful strategies;
5. process-driven work using research-based cross-curricular scholarship is also urged;
6. the internet calls on more than one kind of literacy - and these are transferable skills;
7. it shifts emphasis from content to process - the teacher as more a partner than a source;
8. critical skills need engagement with complex tasks - involving the use of the internet;
9. the task is to enable them to make sense of what they find;
10. collections of attractive and performative learning tools are beginning to appear;
11. critical thinking is increasingly urged as the core need.

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theory for practice

The internet is a post-colonial culture^{*}; the argument here is that its people welcome career workers as inhabitants, not as colonists.

colonists ...	inhabitants ...
... use net resources to <i>implement our own ideas and methods</i>	... <i>adapt and change our ideas and methods</i> in a setting with a life of its own
... see ourselves as bringing <i>our expertise</i> for workable action	... recognise in what ways they are ahead of us and where <i>we need to catch up</i>
... take our knowledge to be <i>all that is needed</i> for that work	... find in what <i>particular ways</i> we can help with the overall situation

No sensible colonist was ever as extreme as the description on the left. But the underlying tendency is for them to see things in that way. Inhabitants see it differently.

If inhabitation is the metaphorical idea, what is the observable reality?

thinking and practice: The value of an idea is in the difference it makes to action. A good idea can suggest action that would not have been visualised in other ways.

This is more than recycling existing practice - which requires only an ability to re-use what you have already seen done, and the hope that it will prove generally useful. A belief in the universal applicability of useful action is a colonialist myth. It misses the fact that, before you do anything anywhere, you need to see how this idea fits to this situation - or doesn't.

We need theory to come up with ideas like that. A good theory will say enough of what is going on, with enough of an explanation of how it got that way, that it is able to suggest what can be done about it. The final test of a good theory is not in what it describes, or even in what it explains - it is in what it is able usefully to suggest. Good theory is validated by effective practice. And a really good theory suggests practice that could be useful - but has not been yet been used.

Examples of practice like that are set out in information-box #5 (following page). It starts from a basis in what we are best able to bring to our inhabitation of the net. It illustrates how we don't need to be expert about everything how the net works. It also illustrates that the most useful part of our expertise is in our understanding of how people learn for career-management.

*

post-colonial internet? The internet was first developed for military purposes. But net-ideologues now assert their freedom from such powerful and invasive interests. Nonetheless, the dynamics of exclusive and elitist interests are not-so-readily dismissed. The net is stratified by a tendency for social groups exclusively to 'stay with their own kind' in social networking sites. And Apple products are argued by some to position themselves with another kind of exclusivity. Cost is factor: Martha Lane Fox heads a national initiative to bring the hard-up on-line. But contrary pressures persist: internet giant Google is engaged in justifying negotiations which may offer exclusive visibility to powerful commercial players (Edward Wyatt, 2010). Where people are using the net in order to manage their lives - including work life - these are urgent issues for careers workers. Behaving as an internet colonist, by urging processes we value but which have little resonance in the lives of users, would be exclusivist - and, at this stage in the game, a major mis-judgement.

The whole of this monograph sets out to catalyse new and creative thinking for careers work on the internet - and to do this with the support of career-learning thinking.

But there are also specific initiatives - similarly-based. Three examples of as-yet unrealised potential are set out in information box #5. They move through a web-1.0-to-3.0 sequence - showing how we can...

- ...in web 1.0** move beyond information;
- ...in web 2.0** activate faltering interactivity;
- ...in web 3.0** engage a capacity for constructive change.

None of the three is yet much implemented in careers work on the net - it is new thinking. The examples move progressively, showing that inhabiting the net is increasingly about sharing our own distinctive understanding of how people learn to manage their lives. The more deeply we inhabit the net the more necessary becomes that process of sharing and adaptation.

information-box #5
inhabiting the net - in practice

- > web 1.0 can equip people to think about career on a full range of life-related dimensions;
- > web 2.0 can increase the interactive scope of ready-made psychometrics and data-bases;
- > web 3.0 can engage students and clients in probing examinations of all that they find.

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All of this affirms the value of self-propelled learning on the net. We are in no position to tell students and clients the answers to any of the questions raised by what they find - even if they were to believe us. They must figure them out for themselves. So we bring an understanding the value of process-driven questioning - supporting what students are asking...

do I really know what I claim to know?

do I make any sense of that confusion?

do I recognise what I can trust as a source?

do I assemble all of this into a basis for action?

This is an internet-located version of up-dated career-learning thinking. It characterises learning for action as a four-stage process - 'finding out', 'sorting out', 'checking out' and 'figuring out'.

Working in this interrogative way would certainly be a change-of-direction - information box #1 (page 4) sets out why we need this kind of new thinking,

theory and creativity: We sometimes organise development meetings as a search for consensus on useful action. It often means reviewing what others have done, and reshaping it into something we all find acceptable. And that can be useful. But it can also lead to what nobody fully supports - a compromise between belief and scepticism, neither of which is wholly shared. It is then a fudge, which ignites no fire in anybody's belly. And it will not change anything.

That can be where we most need creative thinking - in an idea-for-action that we can see will work, and which needs fired-up commitment to make it work. It's why we need theory. Without that kind of lift, what passes for creativity is often no more than a cooler layout - hung with shinier bells, and animated with more enticing whistles. We need to know how we can go farther than that. Career-learning thinking is no use at all if it just reinforces that kind of same-old same-old.

Nonetheless the call of the familiar is strong. And so, much of the digital technology we use is still more useful for finding material than for interrogating it. A recent careers-work article mounts a defence of psychometric data-based programs (Pete Hulse, 2010). But how do teachers best engage their students and clients with material like this? The expert psychometric coefficients, which underpin much of the procedure, may actually reinforce the influence of not-very-useful questions. Information box #4 suggests why they are not good questions - and why, therefore, they may well lead to bad answers.

Careers work has already tried to invade the net with too many well-worn procedures. What we have not done is to support the interrogation of their usefulness. Scaffolding such probing on the basis of career-learning thinking can do.

expertise and experience: The development of three-scene storyboarding' (Bill Law, 2010c) rests on career-learning thinking. And, as a words-and-graphics filmic technique, it is internet friendly.

It invites students and clients into questioning what they find - they become probing witnesses of their own experience. Reviewing the cinematic scenes in that experience means being able to ask these variations of the four generic career-learning questions...

*can you imagine that those scenes were some other person's?
what do you then make of what that character is doing?
what would you tell her or him about who can be trusted?
and say about what he or she is doing about it?*

This does not call on us to be technological experts, it calls on an educators' ability to do what she and he do best - enabling learning. Where helpers need more technical facility they can develop learning partnerships - with both ict colleagues and students and clients.

This is what - at their best - student-teacher-relations have always been. But it is a reversal of what we have been encouraged to do. In the content-driven curriculum that we have - in the past - been handed, educators are the experts, and students ask the questions. But in the process-driven curriculum that we - now - need, students say what they find, and educators enable questioning. The method is Socratic - where learning is an exchange between what they find and how we respond. This is a reciprocal partnership - where we learn from what they know, and they learn from what we know. It binds their experience to our expertise.

But it is as-much needed by education-for-citizenship - and for any other aspect of personal-and-social development - as it is needed by careers work. Indeed, what students and clients learn on the net, in any of these roles, will be applicable to what they do in all of them.

possibilities: Table one (page three) sorts out the issues for the optimal use of careers-work on-the-net. You'll find that analysis again in table four (following page), This time it is arranged to review the issues and to invite your ideas about how, in your work, they are best addressed:

- > **describing how things are in your work;**
- > **explaining why they are this way;**
- > **suggesting what you will now do about that.**

If we cannot use career-learning theory to imagine, develop and scaffold this work then we must use something better - if we can find it.

table four
careers work on the net - possibilities

	bases for action	describing the 'how', explaining the 'why', and suggesting the 'what' of your action
contemporary challenge	conventional careers-work practice web-3.0 technology what careers work has so-far learned to do the independence of the net how students and clients use the net	
emerging factors	empowering students and clients how the net can mislead private inner life and public performance finding, sorting, checking, figuring probing, scrutinising and interrogating	
freedom and autonomy	linking technology to learning liberty to act autonomy in action what students know and what we know careers-worker roles	
new partnerships	knowing about technology understanding limits of our expertise knowing about learning processes understanding limits of their experience changing partnerships	
colonising or inhabiting	the net's own dynamics their social networks and our careers sites colonising and inhabiting sharing and adapting careers-work action finding robust ideas for critical thinking	

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