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The power and vulnerability of the 'new professional': Web management in UK universities

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Abstract

Research paper

Purpose: To explore the character of an emergent occupational role, that of university web manager.

Design/methodology/approach: The primary data used were 15 semi-structured interviews conducted in 2004. These were analysed partly for factual and attitudinal data, but also for the discursive interpretative repertoires in use.

Findings: The paper examines the diverse backgrounds, occupational trajectories, organisational positions, job roles and status of practitioners working in 'web management' in UK Higher Education. The discursive divide between the marketing and IT approaches to the web is investigated. Two case studies explore further the complexity and creativity involved in individuals' construction of coherent and successful occupational identities.

Research implications / limitations: The paper examines the position of web managers within the framework of the notions of the marginal but powerful 'new professional' or 'broker' technician. It gives a vivid insight into how the web as a dynamic and open technology opens up opportunities for new forms of expertise; but also explores the potential vulnerabilities of such new roles. In order to examine personal experience in depth, data was gathered for only a relatively small number of individuals. The research was also limited to the UK university sector and to those with a broad responsibility for the web site of the whole institution, i.e. not library web managers and other web authors who work primarily to produce a departmental web presence. These limits imply obvious ways in which the research could be extended.

Practical implications: There are implications for how institutions support people in such roles, and for how they can support each other.

Originality: There is a vast literature about the web, little about the new work roles that have grown up around it.

Keywords: World wide web, Higher Education Institutions, Webmasters, Web management, Identity, Professionalism

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1. Introduction

Perhaps because the original purpose and ideology of the web is self-publishing, there has been relatively little research interest in those employed full time in the process of producing organisational web sites, compared to the technology of the web itself or individual self expression and identity play on the web. Yet creating web sites is a challenging practice because it requires a wide and fluid range of skills (van der Walt and van Brakel, 2000; Kotamraju, 2002, pp.6-9). The knowledge needed cuts across what are often thought of as natural limits of individual expertise; for example, in requiring ability both with the visual and with words. It also cuts across boundaries between different professions.

> *All web managers often find themselves in the uncanny situation of providing a one-stop shop - editor, designer, technical specialist, user support person, trainer, marketing officer, development officer, and even minute secretary! It quickly becomes a balancing act of deciding which skills to develop, and choosing a direction in which to branch, while the workload increases daily with user expectations and rapid technological growth.* (Linford, 1999)

In the long run one might expect increasingly uniform practice to emerge across institutions and for the work to be professionalised, with a clear division of labour in which certified specialists are employed in web teams led by professional managers. In fact, this paper will show that the production of information and communication web sites, at least in the UK university sector, remains remarkably diverse: in terms of where the role sits in the organisation and how post holders see it. This diversity may

imply exciting possibilities for rapid promotion and influence, but also for the individual an unpredictability, even vulnerability.

2. Background

The Dearing report identified a cluster of 'new professionals' who were likely to have an important role in change in UK Higher Education (Whyley and Callendar, 1997). A number of writers have identified learning technologists as an example of such a group (Gornall, 1999; Oliver, 2002; see also Beetham et al., 2001; Land, 2004). They suggested that such new professionals were young with limited experience and had temporary contracts (Oliver, 2002, p.245). They had divergent job titles and backgrounds (Gornall, 1999, p.45). Each had a very wide range of roles (Beetham et al., 2001, p.30). The posts were temporary and organisationally anomalous, 'liminal' but powerful because they were associated with organisational changes desired by senior management (Gornall, 1999, p.48). They were "hybrid and marginal and yet central to institutional process of change" (Oliver, 2002, p.245). Such a position of organisational liminality has strengths both for the individual and the organisation, at least in terms of learning (Tempest and Starkey, 2004) but may also be a vulnerable position for the individual (Garsten, 1999). A useful contrast is with academic librarianship in the UK, which has certainly been reconfigured in the last 10 years in response to technical change and the pressure for a service culture (Ray, 2001). Yet it has remained possible to pursue recognisable specialities in librarianship, e.g. as a subject liaison librarian. Staff tend to have a long term commitment to an organisation and can rely on formal professional institutions with some longevity. Librarianship as a practice is understood, or at least has a clear public image and is an example of an occupation which is relatively stable. The position of the new professional is a degree more uncertain, lying as it does outside, or across, known professional boundaries and tied closely to shifting local strategies rather than long established occupational roles.

It should be stressed that the term 'professional' in the phrase 'new professional' is being used in a loose sense rather than referring to formal professionalisation. It is used to suggest a degree of status, and to differentiate such roles from academic ones. There is also a link to professionalism as a powerful discursive resource implying doing things systematically, in a polished way, but distanced from the rather old-

fashioned feel of professionlisation as understood by membership of a professional association (Watson, 2002; Fournier, 2002; Grey, 1998).

Such an analysis of the position of the 'new professional' could also potentially be applied to people with the main responsibility for the information and communication web in UK universities. Indeed an early study of such persons, Armstrong et al. (2001), found the main methodological problem was that the role of 'webmaster' was organised so differently in different institutions, it was difficult to obtain comparability in interviewing. Thus they were a diverse group, based in a variety of organisational locations, often in marketing or information services, but also in registry or central administration. In a few cases the web team was its own department. In terms of education and professional training the web managers studied had diverse backgrounds: from IT, information science and a variety of subject disciplines and commonly their web skills were self taught. In larger institutions there was a web team, in smaller ones the work was the responsibility of one or two people. As individuals, Armstrong et al. (2001) found them to have heavy workloads, with responsibility for the web site being generally only one of several roles: none spent 100% of their time on the web. Equally, graphic design, and particularly server management, as the most specialised areas of the work were likely to be handled by persons outside the functional web team. The variety of roles performed by 'webmasters' is confirmed by van der Walt and van Brakel's (2000) task analysis study. They found that they had roles in management, editing, design, marketing, systems tasks, programming, support and training, research and development.

One of Armstrong et al.'s findings was that at the time of the study 'webmasters' typically "feel a degree of professional isolation within their own organisations" (2001, p.81). And if Gornall (1999) seems optimistic about the possibilities for the new professional, an alternative, somewhat more pessimistic perspective, stressing vulnerability, can be explored through the work of Zabusky (1997). Zabusky's analysis of IT 'support specialists' is a reworking of the classic theme of the dilemma of loyalty between the organisation and the profession (e.g. von Glinow, 1988). She sees the support specialists as a type of technician, a 'broker' (Barley and Orr, 1997, p.14; see also Barley, 1996) whose fundamental determining structural position is that:

The work of maintaining and developing a technological infrastructure requires broker technicians to integrate technological criteria and capabilities generated outside the organization with the needs and requirements of users of technological systems within the organization. (Zabusky, 1997, p.131)

As brokers or translators their ambivalent position leads to "conflicts over belonging, loyalty and identity" (Zabusky, 1997, p.150) and that IT support specialists tended to both see themselves, and be seen, as outsiders, particularly indicated by eating and socialising apart. Often they were found to have been put in marginal spaces of a building and were distrusted by managers. The organisation is dependent on their expertise, yet suspicious of the potential conflict of loyalty. Technicians' non-organisational, expertise-based view of status sets up a tension with legitimacy based on organisational hierarchies and ascribed position and job title (Zabusky, 1997, p.143). Darr and Scarselletta (2002) confirm the status worries felt by such professionals.

Thus Zabusky stresses the vulnerabilities of marginality, where Gornall stresses the potential power. Actually Zabusky gives relatively little consideration to the precise nature of the connection to the external community of expertise. The technician's broker or boundary spanning role is potentially a powerful one from the perspective of Social Network theory (for example, Burt, 2000). Clearly it is critical how dependent the organisation feels it is on the expertise of the technician, a sense of reliance that could be actively constructed by technicians themselves. If the value of technical systems can be reinforced by articulation with other values, such as legal requirements to make web sites accessible to all, the broker role would seem to be a particularly powerful position - especially when linked into senior management strategies. Actually the external communities may represent collective work on arguments that strengthen institutional embeddedness, a thought that stresses a degree of agency that Zabusky's pessimistic analysis ignores. Further, if the logic of a conflict between organisational and community values makes sense, it may be far stronger in established professional groups and academic disciplines than in novel practices such as the web.

3. Method

To explore the actual position of web managers this paper draws on data from 15 semi-structured interviews conducted between March to July 2004. In the following text interviewees are identified by pseudonyms, consisting of a letter which reflects the order of the interviews and M or F depending on whether they were male or female. The interviews were part of a larger study which investigated the degree to which professionals working in this area use colleagues in other institutions as a source of information and support, or to help in understanding what their role is about; and to what extent they can be said to form a 'community' (See Cox, forthcoming). Interviewees were chosen purposively with a desire to represent different types of university, those using different technologies and especially those in different organisational locations. There was an attempt to include a significant proportion of women, though it proved rather difficult to identify relevant individuals. Interviewees were identified through web searches, but primarily from visibility in an online community, an annual practitioner conference series and the Heist awards for web sites for tertiary sector marketing (http://www.heist.co.uk/awards/?a=a). All the interviewees were people who could claim to have a central responsibility for their university web site, but how this was interpreted varied from institution to institution. Several people at the same institution might make such a claim, and though there is some usage of the concept of the 'institutional web manager' - the word webmaster is commonly but not universally derided - it was not consistently used or understood.

The interpretative approach used to analyse the interview data acknowledges both the importance of the "interview as local accomplishment" (Silverman, 2001, pp.104-5), that is constructivism, but also sees it as offering, if handled well, a level of access to informants' authentic beliefs, expressed in their own words, that is to say, emotionalism - as well as 'facts'. The general philosophy of the analysis was to treat the interviews both as discursive but systematically linked to real world facts and structures. Interviewees were clearly in many cases pursuing well-rehearsed arguments, their very eloquence is testimony to this. Several interviewees drew a parallel between the interviewer's visit and that of other colleagues (EM, QM) so that there was a sense that the interview interaction was very much akin to the professional networking situation itself, which was an object of study.

The concepts of "interpretative repertoire" (Potter and Wetherell, 1987) or "discursive resources" (Watson, 1995, p.816) are useful in theorising how, in talk, individuals draw on a set of common reference points to construct identities and seek to authorise actions. For example, in this case, such identities as techie or marketer are available as reference points, against which individuals define their own specific position. Similarly, well-rehearsed arguments about how to do the job, legitimating control or centralisation and expertise, represent a common stock, as do more socially dispersed resources such as the notion of 'professionalism'. Billig (1996, p.15) shows that such common sense "does not provide a unitary discourse, for it overflows with numerous bits and pieces, creating and recreating endless 'ideological dilemmas'". Hence individuals tend to both reference valued aspects of a resource, and at the same time find ways to hedge or distance themselves from elements that are less useful. Such hedging is situational, constructed on the fly to address the immediate needs in conversation. This results in the typical weaving, qualifying, contradictory rhetoric found in everyday talk.

The actual method of analysis was influenced by stylistics – i.e. literary techniques of close reading that elucidate what is said by attending precisely to how it is said. This was not raised, however, to the level of a formal or systematic method of analysis. Rather, the analysis was seen as creative, an embodied, often unconscious process, a method generally practised in the humanities and ethnography (Okley, 1994). A degree of validity for the reader is established by extensive quotation, permitting her or him to also evaluate some of the texts being analysed. Interactions with the original interviewees in the course of gaining their consent to the publication of their words in this paper lend it a degree of respondent validation. Validity is further underlined by this work sitting within a larger study, effectively triangulating the findings in this part of the study with those of the others (see Cox, forthcoming). The similarities with the experience of learning technologists may also offer a form of external validation.

As a limitation of the study it should be acknowledged that it is based on a fairly small number of interviews (15). It can only be suggestive of aspects of diversity, quantifying what arrangements are more typical would require a more comprehensive survey approach. Yet the study itself points to the difficulty of conducting a

questionnaire based survey, because of deciding who should be asked to fill it out and ambiguities in terminology, such as the meaning of 'web team'.

4. Findings

A reasonable expectation would be that, by 2004, a clear role of 'institutional web manager' would have emerged in most universities - having some seniority, recognition, a budget, a logical career path, an agreed professional identity - perhaps as an IT manager; a plausible institutional location might certainly be computing services. One interviewee, EM, fitted this model quite well. In the interview, he was quick to distance himself from writing HTML:

> *I do not do any web page creation or editing in any way, shape or form. My team does that. What I do is - I mean - - first and foremost I'm responsible for the service. I'm a manager. And I manage the service - you are always on a bit of a rocky ground if you are a big practitioner and a manager of the service at the same time. [...] So I consider myself to be in charge of it - I develop the strategy - I own the strategy - I do all the kind of politics and the selling within the institution.* (EM)

His role had been established as the result of an external consultancy commissioned by senior university management. He waved the original report as a tangible source of authority.

> *I am responsible for stuff - whilst liaising on the campus - and respecting the control mechanisms and the politics within the university - I'm a professional manager responsible for a service in the same way as if you go downstairs and talk to the people who run the student records system, it's all shirt and ties, there's no - everything is absolutely business like - because its a business function of the university.* (EM)

Taking 'responsibility' was a key concept for EM. Yet if his dynamic, almost macho rhetoric fits Gornall's hopes for new professionals quite well, his experience was far from being shared by all the interviewees. Another interviewee, UM, saw the group as on the same development path, but because of differential resourcing very spread out:

> *From what I've seen of other institutions and from speaking to folk in similar roles to myself, the spread across the sector of what folk are doing probably*

spans a couple of years. So I'm six months, 18 months behind the folk at the front and there are folk 24, 36 months behind me. (UM)

This quote implies a colossal divergence; in fact, UM did not think the sector had "a position". It is the diversity of the group that strikes one. The main body of the paper explores this by comparing interviewees' backgrounds, organisational locations, occupational trajectories, seniority and resources, roles and aspects of specific strategy.

4.1 Backgrounds

In a fully professionalised space (such as medicine) practitioners have somewhat similar backgrounds (e.g. degrees) and go through a formal professional socialisation process (in medical school) and 'organisational socialisation' process (on the job) in organisations where work is similarly organised because they are heavily disciplined by the formations of the profession. In contrast here, in a group with low professional organisation, there is no explicit socialisation process (though the Netskills organisation was beginning to develop accredited courses (Netskills, 2005)). Informants' backgrounds, e.g. degree training, were diverse from computing and psychology to biosciences, town planning, English and music - as well as a number of non-graduates. UM described his background as "twisted". To a certain extent this could be construed as a positive strength, linked to the very medium itself:

> *[Christian name] has been part of webmaster for the [university name] Computer Service for the last (more than) five years, running the main University web site and keeping an eye on the other 254. A zoologist, mum and carer of ancient buildings, who worked in publishing for 10 years before coming to computing, she represents the epitome of diversity that almost matches the web itself. Only cross-browser solutions are allowed!* [short biography for conference paper]

Again, HF saw her diverse range of previous experience as appropriate, because the job itself was inherently varied. Actually EM also saw his background in marketing and IT as hybrid.

Some other interviewees did construe their background as highly appropriate, e.g. through serious IT training and long experience in pioneering internet institutions

(BM), or a series of roles in different sectors (LM), yet this often masked a lack of formal training or continuing dilemmas about professionalisation.

4.2 Organisational location and trajectories

On the whole, in a professionalised occupation one would expect to find professionals located in similar organisational positions (e.g. librarians in the library). In the web domain, as Table I below illustrates, there continued to be uncertainty as to where the function should sit. A fairly common location was IT, but there were other options: for example EM and BM were in Management Information Systems, others in support service areas, others still in separate units broadly under the information services banner (SF)). The fact that AM was in the University Registry gave him a different perspective - an ambiguous position between IT and content.

Take in Table I

Table I: Interviewee job titles and organisational locations

Job title	Department
Web services manager	Business systems and services (MIS)
Web editor	External relations
Web strategy manager	Information services
Head of the web and e-learning	IT services
(formerly) Director of web services	(formerly) Information services
Web services manager	Computing services
Information provision and webmaster	Computing service
Web administrator and information officer	Learning information services
Internet manager	External relations division
New media marketing manager	Marketing department
Principal analyst	Information services
Web development officer	Registry
Web administrator	Planning and information
Internet officer	Office of marketing and communications
Head of marketing and development	Marketing

In particular there was a seemingly unresolvable dilemma of whether the web should be in IT or marketing (EM). The interviews suggested that IT and marketing had divergent views of what the web was about (tendencies summarised in Table II below).

- Those from marketing tended to ask a powerful rationalising 'why' question about why any piece of content should be published, who is the audience, what is the purpose (VM).

- Those from public relations (PR), journalism, or marketing had confidence in writing and knowledge of how to present ideas in an interesting way and a desire to make content interesting and inspiring (PM), i.e. not merely informative. However, 'information' people commonly did not like to rewrite content (HF, SF).

- They had professional discourses about the power of imagery (Porter and Gibbons, 2004).

- Marketing people had a willingness to commission content and to go to external providers for 'technical' work (PM).

The focus was clearly on *content*, and though there would be internal divisions (word people and image people) the range of professional groups in marketing bring important skills and concerns to doing the web. In contrast, the IT view of the web tended to focus on providing a stable infrastructure in which people are free to publish within the law and acceptable use, and the production of some technical guidelines to ensure accessibility and a core navigational structure. Information could be judged by objective tests of quality of content such as spelling, up-to-datedness, accuracy of links (all of which are capable of a degree of automation). The IT approach can produce the form of a strong *laissez faire* mentality (TM), but there is leverage in security issues for control, e.g. preventing running cgi scripts, a common complaint against IT (QM, NF) and possibly used as an excuse to block innovation (IM). Sometimes the division results in the separation of the management of a front facing web, primarily for recruitment, and an inward focussed intranet, but this is far from generally the case in the university sector.

Take in Table II

Table II: Differing views of the web

Information view	Content view
Computing services (library)	*Marketing, external relations, PR, journalism, graphic design*
Textual, focus on reproducing documents	Exciting content, visual, focus on communication
Informational quality (e.g. up-to-date)	Interest is in appropriately written content
Infrastructure within which to publish / policies to prevent illegality	Control of content to fit institutional messages
Technical innovation	Outsource technical work and design
Predominately male profession	Predominately female professions

There was strong evidence of quite bitter tension locally between IT and marketing among IT people (HF, LM, SF, EM - plus also comments from IM and other interviewees) and WF on the marketing side (WF). There was also evidence of co-existence and discursive accommodation, i.e. individual accounts integrated both sets of ideas. In fact, this dilemma could lead to some startling personal changes, thus at the time of the interview one interviewee was in Management Information Systems, the department handling the core IT infrastructure of the university, a year later he was in marketing and PR, a seemingly massive professional leap.

To add to the complexity of the diverse organisational locations, a commonly identified problem was that there was no career progression as such for web people inside the organisation. This is possibly a general problem in higher education, because of the way it is organised as a series of specialisms (VM). Equally, it is a common organisational problem when dealing with specialists to construct satisfying, appropriately rewarded career ladders (Roberts and Biddle, 1994; Petroni, 2000). As an evolving technology, the web seemed to offer to some an expanding career over time, in a way that skill in one particular computer system might not. This seems to be how AM and BM had progressed and UM and CM hoped to move. For SF this route had dried up, but AM, QM and BM fit Gornall's (1999) new professional model quite well and were effectively creating a career out of the expanding possibilities of the technology. This was their first job after university. Others such as MF, LM, HF had longer, more diverse backgrounds, were a bit older, better fitting what Dearing identified as 'niche finders' (Whyley and Calendar, 1997), those around whom the organisation adapts.

4.3 Occupational identity and trajectory

EM and also LM had a relatively clear cut trajectory towards IT management, from within an IT department. In contrast VM, PM and QM were based in marketing departments and essentially saw themselves as marketers. VM was an out and out marketer with membership of Chartered Institute of Marketing. PM was more at a formative stage, but was not in a trajectory towards IT. He enjoyed the challenge of fixing code, but did not identify his career with it, seeing the underlying technology as stable.

> *I was thinking about this the other day - when - I used to say I worked in PR - not for this particular job. And then I changed it - when I got this job - for working in IT. But actually now I'm thinking of changing that again (laughing) - to working in marketing. Or even sort of IT marketing or something.* (PM)

QM had no training as a marketer, but welcomed the increasing integration of the web as a technical skill into mainstream marketing. He was keen to break down the perception in his own department that they were technical experts, "the odd people in the corner". He enjoyed playing with computers, he said, but had relatively low-level expertise, e.g. he talked about HTML as programming.

Yet it was not simply organisational location that determined professional identity. CM and UM were in marketing departments but presented themselves as IT people. Although CM had training in graphic design, he explained this to stress his technical skills. He was highly technically competent to the extent of claiming to advise the local computing services not just on what software to install but *how to install* it. Critically this took him beyond what he thought would be conventionally expected of a "normal web editor in marketing". Thus he puts some distance between himself and marketing. He frequently stopped himself in the interview for sounding like a 'marketer'. Everyone referred to him as webmaster, he said. He was happy to claim this technical sounding label. UM also construed the job as clearly technical, describing himself as a "techie person in a non techie organisation". Several times he assumed that the job is correctly an IT role, and he said of himself that he really liked "doing boring code stuff" and having boring conversations over a beer with people who really know what they are talking about, though he emphasised his understanding

of the need to talk to people at their level, not shutting them out. While he was keen to present himself as a techie, marketing was minimised and downplayed.

Ironically those in IT departments often spent time distancing themselves from the techie label. AM was scornful of the term 'webmaster'. BM, despite his technical background and orientation and the continued sense that his way of talking constructed him as a 'guru', was adamant about distancing himself from the label of techie. He saw this label as dangerous, in a world like academia where "perception is everything".

> *If people get the wrong idea that's it. You've got to ensure all the time - and it's one of the things I've learned from the people here at [Institution Name] - you've got to make sure that people's perceptions are being influenced to be as close to the truth as possible.* (BM)

Not everyone identified strongly with the job at all, for OF, key was her dis-identification with the technical aspects of the job. Thus, in marked contrast to BM say, with his claim of early involvement with the web as a pioneer, her initiation had been random, even threatening.

> **OF***: So I had my first introduction to web when I was on maternity leave and I came back and who'd been covering for me had put all the staff training stuff onto the web.*
> **Interviewer***: Oh right*
> **OF***: And so I had a quick learning curve or a steep learning curve. And then that's how I first started getting used to the web. And then the web administrator took a secondment and I just fancied a change so I moved across.*

For OF the web is something "to get used to", rather than something she strongly identifies with; her motivation is not deeply rooted, she just "fancies a change". It was a "sideline". She saw this job as essentially work, with little spill over into her life.

> *But I'm not a technical person by any means…which holds me back in some ways, but I'm just not interested in pursuing that side of things.* (OF)

Her lack of technical orientation was a recurring theme.

> *I just don't see myself as a computing type person. I'm a non-technical person. I'm very much a user person.* (OF)

She saw herself more as a trainer and staff developer.

Equally, in personal terms, her climb from a clerical grade and without qualifications to a senior role in a university was a tremendous personal achievement and she was keen to inspire others by showing what was possible. Her dis-identification with technology was ironic, though, since her progress was consistently closely linked to supporting computerisation.

SF's position was particularly interesting because she had consistently resisted being simply identified as a marketer or as an IT person, perceiving her role as an 'information' one, which she saw as associated with librarianship but bridging multi-professional roles. Thus she had refused to be in the marketing department, because it did not fully represent what the role had to be about, and did not regret that.

> *[…] I mean it definitely is marketing in some things, but it's not a marketing position. It bridges many things. It's primarily about the management of information in my opinion.* (SF)

However, since a recent university reorganisation, relations with marketing were extremely strained, a problem she returned to repeatedly. She saw them as not understanding the web, understanding it only in terms of visual design. They couldn't be talked to.

> *I mean you can talk to external relations sometimes till you are blue in the face and you still can't get across a very simple point […] Plus because they are a new department, a new directorate, they are trying to make their mark on the institution essentially. So it's very much kind of a bulldozer approach to me […]* (SF)

So the relationship with marketing was tense, with them denying her expertise (see also SF), outsourcing, bulldozing her. Thus standing out for the professionally complex character of web management creates a potential political vulnerability.

Equally she had resisted the identity of IT person because this did not fully capture what the web was about.

I have spent most of my time trying to get out of the mould of being an IT type person…but I don't see myself - and my background was never computer science. I've always tried to steer clear of that. Although I do see my job as having maybe 10 percent of IT type activity. I wouldn't class doing html as being IT to me, it's not. It's an information thing to me. (SF)

She did talk about aligning herself, being "equated with" the library and computing, and she thought that the relevance of professional knowledge in the library, e.g. about copyright, was not generally appreciated. She was attracted therefore to using librarianship as a disciplinary umbrella, but as with IT and marketing there were issues of perception. Thus she constructed a novel position bridging the practices of marketing, IT and librarianship, but was not particularly identified with any of these – because each was capable of being misunderstood and did not represent the necessarily multi-faceted character of the role.

In thinking about how this works it is relevant to look at the way Kotamraju (2004) has applied the logic of Abbott's (1988) *System of Professions* , in which occupational groups struggle for jurisdiction over work, to the web as an occupation. Through job adverts, Kotamraju traces the evolution of the web as a diverse bundle of skills any graduate might have in the early years (up to 1996) to, in later years, a bifurcation between technical skill, 'code', and specialised graphical skill, 'art'. Most of the coders were men; the graphic designers (apart from the stars in the field) were lower paid women. After the bursting of the dot-com bubble, code continued to be seen as a skill worth paying for, and came to be dominant in requirements in job adverts, whereas the art of design was increasingly seen as subordinate, an after-thought. In the academic sector the same gendered dominance of IT may be evident, but the subordinate professions could include librarianship and also marketing.

And people like PR, that whole kind of stuff is a very kind of female centric kind of world, I think. To a lot of people if you go to our press office here, it's run by a woman, there are a lot of women press officers in there. If you go to our marketing area, it's run by a woman, there are a lot of women in there. You go to design and publications it's run by a woman and there are a lot of women designers in there. So it's all very kind of female centric over there.

But when you look at who manages the web sites - it's a lot of men. There is that thin veneer, yer? There is a lot of men who take that responsibility. (EM)

This implies that female dominated professions (in the marketing area and librarianship) were weaker in relation to masculine IT, subordinated within Abbottonian analysis. The web always sits in an anomalous relation to these bigger blocks and their public struggles. In the complex sphere of the workplace (Abbott, 1988), positions are not ones simply identifying with one block or another. The individual leverages the status and élan of one professional group or another, while also trying to offset the negative associations. Thus often those located in IT departments discursively build a distance from IT, to offset its negative aspects. Sometimes though, as arguably in the case of SF, individuals can find themselves weakened through too loose a connection to any of the big blocks. Individuals' choices influence their success in getting the "web taken seriously".

Whereas in a unified professional field there might be a range of classic trajectories and occupational identities, in web production positioning was more complex, often with a trajectory out of the web specialism towards more mainstream professional positions (as QM) or cutting against their actual organisational position (as UM). This was revealed in quite diverse core conceptions of the job and view of IT.

4.4 Seniority and resources

EM saw himself as a manager by training and position. For the interview he was smartly dressed in shirt and tie. He was in classic IT parlance, 'a suit' (e.g. Browning, 2002). Portraying a sense of seniority was perhaps part of a persona that helped legitimise his strategy locally. He himself linked the dress code to being professional and business like. He had a range of specialists working for him who did the hands-on work, and he continuously drew the key personal boundary as being between himself and the practitioner. In this sense he was the classic web manager of a web team. Only IM and LM were, or had been, in similarly out and out managerial positions. In contrast, AM, BM, HF, QM were in the process of working through the dilemmas posed by moving into more and more of a managerial role, while continuing to have technical roles of various sorts. Meanwhile, CM, MF, PM and UM had no staff or only a single part time assistant. Their role was not primarily supervisory. PM still

talked about managing a web team, but in fact the 'team' was a committee made up of departmental web authors, over which, clearly, he had no direct control. RM also talked about a web team, but this was a number of specialists spread throughout the IT department and so were not a team as such, and he did not supervise them. Rather he was a project manager, including for the Content Management System (CMS), and only for that part having an involvement in the web. Thus even where there was a large 'web team' there might not be a co-ordinating 'web manager' role as such. This trades on the ambiguity of the concept of management and the need to present everything as managerial, as CM commented in an aside:

> *I do dabble in the management side - just because you have to - in a very managed, very structured environment - if you are not appearing to be a manager you don't get anywhere.* (CM)

Seniority was linked to resourcing. EM had been successful in getting major institutional projects funded, and had a large team. Others had been less fortunate. For example, at the time of the interviews, SF's experience was of the blocking of resourcing and innovation leading to an increasing dis-identification with the role. She had freedom but lack of resources, freedom meant "fending for herself" rather than the empowered position BM and EM felt. Those responsible had never really defined a clear strategy and so resourcing was a key issue she mentioned. She was a victim of her own success, she said, in the sense that she had constructed a large web site that involved a lot of maintenance, but she had been starved of extra resources to pursue bigger ideas as efforts to get funding for a CMS or portal seemed to have been stifled. The institution only sought limited influence over departments in their web sites. This was in contrast to the well-resourced virtual learning team and a dynamic external relations department in the institution, which both seemed to have political approval. The resources she did have were oddly informal. She had two members of staff, but this seemed to be strongly tied to design work for departments, the internal charges for which she never saw coming into her budget. Her team was not collocated or dedicated fully to web work – a common experience. The need to resist being identified simply as part of marketing or IT, left her unit in a potentially anomalous organisational position, with two and a half people at the same level as departments, like the library, with "hundreds". "I'm a separate little thing", she said, unlike MF, for example, who positioned herself as ambassador of the computing department. By her

unit being separate SF did not have the same easy legitimacy by association. At the same time this reflected the need to integrate practices from many professions. Thus the multiple possibilities of the web produce professional opportunities but also challenges. In fact, it would seem that over the two year period after the interviews SF had successfully overcome many of these organisational issues; but the experience does point to a general problem of vulnerability where roles do not fit into widely understood categories.

4.5 Strategies towards web authors

A major challenge in running a university web site is influencing or controlling departmental web authors, those responsible around the institution for departmental or unit sub-sites. On the one hand it is recognised that the sheer quantity of the information a university maintains prevents one central team producing the whole site. There is a logic in people who produce information looking after it on the web. On the other hand there is a perceived need to produce a relatively coherent university site with consistent navigation and to comply with legal requirements. So another form of divergence was between the different strategies pursued by interviewees in relation to managing the balance of advantage of centralisation over decentralisation. MF stressed that the institution was "democratic", many of the departments being very large and seeing themselves almost as separate organisations. There were 400 web servers across the university and this gave rise to "tricky" institutional arrangements.

> *Erm, broadly speaking I fit into - rather informal places within the university as well. I don't have any formal connections with other things around the university like the admin. offices or the departments or anything. But I have a kind of floating role I suppose. I suppose it's a kind of ambassador for the computing service.* (MF)

Clearly this required the political acumen implied by the term ambassador. It was a personal relationship between her as an individual and others, built up over time.

> *I've gradually built over the years I've built up a relationship between me and the departments [...]* (MF)

In stark contrast, QM expressed a strong desire to control both the design and content of the web site, linked to the marketing message and technical and organisational arrangements that made close control possible. Each department had a web author writing content, but training was limited deliberately so that the more complex applications were done by his team. The guidelines were a satisfyingly "hefty tome" and enforced to the letter. This level of control was facilitated by a very clear differentiation of his market orientated site from the staff and student intranets and Virtual Learning Environments (VLEs) which were run completely separately by others. Ultimately he could pull the plug on things that he did not like, though he had never actually done so. It was also significant that he had a large team of specialists working for him and he frankly acknowledged that many people objected to the level of control.

Such a controlling strategy was not confined to the self-defined marketer, QM. A key aspect of LM's strategy was to reengineer who controlled departmental web sites: by taking the technicality out of web publishing the content management system would put control into the hands of managers rather than local enthusiasts, the "hobby farm". He was unapologetic that this might threaten the roles that such people had built up for themselves: it was justified in terms of a form of business rationality as the conflict is a "change management process", i.e. rationalised within a recognised professional discourse.

Like BM and EM he constructed a form of business process discourse, thus the words he used to talk about the CMS are: "Business process… controlled… workflow…authorise…maintain…business tool… regulate… formal". So as an alternative to the "disparate, informal and unregulated" web he was constructing a formalised process. The web is "just another business system" he commented. Further, his strategy was also linked together under the phrase Knowledge Management (KM). Objectified as KM his approach was more than just a contingent strategy, it is presented as grounded in rationality, underwritten by current management thinking. The essence of his account of KM was the promise to quantify the value of the university's knowledge. His use of the idea of KM was one of a number of ways he tried to build distance between a professional and hobbyist way of doing the web. This was backed up by "walking the walk", e.g. in the pains that had

been exerted to design accessible pages. He also argued that his own team has a solid commercial background. They are professionals, even if, as it emerged, this is not actually underwritten by actual professional membership.

4.6 Roles

So the fundamental philosophy of the web was quite divergent among interviewees, and among all the interviewees there were only two who had the same job title (see Table I above). Almost invariably interviewees also qualified or distanced themselves from their current title as not really capturing the nature of the role (e.g. SF) or reflected in the arbitrary way it had come about (e.g. MF). Lack of standardisation of titles is common in IT, but one would expect more convergence in a professionalised space.

More fundamentally an examination of interviewees' self descriptions and of their roles shows that there were markedly different conceptions held. The range is very wide - from EM and LM who saw themselves as managers with a strategic role and few technical tasks, to MF who saw herself as an ambassador influencing others and having various non-web functions, such as trainer and in IT documentation, through to CM's "anything vaguely related to the web". CM's sense of fragmentation in many small divergent responsibilities is beautifully encapsulated in his description of what problems people sent to the e-mail address, webmaster:

> "*You get anything that is vaguely even kind of in a round about way touches somehow on something that might be half web related.*" (CM)

He also described himself as a "jack of all trades", or even a "renaissance man" because of having skills both with IT and graphic design.

It is a classic move in professionalisation that the forming professional body calls for only trained people to do the job and for them to exclusively specialise in that job (MacDonald, 1995, p.193). Exclusivity is important to maintaining professional identity. EM was exclusively a web manager (or was happy to portray such a clear image). Others had roles beyond the web which would further complicate their professional identities. Thus RM worked on a range of IT projects and was in charge also of high performance computing. OF had roles as a trainer or mentor, and clearly

identified far more strongly with those than web management, about which her interview revealed a degree of role discomfort.

5. Case studies

This paper has tried to capture the diversity of roles found among people in web production. To fully understand how this is worked out at a micro level it is interesting to examine two of the more complex positions in detail. These case studies capture the individual agency and creativity that are lost in focussing on the whole group and reveal the sophisticated character of an individual's construction of occupational identity and the complexity and uncertainty that continues to characterise roles in this space, in contrast to the relatively clear position implied by the concept of 'institutional web manager' and arguably embodied in EM. The first case emphasises the multi-faceted character of one individual's concept of his role at one moment; the second focuses somewhat more on the evolution of a position as a historical process.

5.1 Case Study 1: BM on a complex occupational identity

Rejecting the 'techie' label, BM developed his own rather complex and unique account of his role.

> **Interviewer:** *Maybe a slightly strange question, but can you put a word or a name to your occupation?*
>
> **BM**: *It's either – I think it has to anchor itself to existing titles. There is a specialism in the context of the web and the three things that spring to mind are business analyst, certainly, which is something that comes up time and time again in different areas as a role, a key role. There is the editor, who is acting as an editorial junction point for content and there is also the information scientist, the information professional, information specialist whichever term you prefer. I would see those three terms as really clearly describing, I would hook my role on those, I would probably add a fourth, of project manager, but*
>
> **Interviewer:** *So you see your job as like multi-occupational?*

> **BM:** *Definitely. Definitely, I think that is the nature, partly of academic institutions, because we work in such a complicated environment, that one has to be to some extent a bit of a chameleon to survive, not to be a jack of all trades or all things to all men, but to be able to adapt to the changing circumstances without losing one's anchor and one's focus in terms of profession. I don't go into areas of the school pretending to be a librarian I don't go into areas of the school and pretend to be an information technologist. I'm not those things. I do go into parts of the institution and make clear statements in the context of being an information professional or being an editor or being a project manager and so on.*

So while later in the interview he talked about members of his team fitting into relatively clearly defined, known specialisms, his own role remained a problem to define. His account offers an assemblage of elements, the parts of which, on close inspection, seem problematic. He stressed the need for any definition to "anchor itself in existing titles", presumably because it needed to be understood by others (locally), to legitimate him in their eyes: hence he linked the point of the labels to going out around the university. Yet several of the labels he referenced were not transparent. Thus "editor" was glossed unexpectedly as "a junction point" - like a connector (cf. HF's notion of a translator, see the next section) rather than simply a proof reader, say. There was even more apparent ambiguity in his saying "information scientist, the information professional, information specialist whichever term you prefer" seemingly offering to be whatever the hearer chose. The ambiguity of the information professional element was further demonstrated in that although he saw himself as an information specialist of some sort and was a member of the professional body for librarians and information professionals (CILIP), he rather distanced himself from librarians in the stories told about web development. In a further complexity his role had expanded into non web areas.

Thus BM's attempt to define his own position in terms of known forms of expertise is problematic, both in terms of the lack of transparency of the elements and the number of points referenced. He attributes the complexity of the assemblage to the complexity of the organisation, which forced one to be adaptable, somewhat "chameleon like" - though distinctly he did not want to be seen as "a jack of all trades" (in contrast to CM

who acknowledges this description), which might imply "all things to all men", suggesting bad faith, duplicity.

In yet a further layer of complexity, BM's description of his role at this point focussed on an assemblage of technical specialisms, forms of expertise, but he also set this expertise against his managerial role. One of his first answers goes further in claiming to have moved from expertise to management.

> *So, the role has changed from one of being an evangelist in a sense and a do-it-your-selfer to a manager in the strictest sense, of somebody who is trying to acquire the resources and control the resources to provide the business benefits to the institution.*

In other places, though, his sense of the balance between expertise and management is more subtle. Like others he was concerned about potentially being disconnected from specific expertise (AM, CM, HF, QM, RM, UM). But for BM it was not a straightforward disconnection. He perceived there to be a pendulum which was swinging backward and forward.

> *Well I had this debate recently with myself and my problem was I was trying to decide whether I'm going to be an expert, in a professional sense, not the academic sense, professional expert in the context of information specialism, information scientist is the usual term, or whether I've become a manager, and I should just accept that, accept the role of manager, project manager, whatever editor in a sense is a manager role. And I suspect an editor would see the same distinction - am I managing people or am I actually employing my editing skills and experience? The answer is as always to be a combination of the two. My question is where's the pendulum swinging? Where is it going? And six months ago I'd made the decision very clearly that I had swung towards the manager, and to accept it. Having done that I now appreciate that the big problem is that one can't effectively in this context manage without a knowledge of the actual technology. One has to be able to ask the right questions, so one has to maintain, obviously a level of understanding as an expert in the web so I see myself swinging more towards management but working quite hard to ensure that the swing doesn't carry all the way through, and that I keep that expertise, that level of expertise.* (BM)

He thought it possible to sustain a position of being "an expert with managerial skills". This was in contrast to EM who presented himself as an out and out manager, celebrating his disconnection with the practitioner.

So BM's account of his job is a subtle, individual reworking of the classic technician's dilemma of promotion leading to pure management (Roberts and Biddle, 1994; Orr, 1996, p.67).

5.2 Case study 2: HF, the inbetweeny, translator, enabler

Perhaps the most sophisticated personal account of the web manager type role was that developed by HF. One term that she coined to describe the position was as "inbetweeny", referring to the important but potentially uncomfortable position between the marketing people with their backgrounds in journalism and the IT people. Her own IT skills are intermediate, and like other interviewees she was preoccupied, even concerned by the limits of her technical knowledge, as if she should be a techie. This may be linked to the manager's sense of wanting to keep rooted in the practical stuff, the code.

Another notion she uses is of translator and this perhaps suggests a more powerful position than inbetweeny. She describes explaining to both the marketing manager and the techie what the other means. Her role is key, by being the core of the communication network, though she is still an intermediary. She is stronger as translator than as inbetweeny, but both roles perhaps lack the strength of ambassador (MF), certainly carrying less prestige than the out and out manager (EM). EM sees himself as a "bridge", but somehow he is in control, responsible, HF is more obviously just balancing external forces. This may be a more realistic view of institutional life. One senses also an ideological pressure to define the role in service terms, as a support function - whereas male interviewees often talk of taking responsibility and stress their own free agency. It is difficult here to disentangle whether this is a presentational issue within the research interview itself, or is linked to actual gendered differences in self presentation.

Several times she talks about it being a "funny" type of job, a fuzzy role. Both her background (suitable for the web she says) and the job are described as a "mishmash",

a term reminiscent of CM's sense of fragmentation from the diversity of the job, but also with a sense of the appropriateness of diversity of background for the web.

In reflecting on her role she also says: "I used to be a driver, and now I think it's more of an enabler". She liked the Dilbert cartoon which was on the wall and she read out: "It says I'll design the system as soon as you give me the requirements. No, no you build me a system and I'll tell you it doesn't meet my requirements".

Thus defining needs was problematic:

> *So, the trick is that I think that because the web is erm so - becoming so ubiquitous for everything - people are expecting great things of it […] Actually teasing out what it is that the institution wants to do with the web and what its priorities are is quite difficult because you've got people piling at you from all different directions wanting to do different things.*

This quote captures very vividly the dilemma of the web manager - a strong sense of diverse activity around the institution, multiple possibilities with only a limited ability to pull things together.

Anyone who has worked in a university will surely recognise her account of the evolution of her role:

> *Well what happened was - in 1998 - I think - it was a fair while ago - I was appointed to a job called web officer at [University name]. And that was - kind of - a bit unclear what its role was really. It was a job description as long as your arm. It was based in […] the computing support department, it wasn't a [marketing] type job. But it was the only job that there was related to the job in the university. So I had this in-betweeny kind of role really, which is part techie and part content - when people didn't write content I wrote it - not with any great glee - because I often felt I was not the right person to be writing stuff - but we got on and did stuff. And er I was the only person. And I was managed by the chap who was what was called learning technology officer - who had been here a bit longer and had a few projects as well - so that was - […] a little section compared to the networking people or the user support people at the time. And erm - as time went on the web seemed to get a little bit more important and the guy from the networked section that used to look after*

the servers and with a strong interest in programming - he became more and more of a web person [...]. And eventually he got moved to the section that sort of split in two. So it became - I was in charge of the web - and I was in charge of [Personal name 1] the developer - and [Personal name 2] was - it was a bit more complicated than this - I'm trying to simplify - [Personal name 2], the learning technology guy the e-learning person - and the situation went on like that for a while. Then [marketing] got some writers to write to the web site - then we had a big web site redevelopment project - and - I was sort of managing that - there was sort of a bit of argy bargy between me and [manager in marketing] who thought [they] knew more about it than I did. That was a co-operative effort shall we say. And then I always had an interest in e-learning as well - for various reasons in the past job was an e-learning type job and (inaudible word). And erm to cut a long story short, when [Personal name 2] who was in charge of the e-learning bit left, my head of department said why don't we merge the sections back again and you can be head of it - so that's what we did. It was slightly a money saving exercise because we replaced somebody at quite a high grade with another web developer type person. But it worked out quite well, I think.

This story captures the potential liminality of the role, the uncertainty, the struggle. Thus there is a strong sense of complexity, fuzziness, emergence about the starting point of the story. Time is somewhat uncertain. Unlike EM she lacks the warrant of a document that defines, invents the role at a high level, just a long catchall job description - an experience echoed in other interviews. Yet she is there first - often again a key claim in interviewees' stories. The indefiniteness carries on into the subject, which shifts from "I" to the job ("its role") to "we", in rapid succession. If use of the word "we" is taken as a neat, if simplistic, indicator of organisational embededdness/ liminality, at this point of the story "we" barely forms, except in getting "on and doing stuff" and around the strained 'weness' of the web development project. "We" - the web team - scarcely exists. There is a sense of her isolation then, "I was the only person …little section" (like SF's description of her team as a "little thing").

Despite the complexity of the story as told she says she is simplifying. Specifically it seems to be the relations of power that are complex. Through the story, her role, her

place, emerges out of the competing pressures of politics - "argy bargy" - individuals' preferences (the IT specialist becomes more "webby", her own interest in e-learning, though this is somewhat blocked, unrealised), comings and going of staff, institutional reorganisations, cost cutting rationalisation.

The underlying theme of the story is *am I a manager?* - "I was managed" "I was in charge of the web - and I was in charge of [Personal name] the developer" , "sort of managing", "you can be head of it", "so its been a difficult time really to be head of anything". But she is also seen getting things done, despite the problems. Ultimately the story is governed by a complex of forces, rather than being under her control. It is unplanned. Yet also it is a story worth telling, worth calling "the history". When she returns, a little later in the interview, to the dilemma of being a manager or a doer, she is quite unclear where she stands, if clearer that she wants a senior role.

From this narrative, positioned right at the beginning of the interview, one gets a powerful sense of the complex flow of forces, the inchoate nature of the role, within which she has to manage as an inbetweeny, translator, enabler. This may well be how more of the interviewees' world are, though they mask this behind the story of professionalism. Certainly it may capture the common state that BM historicised to the early days of the web (up to the turn of the century), but seems actually to survive in many people's roles (e.g. SF or CM).

Compared to EM with his clear managerial position, even to BM with his subtle balancing of roles, HF is in a less empowered, more ambivalent position. Partly a manager, partly a project manager, but she has difficulties exercising control and a lack of resources, and with frustrated interests in e-learning and graphics. EM and BM see themselves reinventing everything, HF is trapped trying to get her vision resourced.

6. Conclusions

If EM seems to embody Gornall's hopes for the 'new professional', he himself saw his position as increasingly unique. The consequence of innovation was not merely to do things more efficiently, but transformational in terms of what could be done, and leading him to re-envision his own role too. He shared with BM and LM, who were also involved in portal projects, an increasingly business orientated way of speaking,

distancing him from many other web managers. He also saw the wider web community as increasingly parochial, as his own broader "engagements" around his own organisation expanded his vision. Thus those most central to the community were reinventing the whole role, creating a break with those less well resourced in smaller, less prestigious institutions who continue to struggle with more known issues. Whether this is divisive or not depends on whether the path pursued by the most successful represents the trajectory of the whole HE sector in the long run or whether it will be confined to the bigger, richer organisations. One cannot help but agree with UM that the sector has no position, this cuts across perceptions of the group as a community, though as Land (2004, p.194) argues heterogeneity can be a source of strength, it may even be a necessity

The diversity in individual experience found among web managers arises from the diversity of universities as institutions but also the changeability of the potential of the web itself, which opens up multiple development paths, towards informational publishing, marketing, e-learning, reengineering of business processes etc. 'Doing the web' is a multidisciplinary practice, practised in conditions of rapid external change, surging user demand and limited resources. Having limited resources, each institution (and individual) makes somewhat different choices leading to diverse practices. Some individuals have been very successful - as Gornall "hoped" - in gaining resources as the web has come to be "taken seriously"; others have been less fortunate in how organisational change and politics have treated them and how their individual skills have been valued. For them the vulnerability of liminality has been more apparent, though Zabusky's analysis does not seem quite right. It was less the result of a conflict of loyalty, more of a failure to be connected up to valued organisational purposes. The evidence is a little limited but suggestive that in these ambiguous contexts women are disadvantaged. A major factor seems to be women's relation to IT. Woodfield points to the way that even where women embrace an engineering identity, they are judged less favourably (2000, 2002). They may also be more attracted to marketing or library identities that are often seen as less powerful, in the case of marketing even a deprecated activity in HE. Again, professionalism as a way of demarcating a more serious web role may be a gendered discourse because of its stress on coolness and lack of emotion (Kerfoot, 2002).

The stories reported here tell us much about how organisational change in the university sector is worked out, and its implications for those people whose responsibility it is to implement it. One is struck by the richness of individuals' accounts of their own role. A key purpose of the paper has been to explore at the micro, workplace level the unique pattern arising from individual choice made against a background of broad discursive resources and professional/organisational blocks. This may be a significant feature of personal trajectories constructed by individuals outside recognised/institutionalised professional careers. Just as Watson (2002) shows how individuals finesse the negative connotations of professionalisation, while seeking to boost their status through a connection to its residual social prestige, so individuals also associate themselves selectively with different professional discourses while trying to offset their negative connotations. No doubt the same dilemmas will be repeated, for example, as institutions and their employees try to understand what is a "virtual research environment" (Fraser, 2005). Here, just as in web management and learning technology new professionals will struggle to work out what the new practice is about, some experiencing the vulnerability of the new practice, others riding the technological possibilities to organisational influence and embededdness.

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