

## Review Article

# Crowded Out: Records Management and the Web 2.0 Phenomenon

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### Introduction

The central premise of Steve Bailey's *Managing the crowd*<sup>1</sup> is that it will provide an exposition of the issues facing records managers and the records management profession in the face of office or Web 2.0 technological challenges. The main thrust of the book is that the uptake and proliferation of these new ways of communicating, working, and socialising will expose the inadequacies of the existing suite of tools at the records manager's disposal as only being fit to manage the paper paradigm. Bailey is quite clear from the outset that his book will not give us the answers for rectifying this deficiency, 'So here we have a book that provides few answers and seemingly little hope, and that [the hope] only applies to a small subset of the records management profession and the information [ie records] it seeks to control.'<sup>2</sup> Despite the honesty, this qualification of the book's aims will make many readers feel they are setting out on a journey in a less than optimistic frame of mind. It is always interesting to see some iconoclastic sabre-rattling, an attempt at pulling down the ivory towers and issuing a call to arms to the young guard; but does Bailey offer anything in the way of positive outcomes?

### What are the issues?

Bailey informs us that this is not a records management book but a primer for the upcoming challenges that the profession will soon confront. In this regard, the book is an attempt to challenge the *status quo* and examine

a new paradigm; its aim is to leave us more aware of the meaning and impact of the coming paradigm shift in which we will have to fundamentally rethink records management. Bailey sets himself a further objective in setting out to provide some specific examples of how records management 2.0 could actually be implemented for the benefit of the records management profession.<sup>3</sup> This objective at least seems more positive and potentially enlightening, and offers the prospect that it will provide something more than a demolition of the current records management conceptual and theoretical edifice. The hope is that there will be something positive proposed that can be implemented, or that can replace current practices, or at the very least lay some foundations upon which to build a new paradigm that will take us into the future.

### **‘The wisdom of the crowd’**

The fundamental shift for records management practice is the opportunity to harness the ‘wisdom of the crowd’. The assumption here is that people are happy to voluntarily append metadata (as they routinely do when blogging, social tagging, and so on) and contextually describe the information they create, use or re-use. Once this ‘wisdom’ is aggregated, it will allow us to judge whether information has value and/or how long it should be retained.

Essentially the ‘wisdom of the crowd’ proposes that records managers should analyse the aggregated opinion of content users to make records management decisions. First of all, what about information retention? Let’s see how many users think information is useful by taking note of their attribution of metadata stating it is useful. So what about disposal? If no one has used the information or added a tag you might be drawn to the conclusion that it must be ephemeral and no longer needed. Shall we bother with classification? Let’s see what tags the users attach and use a ‘folksonomy’<sup>4</sup> instead. I am being flippant on purpose because in my view, this is what is already happening and exactly the reason we are trying to impose some professional, considered control on information management. Am I alone in thinking this is a naïve and superficial basis for information management? Are we all busying ourselves adding metadata to our documents and work emails? I will return to this issue later, but for the moment we need to consider whether anything we already have is worth keeping.

## The inadequacies of the existing suite of tools?

Bailey invites us to view the records management profession finding itself in a 'post-apocalyptic' state of 'fatalistic resignation', with Bailey in effect writing an epitaph for this 'tale of woe'.<sup>5</sup> In other words, it is an account of the diminishing relevance and usefulness of the records management intellectual and theoretical 'episteme' of the past eighty years.<sup>6</sup> Bailey certainly states his position clearly, and is upfront about being an *agent provocateur* setting up his 'aunt sally' (a 'straw man' in Australasian parlance) to be knocked down by a baying mob of records managers' rebuttals. In so doing, Bailey is inviting a robust response and wants to see if his argument, and indeed any competing positions or rebuttals, will stand up to scrutiny. However, I also believe that Bailey's 'wisdom of the crowd' position is genuinely held, that he considers it to be a real contender to replace 'traditional' thought and techniques, and that he is convinced such a replacement is required. Is the situation really as serious as he makes out? Have we as records managers been burying our heads in the sand and refusing to address the real challenges of digital information?

I certainly feel this is not the case. Rather than throwing the baby out with the bathwater we should draw on the wisdom of those generations now being sidelined by practitioners of new disciplines (particularly computer scientists and information technology experts). Many of those in these emerging professions are new to the challenges of information management and often end up trying to re-invent the wheel because they have not understood what the previous generation has to offer. All too often records managers lose their heads and think that because something is digital they have to forget decades of well-considered thinking just to accommodate a new format (appraisal theory is a good example of this). Records managers need to recognise what is different and what is challenging, but also what is tried and tested.

It is certainly also a truism that records managers have traditionally been 'control freaks' who cannot let go their 'command and control ethos',<sup>7</sup> and perhaps this is one of the core principles that really must be challenged. I would argue that this is a challenge for the records management community. We need to find ways of automating (or substantially automating) our once human agency in disposition and appraisal, but not as Bailey argues by handing control over to the mob. There is no doubt that we can learn from the needs and experiences of

users. However, in my view, history tells us that the 'wisdom of the crowd' does not provide a good basis for information retention. It could be argued that in a world where the user is the one making the decisions on whether material finds its way into corporate control, their wisdom is a little short-sighted.

I do feel, however, that Bailey is correct in challenging the obfuscatory language and tools that we records managers use, and that all too frequently we do not make them user-friendly for our clients to employ. Indeed, we can often find each other's functional classification systems baffling! One thing we can learn from Bailey's book is in the style that he employs. The text flows and reads well, it is digestible in small chunks, and, unsurprisingly, has a casual and friendly tone reminiscent of a first person web-log entry (hereafter the more usual abbreviation 'blog' will be used). Can you remember the last time a non-records person said that about a records management manual?

### **A small subset of the records management profession?**

Bailey states that information management is only a 'small subset of the records management profession' and that as such it is unimportant to records managers. This position is a deliberate poke into the ribs of 'traditional' records management theory which goes to great pains to define the differences between that which is a record and that which is information. The traditional approaches tend to state that information is not principally a records management issue, and is instead a library issue or a matter for those who manage published material. The subtext here is that records managers do not manage information, and as the definition between information and records becomes increasingly blurred and indistinct in the digital environment, this environment is effectively outside the remit of records management.

We as records managers need to redefine what we see as having 'recordness' and whether the information versus record distinction has any relevance in the digital age. We also need to revisit the personal versus the private in the light of new transmission technologies. The semantic uses of 'information' and 'record' in different disciplines (for example, knowledge management, enterprise content management, information technology, and so on) is also a barrier to defining what is information or a record, and whether it has evidential value and must be

managed as a corporate asset. I will expand upon these issues below and discuss whether Bailey has played a semantic game with us and/or he has initiated a new paradigm to supersede the records management episteme.

### **Records versus information**

The central theme of *Managing the crowd* usefully reopens the old wound of records versus information. Is there a meaningful distinction to be made between these two concepts? Is it a useful or even useable separation of terms in the contemporary digital environment? The central contention is not made in the 'all records are information but not all information constitutes a record' approach (although Bailey cannot resist going down this side road).<sup>8</sup> Instead he poses the question 'is this distinction meaningful in the world of office or Web 2.0?'

Bailey's concept is founded on the phenomenon of the blurring of boundaries and distinctions, whereby new communications media and technology, and contemporary work practices distort the traditional distinction between work and private personas, particularly when individuals enter the online environment. That the divide between 'this is my opinion in my own private time outside of my professional life' and 'this is my professional opinion which reflects on my employer and must be couched within these corporate sensibilities' is no longer strictly discernable in the online 24/7 environment. Consequently, in what way can information about you and/or created by you in work time as a private individual, or material created outside of work time, be considered legitimate business evidence. How are we going to define 'legitimate business evidence' in this kind of world?

### **Public versus private personas**

The collapsing distinction between the public versus private actor that Bailey presents to us poses another question: how do we now identify, or make the distinction between, what is a business record and what is personal information? This distinction is increasingly being blurred and challenged in the world of Web 2.0 where employees have simultaneous and multiple identities, or just one many-faceted business and private identity. This conundrum is certainly a thorny issue for records management thinking.

What is not an issue here is whether evolving transmission technologies convey content that has more or less evidential power. The evidential admissibility of content – can the content be trusted to be what it purports to be, does it possess integrity, is it authentic evidence – is not a problem arising from information format. Instead, at issue is whether the content was created by a corporate employee or a private individual. This is an area where, I believe, conventions will evolve but until they do, we need to make some policy decisions and explicitly set out what our organisations regard as acceptable behaviours in Web 2.0 environments.

### **Not all information has equal value**

It is certainly true that most information and records legislation makes no distinction between the concepts of private versus public personas, only whether material is discoverable. This ensures that all information, as well as information disseminating behaviour and the use of corporate identities, does have to be managed. However, from a business perspective we still want to know what has business value, which is principally identified through its risk profile and evidential value, usually in relation to a transaction. Therefore the concept of a record is still a relevant one from a records management perspective. We should not be managing records or information principally for 'compliance' reasons. Even though compliance may be a factor in driving your business needs, it should never be an end in its own right; the aim surely is always to maintain good business assets and well-managed information. Perhaps this argument would be better served by stressing the need to manage all information from a compliance perspective and identify the records information with higher risk or business value in the same way we traditionally made a distinction between records and vital records.

Bailey's conclusion that 'all information sources are potential records'<sup>9</sup> is the right conclusion, but perhaps not for the reasons outlined in his confused definition of what is a record and what is information: '[t]he evidence of falsified research data discussed via an instant message exchange will be seized upon by investigators and lawyers with just as much zeal as if it had been exchanged by e-mail or memo.'<sup>10</sup> In my view, this seems very much like that old chestnut of confusing the content and the delivery system once again. There are in fact two further similar examples on the same page as the above sentence. If information that provides evidence of something is not a record then what is? Perhaps

Bailey is exhorting us to go down the American route of 'declaring' all of our records (as in Brooks's life cycle model rather than the Australasian Continuum model)?<sup>11</sup>

### **Theory versus practice**

There will be little argument that the theoretical underpinning of records management was created in the pre-digital age – how could it have been otherwise! As a consequence this leaves a gulf between theory and current practice, but the invitation to scrap all previous thought and start again is not one many will embrace. There is certainly a necessity to move with the times, and it is self-evident that records management practice has been reactive to information technology developments rather than leading them. Bailey's reference to the examples of electronic records management systems (EDRMS) and email management clearly illustrate that records managers have not embraced new opportunities and have fallen back on pre-digital theory.<sup>12</sup> Bailey's view that EDM is not 'fit for purpose' and therefore is symptomatic of the fact that IT practitioners are doing the 'real' information management while records managers bury their heads in the sand, is also persuasive.

Overall, we cannot limit what we see as our patch – as records management – to just what we have traditionally and rigidly defined as having 'recordness' if we want to be successful and relevant in the contemporary information environment. Records managers will have to get into unfamiliar areas and perhaps start to think of 'potential records' and accept that discoverability that is published or disseminated outside of corporate control also needs to be managed at some level. The role of records management in organisations and our theoretical outlook has always been fluid, changing and (usually) reactive. It is time for the profession to continue to evolve but also grasp the opportunity to lead, and not be led.

### **Does Bailey challenge the *status quo* and examine a new paradigm?**

Bailey identifies office or Web 2.0 as only the third true information technology paradigm shift in the last 30 years, following on from the introduction of the PC and the World Wide Web, a world where change is the only constant. There is little need to argue with this assertion,

however the 'fundamental re-thinking' and 'new paradigm shift' that Bailey outlines seems eerily redolent of positions, or philosophical outlooks discussed some time ago by those giants of the paper paradigm. Jenkinson's administrator as 'modern destroyer'<sup>13</sup> and Schellenberg's creator as sole arbiter on evidential value, on which records contain organisational and functional origins',<sup>14</sup> rise again but now existing in a world of unlimited broadband, iPods and palmtops. Bailey appears to be (perhaps unwittingly) arguing for a continuation of the *status quo*, where the records creators or recipients decide which, or whether, any information survives and take all the ultimate appraisal decisions. Or is he an unwilling advocate of the 'keep everything' approach, rather than the author of a 'radical new theoretical model'?<sup>15</sup> I would argue that many of Bailey's arguments, or at least their fundamental underlying concepts, are not new but are argued in a new light and re-used for a new generation. There are genuinely new challenges in the Web 2.0 information age but these are not the ones I would necessarily identify.

### **Does Bailey set out an alternative?**

The (dystopian?) future presented in Bailey's book, a records manager-less world where the wisdom of the crowd (or the rule of mob) is actualised and in which technologists take over all aspects of information management, is certainly a possibility. Bailey's proposed future working environment is potentially a 'keep everything' world where all information will be held online, to be 'Googled' as necessary for access, whilst sitting on externally maintained sites hosted in the cloud. It would be hoped this is a scenario that is unlikely as long as there is a need for secure in-house corporate control of business information. However, I feel there is a legitimate risk of this happening if the records management profession is passive and at least partly complicit in its own downfall through inertia, unwillingness to embrace change and sometimes (lets face it) out of sheer bloody-mindedness.

The basic tenet of Bailey's argument is that records management and archival theory has an inflexibility of thought, and is so tightly adhered to, that it has become increasingly irrelevant in the digital information environment. The records management community, Bailey seems to be arguing, should leave the management of digital information to information technology specialists. In any case, this will be the case by default because of the inherent inadequacy of records managers.



Alternately, Bailey seems to be suggesting that the responsibility for information management will largely devolve to the 'wisdom of the crowd', that is, the creators and users of information who are best positioned to decide what should be managed and how it should be managed. Decisions about what has ongoing value and how to manage that which survives will be determined largely through their collective knowledge and filtering.

Bailey identifies seven distinct types of Web 2.0 functionality. They are:

1. Blogs
2. Wikis
3. Social bookmarking
4. Media sharing-sharing services
5. Social networking systems
6. Collaborative editing tools
7. Syndication and notification technologies<sup>16</sup>

These various strands of Web 2.0 are given more or less equal weight, although 6 and 7 are treated a little differently as 'records management tools' rather than record creating agents. This over-emphasis on blogs and social bookmarking (specifically social tagging)<sup>17</sup> is a serious weakness in the argument that the 'wisdom of the crowd' will solve many of our records management problems. In my view, Bailey's assumption that blogs, wikis and social bookmarking have a demonstrable utility and applicability in records management is a fundamental weakness of many of the central arguments of this thesis. The claims made about blogs in particular – principally that blogs are both one of the biggest conundrums that records managers face in Web 2.0 but also, potentially, the saviour of records management – is just not convincing. Will we even be blogging in ten years? Perhaps 'vlogging' will save records management practice!

### **New opportunities**

What is genuinely interesting is the improved searchability made possible by adding tags, harnessing descriptors, and engaging the creator's own use of language as an additional layer of finding aids and metadata.

Traditional description and classification terms (preferred and non-preferred, and so on) have alienated users, and often baffle even engaged users and practitioners alike. The concept of using the kind of functionality evident in Amazon<sup>18</sup> endorsements – ‘users who viewed this also viewed ...’ – and allowing additional levels of user-described context and object level relationships, is very much worth investigating further. Its employment would help to make some of the records management functionality less visible (and intrusive) to the user.

While this possibility is interesting, Bailey then goes on to challenge our reality (and our preconceptions) through an illustration of a fictitious company that outsources all its information functions to external providers (this is outlined in chapter 4). The example is used by Bailey to illustrate his promised new paradigm. It could be argued, however, that his example actually does more to illustrate the *limitations* of the ‘new paradigm’ (if indeed it is one) than to challenge current thinking. Will our organisation be running their business in second life<sup>19</sup> and publishing their corporate information on Google Docs<sup>20</sup> and public wikis and blogs? Recently there have been leaks of large quantities of sensitive information in various places around the globe, many of which have been in the UK public sector, Bailey’s own working environment.<sup>21</sup> These incidents would lead us to suspect organisations are doing more to protect their business information than actively putting more of their corporate information out (at least potentially) into the public sphere.

It is difficult to argue with the assertion that Web 2.0 functionality and technologies ‘blur the boundaries’ of the records management episteme and break down traditional 9-to-5 office-bound, 5-to-9 personal-time communication and working identities. Nevertheless, it is not unreasonable to expect workers to make some kind of distinction between their online communications and activities between their ‘work hat’ and ‘personal hat’ personas. Indeed, most businesses would expect it and various public service ‘codes of conduct’ demand it.<sup>22</sup>

### **Social tagging as classification**

Bailey argues that rather than finding a way to automate the attribution of metadata (by role attributed metadata or using macro appraisal for example) we should instead encourage users to manually attach social tags to determine disposition and as indicators of business value. The

proposal that information users have a 'seemingly insatiable desire to voluntarily categorize and tag the information of interest to them, and make their decision known to the world', is not one that fills me with confidence. An uncontrollable desire by users to manually attribute metadata into corporate information systems is not an issue many records managers will have had to deal with recently.

Bailey's assertion is that as we all become digital natives, eschewing privacy for visibility, we are or will become '[c]ontent creators and users in the Web 2.0 world [who] seem to actively *want* to add metadata.'<sup>23</sup> The auto-categorising behaviour displayed when writing blogs, applying social tags to YouTube<sup>24</sup> videos and Flickr<sup>25</sup> snaps, and when reviewing Amazon purchases (all of which are non-work behaviour) is therefore natural and will be applied to our business information in the work environment without further mediation. The only thing that records managers will have to do is harness these forces.

In the chapter entitled 'The death of the classification scheme?', Bailey tells us that the classification scheme is too rigid, un-scalable and so embedded in the paper paradigm that it cannot be usefully carried forward. The basic reasoning is sound but Bailey applies a very narrow definition of what could constitute a classification scheme. It seems on the surface that a classification scheme, or more specifically a functional classification scheme, is erroneously conflated with business classification itself. Bailey's counter-construct, that information can be classified through an uncontrolled folksonomy created by user social tagging, or alternately through book-marking, may have some merit for retrieval and access purposes. However, what kind of role can it play in ensuring structured disposition and long-term contextual retention?

It is obvious that we records management professionals need to use multi-entity relationships and multi-level metadata relationships to better classify the digital environment. However, this can be achieved through a multiplicity of aggregated contextual relationships, with business classification perhaps still a valid and useful tool existing in a complementary relationship with user-defined tags. To be balanced, Bailey does not completely dismiss classification schemes but is sceptical of their ongoing utility. The proponents of enterprise content management may wish to throw out the business classification scheme, but there is still some utility left in the latter for the records management community to hold onto it for the present.

### **'The user's insatiable desire to manually attribute metadata'**

I fear that Bailey is confusing what I will describe as the '99:1 Ego Theory' with 'an identifiable insatiable desire to manually attribute metadata'. Evidence suggests that far from the Pareto principle (also known as the 80-20 rule, the law of the vital few and the principle of factor sparsity) states that for many events, 80% of the effects come from 20% of the causes.<sup>26</sup> This figure is not true for online participation in the Web 2.0 environment – the figures are actually nearer 99:1. As McConnel and Huba have pointed out,

Wikipedia was the 18th most popular destination website on the web in March 2006, with some 25 million visitors that month alone. But the number of people who actually contribute content to Wikipedia is about 1-2 per cent of total site visitors.<sup>27</sup>

Furthermore, a study conducted by Jakob Nielsen concluded that:

- 90% of users are lurkers (that is, they read or observe, but do not contribute);
- 9% of users contribute from time-to-time, but other priorities dominate their time; and
- 1% of users participate a great deal and account for most contributions, leading one to speculate that they do not have lives as they often post only minutes after whatever event they are commenting on has actually occurred.<sup>28</sup>

Even if the figures are 90:10 (a figure often associated with anecdotal stories of the percentage of corporate records in a traditional EDRMS) then we are not going to see an upsurge of information being described, captured and harnessed by organisations. Bailey is confusing the desire of a small proportion of users who feel that their opinion, or self-generated material, is so important that it needs to be visible to all and will do everything they can to make it visible and accessible with a general trend to append metadata (writing blogs, social tagging, editing wikis, and so forth). I am not suggesting that all users who post blogs, You Tube or Flickr images, or who contribute to wikis are all egomaniacs. I simply want to point out that the engaged minority will not provide a platform for a broader movement, and if mistaken for the whole will also lead to a distortion of the true picture.

In stating that this Web 2.0 egotistical drive is shared only by a minority, I would still contend that the driving factor is the (often) self-generated material that gives the desire to append metadata. It is not an underlying drive to categorise information itself that is being manifested. Nor is there any guarantee that this metadata auto-attribution behaviour would necessarily be transferred to the daily work environment. This over-emphasis on blogs and social bookmarking behaviour (specifically social tagging)<sup>29</sup> is a serious weakness in Bailey's argument that the 'wisdom of the crowd' will solve all our records management woes.

### **The growth of new formats**

The chapter entitled 'Regardless of format' is well argued and here Bailey does lay bare an unsustainable paradox: different formats do need differing approaches, certainly where effective capture and long-term retention are an issue. Regardless of business rules, currently a significant proportion of emails and other digital information is kept in fragmented storage spaces (whether caused by the barriers of silos or through the maintenance of personal locations). This does seem to be a rising rather than a declining trend, and it hardly seems likely that You Tube and Flickr functionality will address this issue. Bailey shies away from touching upon the human element throughout the book (except where the humans are members of a crowd enthusiastically busying themselves with content and metadata attribution). It is likely that human behaviour will still outweigh technological 'solutions' as long as choice is an element.

### **Conclusions**

In chapters 11 and 12 of *Managing the crowd*, the book's final two chapters, Bailey elaborates ten defining principles of records management 2.0 as an alternative to the *status quo*. These principles are meant to propose a foundation for a brave new world of records management, if indeed such a world exists. I will leave the reader to draw his or her own conclusions as to whether Bailey achieves this.

From my perspective, we are still left with a nagging feeling that Bailey is proposing we continue to broach the issues through influencing the positive behaviour of users rather than by attempting a systematic response to cope with the sheer volume and complexity of information

before it overwhelms us. I cannot help thinking that the latter will become a necessity that will eventually be forced upon us if we want to survive the spiralling volume and complexity of information. Praising positive behaviour and dangling (however attractive) carrots in front of users will not be enough to meet the challenges of Web 2.0. Records managers will also have to be interventionist, proactive and make an attempt to lead rather than just react.

There is undoubtedly a small proportion of information users who feel that their opinion (or self-generated material) needs to be visible, to the point where they actively post material and take steps to ensure its visibility and accessibility. However, it is unlikely that they represent a general trend whereby a majority of users will develop the same insatiable desire to manually attribute metadata into corporate information systems. It is certainly not a sustainable alternative to the aggregation of records management theory, however outmoded it may be.

My own view is that if we want to successfully embed records management functionality then the way forward is to make it invisible and as intelligent as possible using roles and rules to automate as much of this work. I do not entirely reject Bailey's concept of employing the information user to shoulder some of the information management burden. I think we do need to encourage input, especially where it is offered without the need to apply arm-twisting. I doubt the validity of this idealistic view of information users as being engaged, reliable and representative is able to sustain generalisation. This is *not* a basis for a new paradigm. Everyone (even a records manager) thinks 'their' stuff is the important material worthy of retention after all, don't they?

Bailey certainly gives us plenty of food for thought, but there are sadly no answers, and at least there were no promises at the outset that they would be forthcoming. We return to the original objectives Bailey proposes, does he:

- Challenge the *status quo* and examine a new paradigm? (answer: yes the *status quo* is challenged but time will tell if this is a new paradigm);
- Make us more aware of the meaning and impact of a paradigm shift in which we have to fundamentally rethink records

management? (answer: partially, but not critically or analytically);

- Provide us with some specific examples of how records management 2.0 could actually be implemented? (answer partially, but are they workable as proposed?).

In summation, if you are looking for a good exposition of the issues and problems that we as records managers face in emerging office or Web 2.0 environment, then this is a good place to start. The book fills a void in the literature and is certainly a useful addition to the records management canon. If you are looking for answers or critical analysis of the challenges, then you will be disappointed. Bailey may not provide us with any concrete or evaluative conclusions, but he certainly raises the right issues, asks some uncomfortable questions and prods a few sacred cows. Hopefully his 'aunt Sally' will tempt a few interested parties to throw some critical analysis and research at this target!

### Endnotes

<sup>1</sup> S Bailey, *Managing the crowd: rethinking records management for the web 2.0 world*, London, Facet Publishing, 2008 (xix +172 pp. ISBN 978 1 85604 641 1).

<sup>2</sup> *ibid.*, p. XII.

<sup>3</sup> *ibid.*, p. XV.

<sup>4</sup> Folksonomy (also known as collaborative tagging, social classification, social indexing, and social tagging) is the practice and method of collaboratively creating and managing tags to annotate and categorise content. Folksonomy describes the bottom-up classification systems that emerge from social tagging, see Gene Smith, *Tagging: People-Powered Metadata for the Social Web*, Berkeley, CA, New Riders, 2008.

<sup>5</sup> *ibid.*, pp. XII-XV.

<sup>6</sup> 'Episteme' is employed here in the sense given to it by Michel Foucault, in which it signifies a time-bound configuration of what will count as knowledge based on a set of fundamental assumptions that are so basic as to remain invisible to those operating within it.

<sup>7</sup> *ibid.*, p. 68.

<sup>8</sup> *ibid.*, p. 62.

<sup>9</sup> *ibid.*, p. 65.

<sup>10</sup> *ibid.*, p. 64.

- <sup>11</sup> H Philip Brooks, 'The Selection of Records for Preservation', *American Archivist*, vol. 3, October 1940, pp. 221–234.
- <sup>12</sup> *ibid.*, p. 55.
- <sup>13</sup> H Jenkinson, *Manual of Archive Administration*, 2nd ed., London, Lund Humphries, 1965.
- <sup>14</sup> TR Schellenberg, *Modern Archives: Principles and Techniques*, Chicago, University of Chicago Press, 1956, p. 108.
- <sup>15</sup> Bailey, p. XV.
- <sup>16</sup> *ibid.*, p. 26.
- <sup>17</sup> *ibid.*, p. 35.
- <sup>18</sup> See Amazon online retailer at <http://www.amazon.com> accessed 2 December 2008.
- <sup>19</sup> Second Life is a free access three dimensional virtual world where users can socialise, connect and create using voice and text chat, at <http://www.secondlife.com> accessed 2 December 2008.
- <sup>20</sup> Google Docs is a free web-based word processor and spreadsheet, which allows you to create, share and collaborate on documents online, at <http://www.docs.google.com> accessed 2 December 2008:
- <sup>21</sup> See for example 'Firm "broke rules" over data loss', BBC news, at [http://news.bbc.co.uk/2/hi/uk\\_news/politics/7575989.stm](http://news.bbc.co.uk/2/hi/uk_news/politics/7575989.stm) accessed 2 December 2008.
- <sup>22</sup> The New Zealand Controller and Auditor-General identifies examples in both private and public organisations across jurisdictions, 'Part 6: Codes of Conduct Used Elsewhere', at <http://www.oag.govt.nz/2006/conduct/part6.htm> accessed 1 October 2008.
- <sup>23</sup> Bailey, p. 35, author's emphasis.
- <sup>24</sup> You Tube is a media sharing site, at <http://www.youtube.com> accessed 2 December 2008.
- <sup>25</sup> Flickr is an online photo management and sharing application, at <http://www.flickr.com/> accessed 2 December 2008.
- <sup>26</sup> See the Wikipedia entry on the Pareto principle, at [http://en.wikipedia.org/wiki/Pareto\\_principle](http://en.wikipedia.org/wiki/Pareto_principle) accessed 2 December 2008.
- <sup>27</sup> See B McConnel and J Huba 'The 1 % Rule: Charting citizen participation' on their Church of Customer Blog at [http://www.churchofthecustomer.com/blog/2006/05/charting\\_wiki\\_p.html](http://www.churchofthecustomer.com/blog/2006/05/charting_wiki_p.html) accessed 1 October 2008.
- <sup>28</sup> J Nielsen, 'Participation Inequality: Encouraging More Users to Contribute', on Alertbox, 9 October 2006, at [http://www.useit.com/alertbox/participation\\_inequality.html](http://www.useit.com/alertbox/participation_inequality.html) accessed 1 October 2008.
- <sup>29</sup> Bailey, p. 35.