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## **Introduction**

Web 2.0 has come to dominate almost every aspect of debate and discussion of the contemporary practices, technologies, and meanings of the Internet. The term is seductively simple, invoking the now-familiar rhetoric of computer software versions. Without exactly saying how, it convinces us that – like upgraded software – the Internet is more usable, more productive and just better than before the time of Web 2.0. But, looking more critically at the term, four broad standpoints seem to emerge from which variously competing, complementary or even contradictory definitions emerge, even though all appear to refer to obvious examples found online which support their version of what is Web 2.0 (see also Allen, 2008).

First, Web 2.0 can be seen primarily as technologies, such as AJAX, for website design and operation to create more interactive, immediate web-screen experiences; while open APIs and other mechanisms behind the screens produce both obvious and subtle mashups and exchanges of data. Thus, if Web 2.0 is about the form and substance of the technologically mediated web experience, then there are more and more websites that appear to be Web 2.0 (for example, Sabbouh et al. 2007; or Tai et al. 2006). Second, Web 2.0 can be seen as having little to do with technologies and is, instead, about new approaches to creating and profiting from information (for example, Tredinnick 2006, p. 239; also O'Reilly in Tweney 2007). Thus, MySpace, Facebook and other archetypal Web 2.0 sites/services become archetypically Web 2.0 because the data created by the behaviour of users is the basis for new forms of profitability (what is labelled, perhaps misleadingly, 'collective intelligence' – Gartner 2006, amongst others, drawing on Levy, 1997). A third perspective understands Web 2.0 as empowering users distribute and interact with content, freed from

dependence on largely one-way flows of media content designed for more or less mass, passive consumption (see for example, Zhang 2006, pp. 23-24; Hoegg et al. 2006, pp. 1-2). Thus, blogging, and sites such as Wikipedia, Flickr, and YouTube provide the evidence to be deployed to demonstrate what and how Web 2.0 describes in the real world. Finally, some commentators prefer to focus on the meme-like qualities of ‘Web 2.0’ and understand it as an state of mind, an abstraction which nevertheless can be understood and seen in the conduct of users and providers of web services (Millard and Ross 2006, p. 27; Miller 2005, p. 1). For them deeper concepts can be seen within almost any kind of web-based behaviour which gives substance to Web 2.0.

The name Web 2.0 has been used sometimes derisively, perhaps a critique of the current state of the web (i.e., Hinchcliffe 2006a); or reflexively and with consciousness of the origins and subtleties of the term; or with a knowing presumption that the term will help promote some service or activity. It is now used as often unconsciously, expressing the assumption that, self-evidently, Web 2.0 is what we have. Whatever the perspective, or even taking them together as an interwoven whole, Web 2.0 can be ‘seen’ almost everywhere on the screens which are our interface with the Internet. As Pew Internet Life researchers Madden and Fox (2006) implied, the diversity of ‘analysts, marketers and other stakeholders in the tech field’ who ‘huddle the new generation of Internet applications and businesses’ under this ‘conceptual umbrella’ probably mean that the particular emphasis taken by any individual is more revealing of that individual’s ‘stake’, both financial and reputational, in a particular trend in web development than of any purely objective conclusions to be drawn.

In this situation, even while we now cannot help but use the language of Web 2.0, we need to understand more about its origins, not as technological practice, but as a concept or idea. Thus, this paper will present a history of the way we have come to understand and use the term Web 2.0.

It focuses primarily on the role of Tim O'Reilly (both as an individual and as a corporate entity, head of O'Reilly Group) in both promoting Web 2.0 and welcoming the many ways in which that term has come to be used, but at the same time, attempting to constrain its use in particular ways. The majority of this paper presents a meaningful history of how we got from a time *without* Web 2.0 to now, the era of Web 2.0. I hint at the way Web 2.0 discourse constitutes itself in large part *through* historical story-telling, utilising its own historicity to generate authority. However, as I conclude, the main proposition which I make is that Web 2.0, as a term within discourse quite apart any technologies which might bear that label, creates legitimacy for entrepreneurial, advanced capitalism and yet also values new forms of liberty through and within informatic exchange and the contradictions that might entail.

## **The origins of Web 2.0**

There is, now, a dominant history of the term Web 2.0 which needs to be understood because of the way it influences the assumptions we make about this new phase in Internet development. While its explanatory force is as much a product of repetition and uncritical reception, and rather less an objective statement of ‘what happened’, it serves as an important myth of origin for our now-common use of Web 2.0 both as technology and as idea. Web 2.0 originated with the O'Reilly Media Group (and its partner Media Live) in late 2003 in planning for a conference, in 2004, for discussion and promotion of the Internet as a business, technical and social phenomenon. O'Reilly himself describes the origination of the term:

Dale Dougherty, web pioneer and O'Reilly VP, noted that far from having ‘crashed’, the web was more important than ever, with exciting new applications and sites popping up with surprising regularity. What’s more, the companies that had survived the collapse

seemed to have some things in common. Could it be that the dot-com collapse marked some kind of turning point for the web, such that a call to action such as ‘Web 2.0’ might make sense? (O'Reilly 2005a)

This particular description of the origin has now replicated across the Internet: there are several hundred sites now using that paragraph or large sections of it word-for-word.<sup>1</sup> As numerous commentators – academic writers, bloggers, journalists, and the like – search for information on the origins of Web 2.0, sooner or later, via one source or another, they are led back to the O'Reilly article just cited. For example, the first port of call for many Internet users would be Wikipedia, which states ‘[t]he term became popular following the first O'Reilly Media Web 2.0 conference in 2004’ and provides a link to the 2005 O'Reilly article. Many academic papers, as they attempt to ground their contribution to Internet debate in some aspect of Web 2.0, start with O'Reilly’s 2004 conference and the related paper (which appeared just prior to the second Web 2.0 Conference in 2005) (e.g., Gibson 2007, p. 1). Commercial commentators also deploy O'Reilly’s conference as the foundation for their own analysis, utilising 2004 as a kind of key date, whatever other timings they might then consider.

The link between Web 2.0 and O'Reilly is more than just the origination of the term late in 2003, and its use in 2004. Paul Graham reported a confusion that led him to consider what the term might mean:

I first heard the phrase ‘Web 2.0’ in the name of the Web 2.0 conference in 2004. At the time it was supposed to mean using ‘the web as a platform,’ which I took to refer to web-based applications. So I was surprised at a conference this summer [2005] when

Tim O'Reilly led a session intended to figure out a definition of 'Web 2.0.' Didn't it already mean using the web as a platform? And if it didn't already mean something, why did we need the phrase at all? (Graham 2005)

A year later, Graham commented:

'Web 2.0' is a weird phrase. It began as the name of a conference, but the people organizing the conference didn't really know what they meant by it. Mostly they thought it sounded catchy. However, 'Web 2.0' has since taken on a meaning. There are some interesting new trends on the Web, and it's the nature of a phrase like that to adhere to them. (Graham 2006)

Graham's comment indicates the degree to which Web 2.0 began as a label with no real meaning. Indeed Web 2.0's indeterminacy was deliberate, for its function was not to define but to promote a conference; the openness of the term, the curiosity about its meaning, would presumably inspire attendance, sponsorship and thus wealth generation for the O'Reilly Group. The term was not immediately useful for any other purpose. For it to become more than just a badge for a conference, therefore it needed further work – provided in the first instance by O'Reilly (both the individual and the corporation) in shaping and developing its meaning, through the initial conference but also in the subsequent key publication *What is Web 2.0?* (2005). Indeed, this article serves for some as the 'seminal' work (e.g. Miller 2005) which implies unconscious recognition of O'Reilly as the 'father' of Web 2.0.

*What is Web 2.0?* stands out for several reasons.<sup>2</sup> It is, undoubtedly, an insightful and catchy analysis of the intersection of several social, technological and economic trends. The interweaving of these trends and, more to the point, understanding that they *are* interwoven, is the secret to grasping what might be possible in future for the World Wide Web. The article also reveals the goal O'Reilly was pursuing: to enable Web 2.0 to be free of narrow definition and thus increase its acceptance as a catch-all term:

In the year and a half since [2004], the term ‘Web 2.0’ [note the quotes] has clearly taken hold, with more than 9.5 million citations in Google. But there’s still a huge amount of disagreement about just what Web 2.0 means, with some people decrying it as a meaningless marketing buzzword, and others accepting it as the new conventional wisdom (O'Reilly 2005a).

O'Reilly accepted the indeterminacy of Web 2.0 and enjoyed the rapid, often contradictory and overlapping, distribution of the name and various ideas about it (see below); yet, on other occasions, he has been quick to re-assert the quite specific meaning he, and colleagues within O'Reilly Media, attach to the term. Of course, as they do so, the term once again becomes loose and slippery, and the language of *What is Web 2.0?* involves the usual excessive use of adjectives, ‘lessons learned’ and other hall marks of Internet marketing prose. Even though it is a clear and logical argument, the paper lends itself to re-expression in ways not necessarily coherent with this original source.

What is the key discursive wellspring of authority from which O'Reilly draws to generate legitimacy for his arguments? The evidence he presents – mostly readings of the ups and downs of various web companies – is open to considerable alternate interpretation. But there is an underpinning analytical framework that creates coherence, driving out alternative interpretations.

O'Reilly's argument that Web 2.0 is new and distinctive enough to be a new version of the web effectively depends fundamentally on his analysis of the dotcom crash. The crash is very significant in two ways. It created conditions of low investment, limited employment and general disaffection with the network computer technology industry that, as well as threatening O'Reilly's own profitability, also created both the need for something like 'Web 2.0' and the opportunity to profit from promotion of this kind of label. As O'Reilly has commented, at a time when 'a lot of programmers were out of work, and there was a general lack of interest in web applications ... we saw a resurgence coming...' (2007).

However the crash is also significant in giving substance to O'Reilly's views on what Web 2.0 actually means. O'Reilly (2005) argues that, while many companies failed during the crash, others survived and prospered. Logically, if they survived then they must have been operating with the correct principles and approaches to business. Essentially, O'Reilly utilises a kind of social Darwinian approach here, deploying the deeply felt cultural given of 'survival of the fittest', to sustain his arguments about the character of Web 2.0. Moreover, the visible success of the survivor companies, when compared to many failures, lends force to O'Reilly's assertions that they must have been doing something unusually correct and from them one can learn the secrets of success. At the same time, he cleverly validates the decisions of the investors and analysts who deserted technology stocks, causing the crash, by welcoming the 'weeding out' effect from which has emerged 'Web 2.0'.

This kind of argument creates the ground for the *applicability* of Web 2.0, as defined by O'Reilly. Not only should investors and analysts 'test' companies claiming to be Web 2.0 against the O'Reilly list of 'core competencies', but potential companies and developers can only be

competitive if they ‘fully embrace the potential of Web 2.0’. Web 2.0 is, therefore, not a statement of protocols for communication (as the World Wide Web was first for Tim Berners-Lee) but a statement of the business protocols for securing one’s investment, from both ends of the investment decision. (See also Schnauer (2006) for a sophisticated if not entirely plausible linking of Web 2.0 with prior successes and failures).

The history, then, of the currency and force of the label Web 2.0 is also a history of the Internet. It utilises the accepted notion of ‘what happened to the Internet’ in the dotcom bubble and crash and creatively moves the Internet onwards, in its ‘history’, from that point. This move is critical because there are still questions as to the legitimacy of Web 2.0, as an historical event, questions those resolution are central to its wider discursive formation. There are three broad approaches to answering these questions and, thereby, in arguing for the significance of Web 2.0 in contemporary action and thought. Some, like O'Reilly, understand Web 2.0 as a more or less simple continuation of many elements already at work within the World Wide Web from before 2004, though few are quite so open in their rhetoric of capitalistic survival of the fittest (Tredinnick 2006, p. 233). Others, though, see the capitalist fetish of investment in the 1990s as the reason for the failure of the WWW to work as intended, and see Web 2.0 as ‘the inherent nature of the web emerging from the under the broken models...[of] the Bubble’ (Graham 2005). A third common approach prefers to return to the Internet, *before* the Web, and focus on the human qualities of communication and interaction which Web 2.0 claims as its own but which long predate any web version of networked communication (Davies 2007; McCullagh 2005). In all cases, these writers attempt to both make sense of the ‘2’ in Web 2.0, and in doing so, deploy the particular historicisation to create the argument they desire.

Yet, of all these approaches, O'Reilly's has become dominant, with *What is Web 2.0?* becoming the dominant framework which forms the terms of the debate about Web 2.0. This success can be judged, in part, from press reporting that refers to Web 2.0, for example as found at the widely used and easily searchable, *CNETNews.com*, one of the premier commercial sites for technology-oriented reporting. In 2004, the year of the original O'Reilly conference, there were 15 stories in 2004 that mentioned the phrase 'web 2.0'. All of them are clustered in time around the conference in October. Yet few of them are actually *about* this new idea: they include one that concerns the enthusiasm for some of the attendees at the conference to invest in space travel (Hu 2004; see also, for another example, Borland 2004). This reporting emphasised the people speaking at the conference (eg Jeff Bezos, Steve Jobs), and their particular comments relating to their own companies. The term Web 2.0 had not yet become an object for reporting or analysis. In 2005, there was a slight change. While one or two stories emerged mid-year (before *What is Web 2.0?*), they initially concerned Yahoo!'s own adoption of that term, in the site MyWeb 2.0 (LeMay 2005a), without any other reference. But, from August reporting on Web 2.0 began commenting directly on Web 2.0 as a new way of thinking about the Internet (LaMonica 2005) and, more and more, as a label for many emerging trends (LeMay 2005b). While there were less stories published than in 2004 around the conference itself, they were more concerned with the subject matter, rather than simply referencing the event. Nevertheless, in 2005 only some 24 stories were written in the year using Web 2.0 within them.<sup>3</sup> In 2006, by contrast, there were over 130 stories about, referencing or otherwise using the term Web 2.0, with even more published in 2007. Similar trends can be observed by counting stories about or entitled Web 2.0 via other news services.<sup>4</sup> This data suggests that it was not until *after* 2005 that Web 2.0 came to be significant outside of a very limited circle of developers and users, as O'Reilly's work and the second conference started to have an impact.

Moving to other sources, such as blogs, articles and academic papers, we can discern three distinct uses of the term Web 2.0 that, broadly speaking, relate to the annual progress of ‘Web 2.0’ from its initial use to current practice. Throughout 2005, partly in response to the conference the previous year and in anticipation of the next, there was significant confusion and questioning of the legitimacy, meaning and value of Web 2.0, even as people attempted to understand it. LaMonica’s early report for *CNETNews.com* showed enthusiasm but also uncertainty about what it might mean (2005); the question of definition exercised many in the blogosphere (for example, Malik 2005; see also numerous entries on *ReadWriteWeb*, such as McManus 2005); and danah boyd wrote excellently on the possible re-application of Web 2.0 outside some purely tech-hype context (boyd 2005a; 2005b) by suggesting alternative definition. By 2006, it would be fair to say that the degree of inquiries about its meaning and possibilities had declined (McManus for example barely posted on the subject after the end of 2005 as it moved from being novel to known). While the total references to Web 2.0 went up considerably (for example, when looking at leading technology blogs, *TechCrunch*’s entries quadrupled; *GigaOm*’s increased tenfold), the tenor changed so that it would be fair to summarise 2006 as the year in which Web 2.0 was understood to be ‘there’ and the issues to be discussed were about what was to happen with it (eg Pearce 2006). In 2007, again with the reservation that no periodisation is ever precise, we can detect the emergence of an almost unproblematic adoption of the term as a ‘given’ whose recent indeterminacy, or still-nascent development is ignored. In one case, writers move on to solve the ‘problems’ that Web 2.0 causes (Chen et al. 2007, p. 41); another states ‘Web 2.0 has initiated a new age of Web interaction [in which] countless everyday activities... can be done effectively and often more cheaply on the Web’ (Zacijek 2007, p. 35).

By the start of 2009, Web 2.0 was no longer explicitly uncertain; it had taken on a kind of unproblematic solidity whose meaning – while still theoretically uncertain (Allen, 2008) – had

actually become so common as to be unquestioned . Across many professions (libraries, education, knowledge management etc.), Web 2.0 is the basis for developments in which under the same banner mix together entirely new approaches, limited revisions to current practice, and simply restate much older models of web-based development). And, as a review of ever-expanding collection of Web 2.0 applications shows, the only thing truly they have in common is that they are self-consciously labeled ‘Web 2.0’ (see <http://go2web20.net>; and Allen, 2009). In other words, while the timing might vary, the general historical trajectory of Web 2.0 moves from questions about meaning, through questions about applicability and development, to questions about what is next, to a place where the questions no longer matter, because Web 2.0’s validity as a descriptive or explanatory term is taken for granted. Not surprisingly, more popular media commentary now tends to discuss and use Web 2.0 more than the leading-edge bloggers whose self-appointed task is to stay ‘ahead’ of what is new.

## **Freedom and constraint: managing the meaning of Web 2.0**

In analyzing the history of Web 2.0, it also emerges that O'Reilly might not have been the first to use the term, since – as a few commentators have noticed –McCormack wrote *Web 2.0: The Resurgence of the Internet and E-Commerce* in 2002 (see for example, Ansari 2006). McCormack argued that the bursting of the dotcom bubble did not, therefore, presage the end of e-commerce, and explained the ways the Internet might still be used for commercial gain. Two reader's comments on Amazon.com reveal how much has changed in the reception of this book, because of the rise and rise of Web 2.0 thinking in popular consciousness. According to the first and early comment, it was 'a necessary read for anyone who intends to use the net for anything to do with their business'; according to a much more recent comment, '[t]his book is a joke, at least relative to what I was expecting. With its title, I was shocked to discover that it was written/published in 2002

... so it really does not discuss anything relevant to current trends'.<sup>5</sup> Thus, as evidenced by the contemporary reader's response, Web 2.0 and recent Internet development have become irretrievably interlinked, even though McCormack and O'Reilly's ideas both start in the same place as meditations on the way the dotcom crash was being oversold.<sup>6</sup> This small fragment of evidence about the response to Web 2.0 suggests the key role played by O'Reilly in managing and promoting the term, even as the technologies with which it is associated develop far beyond his reach.

O'Reilly has played a key role in maintaining the historical record of the term Web 2.0 to support its contemporary validity and utility, especially as it relates to his own role in it. In early 2005, defending himself from criticism of the 'faux-meme' of Web 2.0 he stated:

Perhaps I'm biased, because O'Reilly was the source and has been one of the biggest promoters of the Web 2.0 meme, but I think it captures exactly where we are at this moment: a widespread awakening to the fact that the game has changed. There might be a better name (I tried 'internet operating system' on for size starting back in 2000), but the fact that Web 2.0 has caught on says that it's as good a term as any. (O'Reilly 2005b)

In 2006, he mounted a similar defence against efforts to promote 'Web 3.0' which, though such efforts were entirely consistent with the approach he himself had pioneered, appeared to him to fall short of true understanding of Web 2.0.

I was surprised to see Markoff referring to [the idea of mining data on the web] as 'Web 3.0', when that very fact is the heart of what we've been calling Web 2.0. Markoff limits Web 2.0 to 'the ability to seamlessly connect applications (like geographic mapping) and

services (like photo-sharing) over the Internet,' which seems rather surprising to me, given that 'harnessing collective intelligence' has been a key part of the Web 2.0 definition from the beginning. That being said, we're a long way from the full realization of the potential of intelligent systems... (2006a).

In response to Web 2.0, which O'Reilly called 'a recurrent theme of would-be meme-engineers who want to position their startup as the next big thing', he again defended Web 2.0 and his role in its popularization:

Now, I of all people should be hesitant to say 'Web 3.0 is a stupid idea' because of course, that same criticism was leveled at 'Web 2.0.' But there are a couple of important distinctions:

1. Web 2.0 started out as the name of a conference! And that name had a very specific purpose: to signify that the web was roaring back after the dot com bust! The 2.0 bit wasn't about the technology, but about the resurgence of interest in the web. When we came up with the idea back in 2003, a lot of programmers were out of work, and there was a general lack of interest in web applications. But we saw a resurgence coming, and designed a conference to tell the story of what was going to be different this time.
2. I then spent some serious time trying to identify the characteristics of companies that had survived the dotcom bust and the best of the new companies and sites I saw coming up. That paper, *What is Web 2.0?*, was a retrospective description based on a broad swath of successful companies, not tailor-made for a single company or project that has yet to make its mark. (O'Reilly 2007)

O'Reilly does not attempt to defend the conceptual integrity of the term Web 2.0 but, instead, happily admits to the fact that Web 2.0 was a non-substantive promotional label in 2003-2004. Thus, he can emphasise his own role in identifying and giving substance to that label so that in future it actually denoted something significant rather than vaguely connoting a change in fortune.

There has always been a certain defensiveness when O'Reilly enters into public debate about its meaning: at times welcoming expanding application of Web 2.0, and yet also quick to limit this expansion. This defensiveness was particularly apparent in protecting the 'Web 2.0 Conference' label – trademarked by original conference partners MediaLive (now owned by CMP). In 2006, part of the O'Reilly Group which was responsible for managing and maintaining conference trademarks sent a 'cease and desist' letter to IT@Cork, an Irish not-for-profit group, planning to hold a short conference named Web 2.0. An Internet debate broke out when this matter became public (Raftery 2006; see also Forrest 2006). The debate was conducted in a typically robust manner, at times excessively so, until O'Reilly posted some explanatory material concerning the matter and made appropriate apologies; the conference went ahead in any case and the debate participants got bored and moved on to other concerns in the blogosphere.

The problem stemmed from the lucrative international business of conference organising and hosting, which depends on owning named events. MediaLive, the partner company with whom O'Reilly had managed the first conference, trademarked its conference names routinely, including Web 2.0 Conference, as an obvious mechanism for recouping over time the investment made in first running such an event. O'Reilly (2006b), in responding to the questions posed by hundreds of critical blogs, comments on blogs and similar Internet writings about the IT@Cork matter, made two revealing comments. First:

We created a meme that has legs beyond the conference space, and there's a real tension between the desire to protect the trademark on the conference and the desire for people to talk about, meet about, and otherwise engage with what has turned out to be the name for the next big thing in the computer industry. This is clearly a problem that we'll need to figure out.

And then:

No one was using the term ‘Web 2.0’ with its current meaning before we launched the Web 2.0 conference in October 2004, and the subsequent widespread use of the term Web 2.0 to describe the phenomenon itself is outside the scope of the trademark. The trademark is only for events.

Taken together, these comments make clear that O'Reilly is limiting the extent to which he is claiming an entirely proprietary approach to commercial exploitation of Web 2.0 but is, in doing so, is *also* claiming a quite extensive moral authority from, and recognition of, his role in propagating and shaping the idea of ‘Web 2.0’. In other words, the freedom to use the term is one granted *by* O'Reilly, rather than being a property of Web 2.0 itself!

A similar impression can be gleaned from O'Reilly's responses to questions from *Wired.com* about the Web 2.0 Trade Expo held in April 2007. Against a backdrop of O'Reilly's obvious commercial interest, he emphasised again that ‘people haven't yet tweaked to’ key features in Web 2.0 and that it is still ‘early’ in Web 2.0 time because ‘it's really all about data and who owns and controls [it]’ and ‘the data isn't all owned yet’. These themes are identical to ones

established in 2004-2005 and, despite the very significant changes since then, O'Reilly ensures that his claim for current relevance remains rooted in that original moment of invention (Tweney 2007). In other words, though the Web 2.0 label is fiercely exploited in specific commercial terms (the conferences), this exploitation is necessarily very narrow; but O'Reilly is still concerned with the proper definitions and use of the terminology.

What then are we to make of this developing history, centred around but not exclusively concerning, O'Reilly, both the individual and the corporate presence for which he speaks? In commenting on the IT@Cork dispute, Cory Doctorow (2006) – a sometime-speaker at O'Reilly's conferences – wrote enthusiastically that 'O'Reilly has an amazing, wonderful gift for popularizing hard ideas and for explaining abstruse technology in catchy ways. 'Web 2.0' is only one of O'Reilly's many accomplishments [in this respect]'. Yet he also suggested that O'Reilly had to consider the consequences of this success:

The O'Reilly Conferences' unique selling proposition is that they rewrite the rules of the industry and coalesce meaning out of the stew of ideas floating around the field. If you're going to name the next direction the world will take, you have to be prepared for the world to take that direction. Industry shifts become public property... (Doctorow 2006).

Put simply, O'Reilly's concern appears to be the primacy of his own role in shaping and defining the meaning of Web 2.0 as a description / analysis of new forms and opportunities for the Internet as a social and business technology. The more that he does so, the more likely it is that he will successfully exploit the words 'Web 2.0' in very specific and limited business contexts. While Web 2.0 must be widespread, it cannot be so diluted and diverse in meaning that it cannot serve as a

compelling theme for the annual conference (and expo). O'Reilly's acceptance of the architectures of participation through which Web 2.0 has become popular with many meanings, is tensely related to his passion for precisely determining, and then selling, a vision of Web 2.0.

Discursive contradictions fuel the utility and significance of the knowledges they produce and thus this tension is productive. Uncertainty, indeterminacy, 'buzz' creates the situation in which O'Reilly is thereby empowered – by his role as the originator of Web 2.0 – to soothe that sense of uncertainty. O'Reilly now markets, among other products, a 100-page report, *Web 2.0 Principles and Best Practices*, which expands on the free article published in 2005. In opening this report, O'Reilly states:

Two years ago we launched the Web 2.0 Conference to evangelize Web 2.0 and to get the industry to take notice...This report is for those who are ready to respond ...It digs beneath the hype and buzzwords, and teaches the underlying rules of Web 2.0 (Musser 2006)

Musser, the report's main author, emphasises this point in his 'pitch' to the reader:

O'Reilly Media has identified eight core patterns that are keys to understanding and navigating the Web 2.0 era [these date from 2004 essentially] ...To compete and thrive in today's Web 2.0 world, technology decision-makers ... need to act now, before the market settles into a new equilibrium. This report shows you how (2006, p. 4)

The marketing pitch, on the page which attempts to sell this report at nearly \$4.00 a page cuts to the chase:

O'Reilly Media gave Web 2.0 its name. With the *Web 2.0 Principles and Best Practices* report, we bring you the information and tools you need to win at the Web 2.0 game (<http://www.oreilly.com/radar/web2report.csp>)

## Conclusion

The economic value to O'Reilly of his continued claim to have some special role in using the term Web 2.0 continues. Not only does the O'Reilly Group's website have a significant section devoted to both promoting Web 2.0 thinking, and thus O'Reilly events and products (see <http://oreilly.com/web2/>) but Web 2.0 events continue to be staged, serving as both direct commercial ventures and, indirectly, as the basis for privileging O'Reilly in ongoing development of the Internet. In 2009, the benefits of the fact that Web 2.0 has no specific meaning enabled the most recent of these events to adapt to the consequences of the global economic downturn, re-inventing Web 2.0 as the *answer* to the new challenges of global business when, a few short years ago, it appeared to be part of the developments which led to the financial crisis in the first place (<http://www.web2summit.com/web2009>).

For O'Reilly, Web 2.0's indeterminacy is more important, in the general context of discussion, than its specificity, but only as long as a particular history of Web 2.0 is sustained in which he and his corporation are seen to play a central role. Thus, in 2009, it is claimed of the Web 2.0 Summit (to be held in October of this year):

At the center of both the destruction and creation [of businesses] is the World Wide Web. For this year, we are focusing on demonstrating proofs: showing how *the founding*

*principles of Web 2.0* have been put into practice to address the world's most pressing problems [emphasis added]

The historical story of Web 2.0 relied upon here is as follows: despite the vast variety of possible ways of thinking about Web 2.0 which are generously supported and allowed by its originator, there are nevertheless canonical founding principles. It then becomes easy to assert that O'Reilly can answer the questions, create the opportunities because of Tim O'Reilly's status as the originator of the term. The law of the father, it appears, is at work: but, for it to work in a commercial sense, across the distributed, multi-layered definition of Web 2.0 found across the Internet, it is a law that demands transgressions that are freely corrected, so long as the father's role (and thus his money-making potential) remains acknowledged.

This particular and apparently contradictory tendency – for there to be both many and one definition of Web 2.0 – echoes the fact that we understand Internet development through a binary conception of free and not free. This idea mostly found in arguments that the Internet does, or should, create conditions for greater personal liberty and collective liberation, if only it were not subjected to ‘unfair’ or inappropriate censorship (e.g., Allen and Long 2004). It is also found in arguments that valorise the Internet’s extraordinary capacity to deliver various kinds of content for free, and which fear or refuse the commercialisation of the Internet, either directly or through the exploitation of this kind of freedom. Web 2.0 stitches together both sides of this equation, promoting the liberty to engage with, create and circulate content, and at the same time, promoting the financial benefits which might flow from that. It is no wonder, then, that so many writers about this topic seem to imagine participation in Web 2.0 is somehow democratic (free in the personal sense), while also being free in the financial sense.

The history of Web 2.0 provides a story that helps sustain this stitch. O'Reilly's role is to offer a meme, and support and nuture that meme, provoking and promoting its free passage though the Internet, celebrating this and yet always reminding us of his original role (while, of course, carefully avoiding arguments that the substance of Web 2.0 might not actually have required a label for it to succeed). Yet O'Reilly also seeks to profit from it, doing so by relying on the authority of his role as father. This, fundamentally, is what Web 2.0 does: it creates a new figure to be obeyed, disobeyed, dismissed and followed, who embodies a new kind of Internet expectation – one in which the freedoms of the user and the value that creates align in formations unimagined in the 1990s or before. Perhaps this, above all else, explains why Tim Berners-Lee is Web 1.0 and Tim O'Reilly is Web 2.0.

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- 1 As found using Google to search for long strings of text and once again demonstrating the inherent copy-oriented culture of the Internet: see for example Allen 2003 for development of this method.
  - 2 The work is a more substantial version of the original address from the 2004 conference, suggesting that the timing of the release of this piece – the week before the 2005 conference – was not coincidental (see Battelle and O'Reilly's (2004) presentation slides).
  - 3 Including the two stories about Yahoo's MyWeb 2.0 which did not specifically relate this matter to the broader issue of Web 2.0 but which nevertheless appear appropriate to count.
  - 4 For example, the site ZDNet.com, which is part of the same group as CNET, published 11 articles in 2004, 15 in 2005 and over 70 in 2006 and so far in 2007. Some of these items are the same as in the CNET count, others are different. Using a different approach (due to limitations in its internal search function), Infoworld and related IDG sites returned 4 articles entitled Web 2.0 in 2005 20 in 2006 and 30 so far in 2007. Similar trends can be observed using description searches.
  - 5 Comments accessible at: <http://www.amazon.com/gp/product/1587622009>
  - 6 Many thanks to Kate Raynes-Goldie for pointing this out to me, amongst other very useful assistance with background research. Note that Joe Firmage mentioned Web 2.0 in 2003 as a term implying the need to improve many aspects of the Internet if it were to have major transformational effects on people's lives (Festa 2003; see also Randfish 2006). A key distinction, however, is the emphasis Firmage placed on business models and technologies from the 1990s, indicating a very different kind of future vision, even if labelled in the same way.