Journalism education as a perpetual beta test: Notes on the design and delivery of tertiary 'social media' subjects

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Abstract
American futurist Ray Kurzweil argues that any industry or activity, once it 'goes digital', adopts characteristics of the underlying technology. This is readily apparent in journalism education, where the subject matter and its pedagogy are both increasingly engaged with digital media forms, and the relevance of current practice is now often framed as being under an assault from new technologies. To observers in this field this often appears as rapid and unpredictable change, creating a sense of faddish instability or unviable experimentation.

This paper outlines the problems and affordances of designing and delivering two tertiary subjects built initially upon late 20th century online publication models, then re-designed with the recent emergence of so-called 'social media'. Borrowing a notion drawn from companies such as Google, we outline the principle of 'perpetual beta' in which it is assumed that content creation and delivery is now a constantly iterative process.

At Charles Sturt University, a subject titled Social Media is currently delivered to an on-campus cohort of undergraduate communication students, with the aim of engaging them with the professional applications of tools such as social networks (e.g. Facebook), blogs, wikis, microblogs (e.g. Twitter), and mobile media. Another subject, titled Digital Media, is taught to a cohort of undergraduate media students studying in distance education mode, and uses similar tools to introduce them to a range of online publishing options, which increasingly includes these social media forms.

Using data gathered from these teaching experiences the paper evaluates some of our underlying assumptions about so-called digital native learners, comparing the experience of teaching mostly 'Generation Y' on-campus undergraduates with the more heterogeneous, and generally older, cohort of distance education students. It also questions the notion that educators are non-savvy digital immigrants by considering the innovative learning and teaching being used, and the increasing role teachers play in leading young people towards a new media literacy.

Introduction
In 1990, futurist and inventor Ray Kurzweil described his vision of the Age of Intelligent Machines. This second industrial revolution, he said, would 'ultimately have a far greater impact than the [first industrial] revolution that merely expanded the reach of our bodies' (Kurzweil, 1990p. 3). It would be characterised by computer-based machines that would instead extend and multiply our *mental* abilities. Kurzweil's ideas followed Intel co-founder Gordon E. Moore's projection in 1965 that computer processing power was doubling each year, and would continue to do so indefinitely (Wayt Gibbs, 1997). The exponential nature of change expressed by what became known as 'Moore's Law' has clear implications for any industry or activity

that becomes dependant on these computing technologies. In line with both Moore and Kurzweil's predictions, many aspects of modern life in modern industrialised societies - including the news media - are now heavily influenced by networked digital technology. There has been a paradigm shift in the production and consumption of information (Deuze, 2006), marked by the emergence of a new media environment characterised by technological fluidity and frequent innovation, and driven by the exponentially increasing processing power of computers. Online media are now sometimes described as operating in a state of 'perpetual beta': a notion borrowed from the term 'beta version', which is used to describe new software that has been disseminated for evaluation or real-world testing prior to final release. Perpetual beta is a product development approach applied to online technology companies with rapid product research, development and release cycles, such as Google, and suggests that digital content creation and delivery is now a constantly iterative process.

Jarvis observes that these forms of media content creation and delivery can now be described as 'process journalism', or 'journalism as beta' (Jarvis, 2009a). If much journalism is increasingly focussed on constantly iterative networked processes rather than traditional, deadline-based product output models, then arguably current pedagogical models in the area of digital media should also reflect this principle. Educators are pressured to rapidly adapt to change, and to prepare students for a working environment that is itself in a state of flux. As Kurzweil predicted two decades ago: 'the *primary* skill required for employment in the workplace of the future will be the ability to adapt and to continue growing intellectually' (Kurzweil, 1990, p. 428).

Both the Social Media and Digital Media units were designed in such a way that students could learn both practical and conceptual skills around these topics as applied to communication professionals, with staff continually updating the content and delivery of these subjects so as to stay aligned with the changes in the communication industries they were referencing.

As such, both subjects were delivered in a 'perpetual beta' mode. Anything that exists in a state of perpetual beta, so the accepted wisdom goes, is 'developed in the open, with new features slipstreamed in on a monthly, weekly, or even daily basis' (O'Reilly, 2005).

In teaching Generation Y about digital media at tertiary level, both content and delivery need to not only be completely overhauled every year, but new features and content need to be integrated throughout the session on a monthly, weekly or daily basis, as described in the perpetual beta model.

Methodology

This paper is based on observations of two tertiary subjects, Social Media and Digital Media, delivered at an Australian regional university in autumn (February – June) 2009 and spring (July – December) 2008 respectively. Social Media is a compulsory subject for on-campus undergraduate journalism students, and an elective option for on-campus public relations majors. Digital Media is a compulsory subject for undergraduate students studying media communications in a distance education mode. The research refers to observations of student interaction with the subject matter and online learning and teaching tools, as well as statistics and comments generated by voluntary student evaluations of the subjects and reflections on assessment tasks.

The paper also explores preconceptions about Generation Y and their interaction with digital tools and concepts associated with the delivery of tertiary courses in digital media. As such, it can be seen as an autoethnographic inquiry into how students interacted with the design and delivery of two tertiary subjects built initially upon late 20th century online publication models, then redesigned with the recent emergence of so-called 'Web 2.0' and 'social media' technologies.

Journalism education

The relevance of current practice in teaching journalism in the digital age is often framed as being increasingly under assault from new technology, for example:

> 'With university education, we can no longer train print journalists, or radio or TV journalists, or photojournalists; today, these are all pieces of a larger pie we call multimedia journalists. … Boom! That's the sound heard as journalism schools blow up their curriculum.' (Idsvoog, 2007, p. 7)

This violent analogy reflects the fact that many observers in the industry and in tertiary education see this increasing pace of change and introduction of new media forms as a sudden and potentially catastrophic assault on pre-internet media forms such as newspapers, magazines, TV and radio. This is particularly the case in the commercial sector, where advertising-based revenue models are widely considered to have collapsed, and so-called free citizen-media and self-publishing by organisations and public relations are perceived as a challenge to the work of paid journalists. Idsvoog proposes that the change is inevitable, and that both the workers and educators in this new media world must adapt, or die of irrelevance. But he also makes the common argument that this change should be managed in conjunction with, not at the expense of, the continued focus on the core journalism skills that should reside at the hub of all tertiary communication education programs. He states:

> 'Students [still] need to learn how to secure and dig through documents, to comprehensively prepare for interviews, to determine whether a story holds up to tough scrutiny or loses its legs as more information is gathered and assessed, and to appreciate what journalism is and why it matters.' (Idsvoog, 2007, p. 9)

Just as every other institution that is driven by the pace of technological chance is facing fundamental challenges, so is education. Journalism schools need to rethink their place in educating the journalists of the future. Communication curricula must think outside the square of traditional pedagogical model delivery, and strive to be more creative and open to change, to reflect the state of the industry they are sending their graduates into.

Jarvis takes this a step further, imagining a new educational ecology:

> ‘ … where courses are collaborative and public, where creativity is nurtured as Google nurtures it, where making mistakes well is valued over sameness and safety, where education continues long past age 21, where tests and degrees matter less than one’s own portfolio of work, where the gift economy may turn anyone with knowledge into teachers, where the skills of research and reasoning and scepticism are valued over the skills of memorisation and calculation, and where universities teach an abundance of knowledge to those who want it rather than manage a scarcity of seats in a class.’ (Jarvis, 2009b, p. 211)

While some of Jarvis’ utopian imaginings seem impracticable in today’s resource-poor tertiary education system, his ideas hold some relevance. Teachers of digital media must themselves be, or become, highly literate in the digital environment, staying one step ahead of their Generation Y students. It is important to note at this juncture, however, that in teaching Social Media and Digital Media, it has become evident that Generation Y are not all as digitally literate as they are generally perceived.

<u>Assumptions about Gen Y students</u>

Students belonging to Generation Y have been characterised as ‘digital natives’, a term made famous by Rupert Murdoch in a speech to the American Society of Newspaper Editors in 2005, but which was first popularised by business trainer Mark Prensky in his book *Digital Game-based Learning* (Prensky, 2001). Although some of Prensky’s research assumptions have since been questioned, the concept of a generation gap between the learning and teaching generations has gained popular currency.

In his speech, Murdoch outlined his vision of the impact of technology on the media industry, and described the complacency, up to that point, of many in the field, including himself, who could be described as ‘digital immigrants’ as opposed to the digital natives of the new generation (Murdoch, 2005):

> ‘I wasn’t weaned on the web, nor coddled on a computer. Instead, I grew up in a highly centralised world where news and information were tightly controlled by a few editors, who deemed to tell us what we could and should know […] The peculiar challenge then, is for us digital immigrants … to apply a digital mindset to a set of challenges that we unfortunately have limited to no first-hand experience dealing with.’ (Murdoch, 2005)

In 2005, Charles Sturt University (CSU) surveyed students in the first week of their first year of Communication studies. This group of students could be assumed to fit squarely within the ‘native’ category in terms of age. Furthermore, it could be postulated that this cohort might be more greatly immersed in digital culture than their peers elsewhere, given they had opted to take an undergraduate degree that focused on communication and the technologies surrounding it.

In the study, Cameron reported that the CSU survey showed broadly similar patterns of computer ownership to the Australian population in general (Cameron, 2005). This meant that about 21% of students reported not having their own computer (although they still would have access to the university's centralised computing facilities).

When students were asked to rate themselves as to their skill levels with various software and devices, a similar pattern to the findings of Kennedy et al (Kennedy, Judd, Churchward, Gray, & Krause, 2008) emerged. That is to say, whilst most students rated themselves very skilled with the more ubiquitous tools (word processing, email, web browsing), there was a markedly lesser degree of familiarity with the more complex digital tasks such as desktop publishing, web design and video editing software. For these latter two tasks, most students reported that they had never used these technologies.

This challenge, by default, therefore also applies to digital media education. In 2009 though, teaching digital journalism to a cohort that is largely Generation Y, we found that the term 'digital native' is not one that could be applied to everyone in the group. In fact, we as educators were often more 'native' in this area than many of the students, quite a number of whom described themselves in writing as 'digital immigrants', and who had considerable difficulty operating even the most simple of web tools and grasping basic theoretical concepts, and expressed trepidation at the beginning of the session and throughout about undertaking studies in this area.

> 'Ok, I'm just going to come out and say it ... this subject makes me nervous!' *Social Media student blog, Feb 25, 2009*
>
> 'I am still on my L-plates when it comes to social media.' *Social Media student blog, April 8, 2009*

Of course, this trepidation and lack of identification with the stereotypes commonly attributed to Generation Y is not something shared by the entire cohort in each group. A significant number of students did, of course, fit the mould of the tech-savvy 'digital native' and possessed both the skills and the theoretical sensitivity to perform exceptionally well in class, and were able to express this:

> 'It's because we've grown up with mobiles and computers. They may have been in the early stages when we first saw them, but we were only young then as well. We've grown up with technology, and technology has grown up with us, becoming more advanced as we became older and more capable of understanding how to use it.' *Social Media student blog, March 10, 2009*

In considering both these positions, the challenge then for educators is to design and implement pedagogical models and curriculum content that continues to be relevant in the fluid and constantly changing digital media landscape, and caters for the requirements of a cohort with hugely varying technical and theoretical aptitude.

<u>Our approach to teaching digital/social media</u>

Case1: Introducing students to a wiki

Social Media was designed to engage students both practically and theoretically with the specialised applications of tools such as social networks (e.g. Facebook), blogs, wikis, microblogs (e.g. Twitter), and mobile media. The 2009 class of 81 students was introduced to concepts and practice around social media, new media literacy and civic engagement, learning computer-assisted reporting skills and engaging with theoretical issues concerning online information production. Both tutors and students utilised the CSU virtual learning environment, CSU Interact, extensively throughout the session. This is based on the open source Sakai software (http://sakaiproject.org/portal).

Social Media students were required to complete three assessment items via the CSU Interact environment: a social media news gathering and reporting assignment which they submitted electronically on a wiki; an individual reflective blog which they were required to work on throughout the session; and an electronic portfolio where they were required to present an interactive and current online guide to one (randomly assigned) theme of social media. Throughout the session, tutorials and workshops focused on both theoretical and practical approaches to the themes of identity, networked publics, credibility and authenticity, mobile media and civic engagement.

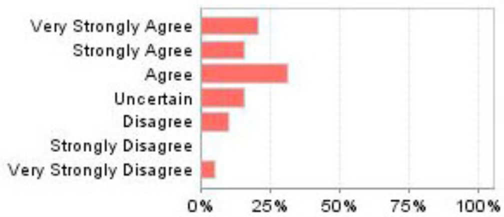
The wiki-based social media news assignment was designed as a way for the class to keep up with the latest developments in social media and to explore open-source wiki editing. Students were given some conceptual grounding on wikis throughout the session, and provided with a formatting guide, a template and an example. In keeping with the principle that these media forms have relatively low technical barriers to participation (Jenkins, 2006), the students were encouraged to explore the process of posting the content online. However tutors were available to help students who needed advice or practical tips, and were able to work with individuals during timetabled face to face workshops as well.

Voluntary subject evaluation forms from Social Media students indicate that despite the fact that wikis are a very widely recognised component of online content delivery and dissemination (i.e. Wikipedia), and the fact that the formatting guide, template and example were provided, some students found this a very difficult task and approached this very much from a ‘digital immigrant’ mindset.

Figure 1 illustrates student responses (n=19) to the statement ‘the use of the Wiki assisted [their] learning in the subject’. While most respondents agree the tool was a positive factor in their experience, 32% were uncertain, disagreed or strongly disagreed with the idea that use of the wiki helped their learning.

Overall, use of the Wiki tool assisted my learning in this subject

Raw No.	4	3	6	3	2	0	1	0	5
%	21	16	32	16	11	0	5		

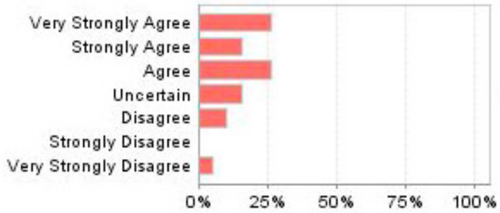


(Figure 1) Student feedback on wikis and learning in Social Media.

Figure 2 also illustrates how the limited functionality of the CSU Interact wiki tool is reflected in student evaluations of the exercise overall. While 50% of respondents felt the tool was sufficient for the task, 16% were unsure about the formatting options, while 16% felt the tool did not give them the options they wanted. Given that students were being encouraged to demonstrate online publishing skills, these neutral or negative responses to the functionality of the specified tool must be noted.

The formatting options available in the Wiki tool were sufficient for my needs

Raw No.	5	3	5	3	2	0	1	0	*5.11*
%	26	16	26	16	11	0	5		



(Figure 2) Student feedback on Wiki formatting options.

These negative responses were supported by commentary produced by students on their blogs, in their reflection on the wiki component of their assessment.

> 'Before last week, I can honestly say I'd never even used a wiki before. I think most people working on the news bulletin this week would be the same, and we've just scraped by using our commonsense and just trying things out to see if they worked.'
> *Social Media, March 3, 2009*

There was, however, some positive feedback from students about using this method of allowing students to 'feel' their way around posting content on the Wiki.

> 'Not only did it broaden my knowledge of social media new [sic], it also gave me a better understanding of how to operate the wiki … I'm sure knowing how to operate it is useful knowledge to have for those of us who may get in to online news.' *Social Media, May 8, 2009*

While many students did manage to negotiate their way through formatting their work on the wiki and produced work that met the upper end of the marking criteria, it was clear that using publishing technology of this sort did not come naturally to quite a few students. This may be an argument for producing a how-to guide for those that need it next time, in the next iteration of the 'perpetual beta' Social Media education model.

2008 marked the first time a wiki was used with the Digital Media subject in an attempt to foster greater collaboration amongst the distance education mode students, the majority of whom have no face to face contact with staff or peers during their studies. Contributing to the wiki was not a compulsory element of this subject, but the intention of the subject co-ordinator was to encourage students to add links or information they found relevant or interesting, thus co-editing the overall course material.

Despite repeated exhortations via the online subject forum that the wiki was for both teacher and student contributions, not a single student (out of 49 enrolled) contributed to it in any form. When discussing this via the subject forum, the general opinion of students was that they did not feel comfortable with adding content via the wiki tool.

Either they felt they did not have sufficient authority to suggest content for the rest of the class, or they were nervous about adding something that could be 'wrong'. Another reason given was 'no desire' – that is, students were going there to seek information for themselves rather than offer it to others. Potentially the voluntary nature of the wiki gave little incentive for students to take the time to contribute.

Students in Digital Media reported that this attitude towards the subject wiki paralleled their experience with public resources like Wikipedia. Just as was demonstrated in their assignments and experiences with sites like YouTube, students reported they used Wikipedia to find material of interest to them personally, but felt no need to offer their own input. They also reported that they felt discouraged by their lack of knowledge about wiki editing, the perceived rules, or the risk of looking silly in front of others.

This lack of familiarity with the wiki concept in both Social Media and Digital Media is reflected in research such as that by Kennedy et al (Kennedy et al., 2008), who found that 81.6% of their student respondents had never contributed to a wiki. This practical experience with wikis is in conflict with the assumption that because Wikipedia is a popular site, the average internet user or 'digital native' is comfortable contributing to it. While it is intended that future adaptations of Digital Media will include a module about wiki editing and their use as an epistemological tool, erstwhile intentions of making wiki contributions a major assessment element of the unit (in a similar manner to that described by Bruns & Humphreys (2007)) are currently being reviewed whilst the best approach to implementing this for distance students is being contemplated.

Case 2: Introducing students to self-publishing tools
Digital Media is focussed on the use of digital media for storytelling, the way that user-generated media can be presented on the internet and what impact this has on a range of communication industries. The central assessment task is to create a piece of original journalistic work and upload it onto a public site, such as Flickr, YouTube, PRX or similar. The parameters for the assessment are quite open-ended to allow for the widely varying life situations of the distance students and their more limited access to equipment and software.

Amongst the students, the level of skill at producing the actual digital content is highly variable and ranges from the neophyte to the professional. The Bachelor of Media Communication degree does not accept recent school-leavers, and some students in Digital Media may actually already be working as media producers, for example graphic designers or video producers. However, whatever degree of production skill is evidenced, the students' level of experience in uploading the finished content to a public site is almost universally low. Through a reflective journal type exercise, the vast majority of students report that this is their first attempt at contributing content to these types of sites. Most students are familiar with the sites themselves, but the overwhelming tendency seems to be one of consumption rather than production.

In their reports, a common frustration expressed by the students is in solving the technical issues involved in uploading content. For example, how to get a photo essay to display in the right order on Flickr. The surprising aspect of this is that many of the problems that students describe are addressed in the Help or FAQ sections of the sites they are trying to work with, yet few seem to even realise this avenue is there, let alone make use of it. For the teacher, it would seem that pointing out such self-help resources is an important scaffolding element of using such sites in assessment. This was initially overlooked in Digital Media subject materials but has been addressed in subsequent iterations.

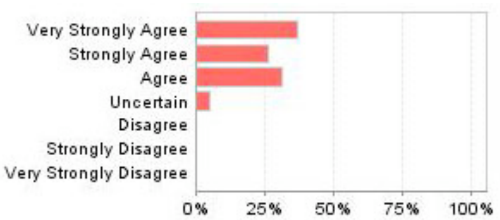
By comparison, Social Media uses the social media publishing tools contained within the CSU Interact virtual learning environment. In general, these students seemed to find the blog a useful learning and assessment tool. Students were encouraged to post regularly throughout the session, and were encouraged to post both practical workshop exercises and tutorial notes on their blogs, reflecting on the fortnightly themes, as a precursor to working on their portfolio assignment at the end of the session.

The blogging assignment was designed to allow students to further extend their skills and practical literacy in the field of online media, and encourage them to conduct their own research into particular areas within the themes that particularly interested them. At all times they were encouraged to develop and follow their curiosity with research and reasoning when they recognised what they didn't know, form questions, seek answers, and learn how to judge them and their sources (Kennedy et al., 2008).

Quantitative feedback showed that most respondents found that the blog tool was an easy platform for the creation of this type of content, as shown in Figure 4.

The Blog tool allowed me to easily create a useful diary/log

Raw No.	7	5	6	1	0	0	0	0	5.95
%	37	26	32	5	0	0	0		



(Figure 4) Student feedback on the Blog tool.

Qualitative feedback supported this, highlighting the usefulness of the blogging assignment, and reinforcing that in the perpetual beta of Social Media, a blogging assignment is worth retaining as part of the learning and assessment process.

> 'I have especially enjoyed the blogging aspect of the subject. I have found that being able to blog at our own discretion is a really good assessable idea because you can gradually build up your blogs instead of rushing to get them done like you would with a normal written assessment.' *Social Media, student blog, June 8, 2009*

Finally, for the major portfolio assignment, students were required to imagine themselves as social media experts, presenting an overview to a group of people who are not very knowledgeable about social media, but who are otherwise educated media professionals, on one of the aforementioned themes. Students were required to produce content that was rich in links, images, and interactive elements. Students were deliberately given fairly open-ended guidelines, once again in an attempt to foster their creativity and curiosity, and encourage them to extend their practical skills in using the web to find relevant information and media.

While some students found this lack of highly-specific guidelines induced anxiety, some found it liberating, and both of these were reflected in students' evaluative reports. Overall, most students produced excellent work in this assignment, despite the anxiety some had expressed.

> 'I was rather intimidated by the ambiguous guidelines for this assignment. The unidentified word limit and the imagined audience made me anxious.' *Social Media Portfolio evaluation report, June 2009* (NB – this student was actually awarded a distinction for their portfolio task!)

Others were much more positive and seemingly comfortable with the task.

> 'I have enjoyed putting together this presentation, and feel it has reinforced my knowledge in the area. It has also given me an opportunity to reflect on the information I have taken from this subject and what I now know about Mobile Media AND Social Media as a whole.' *Social Media Portfolio evaluation report, June 2009*

The extremes evident in student responses indicate perhaps that either more instruction needs to be given, or that students could perhaps be given a choice: students who are more familiar with technology could be given a more open-ended assessment option where their creativity was fostered; and those less comfortable in this area could follow a highly prescriptive formula for completing such an assignment.

Conclusion

Digital media is an industry which, as it is bounded and driven by new technology, is subject to a quickening pace of change. This change is seen by many as one that undermines and threatens current journalistic subject matter and pedagogy, and is framed in the academic literature as such.

Educators in the field of digital media must also address this paradigm shift, by creating pedagogical modules that reflect the industry for which they are training students by being characterised by technological fluidity and constant innovation – the notion of education in 'perpetual beta'.

This is not without its challenges, as it posits that there is no accepted method of teaching students in this area. The challenges inherent in this are added to by the fact that the accepted wisdom about the Generation Y-era students is not completely correct. In a cohort of students of this demographic, as observed in student performance and evaluation of the design and delivery of two tertiary modules, there are a significant number of them that do not identify as 'digital natives', but instead as ‘digital immigrants’, and are easily confused and made anxious when using new technology.

The challenge for educators, therefore, is to themselves be, or become, digital natives themselves, in order to maintain a level of teaching that is relevant for students – maintaining subject matter and delivery in a state of perpetual beta and continually updating it. They must also cater for a significant disparity in the existing skills base and knowledge level of students about the online world.

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