'Digital Natives? Investigating young people's critical skills in evaluating web based information'

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ABSTRACT

Young people's Web usage has been widely problematised by characterising their behaviour online in terms which demand policy interventions. The emergence and propagation of the term 'Digital Native' in the 2000's epitomised this phenomenon. It suggested a generation of young people with a set of self-acquired skills and competencies who were poorly served by existing educational curricula. More recently, however, even Prensky, the progenitor of the phrase 'Digital Native' has written of young people's lack of "digital wisdom" [1]. This claim that has been supported in the UK by the media regulator's report into children's digital literacy [2] and think tank research [3]. We are now seeing the emergence of a new paradigm that characterises young people as credulous users incapable of critical thinking who need support from the education system to develop the ability to be more 'savvy'.

This research begins with the proposition that these polarised stereotypes are unhelpful in understanding young people's relationship with the Web and potentially counterproductive in driving policy interventions founded on inadequate evidence. Following a discussion of the recent claims, and the evidence offered, this paper describes the findings of a qualitative study of young people's Web practices which explored the differences and similarities between two groups of young people from contrasting socio-economic backgrounds. The findings suggest that young people's skills and competencies are distinctly sensitive to different contextual influences including family, peers and education, and that these skills are differentiated rather than homogenous as earlier debates have implied. In theoretical terms, these different Web skills can be seen as an expression of what Bourdieu has called 'habitus', through which young people find ways to operate effectively within their particular structured social space or 'field'. These findings have potentially significant implications for understanding digital literacy and for ensuring appropriate policy interventions.

Author Keywords

Digital Natives, digital literacy, critical skill, ethnography, habitus

1. INTRODUCTION

Until very recently young people were described by influential authors such as Prensky and Tapscott as human-digital hybrids, "i-kids" [5], who were "surrounded" by and "immersed" [4] in new technology, who had grown-up "bathed in bits" [5] and were constantly "plugged into" [6] networked digital appliances with which they had an "innate", "hardwired" affinity [7]. These," Net Geners", had "mind boggling" "aptitude" that allowed them to "feast on new technology" [6]. They acquired skills through self-guided experimentation, worked faster, "parallel processed" [4], were more productive, more open minded and possessed a "savviness" unobtainable to adults. They were "no longer the passive recipients of educational instruction" [8] instead they were "(re)constructing the nature, place, pace and timing of learning events as they wish" [8]. They were "autonomous" and "highly sociable" [8], collaboration was their norm, and as a result they were more "tolerant of racial diversity" and were "bringing political action to life" [6]. They were, therefore, set to "secure a fair and prosperous future" [6].

However, within the last few years this characterisation of the Digital Native has come under sustained criticism. For example, Selwyn, Helsper, and Enyon, point out that such claims were "grounded rarely, if at all, in rigorous, objective empirical studies conducted with representative samples" [9]. Meanwhile, a counter narrative has emerged identifying young people's lack of digital literacy or "digital wisdom" [1]. As evidence of this, the UK media regulator Ofcom, in 2011, presented findings of a representative sample of 12-15 year olds showing that 88% "believe that all or most of the information on the Web is true". Less than half visited sites about "news and what is going on the world" whilst 87% "believe that information on this type of site is all or mostly true". Ofcom also found 48% of the sample believe that the information on "sites where people can add or change information, like blogs or sites like Wikipedia is all or mostly true" [2]. Similarly, in its 2011 report, "Truth Lies and the Internet", Demos asked 509 primary and secondary school teachers in England and Wales who taught a range of subjects to rate their students" ability to think critically. 83% of them said their students were "average or below average at recognising bias or propaganda". And, 81% of teachers surveyed said their students do not understand the differences in quality of information for example between statistics and anecdotes [3].

Ofcom claims that "there are no differences in any responses by household socio-economic group" [2]. Whilst this may be true and that there are no *simple* differences in digital literacy in terms of socio-economic background, a recent study by Hargittai [10] suggests that, at a more detailed level, there are complex processes of differentiation involved. However, given their reliance on reductive quantitative measurements, it is difficult to reconcile the differences between Ofcom's data or that published by Demos with Hargittai's research. For example, Ofcom, by categorising Wikipedia together with "all sites that people can change" washed-over many potential nuances: this tells us little about what young people think about Wikipedia let alone its specific areas of knowledge relevant to them. Moreover, Ofcom's assessment of digital literacy, what it defines as "the ability to use, understand

and create media and communications", was, arguably, narrow and superficial. For example, asking children if they agree with this statement; "I think that if it has been listed by a search engine the information on a website must be truthful", limits what we can learn about their understanding of search engines. Demos, although it did conduct some informal focus groups, only surveyed teachers (whose digital literacy was not discussed) and did not assess the young people themselves.

In contrast to Ofcom and Demos, the study reported here sought to expose more complex processes of differentiation of Web skills amongst two contrasting groups of young people by using focus groups to elicit, discuss and ruminate on their critical judgments: to demonstrate their critical skills. The hypothesis was that groups from contrasting socio-economic backgrounds employing socially constructed skills would demonstrate significant differences within a population of young people considered Digital Natives.

2. COMPARATIVE METHODOLOGY

The first focus group took place at a selective coeducational independent school, "Kings". Entry to the lower school requires success in an admission exam. Students can begin at sixth form provided, among other criteria, they have been relatively successful in their GCSE exams. The standard full fee in 2011 was an annual £11,610. Typically, the students came from high-income homes and had at least one parent who had been to university. All sixth form students receive four ICT based sessions that includes research and referencing skills. Having recently sat their AS level exams, all the students who participated in the study were about to complete their first year of A level. They were volunteers who had some time to spare between lessons. The group consisted of ten students were studying a range of subjects from the arts, humanities and science.

The second focus group took place at an open access youth club, "Colours", which provides education, support and leisure activities to local 13-19 year olds. Biographical information was gleaned from the members of staff at the centre who knew the circumstances of young people who attended club and the young people themselves. The members of this focus group typically came from unstable homes of relatively low household income. It included two girls and four boys. Their ages ranged from 15 to 18. The youngest individuals were in year 11 at various comprehensive schools in the local area. All but one member of the group has been moved between at least two schools during their scholastic career. Of the older boys, one was a student studying at level 3 at a local sixth form college intending to repeat last year's programme of study; another was studying for a level 2 plumbing qualification, while the third individual was looking for full time employment.

The focus groups were conducted in familiar settings for the young people. They were shown stimulus materials such as search results, pages from Wikipedia, and various websites such as the BBC and British Homeopathic Association. Although the discussions were structured by broad topic, participants were encouraged to pursue other relevant themes that emerged during the discussion.

3. SOCIALLY CONSTRUCTED SKILLS

To help expose socially constructed skills and assumptions within group of young people who have been lumped together by the Digital Native stereotype, the participants of the groups were given the opportunity to demonstrate their ability to think critically about information on the Web. The notion of critical thinking is operationalised here as a "normative concept", i.e. as a set of norms and criteria - an "assessment of reasons" on which various statements, beliefs, actions, etc. are founded [11]. Therefore, critical skill is understood as a socially constructed phenomenon highly sensitive to influence of the wider society that shapes these norms and values. This is because, in this context, critical thinking is the result of normative practices and an expression of Bourdieu's conception of habitus. This is understood here, as the "principles which generate and organise practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them" [12]. The concept is useful in considering how to apply different forms of critical thinking that are adapted to the social space or field within with they operate.

The justification for defining critical thinking as a normative practice generated by habitus is that it grounds the qualitative judgments captured in the focus groups in a framework that recognises more powerful macro factors are at play. When individuals are demonstrating skills in micro, social exchanges there are channelling their cultural beliefs and practices. Normative practices are therefore indicative of society's structural influences.

4. FINDINGS AND DISCUSSION

To illustrate, this channelling of cultural beliefs and practices was evidenced in the focus groups. By attending Kings, the students there were acquiring a different habitus to the young people at Colours. It was a form that would enable their successful transition from school to university to professional careers. Their training in using the Web was aligned with this and expressed in their critical judgments. The lives of the members of the Colours group were set on a different trajectory. The groups' contrasting habitus was borne out firstly in their different judgements about Wikipedia.

The Kings students were told by authority figures that Wikipedia was inherently untrustworthy and repeated this in the focus group, "We get told Wikipedia is unreliable quite a lot" one student said. Their teachers may have said this to deter plagiarism but the students were left with the impression exam board endorsed text books with traditional signifiers of credibility were a superior source of knowledge to Wikipedia. The result was the students believed the online encyclopaedia was useful for reference; however their critical appreciation of its content was limited. "We don't use Wikipedia for history", one said, because "textbooks are more reliable": they are "more balanced" and approved by the exam boards.

In contrast to the Kings group one of the members of the Colours group described Wikipedia as "all fact". As Steve said in support of this, "People our age using computers everyday are going to know what's fact and what other people have written – just simply by the way it's written." Within the English National Curriculum [13], pupils are taught the difference between informal and formal language. Mark, perhaps, recruits this framework when trying to explain his point of view. He said people are able to discern what is reliable from "what words you use, informal or formal, s**t like that" and "you'd find faults in it somewhere if it wasn't professionally done" because "no one's just written this s**t, its actual factual information". Members of the Colours group communicated in what Bernstein called a restricted code [14].

Mark for example summed up his opinion of Wikipedia by calling it "Don". This is a contracted version of the idiomatic phrase "The Don", which he used as a euphemism for the highest authority. Mark's judgment of Wikipedia was influenced by its use of the elaborate code in its articles, a register he equated with authority and credibility. The students at Colours freely admitted to copy and pasting from Wikipedia to get their homework done. The only person at Colours who was sceptical of Wikipedia had studied at A levels at 6th form college and had been warned of its veracity. He said he did not trust it because of its open-authorship or what he called "self-input". There were distinct cultural differences in the way each group conceptualised and used Wikipedia that reflected their habitus.

Next, the focus groups were shown the website http://www.britishhomeopathic.org/, and asked to discuss its features and content in relation to its credibility. Owing to its connotations, the site's crest coupled with the word British, for Dom was a symbol of authenticity – "it looks like the real thing". For all the students, the site's "links to NHS" gave it more credibility. As James articulated, "The fact it references the NHS and mentions GP referrals makes it seem quite trustworthy". As did its "links to Twitter and Facebook", which meant to Jake it "was not just some kind of joke website". Similarly, the fact that site uses PayPal "makes it seem more official". James believed the site was more credible because it "has links to established society figures".

The consensus at Colours was that it "looks professionally made" especially the "layout and logo". For everyone in the group who nodded in approval when Jason pointed out the features, the fact that the site had a "Contact us" link and had been regularly and recently updated was important. Jess in particular also thought the "Terms of use" and "Private policy" links made it "look like a genuine website" and the fact "it's got links to well-known websites normally means it's quite trustworthy". The entire group considered detail the site claimed copyright important. For Steve, the fact the site's URL ended .org was also significant because it "means it is there for a reason". He said if he wanted to look up something that is important and has consequences then he would "look for a government set up site", "something that ends in .org". It frustrated Jess that she could not remember what .org meant. The credibility cues identified here are symptomatic of the way members of Colours had been taught about the Web in school. These are the cues they had been instructed to look for when deciding to what is safe to use online and reflected a preoccupation in their education with the Web's threats to safety.

The two groups identified different cues when thinking about the BHA website's credibility. Again, their habitus had equipped them differently to process the site's messages and content. For example, a few students at Kings commented that if a website had embedded links to Twitter or Facebook this made the site's content more credible in the sense that it had been endorsed by a mainstream corporation. They were similarly disposed to the BBC"s website. The Kings students relied uncritically on the BBC for news, as Jonathon said, "I trust BBC to give a balanced view". This was because the BBC was according to Alex "funded by the TV tax" and "linked with the government" but he said he was "not quite sure how". The BBC"s credibility was strengthened by the fact as Michael said "people can complain to Ofcom about its bias". The BBC and Ofcom, the NHS, and to some extent Twitter, PayPal and Facebook (but not Wikipedia) were trustworthy institutions: establishment figures. The 'unofficial' Web was more useful to the Kings students for harvesting opinion and sentiment. Recently for example, they had been asked to research, online, the issues surrounding abortion. Matt said during this exercise and others like it, he would "have lots of tabs open to compare sources". Ultimately, if he was "undecided by the websites" he would "probably just ask his parents or teachers".

In contrast, Mark, a member of the Colours group identified links to Facebook and Twitter as a deceptive marketing ploy. He wondered about the motives of the BHA; "I don't really understand why it's linked to social networking sites if it's to help to treat people". The same member of the Colours group was also more sceptical about the BBC than anyone at Kings. By referring to the experience of someone in his family, he suggested the BBC's coverage of the conflict in Afghanistan was often mediated and he was censorious of its reporting. He said it, "may not have the full extent of information, they could be piecing things together".

5. CONCLUSION

It is clear that, to the Kings group, Wikipedia similarly represented a source of subjective knowledge that lacked authority and they believed that if they were to reproduce its content, especially for assessment this would damage their progress in education. They found security in traditional sources of knowledge embedded in institutionalised practices. Crucially, the students at Kings valued only forms of knowledge and expertise that were rewarded by educational assessment regimes. This allows for the possibility their form of habitus does not afford the creative or divergent critical thinking necessary to perform in alternative fields and widens the debate about information literacy. Their traditional knowledge embodied in their habitus arguably left them exposed when applied to some aspects of the Web. Meanwhile, Mark's form of critical thinking embodied in his habitus was not being put to use in exams but, nevertheless, it enabled him to operate effectively in his field.

This small study reveals no group of Digital Natives can be considered inherently "savvy" or naïve. There are significant variations in critical thinking skills between and within populations of young people. Differences offline in, for example, attitudes to knowledge, expertise, education and use of language, are all, unsurprisingly, often reproduced in the digital world. As evidenced here, their habitus affords individuals the opportunity to develop socially constructed critical skills that enable them to operate effectively in their field. Systems of formal education have important effects on this process. Any digital literacy programme should acknowledge, accommodate and mobilise this explanation to help improve its outcomes. Approaches to digital literacy often assume the deficit model. This implies young people lack something they need to be given (either more skills or assistive technology to discern the 'facts') without accommodating what they already know or think they know or how they engage with technology as culturally situated actors. The next stage of this research is to capture more of these dynamics to help inform a critical evaluation of the solutions to what is being framed as a crisis in skills. If any of the solutions are responding to generic or crude characterisations of skill they are unlikely to be successful.

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