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INTERVIEW 8

The age of print literacy and ‘deep critical attention’ is filled with war, genocide and environmental devastation

Rodney Jones

Rodney Jones is an applied linguist investigating computer mediated communication. He is particularly interested in how digital media affect the way people conduct social interactions and manage social identities from surveillance and self-representation on social network sites to crowd wisdom, self-tracking and algorithmic analysis. He is the co-author of the 2011 textbook *Understanding Digital Literacies: A Practical Introduction* which not only teaches how new media work but also how they affect social practices. Rodney is Professor of Sociolinguistics and Head of the Department of English Language and Applied Linguistics at the University of Reading.

Rodney Jones points out the collusion of governments and corporations in an unregulated internet, as well as the potential of participatory media for grassroots movements *and* surveillance. He examines the discursive economies of social network sites and

their algorithms, the (partially justified) replacement of experts by crowd wisdom, the (historical) dialectic of quantification and narrativisation (especially in clinical medicine), the self-tracking movement, the self-presentation on Facebook, and the the current role of (media) literacy in the educational environment.

Prelude

Roberto Simanowski: What is your favorite neologism of digital media culture and why?

Rodney Jones: I love the term 'datasexual', the new brand of 'metrosexual' for whom the collection and display of personal data has become a new form of grooming and cultural capital. The term is both funny and scary, and perfectly fits the aesthetic of many quantified selfers: young, urban, hip, educated, geeky and slightly arrogant. Part of me sees some kind of poetic justice in this, having grown up at a time when being geeky was certainly not sexy — so the rise of the datasexual is kind of like 'the revenge of the nerds'. I'm also fascinated with the new ways data has become mixed up with sex and sexuality. This is of course not entirely new. Back in the 1990's I did research on personal ads, and a key ingredient was always one's 'stats' (age, height, weight, etc.). Digital technology, of course, has brought the datification of the sexual marketplace to a new level. We are in a state of constantly grooming our virtual selves in order to attract friends, mates, employers, etc.

RS: Datasexual is a quite productive neologism indeed. I can think of at least two more layers: 1. The data scientist is "The Sexiest Job of the 21st Century" as Thomas H. Davenport and D.J. Patil wrote in the October 2012 issue of the Harvard Business Review. 2. The obsession with data regarding diet and physical activity replaces the cliché of the overweight nerd getting up only to get pizza and coca cola by guys excited about quantifying self apps which inevitably provides them with a sexy body. The revenge of the nerd comes in two steps: First, they provide the technology for a wide-ranging datafication turning numbers into the central criterion of communication – at the expense of

words with which they have never felt very comfortable to begin with. Secondly, they produce the apps and social network settings that provide the necessary motivation to get their own stats 'in shape.'

RJ: Yes, it's also interesting to see this in the context of the development of food and health culture in Silicon Valley, and the wider context of 'Californian' culture. So there's an interesting mixture of spiritualism and empiricism – I meditate, and then quantify how much I have done it for example with the *Meditation Time & Tracker*-App by Robin Barooah. In this regard I highly recommend a book by Anthropologist J. English Lueck called *Being and Well-Being: Health and the Working Bodies of Silicon Valley.* At the same time, before we get too worked up about this 'contradiction' it's good to remember that lots of ancient spiritual systems rely heavily on quantification. Tibetan Buddhists, for example, use beads to count how many times they have prostrated or said different mantras, and the texts are quite explicit about the numbers that need to be reached before the practitioner can go on to the next step. The most obsessive self-trackers I've ever met are Tibetan lamas.

RS: I would never have guessed that: Numbers at the basis of mediation. We will come back to the issue of quantification. Before a rather speculative question: If you could go back in history of new media and digital culture in order to prevent something from happening or somebody from doing something, what or who would it be?

RJ: I wouldn't dare. I've seen too many movies about people going back in time to change things and ending up suffering unintended consequences. I think the idea that history moves in a simple linear fashion and that discrete events can be blamed for discrete outcomes is probably wrong. The causes and consequences of events are usually very complex, and often hidden from us, especially in the realm of media which involve not just all sorts of complex, inter-related economic and political decisions, but also the aggregation of countless personal decisions of users (the 'market'). I don't think it's as easy as identifying where

we have taken a ‘wrong turn’. I also think this smacks slightly of technological determinism — if only this or that technology or this or that media policy had developed differently, everything would be all right.

RS: Your feeling is probably right. I in fact do believe that media have the power to change the situation of men and that without certain media the world would be different. I suspect without the smartphone most people would still watch their environment rather than escaping into another world as I always did with a book. But this is a question for further studies of media or digital media respectively. Which brings us to the next question: What comes to mind if you hear “Digital Media Studies”?

RJ: It’s always difficult to name what we do, and no term is really ideal. The real purpose of these disciplinary names is to make our activities comprehensible to university administrations, government funding bodies and prospective students, but when you start interrogating the labels they are all deeply problematic. Are we studying media, or are we studying human behavior? What is the utility of separating ‘digital media’ from other kinds of media (the term already promotes a kind of ‘discourse of disruption’ that is often hyped by media companies)? People who identify with the label may come from wildly different intellectual traditions: anthropology, communication studies, cultural studies, literary studies, psychology, sociology, etc., and often what one ‘digital media scholar’ is doing may have no resemblance at all to what another is doing— they may not even speak the same language.

For my work I use the term ‘digital literacies studies’ (though I should probably say I’m just an applied linguist interested in things people are doing with digital technology). The problem with my label is that most people don’t understand what I mean by ‘literacies’ (or even think its a typo), because they may not be familiar with developments in the ‘new literacy studies’ over the past fifty years. They may think ‘literacy’ is simply the ability to read and write, whereas when I use the term ‘literacies’ I am referring to all social practices associated with the deployment

of semiotic systems, practices that are not just about encoding and decoding information, but also about negotiating relationships, distributing material and symbolic resources, and constructing social identities.

Politics and Government

RS: While in the 1990s Internet pioneers such as John Perry Barlow declared the independence of Cyberspace from the governments of the old world, now it seems people hope for governments to intervene in the taking-over and commercialization of the Internet by huge corporations such as Google and Facebook. Thus, web activists calling for the government to pass laws to protect privacy online, and politicians suggesting expiration dates for data on social networks appear to be activists in a battle for the rights of the individual. Have tables turned to that extent? Are we, once rejecting old government, now appealing to it for help?

RJ: I think the tables have turned, but this is not just true in the realm of media, but also in the realm of things like healthcare, transportation, environmental protection, advertising, etc. The shift happened with the rise of neo-liberalism in the 1980's, and the 'unregulated' internet proved fertile ground for it. Freedom from government intrusion means freedom for 'markets'— powerful corporations inevitably fill the power void and are much more difficult to challenge since their CEOs and directors are not elected. Meanwhile, elected officials, at least in the United States, are increasingly servants of these corporations which fund their campaigns. It's a horrible dilemma, especially since citizens who rail against big government and those who rail against big corporations often seem to want the same thing, but are pitted against each other (while the governments and corporations are actually colluding). Unfortunately, too much of the infrastructure of our daily existence (including the information infrastructure) is in the hands of forces that are beyond our control.

The big question for media scholars is the degree to which participatory media provides the tools for grassroots movements to challenge this hegemonic marriage of government and corporations. On a good day, I think it does, because I think any increased opportunities to communicate laterally and quickly mobilise social networks can be very powerful (I'm thinking, for example, of the recent protests in Hong Kong). I'm also optimistic because lots of young people are one step ahead of the technology companies (especially when it comes to things like digital piracy). I think that the persistence of torrents is a good sign that the 'machine' has an achilles heel. On a bad day, I'm pessimistic as I see that the very tools that facilitate the formation of grassroots social movements are also tools that facilitate unbelievable capacities for governments and corporations to exercise surveillance of private citizens and to manipulate their experiences of reality.

RS: Speaking of governments, corporations and the control of the internet: Google has become one of the symbols for the centralization of an important public good such as knowledge in the hands of a private company. It is not only the most effective and popular search engine, it also gave us an enormous pool of digitized books, which we like to consult whenever we need from wherever we are. Would the US government or the European Union ever have been able to carry out something like Google's book project? Should –and could– they run a search engine free of advertisement and with an algorithm visible to all who care?

RJ: This relates to the last question. Would any government necessarily be a better steward of such information than a private company? That would really depend on the resilience of democratic institutions in a society, and my experience is that they are rarely as resilient as we think. Another aspect of this question has to do with the resource implications. Information is not really free. It involves an enormous amount of labor to produce and distribute. Unfortunately, with the way the internet works now, the 'value' of information is hidden from us, because we are being 'charged' for it in ways that are not always apparent (by

giving our own information in return). This, of course, is a point that Jaron Lanier makes very persuasively. Would we be comfortable with a government using the same model to fund it's 'human knowledge project'? If not, what other ways could they fund it? What's scary to me about Google is not its size or reach but the economic model that makes that size and reach possible in the first place.

RS: An important aspect of the Internet with respect to politics and government is the subversive role it plays towards what Foucault called the 'order of discourse'. With the opportunity to express oneself online and with easy access to a plethora of divergent utterances on everything, the old 'disciplinary apparatus' has lost its base and impact. The situation is sometimes celebrated as shift from expertocracy towards swarm intelligence, sometimes bemoaned as cult of the amateur. How does an applied linguist look at this matter?

RJ: I think that what we have here is a shift from Foucaultian 'orders of discourse' to Deleuzian 'societies of control'. Opportunities to 'express oneself' are just as constrained as before, only now by the discursive economies of sites like Facebook and YouTube. People have 'access' to divergent utterances, but the algorithms channel us into the same old discursive traps. People who get their news from the internet in 2014 are in some ways less likely to be exposed to divergent views than those who got their news from TV in the 1960's because of the 'filter bubble'. At the same time, I think you are right — the new ways information circulates has brought on a crisis of expertise. But part of this crisis also comes from the fact that many people feel that experts have failed us: doctors can't cure us, bankers destroy the economy, priests have sex with children, athletes take drugs, politicians are corrupt, and corporations cheat us and pollute the environment. Ironically, now people seem to put more trust in algorithms (which aggregate and interpret crowd sourced data) than they do in people. They seem to think that what they are getting is actually the 'wisdom of crowds', when what they are really getting is the interoperation of aggregated

data by algorithms which were created by the very experts that they distrust and often reinforce the very same agendas.

What is interesting to me as an applied linguist is how people negotiate this new economy of knowledge. I don't think it's as simple as the 'wisdom of crowds'. We need more empirical research on how people search for and evaluate information online (when, for example, they are suffering from a health problem), how knowledge is collaboratively constructed and contested in social networks, how 'laypeople' work together to pool knowledge and challenge experts. For me, the power of applied linguistics is that it gives us a way to operationalise theories. So applied linguists in the 1990s (especially critical discourse analysts) operationalised the idea of 'orders of discourse' by discovering ways discourses are instantiated in things like grammatical structures and genres. Now applied linguists need to operationalise the idea of 'societies of control', to understand how discourse circulates in networks, how selves (as discursive constructions) become instantiated in webs, how the nodes and ties of networks are created and strengthened through the moment by moment conduct of social interaction, and how people 'talk' with algorithms.

Algorithm and Censorship

RS: One could argue that the order of discourse has been inverted: not simply to the extent that laypeople now replace experts, but also in a general dwindling willingness to engage with counter arguments or with anything that is difficult and demanding such as a complex consideration instead of a straight statement. What we may also lose when we dismiss experts are people who, because of their expertise and experience, know better than we what is good for us and (because of their ethos) force us to avoid the easier way: the journalist or editor of news on TV and of a newspaper who offers a complex analysis of a political issue, the curator who decides what art work the public should be exposed to, the teacher who makes students read what she thinks they should know. One result of such development is the

trust in numbers as we can see with social media and other platforms online that focus on the counting of views and likes. At the same time, algorithmic analysis of big data seems to verify Lev Manovich's claim from more than a decade ago: the database as one model to make meaning out of the world (by representing the world as a list of items) is overcoming the narrative as another model (representing the world as a cause-and-effect trajectory of items). In your 2013 book *Health and Risk Communication* you mention the 'discursive turn' in social science and investigate how people reflect and communicate health and disease. How do you see the relation of numerical and narrative elements in this communication? What role does the quantified self-movement, whose slogan is "self knowledge through numbers," play in this new scenario?

RJ: The story of clinical medicine in the past 100 years or so has been the story of the tension between quantification and narrativisation. In the 19th century and before, narrative played a central role in diagnosis, with the doctor's main job being the elicitation of a comprehensible narrative from the patient and the interpretation of that narrative. With the development of clinical trials in the 20th century, along with all sorts of technologies for the measurement of bodily functions, diagnosis increasingly became a matter of interpreting numbers rather than stories. The patient's narrative and the doctor's intuition both came to be seen as unreliable. This reached it's height in the 1990s with the rise of 'evidence based medicine'. A lot of this shift was market driven— increasing quantification gave health care systems, insurance companies and pharmaceutical companies more efficient ways of rationalising resources, billing for services and marketing drugs. At the beginning of this century there was a backlash against this focus on 'treating the numbers'. With the rise of 'narrative based medicine' (as well as the focus on narrative in alternative therapies), over-quantification came to be seen as suspect. So where does the quantified self movement fit in with this? Does it mean a shift back towards quantification?

Ironically, I think the opposite is true. What practices of self quantification actually give to many patients are better resources for them to tell stories to doctors. In fact, there has always been a dialectical relationship between narrativisation and quantification in medicine. Clinical practice has always been about turning narratives into numbers (doctors turn patient's stories into diagnoses, drug dosages and treatment regimens), and about turning numbers into narratives (doctors need to explain the results of medical test or risk scenarios in terms that patients understand). In the past, this process was completely in the hands of doctors. Patients only had their narratives. Doctors had the power to turn them into numbers and then to make new narratives out of the numbers. Self-quantification, at its best, puts some of this power in the hands of patients and gives patients a role in generating and interpreting data about their health.

RS: This sounds like a twofold happy end: The cooperation of numbers and narratives, or, as Katherine Hayles puts is, database and narrative as "natural symbionts", as well as the collaboration of doctors and patients. Doesn't the obsession with numbers and this kind of self-applied 'dataveillance' also bring new problems with it?

RJ: In terms of actual health outcomes, I am still very optimistic about what this development means for patients and their relationship with physicians. There are, however, a lot of potential dangers to this. One is the danger that self-monitoring can give rise to new regimens of governmentality and surveillance. Another is that the rise of self-tracking allows governments and health care systems to devolve responsibility for health onto individuals.

RS: This would be the dark side of this ongoing trend to self-optimization. It is certainly not wrong if people are more aware about their physical activities and eating habits. However, if the resulting data determines peoples' entitlement to health care benefits then the self-applied, quantified 'bioveillance' would turn into a means of further expanding the neo-liberal perspective on society. A case in point of the prevalence of numbers

over narratives is Google's PageRank which is based on statistical concerns beyond any hierarchical taxonomies and ontology based interpretation.

RJ: The biggest problem with self quantification is that, like any form of entextualization, the 'insights' we can get from it are determined by the semiotic categories that it is able to represent. So quantification translates everything into numbers, and numbers have the power to help us see these things in new ways, but at the same time, they limit our way of seeing things. But this is true of any semiotic mode or genre (what I call in my book, technologies of entextualization). So all modes of representation (numbers, words, pictures) are biased, ideological.

As for Google, of course it manipulates Page Rank and censors all sorts of things, but that's not the real problem. The real problem lies in the uninterrogated ideological assumptions behind Page Rank to begin with — the ideological assumptions supported by this 'technology of entextualization'—which includes the idea that 'value' and 'relevance' are determined by popularity and association. As academics we are all too familiar with the consequences of this way of valuing knowledge. Does the number of citations really measure the 'impact' of an article?

RS: We academics of course assume that it doesn't. Different to the senior management, we presuppose that popularity is a problematic criterion for evaluation as long as we value complexity and intellectual challenge. However, we all know from Facebook that a thoroughly crafted post is not likely to receive more likes than a cute picture. On the other hand, isn't the regime of numbers – which gives everybody an equal say regardless of her intellectual or political resources – the inevitable destiny of democracy? Put differently: Does the quantitative turn digital media and especially social bookmarking bring to society prompt us to reconsider our concepts of power, participation and public voice? Discuss

RJ: This is a complicated question, with lots of parts to it. I think if you speak to many users of Facebook (and especially Instagram) they'll tell you that they spend a lot of time crafting

their status updates in order to maximize likes, and even pay attention to when they post them, knowing that people are more likely to look at their newsfeeds at certain times during the day. I'm not sure that 'cute' is enough to get likes anymore. People try to be clever. I admit to doing it myself. I sometimes use Facebook status updates as examples when I discuss multimodal discourse with my students, because they are often very carefully composed, with their 'success' depending on how the poster is able to create particular relationship between elements in the image, between the image and the words, and between themselves and the different (usually multiple) audience that they are targeting. I'm not saying this is high culture. It's popular culture, but popular culture can also have an artfulness. At the same time, we need to be careful about expecting any more from Facebook than we do from other forms of popular culture. Sometimes, though, you do get a serious and thoughtful post that will attract a lot of attention. It depends upon the sociohistorical context. I found for example during the Umbrella Revolution that my Facebook newsfeed became a site of rather sophisticated debates about constitutional reform.

But the question of power and participation is more complicated. My suspicion is that political ideas that are packaged in ways that appeal to people's prejudices and fears tend to get the most traction ('likes'), and this was certainly true before social media: so you get great populist leaders like Huey Long and Joe McCarthy and Adolph Hitler (and now, perhaps, Donald Trump). I think the difference is the network effect: that these ideas get spread much more quickly, and they are amplified within echo chambers (that are partly created by algorithms like Google's). Likes attract likes. The 'popular' posts or 'bookmarked' articles appear at the top of the list and are more likely to become more popular. More worrying is the way people's ideas get reinforced rather than challenged. So if someone types 'Is Obama a Muslim' into Google, and then clicks on pages that assert that he is, then the next time he types Obama into the search engine, he will likely receive results asserting that Obama is a Muslim, and so start to think that this is a 'fact' or at least mainstream opinion.

RS: Another question I have about Facebook concerns its contribution to a better world by way of the so-called transparency culture and sharing imperative. While the economic interests behind this data worship are undoubted and certainly need to be addressed, the question remains as to why younger generations don't seem to care about privacy but establish, using Facebook millionfold day-to-day, radical transparency as the new foundation of our culture. Critics of digital culture such as Siva Vaidhyanathans have called for a "dignity movement" that needs to address that having a certain level of anonymity and "breathing room" is part of both being human and being social.

RJ: There's, of course, another way to look at this. That is, to remember that much of what we think about as 'privacy' and 'dignity' are really Western bourgeois notions that have actually developed quite recently, and that these ideas also have certain consequences, notably the privatisation of the public sphere and the concentration of wealth into very few hands. It is also important to remember that, as danah boyd points out, young people have their own norms and literate practices for sharing and concealing information and manipulating their self-presentations online. In fact, most of my conversations with my own students reveal a host of very sophisticated techniques for determining who gets to see what about them. It's also naive to think that what people post online is really 'true'. Often status updates are very deliberate artifices designed as parts of carefully constructed public narratives that are intended for particular audiences. Too much thought goes into this to characterise it as a kind of 'information promiscuity'.

RS: I have no doubt that young people don't want everybody to read everything they share in social networks. They are, as dana boyd points out, especially concerned about 'surveillance from parents, teachers, and other immediate authority figures in their lives' rather than the possible access of governments and corporations to their data).[1] However, I am not sure I would agree with boyd that teens' engagement with social media is just a different interplay between privacy and publicity 'instead of signaling

the end of privacy as we know it.' In particular, the shift from a 'private by default' to a 'public-by-default framework,' that boyd notes, indicates that we are experiencing a tremendous change in the traditional concept of privacy. As for the fact that privacy as we know it is a rather recent feature of Western civilization is often used to pave the way for the post-privacy stage our civilization is entering; most prevalent maybe by moral philosopher Peter Singer in his 2011 essay *Visible Man. Ethics in a world without secre*t. However, if recency is an argument what about other constructs and concepts that materialized in Western civilization not long ago such as equal rights for women and equal opportunity stipulations for religious, ethnic, or sexual minorities? I see an interesting historic-philosophical shift applied here: Since enlightenment man considered history, including technological development, as progress to the better and expected 'non-enlighted' cultures to eventually catch up. Now it seems privacy as one of the results of the historical process – the German sociologist Georg Simmel once considered the secret one of man's greatest achievements – is devalued as something we also could and actually should do without.

RJ: Yes, I suppose it depends on privacy from *whom*. Kids are very good at being private from their parents and teachers, but not very good at being private from advertisers and the government, but they don't see advertisers or the government as threats (yet) the way they do their parents (who have immediate power over their lives). Interestingly, I think if you talk to kids about privacy (from their parents) they will likely frame it in political terms—it's about 'dignity', 'rights', 'autonomy', so I think Simmel's ideas are still pretty strong. I'm not arguing that privacy should be devalued because it's new. I'm arguing that it's still valued (or at least the ideas of autonomy and dignity behind it are). Finally, I think it's important to remember, as I said above, that, especially in this age of micro-celebrity, there is a big difference between the person and the persona. I don't think a lot of people regard the 'self' that they are constructing on Facebook to be their 'real

self' (any more than they think Lady Gaga acts the same way in private as she does in public or on Facebook).

The relationship between the Western enlightenment and privacy is an interesting one, for the more privacy is valued, the more disclosure is also valued. So in Western countries a gay man *must* come out if he is to be regarded as 'authentic' and 'free'. In China, where there is little regard for privacy, one is expected to keep this a secret (even if other people implicitly know). The idea of privacy can't be separated from the development of western capitalism/individualism. Privacy creates democracy and 'freedom' (whatever that means), but that's not why it is so important in our societies. The important thing, from a capitalist perspective is that privacy *creates value*.

RS: Let me relate the issue at hand with the question of technical determinism we touched on before. One of the classes you teach is called "Digital literacies in the era of surveillance". It explores the kinds of choices people have in utilizing digital technologies in societies in which nearly every action they take with digital media is being recorded, logged, aggregated and analyzed. Those media theorists who subscribe to McLuhan's notion of the medium as the message are rather skeptical as to the extent to which humans are able to understand and reject the postulates media impose onto them. The hate-love relationship of many people with Facebook may be one example: despite the complaints about the burdens inflicted by this communication and self-manifestation 'machine,' one still isn't able to quit. Are we prisoners of our own devices, who can checkout any time, but never leave?

RJ: As for social media, what traps us is not the media part, but the social part. The media becomes the place where all our friends gather, and so we can't socialise unless we go there (not so different from the church and the public square in the past—in fact, the church is a good analogy for social media since it also imposes a kind of regime of confessional sociality). Sherry Turkle worries that media have become the architectures of our intimacies, but I don't think this is at all new. Technologies (and the

social institutions they support) have always been the architectures of our intimacies. Architecture itself (the walls of private homes, churches, schools, shops) have been the architectures of our intimacies.

Media Literacy

RS: In 2011 you published the book *Understanding Digital Literacies: A Practical Introduction*, co-written with Christoph A. Hafner. The topics range from hypertextual organization over blogging and games to social networks. In contrast to other textbooks about new media literacy, you don't limit your explanations to how these new tools of communication work and can be used effectively but inquire how they affect cultural behavior and values. Given your perspective as a researcher and your experience as a teacher, what role should literacy about the cultural implications of new technologies play in the educational environment and what roles does it play today?

RJ: This gets back to a point I made in my earlier answer. The question is not just how media literacy should be taught, but about how all literacy should be taught. The problem with most approaches to literacy is that they focus on 'how things work' (whether they be written texts or websites or mobile devices) and teach literacy as something like the skill of a machine operator (encoding and decoding). Real literacy is more about "how *people* work" — how they use texts and media and semiotic systems to engage in situated social practices and enact situated social identities. So whether we are teaching students how to write essays or blog posts, the most important question we should have for them is — what are you doing when you use this media or this genre or this language, and, even more important, who are you being?

RS: There are many concerns inside and outside academia about what people do with new media and what new media do to people. One example is Nicholas Carr who in his 2008 article *Is Google making us stupid?* and later in his 2011 book *The Shallows – What the Internet is Doing to Our Brains*, discusses the consequences

of online media for literacy. From Carr's perspective, multitasking and power browsing online make people unlearn deep reading with the effects being carried offline, and with the result that they also unlearn deep thinking. The shift from deep attention to hyper attention has also been announced and bemoaned by French philosopher Bernard Stiegler who even speaks of a threat to social and cultural development caused by the destruction of young people's ability to develop deep and critical attention to the world around them. Is this academic nightmare justified? Or is this just another reiteration of a well-known lamentation about the terrifying ramifications of all new media?

RJ: I don't think it is justified, for several reasons. There is no doubt that new media are giving rise to new kinds of 'attention structures' just as writing did in the past, as well as radio and television. In environments dominated by digital media people will definitely distribute their attention differently, but I don't think there is any evidence that this will result in less 'critical' thinking. The problem with most of these discussions is that they get stuck in simplistic metaphors about the mind (e.g. deep—shallow) that I don't think do justice to the complexity of embodied situated cognition. Second, there is the question of what it means to be 'critical'. In some ways, being able to successfully traverse multiple texts also requires considerable critical thinking, just of a different sort. Third, the assumption that we are losing our ability to 'read deeply' confers value on a particular type of text and a particular type of writing— writing that follows linear forms of argumentation. Texts that people write in the future will be less linear and more hypertexual, and more algorithmic, and demand different kinds of reading skills, and different forms of criticality (forms that we desperately need to learn how to teach).

Finally, I don't think shallow reading is replacing 'deep reading'. What it's mostly replacing is television. There is absolutely no evidence that young people today are reading less than they were in the 1960s when I grew up. In fact most of the evidence (e.g. from PISA surveys, from book sales) indicates that young

people are reading more than before, more than adults, and, that they are reading longer texts. As for the claim that people are becoming more 'stupid', I can just imagine my students rolling their eyes at being called stupid by a generation that has created the economic, political, social and environmental catastrophe we now find ourselves in. The 'social and cultural development' and 'deep critical attention' of print literacy has brought us centuries of war, genocide and environmental devastation. New forms of literacy may not solve these problems, but the 'good old days' when everybody read deeply, pondered critically, and acted wisely simply never existed.

RS: In 2010 The Time's columnist Ben Macintyre compared the rapid and restless information gathering of the Web 2.0-generation with the fox who jumps from one idea to the next drawing inspiration from many sources while the hedgehog sees the world through the prism of a single overriding idea. Macintyre takes this analogy from Isaiah Berlin's 1953 essay *The Hedgehog and The Fox* and clearly favors the fox model, since to him it also opposes ideological fixation. What Carr, Stiegler and others perceive from a quite culture pessimistic perspective – power browsing, short attention span – is for Macintyre almost the promise of a better future. Should we, rather than bemoaning or doubting the waning of 'critical' print literature, more actively emphasize and discuss the hidden promises of the ongoing cultural change?

RJ: As long as we don't work ourselves up into an optimism that becomes just as constraining as Carr's pessimism. I do think that what is often happening is not just jumping from idea to idea to get inspiration, but making connections between disparate ideas, which can be very useful. But any mode of thinking is only as good as its execution. A person can read Georg Simmel and miss the connections between the ideas, even when the author makes them quite explicit. And one can similarly surf across the surface of the web, but not engage in creating any connections between one thing and another.

RS: Before the Internet became available for private and commercial use it was administered by the university. Today one has

the impression the university is no longer on top of development in this domain. How should academic institutions have responded to the upheaval of new media? How should they become more involved today?

RJ: It depresses me sometimes to see how the universities are responding to new media, mostly as platforms to deliver old media genres like lectures. The problem is trying to fit old pedagogies into the new kinds of participation frameworks made possible by new media.

RS: Another problem may be to upgrade old research disciplines by new technologies as it is happening under the umbrella term of Digital Humanities. This could turn the Humanities into a branch of the science department or, via quantitative analysis open up new opportunities for close reading and interpretation. What do you fear or hope from Digital Humanities for your field of research?

RJ: I'm not a literary critic, but my view of the humanities is that their goal should be to help us understand what it means to be human in the face of any technology we interact with — to shed light on how we live in whatever kinds of buildings, societies, and virtual worlds we have built for ourselves. The bifurcation of the human and the technological is entirely artificial. The technological is the human—its what we've built for ourselves. The goal of the hsumanities is to make us critical and reflective about all the technologies we use, whether they be sonnets or iPhones.

Notes

1. Dana Boyd: *It's Complicated. The social lives of networked teens*, New Haven, London 2014: 56. The following quotes pp. 57 and 61f.