# Summary

## Networked Content Analysis: The Case of Climate Change

Content analysis has been developed within communication science as a technique to analyze bodies of text for features or (recurring) themes, in order to identify cultural indicators, societal trends and issues. While content analysis has seen a tremendous uptake across scientific disciplines, the advent of digital media has presented new challenges to the demarcation and study of content. Within content analysis, different strategies have been put forward to grapple with these dynamics. On the one hand, there is a call for a standardization of techniques to deal with the dynamic nature of web content, while another strategy proposes to combine traditional content analysis techniques with methodologies taken from other disciplines such as sociology and linguistics. Although these two approaches each present ways forward for the analysis of web content, they do not yet regard the vast differences between the different web platforms that serve content. Web platforms and search engines each carry their own (often visually undisclosed) formats and formatting, their own scenarios of use, their own terms of service and output their own results and rankings. In this book, I therefore develop networked content analysis as a term for such techniques of content analysis that are adapted specifically to the study of digital media content. I have selected three digital media platforms to develop and apply the approach, namely the web (and Google Web Search), Wikipedia and Twitter.

In this book, I propose that networked content analysis applied to the web includes hyperlink analysis (which itself is informed by scientometrics) and resonance analysis that works with search engines such as Google Web Search. I approach Wikipedia as a data-rich site for social research and perform a networked content analysis of articles and their linkages. On Twitter, the techniques include keyword resonance analysis and co-hashtag analysis. The issue investigated here across platforms is climate change, which is one of the major societal challenges of our time. Interestingly, the issue of climate change has been attended to with some fine-grained content analysis methods since the early seventies. In my case studies, I ask how the content of the climate change debate can be studied on the web and with search engines, on Wikipedia as well as on Twitter, in order to contribute to a larger body of work on climate change debate.

On the web, I zoom in on climate change skeptics to study their networks, their resonance in search engine results, and the related issues to which they are committed, asking whether they are professional climate change experts or, in fact, professional skeptics. In Wikipedia, I study the network of climate change articles, their editing activity rhythms and actor commitment. On Twitter, I capture the state of the climate change debate through keyword profiles as well as more common co-hashtag graphs to assess the state of the climate change debate. In all, my contribution provides footing for a return to the roots of content analysis, and, at the same time, adds to its toolkit the necessary web- and platform-specific research techniques for creating a fine-grained picture of the climate change debate as it takes place across platforms.

In the conclusion, I rehearse the five key points raised in this book, which further establishes the need for such techniques. Firstly, the main goal of this book is to develop an adaptive toolkit able to deal with the fact that different web platforms and engines serve content with different technicities. As each platform or engine has its own technicity and therefore requires specific methods and analytical tools, I have tried to stay true to the strengths of traditional Content Analysis for the humanities and social research—the non-intrusiveness of the method, the inclusion of content in all its shapes and forms, and the attention to the context of content—while further developing techniques that better adapt to the specificities of networked content.

Secondly, digital media content currently exists in and through the platforms and engines that produce it, which means a clean separation of content from its carrier is no longer feasible. It is now impossible or, at least, inadvisable to regard for instance a Wikipedia article as entirely separate from its publicly available production process. Answers to questions regarding the composition of editors and the involvement of bots in editing or creation of articles are of great interest and utility to anyone embarking on the mapping of a contemporary debate, and especially to content analysts. Krippendorff has laid the groundwork for such analysis, well prior to content analysis having to deal with online content.

Thirdly, the book emphasizes that networked content also *folds in* traditional media content. Television news is published online, discussed in websites; news reports and images populate search engine results, are linked to tweets and amplified by retweets, and lead to the creation of Wikipedia articles. The researcher negotiates this entanglement of news (and other mass) media content, more traditional objects of study of content analysis, and networked content, the object of study in networked content analysis. The rise of digital media does not mean the end of traditional mass media, but its reconfiguration as part of online networked content.

Fourthly, and more conceptually, I propose that when studying the climate change debate through online content, we may regard the different platforms as different *windows* on the debate. Rather than asking who is on Twitter and among those users, who uses hashtags, we may productively ask what *kind of* climate change debate Twitter presents. And, for instance, how does this compare and relate to the climate change debate as presented by Wikipedia? In the climate change case studies, the web presents a climate debate maintained by *professional skeptics* with distinct networking behavior, including on related and unrelated issues, around specific controversy objects. Wikipedia offers a view on a successful controversy management, where a heated debate had been taken out of the main article and forked, skeptical editors stayed true to the heat of debate as such, and migrate along to the new ‘debate-article’ established to address the controversy. Twitter presents a progress report of climate change adaptation, attentive to the landscapes and animal species endangered by climate change. In these ways, considering social media platforms as *windows on an issue* is productive for creating a better understanding of the cultures of use of such platforms, as well as the role of those techno-cultures in actively shaping issues.

A fifth point that I have made herein is that while Wikipedia offers public views on its technicity, the other platforms studied here do not. Google Web Search, through its terms of service, does not allow for the use of its search engine for anything other than search. So repurposing the engine as a research device (as discussed in detail by Weltevrede) goes against its rules and regulations.[[1]](#footnote-1) Twitter has various APIs, however, on an interface level, Twitter does not discloses its mechanisms of ranking and prioritizing content (and neither does Google or any mainstream social media platform). In the various case studies, I have described how platforms network content differently, and — as stressed in the first point — how this calls for an adaptive approach to the analysis of networked content, which is amendable to suit the technicity of a platform. Making technicity explicit offers critical insight into the entanglement of user content with the platform.

I close the conclusion with a quotation by Jaron Lanier, who in his 2010 manifesto *You Are Not a Gadget*, paints a future of content that I argue includes content written for exponentially *networked technicity*. Here, we find content made for the network, re-hashed, redistributed and copied by network infrastructure, and then clicked on, liked or retweeted by its recipients. As content will continue to evolve along with the technicity of its medium, researchers will have to expand the techniques and tools for networked content analysis, continue to develop a critical vocabulary, and produce further concepts and visual languages for the mapping, analysis and description of networked content.

1. E. Weltevrede, *Repurposing Digital Methods: The Research Affordances of Platforms and Engines*, University of Amsterdam, Amsterdam, 2016. [↑](#footnote-ref-1)