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Helmond, A.; Nieborg, D.B.; van der Vlist, F.N.

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The Political Economy of Social Data: A Historical Analysis of Platform–Industry Partnerships

Anne Helmond

University of Amsterdam
Turfdraagsterpad 9
1012 XT Amsterdam, the Netherlands
+31205252915
a.helmond@uva.nl

David B. Nieborg

University of Toronto
140 St George St.
Toronto, ON M5S 3G6, Canada
+14162877171
david.nieborg@utoronto.ca

Fernando N. van der Vlist

University of Siegen
Herrengarten 3
57072 Siegen, Germany
fernando.vandervlist
@uni-siegen.de

ABSTRACT

Social media platform–industry partnerships are essential to understanding the politics and economics of social data circulating among platforms and third parties. Using Facebook as a case study, this paper develops a novel methodology for empirically surveying the historical dynamics of social media industry partnerships and partner programs. Facebook is particularly emblematic as one of the few dominant actors that functions both as data aggregator and as digital marketing platform whilst operating a multiplicity of dedicated partner programs that cater to a wide array of industry partners. We employ mixed methods by aligning digital historical research and interview methods: using “digital methods”, we reconstruct both ongoing and former declared platform–industry partnerships and programs with web data whilst conducting semi-structured interviews with selected platform partners to contextualize the empirical research. This enables us to address (i) the dynamic relations between social media platforms and industry partners, (ii) their diversification by catering to a growing number of stakeholders with distinct interests, and (iii) their gradual entrenchment as dominant actors within an emerging digital marketing ecosystem. By tracing how and when partnerships and industry alliances are forged, sustained, and terminated over time we are able to develop a critical account of the political economy of social data that addresses the politics of platforms and stakeholders as well as the consolidation of platform power.

CCS Concepts

• Collaborative and social computing→Collaborative and social computing theory, concepts and paradigms→Social media
• Collaborative and social computing→Collaborative and social computing systems and tools→Social networking sites

Keywords

social media platforms; digital methods; partner networks; political economy; social data; digital marketing; Facebook

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1. INTRODUCTION

In his landmark study of the digital advertising industry, *The Daily You*, Joseph Turow [15] offers a clear indication that the practices of targeted digital advertising mark a force not for good, but err more toward evil. The arc of the digital advertising industry’s relatively short history is clearly not bending towards justice. Websites offering advertising space and a myriad of advertising companies—ranging from data trackers to ad exchanges—are complicit in a “massive stealth effort” that results in mass-scale social profiling and discrimination [15]. Only five years have gone by since Turow’s critical account, and the changes in the advertising economy have been seismic. Facebook in particular is emblematic of a massive shift in terms of revenue, research and development, and its ability to gather large swaths of real-time, location-based social data. The company’s conversion from a desktop-oriented advertising company to having a distinct mobile identity has been swift and ultimately very successful [7].

One way to account for Facebook’s ability to capture value is to point towards the company’s formidable competitive advantage: its capacity to collect behavioral data of over 1.86 billion monthly active users. That said, Facebook’s user base and the widespread adoption of its mobile “family of apps” represent the most visible aspect of a highly opaque, digital marketing ecosystem that sustains the company’s data gathering capabilities. In other words, what these revenue and user numbers mask is Facebook’s deep economic and infrastructural integration in both the wider ecosystem of connective media [17] and, in particular, digital marketing industries. This raises the question of how to account for the platform’s ongoing expansion. Facebook’s scope and scale is multidimensional and has become the foundation to the company’s ability to hold their web and mobile app space together. As a business platform Facebook interfaces among millions of businesses and institutions, ad publishers, ad intermediaries, third-party content developers, and users. At the same time, as a computational platform it offers access to various third parties via a wide range of application programming interfaces (APIs) and software development kits (SDKs). We therefore argue that understanding the evolving nature of social media industry partnerships is essential in order to understand the political economy of social data flowing between Facebook and third parties. Thus far, intra-industry relationships in the digital marketing ecosystem have received scant attention from media scholars.

This paper explores how Facebook’s partnerships have evolved since the launch of its platform. Recent work in business literature notes that platforms are characterized by a modular architecture, which allows a platform provider to rapidly iterate on its core

components while offering third parties the opportunity to contribute peripheral components [6]. Third parties, such as marketing agencies, can then build on a platform's core infrastructure by providing them with "a set of interfaces that allow them to communicate, interact, and interoperate with the platform" [14]. These technical interfaces enable the exchange of data and functionality with marketing partners and create a platform ecosystem consisting of the platform and services built on top of it [14]. Rooted in the recent infrastructural turn in platform and software studies [11], this paper contributes methods and strategies for a specific strand of industry research focused on the internet industry. In addition to employing in-depth background interviews, as is common in media production studies [3], this research draws on digital historical research methods. We contend that Facebook's ability to shape the digital marketing ecosystem establishes path dependencies—that is, the ways in which other third parties become directly or indirectly platform-dependent. Lastly, our goal is to contribute novel methods and strategies for studying the digital marketing ecosystem and complex networks of data intermediaries via digital historical traces.

Our investigation breaks down into three parts. First, we want to contribute to a deeper understanding of the dynamic role of Facebook and its partners. Second, as the digital marketing ecosystem as a whole is in constant flux we want to track how platforms and third-parties are diversifying as they collectively cater to a growing number of stakeholders with distinct interests. Third, we are witnessing a gradual entrenchment of a select number of dominant actors within the wider digital marketing ecosystem. To be able to better answer the opening question—are social media platforms a force for good or evil?—in our analysis we draw on critical political economy to address issues of equity, power, and equality in intra-industry relationships.

2. BACKGROUND AND RELATED WORK

In the field of media studies, investigations into the role and nature of online advertising predominantly concern the intersection of privacy and surveillance, and the issue of audience labor and audience commodification [4]. Social media platforms are instrumented to "measure, manipulate, and monetize" online connectivity [16], and by extension offline behavior. This raises obvious concerns about privacy, manipulation, and discrimination, and more recently, about how platforms have been complicit in blurring the boundaries between facts versus "alternative facts", and news versus "fake news".

Steering away from questions related to media and advertising reception and the construction of meaning, critical political economists of communications have been particularly prolific in discussing how the cultural industries position audiences as products. The starting point for many such accounts is the seminal work of Dallas Smythe [13], who pointed to the "blindspot" of media and communication scholars in their neglect to account for the political economy of television production and the manufacturing of audiences. The notion of the "audience commodity" gave way to a long-running, mostly theoretical debate whether or not audiences "work", and to what extent their time spend in front of the TV or on social media should be considered as a form of (immaterial) labor [4, 10, 13]. Building on Smythe's thesis, others suggested taking an institutional approach by arguing that it is not so much the audience's attention that is sold to advertisers, but rather an audience's aggregated data which are translated into ratings [9]. These early critical interventions are relevant in light of our analysis as they point towards the crucial

role of data intermediaries in the domain of advertising-supported modes of cultural production and circulation.

Drawing on Castell's political economic insights, Van Dijk steers away from (neo)Marxist accounts of audience manufacturing and surveys how issues of platform ownership, platform governance, and business models are interrelated: "In the venture capitalist economy of Silicon Valley, partnership deals, even with competitors, are as important as beating the competition" [17]. We build on these insights and propose to analyze the dominant position of advertising-driven social platforms in the wider ecosystem of connective platforms, and how they operationalize their power through industry partnerships. For example, Bechmann [2] discusses the different data strategies of Facebook and Google and how APIs can establish asymmetrical relations with other actors in the "economy of data interoperability". That is to say, we suggest a complementary institutional political economic approach by mapping platform–industry relationships over time. To that end, we focus on the evolution of Facebook as one of the key actors in the emerging digital marketing ecosystem by surveying how it functions as a data aggregator and marketing platform that operates multiple dedicated partner programs.

It should be noted that the necessity to form partnerships lies at the heart of the digital marketing ecosystem, which in its most basic form brings together a trio of key actors: consumers who offer "eyeballs", "publishers" who sell "advertising inventory", and advertisers or "buyers" of eyeballs. Traditionally, these interactions are structured and facilitated by a wide array of content and data intermediaries [5]. Whereas in the early 2000s online advertising revenue was primarily generated via static display banners next to static website content, in the mid-2000s Google's ascent marked a shift towards search-based advertising revenue and popularized a number of advertising tools, techniques, and philosophies. Generally speaking, digital advertising shifted from probabilistic, cookie-based approaches towards a performance-based, dynamic modality that allows advertisers to "bid" on thousands of impressions, clicks, or taps in real-time [10]. Increasingly, these bids are informed by behavioral data and profiles offered by data intermediaries, social media platforms such as Facebook, and complemented or mixed with data gathered by advertisers themselves.

Facebook has become one of the most visible actors, particularly in the realm of mobile marketing because of its continuous growth in revenue and reach in terms of users and user engagement. The ability to exert control over either the demand-side (users) or the supply-side (inventory) of the digital advertising market is seen as a key competitive advantage. Facebook increasingly controls both sides of the market by pulling actors into their platform and extending platform features such as social plugins into third-party websites and apps. This process of furthering Facebook's infrastructural and economic reach is theorized as "platformization" [8], which has profound political-economic implications. Many industry professionals see the relationship between Facebook and its partners as mutually beneficial. They enable Facebook to tap into specific regions where local marketing agencies have a deeper level of expertise, and they enable partners to tap into Facebook's vast data infrastructure in order to implement these data streams into their own tools. Yet, by integrating their technology with Facebook, advertising intermediaries are increasingly unable to (re)direct eyeballs thereby becoming subject to Facebook's techno-economic regime. Social media platforms, then, have become aggregators of

aggregators by slowly encapsulating most key actors within their ecosystem. To investigate this process of entrenchment we trace the emergence and development of Facebook’s role and position within the digital marketing ecosystem by focusing on the partnerships it establishes with marketing agencies and advertising companies.

3. RESEARCH DESIGN

In this paper, we develop novel empirical methods to examine Facebook’s partner ecosystem. We employ a mixed methods approach based on a combination of digital research and interview methods. The company operates multiple dedicated partner programs and thereby caters to a large number of industry partners. In this investigation, we develop an empirical historical method grounded in digital traces of (former) declared partnerships as documented in the Internet Archive or in blog archives. To contextualize our findings, we conducted a series of background interviews with industry informants working at digital advertising companies.

We develop “digital methods” [12] for reconstructing ongoing and former declared platform–industry partnerships and programs by utilizing the Internet Archive Wayback Machine (IAWM), the largest publicly accessible web archive that contains over 286 billion “snapshots” or captures from archived web pages since 1996. In doing so we extend existing empirical methods for mapping business ecosystems [1] and social media platform partner networks with a novel method for reconstructing historical states of such ecosystems.

We proceed in four steps. First, we seek traces of partnerships documented in archived captures of Facebook’s partner programs and directories, mentioned in official company blog archives and on authoritative industry blogs. This method provides us with an extensive list of Facebook’s partner programs and their distinct URLs over the years. Second, we reconstruct the timelines of Facebook’s partner programs by querying the IAWM for the URLs of Facebook’s partner programs since Facebook’s launch. This enables us to explore and visualize how and when its programs developed and changed over time. Third, we examine Facebook’s most significant marketing programs to explore continuations and changes in the different types of marketing partnerships that Facebook has engaged in since the launch of the Preferred Developer Consultant (PDC) program in late 2009 up to the most recent Facebook Marketing Partners program. These partnership types are declared by Facebook itself in its program descriptions. Fourth, we scraped the partner directories of Facebook’s marketing programs to inventory partner company names at distinct points in time through the IAWM. Capture dates for comparison are selected based on launch dates for new partner programs as they often result in changing partnerships. Each archived capture yields one or multiple lists of declared partnerships included in each respective partner program directory, among which we then identify commonalities and differences. This method enables us to identify fluctuations (additions, continuations, deletions) in Facebook’s marketing partner programs, and provides proxy indicators for partnership duration and significance.

To be able to contextualize these historical digital traces we conducted semi-structured 30- to 60-minute background interviews between 2014–2016 with the following marketing partners: adjust, App Annie, AppsFlyer, Fiksu, and Grow Mobile. These companies are either currently an official Facebook partner, have been in the past, or claim themselves to be. Some

interviewees have been interviewed on-site on multiple occasions while others were approached at industry conferences. In this exploratory paper, we only used interview data for background purposes to provide insights into a company’s often volatile relationship with Facebook and into a complex industry that is undergoing constant and quite dramatic changes.

4. RESULTS

In what follows we describe the outcomes of our empirical historical partner program and partnership analyses. We focus on official platform–industry partnerships and industry alignments to examine the consolidation of Facebook’s platform power within the digital marketing ecosystem.

4.1 Historical Partner Program Analysis

First, we have reconstructed a timeline of partner programs from official sources like company blog archives, archived captures from historical product and developer documentation pages, and from secondary sources like trade press publications, tech blogs, and other industry sources (Figure 1). These distinct sources describe the development of Facebook’s partner programs over the years. This timeline provides a comprehensive overview of the different consecutive programs Facebook has had over the years. Events on the timeline are condensed across the horizontal axis to emphasize program mergers, discontinuations, and continuations under different names. The period 2014–2015 is a particularly change-intensive period for Facebook, which coincides with a major platform upgrade, the introduction of v2.0 of Facebook’s Graph and Marketing APIs. We can also observe how some programs are aggregated into composite directories over time, offering tags, advanced search, and filtering mechanisms to find partners. Typically, the announcement of new programs is accompanied by newly launched platform features (e.g., Instant Articles, Live Video) during Facebook’s annual F8 developer conferences and may include a list of initial program partners.

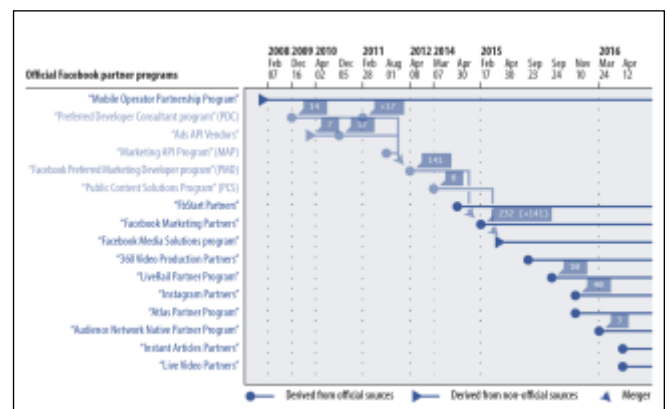


Figure 1. Timeline diagram describing the development of Facebook’s official partner programs since early 2008. (bit.ly/2ruizlY)

Second, we have explored changes in the positioning of Facebook’s myriad partner programs to inquire into the formation, continuation, and termination of certain types of partnerships over time. We specifically focused on the three most significant marketing partner programs since 2009, which map to three distinct periods in streamlining Facebook’s marketing side. The first period (2009–2012) starts with the launch of Facebook’s Preferred Developer Consultant (PDC) program, succeeded by the Facebook Preferred Marketing Developer (PMD) program (2012–

2015), which subsequently became Facebook Marketing Partners (starting in 2015). Each program lists distinct partner specialties that are relevant to others seeking partnerships.

In order to gain insight into changing platform–partner relations, changing business goals, and changing platform practices, we have examined consecutive changes made to Facebook’s marketing partner programs across these three periods (Figure 2). We can observe a gradual change from only three “Areas of Expertise” in 2010 to an extensive list of self-defined specialties in 2011 under a single “Preferred Developer Consultant” badge, to a small set of curated “Preferred Marketing Developer” badges displaying one or more of the four main “Qualifications” in 2012, to a single “Marketing Partner” badge representing multiple “Specialties” since 2015. These changes are accompanied by changing terminologies, shifting from expertise and qualification in Facebook products (e.g., “Pages”, “Apps”) towards employing more widely familiar professional marketing terms (e.g., “Ad Technology”, “Media Buying”, “Content Marketing”). Badges like these, along with other forms of certification, have existed for much longer (e.g., with SAP, Oracle, IBM, and Google’s partner programs), and reflect broader developments in the online advertising and digital marketing industries. We can thus observe an increasing professionalization of digital marketing practices with, or built on top of Facebook’s platform.



Figure 2. Timeline diagram of Facebook’s changing partner specialties, types of certification, and associated partner badges since 2010. (bit.ly/2rKK5M8)

4.2 Historical Partnership Analysis

Third, we have used this same corpus of Facebook’s three most significant marketing partner programs in order to inquire into the emergence, length, and significance of specific platform–industry partnerships. Having collected lists of partners from the IAWM at ten different capture dates since 2010 (avg. 1.41 captures per year) we are able to discover commonalities and differences across each list and thereby reconstruct discrete historical states of Facebook’s marketing partner ecosystem (Figure 3). Moreover, we are able to trace the trajectories of each partnership – when partners have joined or re-joined under different names, and conversely, when partnerships are—temporarily or permanently—dissolved. In total, we found 565 unique partners, recurring 2.91 times on average. While roughly half of all partnerships only recur once or twice, about twenty per cent recur five or more times, which indicates stabilization of partner networks. For example, Brand Networks, Hearsay Systems, Komfo, Socialbakers, and Zibaba are

currently some of Facebook’s longest-lasting marketing partners. This stabilization of partner networks is further demonstrated by showing additions, continuations, and terminations of partnerships over the years. When comparing partner lists we take mergers and acquisitions into account since many subsidiaries initially seem to disappear whilst in fact they are acquired. Over five per cent of companies in our data fit these criteria. The largest number of edits occur in our second period (2012–2015), especially after the launch of Facebook’s PMD program in 2012. Additionally, the number decreases significantly after the launch of Facebook Marketing Partners in 2015, thus signaling stabilization and a maturing digital marketing industry.

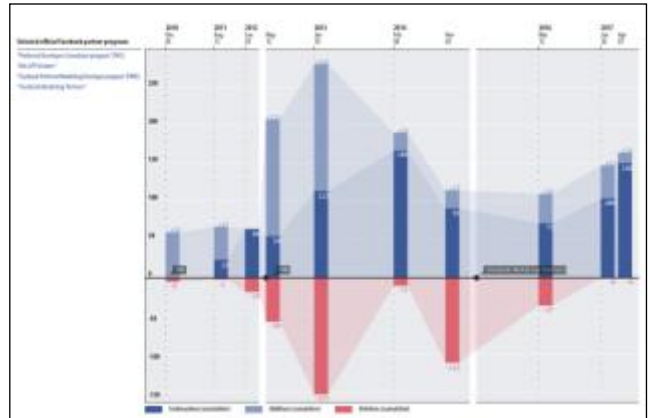


Figure 3. Stacked bar diagram describing concurrent additions, continuations, and deletions to Facebook’s official marketing partner programs since 2010. (bit.ly/2rbFsdj; tabular data: bit.ly/2oYvpI5)

5. DISCUSSION

Based on our empirical historical partner program and partnership analyses we clearly see Facebook establishing itself as a central player within the digital marketing ecosystem. We can distinguish three stages of Facebook’s entrenchment within the digital marketing ecosystem. First, the initial launch of the platform’s marketing side and the establishment of initial partnerships. Second, the gradual professionalization of Facebook’s marketing programs through the revision, convergence, and streamlining of myriad partner programs into the current Facebook Marketing Partners program. Third, since the launch of Facebook Marketing Partners, we can see Facebook diversifying in its partner programs, aligning partnerships with newly launched platform features like Instant Articles and Live Video.

We also observe a stabilization of partners’ “Areas of Expertise”, “Qualifications”, or “Specialties”, converging from over 43 areas of expertise in 2010 to just seven well-curated specialties in 2017. First, whereas in 2010–2011 many partners specialized in “Applications on Facebook.com” (i.e., positioning Facebook as a platform to run applications on, especially games), in 2011 we see a diversification of the “Areas of Expertise” to include new products such as “Login”, “Comments”, “Credits”, “Social Plugins”, and “Mobile”, which all focus on Facebook’s platformization across the web and into the mobile app space. As such, these partnerships are essential to Facebook’s infrastructural expansion beyond its platform boundaries [8]. Additionally, there is an emphasis on tracking users and their activities, with specialties and qualifications like “Analytics”, “Monitoring”, as

well as advertising with “Social Commerce”, and “Ad Management”. Further, in the period 2012–2015, the focus on measuring, insights, and targeting continues, but is no longer confined to the Facebook platform alone. For example, whereas in 2012 there is still a focus on platform products like “Pages”, “Apps”, and “Insights”, since 2015 specialties no longer refer to platform products directly but instead employ common professional marketing terms like “Ad Technology” and “Content Marketing”, addressing the marketing industry on their own terms. In this third period, specialties like “Audience Onboarding” and “Audience Data Providers” enable marketers to find existing customers on Facebook using their own data and to find new audiences on Facebook with the help of third-party data partners.

Digital marketing has become much more “programmatic”, that is API-driven, in recent years. Notice how the newly launched Facebook Marketing APIs v2.0 in late 2014 are followed shortly after by the launch of the Facebook Marketing Partners program in early 2015. Although these Marketing APIs existed since 2010 (v1.0), they seemed to not explicitly address digital marketers on their own terms yet.

6. CONCLUSION

Using Facebook as a case study, this exploratory paper provides a methodology for empirically surveying the historical dynamics of social media industry partnerships and partner programs. Our approach offers detailed insights into the politics of platforms and how they negotiate interests among diverse stakeholders. Our results demonstrate that platform–industry partnerships are crucial for advertising-driven platforms like Facebook to entrench themselves deep within the digital marketing ecosystem as they gradually establish themselves as dominant actors. At same time, these platforms participate in creating and shaping these industries whereby path dependencies are established—that is, ways in which other third parties become directly or indirectly structurally dependent on these platforms. Tracing specific partnership trajectories over time, we discovered both long-lasting and short-term alliances between platforms and industry. However, in order enrich this type of account, further interviews may be necessary to discover for example specific controversial terminations of partnerships or to better understand the role of partners in relation to platforms like Facebook. Because of the widespread diffusion of mobile devices, the digital marketing ecosystem has seen an intensification in the ability to track, collect, analyze, sell, and resell large quantities of behavioral data. As Facebook is spearheading this process we are concerned about the platform’s increased, almost monopolistic power and the willingness of third parties to subject themselves to the platform’s rules, regulations, and politics.

Future research should contextualize the politics of stakeholder relations and address issues around media concentration in digital marketing industries by further integrating qualitative interviews and the gray literature (e.g., tech blogs, company sites, white papers) forming around changing partnerships as well as acquisitions. Furthermore, while this paper concerns Facebook specifically, the issues raised in this paper seem to be emblematic of social media more generally. Hence, in order to develop a comprehensive view of the role of social media companies within the digital marketing ecosystem, the analysis should be expanded to include other social media platforms. Building on an institutional political-economic perspective, this enables critical examinations of the concentration and consolidation of platform power and their effects.

7. AUTHORSHIP CONTRIBUTION

All authors contributed equally to this work.

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