

*FONM Presentation*

**Mass Producing Social Media: Technical Standards, The Interactive Advertising Bureau, and the Rise of Template-Driven Social Media**

When it comes to discussions of the history and current shape social media, technical communications standards are, oddly enough, downright sexy. For example, TCP/IP, the communications standards that structure the Internet, have been pointed to as the source of the Internet's politics of academic freedom and entrepreneurialism. HTML and HTTP, the standards that structure the Web, are touted as the source of the Web's meteoric growth and thus its fundamental challenge to mass media.

Many scholars and pundits have argued that, since the communications protocols underlying the Web are distributed and decentralized, social media built on top of the Web is almost necessarily distributed, decentralized, and thus democratic to its core. In some extreme views, political protests and revolutions are branded “Twitter Revolutions” and “Facebook Revolutions,” made (only) possible those social sites.

This paper takes inspiration from studies of social media that have started with technical standards to discover technological politics. However, I take a different tack: I will discuss the less acknowledged role of *advertising* technical standards in the history of social media. Part of what enables the movement of data from one site to another is of course communications protocols and standards. Advertising standards form part of this equation, and should be seen as another layer in the stack of network protocols.

In our euphoria over networks, decentralization, participation, and consensus, we often forget that standards are by no means inherently democratic. At the very least, the case of advertising standards have in part determined the rise of what Kristin Arola calls “template-driven” - that is, standardized – social media such as Facebook and Twitter. As heterogeneous as the *content* of these services are, their *forms* (or maybe I should draw from protocol speak and say “wrappers”) are rigid and unalterable by users. These standardized templates are in fact glistening facades hiding what increasing numbers of media scholars recognize as the infernal machinery of highly centralized surveillance. Moreover, I argue that social media surveillance itself isn't possible without standards, because to be effective it relies on gathering standardized data and storing such data in rationalized archives.

To demonstrate this, I will explain how one standards consortium, the Interactive Advertising Bureau (OR IAB), formed to solve a classic marketing *problem*: the inability to gauge the return on advertising investments. The IAB's production of standardized advertising, ad-exchange networks, and surveillance technologies and metrics gave rise to a *new market*: contemporary social media. Social media's template-driven shape reflects the underlying standards produced by the IAB.

In the conclusion, I will link the standards produced by the IAB to the production of what I call “archives of affect” - the collection and storage of personal data on the desires and lives of users. These archives provide social media with the power/knowledge to produce particular visions of user subjectivity.

## **PART ONE**

But first a brief discussion of standards.

The production of standards is, as Andrew Russell aptly puts it, the "social process by which we come to take things for granted. Through standardization, inventions become commonplace, novelties become mundane, and the local becomes universal. It is, in short, the historical process by which discoveries are rendered into the material and immaterial substance of our everyday lives."

Standards are thus technical artifacts that are to be forgotten, ignored, or placed in the background, leaving us to concentrate on more pressing concerns. For example, I ignore the intricacies of Internet Mail Access Protocol (IMAP) because my email client handles that for me. I do not think about the ways the tiny pits on a DVD are read by a laser in a player and converted into images and sounds. In these cases, I forget the standard in order to do something else, something more creative or relaxing, such as write an email or watch a movie. This is the power of standards. The heterogeneous engineers of technology recognize this power, and thus, they spend much time producing standards so the rest of us can forget them and instead enjoy email and DVDs.

So what creative activity is allowed when advertising standards are built, and thus when we forget they're even there? A good place to start is the old advertising saw attributed to John Wanamaker: "I know half of my advertising [budget] is wasted; I just don't know which half." Borrowing an often used (and abused) term, computer networks are "disrupting" the traditional practices of advertising. After nearly a century of standardizing the practices of advertising in media such as print, radio, and television, and especially after shaping the state's regulations of marketing in these media, the advent of the Web created new challenges to the marketing industry. While the practice of measuring the impact of mass media advertising had been developed for decades, the Web appeared to make many of those practices useless.

The central mythological crisis of contemporary advertising is that the user is now in control. Whereas in mass media, advertisers simply transmitted their messages *ad nauseam* to relatively passive audiences, new media allows for active audiences who are producers as well as consumers. The Web in particular allowed users to create their own media, control the flow of information they encountered, and most devastatingly, avoid the interstitial advertising of mass media altogether.

And yet, early empirical examinations of the Web of the 1990s found that users often felt *out of control* in the face of a network of universal machines. Web sites varied wildly. There was a "browser war" between Microsoft's Internet Explorer and Netscape's Navigator. This, coupled with the inevitable growing pains of any new medium, meant that users confronted a sometimes bizarre mediascape of sites "under construction," dead links, and pop-up ads. The prevailing metaphor of the 1990s was that the Web was the "Wild Wild West."

It is easy to forget that marketers and advertisers confronted the same chaos that everyday users did. For example, in the early 1990s, banner ads came in over 250 different sizes, making it extremely difficult for advertising agencies to design ads for more than a few sites. While Web metrics promised to reveal consumer habits in greater detail than any prior media system, there was no agreement on which metrics to use and how. Even when online media companies had basic data on their visitors, they were hesitant to share it with advertisers, causing distrust on both sides.

Thus, the situation cried out for standards which could reduce wasted marketing budgets and coordinate a new advertising industry. In 1996, representatives from CNET, InfoSeek, Juno, Microsoft, Prodigy, Softbank Interactive, Starwave, Time Inc., and Turner Interactive formed the Interactive Advertising Bureau to solve the problems arising in new media advertising. The organization moved quickly. Within months, the IAB produced its first standard: banner ad sizing, culling the number of sizes from over 250 to eight. These standards are still in use today.

The IAB continued to standardize the size, shape, and behavior of advertisements, including: pop-ups and pop-unders; in-line units; and so-called “rich media” advertisements.

The standardization of ad sizes was a boon to the industry. Instead of having to redesign an ad to fit each and every Web site they wanted to display it on, marketers could create a single advertisement that could be displayed across multiple sites. For site designers, standardized sizes eased the creation of Web pages.

More importantly, standardized sizes allowed for increased flexibility in placement of ads, allowing marketers to adopt eye-tracking technology to the Web. Eye-tracking allowed them to discover how to attract the most attention to advertisements. It revealed that Web users simply did not look at the standardized banner ads at the top of pages, a revelation which led marketers to experiment with different ad locations and formats. This is some of the creative activity made possible when marketers could forget about advertising size standards and focus on higher-level concerns.

The IAB's success with standardized advertising size and the subsequent rise of eye-tracking experiments in ad placement point to the need for the most important standards the IAB created: precise and clearly defined metrics for data collection and analysis – the heart of the online advertising industry. The IAB began to structure the very language new media advertisers used, as well as their methods for measuring success, thus providing a means for marketing to break out of individual Web sites and become an inter-site practice. The IAB began the process by defining Internet advertising terms, ultimately producing a glossary of technical, measurement and business terms.

But of course, the IAB's data standardization could not stop with definitions of terms. The most heated debates in online advertising center on how precisely to measure advertising effectiveness, and thus how to put a price on the audience's eyes, minds, and hearts.

The IAB dove into this fray, as well. The metric standards production process began with IAB partner PriceWaterhouseCoopers, who studied in detail companies from three sectors of the online advertising industry: ad networks and servers (including Doubleclick); portals (including Yahoo and MSN); and “destination sites” (including the New York Times, Forbes, and Disney). Together, these three sectors form the basic architecture of advertising online. PWC sought commonalities and discrepancies in terms, practices, and metrics among the three sectors. "A fundamental premise of this report is that in order to achieve reliable, accurate and comparable ad campaign measurement reporting, there must exist a set of standardized metric definitions that are applied to a well-controlled process."

In other words, a basic scientific method must be coupled with a standardized language and used across all the sectors of the industry. PWC found that all the companies they studied used the same five metrics: ad impressions, clicks, unique visitors, total visits, and page impressions. These metrics, all measurable with server logs, IP addresses, and cookies, form the backbone of the online advertising industry.

Although the IAB succeeded in standardizing metrics and in collaborating with other standards consortia by the end of the 1990s, competition among marketers did not end; it simply shifted to competition for customers and in terms of creating new techniques. Thus, the "user problem" – the chaos of the Web and its impact on advertisers – was largely solved. With the advent of broadband and mobile networks, and as more and more people began using the Web, a new, contained, predictable advertising market was born. This is the market in which social media arose.

## **The market grows: the advent of social media**

Let's turn to the 2000s and social media.

As Mark Andrejevic argues, online marketing is, in effect, engaged in continuous, controlled social experiments, designed to gauge user response to even the most insignificant detail of color, shape, and position. The tiny shifts in Google's search results page or Facebook's interface, the "perpetual beta" model of feature releases, or the use of a "Service Oriented Architecture" are all manifestations of advertising competition, appearing on the surface of social media sites.

If we dissect this surface, we see that a social media site is a "mash-up" of top-down, incrementally altered architecture, bottom-up user participation and processing, and the lateral insertion of advertising, creating a coherent visual artifact out of these different streams. This mash-up is made possible with standardized protocols, including those built by the IAB.

This nexus of architecture, user-led content creation, and advertising is our window into an early competitive development in online advertising standardization: ad networks. Whereas in the late 1990s online advertising largely followed a mass media "portal" model where a site such as Yahoo would produce editorial content and services to attract a large audience and then would sell advertising space around that content, the Web grew to billions of small, niche sites: home pages, discussion boards, and Web rings.



Ad networks were formed to reach these small sites and the audiences they were building. The advertising company would create advertisements, then contract with an ad network which could distribute them across the Web. That way, the advertiser would not need to search for and contact thousands of small site operators; the ad network handled that work. Google's AdSense is perhaps the best known example of this, although Yahoo, Microsoft, and TimeWarner/AOL are major players in ad networks. With standardized sizes, ad networks could negotiate the placement of ads on thousands of small, niche sites.

Ad networks were thus an early success story in "monetizing" user-generated content. Rather than use the mass media model, ad networks brought together amateur content creators with major brands and marketers. As ad networks gained traction in the 2000s, so did social media darlings such as blogs and wikis; their user-led rise was celebrated at the same time that advertisers had figured out ways to spread marketing messages to blog and wiki (and I use this term loosely) "community" audiences.

Of course, ad sizes weren't the only standards that allowed ad networks to function. The standardization of metrics, terminology, and legal interactions produced by the IAB set the stage for competition and experimentation at the level of data collection behind the surfaces of social media sites. As ad networks insinuated themselves into niche sites, marketers began to learn more about the desires of Web users. Surveillance of user activities has become the business model of online advertising. As Christopher Vollmer puts it in a report sponsored by the IAB, "To 'activate' a consumer [i.e., bring a consumer into relationship with a brand], you must understand the consumer. To understand a consumer, you must listen and observe. When you listen and observe, you drive insights."

There are a variety of techniques used to "listen and observe" users while they're online. Cookies, of course, are well known; these are small text files that sites place on a user's computer to identify the user's browser, computer operating system, IP address, and (in the case the user provides it) personal information.

Somewhat less well known are "Beacons" (sometimes called "Web bugs"), invisible image files that allow sites to transfer cookie data to third-party ad networks and analytics firms.

Also not well known are Local Stored Objects (sometimes colloquially called "Flash cookies" or "super cookies"). These are built on Adobe's Flash technology allow marketers to track mouse movements (as a proxy for eye movement) and time "interacting" with the advertisement. These "Flash cookies" can hold up to 100K in data without user intervention, and users often do not know which applications are using them.

All of these allow ad networks to track users across multiple sites; thus, even users who don't provide personal information will have individuating profiles built out of their online activities.

Once the user is tracked, a behavioral profile can be built and used to more precisely target ads to the user's desires.

However, possibly the greatest expressions of the IAB's marketing standards are sites such as Facebook and Twitter. Their whole existence is to provide users with a space to produce themselves as an audience, an audience that adheres to tracking standards. This self-produced audience is then delivered to marketers.

Social networks were designed for such purposes from their earliest days. For example, early social networking site Friendster sought to make explicit the implicit social connections found on the Web. Social networking sites require users to build profiles of themselves, consisting of predetermined demographics (such as sex, age, and hometown) and interests. Although practices have varied across different social networks, sites such as Facebook and LinkedIn have in part transposed "real-world" social networks of friends to the Web. All of this results in a rich data set of connections, complete with the socially articulated desires of specific individuals. *These are, in fact, precisely the IAB-standard data sets that marketers have worked to build via online tracking and surveillance.* The only difference, really, is that in the case of social sites, we users profile ourselves, saving the advertising industry the trouble.

As social media allows us to be more open about our desires, we produce our own ontologies and metadata: Sam is a friend of Sue; Sue is a fan of BMW. When Sue "likes" the latest BMW model, her desire is pushed out into the social stream.

As the IAB's "Social Advertising Best Practices" manual explains, "the ad experience can become even more relevant by virtue of a consumer endorsement in the ad itself. A friend's photo and explicit endorsement or explicitly shared information about how the friend has interacted with the [brand] can be displayed in the ad, making the ad personally relevant to an unprecedented degree." Thus, Sam sees Sue's earnest expression of desire not as an advertisement, not even as cybernetic metadata about Sue-as-avatar, but as part of Sue's overall subjectivity; Sue truly is a fan of BMW, after all. This is a seamless web connecting personal metadata to many people and brands, flattening friendship into equally weighted relationships distributed among flesh-and-blood people, cyborg avatars, and fetishized, ephemeral brands.

Thus, social media templates – from blogging to social networking - have developed in large part as a result of the standardization of advertising practices established by the IAB. The "user-led" Web has been structured from its earliest days as a standardized ontology for capturing and storing the personal data of users.

The valuation by investors of such data is staggering: For example, Google's purchase of user-led media sites such as YouTube (for \$1.65 billion) links with its purchase of ad networks DoubleClick (for \$3.1 billion) and Applied Semantics (now called AdSense, purchased for an undisclosed amount).

YouTube allows users to create content and thus audiences; DoubleClick and AdSense allow marketers to reach those audiences.

**Framing user-led production within a standardized template derived from a seedbed of surveillance standards has indeed been lucrative.**

## **CONCLUSION: Archives of affect (FIX)**

Let me conclude with a note on archives and power.

The standardized data sets collected via social media templates are not in themselves archives. To be an archive, the material collected must be done in an organized manner that allows for the *post hoc* construction of power/knowledge. The material collected must be done in anticipation of its future reconstruction. Briankle Chang (2010: 205) sees the archive as existing in the future perfect: ‘they will have become what they already were.’ This becoming is always-already waiting for the *archon* (authority, curator) to appear as predicted in the future perfect. As Geoff Bowker (2005: 18) argues, ‘what is stored in the archive is not facts, but disaggregated classifications that can at will be reassembled to take the form of facts about the world.’ Thus, what is required is a central authority to construct ‘facts’ from the fragments that sit on the archive’s shelves.

Social media lends itself to such post hoc constructions. Marketers, lawyers, entrepreneurs, social scientists, psychologists, and experts in so-called ‘big data’ have built the social media archives in order to construct exchangeable images of user/consumers. The ‘facts’ that will become produced are largely concerned with consumer preferences. Rationalized identities in social media arise from the metrics of capital and consumption: user profiles, categorized social connections (‘friends,’ ‘co-workers,’ ‘family’), credit scores, searches, purchase histories, media consumption, desires, fantasies, demographics, and movements through space.

This is Deleuze's (1992) "dividuation" in action. As far as marketers and investors are concerned, these are the most salient digital fragments to be stored in the servers of these sites. However engaged users are with their Tweets, profiles, articles, videos, and images, users are often reduced to affective processors working for the owners of the digital archive.

Thus, although some popular and academic accounts of communications standards (such as TCP/IP) present them as producing a decentralized, democratic form of media, if we consider the role advertising standards have played we can readily see that authority is alive and well online. As Jacques Derrida argues, "[T]here is no political power without control of the archive, if not memory. Effective democratization can always be measured by this essential criterion: the participation in and access to the archive, its constitution, and its interpretation.' If this is the case, if we use Derrida's criteria, social media, built as it has been out of IAB standards, is centralized, constrained, and delimited – in sum, anything but democratic.