Extended Abstract

Opening the 'black box' of user agency: A critical cultural studies approach to web 2.0

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Introduction

Citizen empowerment is one of the great promises of the 'digital age', often framed as a tale of emancipation and liberation in a digitally enabled democracy. The vigorously emerging field of critical internet studies has begun to interrogate the celebratory and unreflected assumptions about the unequivocally emancipatory essence of the 'participatory' web and expose the ideological nature of these discourses that conceals the various forms of domination and exploitation online e.g. [1-10]. However, what has unevenly progressed is the theorization of the structure-agency dialectics in ways that would enable a critical understanding and empirical study of user agency in the contemporary online ecology. Attempting to respond to the need for a renewal of critical cultural studies to understand web 2.0, this paper addresses the following questions: how can we understand user agency and where do we have to look for forms of resistance in web 2.0 spaces, taking into account the multiple layers in which these online environments structure, condition and curtail users' activity? Are the concepts of semiotic power and resistance, inherited by traditional cultural studies, adequate to account for the structure-agency dialectics in today's complex and multifaceted online media? To begin answering these questions, this paper outlines a conceptual framework that identifies the distinct levels on which network power operates, drawing on recent critical studies of the internet and web 2.0. At the same time, thinking of (network) power and (user) agency as a continuum, it draws on fundamental traditions within social and cultural theory to identify the various modes of resistance that

could be meaningful in the contemporary media ecology. The ultimate aim of this paper is to introduce a nuanced conceptualization of user agency and provide a conceptual roadmap for critical empirical analysis.

The organization of online networks' power

Drawing on recent critical accounts of how corporate online networks and platforms exert power over users, we identify the following six axes:

1) Economic-structural power: Web 2.0 environments are socio-economic structures that encompass certain ownership, governance and business model configurations, which demarcate the forms of usage, content and social relations within these environments (corporate ownership, targeted advertising and interpersonal marketing, unpaid user labour, monetization of user data and social relations [9, 7].

2) Algorithmic power: New media environments function as mediators actively shaping the performance of social act [7]. By the use of algorithms, they come to 'produce' everyday life, structuring and sorting people, relations, places and things in often unseen and concealed ways [2]. The operation of software without the users' awareness of its structuring power has led to the notion of power being 'post-hegemonic' in the information era, as domination works ontologically instead of discursively [11, 2]. The decision-making power of algorithms often eludes reflective thinking, being perceived as neutral mediators reflecting instead of organizing and thus producing everyday life (e.g. the perception of search engines as neutral mechanisms rather than as powerful agents operating with opaque and complex rules, making some aspects of the world visible but concealing others altogether). The 'post-hegemonic' nature of algorithmic power creates a substantial challenge for human agency, rendering the possibility of resistance at the same level at which power operates all the more difficult.

3) Institutional power: Content management systems consist also of social protocols, which take the form of consolidated and complicated policies that govern and regulate user behavior. Most often, control over these rules is primarily in the hands of owners who can adjust conditions at any time, without the users' prior consent [7].

4) (Post)discursive/semiotic power: Unlike traditional media industries, in web 2.0 the content is either co-produced by professionals and users or produced entirely by users (e.g. social media). Although the opening up of the sphere of symbolic production to amateurs or 'ordinary' voices has transformed the public space formerly dominated by cultural industries, early promises about the 'liberation' of content and informational diversity are mitigated by several factors. To take the example of 'participatory' journalism, user-generated content does not seem to dismantle traditional hierarchies and open up user engagement in the spheres that matter mostly e.g. news-making and constitution of journalistic values [12, 13]. In social media, similar trends can be observed: (a) the standardization of content so that it becomes manageable and sellable [7]; (b) the commodification of huge amounts of content through data mining technics; (c) the steering of users' behavior toward consumer activities that legitimizes consumer culture and constitutes citizens as capitalist subjects [14]; (d) the diminishing of information diversity as users are locked in 'filter bubbles' [16]; (e) the unequal distribution of online attention and

visibility, often directing users toward corporate sources, promoting more "valuable" people and filtering out less popular contributions (8, 14). Most importantly, because corporate actors translate all content into manageable and sellable data, it can be argued that they acquire a form of post-discursive or post-semiotic power, rendering content as meaning almost irrelevant, in the sense that even user-generated discourses that subvert dominant ideas are subjected to the same treatment and principles, neutralizing their dissident potential.

5) Socio-cultural power: Sociality and collective will formation is at the heart of social media. At this level, the main stakes can be summarized in three points: first, a significant commodity in online 'social' media are social relations themselves, as almost all kinds of sociality are coded into proprietary algorithms and are moved from public to corporate space [7]. Second, the notion of sociality itself is transformed to what van Dijck [7] calls the "culture of connectivity", a form of online sociality resting on coded structures and neoliberal economic principles, such as hierarchy, competition, a winner-takes-all mindset and the resetting of boundaries between private, corporate and public domains (p. 20). This logic affects also the alternative media realm, as traditional grassroots media do not have the resources to 'play the Facebook game' in their own terms[1]. Third, despite the fact that social media can function as mobilization conduits for collective action, their capacity to sustain networked communities capable of political action is seriously disputed: networked communities in commercial online platforms are seen as mainly being about achieving one's own individual needs and interests in post-political, post-antagonistic forms of community, offering "pacifying modes" of existence and absorbing potentially resistant energies in fantasies of action [14].

6) Ideological power: All these forms of power cannot be sustained without a sixth axis, that of ideology, namely the consolidation of a hegemonic, common-sense meaning regarding the very nature of web 2.0 and its profound necessity in everyday life. The rise of web 2.0 was accompanied by myths related to collaboration and social interaction, built on the core concepts of 'sharing', 'community', 'user participation', transparency and openness, and online sociality as the prevalent and inescapable form of establishing social relations [15]. These narratives, dissipated through popular and academic discourses, operate to conceal the ideological tenets from which commercial online platforms operate and the multiple aspects of pseudo-participation and exploitation defining the reality of many web 2.0 environments [8].

Dimensions of user agency

The approaches highlighted above substantiate the exploitative nature of web 2.0 but leave little room for understanding emerging forms of user agency. As van Dijck [7] argues, "it is functional to regard user agency not as an actor distinct from technology, but as an analytical category that requires delineation on its own terms" (p. 32). From a critical cultural perspective, we need to identify the axes on which resistance and counter-power can be built, taking into account the forces that structure, condition or curtail user agency. Such an approach requires a combination of culturalism and structuralism in cultural studies [8], similar to the encoding/decoding model advanced by Stuart Hall [17]. However, in web 2.0 environments, production and reception 'moments' are no longer distinct processes and the structured tempospatial breaks between production and reception [18] take on different meanings. Furthermore, the multifunctional nature of new media renders a sole emphasis on

content inadequate as a critical analytical framework. That said, we draw on fundamental critical theories to outline a nuanced conceptualization of user agency and a theoretical framework for the empirical analysis of web 2.0 users. The proposed conception of user agency consists of six dimensions, analogous to the six axes of network power identified above. Each dimension is placed on a continuum, with two opposing poles: a pole where agency is minimal (or non-existent) and a pole where agency is maximal.

1) Socio-economic agency can be defined as the capacity of users to become aware of, resist, oppose or subvert the dominant economic logic from which the commercial web 2.0 operates. An empirical inquiry at this level involves the study of knowledge, attitudes and practices of users regarding the role and implications of current ownership models in web 2.0 spaces in terms of data privacy and data mining, economic and state surveillance, unpaid user labour, the commodification of relations through user recommendation systems, and the role of targeted advertising as a business model. User agency can thus be operationalized along a continuum between awareness, resistance/appropriation, opposition and subversion. Empirical studies of users' attitudes and practices can show which positions users occupy along this continuum, e.g. whether users are conscious of how commercial media shape their experiences and exploit economically their labour (awareness), whether and how they are involved in active resistance (e.g. by using applications to block or bypass advertisements), whether they take part in campaigns aiming at limiting companies' invasive practices or put forth claims to partial ownership of contributed content (opposition), and their readiness to opt-out and embrace alternatives currently being created online (subversion).

2) Informational or algorithmic agency signifies the capacity of users to become aware of, refuse, resist or actively challenge the ways in which power is embedded in technical structures, codes and rules of 'participatory' spaces and interfaces. At the level of awareness, a question to explore is the extent to which the 'technological unconscious' becomes conscious, that is, if the rule-making power of software becomes evident, perceptible or transparent to users. Implicit participation [15], which is usually unconscious as it is built-in in the system, can turn into active resistance if it becomes conscious. Changing a default setting or filling out false profiling information can be considered mild acts of resistance [7]. Reflexive and skilled users may play with algorithmic power to their own advantage, actively shaping the content they produce so as to direct the way the software reacts to them, anticipating the effects and steering things in the direction they wish ([2], p. 997). Oppositional agency can be manifested in hackactivist practices, such as the modification of software to change or deconstruct existing rules and the design of subversive apps. Maximalist forms of technological agency refer to the development of alternative software and technical infrastructures for creating online spaces outside of corporate or state control.

3) Institutional or communicative agency: To explore user agency at the institutional level (the sphere of rule-making or governance) we draw on participatory and deliberative democracy theories. Participatory democracy theorists (Held, 1996; Macpherson, 1973; Pateman, 1970) stress the ability of individuals to take part in decision-making, have an equal chance to affect outcomes and thus acquire control over the structures in the various systems that concern and affect them (in [8], p. 260). The Habermasian notion of communicative rationality and discourse ethics is also revelant here as a

normative yardstick, as it stresses the rational-critical, instead of instrumental, criteria for the process of decision-making which is essentially dialogical in character. That said, institutional or communicative agency can be defined as the capacity of users to equally participate in rule-making processes and act as deliberating agents (namely, being able to introduce any issue, express any attitude or need, question any assertion, and engage in argumentative discussion). In conditions of maximal agency, we would expect to encounter conditions for inclusion of all, discursive mechanisms for decision-making with user control over the rules of discussion, and an orientation toward rational-critical argumentation and public-oriented concerns. Examples of oppositional agency at this level can be found in the various organized protest actions and confrontations between users and powerful industries (the early anti-Microsoft and the current anti-Facebook campaigns), which may lead to political awareness, as users start acting like citizens and claim civil rights for their actions (e.g. Pirate Parties) (see [15] pp. 130-133).

4) Representational and semiotic agency: The fourth axis is related to the duality of users as content producers and recipients. The notion of representational agency is informed by post-Marxist discourse theory, articulated mainly by Laclau and Mouffe, and signifies the capacity of users to engage in discursive political struggles, disrupt dominant discourses, develop counterdiscourses, negotiate and reconstitute identities and subject positions, and develop autonomous self-representations. When researching agency at this level, the main question is whether social actors, especially those classes most vulnerable to exclusion and exploitation, find ways to bypass the steering mechanisms of web 2.0 environments to articulate subversive discourses that can acquire visibility and become influential in the broader public sphere. An interesting example tapping on gender relations, which stands at the intersection between algorithmic and representational agency, is the hacking of the video game 'Legend of Zelda' to reverse the roles of male and female characters in order to make Princess Zelda the hero and Link (the male hero character) the imprisoned damsel. Such practices challenge hegemonic gender discourses and thematize the broader issues of male dominance in software development and modification.

Many users, however, continue to be content consumers rather than 'produsers'. Semiotic agency operates at the level of reception and refers, first, to the power to make meanings, the ability to think differently [19] or produce oppositional readings [17]. Second, an additional layer of semiotic activity should be added in the context of web 2.0, noticeable in the commenting culture of most mainstream media online spaces. Here, users mediate content produced by mainstream media or other authoritative sources, inserting a new layer of meaning between the original messages and the recipients of these messages. A question that needs to be asked in this context is the extent to which the forms of expression allowed to users in 'participatory' online spaces render them able to influence other users' readings of messages through interjecting oppositional readings between media and audiences.

5) Collective agency: The mediation of collective action by communication technologies is of great significance and the relation between new media and protest/movement activity is a complex issue which cannot be discussed here. Looking for collective agency in web 2.0 environments entails an inquiry on the capacity of users to horizontally develop social relations, discover common positions, establish collective identities, form politicized communities and affinity groups, and mobilize

collectively for online or offline action. We suggest that such activity would stand in contrast to the kind of individualism (even if it is networked) typically promoted by commercial online platforms, the type of pseudo- or consumer communities brought together by automated processes and interaction with technology without social interaction [15] or phenomena of 'slacktivism' considered by critics a form of inconsequential online political action (e.g. [20]).

6) Counter-ideological agency: Last but not least, an empirical inquiry on user agency needs to tap into the capacity of users to deconstruct naturalized meanings and popular myths about the nature and effects of web 2.0, for instance, regarding the unlimited and equal opportunities offered to everyone (especially less privileged actors) to acquire visibility, receive attention and exert political influence [21]. Recent developments (e.g. the Snowden revelations, the European Privacy Class Action against Facebook) have thematized issues of surveillance and privacy resulting in a heightened level of concern among users (see [22]. However, other aspects of exploitation and control remain largely unaddressed among common users (e.g. the issue of user labour, the perceived impossibility of opting-out). The empirical study on attitudes and cultures needs also to extend to counter-cultures of users that have quitted corporate platforms and moved to non-commercial alternatives.

Conclusion

Empirical research is urgently needed in critical internet studies, in order to open the 'black box' of user agency. The multilayered nature of web 2.0 calls for an equally multifaceted analytical approach, combining political economy, cultural studies and the critical analysis of technical infrastructures. The conceptualization of user agency laid out above is intended to contribute to the renewal of critical cultural studies regarding web 2.0, in order to identify repertoires of resistance and ultimately strengthen emerging oppositional user attitudes and cultures.

Notes

1 The closing down in 2014 of the alternative weekly Schnews in the UK is attributed, among other factors, to the detrimental effect of corporate social media: In their own words, "playing the Facebook game demands a huge amount of energy […] With complex advertising deals and algorithms determining what you do or don't see, maintaining an impact on social media requires hours and hours per week of social networking. For us, that hasn't been feasible" (http://www.schnews.org.uk/stories/AND-FINALLY/).

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