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Analyzing youth digital participation: aims, actors, contexts and intensities

**Article (Accepted version)
(Refereed)**

Analyzing youth digital participation: Aims, actors, contexts and intensities

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Abstract: Participation is often used as a blanket term that is uncritically celebrated; this is particularly true in the case of youth digital participation. In this article, we propose a youth-focused analytical framework, applicable to a wide variety of youth digital participation projects, which can help facilitate a more nuanced understanding of these participatory practices. This framework analyzes the *aims* envisioned for youth participation, the *actors* and *contexts of these activities*, and the variable levels of participatory *intensity,* in order to more accurately assess the forms and outcomes of youth digital participation. We demonstrate the value of this framework by applying it to two contemporary cases of digital youth participation: an informal online community (Nerdfighters) and a formalized educational initiative (CyberPatriot). Such analyses facilitate normative assessments of youth digital participation, which enable us to better assess what participation is good for, and for whom.

Keywords: youth; digital participation; participatory culture; digital media; formal and informal education

Introduction

In view of the growing prominence of digital media in all aspects of society, there is increasing discussion of digital participation as a sociocultural practice (e.g. Carpentier 2009; Cohen and Kahne 2012; Ito et al. 2009; Jenkins et al. 2006; Jenkins et al. 2016; Kelty et al. 2015). Recent scholarship has produced descriptive accounts of youth digital citizenship practices, as well as digital participation frameworks (e.g. Carpentier 2009; Fish et al. 2011; Kelty et al. 2015; Schaefer 2011; Zuckerman 2014). However, frameworks for analyzing participation have generally not addressed youth as a particular category; this is true historically with regard to pre-digital participation (e.g. Arnstein 1969; Fiske 1992), but also more recently for technologically mediated participation (e.g. Fish et al. 2011; Kelty et al. 2015).

We contend that there is need for a comprehensive, youth-focused framework that enables analysis of the specificities of their digital participation and assists in its normative evaluation. We ask, how does the digitally mediated participation of youth materialize across spheres of activity, and how can we best evaluate these participatory processes? If youth participation is "kaleidoscopic" (White 2003, 8), what are the different ways in which we can understand, categorize, and assess the variety of patterns that have been observed? Based on a review of relevant literature and our extensive empirical research on youth participation (e.g. Blum-Ross 2017; Blum-Ross and Livingstone 2016; Brough 2014, 2016; Brough, Cho and Mustain forthcoming; Brough and Shreshtova 2012; Kligler-Vilenchik 2013, 2015, 2016; Kligler-Vilenchik and Literat 2018; Kligler-Vilenchik and Thorson 2016; Literat 2013, 2014), we develop a new analytical framework – conceived with youth participants in mind, and fundamentally aware of the particular modalities, opportunities, and challenges of their digital participation. We hope that this analytical framework will advance the discourse beyond simplistic views of youth digital participation – which tend to be seen from a utopian or dystopian lens.

Youth are still frequently heralded as "digital natives," even though we know that such descriptions can overestimate their technical and social skills (Livingstone 2009). They are often placed in a binary: as intrinsically "creative" (Banaji 2008; Blum-Ross 2015, 2017) or as "apathetic" or "at risk" (Fahmy 2006; te Riele 2006).

What is clear is that new media is an arena in which youth are developing and experimenting with many aspects of their lives, from social relations (boyd 2015) through interest-based affiliations (Ito et al. in press), to civic and political engagement (Jenkins et al. 2016). At the same time, while digital media offer many youth the opportunity to advance from "hanging out" to more complex forms of digital

participation (Ito et al. 2009), including ones with tangible outcomes for education and professional life (Ito et al. in press), there remain myriad age-specific barriers. Schools often block social media sites or ban digital devices, social media sites apply age barriers, and parents and other adults often monitor their children in ways that may inhibit participation. Moreover, youth express their voice in ways that may be illegible to adults, as they participate based on their imagined audiences and the social norms of their peers (boyd 2015; Kligler-Vilenchik and Thorson 2016).

Our youth-focused analytical framework facilitates a deeper and more complex understanding of youth's varied digital participation practices. It examines the *aims, actors, contexts* and *intensities* of youth's mediated participation in public life. It helps us see the complexities and idiosyncrasies of participatory practices, while at the same time, allowing comparison across cases and thereby development of more generalizable understandings. To demonstrate the value of this framework, we apply it to two current, but very different, cases of youth participation: an informal online community (Nerdfighters) and a formalized educational initiative (CyberPatriot).

In this article we treat youth as a social and cultural category, following the sociology-of-youth approach. We see youth not as "adults in the making," but as social agents in their own right who are active and creative (James and Prout 1997; Ito et al., 2009). In the literature, different age ranges are provided for "youth" [e.g. Ito et al. (2009) focus on ages 12-18; Valentine (2003) defines youth as 16-25 old; Cohen and Kahne (2012) focus on ages 15-25), yet it is crucial to remember that age categories are historically and culturally specific, and constantly under negotiation (Brough 2014; Ito et al. 2009; Kassimir and Flanagan, 2010). For example, in most states of the U.S., the "age of majority" – the threshold for adulthood as recognized by law – is 18 years age, and this is also the threshold age for voting. Yet, also in the U.S., one must be 21 years old to purchase alcoholic beverages, and 25 years old to be a member of the U.S. House of Representatives. The state of "youth" can thus be usefully defined not only through age ranges, but also through institutional stages of life. According to this lens, youth can be marked by being institutionally positioned in subordinate roles (e.g. high school student, college student) whereas the transition to adulthood is marked by participation primarily in work and non-school contexts (Heyneman 1976). For our purposes, we follow this institutionally-defined distinction and focus on youth within institutional educational contexts (high school/college students).

Background

This article builds on and extends existing literatures examining digital cultures of participation (e.g. Bennett 2008; Cohen and Kahne 2012; Ito et al. 2009; Ito et al.

forthcoming; Jenkins et al. 2016). We are also informed by studies of how digitally mediated environments might allow for, or in some cases constrain, new forms, channels, and modes of participation (Benkler 2013; Deuze 2006; Kelty et al. 2015; Kligler-Vilenchik and Literat 2018; Kligler-Vilenchik and Thorson 2016).

Jenkins and colleagues define "participatory cultures," as spaces with "relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship … [where] members believe their contributions matter, and feel some degree of social connection" (Jenkins et al. 2006, 3). Participatory cultures may be developed on existing platforms and around existing cultural products (e.g. popular culture texts) or they may be created as alternatives to these spaces (e.g. Coleman 2014).

Despite the aforementioned tendencies to universalize and idealize participation, there is increasing acknowledgement that youth's digital participation is both enabled and constrained by their particular social positions (boyd 2014). There is a broad "access rainbow" (Clark, Demont-Heinrich, and Webber 2005) that patterns how young people engage with digital culture. It is partially reflective of their physical access to technological resources (London et al. 2010) but also of the ways in which cultural capital and expectations influence forms of participation (Livingstone and Sefton-Green 2016). So while some young people participate heavily in "geeking out," the vast majority engage more substantively in consuming rather than creating digital media (Ito et al. 2009).

In terms of their digital *civic* participation many youth are at the vanguard, in some cases enthusiastically drawing on symbols, ideas, and metaphors emanating from popular culture (Clark 2016; Jenkins et al. 2016). However, youth participation in public life is also hampered by age-specific restrictions. Young people are disenfranchised from formal political structures (voting or being elected) by virtue not only of their age, but often also by the sense that politics in the traditional sense is not directly engaging youth (Loader 2007). Yet digital cultures may provide new mechanisms for youth to challenge traditional conceptions of civic participation, for example by expressing skepticism towards traditional politics or valuing other forms of engagement over it (Bennett, Freelon, and Wells 2010; Zuckerman 2014). These new forms of participatory politics, which include, for instance, consumer politics, transnational activism, community volunteering, and creative political expression online draw on youth competencies and interests, and use new mechanisms to influence agendas and shape the understanding of issues of public concern (Kahne, Middaugh, and Allen 2015; Kligler-Vilenchik and Literat, 2018; Soep 2014).

Our effort is aimed at systematizing this area of study, acknowledging the particular ways in which social and institutional relationships impact the forms and

outcomes of youth digital participation.

Methodology

We derived the theoretical framework proposed here through a process of inductive analysis, based on our collective knowledge of the literatures on (youth) participation across several fields (e.g. communication and media studies, development studies, civic/political engagement), as well as our own extensive empirical research on youth participation (e.g. Blum-Ross 2017; Blum-Ross and Livingstone 2016; Brough 2014, 2016; Brough, Cho and Mustain forthcoming; Brough and Shreshtova 2012; Kligler-Vilenchik 2013, 2015, 2016; Kligler-Vilenchik and Literat 2018; Kligler-Vilenchik and Thorson 2016; Literat 2013, 2014).

We illuminate key distinctions and demonstrate the value and applicability of our proposed framework using two case studies of youth participation based on in depth research by the paper's authors. Building on the idea that case studies are "made" according to one's theoretical reading of them (Ragin 1992), we conceive of these two case studies as instances of youth digital participation.

The first case study is the online community of "Nerdfighters" – a youth-driven, online-based, informal community of the young fans of YouTube video-bloggers John and Hank Green (who vlog under the channel name VlogBrothers). The VlogBrothers started vlogging in 2007 and quickly established a fan-base. These fans came to call themselves Nerdfighters based on a wordplay that appeared in one of the VlogBrother videos. Nerdfighters connect around a shared identity as proud "nerds" and shared popular culture interests. Moreover, mobilized by the VlogBrothers, they see themselves as "nerds who fight to decrease world suck," a broadly construed "civic mission" to make the world a better place. Our case study draws on ethnographic work with Nerdfighters throughout the U.S. conducted by the second author between 2012-2015. This included in-depth interviews with 13 Nerdfighters ages 15-22 (of whom nine were 18 or younger), all high school or college students; a qualitative content analysis of Nerdfighter-created media (e.g. Facebook group pages and YouTube videos); and intermittent participant observation over the course of three years in both online and face-to-face settings, particularly among a local group of Nerdfighters in the Southern California area. More methodological detail is provided in Kligler-Vilenchik (2015).

The second case study is CyberPatriot. Founded by the Air Force Association in 2009, CyberPatriot is an afterschool program designed to increase the interest and participation of youth across the United States in the STEM fields (science, technology, engineering, and math), particularly in cybersecurity. The program revolves primarily around cybersecurity and digital technology trainings. Our case study draws in particular on the CyberPatriot program managed by the Beyond The Bell Branch (BTB) for the Los

Angeles Unified School District (LAUSD), which enrolls primarily low-income youth of color. Between June and November 2015 the third author carried out 27 qualitative interviews and observations with high school students in the CyberPatriot program and their parents; the 12 student interviewees were all under 18 years old (methodological detail is provided in Brough 2016).

While Nerdfighters is an informal online community, CyberPatriot is a formalized educational initiative. On the other hand, both are youth-focused, have a goal that is to some extent participatory, and traverse both digital and non-digital spaces. Of course, for each of these criteria, a wide selection of cases could have been examined. We considered a range of case studies both formal and informal, and selected the two that provided the most fruitful contrast, and for which we had in-depth research familiarity.

Dimensions of youth digital participation

Below, we propose a set of four heuristic categories – aims, actors, contexts and intensities – for analyzing digital youth participatory processes. For each of these heuristic categories, we identify dimensions that help parse out elements of youth digital participation. Table 1 outlines the framework and applies it to our two case studies. We focus on digitally-enhanced participation, while acknowledging that for youth the digital is seamlessly connected to the physical and the local (boyd 2015; Jenkins et al. 2006), and boundaries separating the two are, to a certain extent, artificial.

Aims

It is important to emphasize that technology is generally a facilitator of youth's aims, rather than an aim in itself – part of the process, rather than the product. As Jenkins and colleagues (2016) put it, youth are using "any media necessary" to express themselves and achieve their myriad goals. It is also worth noting that the aims of the youth participants might, in some cases, differ from the aims of the group, program or organization they are part of; we will exemplify an instance of such a divergence using the CyberPatriot case.

We identify three dimensions for analyzing aims of the youth: individualist – collectivist, voice – instrumental, and process-focused – product-focused. On the first dimension, individualist – collectivist, individually-focused aims may include self-expression and the amplification of an individual's voice; however, in practice, it is hard to imagine participation with purely individualist aims, as all participation is participation *in* something, and therefore has an implicit collective dimension, which

can be more or less pronounced. Towards the other end of the spectrum, more collectivist aims include the development of a cohesive group identity or subculture and the mobilization of collective action around a shared agenda. Frameworks such as Bennett's (2008) self-actualizing citizen, which aim to describe the models of citizenship most preferred by younger citizens – focusing largely on online civic participation – often put the emphasis on the individual as acting to a large extent for one's own benefit (e.g. to self-express), with digital media serving as a conduit for this expression. Yet much youth participation is aimed at contributing to a "greater good." While youth are less engaged in traditional political activities, they match their elders in many aspects of civic engagement, for example working to solve problems in the community and volunteering (Zukin et al. 2006). There is also a wide middle ground between individualist and collectivist aims – a hybrid collectivism – that is driven or motivated by youth's individual cultural interests and expressive goals, but that may also entail collective action toward a shared objective.

Therefore, in practice, individualist and communitarian goals can – and most often do – coexist within the same participatory context or community. The Nerdfighters case is a telling example in this respect, as their playful collective aim of "decreasing world suck" can be mapped on a continuum from individual to collective. When asked, in interviews, about their objectives, Nerdfighters included under "decreasing world suck" personal-level acts like cheering up a friend or returning a lost wallet, but also acts that we would traditionally understand as civic and communitarian, such as donating money to a non-profit organization or volunteering (Kligler-Vilenchik, 2013, 2015). CyberPatriot has institutionally-driven aims that value youth digital participation as a means of cultivating future STEM professionals, and enhancing cybersecurity capacities in the U.S. more broadly. While it could be argued that this is a collectivist intention for the future of American society, the program falls closer to the individual end of the spectrum in that its immediate aim is to develop individual capacities for future employment, rather than cultivate collective identity or action.

On the second dimension, voice – instrumental, we can locate the key variance in the aims of youth digital participation with regard to the degree of instrumentality of these practices. Focusing on civic participation in digital spaces, Ethan Zuckerman (2014) distinguishes between "instrumental" aims, which have a particular target of change (e.g. collecting signatures on a petition to get a law on a ballot) and "voice"-related aims for self-expression and/or challenging cultural norms – although Zuckerman acknowledges that "voice"-related aims can often lead to more instrumental action as well. Nerdfighters' yearly campaign "Project4Awesome" exemplifies this. One day a year, Nerdfighters are called to create videos about their favorite charity or non-profit organization and simultaneously post them on YouTube – an act of voice. Yet this voice

is instrumentalized into concrete civic action: Nerdfighters' production of videos is combined with a fundraising campaign where members are encouraged to view the videos, learn about the different organizations and donate money, which is then given to the charities whose videos received the most votes. This initiative also highlights the function of technology as facilitator of participant aims; here, the integration of multiple digital tools and platforms enable the accomplishment of both voice-related and instrumental aims, which would not have been possible without this technology.

CyberPatriot is an example of an initiative with instrumental aims: while it is not explicitly a digital participation initiative, it is implicitly based on the premise that there is a need to increase the participation of youth (especially low-income youth of color, in the case of BTB) in STEM and prepare them for future careers in digital sectors. Working in the second largest public school district in the United States, BTB's CyberPatriot program is offered in Title 1 schools that serve primarily low-income youth of color. As illustrated by the CyberPatriot example, a focus on equity and diversity has featured strongly in recent discussions around youth digital participation, and categories like race, gender, and socioeconomic status are particular vectors around which the instrumental aims of digital participation are currently being mobilized.

On the third dimension, process-focused – product-focused, we can locate process-focused approach aims, which prioritize the quality of the participatory experience itself, and product-focused approach ones, which prioritize the quality of the product or outcome of participation, and the various hybrids. Since well before the rise of social media, practitioners and scholars of participatory media have debated whether such projects have (or *should* have) process- or product-driven aims. For example, the literature on youth media and participatory video has historically emphasized the importance of being process-driven so that participants are empowered in the entire process of collaborative video-making rather than being focused on producing a polished final product (e.g. Fleetwood 2005; White 2003). The point here is that producing what is considered by hegemonic standards to be a refined final product often requires more centralized or hierarchical decision-making and production practices, which may compromise the experience of participation and the degree to which all participants are equally empowered in the process.

Whereas in contexts of work and labor, the product takes primacy, educational contexts occupied by youth may often highlight the role of the process. Blum-Ross and Livingstone (2016) trace this process-versus-product divide, arguing that historically, the emphasis on process in youth media projects correlated with a valuing of youth voices on their own terms as part of a social justice agenda. In contrast, they argue, the predominant discourse in digital media and learning projects today is one of entrepreneurialism "that prizes self-interest, individual competition, and instrumental

values such as personal achievement, success indicators, defined targets" (n.p.) and reflects the dominance of neoliberalism. These often-dichotomized debates are particularly significant because they point to what is more broadly at stake as we conceptualize the aims of youth participation in public life. Are we focused on preparing youth to participate in a future – conceived for, rather than by, them – or do we see their current participation on their own terms as valuable in and of itself (Livingstone 2009)?

While one may have primacy over the other, process- and product-focused aims often coexist and are intrinsically interrelated. Our two case studies reflect these dynamics. Nerdfighters are at their core process-focused. The group allows for a range of ways to participate, and for most young people, simply being part of the group – socializing with like-minded others, sharing popular culture interests – is the main motivation for participation. But this motivation may often lead them to take part in instrumental goals, such as supporting Nerdfighter campaigns with a civic nature. In this sense, the social aspect is a key component behind the emphasis on process over product. The aims of CyberPatriot, on the other hand, are more product-focused. From the organizational perspective, the youth themselves are arguably the "product" (Manson, Curl, and Carlin 2012). Youth participants, however, may experience the program as both product-focused (e.g. winning competitions), and process-focused (with its emphasis on teamwork and peer mentoring). As in the case of the Nerdfighters, some participants value the program because their experience of it has been characterized by collaboration and peer-to-peer learning (Brough 2016).

This example also illustrates how, in some cases, youth's aims might differ from organizational aims. It is thus vital to consider both the aims of participants and of the larger programs or organizations they participate in. This potential discrepancy is particularly acute in the case of youth (vs non-youth) participation, as program aims are often imposed from above, to fulfill specific instrumental goals – educational, entrepreneurial, professional or otherwise – which are most often decided upon and implemented in a top-down rather than bottom-up fashion.

Actors

We examine the actors involved in youth digital participation, including two dimensions: individuals – groups / collectives, and exclusive / homogeneous – inclusive / diverse. The role of technology is significant here, as digital media may help amplify individual youth voices and facilitate new forms of affiliation, as well as having the (not necessarily realized) potential to enhance the diversity of youth participation.

Investigating the characteristics of actors is particularly relevant for youth

participation for several reasons. First, in the popular imagination millennial youth have often been stereotyped as inward focused and self-absorbed – the "me generation" (e.g., Stein 2013). Examining to what extent their participation is individual vs. collective can help evaluate and nuance such claims. Second, youth today are pioneering new forms of affiliation – based on shared interests and components of identity, and incorporating a range of digital tools and practices – that are yet to be fully understood. Scholars are still seeking to understand the potential benefits of interest-based groups, e.g. for education or civic engagement (Ito et al. in press), as well as the role of digital media in shaping these youth practices and affiliations. Third, as youth are in their formative years in which they are shaping their identity and "becoming" adults (Lee 2001), social capital and group belonging are particularly important to them (Ahn 2012). In fact, for many young people, the social aspect of belonging (the "sense of community", see Kligler-Vilenchik et al., 2012) may be one of the most important aspects or motivations for being part of online groups and embracing digital communication technologies.

In the past few decades, sociologists have theorized a move in which important aspects of identity, which in the past were ascribed by the social grouping one was born into, are now up to the individual to negotiate (Giddens1991). As individuals have become "disembedded" from social institutions (Beck 2007/2009) and tradition loses its hold, people are forced to negotiate lifestyle choices among a diversity of options, including the choice of their key affiliations.

Informed by these theorizations, much work on youth digital participation has stressed the individual as the agent of participation. This is evident, for example, in the work of Bennett and colleagues, who suggest that, increasingly, young people follow a model of Self-Actualizing Citizenship (Bennett 2008; Bennett, Freelon, and Wells 2010). Digital media is central for expressing such modes of citizenship (e.g. creating and sharing political videos), and further shaping them (see Bennett, Wells, and Rank 2009). Another example is the Youth & Participatory Politics (YPP) network, which examines how, aided by new media tools, "*individuals and groups* seek to exert both voice and influence on issues of public concern" (Cohen and Kahne 2012, vi, emphasis added). Looking at both individual and group-level youth online participation (e.g. writing your own political blog vs. joining an online community), this research illustrates the value of considering the full spectrum of participation, and the relationships between individual and collective actors.

Nerdfighters is an example of innovative civic groups that coalesce around shared popular culture interests, and an illustration of the new kinds of affiliations that are proliferating, aided by the affordances of the digital environment. Nerdfighters are tied together through a shared identity as "nerds," as well as through popular culture

interests – including a proclivity towards the production of online video on YouTube. The Vlogbrothers build on this shared identity in order to then mobilize Nerdfighters into civic action. For example, the earlier mentioned Project4Awesome builds on Nerdfighters' interest in video production and their identity as "YouTubers" (see Lange 2014), but directs this proclivity towards a shared, group-level project with the civic aim of promoting charities and non-profits, ones chosen by the VlogBrothers as well as ones chosen by Nerdfighters. In interviews, Nerdfighters often named Project4Awesome as the best example of how they as a community "decrease world suck."

In the case of CyberPatriot, youth participants are often drawn to the program by their individual interests in technology, especially video games (Brough 2016). Developing a collective identity, community of practice, or civic action is not an explicit aim of the program. However, participants may find an interest-driven community among their CyberPatriot peers (Pham et al. 2017), and experience it in large part as a collaborative peer culture (Brough 2016). Thus, while in comparison to Nerdfighters, CyberPatriot would arguably fall farther from the collective end of the actors spectrum, a multilevel analysis that considers the full individual-to-collective spectrum of participation can facilitate insightful conclusions that might not otherwise be readily apparent.

Although participation in both the Nerdfighter community and the CyberPatriot program is driven by shared interests, they differ in their degree of inclusivity and diversity. As we illustrate below, the question of *who* participates has broader implications in terms of the equity of participation.

BTB's CyberPatriot program is well-positioned to help increase diversity in STEM fields, given that the district serves a majority of low-income youth of color. In 2015, for example, of the more than 800 students enrolled in the program, 80% were Hispanic/Latino, 7% African-American, 5% Asian, and 4% Pacific Islander.[1] The enrollment of girls was not proportionate to the public school system's student body overall, but at 28% it was slightly higher than the national average of women employed in STEM (26% as of 2011; Landivar 2013), and the program was implementing strategies designed to specifically increase the participation of girls. CyberPatriot forms part of a growing range of digital youth initiatives that aim to increase the participation of marginalized youth in digital sectors, such as Black Girls Code, the Digital Youth Network (DYN), or the White House's Tech Inclusion Initiative. Although they might vary in terms of reach and effectiveness, such projects illustrate the *potential* of digital technologies to catalyze wider and more diverse youth participation in digital sectors.

The Nerdfighters act upon an *ideal* of inclusivity. In the FAQ video on how to be a Nerdfighter, the Vlogbrothers quip: "Am I too young / old / fat / skinny / weird / cool / nerdy / handsome / tall / dead to be a Nerdfighter? No!! If you want to be a

Nerdfighter, you *are* a Nerdfighter." This ideal of inclusivity is also expressed by individual Nerdfighters in interviews. For example, 20-year-old Lucy, a white college student, says: "It doesn't really faze me when I realized that someone, 'Oh! Maybe they're a little richer than me or they're Conservatives or they are Hispanic or anything like that.' I mean everyone wants – we're kind of all geared towards the same interests" (Kligler-Vilenchik, 2015). Yet the community does not live up to its ideal, and is rather homogeneous in terms of race and ethnicity. According to the 2014 Nerdfighter census, 85% of Nerdfighters identify as white, 6.5% as Latino, 3.5% as East Asian and only 1.6% as Black (VlogBrothers 2014). Although specific acts undertaken by the VlogBrothers, such as speaking out on issues like Black Lives Matter, represent steps in the right direction, race and ethnicity play out in complicated ways for Nerdfighters (including, for instance, in terms of role modeling, or the choice of popular culture content the group coalesces around), also echoing the fact that many online fan communities show a bias toward whiteness (see Gatson and Reid 2012). In this sense, the Nerdfighters case speaks to the gap between the ideals and realities of inclusivity in regards to youth digital participation, and the continued relevance of the participation gap in such contexts (Hargittai and Walejko 2008; Jenkins et al. 2006).

Yet diversity should be understood on a variety of dimensions, beyond race/ethnicity alone. In the case of Nerdfighters, the community has been open to a variety of gender and sexual identities, with many participants in the Nerdfighter census identifying as genderqueer, gender fluid or questioning (VlogBrothers 2014). This openness has been encouraged by VlogBrother content, such as the vlog "Human Sexuality is Complicated," which prompted viewers to see sexual and gender identities on a spectrum, rather than as binaries (VlogBrothers 2012).

Contexts

The physical, technological, and social *contexts* of youth digital participation – which encompass both social relationships and the physical and virtual settings in which participation is enacted (Davis and Fullerton 2015) – may be highly determinative of the actors, aims and intensities of participation. Some contexts may enable youth participation, for example when young people gather in physical or virtual spaces around shared interests or affinities (Ito et al. in press). However, the context of participation can also (sometimes, but not always, inadvertently) undermine the expression of youth voice (Clark 2016; Mitra 2005) or the quality of youth experiences with participatory practices (Middaugh, Bowyer, and Kahne 2016).

We situate context on two dimensions: formal / institutional – informal / dispersed and bottom-up – top-down. Here it is important to note that the often-

assumed dichotomy between informal contexts as "bottom-up," and formal contexts (e.g. schools or other institutional spaces) as "top-down" does not always hold true. For example, "distributed mentoring" online may seem at first glance to present egalitarian opportunities for young people to engage with peers, but ethnographic work reveals the ways in which these spaces become imbued with their own power relationships (Campbell et al. 2016).

The role of technology vis-à-vis the context of youth participation is an important and complex variable. In determining the locus of participation (i.e. whether participation takes place in an online, offline or hybrid setting), technology shapes the context of youth engagement, as well as the relationships that are produced. A critical lens should therefore be applied towards understanding the importance of youth participation and learning in purely digital, versus mixed digital and non-digital contexts. For example, while the democratizing potential of the Internet has often been heralded, "open-access" courses and online spaces also have their own hierarchies and limitations (Buckingham 2007; Means et al. 2014). Thus, our framework invites an interrogation of a range of contexts – online, offline and hybrid – rather than assuming that some are a-priori better positioned to support learning and participation than others.

In terms of the formal to informal spectrum, a multitude of socialization agents take part in shaping young people's digital participation, including parents, peers, voluntary associations and educational initiatives (Meneses and Mominó 2010). As young people are often invited to engage digitally within a spectrum of formal and informal settings, it is particularly important to pay attention to these underlying institutional and relational structures. Schools, for example, are both the site of increasing investment in youth "voice" and often a context for the retrenchment of institutional values that can limit the possibilities of participation (Clark 2016; Matthews and Limb 2003). Given the wider political economy of many educational settings (as dependent on funding, and on instrumental evidence of numerical participation, test scores and beyond), it is hardly surprising that educators may be invested in different forms and outcomes of participation than the young participants (Bragg 2002). That is not to say that educational settings cannot be the site of counter-narratives and resistance (Goodman 2003), but that the institutional and social relationships in which the activities are embedded are contextually significant. We illustrate these dynamics in our subsequent discussion of the case studies.

While using these terms, we acknowledge that both types of structures may have positive outcomes for young people in different ways (Larson et al. 2005); at the same time, we argue that by looking at "who manages tasks, assigns them, or encourages participation" (Kelty 2012, 28) and *why,* we can better understand the context of youth participation and, consequently, the ramifications of participatory

processes. The role of educators or facilitators can be highly determinative of how projects are framed (Soep and Chavez 2010), and the extent to which young people are enabled to "own" the process of creating their own digital products – a point that is often obscured by the blanket rhetoric of "youth voice" (Blum-Ross 2015; Kirshner 2008). Equally, social hierarchies and points of differentiation within groups of young people – connected to age, ethnicity, gender – can influence who participates, how, and with what ends, further demonstrating that 'youth' is far from a monolithic category (Dahya and Jenson 2015).

The cases of CyberPatriot and Nerdfighters provide a stark contrast in terms of their contextual dynamics. While there is a great deal of peer-to-peer learning within CyberPatriot, the overall agenda and structure of the program is institutionally-driven, top-down, and relatively instrumentalist, leaving little room for young people to determine the wider aims or outcomes of participation. Thus, there are ways in which the program's context limits the possibilities of enhancing youth agency. Yet this does not foreclose all positive benefits of the program, which seems to have additional value from a youth point of view: the study of BTB's CyberPatriot program found that it "offers self-described 'geeks' or 'nerds' a community in which their interests in games and digital media are validated, supported by peers and mentors, and geared toward new opportunities" (Brough 2016, 4-5). In such instances, CyberPatriot helped to bridge students' interests with institutional opportunities.

 In contrast, in the case of Nerdfighters, the context is one that allows much space for youth voices to be heard. While the community coalesces around the VlogBrothers' YouTube channel, Nerdfighters have always sought out additional channels, online and off, that enhance and diversify their participation. For example, a Southern California group of Nerdfighters created a local group which would meet up regularly for "nerdy outings" such as going to the Planetarium, or to assist each other with video production for YouTube. Nerdfighters not only respond to VlogBrother content but also create their own content – on YouTube, Tumblr, or Facebook groups – that helps shape the character of their community. Although the VlogBrothers themselves are by all criteria adults, they often raise issues in their videos that have emanated from the content raised in the youth community (e.g. the aforementioned vlog "Human Sexuality is Complicated", VlogBrothers 2012), characterizing the community as at least partially bottom-up.

Beyond the institutional, social, and power-related aspects noted above, it is also important to consider the technological barriers that often limit or condition youth digital participation (Robinson et al. 2015; London et al. 2010). As illustrated with the Nerdfighter community, participation gaps can contribute to shaping the demographic makeup of digital youth communities. Moreover, even in projects like CyberPatriot

which are explicitly aimed at cultivating digital skills, differences in digital access between home and the context of instruction (in this case, after-school) can actually reify the participation gap (Sims 2013). Thus, when analyzing the contexts of youth digital participation, it is vital to acknowledge that there are particular barriers to full access and that some contexts invite more full and equitable participation than others.

Intensities

More than other types of participatory opportunities, *digital* participation is often framed in general and almost unanimously positive terms, without a critical examination of the quality of the specific participatory process and of the outcomes for the participants (Carpentier 2009; Kelty 2012; Schaefer 2011). We insist that digital participation should not be a blanket term; this is especially important for youth participation, where the intensity of digital participation – which, in turn, can shape offline attitudes, behaviors and practices – has significant implications for empowerment and ownership (Literat 2012). Different intensities will lead to different outcomes for youth: as the intensity of participation increases, so does the potential to foster agency among the participants. Beyond the level of commitment that youth bring to participatory processes – how deeply they want (and are able) to be involved – the structure of specific participatory opportunities, including both social and technical factors, plays an important role in determining the intensity of youth digital participation (Literat 2017). In this sense, it is vital to pay attention not only to the social dynamics that condition power relations within a specific project or context, but also to the digital tools of communication and collaboration available to participants. As in the case of the aims dimension, technology acts as a conduit for participation, so the technological structure of a participatory project can determine the intensity of engagement – encouraging or, conversely, delimiting meaningful and equitable participation.

We situate intensity of participation on two dimensions: executory participation – structural participation dimension and minimalist intensities – maximalist intensities. The first dimension brings out the crucial distinction in empowerment and the ethics of participation between executory participation (the task-based participation in a pre-designed project, in which young people are "executing" the directives of others) and structural participation (where participants have a say in the actual design of the project or initiative). Indeed, this distinction marks the difference between participation and collaboration (Literat 2012). It is only when they are afforded opportunities for structural engagement that youth can exercise structural agency and become bona fide collaborators. Of course, given the youth-specific restrictions mentioned in the beginning of this article, there are certain considerations that might moderate the

potential for youth's structural participation. Are youth participants just filling in placeholders of participation that others create for them or are they creating – or at least co-creating – the contexts of participation?

Our case studies illuminate the significance of participatory intensities in shaping different modes of participation. Due to the design and context of the CyberPatriot program as instrumentally-aimed, institutionally-driven and top-down, youth are not invited as structural participants and have little or no say in setting aims for, or influencing the broader context of, participation in the program. Thus, CyberPatriot is an example of executory participation; it is a task-based program largely pre-designed by institutional stakeholders. Participants' particular roles and contributions within their teams may be largely determined by the participants themselves, but the terms and limits of their participation are predetermined. The Nerdfighters, on the other hand, as an online community, have a wide range of participation modes, and corresponding intensities, open to them. The loose definition of "Nerdfighter" means it is enough to see oneself as one in order to "be one," and Nerdfighters thus vary in their intensity of participation. These intensities are, to a certain extent, shaped by the affordances of the digital platforms in question, illustrating the important role that technology plays in this regard. For example, on YouTube, Nerdfighters can range between casual viewers of VlogBrother videos, to highly involved participants who regularly vlog on a Nerdfighter YouTube channel or even produce a Nerdfighter panel for the YouTube conference VidCon. On Facebook groups, Nerdfighters can be the group administrators, sometimes in charge of hundreds of participants, setting up get-togethers and monitoring others' participation; or they can be participants who mostly read messages and rarely interact with others.

In thinking about the intensities of youth digital participatory practices, it is important to consider the centrality of power dynamics. As Carpentier (2009) notes, we must not conflate participation with the conditions that enable it: thus, while access and interaction are necessary prerequisites for participation to occur, participation is ultimately about agency and the equalized distribution of power in any given situation. As previously stated, in many of their life contexts (home, school, college, work), youth are structurally placed in less powerful positions vis-à-vis adults (Heyneman 1976). The second dimension, minimalist intensities – maximalist intensities, brings out the significant distinction between minimalist and maximalist intensities of participation, where the former is characterized by strong power imbalances between the actors, while the latter has a more egalitarian relationship between the actors (Carpentier 2009). The Nerdfighter community provides an interesting illustration of the significance of such distinctions. While it is a community with a wide range of possible participation modes and significant intensity, there is nonetheless a strong power gap in terms of the

ability to speak to the community. Content created by the VlogBrothers reaches large parts of this sizable community immediately (their YouTube channel has 2.8 million subscribers), whereas the initiatives of individual Nerdfighters will generally have a much more limited reach. At the same time, VlogBrothers do consciously and strategically amplify Nerdfighter voices by encouraging all members to become contributors and by retweeting, reblogging and referencing their participation (Kligler-Vilenchik, 2016). The CyberPatriot case exemplifies a minimalist intensity of participation, as power is not significantly shared with youth participants. Peer-to-peer learning that takes place within teams may offer somewhat greater intensities of participation, but this remains circumscribed by the structure of the program as a whole.

Conclusion

Several scholars have noted that a key problem with the discourse on participation is that it is steeped in idealism, with participation being presented as an invariably empowering practice (e.g. Carpentier 2009; Fish et al. 2011; Kelty 2012; Literat 2016; Schaefer 2011). We contend that participation is also too often used as a blanket term and insufficiently specified or evaluated. This is especially a concern with regard to digital youth participation, which poses particular opportunities and challenges in terms of empowerment and learning outcomes. When youth are seen as "adults in becoming," their participation can often be uncritically celebrated as having symbolic or educational value. Our framework assists in a systematic, normative evaluation of youth digital participation projects, illuminating what youth digital participation is good for, and for whom.

To illustrate how this framework might be utilized, we have applied it to two disparate cases. Although Nerdfighters and CyberPatriot are both cases of youth digital participation, they have highly differing aims and actors, are situated in qualitatively different contexts, and invoke different intensities of participation. Some of these points of differentiation were clear on surface examination, but it is only through a systematic application of our framework that we reveal the ways in which these dimensions fully play out.

At first glance, the Nerdfighter case is an example of the kind of innovative groups that, enabled by the digital environment, coalesce around shared affinities and give youth participants both an opportunity to express voice and a sense of community. Our multidimensional analysis confirms this, but also points out the challenges of a lack of diversity of actors and a power gap in terms of intensity between Nerdfighter participants and the adult VlogBrothers. CyberPatriot is a more traditional in that youth

participation is primarily determined in a top-down manner, within a formal context, and directed toward institutional aims. While this is partially confirmed by our evaluation, an analysis across the dimensions also points out the nuances of the benefits youth themselves experience through the program's opportunities for peer-to-peer learning. Youth participants may experience CyberPatriot as more process-focused – and oriented toward peer-learning – than would be perceived from simply an institutional point of view.

There is a need for further empirical research – and particularly, more longitudinal studies – that can facilitate objective and critical examinations of youth digital participation. This research must start from key questions that we foreshadow in this article. Is youth participation always positive? What kind of participation do we want young people involved in? Are there contexts that do not benefit from being participatory? And, returning to the equity question – is participation always beneficial for participants? What is the individualized burden of doing so? Indeed, questions of equity and diversity should play a central role in these future inquiries. In thinking about youth digital participation, we must consider who is included and who is left out; we must address both the stakes of participating, but also the stakes of *not* participating, which currently figure much less prominently in our collective discourses of digital participation. As our analysis shows, binary evaluations of participation do not suffice to describe the complexity of youth digital participation in the contemporary moment. The framework offered here fosters a deeper understanding of these complexities.

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Table 1. Dimensions of Youth Digital Participation

	Dimension		Nerdfighters	CyberPatriot
Aims	Individualist	Collectivist	"Decreasing world suck" mission ranging from individualist to collective notions.	More individualist; ultimately aims to build individual capacities.
	Voice	Instrumental	Project4Awesome as the instrumentalization of voice.	Instrumental goal: (low-income) youth in STEM.
	Process-focused	Product-focused	Process-driven group allowing for participation in product-driven campaigns.	Youth as the "product" of the program; but youth may experience the program as product or process driven.
Actors	Individuals	Groups/ Collectives	New forms of affiliations: innovative civic groups coalescing around shared popular culture interests.	Youth drawn in by individual interest in tech but experience it as collaborative experience.
	Exclusive/ Homogeneous	Inclusive/ Diverse	Ideal of inclusivity. Lack of racial/ethnic diversity, openness to	Diverse participants; mainly low-income youth of color in BTB's CyberPatriot

			LGBTQ identities.	program.
Contexts	Formal/ Institutional	Informal/ Dispersed	Digital spaces allow for Nerdfighters to create own content and have their voices heard.	Institutionally-driven agenda/structure; context does not explicitly encourage youth voices.
	Bottom-up	Top-down	VlogBrother videos set the tone for the community; room for Nerdfighters to shape their participation via additional channels.	Top-down, facilitator-led program; yet allows for peer-to-peer learning.
Intensities	Executory participation	Structural participation	Structural – Nerdfighters shape the design of the community; range of modes of participation.	Executory – program pre-designed at an institutional level.
	Minimalist intensities	Maximalist intensities	Significant intensity, but power gap between VlogBrothers and the initiatives of Nerdfighters.	Minimalist intensity; power is not significantly shared.

Note

[1] Data provided by the Beyond The Bell Branch. These proportions are largely reflective of the demographics of enrolled students in the district as a whole.