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Identity Driven Information Ecosystems

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Abstract

This article proposes a theoretical approach that highlights the role of identity in information exposure and processing. This Identity Driven Information Ecosystem (IDIE) approach is premised on the idea that everyone's information ecosystem varies, shaped by who they are, where they live, and who they interact with. Identities play a crucial role in determining the sites of communication that individuals use and engage with, and as a result, there are systematic differences in where people get information, what information they see, and how they react to it. This article lays out an argument for how identity is associated with the information we are exposed to, select, believe, and share; and it argues that identity, technology, affordances, and structures interact to shape our information ecosystems. The article concludes with a case study of the COVID-19 pandemic as an illustration of applying the IDIE approach to understand individual-level variation in information ecosystems.

Keywords: identity, information exposure, political information, sites of communication, information exposure model.

Each of us is at the center of our personal information ecosystem: a combination of print media, social media, television, websites, friends, family, discussions at the grocery store, etc. We learn about the world and exchange information across a diverse set of environments. And while we are exposed to much of the same information as other people, our own information ecosystem is unique, a mix of information sources determined in part by who we are, where we live, and who we know.

We do not regard this as a particularly contentious proposal. The idea that different information sources have different audiences is well established, after all. Pew Research Center (2024) data on the use of digital platforms by different demographic groups in the US makes clear some of the ways in which the use of different online platforms vary across demographic groups: Pinterest skews towards women, for instance, while Snapchat and Instagram skew toward young people, and LinkedIn tends to be used more by high-income and college educated Americans. Indeed, demographic differences in the use of online platforms are likely not surprising to even a casual observer of communication platforms, as evidenced by research on Black Twitter (e.g., Brock, 2012), or self-presentation on social media (e.g., DeVito et al., 2018).

The same is true of offline spaces. Well-documented Black "barbershop culture" highlights the overlapping identities of race and gender (e.g., Alexander, 2003; Steele, 2016), for instance, while Gray's (2009) work on youth queer culture shows how age, gender, and sexual identities help shape the places in which these individuals exist and communicate. These "sites" offer opportunities to both get and share information, but participation in them is predicated in part on identity. More precisely: the online and offline spaces people frequent—and, thus, the informational networks in which they participate—depend on (and inform) their identities.

It is nevertheless true that existing scholarship, particularly work on online media, has tended to focus more on the predictive aspect of basic demographic differences—age groups, gender groups, or racial groups, for instance—and less on the interactive and reciprocal relationships between *combinations* of identities and media use. The latter are central to the Identity Driven Information Ecosystem (IDIE) approach introduced below. The IDIE is a framework that focuses on: (1) the complex and sometimes reciprocal interactions between identity, information, and sites of communication; (2) identities' role throughout the communication process; and (3) overlapping identities as factors that both shape and are shaped by communication processes.

Models that touch on some similar themes in digital environments already exist, including filter bubbles and curated flows (e.g., Kitchens et al., 2020; Thorson & Wells, 2016). These theories have been vital to understanding how information flows and how individuals interact with it. Moreover, they are useful frameworks for thinking about the consequences of rapidly changing technological landscapes. Our approach differs in two important ways. First, we argue for the primacy of identity in individuals' information environments. Second, as with most prior work, our approach considers the moment someone selects information (or has it curated or filtered for them)—but we also consider the moments before and after selection, when an individual's identities influence the "sites" they use, how they process information they receive, and when those information environments subsequently shape that individual's identities.

The IDIE approach is predicated on an understanding of two concepts: (1) sites of communication; and (2) identity. We begin below by defining sites of communication. We describe the role that identity plays in both the selection of sites of communication and information exposure within those sites. We then outline the IDIE approach in detail. Finally, we consider communications surrounding the COVID-19 pandemic as one illustration of the value of the IDIE approach.

Sites of communication

We take a broad view of the spaces in which communication of information occurs and refer to these places as *sites of communication*. Each site has distinct structures and affordances. Site *structures* describe the technical, physical, and logistical forms that a site takes on. For instance, a WhatsApp chat group allows for posting links, emojis, and uploading personal photos, whereas a television show does not. These structures govern the kinds of content that can be communicated and engaged with. And, these structures form part of the basis for *affordances*, which we define as users' perceptions of how sites of communication are used and the norms surrounding them.

Affordances are not solely determined by structures; they are the result of the interaction between structures and usage (Hiaeshutter-Rice, 2020). Note that this is not a novel view—it is in line with how previous work has conceptualized sites of information and helps establish how systematic variations in content and engagement occur across sites of communication (Hiaeshutter-Rice et al., 2021; Lukito, 2020; Thorson & Battocchio, 2023). Together, structures and affordances shape the kinds of content that is communicated, how it is communicated, and how people react, respond, and engage with information. As such, Facebook is a distinct site of communication from X (formerly known as Twitter), and each is unique from television, or a WhatsApp chat, and so on.

Sites of communication are not static; they adapt over time as features change and users interact with the site differently. Even small differences in structures or affordances (either across platforms or over time) can change the nature of information conveyed on a platform. For instance, Potts and Mahnke (2020) suggest that Twitter's increased character limit and timeout function have increased space for fake news and the spread of misinformation; the Facebook "groups" function can lead to politically polarizing echo chambers (e.g., Del Vicario et al., 2016; Kitchens et al., 2020); and apps like TikTok use short-form videos to convey information, which not only constrains the quantity of content that can be sent at once but also shapes the nature of information that users will share on the app (Le Compte & Klug, 2021).

Naturally, the unique characteristics of different sites of communication also define and distinguish sites beyond social media (e.g., Hiaeshutter-Rice, 2020). We know from classic work in communication that personal discussion networks are tremendously influential in shaping people's understanding of the world (Katz, 1957), whether online (Bacchini et al., 2017; Delahunty, 2012) or offline (Best, 2011; Fiese, 1992). But the norms and structures of a coffee shop in a one-stoplight town are very different from a barbershop (Halfacree, 1993; Oldenburg, 1999), and are vastly different than those of Twitter or Facebook, just as family group chats on WhatsApp differ from a family dinner.

The starting point for our argument is that sites of communication contain different underlying logics, structures, and norms. These in turn shape the information to which people are exposed and how people engage with that information. Not all sites of communication are fully different from each other; indeed, there may be a great deal of overlap in information available at different sites. Nonetheless, even small differences may accumulate over time, creating meaningful variation in the information to which individuals are exposed. And, as we will establish in the following sections, sites of communication are fundamentally intertwined with individuals' identities.

Identity

The existing literature provides no universal, succinct definition of identity. Although identity is central to the IDIE approach, the purpose of this article is not to create a narrow definition for the concept. Rather, our goal is to identify several mechanisms and processes related to identity (in the various ways it is construed in the literature), and explain how those factors operate in relation to sites of communication.

That said, our broad characterization of identity is that it is defined by the various groups with which an individual affiliates, particularly those that the individual views as important to (or defining of) who they are. These identifications can take a variety of forms. An individual's collection of identities might be based on a combination of personal characteristics (e.g., age), beliefs (e.g., ideology), social categorizations (e.g., cultural background), and geography (e.g., location), for instance.

We do not argue that identities causally determine all media use. Many decisions about media and information are made independent of identity—and, even when people select information based on their identities, those selections are not necessarily identity-reinforcing. As we outlined above, the structures and affordances of a site can create an information environment that resonates with a person's identities, making them more or less *likely* to engage with it, but not absolutely determining that they do so. And, of course, the influence of identity broadly—or particular identities—varies across individuals, time, and context.

To illustrate this point, consider a person selecting a meal at a restaurant. A vegetarian may choose to go to a vegetarian restaurant, which will give them more options on the menu to choose from. But their identity does not *force* them to select this restaurant. If their vegetarian identity is less salient, or if they feel like eating with non-vegetarian friends, they may choose a different, perhaps non-vegetarian, restaurant. Even if they do, their vegetarianism may still influence and constrain what items they select from the menu. In both scenarios, their "identification" as a vegetarian may play a role in what restaurants they frequent and what they decide to eat—but that role is not deterministic. Moreover, frequenting vegetarian restaurants may increase someone's commitment to vegetarianism (because the food is good) or decrease it (because the food is bad).

This metaphor can be extended to one's communication diet. Different salient identities may make us more likely to select certain sites of communication. These sites need not be identity affirming overall, but they likely contain some aspects that align with or speak to our identities. One's geographic identity might make them more inclined to use an online newspaper to find information about the city they live in.

Living in a small community might also drive individuals to sites of communication like Facebook where the structures of the site enable local news and messaging (Mathews, 2020). Each of these is more likely when geography is a salient (rather than minor) aspect of our identity. And consuming local content may well have reciprocal effects on our geographic identification.

We see these dynamics as being central to the IDIE. So too is the fact that identities overlap and interact. While it is true that the audience of Pinterest skews towards women, so do the audiences of many other social media platforms. What partially distinguishes Pinterest is that it is predominantly used by White women who are relatively wealthy and who may see, in the structures of Pinterest, content that resonates with them and their identities. We are by no means the first to consider intersecting and overlapping identities. The last three decades of work on intersectionality demonstrates clearly that viewing people through the lens of a single identity often fails to adequately understand their experiences—and in turn, does not account for the varied disadvantages they encounter on account of those identities. Importantly, the framework of intersectionality emphasizes that the dimensions of identity are not mutually exclusive, and identity politics that focus on one dimension at a time can be disempowering for marginalized communities (Anzaldua, 1987; Collins, 1990; Crenshaw, 1991).

In terms of the IDIE, we consider Crenshaw's (1989) framework of intersectionality as an important contribution to our thinking on multiple overlapping identities, but we differentiate our approach in several ways. The term "intersectionality" was originally coined to illustrate Black women's unique experiences of double marginalization, especially in the legal and institutional context.[1] Moreover, the intersectionality framework indicates that Black women face a heightened level of disadvantage in U.S. society, on account of their dual race–gender identity, above and beyond the obstacles faced by their male and non-Black counterparts. Our focus is not specifically on Black women, but to suggest an approach through which future work can better understand how multiple identities simultaneously shape people's information environments. Thus, our goal is both broader and more modest: we encourage scholars of communication to recognize that thinking of information exposure and processing in terms of just one (typically fixed) identity is often insufficient. People's exposure to information is shaped by multiple identities that simultaneously influence their experiences.

Indeed, self-defined identities are not the only ones that matter for information selection and exposure: identities attributed by others may also be central to our information ecosystems. For instance, we may or may not be welcomed in a group depending on others' assumptions about our political, racial, or economic background. These others need not be human: algorithms constantly categorize us—often inaccurately—as having some identities and not others (Cheney-Lippold, 2011). The formation of these perceived identities is multi-dimensional and complex. Not only is this process obscured by black boxes and trade secrets, but it also incorporates into the equation the practices and preferences of peripheral actors and the user (Thorson & Battocchio, 2023; Thorson & Wells, 2016). Users' assigned identities are often determined through an aggregation of algorithmic classification data, including targeted digital advertising (Cheney-Lippold, 2017) and surveillance-as-service profiling (Zuboff, 2019), as well as the user's digital behavioral traces. In turn, these platform-specific, proprietary, machine-learning algorithms use this accumulated information to both establish and predict our identity and interests. The values and identities of those who create these algorithms are structurally embedded in their design (Bozdag, 2013), reproducing inequality, and shaping how our identities are digitally legible (Benjamin, 2019; D'Ignazio & Klein, 2020). Even something as seemingly inconsequential as music recommender systems (Prey, 2018) can generate fundamentally flawed determinations of identities like race and gender due to shifting user behaviors.

In sum, we argue that individuals have multifaceted identities by which they define themselves and by which others define them. These identities can influence, and be influenced by, how individuals experience the world around them and interact in society. As we argue in the remainder of the article, identities are therefore central to our selection and sorting into sites of communication.

The role of identity in selecting sites of communication

In this section, we discuss the implications that identities, broadly defined, have for the selection of sites of communication (and subsequent information exposure).[2] Indeed, there are several examples in which social media communities are *defined* by identity. For instance, there is a growing body of work focused on "Black Twitter," an informal Internet community largely directed toward Black Twitter users, who share information that is relevant and of interest to those in their racial group, given their shared experiences (Brock, 2012; Graham & Smith, 2016). In the case of Native TikTok (Cole, 2021) and Indigenous Twitter (Raynauld et al., 2018), these digital enclaves generate venues for documenting cultural heritage, along with amplifying identity-driven social movements such as land sovereignty (Raynauld et al., 2018) and language revitalization (Meighan, 2021). Dating apps make this process even more explicit, pushing individuals into selecting apps based on their sexual orientation and preferences (MacLeod & McArthur, 2019; Ward, 2017). Spaces like Queer Tumblr create a venue for LGBTQIA2S+ individuals to explore political identity in addition to gender and sexuality (Cavalcante, 2018). Additionally, partisan identity clearly informs which social networking sites people use, with liberals largely avoiding digital platforms like Gab and Truth Social (Freelon et al., 2020). Members of identity groups may gravitate toward sites of communication to reinforce their salient identities (e.g., Native peoples choosing Native TikTok to reinforce their Native identity, Conservatives choosing Gab to reinforce their partisan identity). But they may also choose sites of communication because these spaces offer, and often prioritize, identity-salient discussions on issues that these communities care about.

This phenomenon is not limited to digital sites of communication. The same identities that shape social media selection also inform newspaper, magazine, and television news diets. The use of, and trust in, mainstream media, radio, and podcasts is differentially distributed across racial groups (Bratcher, 2020; Dubois et al., 2020; Limaye et al., 2020). People also get information about political issues in coffee shops, at church, and at their jobs (Cramer, 2016; Mutz, 2006; Scheufele et al., 2004). Geographical differences even help explain the sources farmers trust for information about water and soil, for example (Tucker & Napier, 2002).

In short, people may use a site of communication because it provides useful information to them, because it helps them connect and create a sense of community with other members of their identity group, because they see use of that site as an important part of group membership, or simply because it helps them feel good about themselves and their identity. And critically, because people hold many overlapping identities, the *set* of identities a person holds may influence the sites of communication they rely on. White urbanites may generally congregate in coffee shops, but socioeconomic status may inform which coffee shops they frequent (or whether they feel they can afford to do so at all). Twitter may be a digital haven for Black people, but it also may be inaccessible for those located in areas with limited Internet access. These examples also begin to illustrate the significant role that systematic discrimination plays in the selection and even availability of sites of communication. In the US, long-standing biases against racial minorities have severely limited the degree to which people of color have had access to many spaces. Country clubs, golf courses, universities, and swimming pools may all be important sites of communication, yet many minority groups have been systematically excluded from them—and the legacies of that discrimination are still alive and well today. Race is not the only relevant axis of discrimination, of course—many of these settings have also been functionally segregated by factors such as gender, class, ethnicity, age, and so on.

The systematic exclusion of these people from dominant groups' preferred sites of communication has led to the development of counter-publics and shared culture. A "public" is a space where individuals in a society can safely discuss ideas and strategies—as in, a physical or mediated space where individuals gather and share information (Habermas, 1989). A counter-public is an opposition to these dominant publics where marginalized individuals are aware of their shared subordinate status and create an alternative community (Squires, 2002; Warner, 2002). Counter-publics create new social and cultural structures, actively resisting dominant norms and values (Renninger, 2015). Racial, political, social, and cultural counter-publics are a direct result of discrimination of the dominant publics. Mediated digital spaces like LGBTQIA2S+ Tumblr or physical spaces like Black barbershops can, and often do, result from some sort of exclusion from a dominant public—however, members of those counter-publics work to create their own networks of community where information is presented and exchanged. Furthermore, we recognize that sites of communication are important not only for the purpose of sharing information, but also for developing a shared sense of community they might not have found otherwise.

We thus reemphasize the importance of *overlapping* identities to the IDIE—we simply cannot understand the nuances of access and selection to sites of communication without doing so. In sum, identity structures not just our use of digital and social media, but also the disuse of those media, as well as the use of other, non-mediated networks. By considering the interaction between identity and sites of communication, we can gain a much greater understanding of the information streams to which people are exposed.

The role of identity in information exposure and processing

Identity informs not only the sites of communication people use, but also the information people select and are exposed to within those sites. We differentiate here between the selection of sites of communication (as we outlined in the previous section) and information exposure. For instance, an older individual in the US might choose to watch television news (as opposed to reading the newspaper or looking up news online) out of habit or perceived appropriateness for their age (Chayko, 1993). However, that person's partisanship might also play a role in *which* television news they consume. Their identity as an older person informs their likelihood of using television and their conservativeness informs their likelihood of watching, for example, Fox News. That is, people select sites of communication and then make further decisions about specific kinds of information within that site that appeal to them. We next examine some of the ways that identities shape the kinds of information that we encounter and select.

What follows is heavily informed by the literature on selective exposure (e.g., Sears & Freedman, 1967). This literature has been especially important for understanding polarization and the reinforcement of partisan identity (Knobloch-Westerwick & Meng, 2011; Stroud, 2010). We nevertheless want to differentiate it from the IDIE. The IDIE functions on a broader level than selective exposure in that it considers use of information environments, not just specific pieces of information. Specifically, selective exposure is primarily about avoiding counter-attitudinal information and finding pro-attitudinal information. The IDIE is less focused on attitudes and more concerned with identities and how we seek information that is identity-confirming, or at least identity-consistent, through the interactions of identities and sites of communication. That said, the existing literature on selective exposure offers some valuable illustrations of the importance of identity for information selection and exposure.

We have already discussed how partisanship informs the sites of communication that people use and trust (Jamieson & Cappella, 2008). Within those sites, people are also more likely to click on headlines that affirm their partisan identities (Garrett & Stroud, 2014; Kitchens et al., 2020). For example, we know that increased use of Facebook among Americans is correlated with an increase in partisan news consumption (Kitchens et al., 2020). And while political characteristics influence the attention people pay to political content in social media feeds (Ohme & Mothes, 2020), social connections (themselves informed by identity) determine which posts people click on and read (Anspach, 2017). The importance of identity for information selection extends beyond politics; for instance, sports team fandom can also predict the kinds of information people select (Kang et al., 2015).

Information exposure can also be affected by site structures such as social media algorithms. An algorithm controls what information users see through a combination of weighted metrics (such as engagement, connections, and content). This leads to online platforms making decisions about the promotion or suppression of content (Hiaeshutter-Rice & Weeks, 2021; Rauchberg, 2022; Thorson et al., 2021) as well as technology driving unintentional exposure to information (Lee et al., 2022; Weeks et al., 2017). These processes are also shaped by platforms' assumptions about, and assignments of, user identity.[3] Facebook, for instance, allows advertisers and content creators to pay a fee to select the categories of users that will be exposed to their content. This creates a situation where identity is relevant to the usage of a site in general, to the selection of specific information within that site, and as a mechanism for understanding what information is available in that site in the first place.

Identity also shapes how people process information. Even if two people visit the same site of communication and encounter the same piece of information (intentionally or otherwise), they might evaluate it quite differently. Perhaps the most well-studied example of this is partisan motivated reasoning. For instance, a "Make America Great Again" (MAGA) Republican listening to the January 6th hearings might feel their identity is threatened and discount the credibility of the information (e.g., Boyer et al., 2020; Peterson & Iyengar, 2021). Thus, the information that is being presented is being processed in fundamentally different ways based on how the individual identifies. Further, this kind of processing can shift individuals into avoiding content (and sites) that is dissonant from their worldview (Knobloch-Westerwick et al., 2017). Beyond just partisanship, there are also important differences in information processing based on gender and culture (Boduroglu et al., 2009; Darley & Smith, 1995).

As we have seen, identity conditions how people encounter, select, and process information. We argue that identity, broadly construed, is relevant to information in multiple ways: in the distribution, seeking, and effects of that information as well. The aforementioned literature points to the need for a theoretical approach that takes the many influences of identity into account in the context of communication. This is the objective of the IDIE.

Identity Driven Information Ecosystems

The information ecosystem in which we exist is made up of different sites of communication, including family gatherings, text chats with friends, workplace conversations, social media networks, and television shows. The prevalence of each site in an information ecosystem is not uniform across groups. We are not the first to point out that individuals vary in their preferences and selections of information sources (e.g., Avery, 2006), nor are we the first to note that identity helps predict who uses which site (e.g., Auxier & Anderson, 2021). However, we argue that the IDIE approach is novel in its broad use of identity to understand usage of sites of communication in *combination* with more granular dynamics of information exposure and information processing. Thus, we see our IDIE framework as a significant contribution to the communication literature that can be used to bolster our understanding of how identity influences a range of communication dynamics.

Our approach is modeled in Figure 1. We begin with all possible information in existence. Only some of this information is accessible to us, of course. Our identities influence the sites of communication we choose: the people we interact with, websites we visit, and television we consume. These different information streams compose our information ecosystem—all the information to which we could potentially be exposed based on the sites we select. We are only actually exposed to a subset of the information in the information ecosystem, however. We directly encounter information when we turn on the TV, when the X (formerly known as Twitter) algorithm recommends it, or when our friends mention it to us. These processes of exposure, curation, and filtering are again shaped by our identities and the structures of the sites of communication we use. And the consequences of this exposure vary. We pay attention to, click on, engage with, evaluate, reproduce, and act upon information in ways consistent with our personal and social identities, as well as the norms of the site of communication. Our engagement with
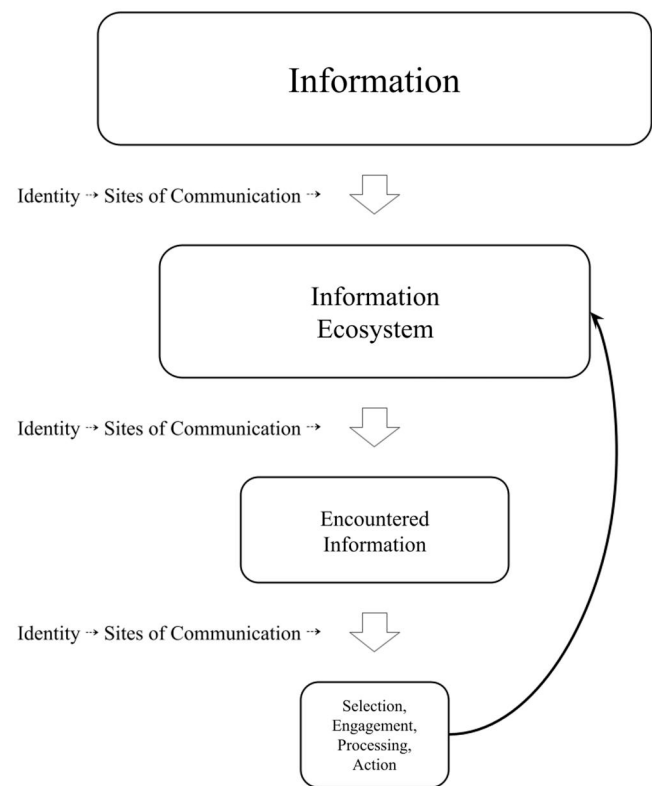
Figure 1. The Identity Driven Information Ecosystem Model.

information may change and reinforce our information ecosystem, for instance, when the TikTok algorithm recommends more of the content we have liked in the past. And, finally, these processes of exposure, selection, and reinforcement may in turn shape our identities.

The specific theoretical mechanisms that explain identity's influence at each of these steps may differ. We view the IDIE as a high-level framework emphasizing the broad relevance of overlapping identities to the field of communication; its application to specific research questions requires lower-level theories that guide researchers' expectations about how identity may function in particular contexts. For site selection, what matters most may be uses and gratifications (see Ruggiero, 2000)—simply finding a sense of community with others who share similar identities or finding a site that offers trustworthy and useful information. For exposure and engagement, theories like selective exposure and mood management (Zillmann, 1988) may guide behavior. Each of these mechanisms, well established in previous research, can be identity-reinforcing or identity-seeking.

What prior work lacks, we believe, is a comprehensive understanding of the *multiple and overlapping* identities that condition and respond to a wide range of communication processes, including choosing sites of communication and information processing. To better illustrate the potential value of this approach, in the next section we explore the case of COVID-19, vaccine information, and vaccine hesitancy through the lens of IDIE.

Case study: COVID-19

In early 2021, despite the development and wide availability of the COVID-19 vaccine, many people in the United States

remained hesitant about receiving it. Given the serious ramifications of this hesitancy for public health, many scholars asked: "Who is hesitant, why are they hesitant, and how can we convince them to get the vaccine?" At first glance, given the political climate in the US, we might attribute much of this hesitancy to cues from Republican elites, partisan-motivated reasoning, and disinformation targeted at Republicans. In short, we might assume that vaccine hesitancy was a phenomenon driven by partisanship. If we stopped there, interventions to reduce vaccine hesitancy would focus on bypassing the partisan divide and develop messages that resonate with Republicans.

But by focusing only on partisanship, we would miss a much more complex picture. Druckman et al. (2021) demonstrate that while partisanship matters, so too do race and religion (see also Kricorian & Turner, 2021). Without simultaneously considering multiple identities and how they might relate to exposure to disinformation and distrust of scientific and media institutions, we cannot adequately understand why people were hesitant to get the vaccine, nor even begin to develop interventions to solve that problem.

Let us take a hypothetical Black American mother with a young child during the COVID-19 pandemic. Mothers (and parents in general) grapple with an overwhelming amount of information about what is best for their children; consistent with uses and gratifications, they may turn not only to medical professionals, but also to spaces in which they feel supported and heard, such as online forums in which other mothers share their stories and concerns (Smith & Graham, 2019). The hypothetical mother in our case study accordingly turns to Facebook as a place she believes she can get up-to-date information about making decisions as a parent during the pandemic. She creates an account to join various motherhood groups, and Facebook now constitutes part of her information ecosystem—the world of information to which she could potentially be exposed. Simply participating in these groups reinforces her identity as a mother. But the sense of community granted by Facebook groups can foster misinformation (Grant et al., 2015), and social media exposure is shown to fuel the anti-vaccination movement, especially the circulation of information that links childhood vaccines to autism (Hussain et al., 2018). Reports connecting vaccines for measles, mumps, and rubella to autism have garnered significant attention on the Internet and social media (Smith & Graham, 2019; Tafuri et al., 2014). Consequently, some mothers delay vaccination based on information from the Internet or social media (Weiner et al., 2015), and women are more likely to believe in anti-vaccination sentiments (Gerretsen et al., 2021). Thus, this mother may well be exposed to anti-vaccination sentiments in motherhood groups on Facebook that she sought out for support and guidance. Of course, these groups are not the entirety of her information ecosystem. She may encounter official posts from the The Centers Disease Control and Prevention (CDC) on her main Facebook feed, or perhaps she checks in on the CDC website to get further information about the vaccine and see if it *really* is as unsafe as her Facebook group claims. Here, the importance of multiple identities in the IDIE becomes apparent.

We know that race plays an important role in Americans' hesitancy to receive the COVID-19 vaccine (e.g., Li et al., 2020). Among racial and ethnic minorities, much of this is justifiably rooted in distrust toward healthcare and medical settings due to historical—and current—systemic racism (see Jaiswal et al., 2020). These differences inform where individuals in these communities seek out information. Racial minorities are more likely to rely on television and personal discussion networks than official medical sources to gather news about COVID-19 (Druckman et al., 2021). However, these sites of communication are often spaces where misinformation is spread, and this was especially true during the height of the COVID-19 pandemic (Jaiswal et al., 2020). Even if the mother in our example does encounter CDC information, her experiences with institutional racism in healthcare (either direct or indirect) might encourage her to be skeptical of fact checks or corrective information from a medical organization—*especially* when they conflict with other information from more identity-affirming groups. Thus, this person's identity as both a mother and a Black person may drive them to seek second opinions from people outside their healthcare network who share those identities in order to make better decisions for their children. They may look at Facebook, TV, a group text with their friends, or their weekly mommy-and-me group. But we cannot begin to understand that process without recognizing both of those identities and their interrelated influence.

This example is just one among countless others of how individuals' personal and social identities shape the information they receive and the choices they make thereafter. Of course, the case study we have just described is only hypothetical. The processes we highlight are speculative, and our goal is not to make strong predictions based on group membership. After all, there are important differences within identity groups, just as there are across them. There are also caveats to this illustration of the selection model: vaccination decisions can also be influenced by access to resources, the knowledge that vaccines are never one hundred percent effective, and so on. We cannot capture the entirety of this process with any one example or any one explanatory variable.

Rather, our intention is to illustrate the myriad roles identity *can* play in shaping people's information ecosystems and, further, the ways in which the IDIE framework can be used to generate research questions surrounding this process. How does institutional distrust condition Black people's responses to information from the CDC? Do Black women turn to other sources of information instead? If so, which and why? What kinds of (mis)information exist in those spaces, and how do these women process it? These questions are connected, but they have thus far not been connected by a single theoretical framework. The IDIE makes explicit the connections between these questions by tracing the path of information from site to exposure to selection to processing, highlighting the role of identity at each step.

Discussion

The IDIE approach highlights some of the ways in which identity interacts with communication sites to shape the information to which individuals are exposed. The approach posits that identities and the structures of communication sites inform the information ecosystem we exist in, the information which we are exposed to, and the information we engage with and incorporate into our cognitive processes. We position our approach as distinct from existing views on information systems, such as curated flows or filter bubbles, by incorporating the various personal and social identities that

bear on information environments and highlighting the roles that multiple identities play at multiple stages of the communication process.

Our approach is also, in part, a gentle pushback against what we perceive to be a disproportionate focus on online and digital spaces in this research area. The dynamics of identities and sites of communication we have laid out here are relevant not only to digital spaces but also to physical ones. To understand how people encounter and process information, we need to recognize the diversity of sites they use, rather than hyper-focusing on digital media. This is not to diminish the contributions of digital scholarship, of course. Our field is much stronger for the pioneering work illustrating the role of identity and affordances in digital media use. We nevertheless position our approach as a way to move beyond the dichotomy of digital and traditional media and rethink how individuals get information in their daily lives.

Of course, this is only an initial step in laying out the propositions of the IDIE approach. We have focused mainly on the way people's identities influence the sites of communication they use and the information with which they engage. But identity is endogenous to this process. Identities are themselves partly determined (and defined) by information networks. Information is essential to identity formation (see Greenhow & Robelia, 2009) and that information can, and does, come from our networks and sites of communication. Thus, we argue that future work should not only consider the role identity plays in information exposure, but also how sites of communication and information exposure both shape and strengthen identity.

To be clear: we envision this approach as being useful not just in theorizing about the role of identity in communication networks, but also in developing better empirical models linking identity, information, and sites of communication. The IDIE framework outlines several ways in which identity is fundamental to information exposure. That is not to suggest that the IDIE is either always applicable or always the best approach. Instead, we believe that the IDIE can help push scholars to think about identity and how it might influence their work, even if they are limited in their ability to effectively operationalize the components of the IDIE. Indeed, as we noted above, the IDIE is a relatively high-level theory that is most productively used in combination with more granular theories to derive specific questions and expectations. However, future empirical work would benefit, we believe, by taking the link between identity and sites of communication—as well as the heterogeneity and reciprocal dynamics that are central to the IDIE framework—more directly into account.

We have, in sum, argued for an approach to studying information that considers both sites of communication and identity as important factors that shape information exposure, selection, and engagement. People choose sites of communication—print media, TV, social media, personal discussion networks, and many others—in ways guided by their personal and social identities. The differences between those sites shape the kinds of information to which people are exposed. When people receive this information, they make sense of it through those same identities. Thus, the IDIE approach helps us understand how the nature and consequences of information exposure systematically differ across identity groups.

Data availability

No new data were generated or analysed in support of this research.

Conflicts of interest: There are no conflicts of interest to disclose.

Notes

1   Black feminist scholars have recently documented the co-option of the intersectionality framework by White scholars. Accordingly, we speak cautiously to the framework in this article but explicitly respect its original intent in the context of Black feminist scholarship.

2   2 Of course, it is likely that only a few of these identities and characteristics will matter for information exposure in any given situation. For instance, living in an urban area and identifying as such allows access to many in-person sites of communication that someone in a more rural setting cannot enter. Conversely, aside from Internet availability and participation in regionally focused online groups, rural or urban identity may be relatively less important in shaping which digital sites of communication one uses.

3   3 Users are not entirely powerless in this domain. Some attempt to reassert control through self-presentation behaviors and curatorial practices (Cotter, 2018; DeVito et al., 2018), hoping to 'trick' algorithms by making their identity more or less visible through strategic engagement and disengagement (Burrell et al., 2019). However, most people have limited awareness of these algorithms, and even those who do have relatively little agency to influence them. Much of the content in our feeds is outside our control, influenced by the identity classifications and actions of our friends (Thorson et al., 2021), as well as platform-specific values and curatorial practices (DeVito, 2017). Ultimately, users are left to make decisions in an environment consisting of "entanglements among individual preferences, digital traces of behavior, and algorithmic interference" (Thorson et al., 2021, p. 184).

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