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Uses and Grats 2.0: New Gratifications for New Media

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This article responds to recent calls for conceptual and methodological refinement, issued by uses-and-gratifications scholars (Rubin, 2009; Ruggiero, 2000), for studying emergent media. Noting that studies on the uses of the Internet have generated a list of gratifications that are remarkably similar to those obtained from older media, it identifies two measurement artifacts—(1) measures designed for older media are used to capture gratifications from newer media; and (2) gratifications are conceptualized and operationalized too broadly (e.g., information-seeking), thus missing the nuanced gratifications obtained from newer media. It challenges the notion that all gratifications are borne out of innate needs, and proposes that affordances of media technology can shape user needs, giving rise to new and distinctive gratifications. A sample of new gratifications and potential measures for those are provided.

"It's really the messaging service we didn't know we needed until we had it"
Biz Stone, co-founder, twitter.com

Thanks to the Internet, the concept of "active audience" has now reached a pinnacle. Proposed by early uses-and-gratifications (U&G) researchers (e.g., Rubin, 1993) to capture the purposiveness and attentiveness in media consumption and contrast it with the general assumption of a "passive audience" among media-effects scholars (Rubin, 2009), the notion of an active audience has steadily moved from an assumption to obvious reality. Internet audiences are so active now that

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we seldom refer to them as "audiences." Instead, we call them "users," in keeping with the letter and spirit of the U&G paradigm.

Usage implies volitional action, not simply passive reception. What explains this transformation in our media consumption? The answer may lie in the nature of the media themselves. The tools offered by modern media have expanded the range and scope of our interactions with media content. While a simple dial characterized the sum total of user interactions with a traditional radio receiver and a remote-control device channeled our interactions with a television set, current-day media technologies (e.g., the computer) offer a wide variety of action possibilities for the user—the keyboard invites us to type, the mouse to point, the hyperlink to click, the joystick to navigate, the haptic sensors to scroll, and so on. Human-computer interaction researchers (Norman, 1999) have conceptualized these "actionable properties" as "affordances" (Gibson, 1977) that are visually suggestive of the nature of user interaction with the medium. Increasingly, these affordances are allowing Internet users to not only experience media in newer ways, but also actively contribute their own content, given the rise in interfaces and applications that are premised on user-generated content (UGC).

While previously the notion of "media" referred to a handful of mass communication tools such as newspapers, radio, television, and film, the current academic conception of media is broader, reflecting the proliferation of new communication technologies in recent times. Media today range from a plethora of devices (smart phones, robots) to channels (Internet, cable) to venues on those channels (social networking sites, home shopping network) and/or devices (smartphone apps), affording users the ability to not only interact with these "media" (human-computer interaction) but also interact through them to communicate with other users (computer-mediated communication). As Sundar and Bellur (2011) note, it is problematic to conceptualize convergent media like the Internet as a single monolithic source. Instead, it is more useful to disaggregate such media into their constituent affordances (e.g., interactivity) and study the uses and gratifications obtained from each of those affordances. For example, we would make discoveries about the psychology of interactivity *per se*, in a way that is independent of the medium offering that interactivity so that we can generalize this knowledge to future technologies (Nass & Mason, 1990). Some affordances are present to a greater degree in certain media, with interactivity, for example, being lower in newspapers (given the structure of letters to the editor and other feedback mechanisms) than in computer-based media (Rafaeli, 1988). Sundar (2008) argues that the affordances of digital technologies transform our media experience by inviting us to engage with content in such a personal way that we not only act, but actively construct meaning.

Does this expanded scope of user interactions lead to a net increase in the gratifications obtained from modern media? If so, is this increase simply one of volume? Or do we seek and obtain new gratifications from new technologies? Perhaps more fundamentally, do new media create new needs, which they then proceed to gratify, as suggested by the co-founder of Twitter? Historically, U&G research has been criticized on the grounds that it is too audience-centered and does not consider

how the technology itself can influence the selection of—and gratifications obtained from using—media (Lichenstein & Rosenfeld, 1983; Ruggiero, 2000). Considering that the focus of uses and gratifications studies is often not the technology of the medium *per se* and considering that much of the research is governed by the tenets and methods of traditional U&G research, it is likely that our understanding of new media use is dominated by social psychological factors rather than medium-related aspects. With this in mind, we elaborate upon the possibility that the technology itself could be responsible for creating new gratifications, so that we can increase the scope, relevance, and robustness of U&G research for explaining new media use in initial stages and beyond. To do this, we review past U&G studies on different media technologies and then discuss potential gratifications suggested by four classes of affordances—modality, agency, interactivity, and navigability—in modern digital media, proposing specific new gratifications that can be measured in future U&G studies that focus on such media.

U&G Research in Mass Communication

According to Katz, Blumler, and Gurevitch (1974), U&G research is concerned with "(1) the social and psychological origins of (2) needs, which generate (3) expectations from (4) the mass media or other sources, which lead to (5) differential patterns of media exposure (or engagement in other activities), resulting in (6) need gratifications and (7) other consequences, perhaps mostly unintended ones" (p. 20). This approach assumes that people have innate needs that can be satisfied by media. Gratifications are conceptualized as "need satisfactions," which are obtained when a person's needs are met by certain types of media sources that match their expectations (Katz et al., 1974). This original outline of U&G from the 1970s governs scholarly research on media gratifications to this day.

Broadly, U&G is an audience-centered approach, which posits that individuals have particular needs that drive selection of certain types of media (Rubin, 2009). The overarching goal of U&G research is to understand the interaction between the origins of media user needs and context (Palmgreen, Wenner, & Rosengren, 1985). Regardless of medium or context, the emphasis of traditional U&G research is on individual differences and active audience members (Haridakis, 2002), meaning that gratifications obtained from media are largely based on a given user's pre-existing needs, rather than on specific technological features of media.

In keeping with this assumption, U&G researchers have often focused on social and psychological variables as determinants of motivation to use certain types of media (e.g., Conway & Rubin, 1991; Rubin, 2009). Others have focused on the difference between gratifications that are "sought" and "obtained" through media use (e.g., Palmgreen & Rayburn, 1979; Palmgreen, Wenner, & Rayburn, 1980), further underscoring user determinism in the media-use equation. In essence, the dominant belief appears to be that motives or needs drive the actual use or gratification obtained from different types of media. Accordingly, in U&G research,

motives (often modeled as latent constructs) reflect the gratifications that people seek and potentially receive from media use (Rubin, 2009). In contemporary approaches to U&G, social and psychological factors guide behaviors which then mold expectations about perceived or actual media use (Palmgreen et al., 1985; Rubin, 2009).

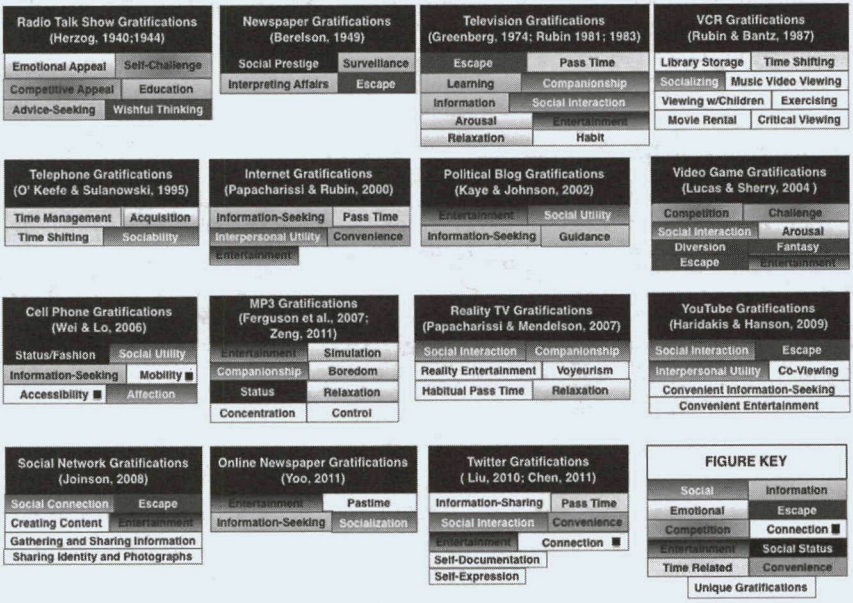
Media Gratification Typologies

Although the U&G perspective has been applied in a variety of ways to understand media, the bulk of the work in this area has focused on understanding gratifications of media use (So, 2012). U&G researchers have identified many "gratifications" over the past 60 years by using the classic two-step methodological approach of focus groups followed by surveys (Greenberg, 1974; Lucas & Sherry, 2004; Rubin, 2009; Rubin & Bantz, 1987).

However, in recent years, U&G researchers have tended to dispense with the first step of the two-step process and administered survey instruments from studies of older media, modified slightly to suit the particular medium under investigation. For example, Papacharissi and Rubin (2000) combined pre-existing measures of interpersonal, traditional media, and new media motives/gratifications measures in order to shed light on why people use the Internet. After assessing the responses to their survey, the researchers found that people use the Internet for interpersonal reasons, to pass time, information-seeking, convenience, and entertainment purposes. Similarly, Haridakis, & Hansen (2009) used the pre-existing measures of Internet gratifications (identified by Papacharissi, & Rubin, 2000) and television viewing (Rubin, 1983) and found that people view and share YouTube videos for convenient entertainment, interpersonal connection, convenient information-seeking, escape, co-viewing, and social interaction. While these two examples are revealing with regard to the general reasons that people use the Internet and specific Web sites like YouTube, the reflected gratifications are almost identical to those that have historically been identified as salient for traditional media like radio and television.

Video games, the Internet, social networking sites, and devices such as MP3 players and tablets are considered to be relatively new types of media in popular culture as well as in research. If these media are new, do they provide new types of gratifications, leading to new felt needs among users? To further investigate this claim, we identified and reviewed 20 U&G studies (see Figure 1) that contained gratification typologies for major media from the 1940s to the present day. This review of the literature revealed considerable overlap between gratifications for both old and new media, suggesting that there are some core reasons for media use that cut across specific media vehicles of the time. For example, many studies have shown that arousal, escape, learning, habit, social interaction, companionship, information-seeking, passing time, relaxation, and entertainment to be the salient gratifications derived from watching television (Greenberg, 1974; Rubin,

Figure 1
Gratifications Obtained from New Media (1940–2011)



Each color represents a specific type of gratification identified in the U&G literature and shared by two or more media. Gratifications that are unique to a given medium are not colored. Across the landscape of U&G studies from 1940 to 2011, two trends are noteworthy: (1) As we move from old to newer media, it appears that new gratifications do emerge with new technology; (2) Some broad gratifications, especially those related to social and information functions, tend to get more nuanced and specific with newer media.

1981, 1983). The entertainment gratification has been associated with television (Greenberg, 1974; Rubin, 1983), the Internet (Papacharissi & Rubin, 2000), video games (Lucas & Sherry, 2004), YouTube (Haridakis & Hansen, 2009), Facebook (Joinson, 2008; Raacke & Bonds-Raacke, 2008), MP3 players (Zeng, 2011), and Twitter (Liu, Cheung, & Lee, 2010). This should not come as a surprise because researchers tend to borrow measures used with analogous older-media contexts, but it does give rise to a larger question concerning the nature and specificity of media-related gratifications. When comparing the gratifications from early television studies to the Internet and new communication technologies, one is left with the impression that newer media do not really afford any new gratifications that cannot be found in traditional media. This could be due to the fact that there are fairly consistent and overlapping gratifications that people have for using various media, or could be a result of the measures that are often employed to understand new media.

> Could the overlap in gratifications be a result of using gratifications measures designed for older media and therefore not reflective of the new gratifications potentially obtained from newer media?

Overlap in gratification typologies is very common across the communication literature. For example, the research on the uses and gratifications of video games identified such gratifications as competition and challenge (Lucas & Sherry, 2004), which were noted 60 years earlier as gratifications derived from listening to radio talk shows (Herzog, 1944). In the earliest studies involving U&G of television, Greenberg (1974) and Rubin (1981, 1983) identified gratifications like entertainment, social interaction, and information-seeking. Roughly 35 years later, the same gratifications have been identified for a variety of new media like blogging (Kaye & Johnson, 2002), interactive news (Yoo, 2011), YouTube (Hardakis & Hansen, 2009), and social-networking Web sites (Joinson, 2008; Raacke & Bonds-Raacke, 2008). Even when other researchers have identified seemingly unique gratifications obtained from different types of new media, these too have been associated with more traditional media, sometimes under different labels (see Figure 1). Although it is entirely possible that we seek out new media for reasons that are similar to those for selecting and using older media, we must also consider the possibility that nuanced (and perhaps "new") gratifications obtained from using the Internet and other new communication technologies have not been fully specified, even though they may be captured by gross measures of larger categories of gratifications.

> Could the overlap in gratifications be a result of using overly broad categories of gratifications (e.g., information-seeking, entertainment) and therefore not sensitive enough to identify the specific gratifications obtained from newer media?

Rubin (2009) recently pointed out that U&G would greatly benefit from "increased specificity, especially as attention is turned to new media" (p. 176). In the few instances where researchers have emphasized specific, rather than general, gratifications, we have seen new gratifications emerge. These tend to be specific to a given medium at the time it is introduced, but become a routinely sought gratification from later media. For example, mobility was identified for the first time as a gratification obtained from using cell phones (Wei & Lo, 2006), but is now an integral gratification obtained from all mobile devices, including "tablets" such as iPad (Kim, Sundar, & Park, 2011). Personal identity enhancement and photo sharing were recognized as new gratifications from using Facebook, the popular social networking site (Joinson, 2008), but are now obtained routinely from a whole suite of Web 2.0 applications, including mobile photo-sharing applications such as Instagram (Wortham, 2011).

Even though unique medium-specific gratifications have been identified in some studies, a few broad categories of gratifications dominate the U&G literature on most media technologies (see Figure 1). According to the original tenets of U&G, gratifications are rooted entirely in social and psychological origins of needs (Katz et al., 1974). U&G researchers would argue that some media meet certain needs

while others fulfill a slightly different configuration of needs. If this is the case, every emergent gratification that is obtained from each new medium is merely a reflection of needs that already existed, signaling that gratifications from new media are reflections of primary needs rather than manifestations of new needs.

However, this focus on a finite set of human needs is somewhat limiting, particularly when it comes to articulating newer gratifications derived from emergent media. An exclusive focus on users' needs would mean, as Elliot (1974) argued, that U&G cannot predict anything useful past an elaborate construction of media use based on individual differences. But, perhaps more important, it hinders the concept of gratifications by surrogating it to needs (Becker, 1979). Conceptually, the gratifications that we derive from media need not necessarily be driven by innate needs, but could be triggered by features we experience *while* using particular media. The interactivity of most modern media makes possible such a conceptualization whereby users are not always goal-directed at the beginning of their engagement of media, but tend to develop needs during the course of their media interaction. U&G scholars have historically distinguished between "content gratifications" (obtained from media content) and "process gratifications" (from using the media) (Rubin, 2009). But, neither the content nor the process is fixed or finite when users browse through different Web sites or navigate their way through video game worlds. Stafford, Stafford, and Schkade (2004) claim that this gives rise to a third kind of gratification, relating to the use of media as a social environment.

Beyond these three broad classifications of process, content, and social gratifications, the literature on U&G studies does not offer specific insight into the changing nature of media-related gratifications. In order to capture the increasing volume and diversity of gratifications being obtained by such heavily used media products as Twitter, Facebook, and mobile games, it is time that we broaden our focus beyond social and psychological origins of needs, and also consider potential influences of the perceived capabilities of the media technology upon our gratifications.

Technology as a Source of Gratifications

Lichtenstein and Rosenfeld (1983) first proposed that medium-specific gratifications are predicted by characteristics of media themselves rather than innate needs or perceptions of use. This essentially means that certain gratifications are predicted by using different types of technologies, rather than felt needs. The idea that gratifications obtained are not necessarily predicated on strong pre-existing needs was evident even in non-interactive media, with researchers noticing that the gratifications sought from the media do not always predict gratifications obtained from them (Palmgreen et al., 1985). Recently, Rubin (2009) offered a nuanced definition of gratifications (as "expectations and desires that emanate from, and are constrained by, personal traits, social context, and interaction" p. 167), noting that the media user's "degree of initiative or activity ... has been seen as more variable than absolute" (p. 168) in recent times. With the explosive growth of interactive

media in the last 2 decades, the time has come to take seriously the changing nature of user interactions with media, and the newer, more specific gratifications that they engender instead of simply relying on gratifications used in research with older media.

A fundamental source of the changing nature of user gratifications is the technology of the medium itself. Ruggiero (2000) suggested that aspects of technology (e.g., interactivity, demassification, and asynchronicity) would be important for future U&G research, in that they will provide researchers an array of new behaviors to examine. Newer media are characterized by newer functionalities, thereby altering "process gratifications." At the same time, they also determine "content gratifications" by influencing the nature of content accessed, discussed, and created when users interact with such media. For example, historically, U&G researchers have treated the pursuit of these gratifications as being motivationally driven (e.g., Hearn, 1989), with media users orienting either to the medium in a "ritualized" way for diversion or to its content in an "instrumental" way for achieving a particular utilitarian goal (Rubin, 1984). It is clear that newer media have ushered in new rituals (e.g., game-playing, checking Facebook news feed) and new instrumental activities (e.g., using a search engine, pulling up smartphone apps for tracking one's health behaviors). Furthermore, new features (e.g., mobility, augmented reality) offered by each new medium can themselves provide process gratifications. For example, the affordance of mobility has quickly resulted in a number of new rituals, such as flipping out a phone when the plane lands and watching a movie on one's tablet during one's subway commute. Such gratifications may reflect latent needs that were hitherto unfulfilled, but their realization is clearly driven by the new possibilities offered by the technology of the medium. Content gratifications, especially when construed broadly as the pursuit of information and entertainment, may not be altered by the technology, but the process gratifications relating to the context and method of consuming information and entertainment are likely to be influenced by the interaction opportunities offered by the medium.

How users interact with a given medium is dictated at least in part by the affordances in the technology of the medium (Norman, 2002). The notion of affordances is rooted in perceptual and evolutionary psychology and is based on the argument that visual stimuli in our environment suggest how we are supposed to interact with them (Gibson 1977, 1986). For example, a computer invites a person to type and the shape of a shoe implies that it is to be worn on your foot. Gibson (1986) also viewed affordances in a constructivist way, consisting of the interaction between the world and an actor. For instance, a news Web site affords users the possibility of browsing current news items much like in a newspaper. Additionally, some of these Web sites now allow users to post news and submit stories that end up being part of actual news feeds. In sum, affordances visually suggest not only how users can interact with the interface, but also how they can contribute and construct content by using that interface.

That said, there are numerous affordances offered by modern media, raising the need for a systematic approach to categorizing them and studying their contribution

to specific gratifications. The variable-centered approach (Nass & Mason, 1990) offers a solution by disaggregating technologies into their constituent variables. One such class of variables, called task variables, relates closely to the notion of affordances. The MAIN Model (Sundar, 2008) identifies four classes of technological affordances in digital media—modality, agency, interactivity, and navigability—that have been shown over the years to have significant psychological consequences. The model posits that these affordances provide cues to media users, which then trigger cognitive heuristics (mental shortcuts) about characteristics of the content that they consume. These heuristics, or snap judgments, can lead to either quick or "heuristic processing" (Chaiken, 1980) of content or guide more effortful "systematic processing" of content. The cues could come in the form of the mere existence of an affordance on an interface (e.g., presence of chat function) and/or metrics (e.g., # of Facebook friends) assembled by an affordance.

Given this, a distinct possibility is that the affordances of modern media will lead users to expect certain gratifications and thereby shape the fulfillment that they receive by using these media. We illustrate this with a few examples of new-media gratifications derived by users when they engage with the four technological affordances identified by the MAIN Model.

Modality-based Gratifications

Modality refers to the different methods of presentation (e.g., audio or pictures) of media content, appealing to different aspects of the human perceptual system (e.g., hearing, seeing). The Internet's ability to provide content in multiple modalities (text, pictures, audio, video) is the reason why we sometimes refer to it as "multimedia." Research indicates that presenting information in multiple modalities is not simply convenient, but also perceptually and cognitively significant. As it turns out, we process information from one modality quite differently than another, expending far more cognitive effort with textual information and experiencing greater distraction with audiovisual representation of information (e.g., Sundar, 2000). Moreover, some modalities unique to the Internet, such as animation and pop-ups, are shown by research to evoke visceral responses in users, commanding our attention while simultaneously inviting our wrath (Diao & Sundar, 2004). In addition to dictating how we perceive and process content, modality enhancements in digital media serve to cue cognitive heuristics about the quality of underlying content. The MAIN Model argues that the visual modality is more trusted than text, i.e., pictures cue the "realism heuristic" leading us to quickly conclude that if something is photographed, then it must be more real than if it is simply written about in textual form. We feel that a meeting via videoconferencing is more real than one via audioconferencing because of the additional affordance of video. More advanced modalities like virtual reality can cue the "being-there heuristic," leading us to factor in the authenticity and intensity of our experience when making judgments about

Table 1
Possible New Gratifications from Media Technology

Modality	Agency	Interactivity	Navigability
Realism	Agency-Enhancement	Interaction	Browsing/Variety-Seeking
Coolness	Community building	Activity	Scaffolds/Navigation aids
Novelty	Bandwagon	Responsiveness	Play/Fun
Being There	Filtering/Tailoring	Dynamic control	
	Ownness		

Note. This list is not exhaustive. Each new proposed gratification is theorized to originate from one or more of the 4 broad classes of technological affordances.

the content delivered through that experience. Newer stylish modalities like the cover-flow feature on an iPod could cue the "coolness heuristic" on the one hand, leading to a generally positive consideration of message content, but also cue the "novelty heuristic" on the other hand, leading to uncertainty during the interaction. In this way, the modality of presentation can be quite influential in dictating our stance toward content delivered by Internet-based media.

As media users become saturated with devices and interfaces that offer such modality affordances, their expectations from media are likely to be dictated by these heuristics. For example, "coolness" is a gratification that we have now come to seek with new interfaces released by Apple, and "novelty" is a gratification that we seek in new video game consoles that include gestural modality in addition to more traditional modalities of interaction. We anticipate greater "realism" from news Web sites that have live video feeds in addition to text, and fully expect to enter a new world when browsing a virtual environment such as Second Life. The realism with which we can experience mediated portrayals of reality and the feeling of "being there" in a mediated environment are examples of gratifications made possible by innovations in the modality affordance of technologies underlying modern-day media. (See Table 1 for a list of modality-based gratifications). When mapped onto traditional U&G communication orientations, realism and being-there gratifications would likely serve an instrumental purpose whereas coolness and novelty would apply more to ritualized use of the medium.

Agency-Based Gratifications

Under the MAIN Model, the agency affordance of the Internet allows us all to be agents or sources of information. While the role of gatekeeping has historically been the domain of a privileged few, now anybody can serve as a gatekeeper of content on the Internet. Blogs allow us to broadcast our own content or filter other content on the Web. The rise of user-generated content, in the form of such platforms and sites as YouTube and Facebook, has profoundly altered the sender-receiver equation

of communication, but more importantly given rise to new gratifications (Shao, 2009). Studies show that digital media users are more agentic and like to assume the role of sender or source of information, thanks to widespread proliferation of customization technologies (Sundar, Oh, Bellur, Jia, & Kim, 2012). They are also motivated to build community, as manifested in their efforts to participate in online forums in large numbers, post comments on others' blogs and contribute willingly to collaborative filtering applications that dominate so many Web sites. In fact, they rate content chosen or favored by other users as being more worthy than that offered by professional journalists (Sundar & Nass, 2001). Therefore, agency-enhancement and community-building are gratifications driven by affordances that (a) let users to serve as sources of content, both individually and collectively, and (b) convey others' reception of their postings (Stavrositu & Sundar, 2012).

In terms of transmitting meaning, self-agency can connote own-ness whereas other-agency may lead to the application of either the expertise heuristic, machine heuristic, or bandwagon heuristic, depending on whether the other is a professional gatekeeper, a bot, or the collective user base respectively. Again, these heuristics serve as repositories of meaning for users, especially in terms of deriving gratifications from the media being used. The fact that other-agency leads to the application of bandwagon heuristic is quite well established (e.g., Sundar, Oeldorf-Hirsch & Xu, 2008). When we are given information about what other customers bought on Amazon.com or what the most forwarded news stories of the day are, we tend to be swayed by the choices of our unknown peers. But, this heuristic becomes a gratification when we begin to expect them on interfaces and feel disadvantaged when they are unavailable. Consider this example: Before the diffusion of travel Web sites, most of us booked hotel rooms in remote locations, often over the phone, without ever knowing the experiences of previous hotel guests. Today, the hotel-booking routine for most of us is quite different. We have come to expect guest ratings and comments about the hotels under consideration before we book them online. Even if one other user has left a comment saying that they found a cockroach in the bathroom of the hotel suite in which they stayed, that will likely give us pause. More generally, we have begun to expect some general consensus information about the value of a product or service when we go to e-commerce Web sites, in the form of numeric cues (e.g., star ratings) and/or user comments. This need for assessing the bandwagon around a service, commodity, or an issue is a classic example of a need facilitated by user interactions with affordances offered by new media. Clearly, advances in collaborative filtering technology have made us seek this gratification (of viewing collective opinions of others) when using modern-day media, be it other customers' experiences on an e-commerce site or other readers' views on a news site.

In general, agency-based gratifications such as agency-enhancement, community-building, bandwagon, filtering/tailoring, and ownness (Table 1) are made possible by a suite of new interface tools relating to customization and crowd-sourcing, serving mostly instrumental goals of highly motivated and involved users.

Interactivity-Based Gratifications

Interactivity is defined as the affordance that allows the user to make real-time changes to the content in the medium. The interactivity affordance goes to the heart of audience activity by allowing users to interact with and through the medium. News presentation is no longer static; the consumer dynamically manages it. Research has shown that some interactive features such as drags (as on a map) are physiologically significant, commanding heightened attention, while also tending to impede the processing of content (Sundar & Constantin, 2004). Nevertheless, they have become the norm on news Web sites, so much so that the presence of a map on any media interface triggers the interaction heuristic (Sundar, 2008). If, upon seeing a map on a non-interactive Web site, users drag their mouse on it unsuccessfully and are disappointed as a result, then this signals a need for interaction. Likewise, several new gratifications are likely to be triggered by the proliferation of interactive media—users are likely to expect greater levels of activity from their media experiences, they would want their media interfaces to be responsive to their actions, they will expect to be given more choice and greater control, they will expect more embedded hyperlinks to click through, more flow in their media experiences, and so on. As a result, activity, responsiveness, choice, control, and flow may well be the next generation of gratifications that we seek from interactive media (Table 1).

In general, interactivity has proven to be a double-edged sword, with users desiring more of it, but responding negatively to content delivered via high levels of interactivity. For example, studies with political-candidate Web sites have demonstrated that interactivity has a positive effect on user impressions of the candidate up to a point, but too much interactivity is as bad as no interactivity, partly because it entails more effort on the part of the user and partly because it results in a rigorous scrutiny of content (Sundar, 2007). Interactivity assures intense engagement with content—good content will appear much better, but most content on most Internet sites is mediocre, so interactivity is likely to highlight flaws in content that might have otherwise been ignored. These characteristics can, over time, drive a general preference toward interactive interfaces, making the need for interactivity as common a gratification as information-seeking.

The very presence of interactivity on a Web site or any other digital application is likely to convey meaning to users (Sundar, 2008). For example, it signifies openness of information access and the participatory nature of a forum, which can directly lead to positive perceptions of the content even without an effortful consideration of the nature of the content. The usefulness of such mental shortcuts (or heuristics) might indeed motivate a greater need for interactivity in media interfaces. It is akin to accountability that we automatically expect from those in whom we entrust responsibility. Just like we expect our bank accounts to be insured by FDIC, we expect our media to be equipped with the ability to provide an open forum for user feedback and participation.

In sum, the proliferation of interactive features has expanded our expectations as well as bandwidth for the degree of interaction and activity that we prefer to have with modern media interfaces. Moreover, we expect our media to be responsive to our actions in real-time and provide us dynamic control over the interface. Together, the various gratifications related to interactivity (Table 1) suggest that this affordance serves a highly utilitarian orientation toward the medium and its operation.

Navigability-Based Gratifications

Navigability is the affordance that allows user movement through the medium. The fact that the Internet is a space rather than simply a window means that architectural and interior design considerations enter into the communication equation, making navigation a key aspect of the online user experience. Gratifications like play and the quality of "information scent" (to follow, for example, in a search engine; see Pirolli, 2007) are likely to predominate, indicating the broader range and scope of information obtained and entertainment derived from Internet-based media. Affordances designed to aid user navigation can convey rich meanings pertaining to the presence of variety and the benevolence of the designer implied by the scaffolds that are made available to the user.

The common activity of freely navigating from one site to another on the Internet and "checking out" various links is said to trigger the "browsing heuristic" (Sundar, 2008). This has become an essential process gratification, which, when taken away, leads to complaints. If a media interface limits user navigability, this is likely to lead to dissatisfaction, meaning that browsing is a gratification that we have come to expect. Likewise, we have come to expect that we will be scaffolded through every step of the checkout process on an e-commerce Website. We expect error messages and warnings before any drastic commitment is made on our behalf (e.g., "Are you sure you want to proceed?," "Clicking the Submit button will charge your credit card," and so on). The scaffolding gratification is a powerful one and probably drives the bulk of our commercial transactions on Internet-enabled media devices. When an e-commerce site charges our account without proper scaffolds, we complain and demand our money back even though we pressed the "purchase" button. This is because we expect sites to step us through the process, making it an important gratification. So much so that we expect to be given the option to opt-in rather than opt-out of default settings in social networking sites and other venues where privacy is a major concern.

The play gratification, arising from the fun element of moving through spaces or levels, is best realized in game interfaces that have superior navigability affordances than less dynamic interfaces. The escapism and immersion that are induced by the affective state of play are best realized when the navigational structure of the interface affords a continuous sense of exploration and smooth transitions. In general, as evident from the variety of spatial metaphors that we use to describe Internet-based media (e.g., cyberspace, information superhighway, iway), it is clear that navigation

is an essential gratification that we seek from these media. While browsing and play gratifications signal a ritualistic orientation toward the medium, the scaffolding gratification arises from a utilitarian orientation toward the transactions performed via the medium.

To sum up, each technological affordance stimulates a unique set of gratifications. While the modality affordance is primarily associated with perceptual gratifications, the agency affordance serves gratifications related to gatekeeping and UGC, the interactivity affordance triggers gratifications related to user activity and system responsiveness, and the navigability affordance caters to user movement in the space created by the medium. Clearly, these gratifications are quite different from the bulk of the gratifications identified in the U&G literature over the decades. Table 1 provides a list of new gratifications emerging from expectations associated with new media and Table 2 lists potential measures to capture those gratifications.

New Technology, New Gratifications?

In a recent review of U&G research, Krcmar and Strizhakova (2009) stated, "while it is certainly true that different media have different motivations for use, generating typologies with little attempt to integrate them at a broader level may do little to forward uses and gratifications as a meaningful approach" (p. 56). When one examines the larger body of gratification typologies and how scattered it is, the suggestion of condensing the multitude of gratifications into three or four broad typologies is certainly a sensible one. In fact, integrating typologies seems to be emerging as the primary and most parsimonious way to apply U&G to new communication technologies. Much of the current literature in this area (Chen, 2011; Haridakis & Hansen, 2009; Papacharissi & Mendelson, 2007; Yoo, 2011) shows a great deal of conceptual overlap from previous studies, but also clearly indicates that more nuanced gratifications are emerging. For example, Papacharissi and Mendelson (2011) found in their study of Facebook gratifications that questionnaire items relating to historically distinct gratifications ("habit" and "pass time"; "relaxation" and "entertainment") loaded together, suggesting that the configuration of gratifications is changing for newer media. It is clear that relying simply on broad categories of gratifications and existing measures may indeed be obfuscating our ability to understand potentially new gratifications. One of the strengths of the U&G approach is that it is flexible and allows us to understand what people are doing with the media, in an inductive manner. In this article, we have argued that many gratifications that emanate from technological affordances have remained untapped across the broader U&G literature.

Research has shown that technological affordances are indeed perceptually and psychologically significant (Reeves & Nass, 2000; Sundar, 2008). If U&G researchers continue to view media gratifications as solely governed by innate human states or psyche (e.g., cognitive, motivational, or emotional factors), then our descriptions of

Table 2
Potential Measures of New Gratifications

I use communication technology (e.g., Second Life, iPod, Blackboard) because ...
Modality
Realism
1. I know the content is real and not made up
2. It is like communicating face-to-face
3. The experience is very much like real life
4. It lets me to see it for myself.
Coolness
5. It is unique
6. It is distinctive
7. It is stylish.
Novelty
8. It is new
9. The technology is innovative
10. The interface is different
11. The experience is unusual.
Being There
12. It helps me immerse myself in places that I cannot physically experience
13. It creates the experience of being present in distant environments
14. I feel like I am able to experience things without actually being there.
Agency
Agency-Enhancement
15. It allows me to have my say
16. It allows me to assert my identity
17. It allows me to send my thoughts to many
18. It gives me the power to broadcast to my followers.
Community-Building
19. I can connect with others
20. It allows me to expand my social network
21. It makes me realize that I am part of a community
22. It allows me to build social capital.

(*continued*)

Table 2
(Continued)

Bandwagon
23. It allows me to review opinions of others before I make decisions
24. It comforts me to know the thoughts and opinions of others
25. It allows me to compare my opinions with those of others.
Filtering/Tailoring
26. It allows me to set my preferences
27. I can avoid viewing things that I do not want to see
28. It allows me to sort through information and share it with others.
Ownness
29. Once I use it, I feel like it is mine
30. It features content that is a true reflection of myself
31. It allows me to customize so that I can make it my own.
Interactivity
Interaction
32. I expect to interact with the system
33. I can perform a number of tasks
34. I can specify my needs and preferences on an ongoing basis.
Activity
35. I feel active when I use it
36. It is not a passive interaction
37. I get to do a lot of things on it.
Responsiveness
38. It is responsive to my commands
39. It responds well to my requests
40. It can anticipate my needs.
Dynamic Control
41. It gives me control
42. It allows me to be in charge
43. I am able to control my interaction with the interface
44. I am able to influence how it looks
45. I am able to influence how it works.

(*continued*)

Table 2
(Continued)

Navigability
Browsing/Variety-Seeking
46. It allows me to obtain a wide variety of information
47. It helps me to skim and check out various links
48. It allows me to surf for things that I am interested in
49. It allows me to browse freely.
Scaffolding/Navigation Aids
50. The interface helps me every step of the way
51. The device is easy to use and explore
52. It allows me to link to other pieces of information
53. It offers a number of visual aids for more effective use
54. It will double-check with me before performing a risky transaction.
Play/Fun
55. It is fun to explore
56. It lets me play
57. I enjoy escaping into a different world.

the uses and gratifications of emerging communication technologies will be very similar to what we already know about traditional media. This will not only limit our understanding of the appeal of new media, but also curtail our efforts to connect media uses and gratifications to specific behavioral and cognitive effects.

In our earlier review of gratification typologies, each specific medium was discussed in terms of the gratifications that it could provide. Some of these typologies are broad and encompassing (e.g., gratifications of television) while others are more nuanced and diverse. After studying a variety of different traditional media, McQuail, Blumler, and Brown (1972) concluded that diversion, personal relationships, personal identity, and surveillance were the broad motives and gratifications for using traditional media. Of these gratification concepts, surveillance and its related concepts (e.g., information-seeking) remain constant across most gratification studies. Now, consider the following example, which illustrates how current U&G approaches capture what people are doing with new media: Surveillance is an identified and inherent need that has strong social and psychological origins. This much is beyond dispute. However, the broad notion of a surveillance gratification may be understood in a completely different way when one considers technological affordances. It has become common practice for Internet users to seek opinions when they watch entertainment online, make purchases or plan events. In the past,

if one were to visit a virtual museum or plan a trip to Paris, chances are media would not be able to provide information that would be helpful in planning the trip. These days, Web sites offer an array of modality and interactivity affordances that elicit heuristics such as being there and responsiveness. These heuristics are likely to dictate the gratifications that one obtains from these media. A 360-degree interactive panoramic view of the convention floor when visiting the Democratic party's Web site might elicit the feeling of "being there." This is made possible by a modality affordance. With such affordances becoming commonplace, we have come to expect virtual tours. It is now quite common for us to check out a place online before visiting it physically, be it a park, restaurant, or neighborhood. We have also become used to seeing user reviews of the place that we are planning to visit (agency affordance) and pictures of the surrounding area (modality affordance). These elicit the bandwagon heuristic and realism heuristic respectively, each impacting a different gratification.

One could make the argument that all of these affordances merely aid in fulfilling the need of information-seeking. However, information-seeking encompasses almost everything we do online. Although this broad category does provide insight into general gratifications of Internet use, it is likely that information-seeking itself is a very general term encompassing a collection of more nuanced gratifications. For instance, information-seeking gratifications might be driven by a need for authenticity (interactivity of hotel view) or consistency (user reviews matching your own perceptions) or both. Identification of nuanced gratifications that map onto these specific needs underlying the larger gratification of information-seeking addresses Rubin's (2009) call for greater specificity in U&G research with newer media (see Table 1).

The needs fulfilled by various affordances of modern media can be disaggregated, as we have suggested, in order to propose specific gratifications that meet those specific needs rather than some generalized category of needs. The bulk of U&G research has treated gratifications as somewhat static and arising from pre-existing needs, but our approach motivates a focus on the process behind the *formation* of gratifications. We suggest that technological innovations have given rise to new affordances, which in turn have cultivated in users new needs that they seek to gratify from their media experiences. The runaway success of social networking sites (e.g., Facebook) and microblogging services (e.g., Twitter) speak to technology's potential to create and satisfy new gratifications. How these newly developed gratifications impact user reception of traditional media as well as forthcoming media is an area of future research with rich theoretical potential.

In conclusion, we recommend that U&G researchers adopt an affordance-based framework for identifying gratifications sought and obtained from media. This means triangulating the traditional emphasis on purely social and psychological needs with technology-driven needs. The latter is best understood by investigating the various affordances offered by newer media, such as the four classes identified by the MAIN Model and discussed in this article. An understanding of how users engage the affordances of newer media will help researchers devise more specific

measures for capturing the nuanced and specific gratifications obtained from newer media. The next step is to devise survey measures that will not only tap into emergent uses and gratifications, but also deconstruct and specify them in ways that help us distinguish the gratifications derived from different media, both old and new. We have provided a list of measures in Table 2 as a starting point. A focus on key technological affordances will help us situate the source of gratifications in specific functionalities of media interfaces that may be offered to a different degree by different media. This will not only head off the criticism that we are proliferating a whole new set of gratifications for each new medium, but also help build theories that relate technological affordances with human needs, in the context of understanding the uses and gratifications sought and obtained from emergent media.

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