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# **There's No "Me" in "Imgur": Applying SIDE Theory and Content Analysis to Viral Posts on Imgur.com**

*Ryan P. Castillo*

## **Abstract**

The Social Identity model of Deindividuation Effects (SIDE) asserts that social (i.e., collective) identities are more salient under conditions of anonymity, prompting "deindividuation" as group members place more focus on community standards and downplay individual differences. As a result of deindividuation, social standards become the driving force of group interaction, and the successful practice of group norms identify individuals' in-group status while reinforcing the social identity of the community. The current study applies the SIDE model to the anonymous image-sharing platform Imgur.com to ascertain whether self-referential posts are assessed more negatively than other-referential and non-directed content, and to examine whether posts of varying referential-type occur more frequently across post-type subcategories. A content analysis of 42 posts to Imgur's "front page" revealed that self-referential posts receive significantly more "downvotes" (i.e., negative assessments) than non-directed content and substantially more downvotes compared to other-referential posts. Further, self-referential content was most common within the subcategories of "capitalizing" and "social support," as compared to "community identification" and "information / mobilization" for other-referential, and "visually appealing" and "humor" for non-directed posts. The findings suggest that the Imgur community engages in voting habits that favor the maintenance of social identity over the sharing of individuating information, providing sustained support for the applicability of SIDE in anonymous online contexts such as Imgur.

## Introduction and Literature Review

Throughout the past several decades, the growing prominence of the Internet in everyday life has profoundly shaped the ways in which we communicate and assemble, consequently altering the means by which individuals draw upon available networks for social, emotional, and informational support. In addition to major online social networks such as Facebook and Twitter, an ever-growing expanse of niche virtual communities provides users with a wealth of opportunities for the formation and maintenance of interpersonal ties, both casual and intimate, including online dating sites, gaming communities, and image- and video-sharing platforms (Ellison, Steinfield, and Lampe 2011; Kobayashi 2010; Maghrabi, Oakley, and Nemati 2014). Similar to popular social networking sites in terms of increasing popularity, communicative utility, and the extensive, heterogeneous user-bases of which they are composed, image-sharing platforms present fruitful and, to date, under-studied online arenas wherein users can contribute to, and self-select into, a network of like-minded individuals (Hale 2017; Mikal et al. 2014). However, unlike dominant social media, image-sharing sites are most often anonymous in nature, an element of online interaction that not only stifles self-presentation but raises questions regarding the determination of group membership in the absence of individuating information (Lea and Spears 1991; Postmes et al. 2001). Given the scarcity of research examining group dynamics in anonymous online communities, the current study adopts the Social Identity model of Deindividuation Effects (SIDE) and applies content analysis to better understand the ways in which users of the image-sharing platform *Imgur.com* uphold a social (i.e., collective) identity through their assessment of shared-content.

### *Imgur.com*

*Imgur.com* is a popular image-sharing website that has been online since 2009. Currently, the platform is ranked as the 13<sup>th</sup> most-visited site in the U.S., hosting over 250 million monthly-active users (i.e., *Imgurians*) who, in addition to casual visitors, account for billions of post views per month (Alexa 2018; *Imgur.com* 2018). Although *Imgur* may be broadly categorized as social media owing to users' ability to share a wide-range of content (e.g., text, pictures, GIFs, hyperlinks, etc.), publicly respond to others' posts, and send personal messages to other community members, *Imgur* differs from dominant social networking sites in two integral aspects: anonymity and bidirectional voting.

Unlike, for instance, Facebook and Twitter, *Imgurians* are unlikely to share personal, identifying information over the platform and instead assume anonymous (and often humorous) usernames, such as "AFrustratedRetailStaffMember" and "PiggyStarDust." Further, *Imgurians* are often admonished for sharing "selfies" (i.e., photos of oneself) over the platform, and it is widely-understood among the community that posting such pictures is only acceptable during major holidays,

particularly Christmas and Halloween. Regarding Imgur's bidirectional voting system, users are able to either "upvote" (positively assess) or "downvote" (negatively assess) any content publicly-posted to the site, including both the posted content itself and individual comments on a given post. This bidirectional voting is in stark contrast to, say, Facebook's "likes" and "reactions," which do not allow users to explicitly assess content in an either positive or negative fashion. Importantly, Imgur's bidirectional voting system is responsible for filtering posts through one of three daily-updated content galleries: "user-submitted" (recently submitted posts with few votes), "rising" (posts that are rising in popularity), and "most viral" (the most popular posts of the day). While all content publicly-posted to Imgur.com is archived and remains available unless otherwise removed by the original poster or site administrators, content that reaches the "front page" (i.e., "most viral" content) is most likely to be viewed by users and those casually visiting the site, though only Imgurians registered to the site are able to utilize the voting system.

In sum, Imgur constitutes an anonymous social media platform wherein the popularity of shared content is decided via a bidirectional voting system. The anonymous nature of the site, however, makes it difficult to determine exactly who comprises the Imgur community, and how users' personal characteristics correlate with posting and voting behaviors. Yet, the few available studies examining group dynamics on Imgur.com suggest that a "common voice" exists among Imgurians, such that users exhibit "a generally cohesive tone, characterized by overall consistent responses, and overt behavior correction" (Mikal et al. 2014:506). Interestingly, previous research posits that anonymity is precisely the communicative element responsible for the occurrence of common voice on Imgur, with the lack of individuating information in tandem with the interactive structure of the site giving rise to standard communication practices that serve to solidify in-group membership and strengthen social identity among users (Hale 2017; Mikal et al. 2014). Thus, regardless of whether objective, identifiable similarities or differences can be observed between individual Imgurians, a collective identity is likely upheld on Imgur.com, one that may be indicated by the posting and voting behaviors of its users.

### **The SIDE Model**

The Social Identity model of Deindividuation Effects (SIDE) was developed as an alternative explanation to deindividuation, or "loss of self," that has been meaningfully applied to computer-mediated interaction (Hale 2017; Lea and Spears 1991; Postmes et al. 2001). Whereas classical deindividuation theory posits that anonymity among group members causes a loss of self-awareness and identity, which leads to non-normative behavior, the SIDE model predicts that

anonymity is likely to result in group conformity (Spears and Lea 1994). The SIDE model hinges on the assumption that individuals balance multiple identities, including both individual personalities and social (or collective) identities. In keeping with identity theory, SIDE conceptualizes *identity* as internalized expectations for the social positions held by a given individual and contends that such internalizations are not only predictive of behavior, but that the probability of invoking a given identity (i.e., identity salience) is both contextually and interactively contingent (Lea and Spears 1991; Stryker and Burke 2000). Contrary to personal identity, which may be shaped by both psychological and contextual determinants, social identities are constructed and maintained in accordance with standards predetermined by a group of interest. Consequently, individuals who gain membership into a given group develop an understanding of group norms and construct a social identity that corresponds and conforms to the group dynamic (Stryker and Burke 2000). From the SIDE perspective, deindividuation occurs when a social identity becomes more salient than an individual identity under conditions of anonymity (Lea and Spears 1991). Not only does deindividuation downplay members' personal motives and characteristics, but its effects prompt individuals to focus on group activities and social maintenance (Lea and Spears 1991; Postmes et al. 2001). In other words, social norms become the driving force for group interaction, and the successful practice of group norms identifies an individual's in-group status while reinforcing the social context and social identity of the group.

Previous research has demonstrated the applicability of SIDE in a variety of virtual settings, including social networking sites, online games, and image-sharing sites such as Imgur.com (Attrill 2012; Hale 2017; Hughes and Louw 2013; Mikal et al. 2014). Studies of Imgur in particular suggest that the site not only facilitates deindividuation via users' anonymity, but that this process is evidenced by the communication of, and adherence to, community standards in comments and posted content (Hale 2017; Mikal et al. 2014). Mikal et al. (2014) refers to these posting and commenting practices as "common voice," and found that users respond to posts using formulaic language, such as common terms, repetitious jokes, and references to previously posted content. Further, Mikal et al. (2014) found that both posts and comments exhibiting features of common voice are rewarded with "upvotes" and positive feedback, suggesting that users expect other Imgurians to understand specific types of responses and intend to capitalize on references to a shared culture. Findings from Hale's (2017) study of commenting practices on Imgur both support and extend Mikal et al.'s (2014) research, showing that comments conveying disapproval/disagreement with content featured on the front page of the site are more likely to be sanctioned with "downvotes," and that common voice is most evident across particular post categories, including "community identification," "capitalizing," and "humor."

Taken together, the findings from previous research suggest that users of Imgur.com actively maintain a social identity through the use of group-centered language and the sanctioning of content and comments that fail to reflect shared community standards, ultimately providing strong evidence for the applicability of the SIDE model to this platform. However, although past studies have successfully categorized posts and examined the differential reception of content and comments that are in accordance with a “common voice” upheld by the community, research has yet to examine whether posts are assessed differently according to whether the content explicitly references the original poster rather than the community at large or no one in particular. In other words, how do Imgurians react to self-referential information under the effects of deindividuation? The following research questions and expectations are posed, and subsequently explored through a content analysis of posts on Imgur.com:

**RQ1:** Are self-referential, other-referential, and non-directed posts assessed differently by the Imgur community?

**H1:** Self-referential posts will be assessed more negatively by the Imgur community than both other-referential and non-directed content.

**RQ2:** Do referential-types vary across post-type subcategories?

## **Method**

### **Sampling**

Because the aim of the current study involves comparing self-referential, other-referential, and non-directed posts in terms of their relative level of acceptance by the Imgur community, a constructed week sampling strategy with elements of stratification was employed. Constructed week sampling was chosen to avoid potential bias toward posts submitted on certain days of the week or during significant events, while stratification was incorporated in order to ensure that posts of each referential-type were represented in the sample. The sampling frame for this study encompassed a six month period, from December 1<sup>st</sup>, 2017 through May 30<sup>th</sup>, 2018. Each day of the week (Monday through Sunday) was selected at random from the frame to create one constructed week. Once the days were selected, two posts of each referential-type were purposively chosen from the “gallery” (i.e., archived posts) for each randomly chosen day (see below for how posts were coded into referential subcategories). This sampling strategy resulted in a total of 42 posts to be analyzed.

## Coding

To test the hypothesis, two a priori categories were developed and used to code each post: *reference-type* and *negative assessment* (i.e., level of acceptance). Additionally, a third category, *post-type*, was adapted from previous studies of Imgur content. To assess intra-coder reliability for both nominal categories in the current study (*reference-* and *post-type*), the analyst re-coded the sampled posts four days after the initial coding and a percentage of agreement was calculated for each category; these percentages are reported below.

As previously mentioned, the *reference-type* category (percentage of agreement = 100%) includes three subcategories: self-referential, other-referential, and non-directed. Although content submitted to Imgur.com may incorporate any combination of images, GIFs (i.e., animated images), and text, posts were coded into the *reference-type* subcategories based only on text contained in the post title or description, since these aspects of posted content are intended for users to explicitly state the subject/purpose of the post and direct viewers' attention to particular elements of the post. Thus, the coding unit for this category was the entire post, while the context unit was the text contained therein (i.e., post titles and descriptions). Posts were coded as self-referential if either the title or description made explicit reference to the original poster (OP). References made by the OP to him- or herself were indicated either by the use of a first-person personal pronoun (e.g., I, me, my, mine) or popular acronyms that include personal pronouns, such as "MRW" ("my reaction when") or "TIL" (today I learned). Conversely, posts were coded as other-referential if either the post title or description included a second- (i.e., you, your, yours) or third-person pronoun (e.g., he she, they, them), or made use of a first-person plural pronoun (e.g., us, we, ours). Non-directed posts were those that made no explicit reference to the OP or other individuals/groups within the post title/description. Table 1 below shows several examples of post titles and descriptions used to code posts by *reference-type*.

**Table 1.** Examples of Post Titles/Descriptions Coded for Reference-Type.

Reference-Type	Example
Self-referential	"Had one of those I hate my job days, then I read this..." (title)  "Why I don't take selfies" (title) "My first and last selfie." (description)

**Table 1.** (Continued)

Other-referential	“Because you asked for it..” (title/description) “Some weird-ass music videos for you freaks in usersub” (title)
Non-directed	“Expect the unexpected” (title) “Santa made out of chocolate” (title) “Danny DeVit..OHHHH” (title)

Because posts were sampled from Imgur’s “most viral” page for each day selected into the constructed week, incorporating upvotes into a measure assessing relative acceptance would not be expected to yield meaningful results. In other words, the posts sampled in the current study had already been well-received by the Imgur community and, for this reason, the relative acceptance of each post was best indicated by how *poorly* it was received when compared to other “viral” content. Thus, rather than “level of acceptance”, the category *negative assessment* was measured by calculating the number of downvotes per 1,000 views. No percentage of agreement was calculated for this category given the objective values used to compute *negative assessment* scores.

In addition to the two categories developed for the purposes of this study, a third category, *post-type* (percentage of agreement = 95.23%), was adapted from previous content analyses of Imgur postings (Hale 2017; Mikal et al. 2014). Mikal et al. (2014) identified six categories under which content posted to Imgur can be coded, including: *community identification* (inside jokes, popular interests, community policing, shared experience), *social support* (social support, confessions), *capitalizing* (positive experience, original art), *humor* (general humor), *visually appealing*, and *information / mobilization*. However, in the current study, rather than treating each of these as separate categories and allowing for cross-coding of Imgur content under two or more of these types, each of Mikal et al.’s (2014) original categories were treated as subcategories of *post-type* in order to maintain mutual exclusivity. The coding unit for this category was the entire post and, to code for *post-type*, all content contained in each post was taken as the unit of context; in other words, unlike the *reference-type* category, the post title, description, and body (i.e., pictures, GIFs, etc.) were used to categorize the posts. In considering the graphical displays when coding into the *post-type* subcategories, each image/GIF was scanned for indicators that could be reasonably subsumed under one of the six headings. For example, a GIF of a wide-eyed dog stumbling around a living room under the heading “Morphine is a hell of a drug” was



understood as an attempt at humoring the Imgur community. On the other hand, a post titled “Achieved my 3-year goal” showing a before-and-after picture of a man who had lost a significant amount of weight clearly reflects a positive experience that, consequently, would be coded under the “capitalizing” subcategory. In cases where categorization was not as obvious, such as a GIF of a bee being offered a small amount of liquid through a straw with the heading “Giving a bee sugar water on a hot day,” the post descriptions were helpful in coming to a coding decision; in this case, while the post might have been considered either “information / mobilization” (by showing *how* to feed a bee sugar water) or “capitalizing” (by depicting the *positive experience* of saving the bee), the caption stating “video credit: the bee rescuer is Reddit [user] BadBoiJackson” led to the decision to code the post as the latter, with use of the term “rescuer” indicating someone’s (BadBoiJackson’s) positive experience. Figure 1 below presents an example of how post titles, descriptions, and graphical content were used to code posts into each *post-type* subcategory.

Title: “A going away gift from one of the staff. Please help me embarrass him by making him internet famous.”



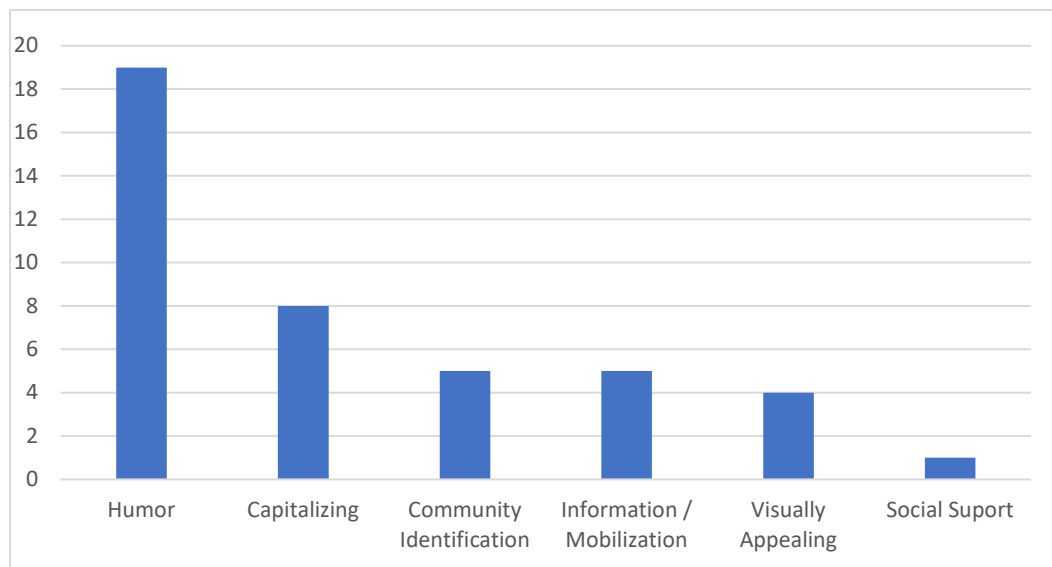
Description: “I just left my employment to move to Brazil. My staff gave me an amazing going away party. This wonderful gem was given to me on my last day. Not only will it haunt my dreams, but I don’t think I will be able to achieve an erection ever again. Please help me repay him by making him internet famous.”

**Figure 1.** Example of Post Coded as “Information / Mobilization”.

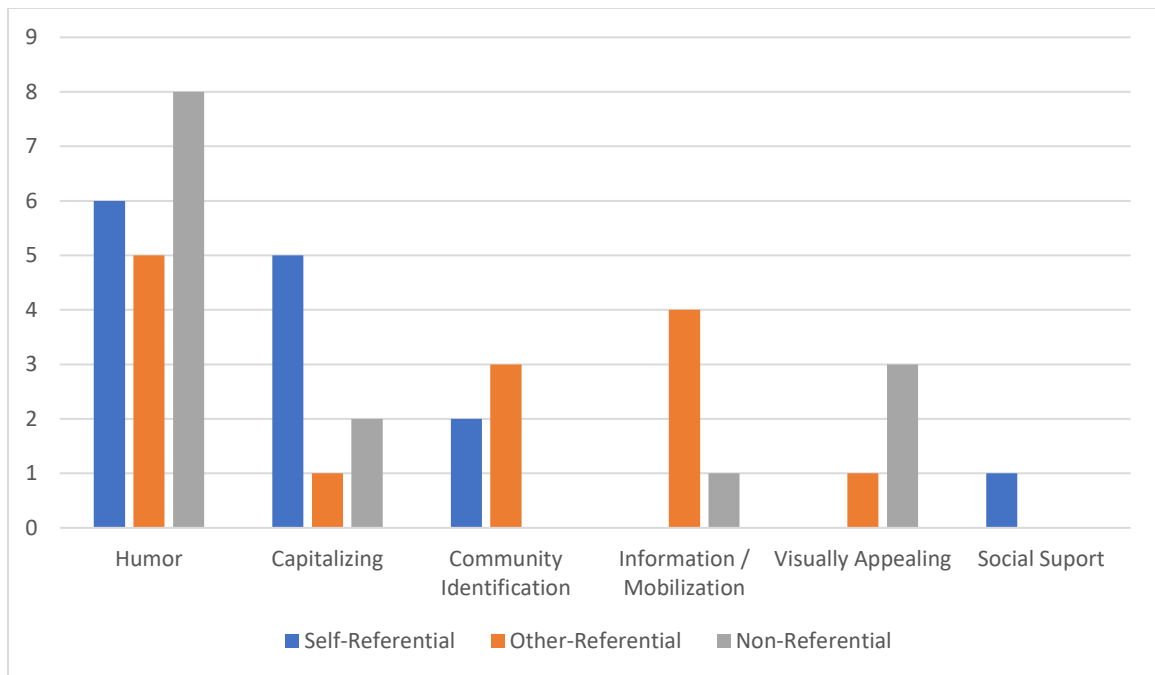
Note: underlined words taken as indicators of the post-type subcategory

## Results

In total, 14 posts of each *referential-type* were coded, resulting in a total of 42 posts analyzed. Descriptive statistics for *post-type*, *referential-type* by *post-type*, and *negative assessment* are shown in Figures 2 and 3, and Table 2, respectively. As shown below, the most common *post-type* subcategory was “humor” (n = 19, 45.2%), followed by “capitalizing” (n = 8, 19%), “community identification” (n = 5, 11.9%) and “information / mobilization” (11.9%), “visually appealing” (n = 4, 9.5%), and “social support” (n = 1, 2.4%). Non-directed posts were the most common within both the “humor” (n = 8) and “visually appealing” (n = 3) subcategories, occurred less frequently under “capitalizing” (n = 2) and “information / mobilization” (n = 1), and were not observed within the “community identification” and “social support” subcategories. Self-referential posts were the most frequent within the “capitalizing” subcategory (n = 5), the second most commonly occurring under both “humor” (n = 6) and “community identification” (n = 2), and were the only *referential-type* to occur within the “social support” subcategory (n = 1); no self-referential posts were coded as either “visually appealing” or “information / mobilization.” Finally, other-referential was the most commonly coded *reference-type* within the “community identification” (n = 3) and “information / mobilization” (n = 4) subcategories, occurred frequently under “humor” (n = 5), and was the least common within the “capitalizing” (n = 1) and “visually appealing” (n = 1) subcategories; no other-referential posts were coded as “social support.”



**Figure 2.** Post Type Frequencies.



**Figure 3.** Post Type by Referential Type.

Regarding *negative assessment*, self-referential posts received the highest number of downvotes per 1,000 views (.760), followed by other-referential (.541), and non-directed posts (.365), lending support to the research expectation (see Table 2 below). The difference in the mean number of downvotes per 1,000 views was statistically significant between self-referential and non-directed posts ( $t = 3.349, p < .01$ ), lending additional support to the hypothesis; as an aside, a significant difference was also observed between other-referential and non-directed content ( $t = 1.746, p < .10$ ). However, no significant difference was found between self- and other-referential posts with regards to negative assessment, though this difference approached statistical significance ( $p = .105$ ); it is likely that this nonsignificant finding can be attributed to the considerably small sample size in the current study ( $n = 42$ ). A two-way ANOVA did not reveal any significant interaction effects among the *reference-* and *post-type* categories on the downvote rate. Overall, then, the findings regarding negative assessment support the research expectation that self-referential posts are assessed more negatively by the Imgur community.

**Table 2.** Mean Downvotes per 1,000 Views (Negative Assessment) for Referential- and Post-Type Subcategories.

Category	Mean Downvotes per 1,000 Views (SD)
<i>Referential-Type</i>	
Self-referential	.760 (.38)
Other-referential	.541 (.31)
Non-directed	.365 (.22)
<i>Post-Type</i>	
Humor	.562 (.39)
Capitalizing	.692 (.35)
Community Identification	.446 (.18)
Information / Mobilization	.556 (.20)
Visually Appealing	.255 (.20)
Social Support	1.10

Note: The *post type* subcategory “social support” has a frequency of one and, thus, no standard deviation. For each *referential type* subcategory, n= 14.

### Discussion and Conclusion

Overall, the findings from this study lend support to the applicability of SIDE in anonymous online contexts and add to the scarce body of knowledge regarding how deindividuation operates on Imgur.com. Self-referential posts were found to have a significantly higher number of downvotes per 1,000 views than non-directed posts, with the difference approaching statistical significance when compared to other-referential content, lending support to the research expectation and suggesting that Imgurians perceive individuating information more negatively within the anonymous online context of the site. Notably, posts categorized as “visually appealing” and “community identification,” which were most commonly of a non-directed and other-referential nature, respectively, had the lowest rate of downvotes among the post-type subcategories. Conversely, posts categorized as “capitalizing” and “social support,” which were most often of a self-referential nature, received the most downvotes per 1,000 views. The difference in the mean number of downvotes per 1,000 views across the post-type subcategories, however, may simply be due to the higher number of self-referential, other-referential, and non-directed posts falling under each post-type rather than any practically important interaction effect, as evidenced by the nonsignificant results from the two-way ANOVA conducted in the analysis.

In conclusion, the findings from this study suggest that deindividuation is facilitated on Imgur and, due to the salience of a social identity which is valued and

upheld on the site, self-referential content that highlights individuating information is more likely to be sanctioned by community members than other-referential and non-directed posts. These findings not only support past studies of the platform (Hale 2017; Mikal et al. 2014), but further elucidate the communicative and behavioral mechanisms that reinforce in-group status, group standards, and collective identity in anonymous online contexts. The current study, however, is not without its limitations. First, the considerably small sample of posts may have led to nonsignificant findings that would have reached statistical significance given an adequate sample size. For this reason, the findings from this study should not be considered generalizable to the entire platform and future studies should strive for substantially larger samples. Second, selection of posts from Imgur's "front page" may pose issues of sampling bias in favor of well-received posts. Although the current study addresses this issue by comparing posts based on downvotes per 1,000 views (i.e., relative *negative* assessment), future studies should seek to sample from the "user-submitted" and "rising" galleries to ascertain whether differences in reception exist at various stages of the "virality" process. Finally, while mutual exclusivity is a necessary condition of quantitative content analyses, the current research design did not permit cross-coding into multiple subcategories, a constraint which may detract from the nuance and complexity of content posted to Imgur.com and, thereby, the exhaustiveness of the coding scheme. For this reason, future studies should carefully weigh the relative benefits of mutual exclusivity and exhaustiveness when constructing or adapting the categories into which content is coded.

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