Scratching a Niche: How Smaller Social Media Players Such as Dribbble Reflect the Viral Phenomenon

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Abstract
Researchers have been studying the viral flow of information since the late 1990s, but this work has mainly focused on big sites like Twitter and Facebook. However, to comprehensively explore social phenomena such as virality requires us to look beyond the dominant networks. This study addresses this by looking at how users think about virality on Dribbble, a social network site with around 600,000 users that was created in 2009 for designers to showcase and get feedback on their work and to connect clients to design talent. Interviews confirm that viral-like events do exist on Dribbble. Our informants suggest that what spreads on Dribbble are elements of design (e.g., color palettes, line styles, textures), and they identify a number of factors they believe drive these viral-like events, which are the same kinds of factors that drive virality on larger sites. We briefly discuss how Dribbble feeds the gig economy in the creative industry and how virality becomes an important path for designers in a competitive environment. This work makes a contribution to the study of virality by focusing a small niche social media site and by looking at how users perceive and think about viral events.

Keywords
virality, social media, dribbble, design, communications design, gig economy

Introduction
Researchers have been studying the viral flow of information since the late 1990s (Jurveston & Darper, 1997). In the intervening years, the field has matured, but the vast majority of literature has focused on sites like Twitter, Facebook, YouTube, Reddit, and other forms of digital communications regarding the viral flow of information such as email. In other words, our understanding of the phenomenon of viral events is based primarily on the largest sites or communication channels. And yet, as the American sociologist Becker (2008) notes, to truly understand a social phenomenon, such as virality, requires that we study more than just the central actors, in this case, Twitter and Facebook. This suggests an opportunity around examining “virality” on social media niche sites. In the context of our work, a social media niche site refers to a social network site (boyd & Ellison, 2008) that caters to a specific audience (e.g., designers, academics, or knitters), and, as such, tends to have fewer users, sometimes several orders of magnitude fewer users than, for example, Facebook, YouTube, or Twitter.

Studies of virality on various niche sites would fill out our understanding of this phenomenon and allow us to look for similarities and differences across platforms. Similarities across platforms might highlight fundamental human behavior, while differences might pinpoint the role of platform affordances on the phenomenon of virality. In addition, as social media platforms gather and sell data, they strengthen their role as central economic actors in the global economy (Srnicek, 2017). Likewise, niche sites might affect the economy at the local or industry level, and, as such, merit focused studies.

We address these gaps by looking at the concept of virality on Dribbble.com, which is a social network site created in 2009 for aspiring and professional designers to share and get feedback on their work and for the public presentation of their portfolio (Scolere, 2019). The site makes a profit by connecting clients looking for talent with a wide range of designers. Users on the site claim a varied set of job titles, including, but not limited to, print and digital communications design.

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designers, illustrators, and web designers (UX and UI). Dribbble lacks features that allow for the re-sharing of user-generated content. And yet, our informants report conceiving of virality in similar ways to that found in the body of literature around viral events.

In this study, we use Becker’s (2008) concept of an “art world,” networks of actors whose cooperative and mundane work produces creative artifacts to understand the creative environment of Dribbble. We also use Nahon and Hemsley’s (2013) concept of what viral events are and how they work. Using these concepts and interview data from 28 informants, we find that while user designs are not re-shared, our interview informants do tend to apply the concept of virality to design-centric work that receives a high number of views—particularly when this happens suddenly. They also suggest a number of factors that drive these viral-like events, such as the number of followers one has. We note that these factors are similar to those found in the literature around viral events.

Data from our informants also suggest that what spreads on Dribbble is not specific to the types of design (illustration, logo and icon development, branding or packaging, product or interaction design, etc.), but rather, users “borrow” elements from others’ works, such as color palettes, development techniques, and other stylistic choices, which they employ in their own work via emulation. Of course, innovation must be present to gain attention and spread; the banal is not suited for virality. Designers, especially, are constantly looking for novel and fresh concepts, communication, aesthetics, and techniques, and to be labeled as unremarkable would be anathema to the nature of a creative. For the design community, Dribbble is “always alive and full of the right kind of energy—virtually the only [platform] molding design trends and promoting them on such a level” (Lyakhov & Kim, 2018). While such trends can be driven by the larger design industry, it may also be that viral events on niche sites can influence sectors, suggesting a reciprocal relationship between industry and design social media sites. This is similar to how information flows can start on either Twitter or the mainstream media and flow back and forth between the two (Chadwick, 2013).

By first looking at how art groups have historically collaborated and influenced trends in “social circles,” and applying that insight to social media, studying the structure of virality, and comparing those principles of virality to our informants, our work makes a contribution to the body of literature around viral events in two key ways. First, we look at viral events on a niche social media site. We hope that this work, along with similar studies in the future, can be used to compare the similarities and differences of virality on social media platforms at different scales and with different affordances. Second, while a survey analysis is beyond the scope of this article, we note that the vast majority of studies dealing with virality tend to be quantitative and/or computational in nature, but this study uses interview data to understand virality from a user perspective. Our work also adds to the body of work around social media by studying a niche site, instead of one of the larger, well-researched sites, and makes the case that on sites like Dribbble that support the gig economy, virality can be an important factor in people’s livelihood.

**Literature**

**The Dribbble Art World**

We adopt Becker’s (2008) concept of an “art world” to understand and explore Dribbble. Art worlds are made up of a network of actors whose cooperative and collective activities result in the creation of works of art. In other words, an art world is where the mundane work of creating art is done (Becker, 2008). Conventions arise out of the interactions and activities of the actors that inform artistic production, mediate cooperation, and define what qualifies as “good art” within the art world. Becker notes that art worlds have no boundaries; rather, they are overlapping networks where artists are embedded with other actors who support the work of creating art. Some of this holds true for design as well; for example, the account executive who acts as a liaison between designer and client may influence the direction of a visual solution, as many others who give feedback and critique and ultimately contribute to the visual outcome of the work. Design is collaborative in nature and group: “Design Participation practice is how to recapture the aesthetic processing of design through Design Participation in order to produce better designs” (Y. Lee, 2008, p. 32).

Dribbble is a niche site specifically for graphic and communications designers. There are distinct differences between art and design, with fine art being geared toward more subjective expression of a message or emotion that may be interpreted differently by different audiences (Elimeliah, 2006). Design is driven by an effort to communicate a particular message to its audience and meet specific objectives in a calculated and defined process (Cezzar, 2017). While the two fields both use creative thinking to achieve visual compositions, they are not synonymous. However, Becker’s conception of an art world applies to the Dribbble design space as it relates to the creation of visual artifacts through combined efforts of various participants.

What constitutes “good design” is defined by those in the design world. A unique and unexpected visual composition must demonstrate a purpose to be considered successful or “good.” Notable designer, design critic, and design educator, Michael Bierut suggests that a balance must exist between regularity and comfort on one hand and surprise and novelty on the other (Kulik, 2003). This is captured in Robert Loewy’s Most Advanced Yet Acceptable (M.A.Y.A) principle (Dubner, 2018). For this study, the concept of good design is an important one since it might be related to or overlap with viral-like phenomenon. Although the qualities that one uses to determine what constitutes good design are much debated and could be considered subjective, there are a
few universally accepted traits that can be used to measure whether or not an object, piece, campaign, and so on is considered “good.” Design solutions that are innovative, unique infused with purpose and value in combination with the successful implementation of the design principles and elements tend to be deemed “good” (Biggs, 1944).

Anecdotal evidence from design professionals reinforces these ideas—that good design includes how well an innovation negotiates constraints, design that makes sense in its context, designs that are both local and global in reach and interpretation, solutions that are fair and ethical, and add a bit of wonder and fun while remaining relevant to the audience. A good design is about meeting a need in a new and memorable way. We would expect things that are considered good design are more likely to become viral than things that are not. While “good art” may constitute a more subjective assessment based on one’s reaction to visual image-making techniques, “good design” can involve, in addition to compelling visual aesthetics, another dimension in which the communication of a particular message is a factor. A clear message, delivered through an image, that effectively expresses an idea to a broad audience, can help lead to a viral event.

Design, by its very nature, is meant to take advantage of the viral phenomenon. That is, design tends to have a directive to reach as many potential targets as possible. The goal is to encourage the people exposed to the item to gain awareness about a cause, learn about a product or service, or otherwise promote their client, “for almost any purpose, whether commercial, educational, cultural or political,” as defined by the leading professional design organization, the American Institute of Graphic Arts (AIGA). In today’s networked environment, it is possible, and in fact, often the goal, “to be seen by millions, as with interlinked digital and physical content” (Cezzar, 2017). Whereas fine artists might frown upon work that becomes “too commercial,” (Hayes, 2010) designers strive for this level of visibility.

Nahon and Hemsley (2013) have theorized that social norms are re-instantiated and transformed through the process of viral diffusion. Thus, one explanation for the evolution of the work on a site like Dribbble is that as designers’ innovations diffuse through the design worlds, they may change the conventions (roughly equivalent to “social norms”) that inform artistic production, mediate cooperation, and define and redefine what qualifies as good design and who may be considered good designers (Becker, 2008). Certainly, the re-instantiation and transformation of conventions in art worlds is not new. Artists have long inspired each other’s work, forming “schools” where stylistic conventions and tools were shared, adapted, and emulated (Herbert, 1988; Howat, 1987). Even Nahon and Hemsley (2013) make a point of showing that viral, or viral-like events happened before the Internet. To understand this process, Becker has called for studies of diffusion in art worlds to understand both how conventions change over time and how art evolves.

By focusing on Dribbble, we are examining a subset of a design world, one where viral-like events might happen.

Dribbble’s landing page claims that the site “is the leading destination to find & showcase creative work and home to the world’s best design professionals”2. It is a social networking site (boyd & Ellison, 2008) whose terminology is based on basketball-themed nomenclature, and functions as the online part of an art world by enabling “players” (users) to form networks through follower and following relationships. The follower network on Dribbble can be thought of as a subset of the design world, one where diffusion might happen among the networked actors. Like other sites, the distribution of followers on Dribbble is highly skewed. That is, a small set of players has thousands of followers, while the majority of players have tens or hundreds. High numbers of followers may signal who the actors in the design world collectively consider good designers.

When a player clicks on the thumbnail of another player’s “shot” (illustration, design piece, UX/UI template, etc.), it opens a new page or preview modal window with a larger version of the shot. Each visit counts as a “view” for the shot, and the numbers of views is displayed on the shot’s page. Players also signal enthusiasm for other’s shots by posting “rebounds” (i.e., response art—visually driven content that they make in response to other people’s work; generally, a variation of an original design). When a shot receives more than one rebound, it is referred to as a “playoff” and is featured on the Playoffs page. Dribbble also has dedicated pages for shots that are “popular,” “recent,” and “debuts,” where debuts are for the first shot posted by those who become a player after receiving an invite. It is important to note that Dribbble has an invite-only model such that anyone can join the site, but only those who receive an invite from another player are allowed to post shots. Dribbble periodically supplies selected players with a small set of invites to hand out. The stated goal of this policy is to ensure a high quality of content and interaction.

Players on Dribbble maintain a profile page. The left, roughly 20% of the page, is a panel that shows the player’s avatar, a brief description of who they are, with two large buttons below. The text of the first button is “Hire Me” with the second being “Follow.” The prominent placement of the Hire Me button reflects the professional nature of the site. Below the buttons is a keyword list of skills, followed by links to the player’s other websites or presences on other social media, like Instagram or Twitter. The entire right side of the profile page shows, in reverse chronological order (newest first), a grid view of the player’s shots. This layout gives players the ability to showcase their work, or in other words, to present their portfolio and brand in a public way (Scolere, 2019). It also gives potential employers a quick overview of a designer’s work. In fact, the header of the top
has a “Jobs” menu item, as well as “Hiring Designers?” items, both reflecting the professional nature of the site.

There are few studies that look at design-related social media sites, much less with a specific focus on viral events that occur on them. One study looking at Dribbble used a database of U.S. baby names (“Baby Names From Social Security Card Applications-National Level Data,” 2016) and found that male designers tended to have more success at getting views and likes, and that while women had fewer ties in the site’s social network, they had more cohesive social networks than men (Wachs et al., 2017). Similarly, a quantitative study of Behance, another online social network site for designers, found that males tended to have more followers and that grayscale images tended to receive less attention (N. W. Kim, 2017). Salah et al. (2012) looked at the relationship between network clusters and artistic subcategories on DeviantArt, a site for a broad range of artists, and found that clusters of users on the site tended to form around production techniques, not types of art. None of the above studies focuses on viral or viral-like events on an art site. However, Salah and Salah (2013) have explored the diffusion of art innovations on DeviantArt. They started by selecting artwork that was posted as a “resource,” or a downloadable stock image, which are intended to be mashed up or embedded in other artists’ work. When other artists use these stock images in their own work, Salah and Salah consider this a kind of diffusion of technique. We note that their work starts with content intended by the artists to be used by other artists, and so what Salah and Salah are looking at is not the emergent crowd driven event we typically associate with a viral event. Rather, they seem to be looking at how initial images used in memes (discussed below) spread. Also, all of the work above only uses quantitative analysis and so does not include the experience and views of the site’s users.

**The Viral Phenomenon**

In this work, we use here Nahon and Hemsley’s (2013) definition of virality as a

social information flow process where many people simultaneously forward a specific information item, over a short period of time, within their social networks, and where the message spreads beyond their own [social] networks to different, often distant networks, resulting in a sharp acceleration in the number of people who are exposed to the message. (p. 16)

They also suggest that

virality is a consequence of dialogue and tension between many forces. The main tension occurs between the emergent sharing patterns of users (usually constituted through bottom-up processes) and the control mechanisms exerted on information flows (usually driven by top-down processes, e.g., network gatekeeping and social and network structures). (Nahon & Hemsley, 2013, p. 139)

Within the audience, the bottom-up process emerges out of patterns, human attention, and social influence. The top-down process is largely the result of actors whose position within networks allows them disproportionate influence over the flow of content in networks. The concept of a “dialogue” captures the idea that virality happens when you have both the bottom-up and top-down processes working together to bring content to the attention of the audience by sharing it into their own networks. The “tension” exists when the two are not working in tandem and the content fails to go viral. For example, a news outlet posts a story that the audience views, but does not share into their own networks. Alternately, someone in the crowd shares new content that is perhaps shared by their immediate followers, but fails to reach the wider audience that those at the top, too, have access to.

Thus, even when those in influential positions wish for something to go viral, without the crowd spreading, sharing, or copying content, such that their own followers see it, content will stay obscure. The actors in the crowd, as well as at the top, have agency in the viral process. But without well-connected actors at the top, content tends not to reach very large audiences. In our social networks, it is the hubs, or, as Nahon and Hemsley call them, “network gatekeepers,” who are in a position to bridge otherwise disconnected audiences and propel content further than it would otherwise go.

Dribbble, like many social networking sites, has typical users who we might think of as the crowd, as well as highly influential actors with thousands of followers. Thus, it has the basics of the “bottom” and “top” that Nahon and Hemsley discuss. We also assume that some algorithm influences what players see when they login, but that the players still have agency when choosing which shots to view and interact with in different ways. Thus, our first research question is the following:

**RQ1. From the players’ perspective, does something like virality exist on the niche social media site Dribbble?**

As mentioned above, there is some evidence that users on DeviantArt do adopt the style and technique of other users into their own work (Salah & Salah, 2013). It is then reasonable to assume that the diffusion of stylistic characteristics might exist on Dribbble too. Thus, our next research question is the following:

**RQ2. If viral-like events do happen on Dribbble, what is diffusing in the Dribbble art world?**

Dribbble does not have a share or retweet button, so players cannot share the work of others directly into their own networks. Conceptually, Dribbble is more like YouTube in that messages themselves do not spread. On YouTube, the concept of virality is that users share links to a video, which is embedded on the poster’s channel page (Burgess & Green, 2009). So what is being shared is actually a Universal Record
Locator (URL), and studies (Nahon et al., 2011) typically use the number of views a video gets as a measure of virality. Thus, the number of views a shot gets could be a measure of a viral-like event.

In terms of the factors that drive viral events, we turn first to the concept of “top-down” and “bottom-up” processes and find that Nahon and Hemsley’s concept of network gatekeepers is heavily influenced by an understanding of networks. For Nahon and Hemsley (2013), gatekeepers are “people, collectives, companies, or governments that, as a result of their location in a network, can promote or suppress the movement of information from one part of a network to another” (p. 139). Importantly, they also specifically note that gatekeepers may be the algorithms that select and promote the content we see on social media sites. By “location in the network,” they mean that because of the high number of links, or followers that gatekeepers have, they can exert some level of control over the flow of information. That is, users with larger audiences are more likely to have their content go viral. Indeed, an actors’ number of followers has consistently been found to be related to how viral their content goes (Kwak et al., 2010; Uysal & Croft, 2011; Zaman et al., 2010).

Other factors from the literature include network effects like to whom one is connected (De Bruyn & Lilien, 2008; Yang et al., 2010), who sent the message (Kwak et al., 2010), and how frequently two actors interact (Harvey et al., 2011). Research has also shown that content that is novel (Petrovic et al., 2011; Wu & Huberman, 2007) or emotional (Stieglitz & Dang-Xuan, 2013) is more likely to go viral. The study of different emotion states has shown that the use of sadness in crisis situation messages and anger in situations for situations seeking a reaction is more likely to spread (Dobele et al., 2007). More generally, computational studies using keyword sentiment analysis on Twitter have shown that strong positive or negative words tend to drive diffusion (J. Kim & Yoo, 2012). Researchers have suggested that content that resonates with people (Asur et al., 2011; Hemsley et al., 2018) is more likely to spread and even that retweeting can be a conversational act (boyd et al., 2010), and that timing and context also play a role in what spreads and how far (Nahon & Hemsley, 2013). Other large-scale work has shown that the user’s account age (J. Lee et al., 2015), the number of tweets users have posted, and the number of their tweets that have been favorited are also related to how often they are retweeted (Uysal & Croft, 2011). Tweets with hashtags, URLs, and @mentions all tend to be retweeted more than those without such textual features (Suh et al., 2010).

With these factors in mind, we expect that if viral-like events happen on Dribbble, we ought to find that similar factors are at work. Thus, we seek to identify the factors that are driving these viral events. Our final research question is the following:

RQ3. What do players think are the measures and factors of viral-like events on Dribbble?

A concept closely related to virality is memes. In their books, both Limor Shifman (2013) and Nahon and Hemsley (2013) differentiate between virality and memes in a similar way. A reasonable way to state this difference is that “a meme is a collectively (re)produced phenomena while viral refers to a single video, image, or text that is shared widely” (Soha & McDowell, 2016, p. 2). Thus, while Shifman (2013) thinks of memes as a collectively constructed set of related items that share some similar visual elements, Nahon and Hemsley (2013) are more focused on what is spreading and think of virality as the process by which something spreads. Following this, much of the literature on virality cited above looks specifically at what spreads and the factors that drive it. Nahon and Hemsley (2013) note that a meme may spread virally, but also that it is likely that the majority of memetic content that is created never goes viral. Likewise, many photos, videos, or tweets that go viral never spawn a collection of memes, but some do. Some viral events may create ripples “of remakes, remixes, parodies, and other memetic content” (Soha & McDowell, 2016, p. 2). In this work, we are primarily focused on whether or not something spreads, and then if it does, what is it and what factors may drive it.

Methods and Findings

Player Interviews

Recruitment of interviewees was conducted by email. Dribbble does not have a public internal messaging system, although some players opt to have a “hire me” button. In our consideration of how to conduct our work ethically, we opted not to use the “hire me” button because even though we planned to offer a $20 Amazon Gift Card for an hour interview, we felt that using the button would be misleading. However, slightly less than 5% of users include an email address on their profile page. To arrive at this number, and to collect email addresses to contact users, we used Dribbble’s application programming interface (API) to collect over 400,000 user profiles. We note that we were able to geocode user-specified location in 50,117 profiles. The most users were in the United States (12,816), followed by China (4,761), the United Kingdom (3,348), India (3,208), and Russia (1,847).

For our interviews, we programmatically mined user profiles for those who, first, had posted at least one shot (though all of our informants had 10 or more, most with many more); second, listed English as their language; and, third, included an email address. Audio-only interviews took place on Adobe Connect, a web conferencing tool, and were recorded for later transcription. Our methods and interview protocol were vetted and cleared by our institution’s internal ethics review board.
Interview Results

In total, we conducted 28 interviews (19 males and nine females) with informants between the ages of 18 and 38 years (\(M=26.4\)). Most of our participants have been using the platform for more than 3 years. Our informants describe themselves as UI/UX or product designers, graphic designers, illustrators, or motion graphic designers. Only 39% (11) of our informants had completed some formal design degree, although all indicated they were, or were trying to be, professional designers.

Without exception, all of our respondents indicated that they used the platform for creative inspiration. Subsets indicated that they also used the platform to get feedback on their work, promote themselves, maintain a public presence and portfolio, find jobs or other designers to work with, or to keep up with design industry trends. When asked about other platforms they posted work on, our participants listed, in order of frequency, Behance, Instagram, Facebook, Twitter, DeviantArt, Pinterest, and Vimeo. Players indicated that they posted shots to gain exposure for their work, get feedback, and receive validation or as part of a challenge, which happens when one player posts a shot and then challenges other players to post something that plays-off of the original. In other words, they respond to the original shot with something similar, but with their own creative changes. Challenges are a way for users to socialize and play with others, while also stretching themselves or being creative within the context of the challenge.

Dribbble also allows users to view, like, comment on, rebound, and save into buckets others’ shots. Several informants indicated that they would like, comment on, or save into buckets shots that they thought were “good.” Some informants said that they might also like or comment on others’ work as a sign of support and that comments were also used to ask questions or provide feedback. In our conversations with them, we learned that many saw a hierarchy in the meaning of these features; rebounds to one’s shots might be thought of as the highest compliment, followed by comments and finally likes. For example, Informant 8 noted of rebounds that “I think it’s a way of complimenting the original artist.” Thus, we find that Dribbble provides a number of indicators of good design, which is a key element of Becker’s art world concept.

When probed about what constituted good art (design in this case), our informants indicated that work that inspired them, solved design problems in a novel way, evoked emotion, conveyed meaning, or were visually appealing could all constitute good art. Informant 14 also said that “anything that drives a conversation, drives a sort of topic that you would not have considered otherwise can be considered as good art,” and Informant 20 said that good art is “something that like makes people think and makes people think of new ideas and inspires people.” In general, our informants felt that good design tended to get more attention, and when talking about getting views and followers, Informant 26 said that “if your work is good it will build audience organically.”

In discussions with our informants, they frequently mentioned the idea of design trends on Dribbble, where many people posted shots with a similar look and players were inspired or influenced by others. One informant referred to this as a design “echo chamber.” Our informants also indicated that trends could originate outside of Dribbble. For example, when Apple released its Touch Bar, designers across Dribbble quickly posted their own versions of Touch Bar icons and mimicked each other. Informant 2 told us that their lead designer

- designed a Touch Bar for Dribble right away and then we posted it on Dribble and then we got lot of likes because at that time everybody was interested in that and everybody was looking for it, so we got lot of likes and exposure.

But design trends can also be local to Dribbble, such as when Dribbble noted on their blog that a wave of purple shots had washed over their Popular Shots page (“Dribbble—Show and Tell for Designers,” n.d.). Thus, the answer to the first research question is that yes, players do think something like virality exists on Dribbble, and one way it manifests is in the form of design trends.

One of the most important uses of Dribbble by our informants was to seek out inspiration and keep up with the trends. For example Informant 6’s comment, “It usually happens early in the morning when I come to the office and see quickly, okay what’s happening in the design community, what’s new.” While players indicated they did not copy the shots of others, the majority of our informants indicated that their own work was influenced by other players. According to Informant 4, “I always end up with my own personally unique idea that got inspired by some users.” They described adopting into their own work design elements like color palettes, line styles, textures, fonts, and so on. Places they found such stylistic inspiration on Dribbble included their own landing page, which aggregated recent shots from those they followed; the Popular Shots page, which appeared to order shots by a proprietary algorithm; or by using the site’s search tools. The search tools allow players to find shots by user-supplied keywords or auto-tagged colors. Thus, players may have a design problem in mind, or a set of requirements from a client, and after browsing Dribbble, they would borrow, for example, a color system or a line quality or a conceptual direction that inspires them and incorporate it into their own work in its new iteration or form. That is, elements of design such as line, value, color, texture, form, space, and type (Lidwell et al., 2003) may all be things that inspire Dribbble players. These are the ingredients of a design piece, where the principles of design—balance, isolation, proximity, contrast, hierarchy, repetition and movement (Megg & Purvis, 2011)—describe how they are employed in a composition.
The way in which elements are used in combination with one another can identify a particular style. The same elements of design may be used in infinite combinations to define different styles, and any such combination may provide inspiration on Dribbble. Thus, in answer to RQ2, what seems to spread on Dribbble are stylistic elements of shots. The more frequently certain elements, or iterations of such, appear to influence the style of other shots, the closer they come to manifesting a viral-like experience.

When talking about popular shots, Informant five, similar to others, said, “The thing that is the top or get the most likes and views . . . I’d call it a viral.” Several of our informants also noted that having their shot featured on the Popular Shots page was also a sign of virality since that seemed to result in shots getting even more views. The number of views, then, could be seen as a measure of virality. Some informants also saw the numbers of likes as an indicator of popularity or virality. For example, Informant 23 reported, “With a big amount of likes and then suddenly the picture is on everyone’s radar and then it’s like it [the shot] will be picked up by a lot of other people.” Talking about virality, Informant 26 said, “. . . in terms of what gets the better engagement, the most amount of likes, is . . .” Another measure of virality is numbers of comments; Informant 19 suggested that viral was “the work that are the most viewed and most comments,” and Informant 18 explained, “If it [a shot] is that good, I get a lot of comments and a lot of likes that means your design succeeds.” Thus, in answer to our third question asking what players think are the measures and factors of viral-like events on Dribbble, our informants noted that numbers of views, likes, and comments were important here.

When asked about the factors that seemed to drive these viral-like events, some thought that shots going viral were driven by luck, but most felt that those with more followers would get more views and likes just because their shots would show up in more people’s feeds. Specifically, Informant 14 explained, “In order for your work to get viral, you need to have a lot of followers and you need to have a lot of exposure.” Informant 24 echoed this: “So the larger followers they will see your work whenever you post it up and you can manufacture likes and use that way.” When asked about the popular designers, some of our informants explained, “They just have a lot of followers and a lot of people comment on their images” (Informant 22), and “I mean if the things they post get a lot of likes” (Informant 20). Thus, our informants have identified some of the potential factors that might drive viral events.

Similar to Twitter, our informants saw the uses of hashtags as a way to support searching and increasing exposure. For example, Informant 26 explained,

Then there’s also the, you would call them hashtags or tags that you would put on your design work. So, depending on what I’m working, I’m going to put relevant tags so that people searching those later, so say I created a 404 page and I tagged it as 404 if someone else is looking for inspiration like that and they’re at 404 my piece might show up or should technically show up.

Unique to Dribbble, the platform offers a saving mechanism, namely buckets. Some of our informants explained using bucket as a way to show appreciation, saying,

It [bucket] almost gives you the self-gratification of like hey this person likes my work and then they added it, like they took the effort to favorite it and then put it into their bucket stating that they liked this as inspiration. (Informant 16)

So in terms of factors that could be drivers of viral-like events on Dribbble (RQ3), the number of followers, hashtags, and buckets were the main factors that informants could identify.

Other, less easily measurable factors also came up in discussions. For example, seven (about 25%) of our informants indicated that Dribbble’s algorithms must be playing a role in what shows up on the Popular Shots page. For example, one informant said, “It doesn’t really mean your work is good, or bad, it means that an algorithm decided that other people should see it. That’s what I believe.” That is, when players themselves could not explain why one shot was promoted over others, they believed the platform’s algorithms made random or biased choices. A couple of informants also divulged how to game the system by posting links to their shots on other sites to bump up the number of views their shots got. The idea being that this behavior might result in their shot getting featured on the Popular Shots page. Informants also linked the idea of virality to exposure, indicating that having your shot go viral could bring you a lot of attention in terms of likes, comments, and new followers.

As a methodological point, we found it interesting that 17 of our 28 informants used the term virality, without prompting, before we started asking about it. In our conversations with them, it seems that the potential of sudden attention to and popularity of their work was something many hoped for, or they seemed see virality as a natural part of the platform. Talking about good design, one informant said that “big drop shadows kind of went viral. Suddenly everyone was doing it, then boom, it was gone.”

They talked about it early in the interview when asked about why they use the site, their creation and sharing of content, what constituted good art and questions around how other’s work may influence them.

Discussion

Virality and Dribbble Art World

An art world is a place where the mundane work of making art gets done (Becker, 2008). Dribbble is such a place, but, as is true in other creative web venues (Van Dijk, 2014), players take on many different roles in this creative effort. Players
act as designers, certainly, but also as part of the audience, feedback providers, tool recommenders, and supporters to others. Becker (2008) notes that one aspect of an art world is that the actors collectively elevate those with talent over the rest. In Dribbble, we see this in part by noting that while many players have relatively low numbers of followers, some have thousands. In the context of an art world, this is a kind of proof that these designers have a special gift that cannot be fully understood outside of the art world. Players also collectively signal what constitutes “good design” within the design world by viewing, liking, commenting, and rebounding. Through their comments, players act as supporters, providers of feedback, and tool recommenders. In other words, the design world network of players on the site is constituted by actors who may take on many different roles at different times.

Our work suggests good design, as judged by the players on Dribbble, may get more attention in terms of likes and players gaining new followers. Often what is considered “good” is what solves design problems or otherwise provides inspiration to other players. While the nature of Dribbble allows for the presentation of primarily formal qualities of the featured work, design as a pursuit incorporates a conceptual quality as well. The concept, or idea that drives and justifies the arrangement of the formal elements, can play a substantial role in the degree of success of a design (Lidwell et al., 2003; Meggs & Purvis, 2011). As an example, suppose we make a logo that features a lobster for a pirate festival in Maine. This logo certainly captures the lobster industry in Maine, but if we add a skull and cross bones hidden in the negative space, the image now also represents pirates, and so the festival logo resonates more deeply (and therefore more memorably) with the audience. As another dimension of design, concept has the potential to strengthen the response to a piece and consequently increase its likelihood to inspire and lead to a viral event. Our informants consistently indicated that finding inspiration was one of the most important uses of Dribbble. When players have design problems, need to get ideas for a project, or are just looking for a challenge, they browse through the shots of other players. While players were quick to say they did not steal the work of others, they described adopting elements of design, like color palettes or line work, from the shots of others and using them in their own work. Some even created buckets of themed shots for inspiration, and others described mixing elements of a set of shots together into a new shot.

As such, the shots of some players become useful resources whose elements become embedded in the artwork of other players. In this way, shots can be co-created, and, as Becker suggests, emerge out of the collective activities of the network of actors in the art world. These elements of design are what is diffusing in the Dribbble art world. If we group shots together that were collectively produced and propagating specific elements of design, then we might also begin to think of these grouped sets of shots as forming a meme (Shifman, 2013). So a shot may go viral as measured by the number of views it gets, and as various design elements spread, they can create ripples “of remakes, remixes, parodies, and other memetic content” (Soha & McDowell, 2016, p. 2). In this way, as on other sites, viral events on Dribbble may instantiate design memes.

Of course, as on other platforms, most things do not diffuse far from the source (Nahon & Hemsley, 2013). Thus, we suspect that few shots inspire enough other players that we could consider them viral-like events. So while they might influence the art work of a few players, they do not simultaneously reach many actors in a short period of time as a result of social processes, thus satisfying Nahon and Hemsley’s definition. And yet, our informants note that design trends do sweep through Dribbble. They suggest that the process can look like an echo chamber where a player’s work might inspire others, whose work further inspires others until, for example, enough players are all influencing each other such that Dribbble’s “popular page” is filled with shots dominated by the color purple (“Dribbble—Show and Tell for Designers,” n.d.).

This diffusion of stylistic choices could be one explanation for the evolution of design in a design world. That is, as players see good design while seeking inspiration, they may view, like, comment, and include those shots in buckets. As a shot gets more attention, the site’s algorithms may prioritize it such that it gets even more views and possibly inspires others. In a relatively short period of time, this could lead to a trend on the site.

To demonstrate how diffusion may alter conventions in the design world, or more broadly in the industry, we propose the following scenario: a trend setting shot was created with a new software tool that creates a new visual effect. As the shot becomes popular, other players may ask how it was created, which leads the player of the original shot to write comments about the new tool. This could lead others to start using the tool, and posting their new shots as rebounds to the original shot. By altering the preferred tool set, the conventions around how shots are made have evolved to include the new tool. In addition, as new players post new shots made with the tool, a new convention around what is considered good might emerge. Certainly, this is speculation, but falls well within the description of how viral events can change norms put forth by Nahon and Hemsley (2013) and discussed above.

Our informants’ responses suggest that some of the same mechanics that drive viral-like events on Dribbble are similar to factors that drive viral events on other sites. For example, informants claimed that users with more followers tended to get more views. This is similar to studies showing a relationship between the followers someone has and the number of retweets they get (Suh et al., 2010; Uysal & Croft, 2011). Just like viral events on Twitter or YouTube are said to be partly driven by network gatekeepers who exercise disproportionate control over the flow of information, players
on Dribbble tell us that shots that reach the popular page get more views and that Dribbble’s algorithms probably play a role in the number of views a shot gets. We can view both the popular page and the site’s algorithms as performing the role of network gatekeepers in Nahon and Hemsley’s (2013) view of viral events. That is, some actors (technological ones, in Dribbble’s case) can select and promote messages such that they reach a much larger audience than they would otherwise. Without these network gatekeepers, users may find their messages remaining obscure because they lack the connections for the messages to spread much farther than their own followers. Using quantitative data and methods, our informants’ observations can be tested in future work, but they certainly are consistent with work on other platforms.

Nahon and Hemsley (2013) claim that “viral events are not new” (p. 1). They note that on December 1, 1955, Rosa Parks was arrested in Montgomery, Alabama, for not giving up her seat to a White person on a segregated bus, and that the news spread via phones, hand-bills, and word of mouth, such that within 3 days, over 40,000 African Americans had joined a boycott of the bus system. They say that what is new is that with social media “a viral video, a news story, or a photo can reach 40,000 people in hours, or even minutes, instead of days” (Nahon & Hemsley, 2013, p. 1).

Likewise, the diffusion of design or artistic innovations is not new. From the Hudson Valley School of Art in the early 1800s (Howat, 1987), through the German Blue Rider group (Weiss, 1985), the more recent arts and crafts movement (Cumming & Kaplan, 1991), to what we see on Dribbble today, artists have frequently gathered together and formed learning groups, schools, or studios in which they shared tools and techniques, and mimicked each other as a form of training. Ultimately, their collective activity transformed artistic conventions (Galenson, 2008), affecting the larger art world.

What is different as a result of the platformization of this process on Dribbble is that viral design trends can quickly reach a large audience spread across the globe. While this is true for virality on social media in general (Nahon & Hemsley, 2013), niche sites, by definition, mean that the audience is smaller, so the reach will always be less than the bigger sites (unless content starts on a niche site and spreads). However, even with a smaller reach, the focus of the site means that virality has economic implications.

First, we note that a viral shot can land even an untrained novice on the popular shots page where a paying client may see their work and hire them for work. Certainly, this is good for both the novice designer and client, but it has implications for the design industry because it creates more competition for established professional designers, and even for schools that teach design. Another economic implication of virality on Dribbble is that viral trends on the platform can quickly feed into the design industry. This is because professional and novice designers alike look to Dribbble for inspiration in their everyday work.

This points to a new avenue of research: looking at the impact sites like Dribbble may have on design education and the design industry through a “creative economy” (De Peuter, 2011) perspective.

Virality and the Gigification of Design

Dribbble is a social network. Participating in challenges, giving feedback, and encouragement appear to be a way that players interact socially. And certainly, the site’s nomenclature (basketball) promotes a sense of play. And yet, it is also a professional space and the terminology also hints at the idea of competition of scoring, getting ahead, and winning. Players are encouraged to make shots, develop portfolios, brand themselves (Scolere, 2019), and compete for the few jobs and gigs (often referred to as “projects” in the design space) available. Nearly all of our informants say they use the site for portfolio hosting or for finding design work, and certainly, the site provides a number of mechanisms for players to find jobs. And just as Dribbble has features geared toward helping players finding work, the site also has features aimed at helping clients find designers that fit their needs.

Since Dribbble connects clients and designers, we assume that Dribbble has a strong incentive to place the “best” shots on the landing page. Dribbble wants to attract new designers who are not already members, and it wants show clients looking for designers that it has a platform full of talented designers. So we assume that the competition to get one’s shots on the front page is fierce, particularly for those in positions of precarity such as freelancers working contract gigs, or those working to break into the field. The platforms other players or the crowd decides what is good by liking, viewing, and commenting on shots. Since the platforms crowd is communicating what is good design on the platform, the platform uses that crowd-sourced sorting to highlight the best designs. So going viral among one’s peers is a way of being seen and standing out. Having your shots go viral can directly impact one’s livelihood. And the possibility of going viral suggests a leveling of the playing field. That is, even those with no formal design education have a shot at being noticed, and hired for a project contract.

Dribbble, then, is supporting the gig economy (Friedman, 2014; Graham et al., 2017) by acting as an intermediary (Srnicek, 2017) between employers looking for talent and designers; whether those designers are firms or freelancers, established professionals or just digitally talented novices working to break into the field, these considerations matter little. Instead, what matters is getting noticed and virality is one way to do that. Dribbble, by design or through evolution, provides functionality that actively encourages memetic or viral behavior, and players recognize the unique operations built into the application and the power of the platform’s design.
Conclusion

This work examines the concept of virality in the Dribbble world using semi-structured interviews with the platform’s users to understand the larger context of Dribbble’s design world, giving us a user’s perspective of the site and of how viral-like events work there. Using data from the interviews, we identified some possible driving factors of these viral-like events as well as how we might measure them. We discuss the form that virality appears to take on Dribbble, including the role of top-down and bottom-up forces. Specifically, we suggest the top-down forces are driven by network gatekeepers in the form of site’s algorithms, and bottom-up forces are evidenced by the emergence of an echo chamber, as well as the popular page where the crowd collectively endorses shots that get featured.

This work serves as a bridge connecting an extensive body of literature concerning virality in social networks to a significantly smaller body of work looking at niche social media sites, like Dribbble. Our work suggests that the mechanics that drive viral-like events on Dribbble are similar to factors found elsewhere such as number of followers and the practices of network gatekeeping. While this work is not specifically focused on the evolution of design in design worlds, our work does provide some support for the idea that such evolution could be driven by viral-like events.

This research also provides a new data point in terms of what virality seems to look like on a niche social media site. In future studies, we intend to do more detailed comparisons across other niche sites, like ResearchGate and Musical.ly, to tease out the similarities and differences across multiple platforms in an effort to isolate what is platform specific and what are the fundamental human behaviors that drive viral events. Future research into stock imagery sites and the way in which download numbers may indicate virality could add to the discussion. Stock image sites reach a large cross-section of design professionals, and while shares may not come into play, likes and downloads represent a quantifiable indicator of image usage and dissemination.

Our findings contribute to the study of virality by seeking to understand users perceive and think about viral events, instead of doing purely quantitative and data-intensive work. This study also makes a contribution by focusing on a niche site, one where vitality has the potential to affect one’s professional status and income.

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Notes

1. See https://www.aiga.org/
2. See https://dribbble.com/
3. The site’s ‘About’ page suggests that the site has around 600,000 users. Our profile collection was accomplished through a snowball method where we started with a few active users’ profile IDs, which we manually gathered from URLs to their profile pages. Using these as seeds, we gathered all of their followers and their followers’ followers until no more new names were added. This essentially gave us the websites’ largest network component.

References

Asur, S., Huberman, B. A., Szabo, G., & Wang, C. (2011). Trends in social media: Persistence and decay [Conference session]. 5th International AAAI Conference on Weblogs and Social Media. https://www.aaai.org/ocs/index.php/ICWSM/ICWSM11/paper/ViewFile/2815/3205

Baby names from social security card applications-national level data. (2016). https://catalog.data.gov/dataset/baby-names-from-social-security-card-applications-national-level-data

Becker, H. S. (2008). Art worlds (25th anniversary ed., updated and expanded). University of California Press.

Biggs, J. R. (1944). What is good design? Design, 46(3), 7.

boyd, D., & Ellison, N. B. (2008). Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication, 13(1), 210–230.

boyd, D., Golder, S., & Lotan, G. (2010, March 11). Tweet, tweet, retweet: Conversational aspects of retweeting on Twitter [Conference session]. 2010 43rd Hawaii International Conference on System Sciences, Honolulu, HI, United States.

Burgess, J., & Green, J. (2009). YouTube: Online video and participatory culture (1st ed.). Polity Press.

Ceazar, J. (2017, October 5). What is graphic design? https://www.aiga.org/guide-whatisgraphicdesign

Chadwick, A. (2013). The hybrid media system: Politics and power. Oxford University Press.

Cumming, E., & Kaplan, W. (1991). The arts and crafts movement. Thames & Hudson.

De Bruyn, A., & Lilien, G. L. (2008). A multi-stage model of word-of-mouth influence through viral marketing. International Journal of Research in Marketing, 25(3), 151–163. https://doi.org/10.1016/j.ijresmar.2008.03.004

De Peuter, G. (2011). Creative economy and labor precarity: A contested convergence. Journal of Communication Inquiry, 35(4), 417–425.

Dobele, A., Lindgreen, A., Beverland, M., Vanhamme, J., & Van Wijk, R. (2007). Why pass on viral messages? Because they connect emotionally. Business Horizons, 50(4), 291–304.

Dribbble—Show and tell for designers. (n.d.). https://dribbble.com/stories/2017/08/24/shot-block-purple-reign

Dubner, S. (2018). How to be creative [Pod cast]. http://freakonomics.com/podcast/creativity-1/?utm_source=DesignTAXI

Elimeleiah, C. (2006, January 13). Art vs. design. https://www.aiga.org/art-vs-design
Friedman, G. (2014). Workers without employers: Shadow corporations and the rise of the gig economy. Review of Keynesian Economics, 2(2), 171–188.

Galenson, D. W. (2008). Analyzing artistic innovation: The greatest breakthroughs of the twentieth century. Historical Methods, 41(3), 111–120.

Graham, M., Hjorth, I., & Lebdonvita, V. (2017). Digital labour and development: Impacts of global digital labour platforms and the gig economy on worker livelihoods. Transfer, 23(2), 135–162.

Harvey, C. G., Stewart, D. B., & Ewing, M. T. (2011). Forward or delete: What drives peer-to-peer message propagation across social networks? Journal of Consumer Behaviour, 10(6), 365–372. https://doi.org/10.1002/cb.383

Hayes, M. (2010, May 23). Thomas Kinkade: Fine art or marketing genius? (...or both?). https://maryckhayes.wordpress.com/2010/05/23/thomas-kinkade/

Hemsley, J., Garcia-Murillo, M., & MacInnes, I. P. (2018). Tweets that resonate: Information flows and the growth of Twitter’s universal basic income discussion space. Policy & Internet, 10(3), 324–346.

Herbert, R. L. (1988). Impressionism: Art, leisure, and Parisian society. Yale University Press.

Howat, J. K. (1987). American paradise: The world of the Hudson River School. Metropolitan Museum of Art.

Jurvenston, S., & Darper, T. (1997). Viral marketing. www.dfj.com/viralmarketing

Kim, J., & Yoo, J. (2012, December). Role of sentiment in message propagation: Reply vs. retweet behavior in political communication. https://doi.org/10.1109/SocialInformatics.2012.33

Kim, N. W. (2017). Creative community demystified: A statistical overview of Behance. arXiv. https://arxiv.org/abs/1703.00800

Kulik, G. (2003). “Raymond Loewy: Designs for a consumer culture”: At the Hagley museum and library. Technology and Culture, 44(3), 566–573.

Kwak, H., Lee, C., Park, H., & Moon, S. (2010). What is Twitter, a social network or a news media? https://doi.org/10.1145/1772690.1772751

Lee, J., Ahn, J., Oh, J. S., & Ryu, H. (2015). Mysterious influential users in political communication on Twitter: Users’ occupation information and its impact on retweetability [Conference session]. iConference 2015 proceedings. https://www.ideals.illinois.edu/handle/2142/73456

Lee, Y. (2008). Design participation tactics: The challenges and new roles for designers in the co-design process. Co-Design, 4(1), 31–50.

Lidwell, W., Holden, K., & Butler, J. (2003). Universal principles of design. Rockport Publishers.

Lyakhov, K., & Kim, M. (2018, October 11). Eats, shoots & Dribbles: Why design is no place for rational snobs. https://shakuro.com/blog/eats-shoots-dribbles-whyno-place-for-rational-snobs/

Meggs, P. B., & Purvis, A. W. (2011). Meggs’ history of graphic design. John Wiley.

Nahon, K., & Hemsley, J. (2013). Going viral. Polity Press.

Nahon, K., Hemsley, J., Walker, S., & Hussain, M. (2011). Fifteen minutes of fame: The power of blogs in the lifecycle of viral political information. Policy & Internet, 3(1), 6–33. https://doi.org/10.2202/1944-2866.1108

Petrovic, S., Osborne, M., & Lavrenko, V. (2011). RT to win! Predicting message propagation in Twitter [Conference session]. Fifth international AAAI conference on weblogs and social media. https://pdfs.semanticscholar.org/4c08/27bd2bf4652a615b08389ec7965b9b4b2ea.pdf

Salah, A. A., & Salah, A. A. (2013). Flow of innovation in deviant-Art: Following artists on an online social network site. Mind & Society, 12(1), 137–149. https://doi.org/10.1007/s11299-013-0113-9

Suh, B., Hong, L., Pirolli, P., & Chi, E. H. (2010). Want to be retweeted? Large scale analytics on factors impacting retweet in Twitter network. In 2010 IEEE Second International Conference on Social Computing (pp. 177–184). IEEE.

Uysal, I., & Croft, W. B. (2011). User oriented tweet ranking: A filtering approach to microblogs. In Proceedings of the 20th ACM International Conference on Information and Knowledge Management (pp. 2261–2264). Association for Computing Machinery.

Van Dijk, Y. (2014). Amateurs online: Creativity in a community. Poetics, 43, 86–101.

Wachs, J., Hannák, A., Vörös, A., & Daróczy, B. (2017). Why do men get more attention? Exploring factors behind success in an online design community. arXiv. https://arxiv.org/abs/1705.02972

Weiss, P. (1985). Kandinsky and the symbolist heritage. Art Journal, 45(2), 137–145.

Wu, F., & Huberman, B. A. (2007). Novelty and collective attention. Proceedings of the National Academy of Sciences of the United States of America, 104(45), 17599–17601.

Yang, Z., Guo, J., Cai, K., Tang, J., Li, J., Zhang, L., & Su, Z. (2010). Understanding retweeting behaviors in social networks. https://doi.org/10.1145/1871437.1871691

Zaman, T. R., Herbrich, R., Van Giel, J., & Stern, D. (2010). Predicting information spreading in Twitter. https://www.microsoft.com/en-us/research/wp-content/uploads/2010/12/NIPS10_Twitter_final.pdf

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