



Bungie Attempting to Bounce Back

Video Game Developer Announces Studio Expansion

This report will provide a brief analytical overview explaining some findings around Bungie's recent announcement to expand their studio to increase their capabilities as a video game developing enterprise in 2022. The data observed and assessed was derived from the social media platform Twitter. The information was collected and processed in RStudio, the statistical computer programming software and Gephi, an open-source network analysis visualization program. Gephi was specifically used to help guide the visualization of the data.



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Purpose

The purpose of this report is to provide a summary about the methods and discoveries surrounding social network analysis of an event on Twitter. This network analysis focuses on an audience community, or a social group that forms around a particular media product, which are being created by Bungie Inc (Humphreys, 2016). The focus of the network analysis will observe key personnel or otherwise noted as nodes, who facilitate engagement on Twitter because of their roles as information gatherers with the ability to bring new information to a group that is generally unaware of new developments evolving from the media products or creators of the products. This information gathering role complements these nodes and their ability to spread that information. These personnel or nodes, act as a centralized hub, possessing the ability to bring people together who would otherwise be unrelated (Humphreys, 2016).

Data Collection Methods

The data collection methods used in this report encompassed a wide variety of techniques that included the use of RStudio, Microsoft Excel, and Gephi. RStudio enabled the use of multiple packages called dplyr and rtweet. These packages allowed specific computer codes to run and collect data surrounding the key term, Bungie. The code enabled the collection of over 5,000 tweets associated with the key term. The gathering of the data took place on 12:28pm, 18 February 2021, approximately 3 hours after an announcement came from a key node within the network at 9:23am. The data was then exported into an excel spreadsheet and then imported into Gephi, the open-source network analysis visualization software. Gephi was able to run additional statistical analysis about the network and key nodes within the network.

Discoveries

Several discoveries emerged among the social network surrounding the key term Bungie. I found that two very distinct key nodes were present within the network that played an integral part in the engagement related to this information. Additionally, other discoveries related to career opportunities were being explored as well as an interest in gaining a diverse staff for this planned expansion. These additional findings surfaced throughout some of the second-degree nodes within the network. However, these findings warrant additional exploration and will not be the focus of this report. This additional information can be released upon request.

About Bungie Inc.

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Bungie was founded in Chicago, IL and is now located in Washington State. Bungie is a smaller game developing studio that is well-known for their video game franchises such as, *Halo* and *Destiny*, both space themed first-person combat games. Through the development of these games Bungie has received assistance from their former parent company Microsoft and other external supporting developers, like Activision.

Bungie's franchises have proved they are timeless with *Destiny* receiving a sequel known as *Destiny 2* and *Halo* being released on Steam, a distribution platform for video games in December of 2019. However, recently the COVID-19 pandemic impacted production timelines for *Density 2* which resulted in several setbacks and backlash from their player base. It is possible that Bungie is seeking to remedy these setbacks for the foreseeable future. This announcement to expand their studio and arrange key personnel may provide the company with some breathing room and extra abilities to produce additional content. Lastly, an introduction of an international office slotted for 2022 may promote recognition as a reputable studio (Bungie, 2021).



Observations: The Network

This network overview demonstrates the most important networks by the number of connections they possess, this is also known as the node's degree. This observation of the network surrounding the term Bungie encompassed 2,401 nodes or Twitter accounts and 2,800 edges or connections that were made by the number of retweets from the term Bungie. Also, after running some statistical analysis on Gephi the results provided me with some additional insight about the networks surrounding the term Bungie. The Network Diameter, shows how many other individuals will be associated with someone else within the network equated to 4 degrees of connection.

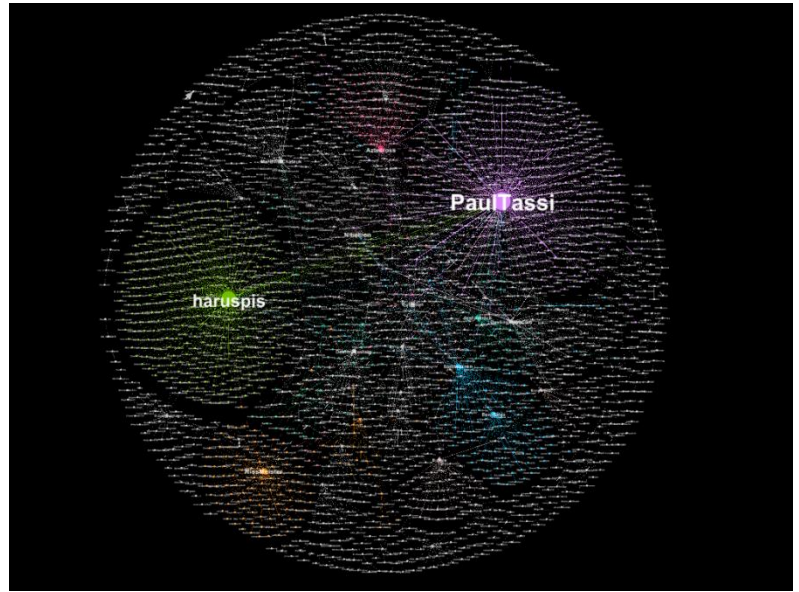


Photo 1. Using Gephi I was able to visualize the entire network surrounding the term, Bungie. Two distinct nodes within the network emerged, Paul Tassi and Haruspis.



Photo 2. Paul Tassi's initial tweet about Bungie's studio expansion.

The number of communities associated with this key term was 140. These nodes were assigned importance by their respective degree or the number of overall connections that each network produced that included the key term. Paul Tassi and Haruspis, two key nodes accounted for over a quarter of the total accounts (36.65%) that dealt with a tweet related to Bungie's expansion within first-degree connections in their own networks.

Observations: First-Degree Connections

Paul Tassi is a distinguished writer for Forbes with over 10 years of experience (Tassi, 2021). He has likely acted as a gatekeeper or someone who has privileged access to information about Bungie and their video game franchise *Destiny*. It can be noted that Paul also acts as an information gatherer by collecting this new

information and then dispersing it throughout his network (Humphreys, 2016). This special information arrived in Paul's inbox when he received an email about the emerging expansion of Bungie studios. Paul's tweet was a screen capture of the announcement made for release that triggered a broadcasting effect throughout his and many other's networks (see Photo 2). Haruspis, or Alex Haruspis as noted on his

Twitter bio, is a teacher and a writer associated with the gaming industry business, Universally Speaking, an international audio development company for video games and Untold Adventures, a fan-written series continuing the story of Doctor Who character Clara Oswald (Twitter). After exploring many of Alex's tweets, his interest in writing about and for the *Halo* franchise is likely what connects him back to Bungie and the involvement of his network. Alex, not as privileged in his access as Paul still promoted Bungie throughout his 380 nodes within the first degree of his connections. This also resulted in 398 retweets surrounding his initial connections throughout the first degree.

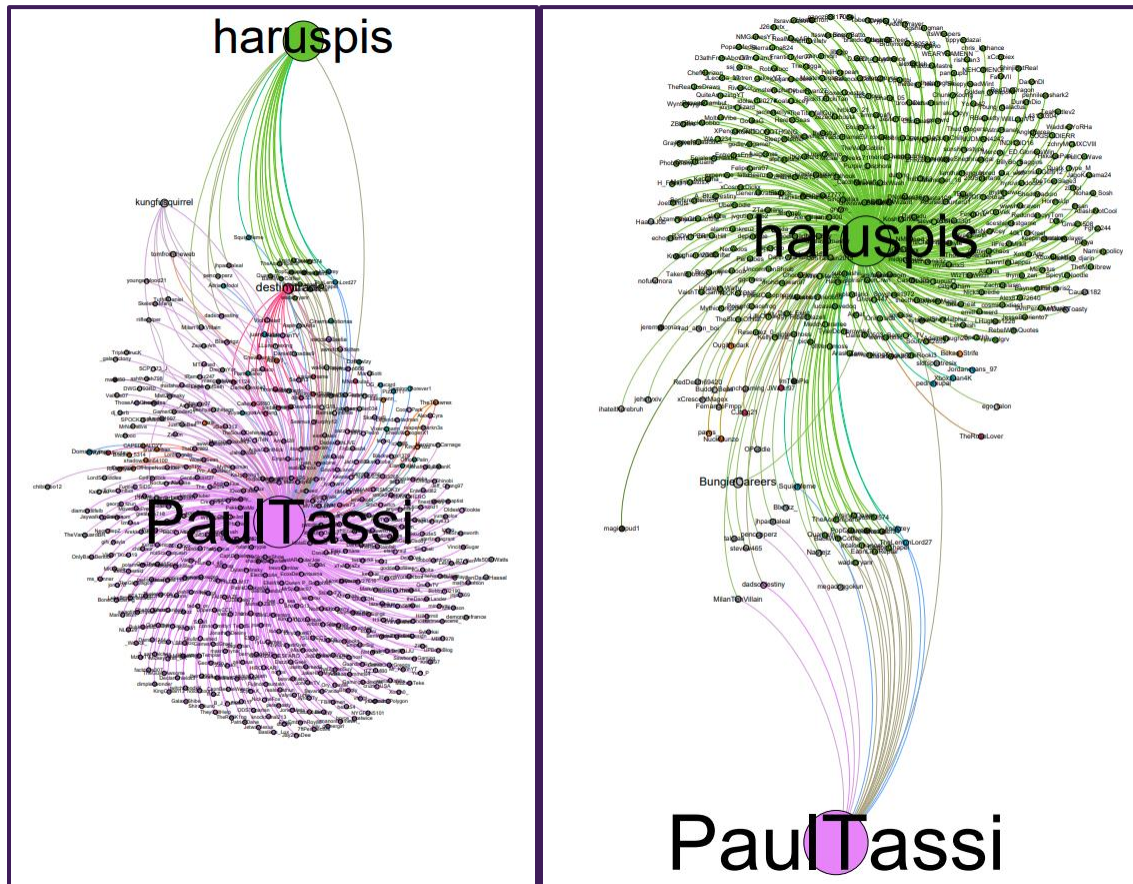


Photo 3. Paul Tassi's and Alex Haruspis connections observing 1 degree

Assessments: The Network and First-Degree Connections

After observing these networks and their respective qualities I would consider these networks a part of, or rather a product of a community clustered network. Within the entire network pictured (Photo 1), it can be observed that each node within the network has formed their own audience base and receives information or media coverage within their own network, like Paul and Alex (Photo 3). This type of network directly corresponds to an audience community, those that surround themselves around a niche media platform, in this case the platforms are video game franchises associated with the developer Bungie. However, given that this type of network

focuses around the announcement of Bungie's expansion we may argue that it has direct attributions associated with a Broadcast Network or those that involve direct connections to the hub, like Alex and Paul without connecting to one another (Smith, Rainie, Shneiderman, & Himelboim, 2020, p. 3). It is very likely that all of these nodes are associated with Bungie, or the current video game franchise *Destiny*. In the right panel of photo 3 the network indicating Paul Tassi's first degree connections does show a connection with an account called, "destinytrack". Additionally, on the left panel of photo 3 the network indicating Alex Haruspis's network indicates two things. One, a connection to the twitter account called BungieCareers and two, a cluster of nodes that look like bridges, or users who have followers in multiple groups and pass along information between those groups in Paul's and Alex's networks (Smith et al., 2020, p. 3). Lastly, considering the centralization of each of these first-degree networks, it appears that if Alex retains a much more centralized network. This may be attributed to his fan base associated with his blog about *Halo* or the fan-fiction he writes for Doctor Who both two very specific audience communities. Conversely, Paul's network not necessarily decentralized may not have as niche of an audience community because the diversity that accompanies his writing and employment from Forbes. However, it can be argued that Paul possesses a larger social capital over Alex because of the number of connections he has and the strength of social connectivity those connections hold to larger content creators and streamers associated with Bungie's video game *Destiny 2* (Humphreys, 2016).

Reported Top Active Accounts:

Before closing this report, it was necessary to observe not only the two distinct nodes in the entire network but the top performing so to speak nodes that are responsible for dispersing this information throughout Twitter and to their own clustered networks. To the right in photo 4 are the top accounts, in-degree, or those that received the most notable number of retweets regarding the tweet that is associated with the key term Bungie. The same analysis was compared with an out-degree, or those that did the most of the retweeting and those results can be seen in photo 5 below. Some of these accounts are directly related to Bungie, while some other accounts are content creators who create videos about the video games Bungie produces and streamers who stream these video games on platforms like Twitch.tv a streaming platform service.

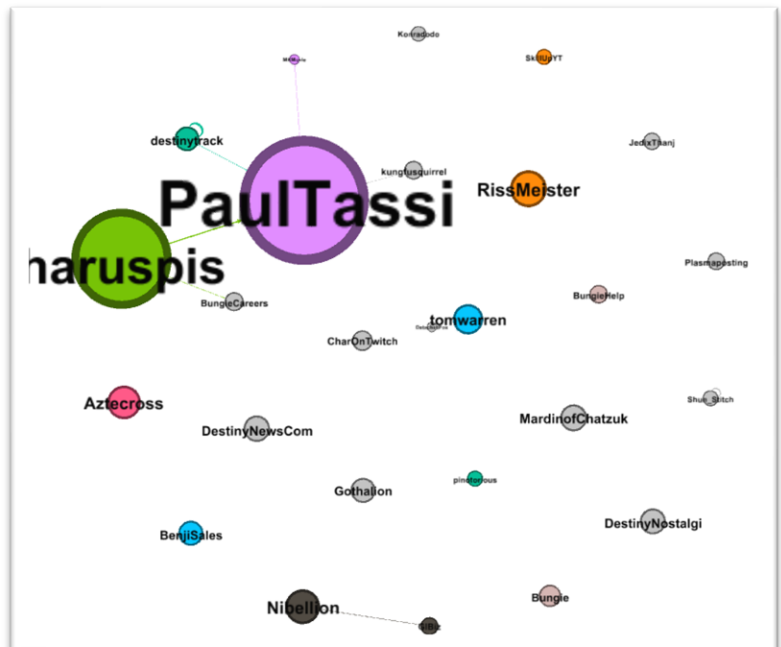


Photo 4. Accounts attributed with the most retweet activity from their initial tweets about Bungie. This was measured by their in-degree activity with a page ranking filter applied in Gephi to produce the image.

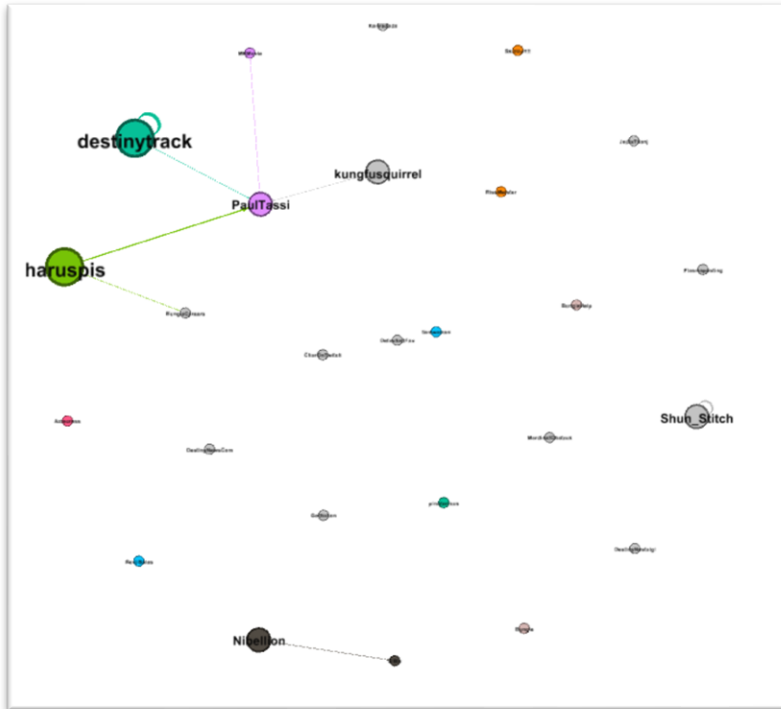


Photo 5. Accounts that did the most retweeting based on the tweet with the key term Bungie. This image was a result of measuring the accounts out-degree with a page ranking filter applied in Gephi.

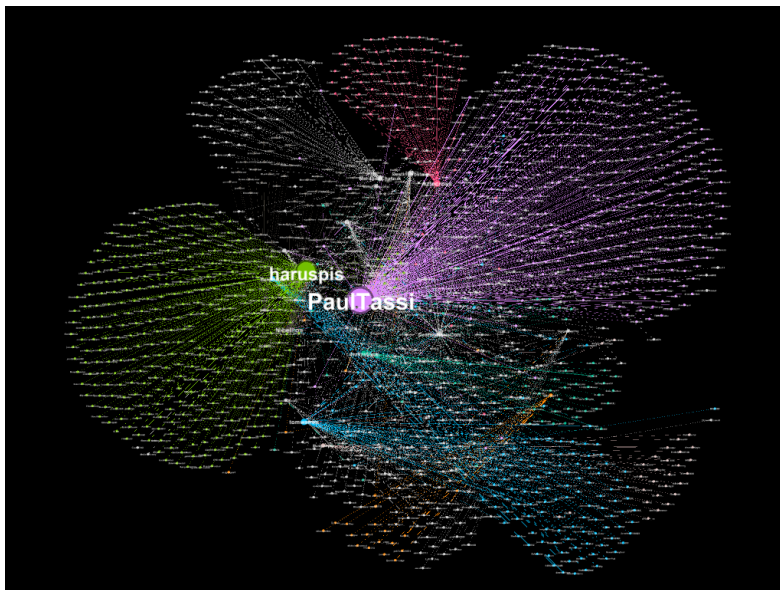


Photo 6. This image measures three degrees of activity associated with an account called, DestinyNewsCom, an account that states they are the #1 place for everything Destiny and Bungie. It is clear that this account pales in comparison when it comes to accounts like Paul's and Alex's.

Final Thoughts:

This report concludes that the analysis performed, limited in the current capacity, sought to provide a brief overview of the network, and key contributing nodes throughout the network surrounding the key term Bungie. Additional analysis was performed to highlight key networks and their association with one another pertaining to their degree of closeness. It is understood that this initial report provides only a brief overview of the significant key contributors and role players in this network. Additional analysis involving second- and third-degree connections would warrant a detailed elaborate report that can be explored at a future date.

Furthermore, the video game developing studio, Bungie, will likely continue to see traction of their tweets throughout the same network and key nodes. If Bungie seeks to retain this type of interaction among the network surrounding activity it is likely that they will need to provide updates and announcements associated with the expansion for the foreseeable future. Lastly, this type of network analysis and overview would benefit greatly from some additional analysis that assesses sentiment of these particular tweets. This would be complementary to the report and provide Bungie with an enhanced overview of their audience community and the initial reflections associated with the announcement about the expansion of the studio. It is strongly encouraged that sentiment analysis is considered to be incorporated next time to further develop and improve the reporting presented.

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Twitter. <https://twitter.com/haruspis>.