

# SES204 Report - Being "popular" online

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## The Strength of Weak Ties (1973)

In his article, 'The Strength of Weak Ties' published in 1973, Mark Granovetter states that social theory lacks insight into how micro-level interactions relate to macro-level interactions. In particular, he highlights the importance and the impact that social ties have on the community, and more importantly, he brings out the strength of weak ties that can be qualified as 'bridges'.

According to the author, time spent together, emotional intensity, intimacy, and mutual services are used to describe the strength of a tie.

Most of all, the greater the bond between two people, the higher the percentage of common friends. This leads us to Granovetter's opinion: there is a 'forbidden triad' that specifies that if B is connected to A, and A is connected to C, then B and C will also be connected. This is especially true if the ties between two individuals are strong. In other words, the stronger the ties between people, the more transitive they become.

Moreover, the author defines a 'bridge' as being a direct tie between two nodes linking several nodes that would otherwise be in two disconnected networks. A bridge's function in the graph is to bind two separate components. He also argues strongly that no strong tie is a bridge, therefore leaving only weak ties as a viable alternative, since only weak ties connect one group of people and another, while strong ties already imply an overlap between two groups.

In a similar fashion, local bridges were defined as being ties between two nodes in a social graph that are the shortest route by which information might travel from those connected to one to those connected to the other. When it comes to deleting, local bridges differ from standard bridges in that removing a local bridge increases the distance between these two nodes to a value that is purely greater than two, while removing a bridge raises the distance to infinity. As a result, a new concept was introduced: the 'degree' of a local bridge, defined as the shortest alternate path between the points it connects.

Granovetter states that bridges play an essential role as they allow for the spread of an idea from one group to another.

Another notion was introduced with 'central' and 'marginal' people. The marginal individuals are people who do not appear to be linked to as many of the other individuals with whom they engage, whereas the central individuals

are those with the most bridges and, as a result, the most weak ties. Therefore, people with several weak ties are better suited to diffuse challenging innovation and ideas because some of those ties would be (local) bridges. This proves why novel ideas spread most quickly through individuals with several weak ties. As a result, the elimination of weak ties will do more hurt than the removal of strong ties. For example, the dissemination of mass media content in cultural institutions is based on weak ties. The greater the number of weak ties per citizen, the higher the chance of having (local) bridges, the more cohesive a group gets, and the greater its capacity to function collectively.

On one hand, the author argues that preserving weak ties is important for individuals since they are typically bridges that offer access to groups of people and knowledge that one would not otherwise be able to receive. In contrast to other members of the network that only have strong ties, those bridges have access to fresh and unique knowledge. Weak ties are the channels through which ideas, influences, or information socially distant from someone may reach him. The fewer weak ties one has, the more encapsulated he will be in terms of knowledge of the world beyond his friendship circle. As it happens, Granovetter's asked people who had found work through connections how frequently they saw the person who had helped them find work. 16.7% saw their encounters frequently, 55.6% saw their encounters only occasionally, while 27.8% saw them rarely, skewing heavily toward the weak end of the continuum.

Bridges, on the other hand, are necessary for the group in order to discourage pure clique formation, which would obstruct community harmony and impede joint action. The larger the number and degree of local bridges in a society, the more inclusive the community and capable of functioning in concert. People seldom act on information from the media unless it is often conveyed by personal ties. If social circles evolve slowly, new ties can seldom act as links to separate sections of the network. If there are no social institutions that allow outsiders to meet, then no rise in macro-level connectivity will be witnessed.

## How do we gain popularity online?

When the words "popularity" and "online" are combined, social media enters the picture. In reality, Social Media simplifies and accelerates our capacity to exploit our weak ties in a variety of ways.

According to Robin Dunbar in 1992, our brains are able to recognize approximately 148 people. But in 2010, sociologist Matthew Salganik settled for an estimate of 610 personal ties.

For simplicity's sake, we are going to assume the following:

- The social media platform used is Instagram
- One becomes "popular" online as soon as 10000 people start following him
- Nowadays, people can maintain 1000 personal ties
- Every tie made in real life is also made over the internet

The forth point means that if A and B are connected with a (weak or strong) tie, then A is following B and B is following A on Instagram.

Before going any deeper in our analysis, we are going to rule out the following option: If A follow a stranger S on Instagram, then with a probability  $\alpha < 1$ , S will follow back A. Based on this hypothesis, one can become popular online by following  $\frac{10000}{\alpha}$  strangers in order to gain 10000 followers.

Returning to our earlier assumptions listed above, being famous implies being identified by a vast number of individuals, many of whom we do not necessarily know; in order to achieve it, we can take advantage of our weak ties to obtain access to foreign social networks. The best way to do this is to make our weak ties (bridges) talk about us in their networks.

Let me share a personal experience: My aunt works in a bank under a director that likes to post workout videos on Instagram once a week. Whenever he posts a new video, he shares it with his employees, my aunt included. In such event, she shares his content with her close friends and family, me included, encouraging us to visit his page, like his videos and follow him. We can clearly see how my aunt's director gained access to my personal social network by using the weak tie linking him to my aunt as a local bridge.

In conclusion, to become popular online, one should be open to new concepts, ideas and people, seek out diversity, and most importantly, tap into weaker ties.