



The Importance of the Social Network

<https://politica.estadao.com.br/blogs/fausto-macedo/social-network-a-importancia-das-redes-de-interacao-social/>

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Human beings have a natural tendency to relate to each other and to build social networks among themselves. This inclination became stronger with the technological advances of the last few decades, which revolutionized the ways we communicate and move around the world – facilitating trips, global communication, and digital interaction. The current state of human development makes it almost tautological to say that the world has never been as connected as it is today.

The fact that humans are deeply interconnected can be seen through the spread of SARS-CoV-2, the virus that causes Covid-19. After the first reports of the disease in China, the pathogen spread throughout the world in such a way that even those who had never been to China or personally knew someone who had been there, suffered from the new coronavirus.

As a way to stop the virus, authorities around the world started to promote public policies that encouraged isolation or, at least, social distancing. This was an important step to control the spread since the virus is highly infectious and is spread through contact between individuals who participate in the same network of interactions. For instance, if a person X, infected by the virus, has contact with the person Y and the person Z, and each of them has contact with two other people, and so on, the disease spreads indefinitely, even for those who have never met the person X. The health authorities realized that avoiding connections between people breaks the infection cycle and, consequently, helps to eradicate the disease.

However, it is not just illnesses that spread through groups of people according to the network of the individuals. In the same way that a disease can be transmitted to a third party that

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is unaware of the first “sender” of the pathogen – the first sender, who is the "node" of the network of contacts that allows successive connections – information can also be propagated indefinitely and reach individuals who do not know each other.

That may be the reason why some people say that sharing ideas can generate a social contagion. An obvious difference between these types of “contagion” is that, normally, individuals infected by a disease are infected involuntarily, without the freedom of choice regarding what is transmitted to them. Individuals in a network of contacts who have access to new information and ideas, on the other hand, are free to adopt or not adopt what is being transmitted to them.

This diffusion, whether of diseases, ideas, or information, is due to networks, which can be understood as a set of connections between different elements, whether people, objects, internet bits, etc.

The American sociologist Nicolas Christakis argues that understanding networks and the way they form and operate is essential to understanding not only public health, but also emotions and any other type of phenomenon – from crimes and wars to financial crises and technological innovations.

The importance of configuring those networks can be illustrated with the chemical structure of two known materials, diamond and graphite. Both are composed solely of carbon atoms. However, the difference between the diamond that adorns a ring and the graphite that makes pencils useful is clear. The reason is the different form of organization of carbon atoms within the structure of each material.

Just as the connections that shape carbon atoms influence their physical properties, so the bonds between human beings give people distinctive characteristics. That is why the individual behavior of each member of the same group of people depends on the connections established between them.

This effect is related to the principle of homophily, an important concept in the study of networks, that affirms that people tend to be similar to their friends. David Easley and Jon Kleinberg, in a book about social networks, identify research that allows us to conclude that the links in a network tend to connect people who are similar to each other.

They state that “friends are often similar in more or less mutable characteristics, including where they live, their occupations, their levels of wealth, and their interests, beliefs, and opinions”.

Of course, they do not forget the fact that there are friendships that go beyond these boundaries, but they categorically assert that they are not the rule.³

From this statement, one may question whether this similarity is due to the selection of people at the time of formation of friendship, or to the influence that a certain group exerts on other individuals.

Research with young North Americans found that both initial selection and later internal group influence play a decisive role in the perception of the prevalence of homogeneous groups in society. In other words, people seek out social circles made up of individuals like themselves, and peer pressure makes them adapt to the patterns of behavior within their social circles.

This understanding is important, for example, for the formulation of public policies to fight drugs among young people. A study led by Thomas Valente identified that the use and abuse of chemical substances are strongly associated and influenced by the use that exists in a given social interaction network. It indicates that teenagers immersed in groups in which the majority of friends were smokers were almost twice as likely to smoke themselves.

Understanding this reality allows the government to adapt their efforts to different social circles. Thus, if in a group of teenagers there is a majority of drug users, the first step is to try to keep the non-users away, bring them closer to friends who also do not use drugs, and then focus on convincing the others to quit. In a group of people in which the majority has no contact with drugs, public policies should focus on maintaining this reality and pay special attention to those suffering from addiction, so that they do not influence others, while receiving support to abandon the harmful habit.

The study of networks is also important to understand and facilitate the professional development of citizens. The American sociologist Mark Granovetter conducted research in the 1970s to understand the importance of networks in finding a new job. Differently from what is expected by common sense, the survey showed that the closest friends of those interested in a new professional position were not the ones who actually contributed to this change.

The results of the study led Granovetter to develop the theory of the strength of weak ties. The ties we form structure the person's social capital, that is, the group of individuals that can be contacted quickly, simply, and without excessive energy expenditure.

³ Cf. *Networks, Crowds, and Markets: Reasoning about a Highly Connected World*, by David Easley and Jon Kleinberg.

The sociologist's thesis is that life transitions, such as finding a new job, depend more on contacting distant acquaintances – that is, people with whom we maintain weaker interactions in the network – than close friends. The argument that supports this theory is that these are the social ties that connect us to new sources of information and, consequently, to new opportunities.

This reality was well understood by technology and internet enthusiasts, who started to look for ways to facilitate these connections. A good example of a social network that was able to explore the concepts involved in the study of networks is LinkedIn, a platform created to bring together people with the same professional interests, giving a greater extension to weak ties.

Other social networks, like Facebook, Twitter, and Instagram, have also contributed to breaking down geographic barriers, allowing people to easily connect across the world.

These social networks have become not only a virtual “agora” – the public square in which people shared ideas in Ancient Greece – but also spaces for connections between people who have something in common. The internet and its millions of communities have opened doors for everyone to find peers and groups that share the same perspectives of life, similar ambitions, and alike behaviors. In this digital environment, all it takes is a text message for the beginning of a possible strong bond between people.

One must, however, take care so that this virtual environment, which increases the likelihood of effects such as homophily, does not isolate individuals in insurmountable bubbles, where only strong ties of like-minded people thrive.

Social interaction networks – virtual or physical – in which everyone likes the same things, receives the same information, and talks to the same people, can end up leading to the alienation of individuals. In the virtual world, this is even more dangerous because of the ease of forgetting, blocking, and excluding weak ties due to differences of ideas. It is important to keep in mind that conflicts on the internet, even if they appear to be between two avatars or depersonalized profiles, affect human reality.

Even if in the virtual space these groups manage to coexist without interacting with each other, it is important to understand that breaking links of this type has negative consequences for the individual and for society as a whole, especially by preventing the emergence of and access to new opportunities, as supported by the aforementioned study by Mark Granovetter.

It is not difficult to see, therefore, that the benefits of social interaction networks far outweigh the costs of maintaining them. Despite some inconveniences of living in intense

connection with each other, such as the spread of epidemics, the spread of positive and valuable ideas leads to the conclusion that preserving and expanding our ties is essential for an easier, happier, and richer life, in all senses.