International Journal of Communication 13(2019), Book Review 5595–5598 1932–8036/2019BKR0009

Albert-László Barabási, **The Formula: The Universal Laws of Success**, New York, NY: Little, Brown, and Company, 2018, 310 pp., $21.09 (hardcover), $15.81 (paperback).

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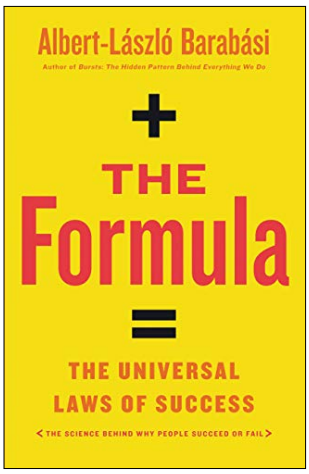

László Barabási is among network science's main spokepersons. Despite this recent field being a vibrant and interdisciplinary one (Barabási, 2016, p. 7), its thesis requires simple language and communication in order to reach wider audiences, which might be this Hungarian physicist's main achievement with ***The Formula***.

The purpose of this book is to understand "the invisible large networks that shape our success" (Barabási, 2018, p. 37). The book is divided into 10 chapters that intertwine network science's main thesis and includes examples from pop culture and science.

The Formula also delves into the theme of talent and success through the understanding of the key factors behind the networking skills that enhance it. What Barabási shows is that no matter how important the personal achievement (powered by talent), in order for performance to be translated into success, it requires a community response (2018, p. 14).

Also, the book aims for network science to get the attention of the general public, an effort that started more than a decade ago with Duncan Watts and Steven Strogatz's (2004) book *Six Degrees: The Science of a Connected Age*, which translated into outcomes such as the "Kevin Bacon" game, gaining traction on the Internet (p. 93).

But Barabási goes further by proposing that there are five laws to succeed in a world ruled by networks. The first is, "Performance drives success, but when performance can't be measured, networks drive success" (pp. 37–73). Thus, the author states that success is a collective endeavor, independent from individual performance. Besides performance, success requires building trust and reputation in order to shape others' perceptions regarding one's achievements (p. 58).

The second law, "Performance is bounded, but success is unbounded" (pp. 75 –119), explains the exponential possibilities that networks offer for top performers once they differentiate from the rest, with limitless results in terms of success, popularity and wealth. Nevertheless, this occurs in fields with fierce competition and little consistency in the criteria to judge such performances. Examples are elite sport players and wines. For instance, when tasting 150 different bottles, a judge might give very different scores to very similar glasses of Malbec.

The third law, "Previous success x fitness = future success" (pp. 121–171), refers to "fitness" (p. 153) and its relationship to "perceived value" (p. 156) from networks. Once performance leads to

success, as long as the skills are worked and achievement sustained, the probabilities of succeeding again are high.

This fitness is also referred to by the author as "preferential attachment" (p. 134), which in academia is usually referred to as the "Matthew Effect" (p. 127). But such "fitness" has been addressed by other network researchers not as a healthy effect of performance, but rather as an example of both the exclusionary and the inclusionary logic of networks (Tongia & Wilson, 2011, p. 666).

The fourth law, "While team success requires diversity and balance, a single individual will receive credit for the group's achievements" (Barabási, 2018, pp. 173–218), continues the idea of preferential attachment, and that of perception often winning over performance, for example, in team tasks. Barabási also approaches this issue in subjects such as gender gaps behind the "invisible traits that dictate our fates" (p. 218).

The fifth law, "With persistence success can come at any time," makes reference to the unpredictability, in terms of age, for success. In this regard, when the individual continues productivity, in science for example—Barabási mentions Einstein—there are no limits or adequate timing for a good performance and its consequent success. Therefore, the author states that with such a law "it's completely random which of our projects will be our most important one. Luck, productivity, and our Q-factor together determine impact" (2018, p. 248).

To sum up, these five rules assume that one's place in a network relies not only in performance, but in the network's perception of one's contribution to its goals, which translates in communication skills' predominance over real performance, as long as it leads to a differentiation among performers. This differentiation and performance must be sustained over time in order to succeed.

In terms of the book's weaknesses, the first is the status of the five laws as such, due to the fact that the search for such generalizations is a characteristic of natural sciences (van Dijk, J., 2012, pp. 19–22). Although network science has a strong computational and statistical/complexity background, it is mainly an interdisciplinary field (Barabási, 2016, p. 11).

This interdisciplinarity can raise problems regarding the possibility of arriving to a certain degree of consensus and communication in order to claim the existence of generalizations that are accepted by most of its practitioners.

Furthermore, despite the fact that networks are a hot topic of research in different fields, there seems to be no connection between its different practitioners and theories, as Knox and colleagues (2006) argue. On that account, as there is no unanimous consensus—a requirement for any law or "paradigm" to exist (Kuhn, 2012, p. 175)—these laws might be contested by another network scientist. Nevertheless, Barabási's laws can be considered an effective analogy for the communication of network science's key principles.

This leads us to another weakness of the book, which might be the distance between the simplicity of how Barabási communicates the so-called laws of networks and the actual ability required to identify and master networks in everyday life. Also, it is not clear how to measure performance against someone else's, in order to understand how value can be perceived in a competitive manner.

Besides, whereas Barabási uses scientific thesis to pass the academic threshold, his *Formula* might actually be competing with books that rely not on science but in thirst for recognition in any field (entrepreneurship, coaching, etc.).

Also, Barabási's assumptions based in network science regarding success might be thought of as conservative, as they leave no place for agency, and though we might master these so-called laws, it all depends on the network's logic.

In this regard, there is a resemblance to Thomas Piketty's *Capital in the Twenty-First Century* (2014), in the sense of the economist's statement that wealth is mainly inheritable, and despite merit, could play a role in generating new wealth by income, in the long run, the returns on inherited wealth are higher (Piketty, 2014, p. 377).

Once again, it is key to see that although we think that networks are social structures that emerged in order to resist hierarchical organizations, they in fact have their own inclusionary/exclusionary logic, which gives birth to new organizations (Castells, 2013, p. 20). But it is hard to think that anyone can be a high achiever or performer, just by "mastering" networks (Barabási, 2018, p. 72), independently of, for instance, the job market's actual characteristics, conditioned by race, gender, diversity, education, and so forth, which are also shaping organizations of any form.

In this case, success relies on individuals regardless of the social context, the sort of meritocracy that Silicon Valley logic promotes. Also, in spite of a mysterious dynamic in networks, the collective element is reduced to perception and reputation building.

Lastly, Barabási's proposal of five laws for performance and success in networks raises some concerns in terms of the possibility for egalitarianism in our societies, when all we should think about is our performance compared to others' (Nozik, 1974, pp. 240-242); and about building the perception of its results for others to judge.

Could this awareness of one's role in networks make competitiveness tougher and result in an increase of unhappiness and stress? Some questions regarding the humanity of our networks are to be made, whether we are to always score, compare, and strategize our performance in relation to those around us.

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