Study explores how social network users decide to make friends

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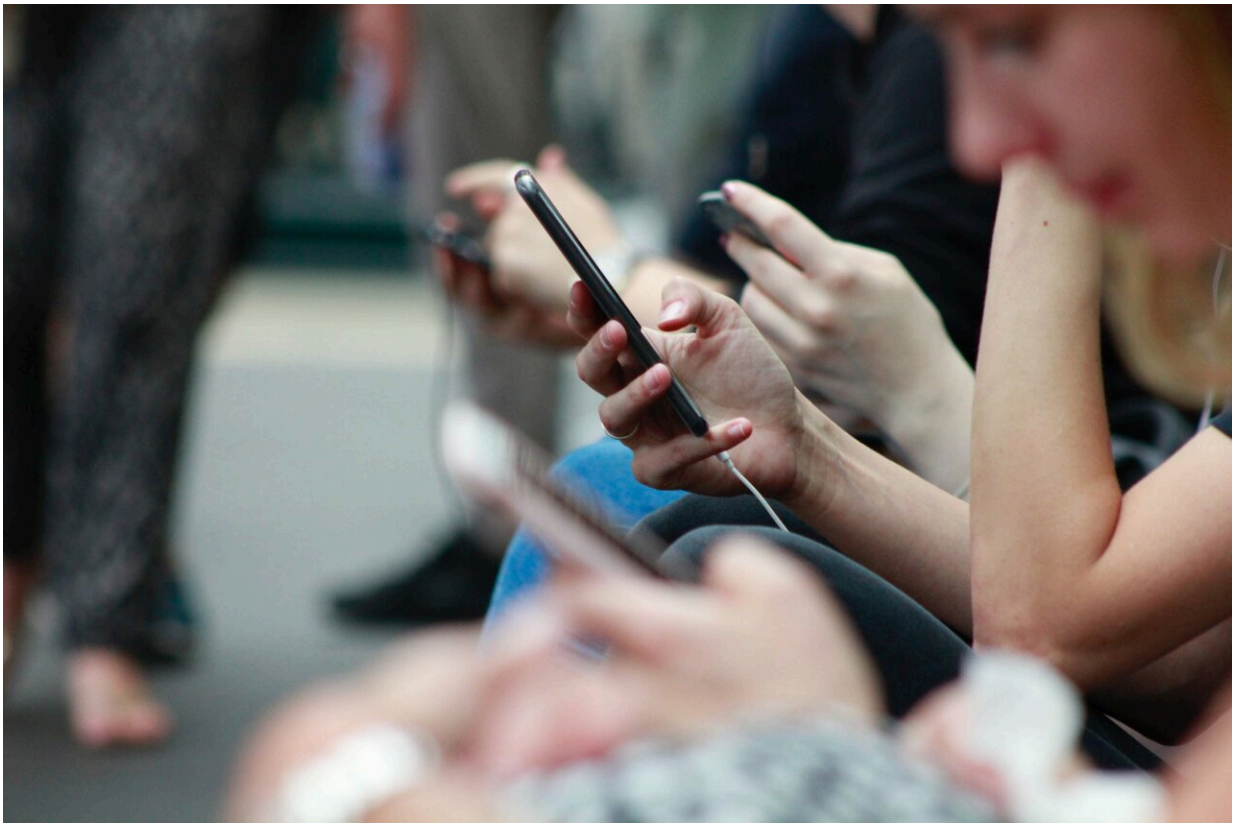

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Social network companies use a variety of methods, such as a friend recommendation, to increase connectedness and user engagement within the network, but how each company does so effectively is not widely

known.

In a paper published in the April issue of the *Journal of Marketing Research*, a researcher at The University of Texas at Dallas has uncovered some important drivers behind individuals' online friendship decisions.

Dr. Ying Xie, professor of marketing in the Naveen Jindal School of Management, and her colleagues were interested in how strangers become friends within an evolving online social network. For the social media companies, she said, increasing connections translates to more advertising revenue—estimated at more than $40 billion industrywide in 2020.

Evolving networks are fast-growing networks in which users rapidly increase their friend connections. In contrast, static social network platforms have already passed their fast-growing phase, and users generally have a stable number of friendship ties.

Xie said she would consider Facebook a static social network for most of its users, while TikTok and Reddit are evolving networks.

"An intriguing aspect of making friends in many online social networks is that people often do not know each other's identities in real life," Xie said, "and their interactions are mostly confined to the online network, which is vastly different from the typical friend-making scenarios studied in previous research on friend formation."

"Our paper is one of the first to study friend formation in online networks characterized by anonymity. Specifically, we examine how individuals' online activities and demographic traits impact their friend-making behavior."

The researchers obtained data from MyAnimeList.net, a special-interest online community for anime fans worldwide who interact with each other and form friendships. As an anonymous online network, it requires only a username and password to join. Users can voluntarily disclose their demographic information on their profile pages.

The researchers modeled individual users' daily decisions regarding with whom to become friends, whether to watch any anime, and whether to post user-generated content. The findings revealed three factors that drive strangers to become friends in an online environment: similarity with a potential friend, the properties of a potential friend's network and the potential friend's domain expertise.

"Birds of the same color do flock together in the online world, too," Xie said. "Similarity matters a lot when strangers choose to become friends in an online social network. Having common friends, common interests and common demographic traits—age, gender and location—all improve the odds that two strangers become friends in an online community."

The study also found that having more friends does not necessarily make a person more active on the social network, although having more friends who are active does increase a user's activity level.

For example, if a user's friends watched two anime programs the previous day, the probability that the user watches anime programs the next day increases 15%.

The researchers also looked at ways social-networking platforms recommend friends. They found that the most effective strategy in evolving social networks is to recommend a friend of a friend. This is in contrast to static networks, in which previous research has shown that recommending a popular user is the most effective strategy.

Xie said social media companies should consider how their recommendation policies stimulate friendship tie formation and increase activity on the site. For example, Facebook's "Suggested for You" and "People You May Know" are generated by proprietary algorithms based on content that users have previously expressed interest in and actions they have taken on the platform.

Xie said the study's implications can be applied to other interest-based online communities, such as Goodreads, or special-interest groups on large social media platforms, such as subreddits on Reddit.

For social media users looking to start friendships, Xie said similarities play an important part.

"The odds of your friend request or follow request being granted are significantly increased if you have common friends, share common interests or have similar demographic or geographic profiles," she said.

From the social media companies' perspective, she said, the greater the number of active users, the more ads that can be shown to them, and, in turn, the popularity of a site increases its appeal and allows the user base to continue to expand.

More information: Ying Xie et al, From Strangers to Friends: Tie Formations and Online Activities in an Evolving Social Network, *Journal of Marketing Research* (2023). DOI: 10.1177/002224372211079

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https://phys.org/news/2023-06-explores-social-network-users-friends.html