In 1978, singer Bobby Caldwell produced his hit song entitled "What would you do for love". The song details the lengths people will go for love. Hundreds of songs (not to mention other forms of artistic expression) since and before deal with this issue as well; people want to find romantic and sexual partners and adopt a multitude of tactics to do so. Up until recently, people had to actually go out and meet others or be introduced to someone. Attending local and family events, patronizing nightclubs, and taking classes have traditionally been the ways people meet their sexual and romantic needs. Nowadays, people are increasingly turning to online dating modalities to connect with others. The popularity of dating applications is indisputable. Largely, the success of these applications (e.g., Tinder, Bumble, Hinge) is attributed to ease-of-use and efficiency in finding a match. Tinder, like other Location-Based Real-Time Dating applications (e.g., Bumble, Hinge), relies on the Global Positioning System in people's smartphones, allowing them to connect with others in a predefined distance from the user. The information provided on a dating application profile is limited, including profile pictures, a short "about me" section, and basic demographics (e.g., age, school, work). Users are able to view profiles of potential mates and "swipe right" (i.e., accept) or "swipe left" (i.e., reject) from any location or time of the day they choose. The convenience of these applications has translated into them spreading around the world as a major mechanism that people use to find new sexual and romantic partners.

Finding romantic and sexual partners has significant consequences for people's psychosocial health and evolutionary success and these applications were overtly created to enable people to connect with others. Surprisingly though, there has been limited research on these applications beyond comparative studies of who uses these applications in relation to personality traits and other individual differences, attempts to understand and measure the reasons people use these applications, and alerting researchers and others of the potential dangers of their use for physical and psychological help. What has been (as best we can tell) completely ignored is the vast information provided in these profiles—in the form of pictures and text—act as self-presentation displays geared towards satisfying their sexual and emotional needs; information that is likely revealing about people. These displays act as advertisements of internal qualities like physical traits (e.g., physical attractiveness), values (e.g.., travel), and personality traits (e.g., extraversion) that people rely on in mate choice. From the point of view of an evolutionary psychologist, these displays might be classified as part of people's extended phenotype. People's extended phenotypes are the outward displays they use (intentionally or not) to display their internal qualities and, potentially, improve their mating success. Unlike phenotypic displays, extended phenotypic displays are relatively easy to fake but are also exceedingly more varied. For instance, there are many ways someone displays their neuroticism or extraversion and any display will be the result of a potential array of individual differences (e.g., personality traits).

In four studies with data from India, America, and Poland, we conceptualize the self-presentations on people's online dating profiles as windows to their traits using an evolutionary framework related to how genotypes of potential mates can be seen through people's phenotypes (e.g., psychological or physical traits) and people's phenotypes can be seen through their extended phenotypes (e.g., their self-presentations in online dating platforms). We expect people's self-presentations to cluster around a finite number of themes (e.g., advertising status, advertising beauty), men and women to differ in their use of these themes, and personality traits to track differences in rates of adoption of these themes. The primary aim of these studies will be to capture the kinds of content people present in their online dating profiles, to determine if there are underlying themes in that content, to understand if there are sex differences in the adoption of those themes, and to attempt to understand individual differences (e.g., personality) in those themes. The themes should reveal the phenotypes people are trying to present and sex difference and personality assessments will help us understand how different people have different priorities in the presentations of their phenotype. For instance, narcissistic men who are highly concerned with their status should be more likely to present themselves as successful, powerful, and of impressive (e.g., self-promoting and intimidating self-presentations). As seen in their extended phenotype, this might manifest through an emphasis on one's financial success, their job, and even displaying expensive artifacts like clothes and cars. To get the best information and, therefore, the best tests of the self-presentation tendencies in people, the studies combine self-report data, behavioral data, hypothetical tasks, and content analyses of people's self-presentations using samples from three countries.