

Case Study 3: Tinder*

In 2019 French journalist and author Judith Duportail published a book called *"Love under algorithm"* (original title in French: *"L'Amour sous algorithme"*), where she recounts her experiences with using the dating app Tinder. Judith was an enthusiastic user of the app since 2013, when she made a discovery that infuriated her. She discovers in 2016 that, unlike what she expected, the App's recommender system did not match people according to their "preferences" and geographic location.

In her book, Judith describes that Tinder users are assigned a "desirability" scores that decide whether they are *"winners or losers in love"*. Tinder admitted that their recommender system used to use an adversarial ranking system called the "Elo score", this system is borrowed from the world of chess, where a player goes up the rankings by beating a rival with a higher score or goes down in the rankings by losing against a player with lower score. In Tinder, if a user is swiped right by another user deemed "more desirable" by the algorithm her "desirability" will increase and if she is swiped left by a user deemed "less desirable" her score and "desirability" will decrease. The company affirmed later that they had dropped the Elo score, but added that *"our current system adjusts the potential matches you see each and every time your profile is liked or noped"*, which seems to suggest that some kind of desirability ranking is still being operated by the recommender system.

Judith's investigation also revealed that Tinder owned a "Matching process system and method" patent (patent application US9733811B2) where they describe classifying users according to their wealth, social status, ethnicity, religious preferences, intelligence and attractiveness, and encourage dates between those of similar backgrounds. Which can reinforce harmful biases and promote discrimination. Besides the pattern also hints that Tinder's recommender system uses strategies that reenforce negative materialism and gender-role stereotypes especially in heterosexual couples. For example, a female will be more likely to be recommended to a male user if she is 10 years younger than him, earns 10.000\$ less per year and has a bachelor's degree.

* This Case Study was inspired by an article from the London Times published in 2019

<https://www.thetimes.co.uk/article/the-frenchwoman-who-took-on-tinder-how-i-found-out-the-truth-about-my-800-matches-8v5tj7zlf>

And from the "good code" podcast 2020 <https://www.youtube.com/watch?v=n3kAAjSxYjQ>