

Scientists build a mathematical model that gives fashion advice

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Researchers have developed a mathematical model that is able to assess whether a person is fashionably dressed and to give advice on how to make the outfit more fashionable.

The creators are IRI researchers Edgar Simo-Serra and Francesc Moreno-Noguer and University of Toronto researchers Sanja Fidler and Raquel Urtasun. The algorithm was presented in the paper "Neuroaesthetics in Fashion: Modeling the Perception of Fashionability" at the 2015 Conference on Computer Vision and Pattern Recognition (CVPR), the world's most important conference in this field, which was held in Boston (USA) in June.

The aim of the work is to build mathematical models that are able to understand the concept of [fashion](#), that is, what makes a particular form of dress fashionable or unfashionable, and based on that, to make recommendations on how to dress.

To do this, the [researchers](#) created an Internet fashion dataset of over 144,000 user posts with images and associated information. The new algorithm was then able to predict how fashionable the clothes in the images were by using the "likes" received by each user post.

To build the [model](#), the scientists combined a deep neural network with a conditional random field probabilistic model that can take various factors into account, such as the type of garment, the kind of user and the scene behind the person. The system can predict how fashionable a

person looks, and more importantly, give fashion advice to users.

Provided by Universitat Politècnica de Catalunya

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