The Web is the most powerful communication medium and the largest public data repository that humankind has created. Its content ranges from great reference sources such as Wikipedia to ugly fake news. Indeed, social (digital) media is just an amplifying mirror of ourselves. Hence, the main challenge of search engines and other websites that rely on web data is to assess the quality of such data. However, as all people have their own biases, web content as well as our web interactions are tainted with many biases. Data bias includes redundancy and spam, while interaction bias includes activity and presentation bias. In addition, sometimes algorithms add bias, particularly in the context of search and recommendation systems. As bias generates bias, we stress the importance of debiasing data as well as using the context and other techniques such as explore and exploit, to break the filter bubble. The main goal of this talk is to make people aware of the different biases that affect all of us on the Web. Awareness is the first step to be able to fight and reduce the vicious cycle of bias.

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