Introduction. Problematic engagement in online video gaming has been considered recently in the appendix of the DSM-5. Underpinning psychological factors are yet to be clarified, mostly in adult populations. We present data from two studies investigating links between motives to play and impulsivity in one hand and excessive gaming in another hand.

Methods. Online studies have been conducted on adult gamers in France (n = 516) and Switzerland (n = 1057). Problematic engagement has been assessed in France by DSM-IV-TR adapted substance dependence criteria (DAS) and by IAT in Switzerland. Motivations have been investigated using Yee’s model. Impulsivity has been evaluated using respectively BIS-10 and UPPS-P. The French sample has been compared to heroin users and to healthy controls regarding impulsivity. In the Swiss study, cluster analysis has been conducted to identify subgroups of players regarding their engagement in-game, their motivations to play and their impulsivity.

Results. DAS has been found to be predicted by BIS high scores as well as by competition and advancement. Problematic gamers presented higher levels of impulsivity than controls but less than heroin dependents. Three of five clusters were identified to be problematic and linked to high levels of impulsivity, achievement and escapism.

Conclusion. Achievement motives to play and high impulsivity have been linked to problematic engagement in online videogames in two different samples evaluated by two different methods. Addiction to online gaming showed a difference in impulsivity traits with substance dependence and healthy controls and subgroups of problem gamers has been characterized. These data could help to design tailored treatments for excessive online gamers.