

POSTGRADUATE SEMINAR SERIES

Research Findings Seminar

Topic Title : **Using a Literature Based Discovery approach to study moderating factors and preventive mechanisms for online game addiction problems**

Presenter : **Ms. Ananya Sinha Choudhury**
MPhil Student of Computing and Decision Sciences

Abstract : This research makes use of a hypothesis generation technique known as Literature-Based Discovery(LBD) to study certain under-researched topics related to online game addiction problems in our society. This research work tries to primarily address two problems related to game addiction which have been under-studied according to the literature available on this topic.

In the first problem, we try to identify certain moderating factors of massively-multiplayer games which weakens the relationship between the psychological flow state and game addiction. In this data-driven approach, we studied 2829 abstracts to generate a list of keywords that suggest potential moderating factors for MMO games. Then interview data from 3 domain experts are used to support our findings from the LBD method. The results suggest that the keywords help us to identify alternative pathways(e.g. escapism, cognitive mechanisms and identification with avatars) to game addiction which have received less research attention.

In the second problem, we tried to identify potentially effective but under-studied measures that help prevent the negative effects of online game addiction among children and adolescents. We searched the abstracts of 876 articles using Literature-Based discovery and applied association rule mining to identify negative effects and preventive mechanisms of game addiction among children and adolescents in the age group of 8-19. We then tried to rank the relationship between these negative effects and preventive mechanisms by using the measure of 'w-support' . This helped us identify some preventive mechanisms which have been under-studied in the game addiction literature along with the corresponding negative effects they address. Finally, we have computed the effective size of one such under-studied preventive mechanism to show that it is equally effective as other popular preventive mechanisms. This approach gives us an important future direction in the study and design of preventive programs to address online game addiction issues.

In both the problems, we use LBD methodology to either identify alternative pathways to supplement a more popular theory, as in the MMO game study or we used LBD to suggest some under-studied relationships, that can be further explored to design effective preventive mechanisms of online game addiction in children and adolescents. Thus, with the help of LBD as a research methodology, we try to overcome the challenges of knowledge overspecialization in certain areas and identify important future directions of research on the causes and prevention of online game addiction.

Date : **6 May 2022, Friday**

Time : **14:00 – 15:30**

Venue : **Zoom Meeting** 

Meeting ID: 972 4654 7699 (Passcode: 19525802)

Language : **English**



*** All are Welcome ***