

THE STUDY OF KNOWLEDGE DIFFUSION BASED ON COMPLEX NETWORKS

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ABSTRACT

We study the knowledge diffusion and students participation in MOOC forum and face-to-face discussion on SPOC. A multi-layers networks model which is based on BA scale-free networks and NW model is shown to explore how the social competence and different absorptive capacity of face-to-face individuals on SPOC, the proportion of contributors of MOOC forum and the complexity of knowledge effect the participation and knowledge diffusion of the online forum. In this paper, we find that: the greater the proportion of online contributors, the more conducive to the dissemination of online knowledge, the higher online participation; The social competence, different average absorptive capacity of offline individuals and knowledge complexity have no significant impact on forum participation; different distribution of offline absorptive capacity will affect the average level of knowledge online to a certain extent; And, the higher the complexity of knowledge, the less conducive to knowledge transfer.

KEYWORDS: Knowledge Diffusion, Complex Network, Participation

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