Medical CBR Assistant System: Web-based Collaborative Learning Platform[*]

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Abstract. Case-based reasoning methodology is utilized to develop a web-based collaborative learning platform for medical students. The main objective of this platform is learning how to diagnose different diseases-cases in a playful way with different modules e.g., lesson, Medduell and checker. Students can also exchange their knowledge and experiences with the fellow students and their professors which are the domain expert of our CBR system. This platform is developing by informatics and business informatics students involved in the MedAusbild[1] student group project (SS2018) based on the core algorithm and content of DePicT Dementia CLASS. Our main idea is to create a learning assistant system for new medical students at the University of Siegen. Therefore, we have selected CBR methodology for our proposed platform to perform adaptive learning with the positive development-loop between developers/users (students) inside the university to learn effectively, retain the case base efficiently, and update the whole CBR system dynamically. Further work will involve extending the development of the proposed platform in light of current evaluation results and based on the new features and cases for the other diseases.

Keywords: Case-Based Reasoning, School of Life Science, Thinking Medicine New, DePicT Dementia CLASS

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[*] This video accompanies the papers: Nasiri, S., and Fathi, M. (2017). Case Representation and Similarity Assessment in a Recommender System to Support Dementia Caregivers in Geriatric and Palliative Care. In *Proceedings of the Workshop on Process Oriented Case-based Reasoning at the 25th International Conference on Case-Based Reasoning*, 157-166.; Nasiri, S., Klingauf, K., Li, D., Ortmann, J., and Fathi, M. (2017). DePicT Dementia CLASS: Medical CBR Learning Assistant System. In *Proceedings of the Video Competition at the 25th International Conference on Case-Based Reasoning*, 291.

[1] https://www.eti.uni-siegen.de/ws/projekte/medausbild/index.html.en?lang=en