

DePicT Dementia CLASS: Medical CBR Learning Assistant System*

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Abstract. DePicT CLASS is a case-based learning assistant system to detect and predict disease using image classification and text information. The main objective of DePicT Dementia CLASS is to develop the DePicT CLASS concept by enrichment of cases with dementia learning materials (e.g. reference images and textbooks). Each case has a word association profile (DePicT Profile Matrix) of the main keywords which are defined based on the International Classification of Functioning, Disability, and Health framework of WHO (ICF codes) and medical expressions extracted from the references of dementia and its related diseases. Therefore, DePicT Dementia CLASS uses DePicT Profile Matrix of WHO-ICF codes and enables caregivers and patients' relatives to find their learning materials and references which address the problems that they are looking for. This recommender system proposes a combination of references with the highest value of keyword association strength and collaborative recommendation based on ranked references by the user's feedback.

Keywords: Case-based Reasoning, Dementia, ICF, Caregiving, DePicT CLASS, DePicT Dementia CLASS

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