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Privacy-Enhanced Management of Ubiquitous Health Monitoring Data

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Title:	**Privacy-Enhanced Management of Ubiquitous Health Monitoring Data**
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Abstract:	In this paper, we propose a new architecture for managing data in a Ubiquitous Health Monitoring System (UHMS). The purpose of this architecture is to enhance the privacy of patients and furthermore to decongest the Health Monitoring Center (HMC) from the enormous amount of biomedical data generated by the users' wearable sensors. This is achieved by using personal agents that receive and manage the personal medical data of their owners. A component implementing the appropriate level of intelligence can be plugged-in into the personal agent and continuously analyze the raw health data. In case of an aberration detection the component may alert the HMC to initiate a more thorough examination of the possible emergency. Finally, we discuss how the personal agents can support privacy-preserving distributed computations.