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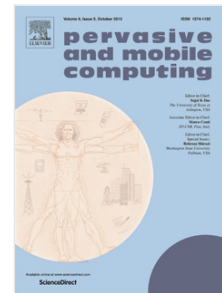
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A Survey of Values, Technologies and Contexts in Pervasive Healthcare

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Abstract

We argue that pervasive computing technologies for elderly care can have beneficial and harmful ethical implications. At the heart of these ethical implications lie the effects technologies have on human values, such as well-being, autonomy and privacy. A technology's functions influence how it affects values. These functions are the result of design decisions. So, design can play a part in dealing with ethical implications. We argue that by understanding the relationship between values and technologies in this domain, designers will be in a better position to account for values explicitly, and hence address ethical implications, throughout design. To foster such an understanding, we survey literature on pervasive computing for elderly care, and identify values, technologies and contexts discussed there. We develop a taxonomy to categorize our findings, which serves as a basis to identify and analyze relationships between values, technologies and contexts in pervasive computing for elderly care. With this analysis, we aim to help designers consider the ethical implications of their designs.

Keywords: value-sensitive design, literature survey, pervasive health care, ethical issues

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