

# Human-Document Interaction systems - a new frontier for document image analysis

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All indications show that paper documents will not cede in favour of their digital counterparts, but will instead be used increasingly in conjunction with digital information. An open challenge is how to seamlessly link the physical with the digital -how to continue taking advantage of the important affordances of paper, without missing out on digital functionality. This paper presents the authors'  $\text{d}^{\frac{1}{2}}\text{i}^{\frac{1}{2}}\text{c}^{\frac{1}{2}}\text{i}^{\frac{1}{2}}$  experience with developing systems for Human-Document Interaction based on augmented document interfaces and examines new challenges and opportunities arising for the document image analysis field in this area. The system

presented combines state of the art camera-based document image analysis techniques with a range of complementary technologies to offer fluid Human-Document Interaction. Both fixed and nomadic setups are discussed that have gone through user testing in real-life environments, and use cases are presented that span the spectrum from business to educational applications.