

Supporting multi-surface interaction in Medical Emergencies

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We are exploring the next generation of user interfaces, returning to the first principles of interaction with the goal of reinventing graphical user interfaces. This talk introduces our theoretical work on *co-adaptive instruments*: Instrumental interaction encapsulates interactions as first class objects from the user's, designer's and developer's perspectives and co-adaptation allows users to both learn how to adapt their behavior to use a new system effectively while appropriating the system in new ways. I illustrate this approach with a specific application: the design of cognitive aids in the context of the Stanford Medical School's advanced simulation laboratory. Our goal is to create an environment in which medical students interact with a variety of interactive surfaces, from tiny mobile smart phones to large, wall-sized interactive displays, in order to improve their motor and cognitive performance.