Making Smart Hospitals Useful
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Smart hospitals are arriving, driven by the vision to enhance the patient experience, reduce operational burden, and improve hospital workflow. The University of Utah’s newly constructed Craig H. Neilsen Rehabilitation Hospital contains patient rooms where the lights, blinds, thermostat, TV, and wireless soundbar are all controlled through an app on a hospital-furnished iPad or personal device. This novel implementation supports varying control abilities through touch, voice command, sip and puff controller, or physical switches and remotes. This technology is potentially transformative for patients experiencing motor or mobility impairments, helping them regain lost freedom and control of their surroundings. We explore how the technology employed in patient rooms affects — and can better support — patients’ and other stakeholders’ needs and experiences, how the smart room technology fits in the context of a hospital setting, and how the patient’s experience with the technology affects how they view their transition to home through semi-structured user study interviews. We identify a range of considerations that inform the way smart technology is integrated into hospital environments, including design decisions about the technology itself, but also adjustments to the way that hospital staff introduce and support the technology to patients. Through continuing work, we can guide future designers in seamlessly integrating technology into the hospital environment to reduce burdens on all stakeholders, support patients’ unique physical abilities, and enhance independence for those who have lost it.