Human Centered Privacy

I attended the human-centered privacy seminar by Tamara Denning, a professor of computer security at the University of Utah. Her research primarily focused on the security of implantable healthcare devices such as pacemakers and cardiovascular defibrillators. With the advent of technology, it is now possible to get someone's private information and mess with these devices—turn them off or to induce excessive cardiac fibrillation that could have harmful medical side effects since at this time; these devices do not offer any kind of individualized security. It is also possible to eavesdrop of people's private conversations, spy using robots and attack children or elder citizens. So, Professor Denning came up with designs that would help secure the individual's privacy. Some of the designs that were especially disliked by the patients were medical alert bracelets, a visible tattoo since these measure has social and personal consequences. The measures liked by the patients included a wristband that would never open and had some other safety features. The defense designs also allowed interaction with domain experts. She concluded by saying that security is the science and the art of tradeoff. It is impossible to have everything at the same time and we must make compromises.

Her talk made me realize how important security is in today's world and how easy it has become to steal people's private information. One of my unanswered questions is the future of computer security. How does one deal with viruses and hackers wanting to harm patients? Do these medical devices need a centralized operating system that will keep track or will it be something more decentralized and personal like a wristband. The tradeoff between a need for privacy and a need to be safe is a significant question of the 21st century.