Abstract

One in seven people in the world use online social networking for a variety of purposes -- to keep in touch with friends and family, to share special occasions, to broadcast announcements, and more. The majority of society has been bought into this new era of communication technology, which allows everyone on the internet to share information with friends. Since social networking has rapidly become a main form of communication, holes in privacy have become apparent. It has come to the point that the whole concept of sharing information requires restructuring. No longer are online social networks simply technology available for a niche market; they are in use by all of society. Thus it is important to not forget that a sense of privacy is inherent as an evolutionary by-product of social intelligence. In any context of society, privacy needs to be a part of the system in order to help users protect themselves from others. This dissertation attempts to address the lack of privacy management in online social networks by designing models which understand the social science behind how we form social groups and share information with each other. Social relationship strength was modeled using activity patterns, vocabulary usage, and behavioral patterns. In addition, automatic configuration for default privacy settings was proposed to help prevent new users from leaking personal information. This dissertation aims to mobilize a new era of social networking that understands social aspects of human network, and uses that knowledge to honor users' privacy.