Title:

Internet Privacy Information Protection

Abstract:

Over the past several decades, billions of people have participated in the Internet to exchange information. Increasing users brings increasing amount of privacy information on Internet. Simultaneously, privacy security becomes a big concern of Internet users.

To protect privacy information on Internet, traditional solutions are using cryptography to transform the plaintext information into incomprehensible ciphertext information which can only be decrypted by selected decryption keys' owner. Cryptographic means protect privacy information from unauthorized decryption to understand the information content. However, the encrypted privacy information still reveals its existence on the Internet, which may cause potential privacy risks. Steganography offers a much different choice for privacy information protection. By embedding secret message into cover message, steganography can cover the existence of the secret message.

On the other hand, there are different types of privacy information on the Internet, including multimedia, text, and etc. With the developing of artificial intelligence, a lot of deep learning methods have been proposed to analyze Internet/Web big data to mine privacy information. AI based privacy information protection means can help users to cope with these new challenges to their Internet privacy information.

This workshop is aimed at academic and industrial researchers interested in the privacy information protection methods, with a particular emphasis on novel and highly efficient methodologies that have the potential to be used in Internet applications.

Scope and Topics:

Topics of interests include, but are not limited to:
Cryptography for privacy,
Steganography and Steganalysis for privacy,
Access Control for privacy,
Differential privacy,
Multimedia analysis for privacy,
Text analysis for privacy,
Social network analysis for privacy,
Secure data mining,
Federated learning for privacy,

Privacy-preserving information forensics,

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Yongfeng Huang is Professor in the Department of Electronic Engineering at Tsinghua University, Beijing. He is IEEE senior member. Along his career, he has published five books and over 150 research papers on computer network and multimedia communication. His research interests include Cloud Computing, P2P, multimedia network, data security and privacy protection.

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Shanyu Tang is Professor of Information Security at the University of West London and leads the Information Security Research Group. During his career he has contributed to 99 scientific publications—60 refereed journal papers including IEEE/ACM Transactions and IEEE/IET journal papers, 37 conference papers, and two books. His major research interests lie in covert communications, multimedia security, and digital steganography and privacy protection, most notably the use of Fractal Computing to these areas.

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