Title:

Visual Privacy and Forensics in Big Data

Abstract:

Traditional multimedia forensic and security techniques proposed in the last decade adopt very limiting and simplifying working conditions. With big data requirements on the table, forensics and security experts need to deal with shear amounts of data in different operational and acquisition conditions.

One of these conditions is visual privacy. As mounting personal information accumulated in the network, there is a growing consensus that the threat of privacy leaks is the most fatal flaw of existing big data technologies. Being an intuitive kind of data, however, visual privacy is going unheeded in most case. There are urgent needs of new paradigms and methods on visual privacy protection and forensics.

Not only that, but more possibilities have arisen due to the development of big data in other related visual domains, e.g. biometrics, information hiding, image and video collection forensics, porn detection, digital triage of image and video evidence, etc.

This workshop invites researchers in all related fields (including but not limited to signal processing, machine learning, computer vision, cyber security, digital forensics, privacy protection) to join us in a quest for the next-generation image and video forensics and security solutions, capable of processing image and video data using the recently-developed deep learning paradigm and other new learning techniques. ALL submissions must highlight their machine-learning based approach and discuss how their solutions deal with large collections of data. The core data used in your work should be visual data (images and videos). The topics of interest of this Special Issue are listed below. The list is not exhaustive and prospective authors should contact the editors in case of any question. Submissions can contemplate original research, serious dataset collection and benchmarking, or critical surveys.

Scope and Topics:

The following list is according to the first letter only, with no particular order.

- Biometrics and counter-spoofing
- Content-protection and counter-protection
- Counter forensics
- Cyber threat analysis for image and video data
- Forensic data fusion (if at least one source contains images and videos)
- Forensics on visual privacy
- Image and video collection forensics
- Incident response related to image and video data
- Multimedia evidence recovery and validation
- Multimedia forensics (forgery detection, attribution, CGI classification)

- Surveillance for forensics and security applications
- Visual analytics for forensics and security Applications
- Visual information hiding: designs and attacks
- Visual privacy protection

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