A Socio-Technical Approach to Privacy in a Camera-Rich World

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Challenge

Wearable cameras enable novel lifelogging applications, but raise significant **privacy** and surveillance implications for individuals and society

Approach

We propose an integrated research plan that couples **sociological** investigations of people's privacy perceptions and needs with **technical** investigations privacy-sensitive visual sensing techniques

Project Homepage:
http://private.soic.indiana.edu/projects/cameras/

Key Results

Sociological study to **understand privacy concerns** of lifeloggers (UbiComp 14, CHI 15): places, objects, impressions

PlaceAvoider algorithm to **detect where** a photo was taken with high accuracy (NDSS 14) ScreenAvoider to **detect computer screens** with high accuracy (CHI 16)

Scientific Impact

Our work contributes to the privacy literature by studying how social context influences people's **perceptions and expectations of privacy** for images and **automated algorithms** to infer objects and situations captured in images that may breach privacy.

Broader Impact

Our socio-technical approach has the potential for **positive societal impact** by improving visual computing applications while recognizing differences in desire for privacy **across social groups**, and to then build technical mechanisms for **privacy control**. Additionally, our internship program has involved students from **underrepresented minorities** in the research.