**Trust-based Privacy-Preserving Photo Sharing in Online Social Networks**

**Abstract:**

 With the development of social media technologies, sharing photos in online social networks has now become a popular way for users to maintain social connections with others. However, the rich information contained in a photo makes it easier for a malicious viewer to infer sensitive information about those who appear in the photo. How to deal with the privacy disclosureproblemincurredbyphotosharinghasattractedmuch attention in recent years. When sharing a photo that involves multiple users, the publisher of the photo should take into all related users’ privacy into account. In this paper, we propose a trust-based privacy preserving mechanism for sharing such co-owned photos. The basic idea is to anonymize the original photo so that users who may suffer a high privacy loss from the sharing of the photo cannot be identiﬁed from the anonymized photo. The privacy loss to a user depends on how much he trusts the receiver of the photo. And the user’s trust in the publisher is affected by the privacy loss. The anonymiation result of a photo is controlled by a threshold speciﬁed by the publisher. We propose a greedy method for the publisher to tune the threshold, in the purpose of balancing between the privacy preserved by anonymization and the information shared with others. Simulation results demonstrate that the trust-based photo sharing mechanism is helpful to reduce the privacy loss, and the proposed threshold tuning method can bring a good payoff to the user.

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium Dual Core.
* Hard Disk : 120 GB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 1 GB

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows XP/UBUNTU.
* Implementation : NS2
* NS2 Version : 2.28
* Front End : OTCL (Object Oriented Tool Command  Language)
* Tool : Cygwin (To simulate in Windows OS)