Scientific Journal of Impact Factor(SJIF): 3.134

e-ISSN(O): 2348-4470
p-ISSN(P): 2348-6406

International Journal of Advance Engineering and Research Development

Volume 2,Issue 11, November -2015

SECURE PHOTO SHARING ON OSN'S

Abhijit Patil , Rahul Udabale, Shubham Pawar, Atul Gaikwad, Prof.Kavita Jadhav

Department of Computer Engineering , Siddhant College of Engineering ,Sudumbare, Pune
Department of Computer Engineering , Siddhant College of Engineering , Sudumbare Pune
Department of Computer Engineering,SiddhantCollegeof Engineering,Sudumbare, Pune
Department of Computer Engineering , Siddhant College of Engineering ,Sudumbare ,Pune

Abstract — *Photograph sharing is an alluring component which advances Online Social Networks (OSNs). Sadly, it may release clients' security on the off chance that they are permitted to post, remark, and label a photog raph openly. In this paper, we endeavor to address this issue and study the situation when a client shares a photograph containing people other than himself/herself (termed co-photograph for short). To anticipate conceivable security spillage of a photograph, we outline an instrument to empower every person in a photograph be mindful of the posting action and partake in the choice making on the photograph posting. For this reason, we require a proficient facial acknowledgment (FR) framework that can perceive everybody in the photograph. Notwithstanding, all the more requesting security setting may restrain the photographs' quantity freely accessible to prepare the FR framework. To manage this issue, our instrument endeavors to use clients' private photographs to plan a customized FR framework particularly prepared to separate conceivable photograph co-proprietors without releasing their protection. We additionally add to a disseminated accords based system to diminish the computational many-sided quality and ensure the private preparing set. We demonstrate that our framework is better than other conceivable methodologies as far as acknowledgment proportion and effectiveness. Our instrument is executed as a proof of idea Android application on Facebook's stage.*

Keywords- *Social network, photo privacy, secure multi-party computation, support vector machine, collaborative learning.*

I. INTRODUCTION

OSNS have become integral part of our daily life and has profoundly changed the way we interact with each other, fulfilling our social needs–the needs for social interactions, information sharing, appreciation and respect. It is also this very nature of social media that makes people put more content, including photos, over OSNs without too much thought on the content. However, once something, such as a photo, is posted online, it becomes a permanent record, which may be used for purposes we never expect. For example, a posted photo in a party may reveal a connection of a celebrity to a mafia world. Because OSN users may be careless in posting content while the effect is so far-reaching, privacy protection over OSNs becomes an important issue. When more functions such as photo sharing and tagging are added, the situation becomes more complicated. For instance, nowadays we can share any photo as we like on OSNs, regardless of whether this photo contains other people (is a co-photo) or not. Currently there is no restriction with sharing of co-photos, on the contrary, social network service providers like Facebook are encouraging users to post co-photos and tag their friends in order to get more people involved.

In this paper, we propose a novel consensus based approach to achieve efficiency and privacy at the same time. The idea is to let each user only deal with his/her private photo set as the local train data and use it to learn out the local training result. After this, local training results are exchanged among users to
form a global knowledge. In the next round, each user learns over his/hers local data again by taking the global knowledge as a reference. Finally the information will be spread over users and consensus could be reached. We show later that by performing local learning in parallel, efficiency and privacy could be achieved at the same time. Comparing with previous works, our contributions are:

1) In our paper, the potential owners of shared items (photos) can be automatically identified with/without user-generated tags.

2) We propose to use private photos in a privacy-preserving manner and social contexts to derive a personal FR engine for any particular user.

3) Orthogonal to the traditional cryptographic solution, we propose a consensus-based method to achieve privacy and efficiency.

II. LITERATURE REVIEW

1)Andrew Besmer & Heather Richter Lipford.

AUTHORS: Department of Software and Information Systems
Photo tagging is a popular feature of many social network sites that allows users to annotate uploaded images with those who are in them, explicitly linking the photo to each person's profile. In this paper, we examine privacy concerns and mechanisms surrounding these tagged images. Using a focus group, we explored the needs and concerns of users, resulting in a set of design considerations for tagged photo privacy. We then designed a privacy enhancing mechanism based on our findings, and validated it using a mixed methods approach. Our results identify the social tensions that tagging generates, and the needs of privacy tools to address the social implications of photo privacy management.

2) On the Move to Meaningful Internet Systems

AUTHORS: M B. Carminati, E. Ferrari, and A. Perego.

The degree of _edibility of workflow management systems heavily in_uences the way business processes are executed. Constraint-based models are considered to be more _exible than traditional models because of their semantics: everything that does not violate constraints is allowed. Although constraint-based models are _exible, changes to process definitions might be needed to comply with evolving business domains and exceptional situations. Flexibility can be increased by run-time support for dynamic changes . transferring instances to a new model . and ad-hoc changes . changing the process definition for one instance. In this paper we propose a general framework for a constraint-based process modeling language and its implementation. Our approach supports both ad-hoc and dynamic change, and the transfer of instances can be done easier than in traditional approaches.

3. face recognition for improved face annotation in personal photo collections shared on online social networks.

AUTHORS: M. Bellare, C. Namprempre, and G. Neven

Using face annotation for effective management of personal photos in online social networks (OSNs) is currently of considerable practical interest. In this paper, we propose a novel collaborative face recognition (FR) framework, improving the accuracy of face annotation by effectively making use of multiple FR engines available in an OSN. In particular, our collaborative FR framework consists of two major parts: selection of FR engines and merging (or fusion) of multiple FR results. The selection of FR engines aims at determining a set of personalized FR engines that are suitable for recognizing query face images belonging to a particular member of the OSN. For this purpose, we exploit both social network context in an OSN and social context in personal photo collections. In addition, to take advantage of the availability of multiple FR results retrieved from the selected FR engines, we devise two effective solutions for merging FR results, adopting traditional techniques for combining multiple classifier results. Experiments were conducted using 547,991 personal photos collected from an existing OSN. Our results demonstrate that the proposed collaborative FR method is able to significantly improve the accuracy of face annotation, compared to conventional FR approaches that only make use of a single FR engine. Further, we demonstrate that our collaborative FR framework has a low computational cost and comes with a design that is suited for deployment in a decentralized OSN.

4. THE FERET DATABASE AND EVALUATION PROCEDURE FOR FACE-RECOGNITION ALGORITHMS

AUTHORS: K. Choi, H. Byun, and K.-A. Toh.
The Face Recognition Technology (FERET) program database is a large database of facial images, divided into development and sequestered portions. The development portion is made available to researchers, and the sequestered portion is reserved for testing face recognition algorithms. The FERET evaluation procedure is an independently administered test of face-recognition algorithms. The test was designed to: (1) allow a direct comparison between different algorithms, (2) identify the most promising approaches, (3) assess the state of the art in face recognition, (4) identify future directions of research, and (5) advance the state of the art in face recognition.

5**. Proceedings of the 6th international conference on Multiple Classifier Systems**

AUTHORS: K.-B. Duan and S. S. Keerthi.
Cooperative multi-agent systems (MAS) are ones in which several agents attempt, through their interaction, to jointly solve tasks or to maximize utility. Due to the interactions among the agents, multi-agent problem complexity can rise rapidly with the number of agents or their behavioral sophistication. The challenge this presents to the task of programming solutions to MAS problems has spawned increasing interest in machine learning techniques to automate the

search and optimization process. We provide a broad survey of the cooperative multi-agent learning literature. Previous surveys of this area have largely focused on issues common to specific subareas (for example, reinforcement learning, RL or robotics). In this survey we attempt to draw from multi-agent learning work in a spectrum of areas, including RL, evolutionary computation, game theory, complex systems, agent modeling, and robotics. We find that this broad view leads to a division of the work into two categories, each with its own special issues: applying a single learner to discover joint solutions to multi-agent problems (team learning), or using multiple simultaneous learners, often one per agent (concurrent learning). Additionally, we discuss direct and indirect communication in connection with learning, plus open issues in task decomposition, scalability, and adaptive dynamics. We conclude with a presentation of multi-agent learning problem domains, and a list of multi-agent learning resources.

III. SURVEY OF PROPOSED SYSTEM

In this paper, we proposed to empower people conceivably in a photograph to give the consents before posting a co-photograph. We outlined a security protecting FR framework to distinguish people in a co-photograph. The proposed framework is highlighted with low calculation expense and classification of the preparation set. Hypothetical investigation and analyses were directed to show adequacy and proficiency of the proposed plan. We expect that our proposed plan be extremely helpful in ensuring clients' security in photograph/picture sharing over online informal communities. Then again, there dependably exist exchange off in the middle of protection and utility. For instance, in our present Android application, the co-photograph must be post with consent of all the co-proprietors. Dormancy presented in this procedure will incredibly affect client experience of OSNs. More over, nearby FR preparing will deplete battery rapidly

IV. MODULES:

5.1 private training:

Our prototype application is implemented on Google Nexus 7 tablets with Android 4.2 Jelly Bean (API level 17) and Facebook SDK. We use OpenCV Library 2.4.6 to carry out the face detection and Eigenface method tocarry out the FR. . A log in/out button could be used for log in/out with Facebook. After logging in, a greeting message and the profile picture will be shown. Our prototype works in three modes: a setup mode, a sleeping mode and a working mode. Running in the setup mode, the program is working towards the establishment of the decision tree. For this purpose, the private training set Xi and neighborhood Bi need to be specified. Xi could be specified by the user with the button “Private training set”.

5.2 Pick friend:

When it is pressed, photos in the smart phone galleries could be selected and added to Xi. To setup the neighborhood Bi, at this stage, a user needs to manually specify the set of “close friends” among their Facebook friends with the button “Pick friends” as their neighborhood. According to the Facebook statistics, on average a user has 130 friends, we assume only a small portion of them are “close friends”. In our application, each user picks up to 30 “close friends”.

5.3 Decision tree:

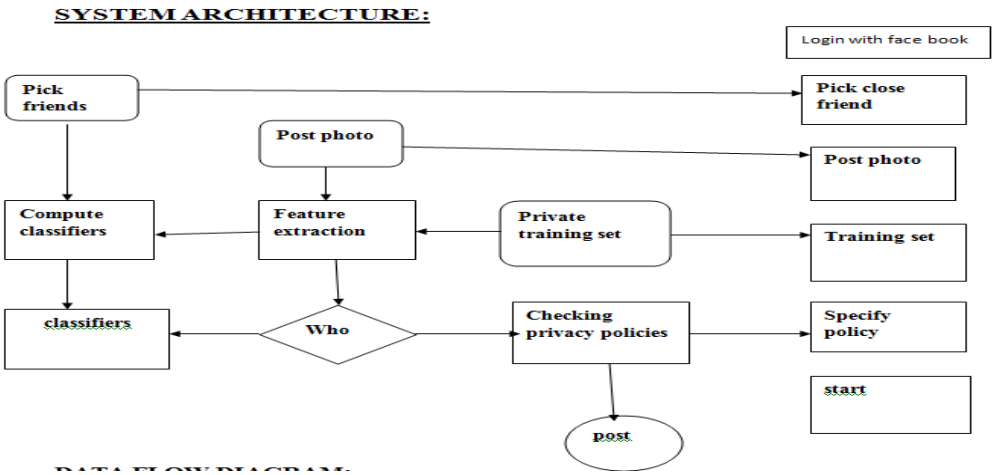
Notice that all the selected friends are required to install our application to carry out the collaborative training. With Xi and Bi specified, the setup mode could be activated by pressing the button “Start”. Key operations and the data flow in this mode are enclosed by a yellow dashed box on the system During the training process, a socket is established exchange local training results. After the classifiers are obtained, decision tree is constructed and the program switches from the setup mode to the sleeping mode. Facebook allows us to create a list of friends such as “close friends” or “Acquaintances”. We can share a photo only to friends on list.

5.4 privacy policy:

According to the proposed scheme, this friend list should be intersection of owner’s privacy policy and co-owners’ exposure policies. However, in Facebook API, friend lists are read-only items, they cannot be created or updated through the current API. That means we cannot customize a friend list to share a co-photo. Currently, when the button “Post Photo” is pressed, co-owners of x are identified, then notifications along with x are send to the co-owners to request permissions. If they all agree to post x, x will be shared on the owner’s page like a normal photo. In this sense, users could specify their privacy policy but their exposure policies are either everybody on earth or nobody depending on their attitude toward x. The data flow for a photo posting activity is illustrated by the solid red arrows. After the requests are

sent out, the program will go back to the sleeping mode. If Xi or Bi is modified, the program will be invoked to the setup mode. In this case, the operations in the yellow dashed box will be performed again and decision tree will be updated.

V. SYSTEM ARCHITECTURE



As shows in above diagram the graphical user interface (GUI). A log in/out button could be used for log in/out with Facebook. After logging in, a greeting message and the profile picture will be shown. Our prototype works in three modes: a setup mode, a sleeping mode and a working mode. Running in the setup mode, the program is working towards the establishment of the decision tree. For this purpose, the private training set Xi and neighbourhood Bi need to be specified. Xi could be specified by the user with the button "Private training set". When it is pressed, photos in the smart phone galleries could be selected and added to Xi. To setup the neighbourhood Bi, at this stage, a user needs to manually specify the set of "close friends" among their Facebook friends with the button "Pick friends" as their neighbourhood During the training process, a socket is established exchange local training results. After the classifiers are obtained, decision tree is constructed and the program switches from the setup mode to the sleeping mode. Facebook allows us to create a list of friends such as "close friends" or "Acquaintances". We can share a photo only to friends on list. According to the proposed scheme, this friend list should be intersection of owner's privacy policy and co-owners' exposure policies. However, in Facebook API, friend lists are read-only items, they cannot be created or updated through the current API. That means we cannot customize a friend list to share a co-photo. Currently, when the button "Post Photo" is pressed, co-owners of x are identified, then notifications along with x are send to the co-owners to request permissions. If they all agree to post x, x will be shared on the owner's page like a normal photo.

VI. CONCLUSION AND FUTURE WORK

Photograph sharing is a standout amongst the most prevalent elements in online informal organizations, for example, Facebook. Lamentably, imprudent photograph posting may uncover security of people in a posted photograph. To control the security spillage, we proposed to empower people possibly in a photograph to give the consents before posting a co-photograph. We planned a security safeguarding FR framework to recognize people in a co-photograph. The proposed framework is highlighted with low calculation expense and privacy of the preparation set. Hypothetical examination and trials were directed to show adequacy and effectiveness of the proposed plan. We expect that our proposed plan be exceptionally helpful in ensuring clients' protection in photograph/picture sharing over online informal organizations. Then again, there dependably exist exchange off in the middle of protection and utility. For instance, in our present Android application, the co-photograph must be post with consent of all the co-proprietors. Idleness presented in this procedure will enormously affect client experience of OSNs. More over, neighborhood FR preparing will deplete battery rapidly. Our future work could be the way to move the proposed preparing plans to individual mists like Dropbox and/or icloud.

ACKNOWLEDGMENT

We might want to thank the analysts and also distributers for making their assets accessible. We additionally appreciative to commentator for their significant recommendations furthermore thank the school powers for giving the obliged base and backing.

REFERENCES

[1]I. Altman. Privacy regulation: Culturally universal or culturally specific? Journal of Social Issues, 33(3):66–84, 1977.
[2] B. Carminati, E. Ferrari, and A. Perego. Rule-based access control for social networks. In R. Meersman, Z. Tari, and P. Herrero, editors, On the Move to Meaningful Internet Systems 2006: OTM 2006 Workshops, volume 4278 of Lecture Notes in Computer Science, pages 1734–1744. Springer Berlin Heidelberg, 2006.
[3] J. Y. Choi, W. De Neve, K. Plataniotis, and Y.-M. Ro. Collaborative face recognition for improved face annotation in personal photo collections shared on online social networks. Multimedia, IEEE Transactions on, 13(1):14–28, 2011.
[4] K. Choi, H. Byun, and K.-A. Toh. A collaborative face recognition framework on a social network platform. In Automatic Face Gesture Recognition, 2008. FG '08. 8th IEEE International Conference on, pages 1–6, 2008.
[5] P. A. Forero, A. Cano, and G. B. Giannakis. Consensus-based distributed support vector machines. J. Mach. Learn. Res., 99:1663– 1707, August 2010.
[6] B. Goethals, S. Laur, H. Lipmaa, and T. Mielik?inen. On private scalar product computation for privacy-preserving data mining. In In Proceedings of the 7th Annual International Conference in Information Security and Cryptology, pages 104–120. Springer-Verlag, 2004.

AUTHORS

ABHIJIT PATIL, pursuing the B.E degree in Computer Engineering at Siddhant College of Engineering ,Talwade, Pune

RAHUL UDABALE pursuing the B.E degree in Computer Engineering at Siddhant College of Engineering ,Talwade, Pune

SHUBHAM PAWAR, pursuing the B.E degree in Computer Engineering at Siddhant College of Engineering ,Talwade, Pune

ATUL GAIKWAD, pursuing the B.E degree in Computer Engineering at Siddhant College of Engineering ,Talwade, Pune

KAVITA JADHAV, Assistant Professor in Computer Engineering at Siddhant College of Engineering ,Talwade, Pune

