

Capturing Social Networking Privacy Preferences Via Image Contents

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Abstract: Now-a-days, the increasing volume of images users share through social networking sites, maintaining privacy has become a problem, as demonstrated by a recent wave of publicized incidents where users inadvertently shared personal information. The need of tools to help users control access to their shared content is apparent. Toward addressing this need, we propose an Adaptive Privacy Policy Prediction (A3P) system to help users privacy settings for their images. We examine the role of social context, image content, and metadata as possible indicators of users' privacy preferences. We propose a two-level framework which according to the user's available history on the sites, determines the best available privacy policy for the user's images being uploaded. Our solution relies on an image classification framework for image categories which may be associated with similar policies, and on a policy prediction algorithm to automatically generate a policy for each newly uploaded image, also according to users' social features. Over time, the generated policies will follow the evolution of users' privacy attitude. We provide the results of our extensive evaluation over 5,000 policies, which demonstrate the effectiveness of our system, with prediction accuracies over 90 percent.

Keywords: Image processing, NLP, online information services, text mining.

I. INTRODUCTION

Maintaining privacy has become a major problem, as demonstrated by a recent wave of publicized incidents where users inadvertently shared personal information. In light of these incidents, the need of tools to help users control access to their shared content is apparent. Towards addressing this need, we propose an Adaptive Privacy Policy Prediction (A3P) system to help users compose privacy settings for their images. We examine the role of social context, image content, and metadata as possible indicators of users' privacy preferences. We propose a two-level framework which according to the user's available history on the site determines the best available privacy policy for the user's images being uploaded.

II. METHODOLOGY

1. The role of image's content and metadata -

In general, similar images often incur similar privacy preferences, especially when people appear in the images. For example, one may upload several photos of his kids and specify that only his family members are allowed to see these photos. He may upload some other photos of landscapes which he took as a hobby and for these photos, he may set privacy preference allowing anyone to view and comment the photos. Analyzing the visual content may not be sufficient to capture users' privacy preferences. Tags and other metadata are indicative of the social context of the image, including where it was taken and why and also provide a synthetic description of images, complementing the information obtained from visual content analysis.

2. Algorithm in A3P-core -

Algorithm in A3P-core (that is now parameterized based on user groups and also factors in possible outliers), and a new A3P-social module that develops the notion of social context to refine and extend the prediction power of our system. We also conduct additional experiments with a new data set collecting over 1,400 images and corresponding policies, and we extend our analysis of the empirical results to unveil more insights of our systems performance.

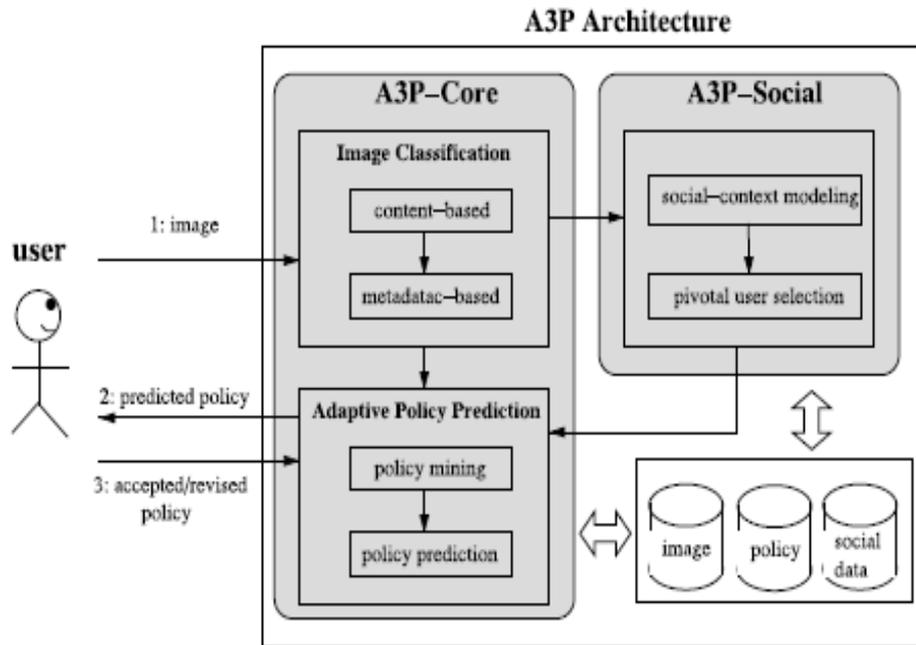


Fig. 1. A3P-core

III. RISK TABLE

TABLE I

Probability	Value	Description
High	Probability of occurrence is	>75%
Medium	Probability of occurrence is	26-75%
Low	Probability of occurrence is	<25%

The risk management w.r.t N.P hard for project is only in case of complicated images and blurs images and there is no text comment then the set the priority is difficult.

TABLE III

Impact	Value	Description
Very High	>10%	Schedule impact or unacceptable quality
High	5-10%	Schedule impact or some parts of the project have low quality
Medium	<5%	Schedule noticeable degradation in quality low and impact on schedule or quality can be incorporated

IV. RESULTS

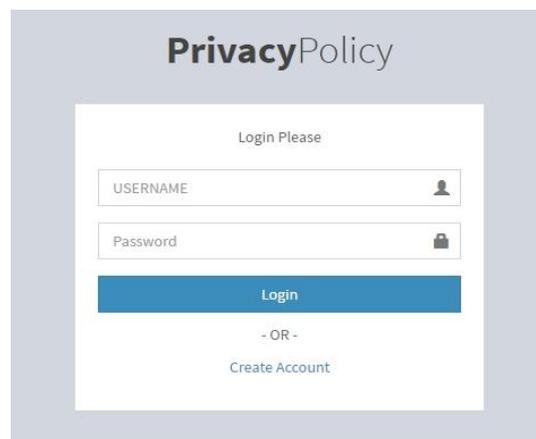


Fig. 2. Admin login

This page show that login of user with valid user name and password. If account is not created then user have to click on Create Account.

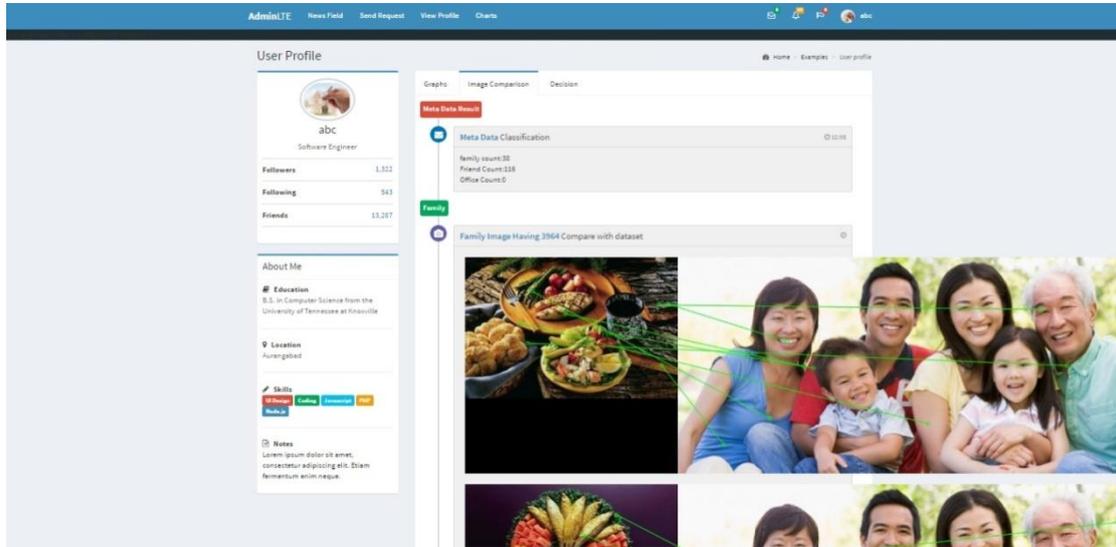


Fig. 3. Image Comparison

This page shows the comparison of uploaded images with database images based on colour, shapes etc.

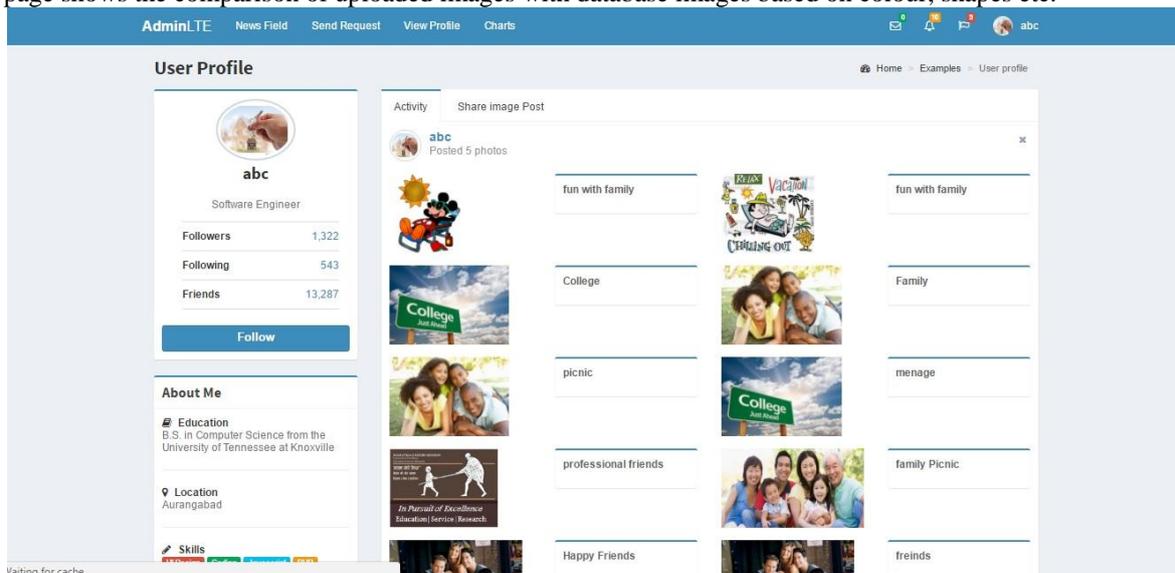


Fig. 4. View Profile

This page shows the profile view means this page shows the all information about the user.

V. CONCLUSION

This proposed system that helps to users automate the privacy policy settings on their uploaded images on social networking sites using an Adaptive Privacy Policy Prediction (A3P). This system provides a comprehensive framework to infer privacy preferences based on the information available for a given user. This study proves that our A3P is a practical tool that offers significant improvements over current approaches to privacy.

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