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User Identification across Social Media

AzTE Case # M13-100P

Background

Many Internet users have more than one user ID for social media websites. Often the purpose for having multiple user ID's is valid. Sometimes it is preferable to have one user ID for personal use and a different ID for business use. Unfortunately, some people may have several user ID's for deceptive purposes. For example, a 40-year-old adult sexual predator may pose as a 15-year old child to gain the trust of children they intend to manipulate. Age and user identification can be an elusive problem to solve. The Internet Safety Technical Task Force evaluated age verification technologies and conducted research for four years to determine the best solution to identify users. Unfortunately, at the end of the study the committee reached the conclusion that current technology is not providing a solution to the problem.

Invention Description

Researchers at Arizona State University have developed a computer program that connects user ID's across social media websites. Information shared by users acts as a fingerprint that can help to identify user age and identity. Information placed on social media websites is mined and used to build user profiles. The profiles are compared to find redundancies across profiles. This program takes human behavior into account in determining attributes such as a user name and its associated profile information. Even when an individual creates a spoof profile, such attributes exist and can be used to determine whether or not a user profile of an individual is the same as another profile. The program can accurately determine if different user names belong to the same individual with 90% accuracy.

Potential Applications

- Internet Security
- Advertising and Marketing
- Law enforcement

Benefits and Advantages

- **More Power** – Allows advertisers to better target its advertising to improve effectiveness.
- **Better Security** – Provides improved security for social website users.
- **Retrofit** – Works with existing equipment and websites.