

# Long-term Active User Authentication Using Multi-modal Profiles

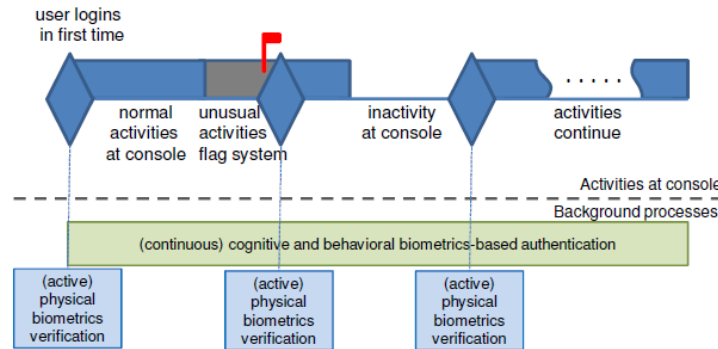


## Challenge:

- Intelligent authentication in the background to ascertain that the user at a terminal is a legitimate user
- Data collection for large scale experiments

## Solution:

- Face recognition, recognition based on keystroke dynamics and mouse movements
- Develop machine learning based models to identify deviations from expected behavior



## Scientific Impact:

- New machine learning algorithms for biometric recognition
- Language usage as a cognitive biometric
- Data in controlled environment - large (>300 users) data set with diverse features
- Data in open environment with diverse features

## Broader Impact:

- Solutions will provide a new authentication tool that is not based on passwords
- masquerading intruders can be readily detected
- Significant surveillance impact beyond academia
- Supporting 3 PhD students and 2 undergraduates
- Outreach via UB's NSA-certified center of excellence in Information Assurance

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