

Cybersecurity Activities @ the University to Delaware

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Example NSF Project: Reputation Manipulation

The Context

**Delaware
Cybersecurity Initiative (CSI)**

CSI - Why Delaware?

- Delaware is corporate capital of America
- 1M+ companies are incorporated here
- More than half of Fortune 500 companies are headquartered in Delaware
- Delaware Court of Chancery is national forum for resolution of corporate disputes

CSI Education

- UD has launched undergraduate minor and master's in cybersecurity
- Programs build on strengths in computer science, electrical and computer engineering, sociology, criminal justice, psychology, financial service analytics, corporate governance
- Collaborating with community colleges to prepare highly trained workforce to meet employment needs of companies in Delaware

OUR PARTNERS

UNIVERSITY OF DELAWARE | Cybersecurity Initiative



Example NSF Project

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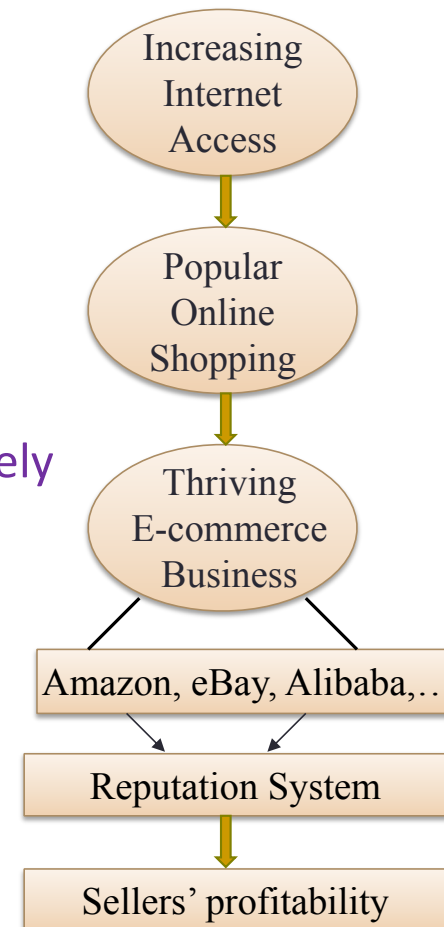
**Reputation-Escalation-as-a-Service:
Analyses and Defenses**

Prof. Haining Wang

Era of Online Shopping

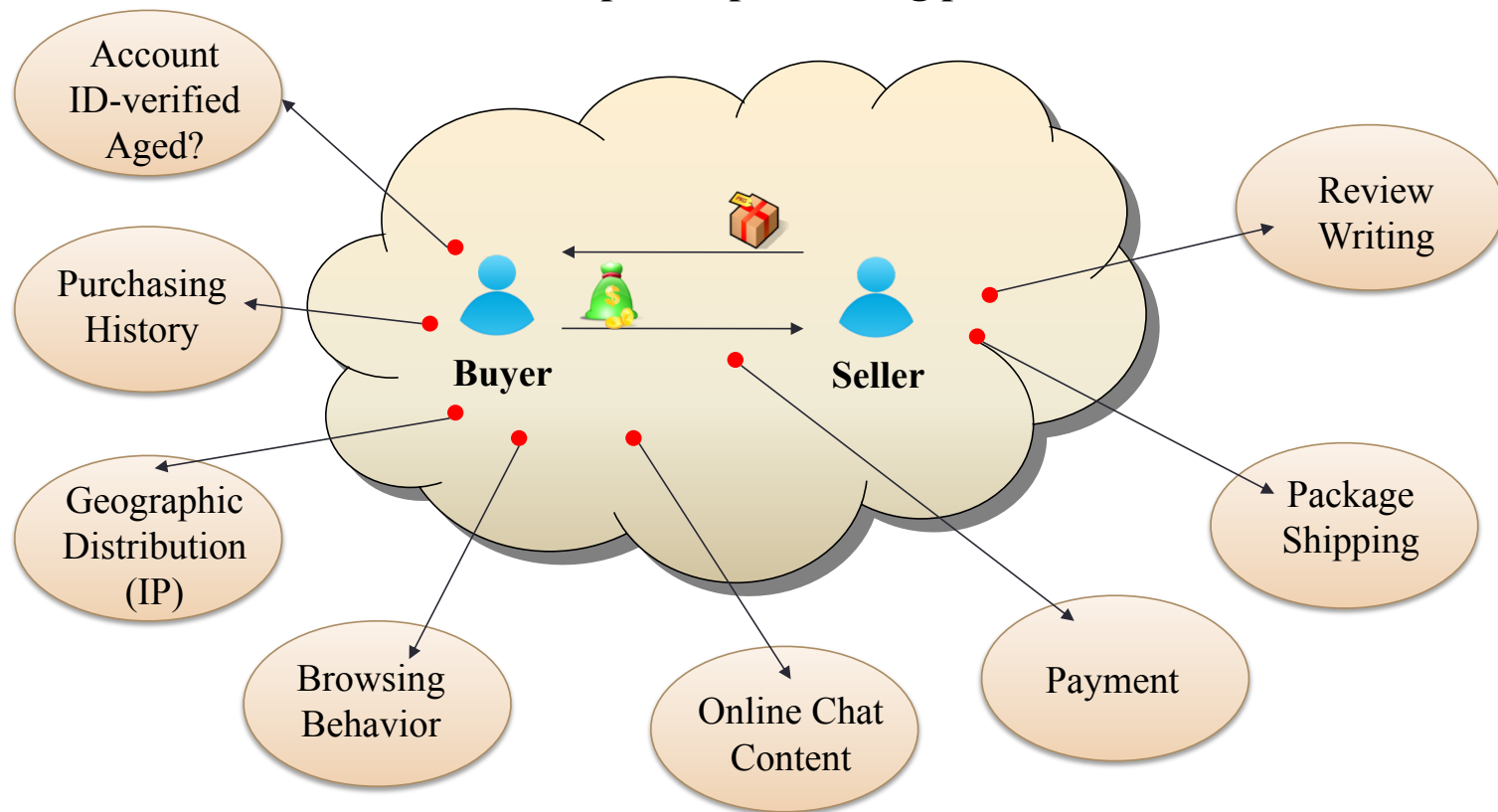
- Global Internet Access is increasing
 - Global Penetration: 42.3% (as of June 2014 *)
- More and more people shop online
- E-commerce business is growing explosively
 - Amazon, Walmart, eBay, Alibaba, ...
- Reputation System is widely used
 - To establish the trust between sellers and buyers
 - Major components:
 - *Custom reviews* ★★★★★ (1,628)
 - *Transaction volumes*
- Sellers' reputation is tied to profitability

* Source: internetworldstats.com



Fake Transaction Detection

Steps in a purchasing process!



Take Home points

- Delaware Cybersecurity Initiative aims to create a center of excellence in cybersecurity and solve real security issues of companies incorporated in DE.
- Reputation Manipulation detection aims to keep online competition fair.