Helping People Walk the Narrow Path

Markus Jakobsson
Zapfraud
What is Liar Buyer?

Resolution Center

Please review the details of the transaction and indicate the reason for the dispute.

Transaction Information

- Transaction ID: 8865-0983
- Seller Name: eBay Inc.
- Transaction Amount: $549.99 USD
- Item: 3D WiFi Smart Home Theater System w/ Wireless Speakers
- Transaction Date: Oct. 10, 2013

Please select an option to continue:
- Request Refund -- I haven't received my item.
- Cancel Dispute -- I do not have a complaint about this item.

“didn’t receive” = money back
Hobby Fraud: Why Traditional Security Fails

- An account with a history ...
- … matching IP address ...
- … recognized computer ...
- … the correct password ...
- … no signs of malware ...
Suppressing Liar Buyer

Resolution Center

Please review the details of transaction and indicate the reason for dispute.

Transaction Information

Transaction ID: 8665-0983
Seller Name: eBay Inc.
Transaction Amount: $540.99 USD
Item: 3D WiFi Smart Home Theater System w/ Wireless Speakers
Transaction Date: Oct. 10, 2013

Please select an option to continue:
- Request Refund -- I haven’t received my item.
- Cancel Dispute -- I do not have a complaint about this item.

Resolution Center

Transaction ID: 8665-0983
Seller Name: eBay Inc.
Transaction Amount: $540.99 USD
Item: 3D WiFi Smart Home Theater System w/ Wireless Speakers
Transaction Date: 11:19:00 Jan 2, 2013

Transaction is done from device with IP: 64.193.60.66
Transaction is done from this location: Staten Island, NY

Please select an option to continue:
- Request Refund -- I haven’t received my item.
- Cancel Dispute -- I do not have a complaint about this item.
Suppressing Liar Buyer

Percent honest

<table>
<thead>
<tr>
<th></th>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80%</td>
<td>89%</td>
</tr>
</tbody>
</table>

Resolution Center

Please review the details of transaction and indicate the reason for dispute.

Transaction Information
Transaction ID: 3065-0983
Seller Name: eBay Inc.
Transaction Amount: $5.60.00 USD
Item: 3D WiFi Smart Home Theater System
Transaction Date: 11:19:00 Jan 2, 2013

Transaction is done from device with IP: 61.193.60.66
Transaction is done from this location: Staten Island, NY

Recognized Computer (host)

Please select an option to continue:
- Request Refund -- I haven't received my item.
- Cancel Dispute -- I do not have a complaint about this item.
Encouraging honesty … all it takes is *knowing*

I know who you are …

… and I know where you live
I know who you are … and I know where you live!

![Bar chart showing percent honest by category: Old, Who, Where, and Who+Where. The bar for Who+Where is significantly higher than the others.](image-url)
What if the map is not accurate?

- Percent honest
  - Old: 80%
  - Accurate: 89%
  - Inaccurate: 79%
How often is the location “good enough”? 

![Geolocation Accuracy Chart]

- hostip
- IPInfoDB
- freegeoip
- Combination
- Delay Based

Delaware, Maryland, New Jersey, and other locations are marked on the map.
We have a *psychological* countermeasure

- Addresses *hobby fraud*, not professional fraud.
- Hobby fraud and professional fraud must be dealt with separately.
- Requires an understanding of *people* to develop and tune.
- Related techniques for other hobby fraud - such as friendly fraud.
Helping People Walk the Narrow Path

Markus Jakobsson
Joint work with
Hossein Siadati (NYU Poly)
Mayank Dhiman (UCSD)