



Universidad Simón Bolívar

Data Protection and Security ESWC Panel

Maria-Esther Vidal



Lights around the London's 2012 Olympic stadium describe Sir Tim Berners-Lee's invention, the World Wide Web. The Open Data Institute, which he co-founded, declares a mandate of **'Knowledge for Everyone'**.

DATA OPENNESS

CITIZEN
COLLABORATION

"THIS IS FOR EVERYONE"



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Openness

VERSUS



Privacy

Open Data

Definition <http://opendefinition.org/>:

*“A piece of data or content is open if **anyone** is free to use, reuse, and redistribute it — **subject only**, at most, to the requirement to attribute and/or share-alike.”*

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Safety



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Electoral Data,
Tax Revenue,
and
Public Security

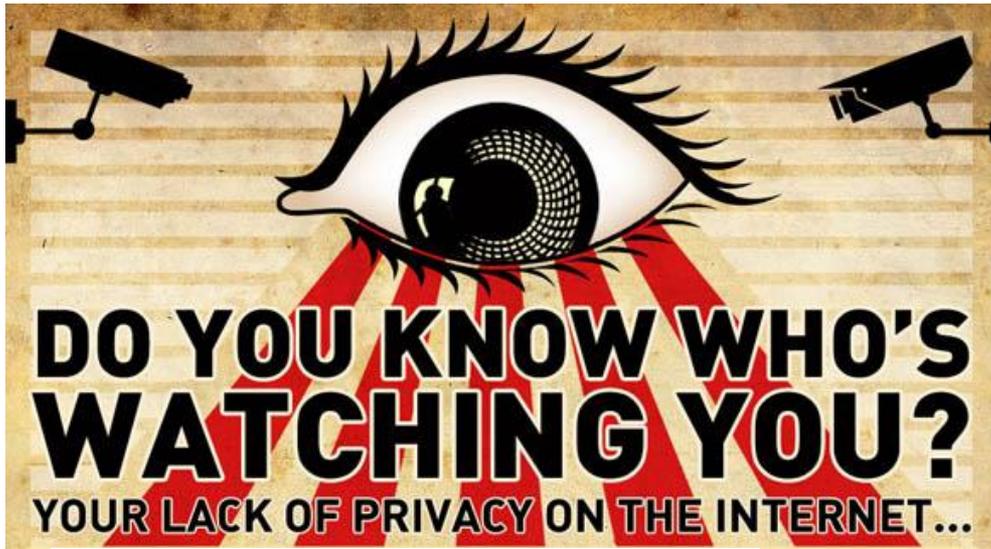


Safety



Avoid
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HIPAA Compliance Assistance





Electoral Data,
Tax Revenue,
Sensitive Data



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Electoral Data,
Tax Revenue,
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Application of **de-anonymization methodologies** to Open Data to determine political preferences and other potentially sensitive information, e.g., Narayanan et al.

HIPAA Compliance Assistance



Fundamental limits of
privacy in micro-data



Collaborative
Systems

VERSUS



Security and
Trust

MUJHSE HOGI SHURVAAT

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672
Cities

26121
Reports

71.44 Cr
Rupees

REPORT A BRIBE

OR CALL 080 88 88 77 66 TO REPORT A BRIBE

Jammu and Kashmir

TOTAL REPORTS TOTAL AMOUNT
58 Rs. 4.57 Lakh

BRIBES PAID BRIBE FIGHTERS HONEST OFFICERS
50 5 3

VIEW BRIBE ANALYTICS

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Bongaigaon
We were going to our site by private vehicle and police stopped us at road... Read more

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Kushinagar
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Is it necessary to inform prior in registrar office if I am going to marry a... Read more

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Traffic Police asked Bribe
New Delhi
Yesterday 20-5-2014, traffic policemen at NH2 highway

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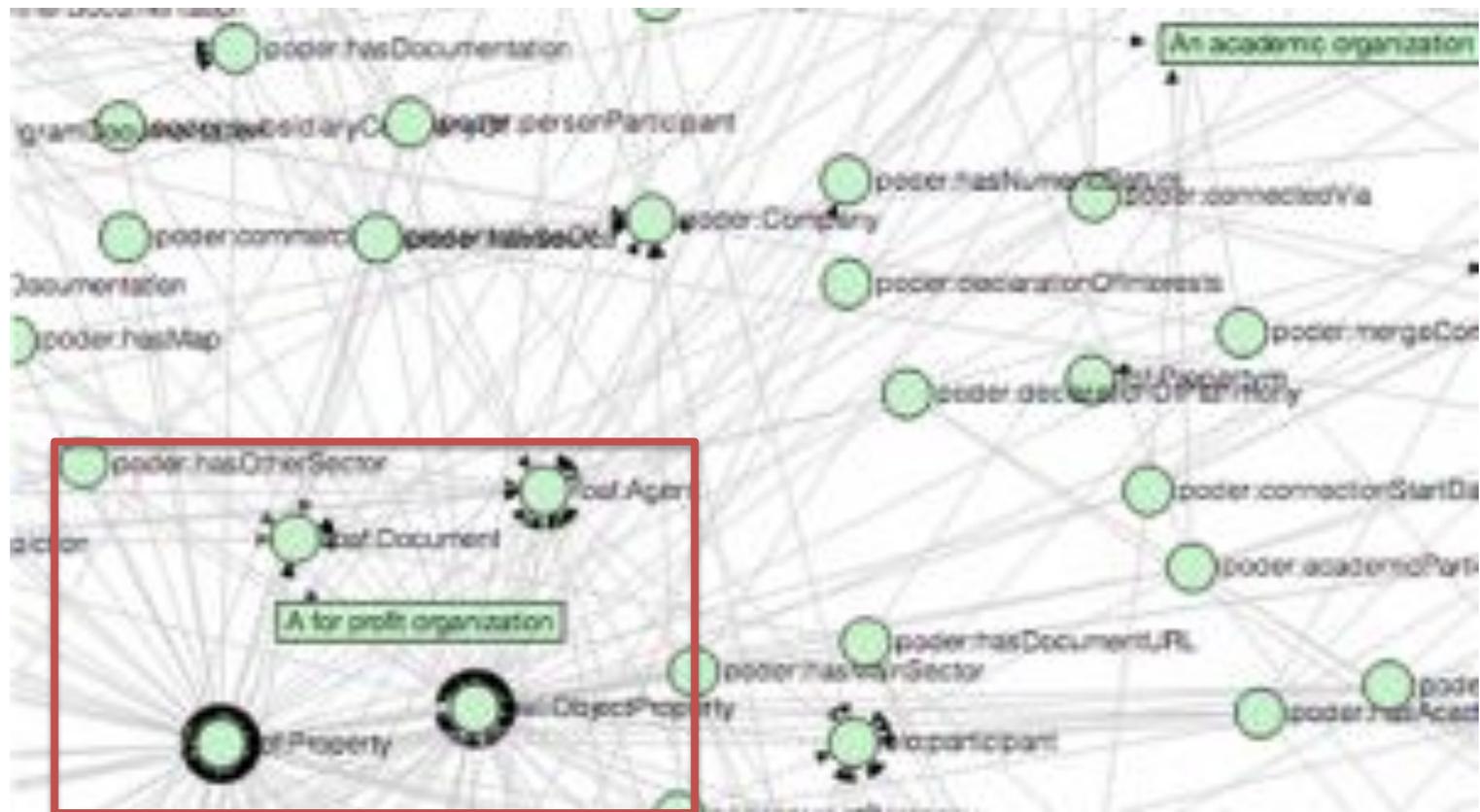
New Delhi

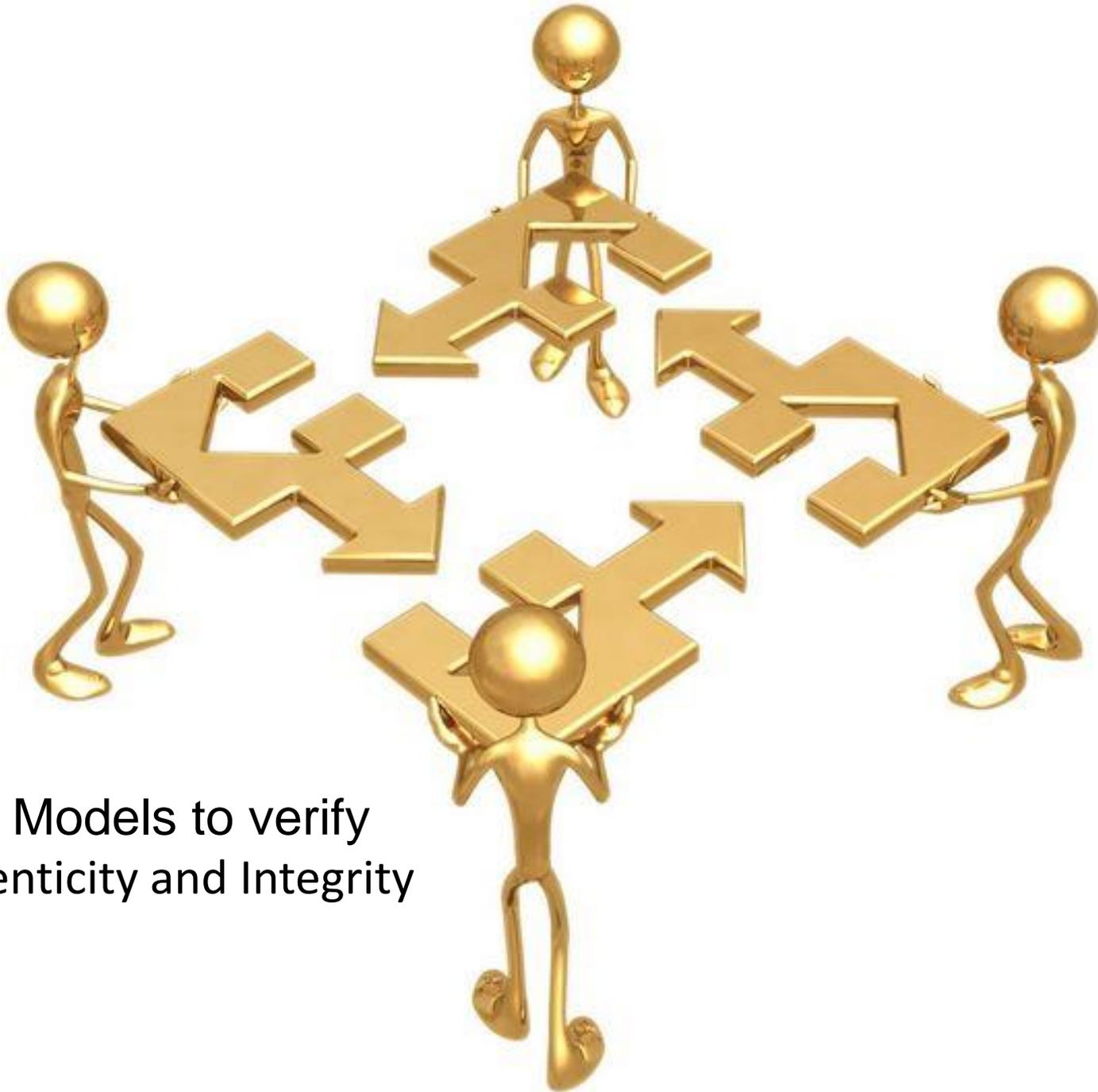
Yesterday 20-5-2014, traffic policemen at NH2 highway



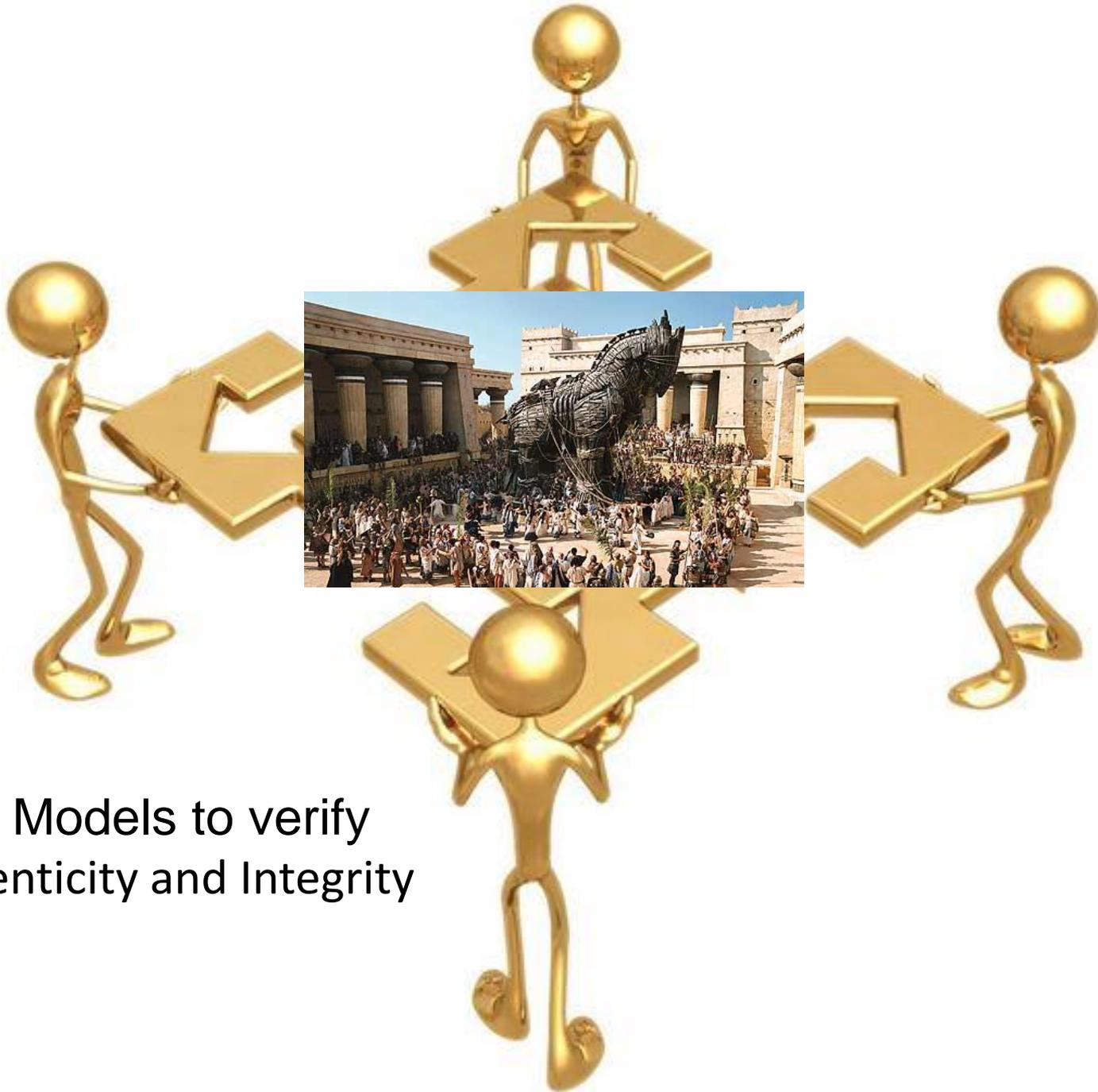
PODEROPEDIA

WHO IS WHO IN BUSINESS AND POLITICS IN CHILE

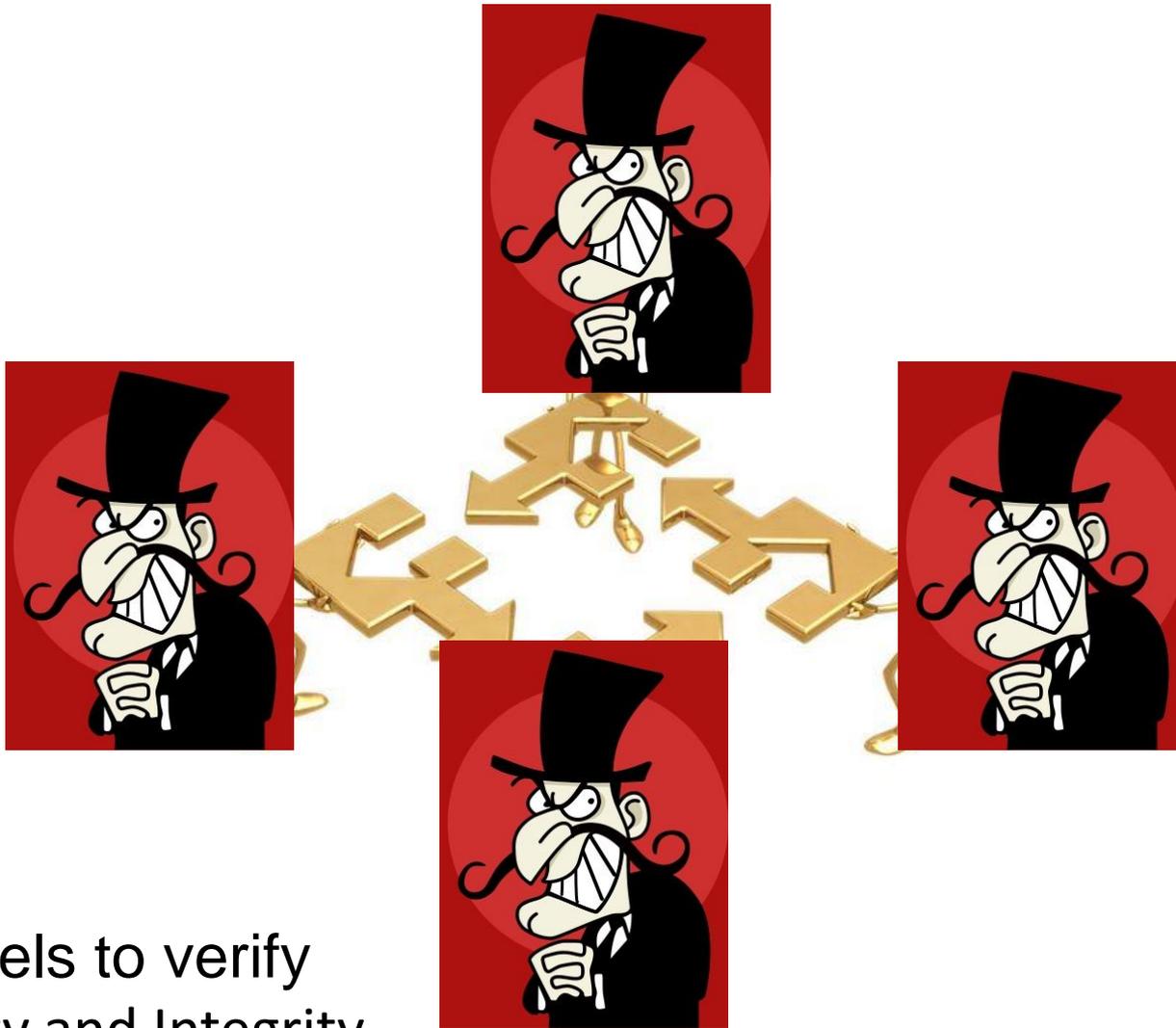




Trust Models to verify
Authenticity and Integrity



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Trust Models to verify
Authenticity and Integrity
Signing Frameworks

Challenges for the Semantic Web

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Modeling and Processing Sensitive Data:
citizens data, e.g., photos, videos, geo
locations, political preferences.

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Balance between **confidentiality, integrity, and availability** of sensitive data needs to be ensured (e.g., Oliver et al).