

# Groningen Declaration

the future of academic data digital portability

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Credentials Work Group Conference call  
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# Diploma mill



[http://www.uma.es/servicio-central-de-informatica/info/7785/museo\\_impresion/](http://www.uma.es/servicio-central-de-informatica/info/7785/museo_impresion/)

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Groningen Declaration

Groningen Declaration

“All your documents  
are born digital”

Thomas C. Black, @stanford.edu

# Digital Diploma Deposits

## Aims

- Fraud prevention
- Friction reduction
- Loss recovery

# Digital Diploma Deposits

What's all this about? What has identity to do with it?

- Data ownership
- Privacy rights
- Identification
- Access
- Comparability
- Compatibility
- Acceptation
- Recognition



















# The big tree killer

bad for the environment



CC-BY-SA 2.0 M J Richardson <<http://www.geograph.org.uk/photo/510110>>

# The big tree killer

bad for the environment







# Information caught in the paper jail

as soon as it gets printed



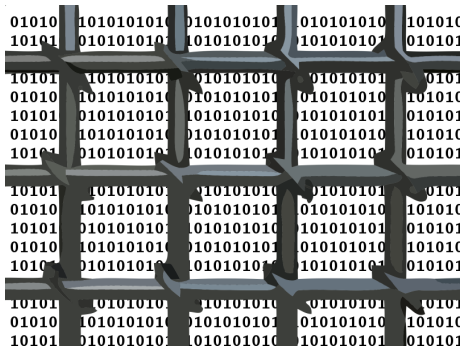
# Printed Information

freedom lost in the paper jail



# Printed Information

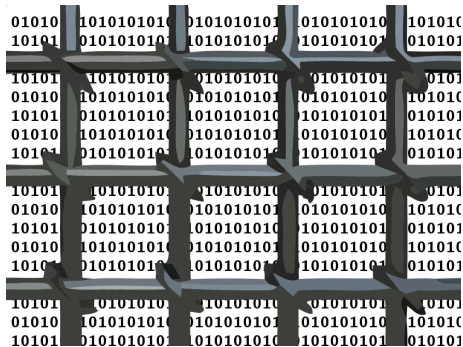
freedom lost in the paper jail



- Difficult to transport

# Printed Information

freedom lost in the paper jail



- Difficult to transport
- Difficult to preserve

# Printed Information

freedom lost in the paper jail



- Difficult to transport
- Difficult to preserve
- Difficult to retrieve

# Printed Information

freedom lost in the paper jail



- Difficult to transport
- Difficult to preserve
- Difficult to retrieve
- Too easy to create

# Printed Information

freedom lost in the paper jail



- Difficult to transport
- Difficult to preserve
- Difficult to retrieve
- Too easy to create
- Bad for the environment

# Standards Trust



# Standards

TCP/IP BGP  
SMTP HTTP IMAP XMPP  
X.509 TLS SAML OAuth OpenID  
SOAP XML ReST JSON  
PDF ODF SCHAC  
MLO ELM ELMO

# Standards



<http://www.eid-stork.eu/>

# Standards



<http://www.edugain.org/>

# Standards



<http://www.groningendeclaration.org/>

## Behavioral trust

- person to person
- institution to institution
- person to institution
- reputation based
- supported by *feelings*

## Technical trust

- institution to institution
- institution to *network*
- system to system
- procedure based
- supported by technology

## The three laws of crypto

- Confidentiality
- Integrity
- Non repudiation

# Actors



Student



# Actors



Home Institution

# Actors



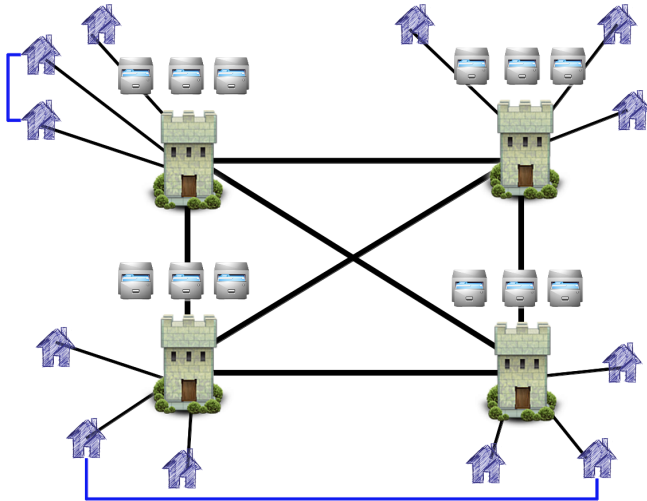
Receiving Institution

# Actors

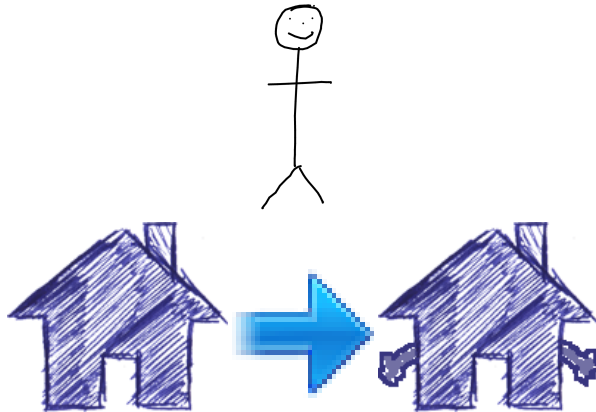


National Digital Deposit

# Trust Fabric

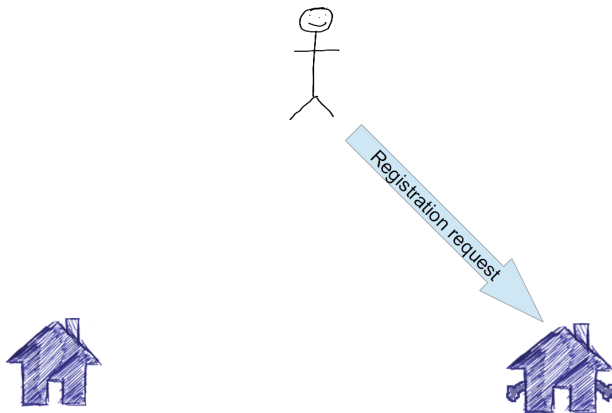


# Plot

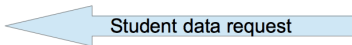


student wants to go from home to receiving institution

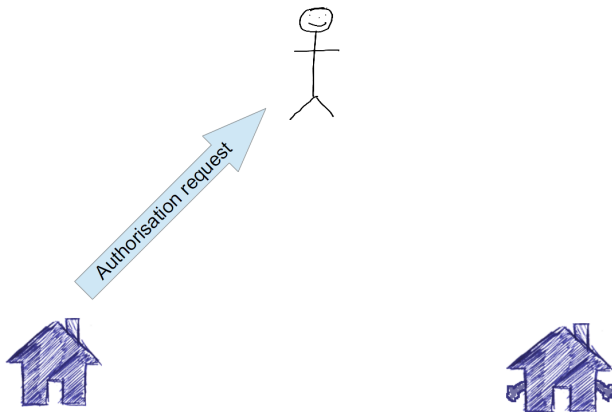
# Plot



# Plot

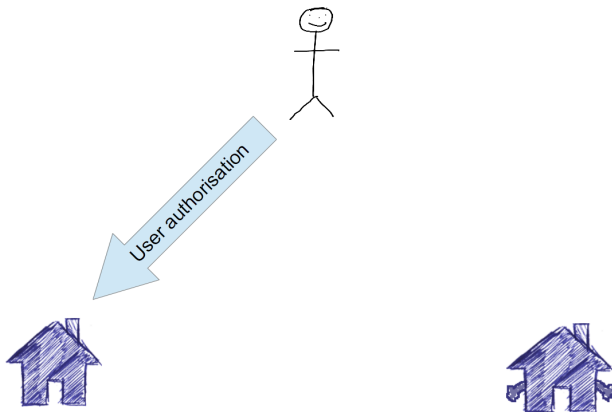


# Plot

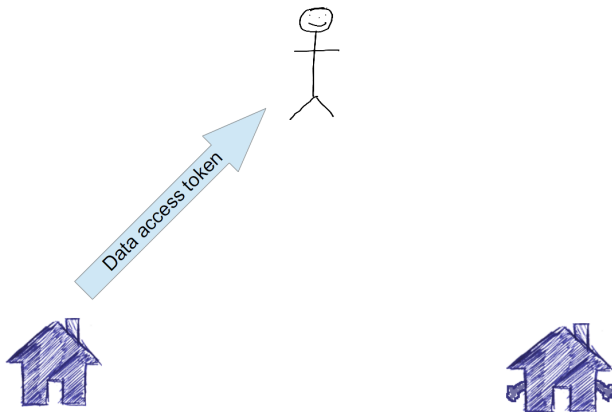




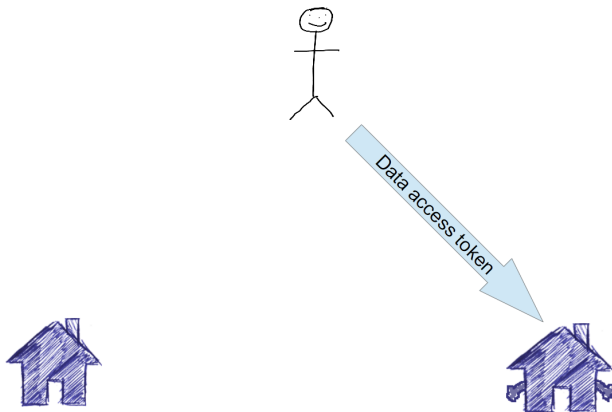
# Plot



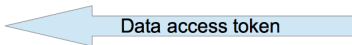
# Plot



# Plot



# Plot



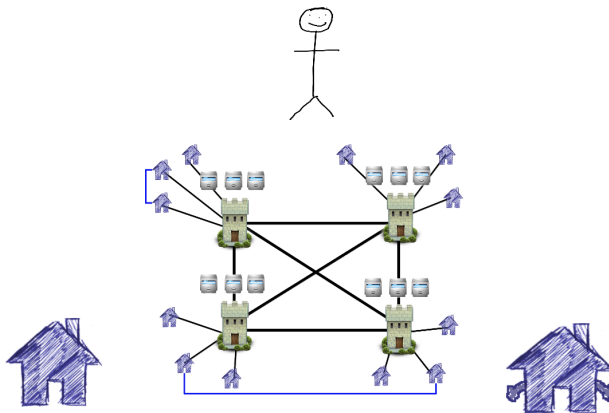
# Plot



Student data transfer



# Plot



# Plot

