

# Crime and Punishment in the Cloud

## Accountability, Transparency, and Privacy

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## Accountability

- document policies, procedures and practices, assign the duty to implement privacy policies to specified individuals in the organization, provide suitable training, inform about privacy breaches, give access to effective sanctions and procedures for compensations in case of privacy breaches.

## Implications

- accountability ← transparency + liability for privacy + ...
- privacy breaches (crime) ⇔ punishment.

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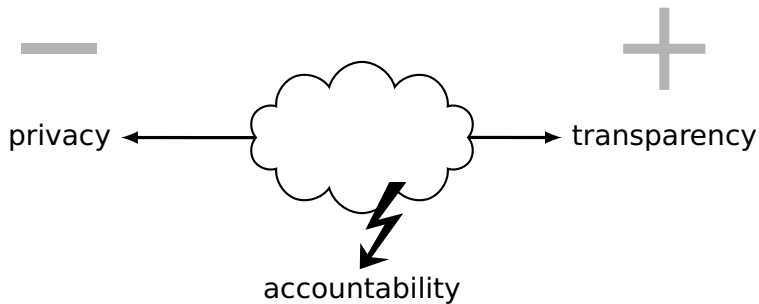
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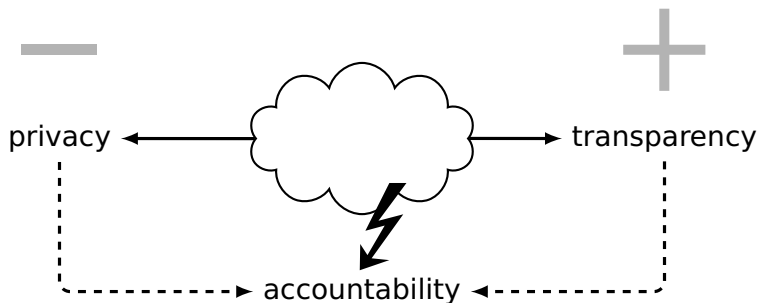
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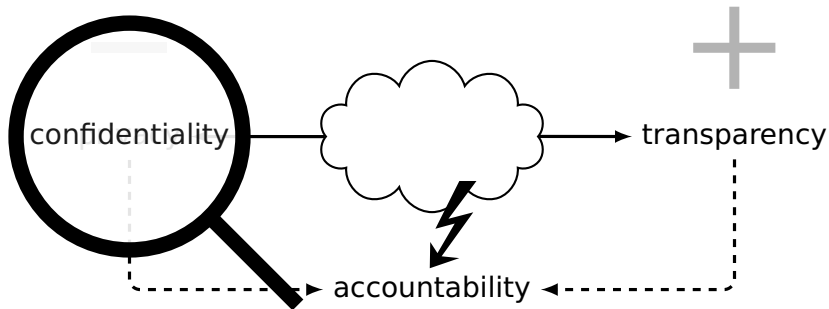
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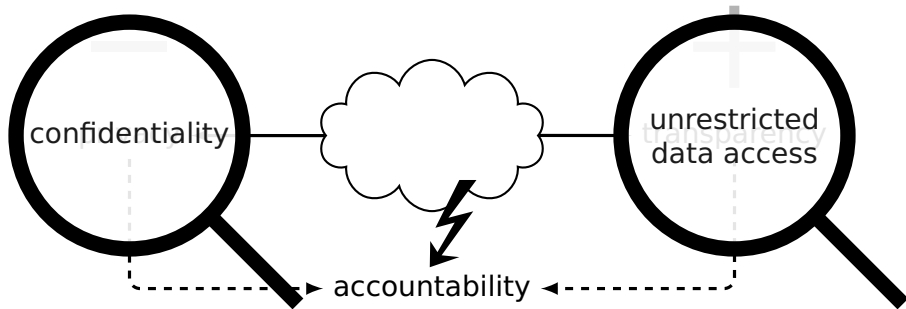


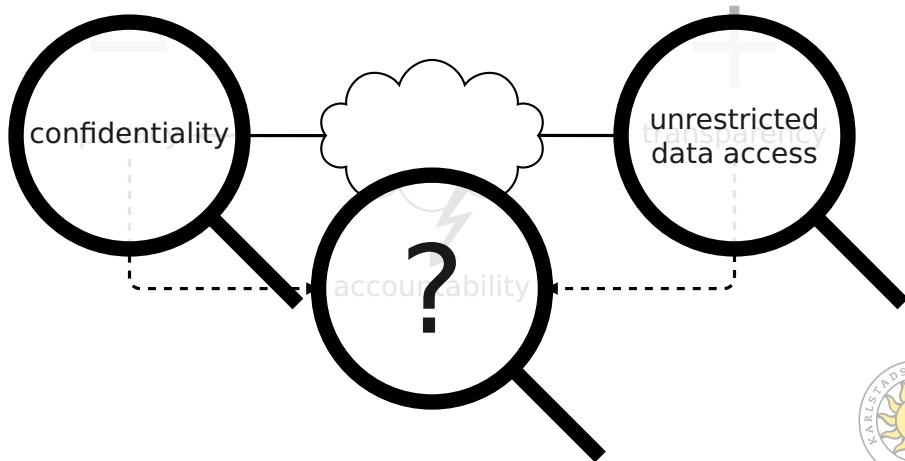




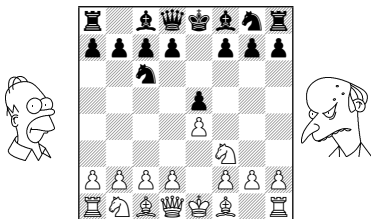








Transparency of the next move.



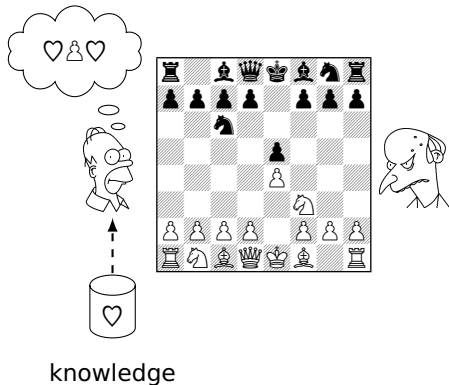
## Definition

Transparency is the state when every party in the target group possesses perfect knowledge about the observable of interest. In other words, no party in the target group could learn any information (in Shannon's sense) about the observable of interest.

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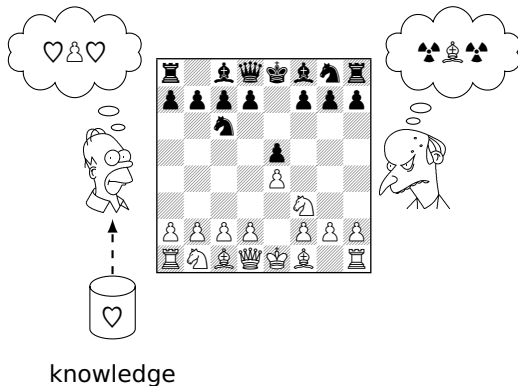
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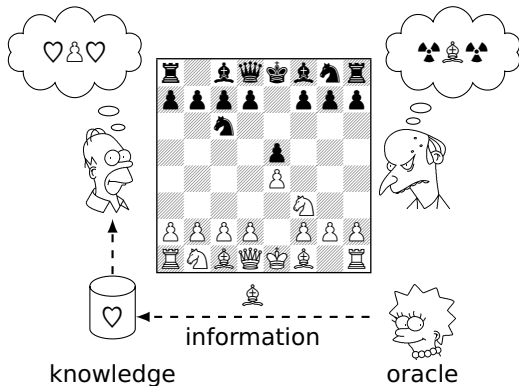
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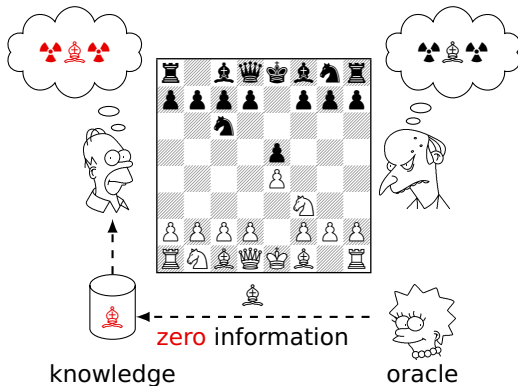
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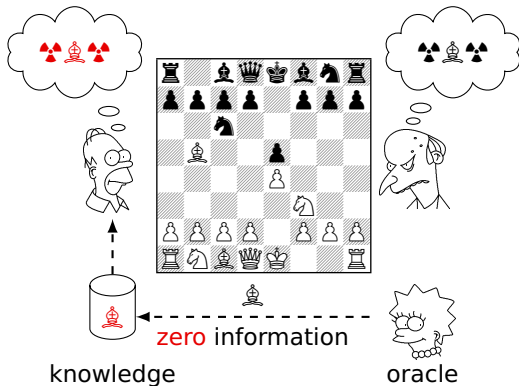
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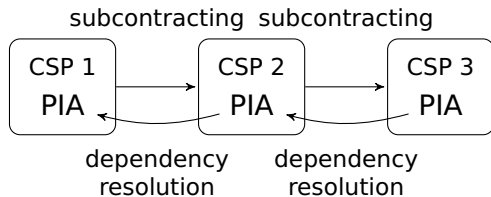
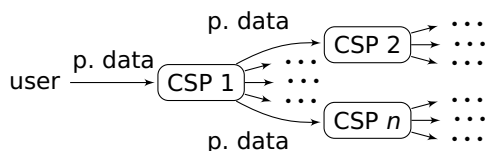
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## Definition

Privacy is the right of individuals to control the flow and use of their personal data.

**requires** informed decisions about

- data disclosure,
  - data storage, and
  - data processing,
- and their enforcement.

Reference. EU: Data Protecting Directive 95/46/EC.



## Accountability for end-users.

### Definition

A data controller is accountable, if privacy breaches are transparent to the respective data subjects and the data controller is sanctioned and/or the data subject is compensated in case of privacy breaches.

## Challenges.

- accountability: composing privacy and transparency.
- the cloud doesn't make that challenge easier.
- solutions exist for accountability where privacy is end-user control.
- hard conflicts between transparency and privacy when privacy is confidentiality.



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## Q&A

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