Socio-Economic Services for European Research Projects (SESERV)

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Internet Tussles involving Information

UZH, IT Innovation, AUEB, UOX, ALBLF, AOSAE

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Information as an Economic Good
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- *Socio-Economics Service for European Research Projects*
- Main topic: the socio-economic impact of tussles in FI

- Tussle investigation methodology:
  - Identify stakeholders for a certain functionality & tussles among them
  - Then, identify distribution of control across stakeholders
  - If control is imbalanced: assess the socio-economic impact
  - Identify potential gains of disadvantaged stakeholders by using other protocols/tricks
    - And possible negative impact on other functionalities (tussle spill-over)
  - For each new protocol/trick, apply the methodology again.

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Tussle Taxonomy: Main Patterns

- Contention over a resource:
  - Consumer – consumer or provider – provider
- Repurposing of a resource:
  - Consumer – provider
- Control of the selection of a complementary resource:
  - Consumer/provider – provider
- Responsibility for the misuse of a resource:
  - Provider – provider

- C. Kalogiros, C. Courcoubetis, G. D. Stamoulis, M. Boniface, E. T. Meyer, M. Waldburger, D. Field and B. Stiller, “An Approach to Investigating Socio-economic Tussles Arising from Building the Future Internet“, in FIA Book 2011

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Information Asymmetry

- ISPs have private access to information
  - This can be used for controlling the service outcome in a distributed scenario
- Sharing of SLA-monitoring info: responsibility tussle:
  - In case of SLA violation, ISPs have no incentive to report truthfully their effort for inter-domain service provision
- Propagation of routing information: contention tussle
  - An ISP can manipulate BGP routing advertisements, in order to attract more traffic
    - i.e. by announcing de-aggregated prefixes

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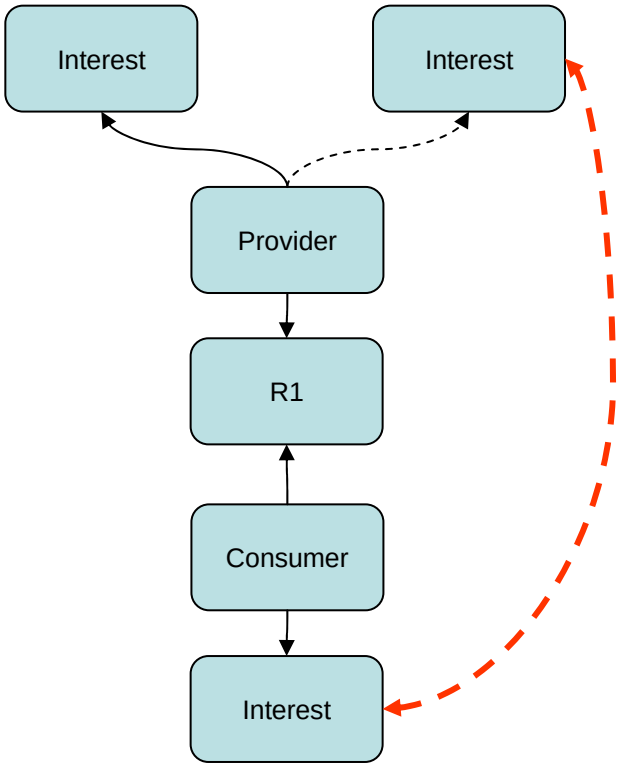
Information Monetization

- Providers can collect personal data from consumer activity
  - This data can be turned into valuable information by identifying consumer behaviour patterns
  - E.g.: Recommendation of products based on consumer's purchasing and search history



- Repurposing tussle between providers and consumers regarding how their data is exploited

Thank you for your attention!