

Erasmus School of
History, Culture and
Communication

Incentives for New Initiatives Costs and Potential New Trade-offs in the Data Economy

Presentation 1

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Complex markets for information goods

- Markets for information goods are complex and still not as well understood as markets for manufactured goods

- Extreme product differentiation and experience good attributes
- Users with differentiated preferences and taste for variety
- High development costs and low marginal costs of providing access
- Non-rivalry in consumption
BUT exclusive information is power
- High costs of enforcing exclusive rights

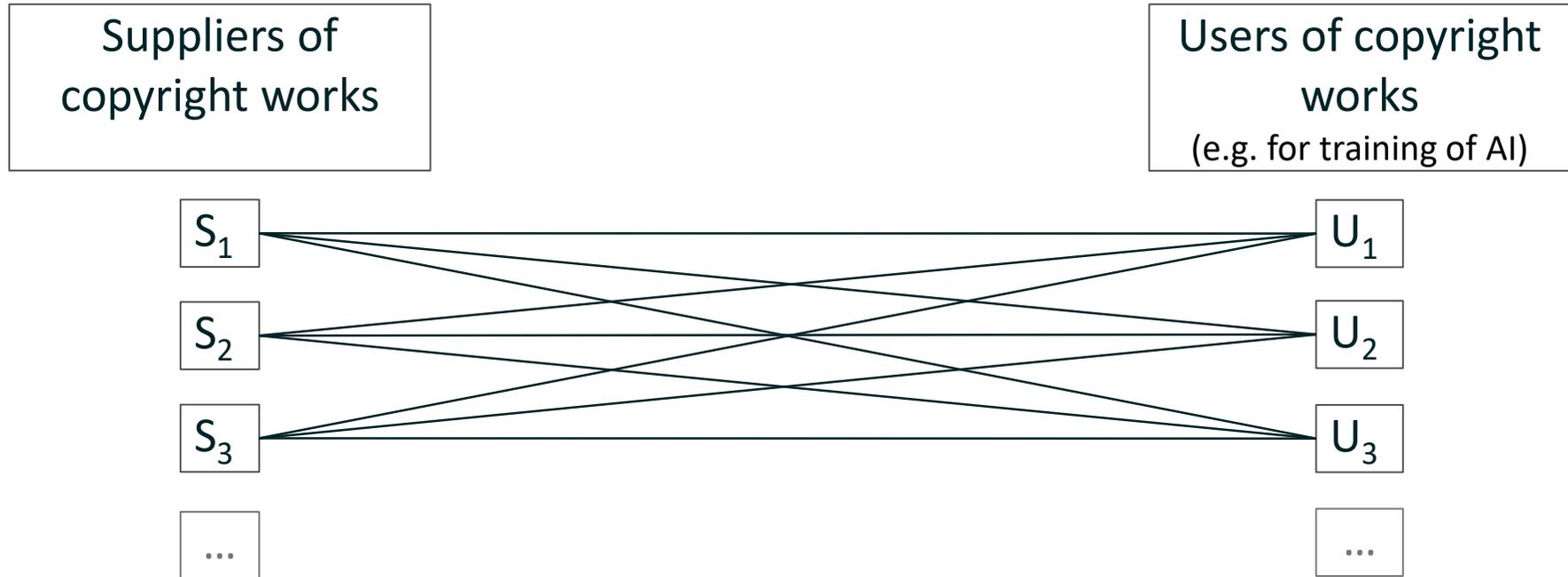
Many mutually beneficial transactions
at least without transaction costs

Public good attributes
market value \ll full social value

- ▶ Relatively high transaction costs
Searching, contracting, monitoring, enforcing
 - Per transaction relative to trade value
 - In the market aggregate

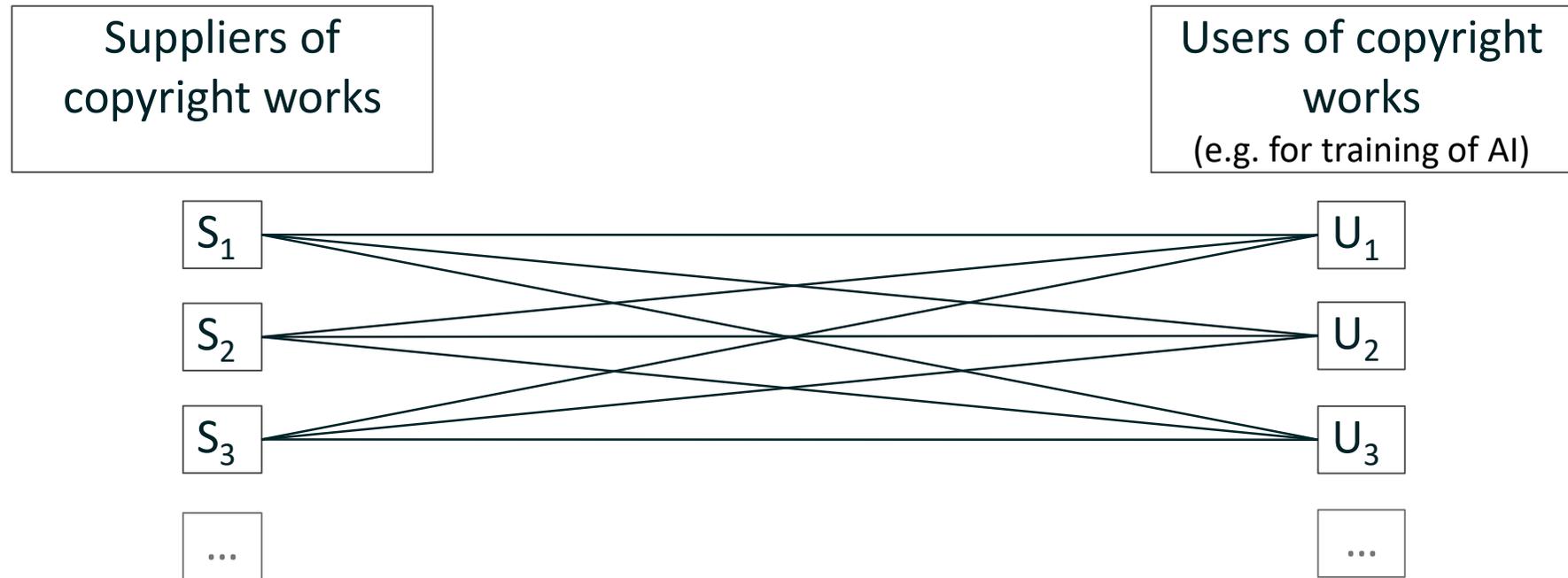


Several layers



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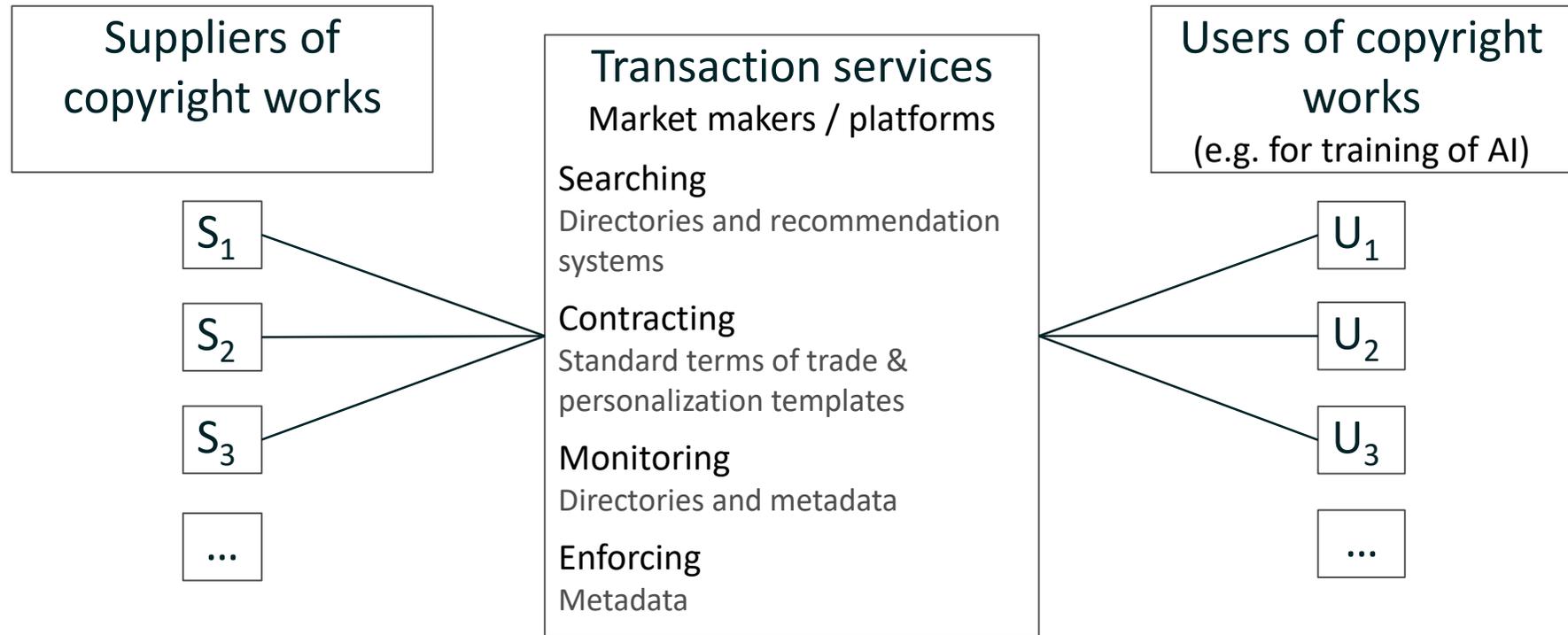
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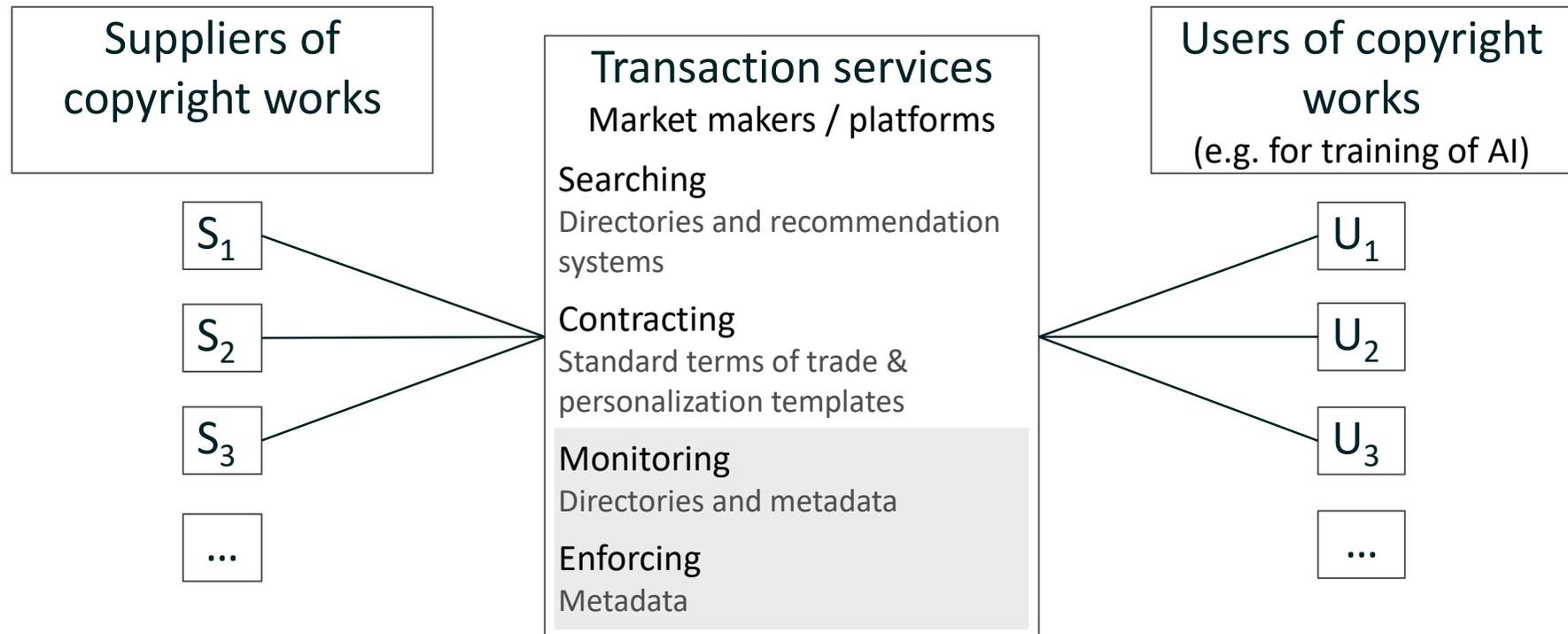
How to reduce average transaction costs?

- Bundling ► fewer transactions
- Standardization of terms ► lower contracting costs
- Use of digital ICT (innovation) ► automation and cheaper customization/personalization

Several layers



Several layers



- These are all essentially information services
- Differences by degree
Copyright works are most differentiated, entail the lowest development costs, and are least excludable
- Metadata infrastructure is a core aspect of transaction services

Transaction costs and metadata

- Metadata is 'data on data', e.g. on:
 - What are key characteristics of an information good?
 - Who holds rights?
 - What license terms are available?
 - Who makes use and how/how much?

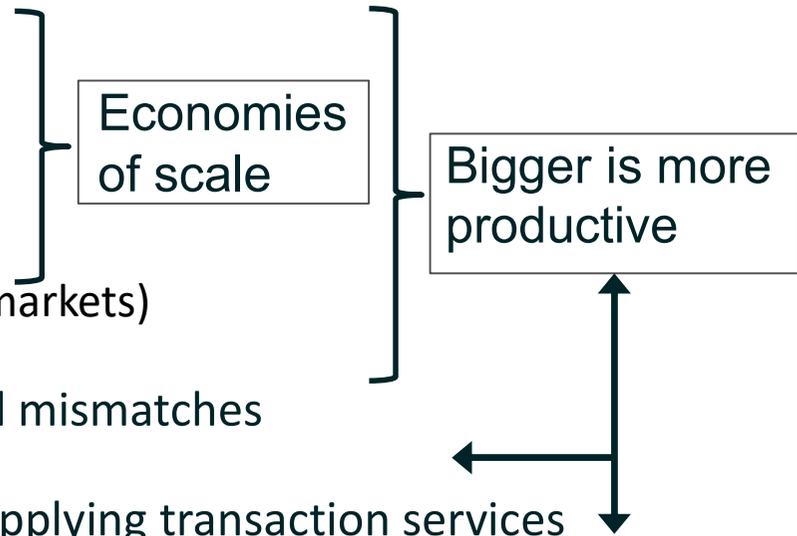
- The lower the costs of producing, storing, retrieving and analysing this information, ...
- ... the cheaper it is for market participants to trade licenses
- ... the larger and more valuable the market will become

As a rule, and holding other things equal

The logo for Erasmus, featuring the name 'Erasmus' in a stylized, cursive script.

Transaction costs, economics and metadata

- Lack of integration of “neo-classical economics” and “transaction cost economics” (TCE)
 - TCE often presented as alternative to neo-classical (e.g. production theory)
 - Makes it hard to discuss platforms as firms producing transaction services
- Assumptions regarding the cost structure of supplying metadata:
 - High setting-up costs
(sunk at least in part)
 - Considerable fixed costs
 - Low and non-increasing marginal costs
- Also, cross-side network effects (two-sided markets)
- Bundling and standardization can also entail mismatches
- Concern with market power of platforms supplying transaction services
Probably no sustainable competition in the market



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BIG QUESTIONS

regarding incentives & adequate metadata services

1. How to raise the setting-up costs ...
... without excessive, centralized control?
 - Covered in an inconclusive debate on how to operate **network utilities**
 - Question arises for **each** specific transaction service
2. Once a supplier of transaction services caters for most stakeholders:
 - How to retain persistent and adequate **innovation incentives**?
 - Regarding monitoring and enforcement: **who is watching the watchmen?** (Asymmetric information and trust)
 - How to avoid **anti-competitive spill-overs** due to:
 - discrimination/collusion between platforms and specific stakeholders?
 - horizontal or vertical integration?
3. Who should be liable for errors and gaps?
4. How to support non-commercial but value-generating activities?
5. Regarding blockchain technology and smart contracting:
 - Is there such a thing as a perfectly effective technology? (cannot be hacked?)
 - What about the connections between blockchain and the rest of the world?



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How to:

- determine, which entered data is legit?
- enable various stakeholders to make effective use?
- retain any balances provided by the copyright system?
(e.g. by exceptions and limitations)