The importance of trust in digital markets

In interpersonal relationships, trust refers to **the confidence that a person or group of people has in the reliability of another person or group**; specifically, it is the degree to which each party feels that they can depend on the other party to do what they say they will do.

<div align="right">Source: APA Dictionary of Psychology</div>
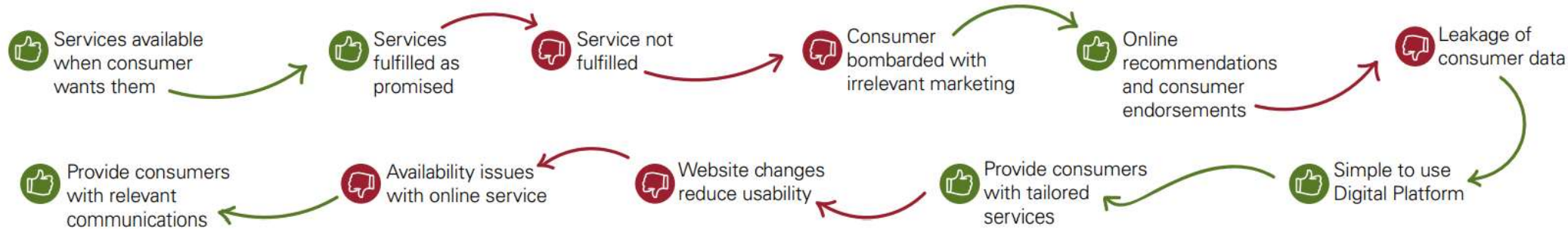
Questions:
- What role does trust play when you shop online?
- What could be reasons to be skeptical when shopping online?
- Are you more skeptical when shopping online or when shopping in real life?

Digital trust is the confidence users have in the ability of people, technology and processes to create a secure digital environment. Digital trust is given to companies who have shown their users they can provide safety, privacy, security, reliability, and data ethics with their online programs or devices. When a person decides to use a company's product, they are confirming their digital trust in the business.
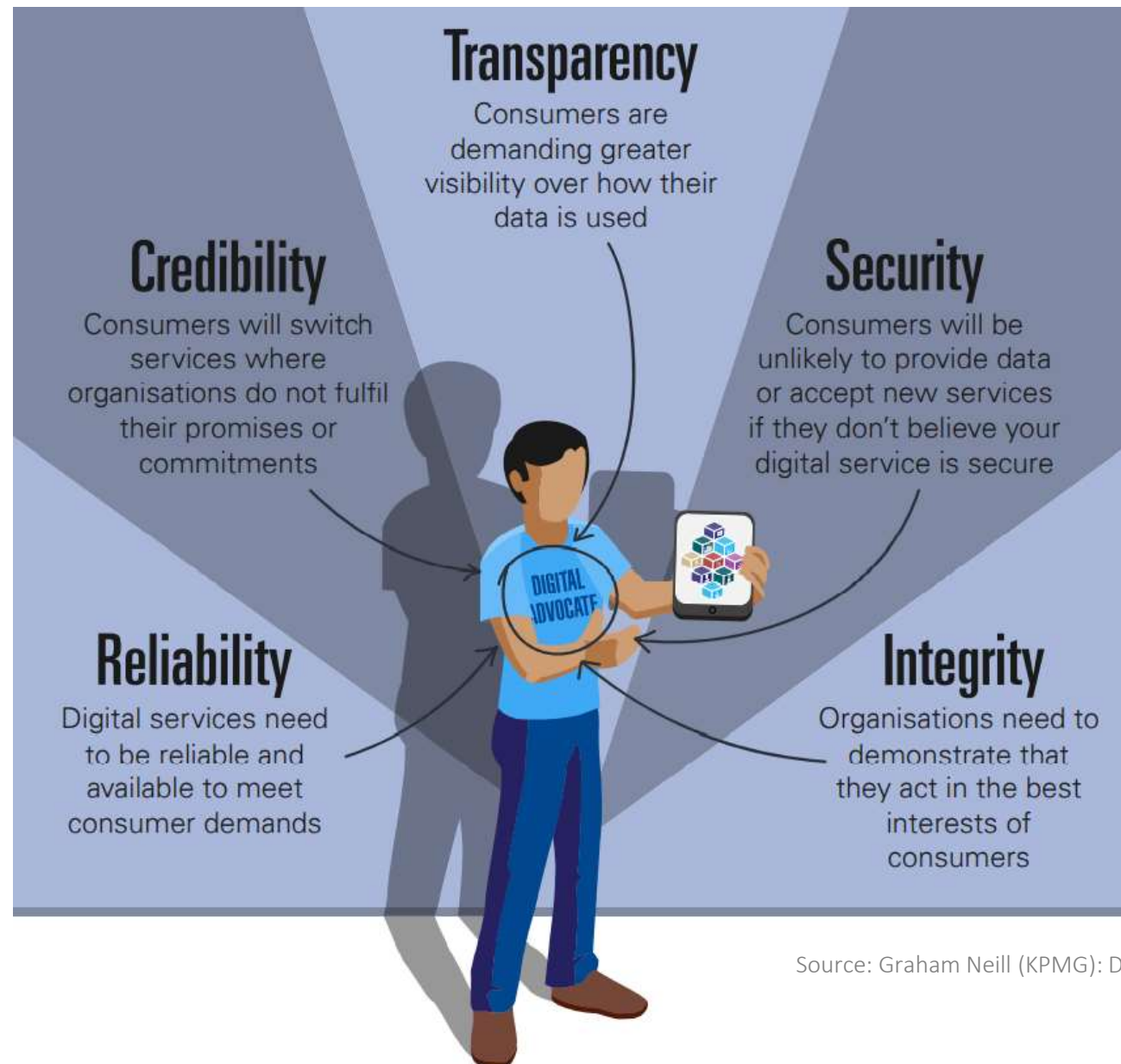
<div align="right">Source: Jeffrey Ritter, University of Oxford</div>

Services available when consumer wants them → Services fulfilled as promised → Service not fulfilled → Consumer bombarded with irrelevant marketing → Online recommendations and consumer endorsements → Leakage of consumer data → Simple to use Digital Platform → Provide consumers with tailored services → Website changes reduce usability → Availability issues with online service → Provide consumers with relevant communications

Source: Graham Neill (KPMG): Digital trust, 2015

How can a company establish digital trust?

Source: Graham Neill (KPMG): Digital trust, 2015

A goal of digital companies is to turn clients into digital advocates:

A Digital Advocate is someone who has such a high level of Digital Trust around your brand that they inspire others and use their networks to spread the word about your products and services.

Source: Graham Neill (KPMG): Digital trust, 2015

Those companies that demonstrate high levels of Digital Trust will find it much easier to quickly grow the number of Digital Advocates, leading to increased sales, revenue and consumer loyalty.

Principal Agent Theory:

Analyses the effects that result out of an asymmetric distribution of information between partners of business transactions.
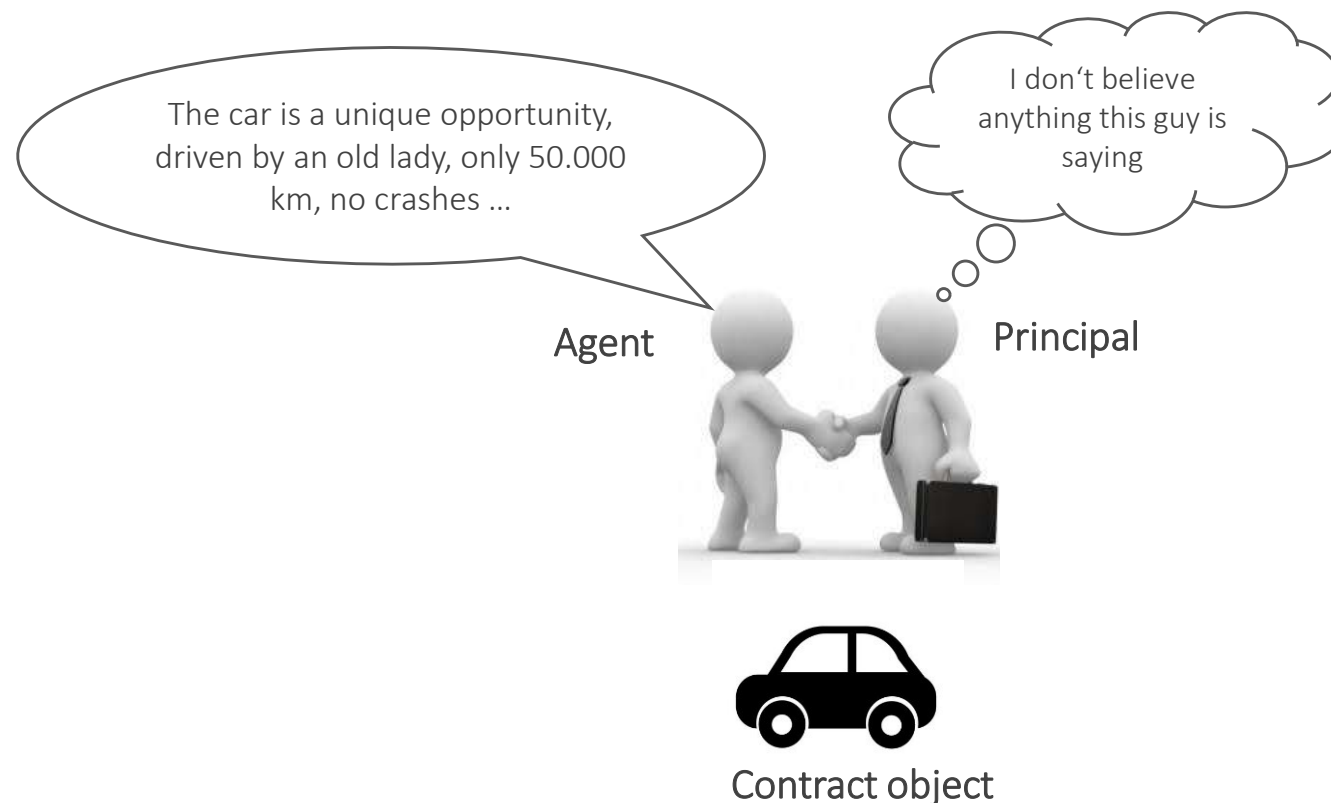
As the agent's interest deviates from the principal's interest, the agent can use an asymmetric allocation to his own advantage. The principal has problems ensuring that the agent acts in the principal's interest = agency problem / agency costs.

Principal Agent Theory - Assumptions:

- Business involves a high number of business transactions between a principal and an agent:
  - Employment relations
  - Task assignments within a project
  - Purchasing
  - Sales
  - Cooperation

- Transactions are usually based on formal or informal agreements.

- These agreement between principals and agents can never define rules for each possible scenario of what will happen = „Contracts" are incomplete
  => It is necessary to fill the gaps of contractual agreements during the execution of the transaction

Principal Agent Theory - Assumptions:

- To effectively coordinate a transaction, information is required: Who has done what activities, what external effects happened, how is the quality of the contract object, …

- This Information is allocated between principal and agent in an asymmetric way, with information advantage on the side of the agent

- Business partners act as Homo Economicus:
    - They collect all information available
    - They optimize their own utility (= act rationally)
    - They are self-interested / opportunistic and will optimize their own utility also accepting this will have negative effects on other parties
    => Moral hazard

- The need to negotiate and control a transaction generates costs = transaction costs. Asymmetric information increases these transaction costs.

- Companies can and should introduce „institutions" to reduce transaction costs.

Transaction costs are incurred in different phases of a sales transaction:
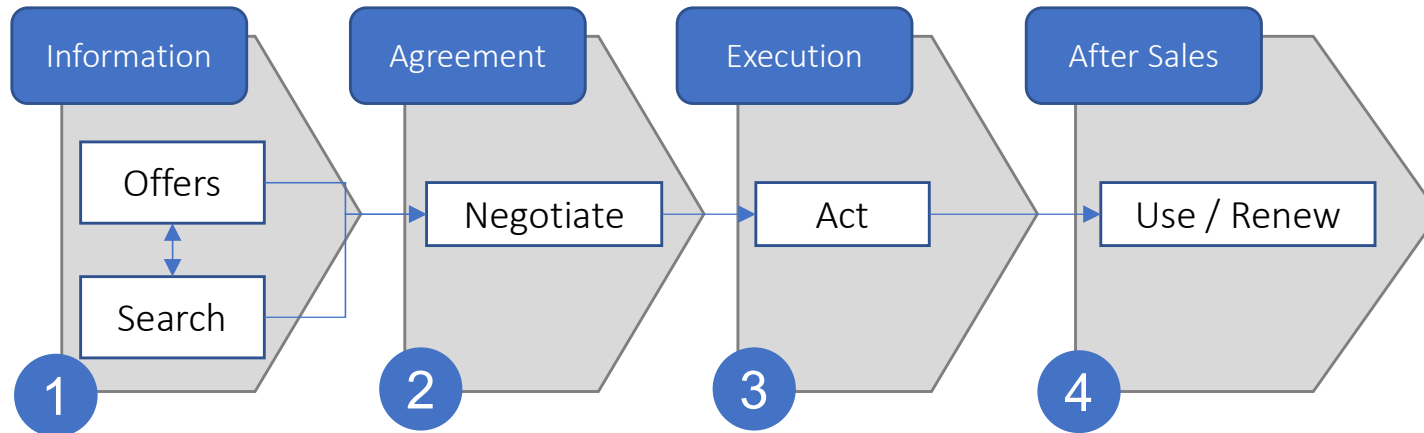
What causes transaction costs in which stages of the process?

Information asymmetries are distinguished in those before and after a contract is agreed.
<u>Before</u> the agreement:

Asymmetric information

Agent   Principal

Hidden Characteristics:
The agent knows more about the characteristicts
of the contract object than the principal.

=> Risik of „**Adverse Selection**"
=> Example: Lemon Market

Solution: Signaling

Solution: Screening
             Self Selection

Contract object

Information asymmetries are distinguished in those before and after a contract is agreed.
<u>Before</u> the agreement:

Asymmetric information

Agent   Principal

Hidden Intention:
The agent knows more about his own
intentions with regards to the planned
agreement and about his planned actions
during the transaction.

=> Risik of „**Hold up**" (principal gets bound
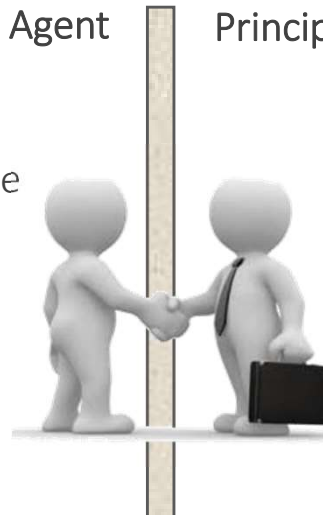   to a non-trustworthy agent)

Solution: Signaling

Solution: Screening
              Self Selection

Contract object

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Information asymmetries are distinguished in those before and after a contract is agreed.
<u>AFTER</u> the agreement:

Asymmetric information

Agent   Principal

Hidden Action:
The principal is unable to watch and control the behaviour of the agent. Therefore it is impossible for him to judge if a certain event or development was caused by the agent's actions or not.

=> „**Moral Hazards**", i.e. agent will act in his own interest as negative side effects of his own actions will not directly come back to him.

Contract object

Solution: Suitable contracts

Information asymmetries are distinguished in those before and after a contract is agreed.
__AFTER__ the agreement:

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Asymmetric information

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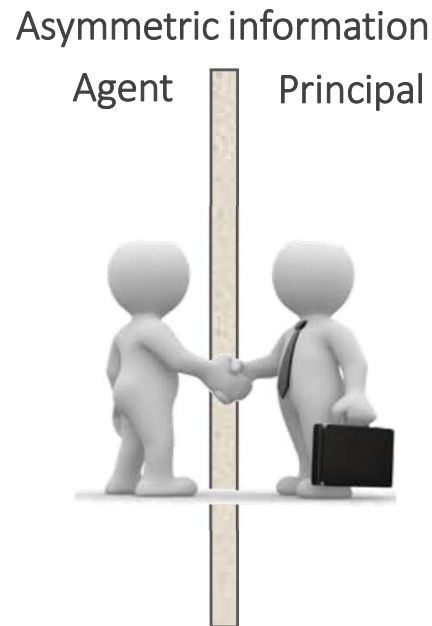
Digital business can aggravate the agency problems:

- No direct / personal / face-to-face contact between participants
- Known frequency of fraudulent market participants
- No possibility to see / experience / test the contract object before purchase
- Exposure of own data in online transactions
- Online payment risks
- ....

Digital markets offer many advantages like a bigger scope of supply and demand, price transparency etc. On the other side, the transaction costs are increased due to …
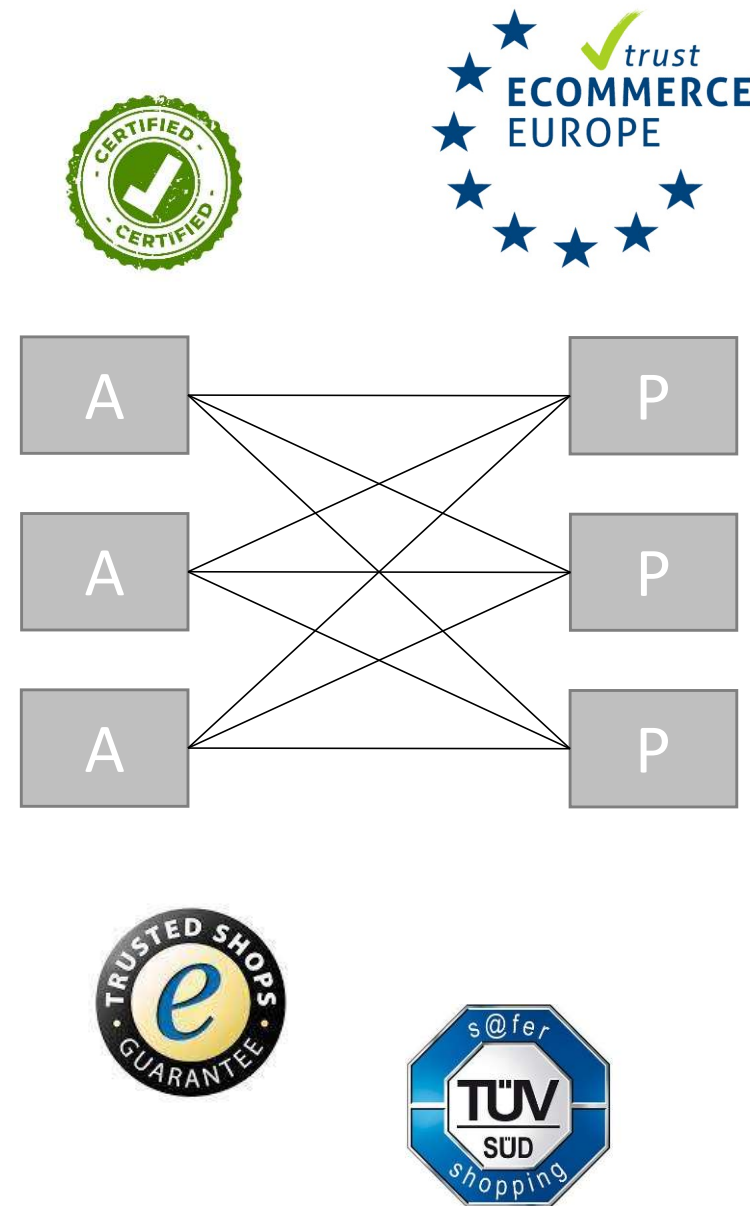
- Big number of market participants
- Missing personal trust basis
- etc.

It is important to reduce these transaction costs.
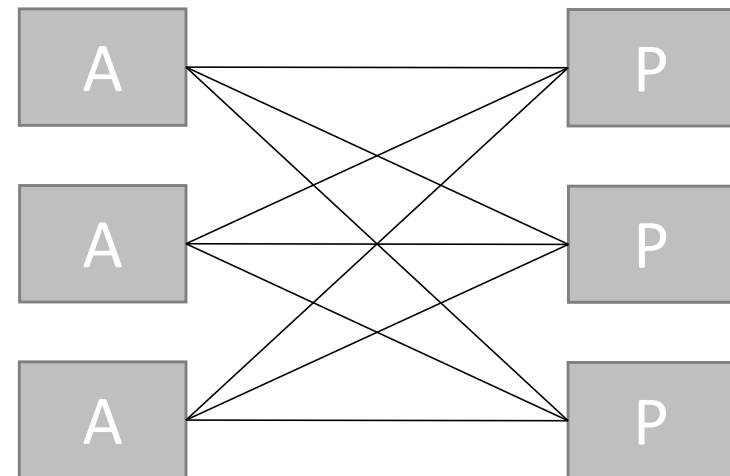
Important institutions to lower the transaction costs and to build up digital trust are:

- Reputation building mechanisms
- References / review mechanisms
- Guarantees
- Certificates

A special role in reducing transaction costs for all parties involved are intermediaries.

- They reduce the number of necessary interactions
- They usually introduce a trust-building mechanism like a central quality control
- They sometimes act as trustee and thereby take risks out of a transaction.

This is a reason why platform models can be very interesting digital business models.
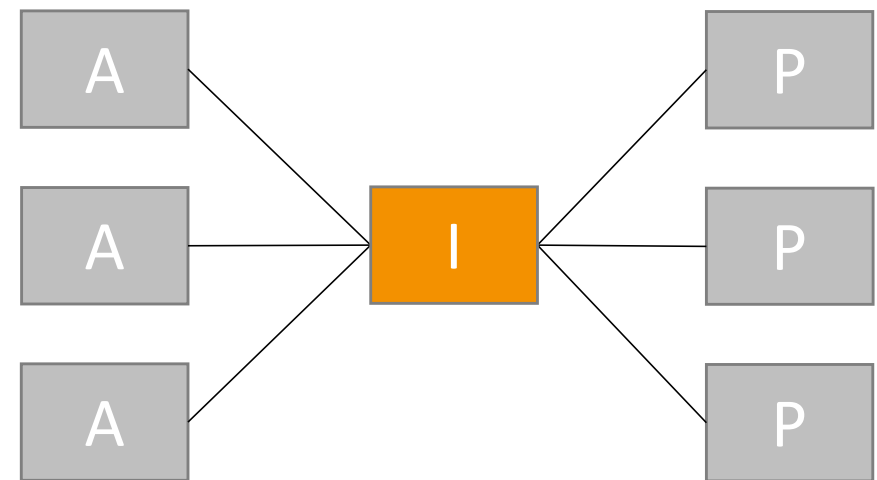
The Baligh-Richartz-Effect explains the efficiency gains by adding inter-mediaries into a contact network. It compares the contact costs depending on the number of intermediaries.

Example:
Number of buyers = n
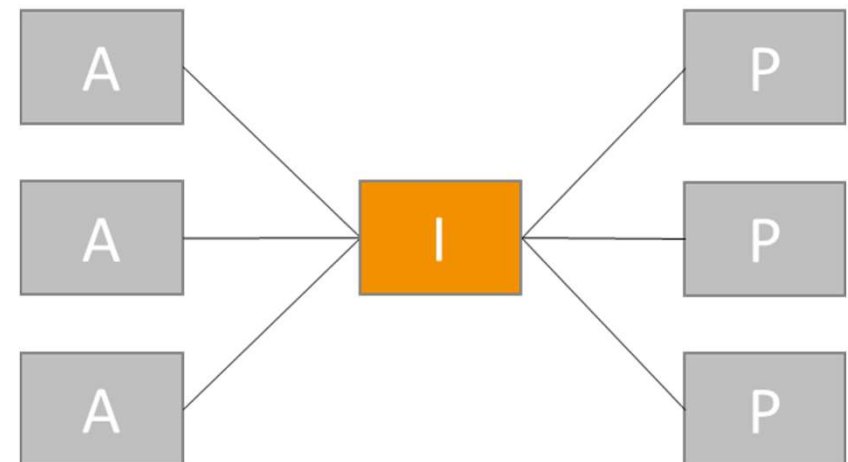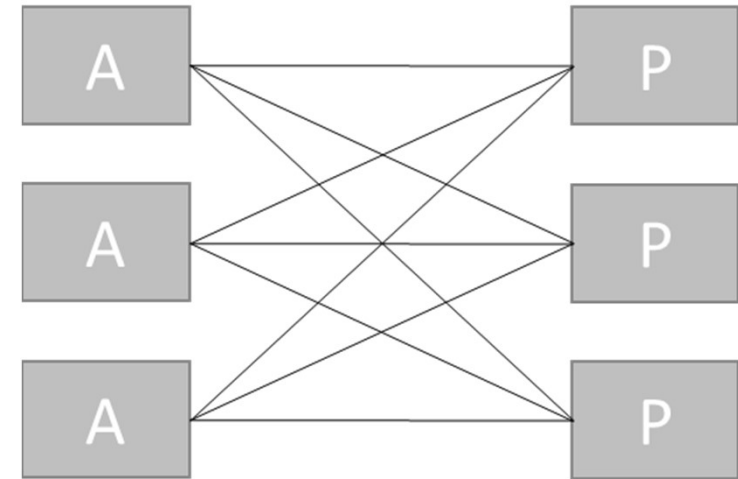Number of producers = m

Number of contacts:
Without intermediation: n · m
With intermediation: n + m
Saving: n · m − (n + m)

In our example: Saving = 3

Question: What happens if another intemediary accesses the market?

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The **Baligh-Richartz-Effect** explains the efficiency gains by adding intermediaries into a contact network. It compares the contact costs depending on the number of intermediaries.
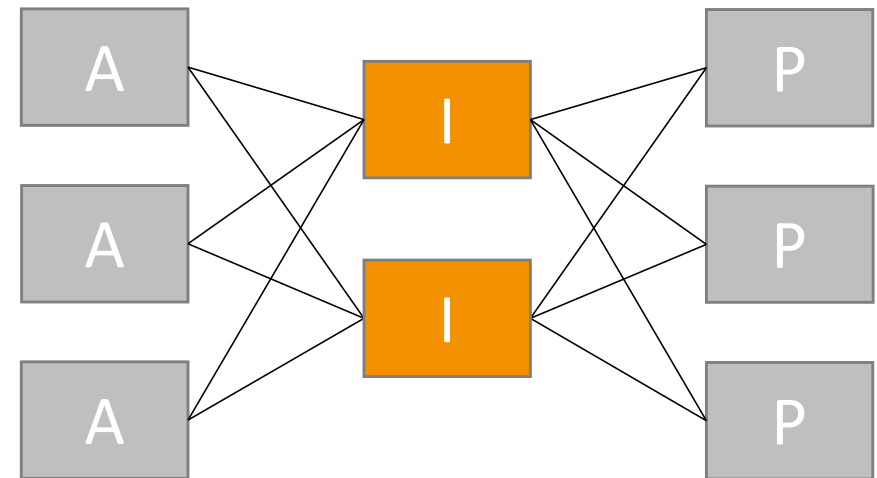
Number of contacts:
Without intermediation: $n \cdot m$
With intermediation: $2 \cdot (n + m)$
Saving: $n \cdot m - 2 \cdot (n + m)$

In our example: Saving = -3

There is a critical number of intermediaries! If this number is exceeded, there is no efficiency gain anymore: What will happen?

1. Like all business transactions also transactions in digital markets show agency problems.

2. The characteristics of digital business even aggravate the agency problem.

3. Intermediaries can help to reduce the transaction costs by reducing the number of necessary contact points as well as by introducing trust building institutions. However, there is a critical limit for the number of intermediaries in a market.

4. Companies need to establish (digital) trust to become attractive to consumers.

5. Digital advocates are an important facilitator for digital business.