Sharing health data – using a national health data infrastucture

Erik Perjons,
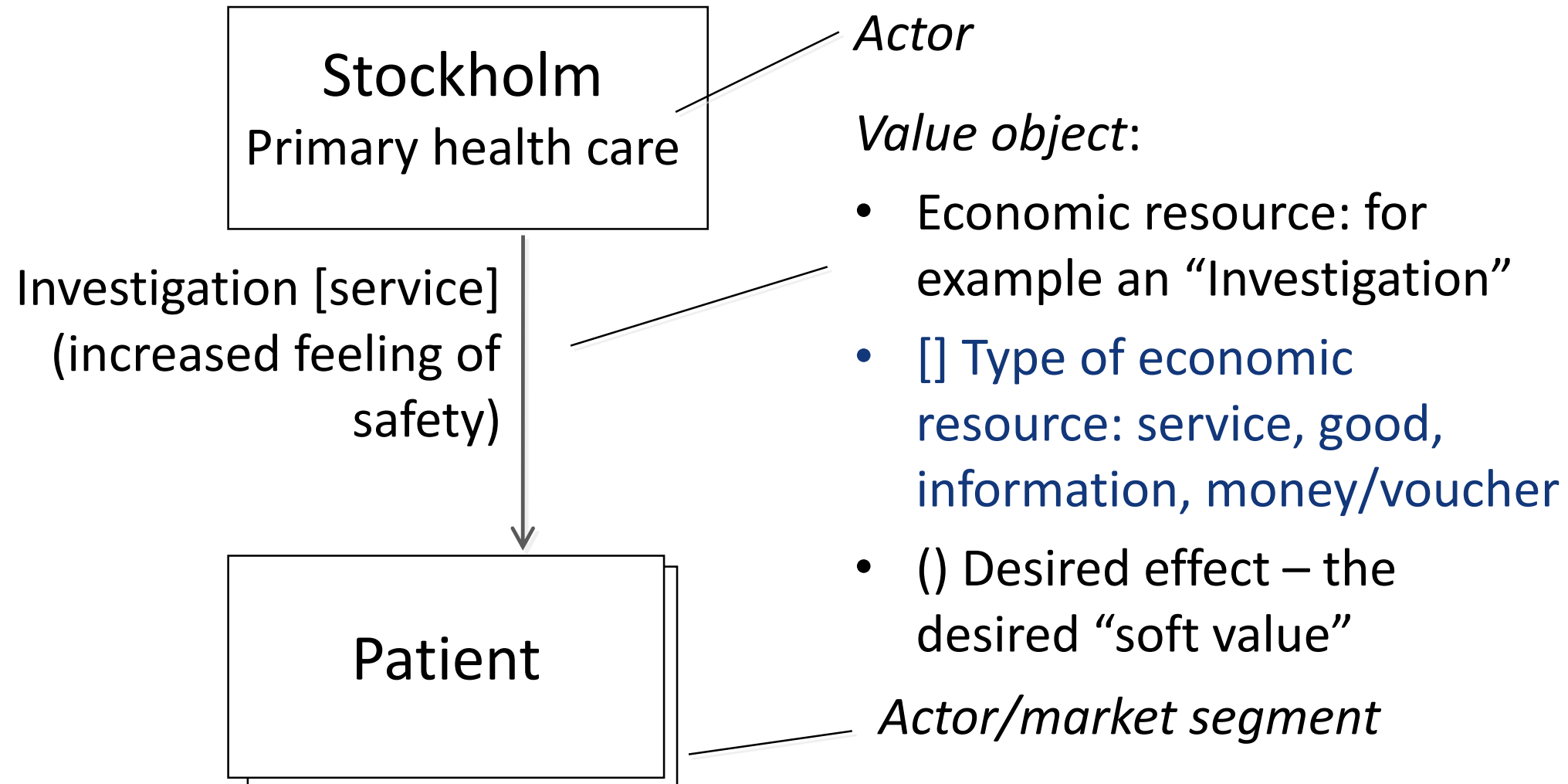
Department of Computer and Systems Sciences,
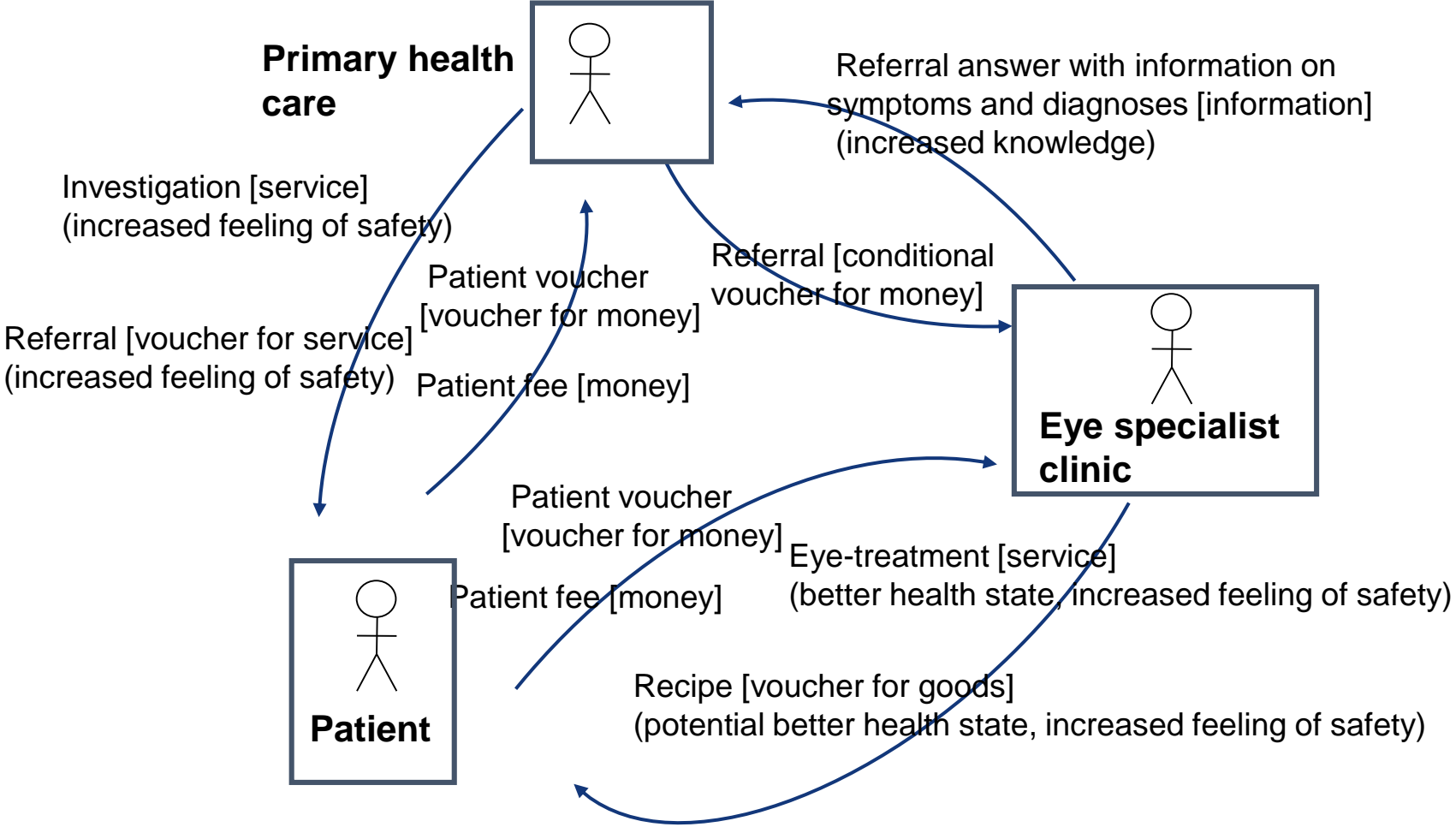
Stockholm University

Group task

- **Group task.** When we meet at Stockholm University (Kista), we should divide the students into 3 or 4 groups. Each group should do:

- **Value Network Modelling:** Create a diagram that describes the network of care providers and other important actors in the healthcare system of the UK, and the value these actors exchange between each other (note that each group should decide which actors are the most important). Use an "Extended e3 value diagram" shown in the following slides.

- **National Health Data Infrastructure Modelling:** Add to the value network diagram a description of how a national health data infrastructure could support:
  - Exchange of health data between care providers in the UK.
  - Exchange of health data between care providers in Europe based on the regulation of the European Health Data Spaces (EHDS).
  - Researchers and companies to access data for research and innovation

Extended e3 value diagram – concepts and symbols

Stockholm
Primary health care

Actor

Investigation [service]
(increased feeling of safety)

Patient

Value object:

- Economic resource: for example an "Investigation"

- [] Type of economic resource: service, good, information, money/voucher

- () Desired effect – the desired "soft value"

Actor/market segment

Extended e3 value diagram - example

Four types of economic resources

- ***Goods***, which are physical objects, like cars, refrigerators, and cell phones.

- ***Information***, which is data in a certain context, like blueprints, referrals, and customer databases.

- ***Services***, which are performed work done by one party for the benefit of another party. Examples of services are hair cuts and medical treatments. A hair cut can increase the beauty and an medical treatment can give a better health state.

- ***Money and vouchers***, which are *media for exchange*. A voucher is a certificate that can be exchanged for another specific economic resource, e.g. a good or a service (like a "cinema ticket"). Usually, a voucher can be exchanged only with some pre-specified actor(s) (like a medical referral). Money can be viewed as the most general form of voucher without any restriction on economic resources and actors.

Soft values - Effects

The desired effect of getting an economic resource.

Examples:

- **Lecturing** (a service) may have the effect of (**increasing knowledge)**

- **Medicine** (a goods) may have the effect of (**better health state)**.

→ *Important: The effect in itself can not be exchanged directly between actors, it is an effect of an exchange between economic resources*

Value Network Modelling

Draw a value network model for the healthcare system in UK.

1) Find Actors & Markets segments

Which organizations are in the network?

2) Find value objects

What do the organizations exchange?

Reciprocity: make sure each organization benefit from the exchange – most organization should have both incoming and outgoing objects

3) Detail the value objects

What type? service, good, information, money/voucher

What intended effects? This should be something "soft" that cannot be exchanged.

Sources

- Make use of AI tools such as Chat-GPT to get idea how to do the modelling
- If you have time, check the sources in this folder: https://people.dsv.su.se/~perjons/UCLWorkshop2024/