

Sustainability, Environment, Management
A Short Summary on our Seminar
at Leipzig University in W21

Prof. Dr. Hans-Gert Gräbe
<http://www.informatik.uni-leipzig.de/~graebe>

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Seminar Objective

Learn more about

- ▶ modern management approaches in which *common conceptualisations* and *consensus-oriented decision-making processes* are central and of crucial importance for the success and ways of formation and consolidation of new systemic structures.
- ▶ connections between the dialectical resolution of contradictory requirement situations in the sense of TRIZ methodology and the emergence of common conceptual and notational worlds.
- ▶ the concepts of the *Methodological School of Management* around G.P. Shchedrovitsky.

Prior Knowledge of the Participants

- ▶ Some experience in teaching management methods especially in the field of IT (ISO 9000, CMMI, Spice, TQM).
- ▶ Work on system theoretical approaches in socio-technical, socio-economic and socio-ecological contexts.
- ▶ Study of methods of analysis of contradictory requirement situations in the field of engineering (especially TRIZ).
- ▶ Some experience with philosophical argumentations, especially in the tradition of Hegelian concepts of development and materialist dialectics.
- ▶ Partially work on Business Model patterns.

How did we proceed?

- ▶ Joint research seminar with master students in computer science.
- ▶ Selection of topics and literature based on recommendations from third parties and own investigation.
- ▶ 5 topics were prepared by the students for presentation, a handout was compiled and published beforehand, the presentation was intensively discussed in the seminar. 8 topics were prepared and presented by staff members and also intensively discussed.
- ▶ In the discussion the approach was usually broadened, overarching aspects were critically considered and lines of development were highlighted.
- ▶ The staff members played a particularly important role in this discussion due to their more detailed knowledge of the concepts developed earlier.

How did we proceed?

- ▶ Individual aspects of this overarching reflection were summarised in *Seminar Notes* (see the website of this workshop).
- ▶ Now the student have to compile *Seminar Papers* on this basis, in which the respective topic is to be deepened once again and placed in a larger context.
- ▶ The seminar was accompanied by a *Lecture*, in which the conceptual system developed so far, especially on
 - ▶ Technology,
 - ▶ Systems and Action Spaces,
 - ▶ Language – Information – Knowledge,
 - ▶ Digital transformation and Semantic Web, as well as
 - ▶ Ccooperative Action,were presented in more detail.

Findings

1. There is a close connection between

- ▶ the unfolding of an industrial mode of production,
- ▶ technological development,
- ▶ development of production-organisational instruments and
- ▶ differentiation of professional profiles.

This concerns in particular the profession of an engineer and the profession of a manager.

In both cases, educational structures (engineering schools, management schools) emerged. Since the 1970s engineering schools have developed into an essential component of a more general university education (technical universities).

Findings

2. This can be well mapped onto the **triad of our concept of technology**, consisting of

- ▶ socially available processual knowledge,
- ▶ institutionalised procedures,
- ▶ private processual skills.

The focus of the seminar themes was primarily on the **process of institutionalisation** of production-organisational processual knowledge (ISO 9000, QM Frameworks, APQC Process Classification Framework, SCOR – the Supply Chain Operations Reference Model) and **proven practices** (BP Landscaping, BM Patterns, BM Navigator).

3. Systemic concepts play a central role in both the theory and practice of **systematic** development of business process landscapes and business models even if these are not always visible in the theoretical models.

Systemic concepts are a proven means to extract the **practically approved** from the feedback cycle of "justified expectations – experienced results" and to institutionalise it in **approved practices**.

Findings

4. We further encountered management on three levels of abstraction:

(1) **Management as the ability of the leader** to organise the area of responsibility assigned to him or her in such a way that the required KPIs are achieved.

For the foundation of this ability in a conceptual system, the feedback loop is decisive between the manager's privately *justified expectations* and the privately *experienced results* of the real business processes.

Corresponding experiences "institutionalise" in the manager's world view and form the basis of his or her actions.

This is the level of operational management.

Findings

(2) **Management as the ability of the company** to coordinate the management processes (1) and to bundle them in a company-wide management strategy.

For the foundation of this ability in a conceptual system, the feedback loop is decisive between the justified expectations and the experienced results of the group of managers in the company. This is a cooperative process in the company as action space.

Corresponding experiences institutionalise in company-wide specifications, data collection processes and control structures and thus form the basis of the company's actions.

This is the level of strategic management.

Findings

(3) **General management theories** or theories of business process modelling, in which the experiences of level (2) are generalised across companies.

Level (2) is based on the systematisation of experiences at level (1), but on the other hand provides the infrastructural prerequisites (e.g. through data collection processes and controlling) under which certain forms of practical activity at level (1) only become possible.

The same applies to the connection between levels (2) and (3).

ISO 9000, QM Frameworks, APQC Process Classification Framework, Business Process Languages, Business Innovation along ISO 56000:2000 and Business Model Patterns are located at this level.

5. Precisely at these level boundaries run the processes of institutional solidification of practically proven things in proven practices.

We observed a massive surplus of theory production at these two interfaces – a lot of theory is produced, little of which becomes established.

6. As a further level, we identified the theoretical elaboration of practical **inter-company relations**.

This form of cooperative action in distributed multi-stakeholder structures is characterised by a specific combination of cooperation and competition that can hardly be grasped with a market-radical terminology only.

The **systematic** shaping of such relationships can well be conceptualised as **systemic development** in the sense of Shchedrovitsky's schematisation approach.

Findings

Of particular interest here were the approaches

- ▶ SCOR – the Supply Chain Operations Reference Model
- ▶ Business Networks and Business Networking of the IMP Group (Ford, Mouzas 2013)

Both approaches emphasise the importance of understanding the **material** (substantial) interdependencies in such business networks and thus real material flows of **use values** in qualitatively and quantitatively determined dimensions.

In contrast to conceptualisations solely based on value propositions, which Business Model Patterns in particular often reduce to, this leads to fundamentally different priorities in modelling.

Findings

This corresponds exactly to the systemic premise that the **structures in delimited systems** are shaped to a large extent by the **throughput** of energy, material and information.

It is emphasised that **Business Networking** as a *process of targeted stabilisation, strengthening and institutionalisation of such interdependencies* is more significant for the formation of cooperative contexts than decoupled value propositions in the individual nodes of this network.

Such processes can well be conceptualised as "coping of (individual) problems" in "small worlds".

The IMP group also emphasises the importance of the concept of **Service** oriented at prosumer concepts for similar processes in a wider world of such a Business Network.