



» Forschung in Wildau – innovativ und praxisnah «

Kompetenzmanagement für die Facharbeit in der High-Tech-Industrie

# The Maker Movement: Current Understanding and How it May Change the Dominating **Production Regime**

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### Problem

Movement (MM) has emerged and has been attracting increasing attention since 2011

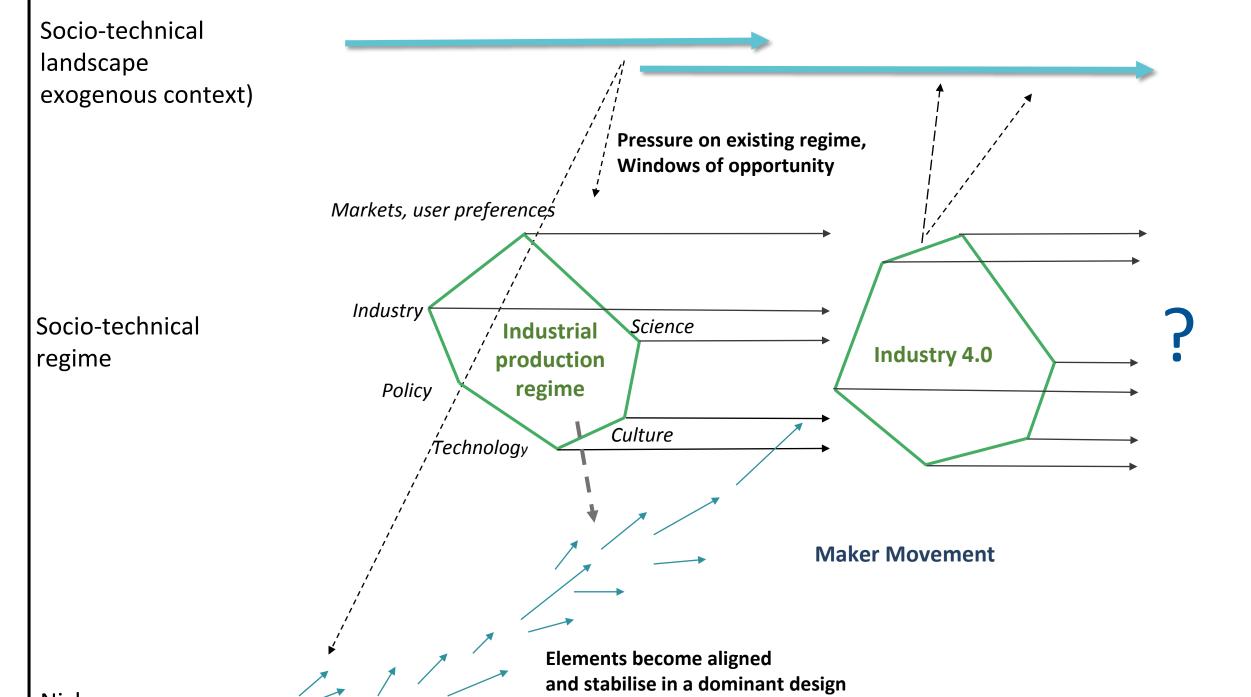
#### Institutionalisation

However, we neither fully understand the MM as a social phenomenon nor are able to comprehensively explore its social embeddedness and implications.

### **Research Questions**

- What is a systematic understanding of the MM?
- How is the MM interacting with the prevailing production system and what are possible impacts on it?

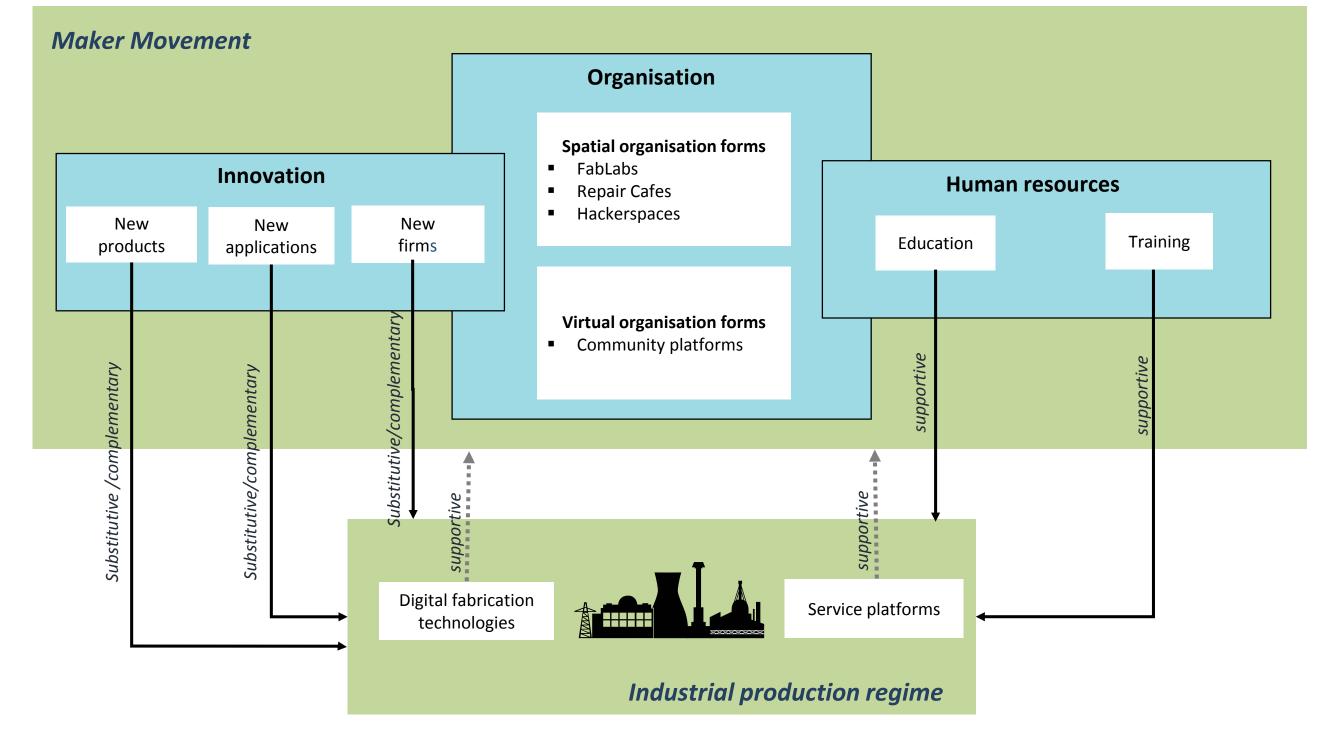
### **Theoretical Background**



- The MM is at the beginning of its institutionalisation process.
- It can be understood as a bottom up movement that has developed beyond the existing production regime and challenges it.

#### Interfaces with production regime

- To understand the possible effects of the MM it is important to identify the interfaces it has with the existing production regime.
- These are fields of interactions in which the MM challenges and influences existing institutions.



Nicheinnovations

based on Geels & Schot 2007

### Methodology

Fig. 1 Multilevel Perspective

### Qualitative, category based media content analysis

- centred on a category system for systematically classifying content
- strength is its potential for dealing with complexity, theory-based guidance, integration of different kinds of material and its quantitative aspects

### Source of media

US, UK, Germany

Means of Search

- Google American
- Nexis

## **Results and Findings**

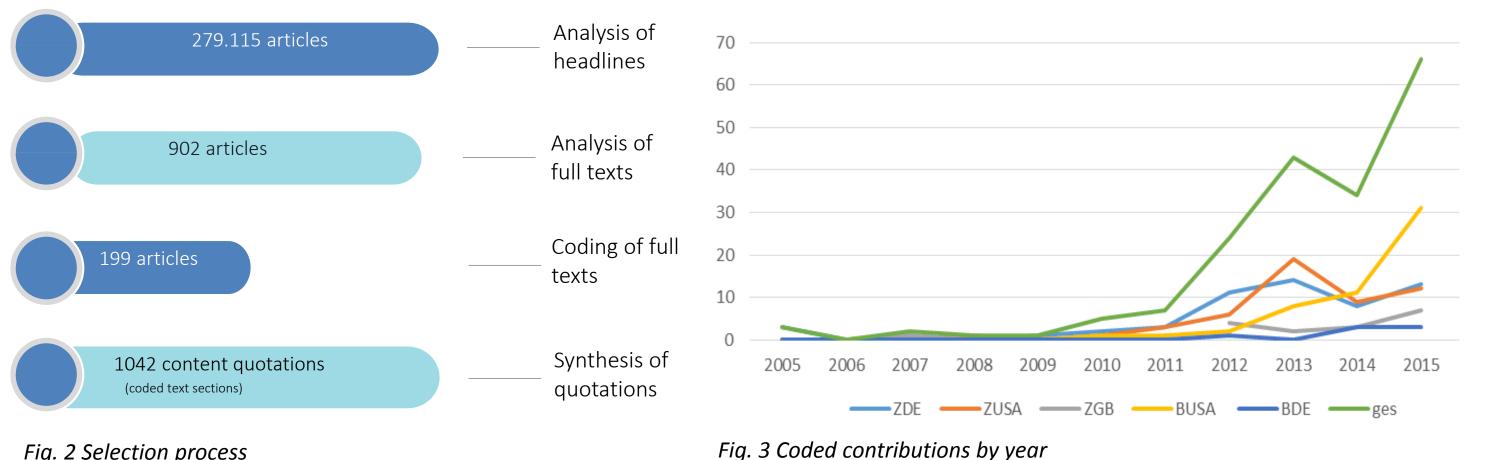


Fig. 4 Areas of interaction between the MM and the prevailing production system

#### **Function of organisation**

This does not apply to the organisation, which has an internal structuring function for the MM and therefore can not be evaluated by external effects. Here, questions arise concerning the degree of organisation required in the process of institutionalisation.

### **Extent of effects**

Time

• The extent of the effects of the interaction in the areas of innovation and human resources has not yet been assessed distinctively. However, in this study we were able to identify areas of activity and to discuss different assessments of the extent.

#### **Community and movement**

• Over time, not only specific coordination patterns within communities will emerge, but also between content-related communities. The MM would therefore be understood as an association of collective, actionable actors, formed by numerous, spatially and virtually organising maker communities.

### **Organisational level**

• The organisational level of the MM as a whole, as well as its communities, will influence their capability to strategy building and mobilising. This in turn will determine the extent to which the MM can challenge the existing production regime.

#### Maker spaces

Maker Spaces are the decisive multipliers for the maker and an important organisational

Fig. 2 Selection process

Systematic Understanding of the Maker Movement

- A new social phenomenon based on modern digital manufacturing technologies and development software as well as virtual cooperation and distribution platforms
- Accessible to people at a low-threshold, enable them to create new products themselves, to further develop existing designs, to produce and distribute related products
- An expression of a democratic culture of innovation
- Develops with its new forms of cooperation and organisation beyond existing industrial economic structures and forms a counterbalance to mass production

form of the communities. They provide corresponding resources, connect them with regional institutions and initiatives in the context of applications in universities, enterprises and other areas like for example art and culture.

#### Literature

ANDERSON, C. 2012. Makers. The New Industrial Revolution, New York, Crown Business. DOUGHERTY, D. 2012. The Maker Movement. innovations, 7, 1-14. GEELS, F. W. & SCHOT, J. 2007. Typology of sociotechnical transition pathways. *Research Policy*, 36, 399-417. GERSHENFELD, N. 2005. FAB. The coming revolution on your desktop-from personal computers to personal fabrication, New York, Perseus Books Group. HAGEL, J., BROWN, J. S. & KULASOORIYA, D. 2014. A Movement in the Making. HATCH, M. 2014. The Maker Movement Manifesto: Rules for Innovation in the new World of Crafters, Hackers, and Tinkerers New York, McGraw-Hill Education. MAYRING, P. 2010. Qualitative Inhaltsanalyse. In: MEY, G. & MRUCK, K. (eds.) Handbuch Qualitative Forschung in der Psychologie. Wiesbaden: Springer VS. PAPAVLASOPOULOU, S., GIANNAKOS, M. N. & JACCHERI, L. 2017. Empirical studies on the Maker Movement, a promising approach to learning: A literature review. Entertainment Computing, 18, 57-78.

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