
Modes of participation
Impact of ICTs on the importance of membership and participation

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Notes: networks; membership; participation; openness; ICT

Abstract:

The on-going paradigm shift in value creation (individualized production, co-creation experience, production networks etc.), initiated by new technologies: information and communication technologies (ICTs) as well as manufacturing technologies, results in new business models and, thus, changed organizational structures in economics. Furthermore, organizations in other societal subsystems are changing, e.g. political organizations. Against this background some analytical criteria of organizations, which were relevant regarding traditional organizations, have to be re-rated. An example is the criterion 'membership', which was a key characteristic of organizations for a long time, whereas it actually becomes less important as many organizations open their boundaries to integrate stakeholders, which have been former parts of the environment. Derived from organizational theory the constructs membership and participation will be reflected and discussed with regard to the on-going paradigm shift based on ICTs.

1) Introduction

Open Data, Open Innovation, Open Production, Open Government etc. resounded throughout the land. Openness is becoming more relevant in different societal subsystems [1]. Actually, we are living in a highly dynamic environment and organization is a term which seems to lose relevance, because organizational boundaries are disintegrating [2].

New information and communication technologies (ICTs) have consequences for the characteristics of organization, because the inter-organizational, producer-customer-relationships or the citizen-politician-relationship get more and more integrated into a holistic perspective on the whole political or economic system. ICTs enable us to organize business and politics in another way. The process of organizing in turn results in new organizational forms. ICTs change organizational forms in many societal subsystems [3,4,5]. And otherwise those changed organizational forms retroact on other organizational forms.

Regarding this changed initial situation the cultivation of an understanding of the new organizational forms is an object of investigation within organizational theory. For example Ferraro and O`Mahoney state, that

“post industrial organizations are no longer meaningfully bounded entities but comprised of porous and often shifting boundaries and that this has widened the gap between theory and postindustrial modes of organizing” [6].

As a matter of course, new terms have already risen which try to grasp the development of inter-organizational relationships, their necessity and highly relevant consequences for theoretical

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foundations (e.g. network organization). Nevertheless, until now a common understanding of the new organizational phenomena is missing. Furthermore, there is a lack of systemic organizational observations, which try to grasp the phenomena of changing organizations not only in one societal subsystem, and instead in different fields. An exception is for example the study headed by Avril and Zumello, who try to understand “*structural convergence of organizations*” [5] and try to “*establish a parallel in organizational changes*” [5].

The presented article tries to deliver a further step to fill the lack. In this article the observed societal subsystems are economics and politics.

The main underlying observation is that organizations have to integrate parts of former environment [7]. New business models, which result in new forms of organizations, are designed to integrate parts of the environment from the beginning. From the viewpoint of a highly dynamic environment based on ICTs and manufacturing technologies: Which criteria fit best to analyze organizations? How are scientists actually able to define the boundaries between system and environment in economics and politics?

It is analytically highly relevant to observe the actually shifting structures and their consequences (a) to derive management methods or non-management insights (governance), (b) to understand the new way of economics and politics, (c) to develop appropriate forms of evaluation for the new forms of organizations as well as (d) to receive a full picture of an organization in the last instance.

At first instance, the presented article is descriptive in order to show the appropriate analytical criteria, which are necessary to grasp the changes. In the second place, the aim is to deliver a normative foundation in order to evaluate and design organizational structures and, accordingly, ICTs in an appropriate way. In this article the understanding of organizations is grounded and, consequently, circumscribed in systems theory. Thus, the analyzed constructs are derived from systems theory. First, in section 2 the consequences of the paradigm shift for organizational theory are indicated. In section 3 first the manifestations of organizational characteristics of the system economics and, subsequently, corresponding characteristics of the system politics are described alongside empirical phenomena and reflected. Core thesis is that membership loses importance as analytical criterion and the importance of participation increases.

2) Technology – based Paradigm Shift and Organizational Theory

2.1) Organizational Theory

Organizational theory is a melting pot for many different theoretical streams, which altogether have the aim to describe organizations, their function, intention, development and stability [7]. The definition of an organization varies according to which organization-theoretical background is chosen. A generally accepted working definition, which is grounded in systems theories, understands an organization as

“a structured social system consisting of groups of individuals working together to meet some agreed-on objectives (Greenberg and Baron, 2003)” [5]

Social systems and especially organizations can be observed in different societal subsystems as economy and politics, e.g. companies and political parties [5]. Specific and distinctive characteristics are

- * differentiation to environment,
- * consists of decisions and routines,
- * formal and informal structures,
- * formal rules of membership,
- * consolidated presentation,
- * fulfill task of society,
- * ownership [8].

In sum, this paper is explicitly written from the viewpoint of systems theory, which means that it is founded on the core premise of systems theory: an organization is a form of a social system and has the function to reduce complexity of the environment insofar that a handling of the complexity is possible [9,10,14]. Considering the complexity of the world, for this reduction process the differentiation between the organization and its environment is central. The organization itself fulfills this differentiation. The systems are referring to themselves and therefore they have to close themselves as a sort of identifying process in order to define themselves according to the environment; the system creates its own structure and system elements (autopoiesis) [10]. Based on systems theory, the consequences of the on-going paradigm shift have to be reflected according to the analytical criteria of the differentiation between the particular system and its environment. Concluding, organization is still a relevant term to fulfill an analysis of economy and politics. This explains the

“concern to return to the organizational level of analysis which seems to be have been lost, or at least overlooked, in recent years” [5]

As a completion of the organizational level, also the individual level of the discussion is analyzed on demand in section three of this article. According to Giddens, organizational structures (social systems) are depicted within the individual behavior. Thus, the individual behavior can be seen as a marker for organizational structures. The article does not discuss the macro-level of economies or nation states.

2.2) Focus on systems theories` characteristics to differentiate system/environment

The observed process of a particular organization can be described as an extension of itself in inter-organizational relationships, which results in different organizational structures [11]. These processes are highly dynamic.

The relevant objects of the study are the new boundaries of organizations based on shifting organizational structures, because of the changed communication based on ICTs [4]. Boundaries are an element of the organizational structure. Although the causal relationship between changing organizational structures and ICTs is not imperative [12], ICTs facilitate the new organizational structures. They are a necessary but not a sufficient condition for the development of new organizational structures. ICTs lead to reduced transaction costs [12] and, thus, companies are changing initiated by the changed competition based on the ICTs: New forms of organizations are developing and new organizational forms are discussed: meshwork of cooperation [13] knowledge-creating company [3], network organization [4,14], virtual organization [5,13].

“This literature signals a move away from an interest in markets and hierarchies to alternative post-bureaucratic forms” [14]

The reflection of boundaries is of central interest for many organizational theorists, because the management decisions regarding the boundary of an organization are highly important according to the stability of an organization [14]. From the point of view of systems theory or cybernetics the stability of an organization can be seen against the background of the general aim: the viability of the organization.

“That a system is open means, not simply that it engages in interchanges with the environment, but that this interchange is an essential factor underlying the system’s viability.” (Walter Buckley (1967))

Organizational characteristics like boundarylessness have been discussed within the scientific community [13,14]. A deeper look into the discussion shows that the term ‘boundarylessness’ is used to describe, rather, the disintegrating boundaries and an on-going change of the boundaries instead of factual boundarylessness [13]. The restriction of the reflections and the study to systems theory and its central assumption of the system-environment-differentiation bred a restriction of the study to organizational boundaries. Basically, the boundary between organization and environment is set up by external, vertical, horizontal and geographical and legal boundaries (see Figure 1).

Boundary	Definition
Vertical boundary	hierarchical levels
Horizontal boundary	function, division
External boundary	membership

FIG1. Types of boundaries [14]

Ashken states that those boundaries have to be reshaped. Boundarylessness is meant in the sense of permeable boundaries and enhanced boundaries:

“The idea is not to have totally permeable boundaries or no boundaries – that would be ‘disorganization.’ Rather, you want sufficient permeability to allow the organization to quickly and creatively adjust to changes in the environment.” [14]

In section (a) figure 2 illustrates the traditional organizations which work based on a closed boundary, autonomously in an environment (external boundary as an example). The differentiation between organization and environment can be defined based on the external boundary. Section (b) shows the new understanding of organizations, the disintegrating boundaries and the definition of the boundary between the system (e.g. in form of a network organization) and the environment. In the second case the external boundary has to be defined in another way than in the first case, because the organizations within the network opened their boundaries to integrate former parts of the environment.

Despite the restriction of this article to the differentiation between system and environment, external boundaries of organizations are not the only boundaries of interest. For example the vertical boundary seems irrelevant according to a differentiation between system and environment, but it is also disintegrating based on the actual technology-based paradigm shift. And the disintegration of vertical boundaries (hierarchical levels) results in new characteristics of organizations according to their differentiation from the environment.

Furthermore, organizational boundaries do not contain all constituent characteristics of an organization. Other characteristics as, for a start, 'routines and rules' have not been seen as organizational boundaries, but become relevant in relation to the changing organizations according to their consequences for external boundaries and insofar, need to be reflected as well. According to Giddens, actions of stakeholders result in structural characteristics of organizations [11]. On the one hand those actions are highly dynamic and yield to dynamic structural characteristics. On the other hand the 'routines and rules', basically, are stable, even with reference to the new forms of organizations. These structural characteristics (routines and rules, roles) of organizations define the organizations' boundaries as well and have to be considered in the following analysis.

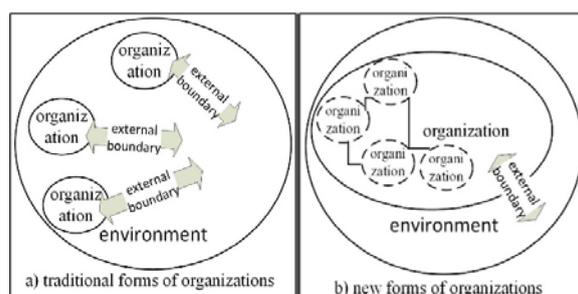


FIG 2. Differentiation organization/system – environment

3) Reflecting Relevant Criteria/Constructs (Focus On The Field Of Economics And Politics)

3.1) Membership and participation

“A social system is built upon rules of reputation, especially rules of membership.” [10]

This premise based on Luhmann results in a strong dependence of organizational theory on the construct membership. This premise might be the cause that scientists often state crisis, for example of political parties in Germany, because the amount of members has decreased [5]. Though, the observation of the shifted environment of organizations and the shifting organizations themselves results in a challenge of the above-mentioned statement by Luhmann. Stakeholders, who participate in processes, are a system element of the particular organization. The construct membership is not exclusively useful against the background of the new business models where non-members are able to participate in organizational processes and, thus, have to be counted as system elements as well [16]. In these cases of organizations the boundary between organization and environment cannot longer be found in the differentiation between member or non-member. Concluding, membership cannot exclusively work defined as a structural-constituent characteristic of the integrated stakeholders of an organization without considering participation. But how to maintain the boundary based on membership as it is

“impromptu and impermanent” [6].

As an organization can be defined as an *“implicit model in mind”* [19], the organization is created by all stakeholders, which are involved in the organizational processes, together. Actually, the identity of an organization has to be seen against very dynamic circumstances. Thus, the definition of the boundary based on participation (roles, routines and rules) has to grasp these dynamic principles. An observation of actual organizational forms shows that there is a core of very stable active participants, whereas there are many stakeholders, which only participate project-oriented, temporarily and not steadily.

The definition of participation can be based on the possibility and the action to participate in a process. Actual observations show that those participation processes develop in a very dynamic way. Derived, the difference to the criterion membership lies in this highly dynamic manifestation. Membership itself has a very static core as it is a fixed structural element of a traditional organizational form and does not describe a process. Often commitments, liabilities of members according to the organization are fixed within a contract of membership. Whereas membership is a quite stable category, participation is highly dynamic. Membership can be seen as a stable form of participation [17]. Other forms of participation can be characterized as loose in comparison with membership. Membership is a foundation of the development of an identity [18]. Participation in this sense can function as a more dynamic construct to develop an organizations` identity.

Furthermore, to evaluate organizations it is necessary to grasp the nature of an organization. According to the membership debate and crisis of participation, which are stated very often in the field of political sciences, the more dynamic characterization of the organization in form of participation and moreover, the analysis based on the integration of participating stakeholders can profit from a more differentiated view. From the insights into the new importance of participation as a construct for organizational analysis, one can derive changed understandings of routines and rules as well as roles. These guarantee a functional stability of the new organizational forms. There are still routines and rules, which influence the characteristics of organizations. Nevertheless those routines and rules are more flexible, as maxims of actions, norms and values [15]. The routines are built within autonomously acting stakeholders. The rules of membership are replaced in some cases by the rules of participation. As the environment becomes more dynamic, the criteria of organizations have to deal with these dynamics, too.

3.2) *New organizational forms in economics and politics*

In the 20th century the scientific discussion is dominated of the *“post-bureaucratic/network-based organization”* [20]. The actual organizations have to be defined based on a project-oriented understanding, therefore team members characterize the picture of the new organizational forms. The rationality is oriented on *“decentralization, short-term emphasis on project performance and distributed work practices”* [21]. This allows a very flexible production, based on low transaction costs adjusted to the individual demand. In the political field the observed organizational phenomena develop in a same way, actually, stakeholders participate project-based (e.g. in the political projects initiated by Nexthamburg Plus). There is only a small amount of people which create a stable core. Most of the participants are only present in one (or more) projects (project-culture), but not consistently in every project.

The participation in the value chain becomes more and more flexible according to temporary projects, open concepts and the development of different business models, which in the last instance replace traditional organizational forms. In relation to the participation in the policy cycle one can state the same. Figure 3 illustrates the two processes in economics and politics: value creation process and the policy cycle. In both of the processes different stakeholders participate. In the following, first, developments in economics and, second, developments in politics are annotated.

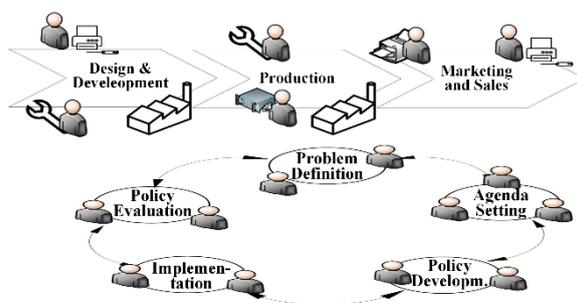


FIG 3. Participation in politics and economics

The typical social systems of economics are companies. Many authors define a company as social system and the market as environment. Derived, the external boundary in the economic field has been drawn between customers and the producers of products. But actually, in the economic field one can observe that

“The value for the product or service provider and the value for the receiver cannot be determined independently. The two interact. Therefore, they cannot be separated. The provider enters the system. The problem, which must be addressed, is value co-creation.” [22]

Resulting, the traditional boundary (specified vs. standardizes achievements) is disintegrating in the light of organizations as e.g. networks or joint ventures and, potentially, leads to a dissolution of the company [23]. The consumer becomes part of the company. New organizational forms are discussed: knowledge-creating company [23], network organization [24] virtual organization [13]. The network organization integrates parts of the environment like temporary project groups, which consist not only of core employees from one organization, but instead of employees from many different organizations or of intrapreneurs (autonomous knowledge workers), e.g. IBM [7]. Companies like Eriksson and Siemens loosened their strings to some areas of their business processes and founded them on inter-organizational relationships. As a consequence, they have integrated parts of the environment into their organization and modify the definition of the boundary between the system and the environment [9]. ‘Membership’ to the value chain is not as stable as it has been before.

“[...] bureaucratization and bureaucracy have been recognized as the central process and structure characterizing 20th-century ‘organization’ under the generic rubric of ‘rationalization’” [20].

For example crowdfunding (as a secondary value creation activity according to Porter) is based on an interaction with the crowd. There is no traditional membership necessary, when a stakeholder wants to be part of the crowd and, thus, to be part of an organization, which ‘organizes’ crowdfunding. In the last instance scientists have to base their theories (especially

their claims of crises) on appropriate scales. A scale, which is only oriented on membership, is not appropriate. Accordingly, in the political field the participation of different stakeholders in the process of implementation of politics, e.g. the construction planning.

The structural changes of companies will also influence vertical boundaries, as many authors stated, and lead to a disintegration of companies' boundaries due to flat hierarchies [15,25,26]. In this case the individual behavior, which is a reflection of the social system represents the central observation. The individual behavior shows that there is a project-orientation and loosened strings between individual and organization. The traditional characteristics of the vertical boundary of an organization are the hierarchical levels within the organization. Today's and future organizations, which consist of a network of connected autonomous stakeholders, are based on the characteristics of empowerment and trust. Both characteristics shape the vertical boundaries. Organizations are changing. They even miss a center [27]. For example knowledge workers organize themselves according to their participation in different projects. For example employment can be seen as kind of membership.

“As individuals working at their own personal computers have access to all the organizational information and communication links they need, there is no requirement for the physical entity of the ‘company’ – structure is (temporarily) created in the process of individuals making contact with other individuals to work on particular current problems.” [4]

As a result the construct of employment is relativized, because the new group of knowledge workers is able to organize themselves in the sense of intrapreneurs based on their empowerment to participate in the value creation process [7]. Within the new organizational forms the formal determined functions (fixed job definitions) become less important, because the work is coordinated not in hierarchical forms, but instead in a self-organized way. Figure 4 shows how the inter-organizational relationships are incidental for the whole value chain. The members of the value chain merge in a very flexible and temporary way, for example according to projects.

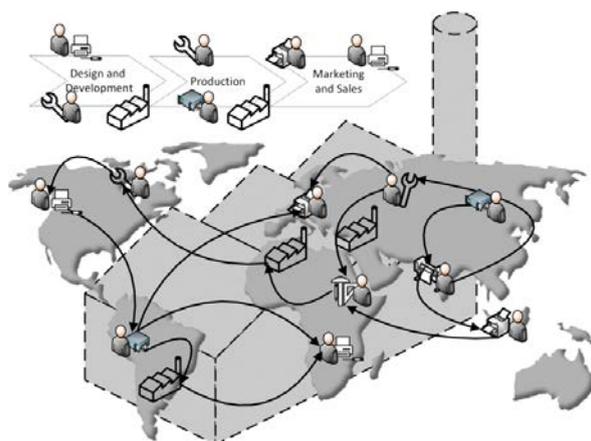


FIG 4. Network (processes economics)

The typical social systems of politics are political parties. This definition of a party is very dependent on the construct membership. [29] The traditional external boundary of political parties is drawn based on the differentiation of membership and non-membership. Actually political parties try to compensate the membership losses through the augmented integration of non-

members [5]. For example the Green Party in Hamburg started a project, where any citizen of the town could report a traffic problem, which has to be solved. The project was enabled based on an IT-platform, where anyone could see, which traffic problem were reported and comment on those problems. Insofar, some of the basic political functions of political parties ‘problem definition’ and ‘agenda setting’ were designed by the Green Party based on the participation of many non-members [30]. To analyze the organization one has to recognize the given participation possibilities and integrate the participating stakeholder in the definition of the system.

Especially, rules of recognition were, besides participation, in the center of the characterization of organizations [10]. The new forms of organizations are based on participation based on intrinsic motivation. The stakeholders participate freely and based on their individual demand and stated meanings. According to actual studies in relation to ICT-based-platforms results show that the users are intrinsic motivated and specially interested in the processed topic the project is about. Participant can be anybody and in the reality, the crowd or community, which participates in the new business model, is no homogeneous static group of actors. Rather, a crowd is a heterogeneous, very dynamic group of actors [7]. Instead of fixed hierarchical levels, the core of the organization develops according to the participation of the stakeholders. Traditional characteristics of horizontal boundaries of organizations are for example functions of the employees or divisions of the organization. New characteristics are trust and the informal distribution of roles as Powell and DiMaggio state there are different roles like the gatekeeper who guarantees that no one participates in the core of an organization who has not the competencies to participate in this process [28]. Those roles are not as fixed as the former functions in organizations have been, e.g. exist no formal descriptions of those roles (see Figure 5).

Boundary¹	Traditional formally fixed bases	New informal bases
Vertical boundaries	Hierarchical levels	Empowerment, rules of recognition/ reputation
Horizontal boundaries	Function, Division	Trust ² , distribution of roles
External boundaries	Membership	More loose forms of participation

FIG 5. Characteristics of traditional and new forms of organizations

3.3) Modes of participation

Participation is the central process that can be observed, which becomes more important due to the new possibilities of ICTs and the increased flexibility in economics as well as in politics. New forms of organization can best be described by the general characteristic of participation (which includes participation). Different modes of participation foster the integration of the different autonomous actors, which work decentralized and mainly based on intrinsic motivation. This mode of integration of participation has an identity-establishing effect. This identity-establishment, which was a function of membership, is actually based on participation. Participation also fosters the involvement of different stakeholders in the value chain and, respectively, the policy cycle. Insofar, the acceptance (stronger: legitimation) of the results are increased. Accordingly, in politics a discussion about legitimation is central. Involvement and integration lie very tight next to one another. The difference is the level of the discussion.

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Integration is affecting the psychological construct 'identity' whereas involvement is only used regarding the action of participating in an action. The third point is empowerment, which is initiated by the new ICTs and defined as the 'possibility/power to participate'. Participation is based on empowerment and, vice versa, fosters empowerment through the process. And empowerment fosters the responsiveness of the representatives to recognize the demands of the different stakeholders, and, respectively the recognition of consumer demands within economics (Figure 6).

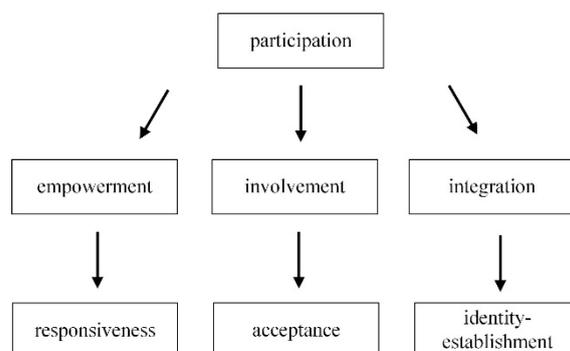


FIG 6. Functional modes of participation

Altogether the three modes are functional in their nature. Participation is a central criterion of sustainability and, therefore, it has to be evaluated. This access defines participation not as means to an end (functional mode), but instead as a structure-defining characteristic of an organization. These two views react against one another:

- 1) a) Participation fosters empowerment and vice versa, the result is increased responsiveness.
 b) Participation increases acceptance; examples are participative evaluation, participative design.
 c) Participation is an integrating and, thus, identity-establishing factor.
- 2) Participation is a structure-defining criterion, which represents the participation of diverse stakeholders.

4) Summary and Outlook

The presented article contains a new way to understand the constructs membership and participation against the background of the on-going paradigm shift and its consequences. Participation can work as an analytical category to define organizations in differentiation to their environment. Regarding the developments of the on-going paradigm shift participation is a more useful organizational characteristic than membership in many cases, because it goes beyond membership.

In order to use participation as construct to analyze the new forms of organizations, it has to be reflected in a broader sense of rules of recognition. Participation can be seen as central modus of political and social integration [17].

Nevertheless, the 'old' category membership is still necessary as form of participation to show the differences between traditional and new types of organizations. The category membership

has no essential meaning according to the differentiation of the new types of organizations. Restraining to this point, it is dependent on the theoretical stream, the viewpoint, from which one analyzes organizations. Some theoretical streams might need the category membership, because they focus on the status quo of the societal subsystems under exclusion of the on-going paradigm-shift.

There exists a discussion about the highest form of participation: In some analytical discussions collaboration is not seen as participation anymore. In this article forms of collaboration are integrated in participation as well. To establish participation as new modus of organizational structural element it has to be seen that there are many different forms of participation. An index which quantifies the different forms of participation is necessary.

“What we need is a precise formulation of the characteristics of organization structure and the development of measuring scales with which to assess differences quantitatively.” [31]

A participation index has the chance to build a structural connection between the two societal subsystems economics and politics, because the quantitative measurement enables the particular subsystem to process the ‘amount’ of participation in its particular code. (This might foster an understanding of the two observed streams democratization and the economisation.) The empirical evidence shows that the demand for such a measuring scale according to organizational structures, especially according to the new importance of participation, is very high: In order evaluate ‘real’ participation possibilities of organizations, to compare them and to draw conclusions regarding the connection between participation and success factors as well as, respectively, the viability of an organization. Based on this, management methods and ICTs can be built to foster participation.

Despite there exists no imperative relationship between ICTs and organizational structure, there is an imperative relationship between ICTs and participation possibilities. Participation is understood as a process in which a stakeholder integrates himself in a greater context. ICTs might help to evaluate the different levels of participation and, therefore, to develop a holistic understanding of the organizational structure and processes. Insofar, ICTs enable an enlarged enlightenment in relation to the political stream of democratization as well as the economic stream of economization.

In sum, the design of ICTs has to be oriented according to principles of participation to foster the viability of organizations [32]. The support of participation possibilities for stakeholders is necessary in order to integrate self-organized, decentralized work and decision processes as well as to strengthen the identity-establishing mechanisms in the last instance. The participation of very diverse stakeholders in the value chain demands such identity-establishing mechanisms to prevent the dissolution of organizational boundaries in an inefficient way. An effective participation of the different stakeholders ensures the viability of the new organizational forms. Participation is the trigger as well as the stabilizer of the new organizational forms.

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