

Collaborative Value Production in Public Administration: Motivations and Models.

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Abstract

The internet is able to support and encourage high levels of altruism such as volunteerism, providing assistance, emotional support. These are forms of prosocial behavior, and people sometimes behave more kindly to others on the net, perhaps more so than they would in similar real-life situations.

In Government 2.0, public value no longer needs to be provided by government alone, but can be provided by any combination of public agencies, the private sector, civil society organizations or citizens. The ubiquitous presence of ICT, citizen's digital literacy, and their willingness to participate online would efficiently enable collaborative production, impossible without cheap and instantaneous mass communication. Governments can use the most valuable resource they have, the people, if they establish opportunities for civil society and businesses to engage in an open government.

1. INTRODUCTION

The role of public administration is to carry out public policies. This core functionality has remained until still the same today. In times of rationalization and economization the leading political system has to shape organizational and operational structures to carry out public policies purposefully, efficiently and effectively. The internet

offers new collaborative working processes that can increase efficiency but at the same time might change administrative procedures severely. This paper describes motivational factors for collaborative value production in businesses compared to and set it in the context of public administrations. Based on this analysis the paper depicts preconditions of models of collaborative production in business and public value production in administration based on ICT solutions.

2. MOTIVES TO PARTICPATE AND CONTRIBUTE ONLINE

Stakeholders of a collaborative production cycle must be motivated to put their efforts into the project. All behavior is motivated in some way and individuals will engage in a particular behavior to achieve a desired end¹, and this will influence the individual's goal-directed behavior². Different motives and goals may lead to the same behavior, and thus the social and psychological consequences of participation may be different for different users (i.e. some participate to gain information or support, others to communicate). When a person behaves successfully, there will be a reward which is satisfying and which the person will try to achieve again. This means that they will be motivated to further develop those skills to achieve this reward and/or sense of satisfaction. Motivation can be distinguished between intrinsic motivation and extrinsic motivation: whilst intrinsic motivation includes psychological factors such as the desire to feel competent³ and self-determining, show altruism, relate to others as well as increase others' welfare, extrinsic motivations are usually associated with some sort of external reward⁴ e.g. financial rewards.

¹ Atkinson, J. & Birch, D., *The dynamics of action*

² Smith, R.E., Sarason, I.G. & Sarason, B.R., *The Frontiers of Behavior*

³ White, R.W., *Motivation reconsidered: The concept of competence*, 297-333

⁴ Deci, E., *Intrinsic motivation and self-determination in human behavior*

The motivations and goals for using online resources determine how they will be used. Individuals choose to participate in online communities and collaborate for a number of intrinsic motivations, such as expressing one's values and showing altruistic concern for others, to receive rewards, to fit in with a particular group or to use or gain new skills and knowledge⁵, like the online group⁶, because the participants believe that their contributions to the group are identifiable, or because participation is important for the group's performance, for a common cause, for society or government. These benefits (rewards) that result from being involved in an online group can also be extrinsic such as personal visibility, by providing content and in external promotion. Thus rewards for participation can also be for achieving status and reputation as seen in the Open Source and Wikipedia community.

Hars & Ou found that in the Open Source environment, contributors view their participation as an investment from which they expect future returns⁷. This is extrinsic motivation as found in "Wikinomics"⁸, an economic model based on peer-production, where people contribute without receiving direct payment, for example when contributing to Wikipedia. It represents a change from the industrial to an information-based economy, and can be applied to a number of different online environments and for different products, but suggests that the motivation is the reward that is achieved through the subjective value of information. Although contributors are not compensated directly, the contributors may be motivated by indirect rewards such as increasing their marketability, selling their skills or other products. This suggests that motivations to collaborate may also be ethical or related to

⁵ Snyder, M. & Cantor, *The handbook of social psychology*, 635-679.

⁶ Markey, P.M., *Bystander intervention in computer mediated communication. Computers in Human Behavior*, 183-188.

⁷ Hars, A. & Ou, S., *Working for Free? Motivations of Participating in Open Source Projects. In HICS 34*. 7014

⁸ Tapscott and Williams, *Wikinomics*.

reputation⁹, to get prestige in the community or by contributing to a certain community¹⁰. Ling et al. suggest that users will contribute more if they believe that their contributions are important to the group's performance¹¹, their contributions are identifiable and if they like the group they are working with. Joyce and Kraut found that the more often users contribute to an online community, the more likely that they will continue to participate in that community¹². The degree to which participants value the benefits obtained from their group can thus predict the amount of community building work¹³ they are prepared to invest. Looking at the Wikipedia participants, Ciffolilli also distinguishes between personal and social motivations. Self-motivations are satisfaction, efficacy and an intrinsic desire to acquire knowledge, whilst social motivations are based on a desire to take part in the production of a collective good, as well as belonging and need to support the specific community. Knowledge sharing is thus a form of prosocial behavior, as the individual contributions are beneficial for all others, regardless whether the individual making the contribution benefits or not¹⁴.

3. COLLABORATION IN A CONNECTED SOCIETY

It is evident that the use of web 2.0 tools has reshaped communication and established new social behavior, especially among the younger generation, that grows up in a digital culture of sharing, mashing and reusing, as they creatively use the possibilities offered by networks and digital technology. "Social Computing is reinforcing the emerging and growing

⁹ Ciffolilli, A., *Phantom authority, self-selective recruitment and retention of members in virtual communities: The case of Wikipedia*. First Monday, 8(12)

¹⁰ Kollock, P., *The Economies of Online Cooperation*.

¹¹ Ling, K. et al., *Using Social Psychology to Motivate Contributions to Online Communities*

¹² Joyce, E. & Kraut, R., *Predicting Continued Participation in Newsgroups*. In Journal of Computer-Mediated Communication,

¹³ Butler, B. et al., *Community effort in online groups: Who does the work and why?* 346–362.

¹⁴ Peddibhotla, N.B. & Subramani, M.R. *Understanding the motivations of contributors to public document repositories: An empirical study*.

role of the user in the innovation-development process, as well as the ongoing shift towards open innovation.”¹⁵ Collaborative projects can be realized regardless space and time, and the creative potential and knowledge of citizens and companies can increase competitiveness of society.

In societies that turn from hierarchical to network structures, traditionally separated roles of consumers and producers tend to merge. Consumers gradually become crucial factors for product innovation and they become part of the production process without monetary remuneration¹⁶. Their feedback and ideas are used to make better products, as Dell’s IdeaStorm perfectly shows. Other businesses, like Amazon, already generate relevant information for their customers by merely observing user behavior and opening their structures to user input.

Interactivity, altruism, generalized reciprocity and interaction are important aspects for motivating for participation¹⁷. It may be that in addition to motivation and interaction, it is the organizational possibilities found on the Internet that support increased participation and collaboration: virtual groups or online communities simultaneously allow for cooperation by sharing knowledge and expertise, as well as competition against other participants¹⁸. Social networks and the relationships between users that may develop will form and influence cognitive and affective schemas which in turn lead to people connecting and taking collective action, so the online network itself may become the source of motivation to participate.

¹⁵ Kirsti Ala-Mutka et al., “The Impact of Social Computing on the EU Information Society and Economy,” 20.

¹⁶ Tapscott and Williams, *Wikinomics*.

¹⁷ Wasko, M. & Faraj, *It is what one does: why people participate and help others in electronic communities of practice*. In *Journal of Strategic Information Systems*, 155-173.

¹⁸ Holohan, A. & Garg, A. *Collaboration Online: The Example of Distributed Computing*.

Further reasons for participating, contributing and collaborating are based on the users' emotions and their passion for an issue. Barnes explores the emotional dimension of public participation, and suggests that values and emotions held by participants are just as important as reasoned argument in order to achieve good discussions, policy making and outcomes¹⁹. The participants' experiences and the emotional content are strong motivators for participation – they can motivate participants to achieve their own wellbeing and at the same time ensure welfare and social justice. Citizens will be interested in expressing their opinion and increase the quality of public projects when these projects directly affect their life worlds.

While leadership and administration of online groups and communities is necessary, members need to be engaged if an online community or group is to function and survive. Online contributions and collaboration may not always be visible (for example forwarding to others who are not in the group, cross-posting to other websites or other forms of media) and members are often given the label “lurkers”, a term which tends to have a negative connotation. However, keeping peers informed about important issues is crucial in a democratic society as information is the base of effective decisions.

The internet is able to support and encourage high levels of altruism such as volunteerism, providing assistance, emotional support as well as contributing and collaborative efforts for the good of a community. These are forms of prosocial behavior, and people sometimes behave more kindly to others on the net, perhaps more so than they would in similar real-life situations. Kollock though, believes that ‘literal altruism’ is a rare phenomenon and that online contribution and collaboration may be a way of influencing the online community, supporting one's own image and showing commitment to the online

¹⁹ Barnes, M., *Passionate participation: Emotional experiences and expressions in deliberative forums*. 461-481.

community, but also due to the expectation that one will receive help and information in return.

Although people will contribute time and effort traditional offline problems such as the bystander effects or diffusion of responsibility and simply lack of participation do occur²⁰. Online environments can also fail because of technological determinism: providing an environment that can support collaboration will not automatically lead to participation and collaboration²¹.

4. COLLABORATION AND PUBLIC ADMINISTRATION

The traditional organizational structure of public administration is that of a hierarchical, closed entity. Examples of peer production in public administration exist, either triggered by the administrations themselves or as bottom-up approaches. With free collaborative tools at hand, citizens can engage themselves and create services they miss from the public administration.

A collaborative production system in eGovernment can generate input from external collaborators and output thereof. In public administration it can be applied in policy making as well as service delivery. Collaboration does not need mass participation as even the most successful collaboration systems, like Wikipedia or Linux, are based on qualitative contributions of a minority of users. The collaborative production processes for Wikipedia and Linux were based on already existing content which was crucial to initiate a collaborative momentum within these projects. A critical mass of dedicated participants is needed to run

²⁰ Yechiam, E. & Barron, G., *Learning to Ignore Online Help Requests*. In "Computational & Mathematical Organization Theory", 327-339

²¹ Kreijns, K., Kirschner, P.A. & Jochems, W., *Identifying the pitfalls for social interaction in computer-supported collaborative learning environments: a review of the research*. In "Computers in human behavior", 335–353.

collaborative processes and to create momentum within the processes as ideas, standpoints and workload must be shared with peers.

Contrary to the public administration, co-production has a tradition in economy. According to Pisano and Verganti,²² different models of collaboration depending on governance structure (flat vs. hierarchical) and forms of participation (closed vs. open) support innovation, the key factor for new products and concepts that generate increased efficiency and effectiveness. Depending on the needs of the institution that runs the collaborative platform, different realizations are recommended:

Open collaboration models require a certain degree of transparency, even outside the already active collaborators because new collaborators are always welcome. The so-called innovation mall is open in participation and hierarchical in decision making. In this category, the public administration has control about the focus of collaborative production and the consequences resulting thereof. This method was applied at the platform peer-to-patent that enhanced administrative procedures.

A flat governance structure is a model for creating mass collaboration. The potential of the informed mass (the citizens) is what they know, what they create, what they rate and their money, spent as micro loans²³ The concept of this innovation community addresses all people who are willing to provide solutions for changes in many fields. The advantage of open participation is that new ideas, which are well beyond the traditional way of organizational thinking, might be brought up by the community. The challenging part is whether these new ideas actually can be incorporated in problem solving; if not, the community will be distracted. This method was applied during the Open Government Dialogue, by the US-Administration.

²² Pisano and Verganti, "Which Kind of Collaboration is Right for You?"

²³ Howe, *Crowdsourcing*, 146-258.

In a hierarchical decision structure, the public administration reserves the right to decide which ideas to capture and which to reject. The elite circle meets traditional collaborative production run by public agencies. The initial stage of such a collaborative process is crucial. Experts are asked to provide solutions for a particular problem. This method is applied in policy making and many publicly funded research programmes that tackle specific issues.

The collaborative model for a consortium is based on flat governance and closed participation. The consortium consists of stakeholders that tackle a wide field where various improvements can be met. Within the selected field, members of the consortium can tackle any problems and propose solutions. In public administration the final decision remains with the administration but collaboration will only be sustainable if propositions of the consortium are taken seriously. This method can be applied when discussing profound governmental reforms, like the ‘Verfassungskonvent’ in Austria, the working group that discussed substantial changes of the Austrian constitution.

4.1. PRINCIPALS OF PUBLIC ADMINISTRATION

Public administration should work to achieve the legislative goals in the most effective and efficient manner, a perception which has been enshrined in the constitution (i.e. state defining) or as an obligation in law²⁴. While political decisions may contradict this paradigm for good reasons (deficit spending), it makes no sense to carry out resulting public actions other than efficiently.

The public administration pursues two major goals: carrying out legislative procedures and develop strategic projects and policies. Public procedures carried out due to legal obligations can only be assessed against efficiency measures as the public

²⁴ Constitution of South Africa 1996; §18 AVG Austria

administration is not in the position to question whether public procedures yield effective results. Measuring efficiency requires a cost model which maps input factors onto output values. Moore offers an implicit definition in that public value consists of what governmental activities produce, authorized by legislative power. Government production is favourable when benefits outweigh the costs of production, the bigger this difference between output value and costs of production gets, the more efficient the process will be²⁵. This defines efficiency solely in terms of money and provides no meaningful assessment of efficacy. It is further assumed that public values is only created by public agencies and does not account for the value created by citizens participating in public production.

In the realm of project and policy drafting, the public administration obtains a creational role. The drafted policies will eventually pass political discussion and obtain a legal status, but until that point can be questioned for efficacy. Extending Moores model of public value creation, Bozeman's Public Values and Public Interests Bozeman defines public values independently of public production processes. Thus the notion of “public values” is more of a psychological and sociological nature²⁶ rather than restraining to measurable production of goods and services.

Thus public production has a creational dimension accounting for effectiveness and a legal dimension, measurable in terms of efficiency. Collaborative production can be applied to the executive dimension of public administration as well as to the creative dimension. The ubiquitous presence of ICT, citizen’s digital literacy and willingness of online participation would efficiently enable collaborative production, impossible without cheap and instantaneous mass communication.

²⁵ Moore, *Creating public value*, 54.

²⁶ Bozeman, *Public values and public interest*, 74.

4.2. ENABLING CO-PRODUCTION IN PUBLIC ADMINISTRATION

The impact of web 2.0 on society results in a paradigm shift based on real-time and location-independent communication and information access. Parts of the young generation of digital natives use social media and means of ICT to share content and work collaboratively in networks. These young adults will become opinion leaders and decision makers in the near future. It is only a matter of time until their ideas and attitudes have severe impact on society, as present developments show.

In Government 2.0, public value no longer needs to be provided by government alone, but can be provided by any combination of public agencies, the private sector, community groups or citizens²⁷. The biggest challenge for the government is to establish a framework, in which the government itself is in the lead of defining the roles of these new institutions of governance, which can effectively use the innovative capacity of the market. The closed, hierarchical governed system will become increasingly untenable, but the public administration has not yet found the new role in this virtualized environment. The informal, non-hierarchical nature of mass collaboration, facilitated by electronic communication technology is not yet fully endorsed by public administrations. Policies at the institutional level as well directed to the public manager are required to fully utilize the power of mass collaboration in line with the legal framework.

O'Reilly frequently demanded "Government as a Platform"²⁸ by investigating the key success factors of Web 2.0 platforms and their respective models to incorporate the people's innovation potential. O'Reilly enumerates the adoption of open standards, simple interfaces, a design for participation with low entry barriers as properties of successful platforms in economy but leaves possible implications by a target mismatch between economy and

²⁷ Tapscott, Williams, and Herman, "Government 2.0."

²⁸ Lathrop and Ruma, *Open Government*, 11-49.

government open. The goal conflict between maximizing shareholder value vs. public value will result in a different and more complex role description and good practice library than the role of the economy platform provider in peer production. While the public administration seeks to utilize the collaborative production model of economy for increased citizen's satisfaction under the assumption of increased efficiency and effectiveness, public administration failed to define the role in this environment.

Noveck is pursuing the answer to design elements of collaborative democracy, declared granularity, groups and reputation as key enabling properties for participation²⁹. Granularity enables peers to engage in the best manner and assures a high level of involvement, as a complex problem can be broken down in smaller and more manageable pieces. "Groupness" is well observed in real life as well as thriving online-communities: the humans impulse for cohesion in groups has to be supported by virtual communities to enable high participation rates. In absence of monetary remuneration of citizens value production, rating and reputation is one form of social compensation, a form of virtual currency widely accepted in online communities. Yet to erect policies have to reflect these and other defining features of online policies for the public administration. Policies which turn ideas and visions into concrete measures to ensure equal possibilities among citizens to deliver the aims of the administration, with no individual left behind.

The theoretical framework of open government gives citizens the space to actively engage in shaping the state they live in. Citizens are empowered as governments become more transparent, participatory and collaborative. Consequently, citizens gain further responsibilities as they interact with government and public administration more intensely and at more levels as they used in traditional governmental structures. In order to provide public spaces for collaborative activities, public administrations need to assess what kind of

²⁹ Noveck, *Wiki government*, 82.

collaboration model is needed to reach the required objectives. The aim of co-productive value production is not collaboration at all means, but to efficiently making effective decisions that include all stakeholders. The most successful projects of citizen engagement focus on regional or municipal issues, where the citizens are experts as they know their direct environment best. Also the knowledge of business can be used by public administration when interfaces for collaboration are offered. Public administration must meet citizens and business on an equal level as stakeholders of a collaborative production cycle pursue the same goal, even if they follow different approaches. Yet, governments must establish new policies to open up public administrations. Unfortunately, successful innovation cannot be easily granted, but often includes failures to learn from; something governments seek to avoid for good reasons.

4. CONCLUSION

The motivation to participate in collaborative processes may lead to different goals, behaviors, social and psychological consequences for different stakeholders. Motivations are not fleeting; rather, they are enduring and pan-situational. Governments can use the most valuable resource they have, the people, if they establish opportunities and motivations for civil society, business and public administration to engage in an open government. All stakeholders of these processes need to adapt to changing society and technology for better collaborative procedures. Businesses already use the input from consumers to enhance their products, so can the government in order to increase citizen satisfaction.

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