

# **What is Meant by Governance when Applied to the Digital Environment?**

**Elements of Direction, Control, and Power over Collective Processes Online**

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## **Governance of collective action online**

The case of **online creation communities (OCCs)**:

*Network of individuals that interact via a platform of online participation, with the goal of building and sharing a common-pool resource.*

**Previous research** of the governance of collective action in the digital environment has been based on **analyzing specific governance aspects, and on few cases.**

However, the literature on the subject is **lacking a comprehensive and holistic view of what governance means when applied to collective action online, and more comparative perspective.**

## Objectives:

1) Provide a **comprehensive and holistic view of what governance means when applied to OCCs.**

2) Applying the framework empirically:

Statistical analysis of 50 cases

Four case studies comparison:

Wikipedia

Flickr

Wikihow

Openesf

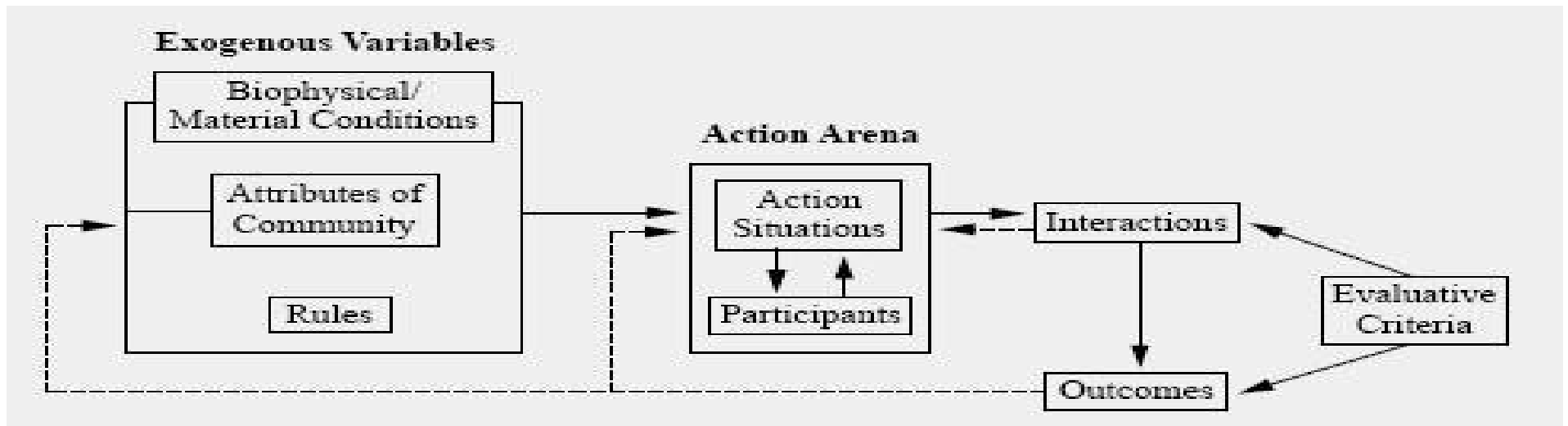
# Paper

Fuster Morell, M. (2013). Governance of online creation communities for the building of digital commons: Viewed through the framework of the institutional analysis and development. **Madison, M. J., Strandburg, K., & Frischmann, B. Convening Cultural Commons. Oxford University Press. (*Forthcoming*)**

Working paper available at [www.onlinecreation.info/NoC](http://www.onlinecreation.info/NoC)

Next developments part of European project:  
[www.p2pvalue.eu](http://www.p2pvalue.eu)

# Institutional and Development Framework of analysis (IAD) applied to natural commons (Ostrom school)



## Adaptation of IAD to digital commons

Resource characteristics

Attributes of Community → Action arenas ↔ Interactions → Outcomes

Rules-in-use or governance

# Rules-in-use or governance

**Ostrom** (1990; 2005) approach to **governance** or rules-in-use: “*the prescriptions that humans use to organize all forms of repetitive and structured interactions.*” It is set by social norms and formalized rules, together with the forms in which those rules are created and enforced.

**Governance** channels *interaction among participants*, and provides *direction, control and coordination* of the collective action. It operates through sources of power in the process.

According to our analysis, there are **eight main aspects** that are in a complex juxtaposition or interaction which determine and drive governance in OCCs.

# Rules-in-use or governance of OCCs:

## 8 aspects

- 1) Collective **mission** or goal of the process.
- 2) Cultural principles/**Social norms**.
- 3) **Design of the platform** of participation (where regulation is embedded in the code).
- 4) **Self-management of contributions**: autonomous condition of participants in allocating their contribution to the building process.
- 5) **Formal rules** or policies applied to community interaction.
- 6) **License**.
- 7) **Decision-making and conflict resolution systems** with regard to community interaction.
- 8) **Infrastructure provision**



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- 8) **Infrastructure provision**

+ **Governance is very much shaped on the basis of how and who decides and manages these 8 dimensions.**

+ The dimensions are **interrelated** rather than narrowly discrete.

+ Each of the dimensions might be managed in

\* **A more open to participation or inclusive way or not**

\* **Involvement of the views of the community of participants or**

**by the infrastructure provider**

community versus infrastructure provision

## 1) Collective mission or goal of the process

In general, the goal or mission of OCCs is **building and sharing a common-pool resource**.

The specific mission is defined by the **founder, early participants** or by the **infrastructure provider**.

Then, the overall system is shaped by experiences with fulfillment of this initial mission.

Cases:

**Wikipedia:** *"Imagine a world in which every single human being can freely share in the sum of all knowledge"*.

**Wikihow:** *"To build the world's largest, highest quality, free how-to manual in many languages"*.

**Openesf.net:** Building the memory for *"another world possible"*.

**Flickr:** *"Share your photos. Watch the world."*

## 2) Cultural principles/social norms

\* There is a set of cultural principles and values that tend to be present transversally in the culture of OCCs. Among these key principles are: openness and “freedom to operate”, meritocracy, and flexibility.

\* They are **reproduced by community interaction.**

### 3) Design of the platform of participation (where regulation is embedded in the code)

In OCCs, it is relatively rare for individuals to be involved in direct dialogues and negotiations amongst themselves. Instead, **individuals interact with the platform design. Platform design thus influences participation and interaction.**

The way in which the environment is designed by the code of the platforms is very much **in line with the OCC's social norms.**

**The provision of the platform is controlled by the infrastructure provider.** More or less involvement from the community in the platform design depends on the level of openness of the infrastructure providing community involvement.

## 4) Self-management of contributions: The autonomous condition of participants in contributing to the building process

The participants have great flexibility in terms of the types of activities they develop and degrees of involvement they undertake.

The distribution of participation is not based on centralized planning of user activities, but on decentralized, volunteers deciding for themselves. **Participation is not driven by command, but by self-direction.**

This is so for the four case studies. That said, the Flickr platform is the most restrictive in terms of the types of activities that can be performed.

**High flexibility on the typology and degree of involvement.**  
Power law distribution of participation 1/9/90 law.

## 5) Formal rules or policies applied to community interaction

OCCs as they evolve tend to establish formal rules.

According to the analysis of 50 cases, in **51% of cases it is the community that is considered to be in charge of deciding policies** and the distribution of tasks and roles. In the rest of the cases, rules are defined by the infrastructure provider.

In the cases of **Wikipedia, opensf.net and Wikihow, the approach is that the community is in charge.** In the case of **Flickr participants cannot decide** the policies and rules of overall interaction.

## 6) License (of the common-pool resource and code)

The license applies to both the common-pool resource and the software code of the platform of participation.

Most OCCs in this study adopted **free licenses** for their content (**68.1% of cases**) and **free software** (**78% of cases**).

Where there is both free license and software, the community has the right to fork.

**Wikipedia, Wikihow and opensf.net** are all based on FLOSS and collective free licenses, and are therefore **forkable**. Flickr is based on individually defined licenses and proprietary software – its content is only free insofar as individual participants choose free licenses for their content.

## 7) Decision-making and conflict resolution systems in community interaction

Consensus decision-making is common in OCCs, yet they are also characterized by the pluralism of methods or polymorphism that involves the coexistence of several working or decision-making styles.

Wikipedia, Wikihow and Openesf use mainly consensus. In Flickr there is very limited possibility for community decision making.



## **8) Infrastructure provision (technically, legally and economically sustains the platform of participation)**

Infrastructure providers technically, legally and economically sustain the platform of participation where the community interacts.

It involves the management of the servers and domain name, and covering the costs these involve, among others.

Infrastructure provision can function and be governed in diverse ways.

# Models of OCCS infrastructure governance

## Major Freedom and Autonomy

(Free software & license)

Self-provision Assembly

(**Openesf**)

Mission Enterprises (**Wikihow**)

Representative Foundations

(**Wikipedia**)

Close

Openness

to decision making to the community

Corporate services (**Flickr**)

(Proprietary software & copyright license)

Dependency

8 aspects that drive the governance of OCCs

The analysis of the cases points to different ways in which these aspects are managed.

*How do they relate to each other?*

# **Governance of OCCs: The centrality of infrastructure provision**

The analysis of the **interrelation between the 8 aspects** that drive governance OCCs points to the centrality of infrastructure provision.

## **Infrastructure provision control:**

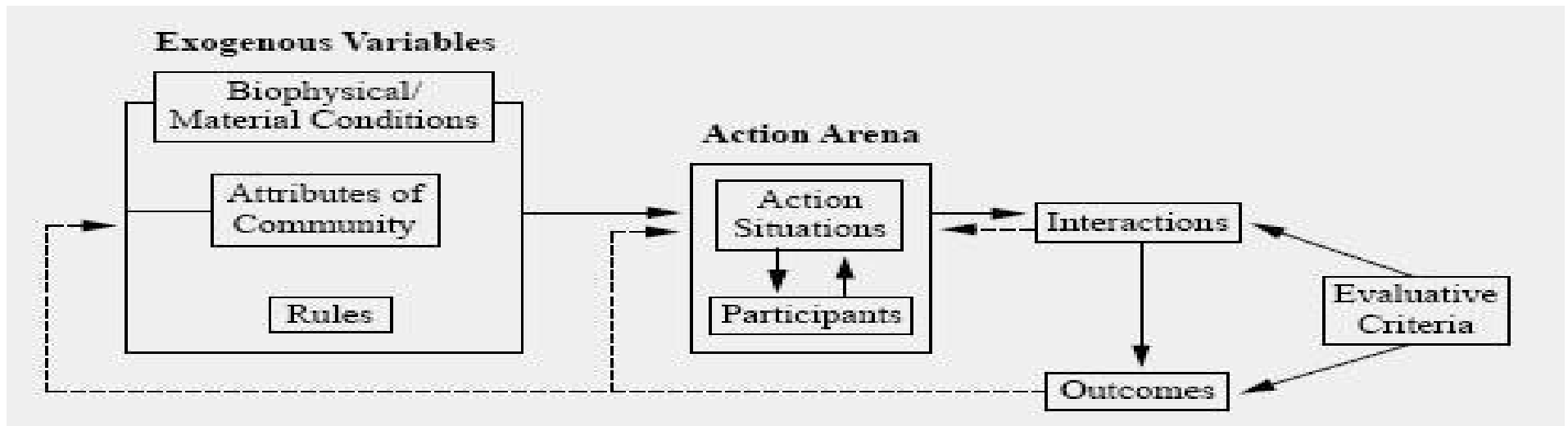
- 8) the provision of the platform of participation
- 3) control over its design (code)
- 6) the license

## **On some occasions, infrastructure provision also drive:**

- 1) initiates the process and establishes the mission,
- 5) formal policies
- 7) decision-making around community interaction.

Still some other dimensions, like 2) Social norms and 4) self-management of contributors in self-directing their action is **not controlled by the infrastructure provider**.

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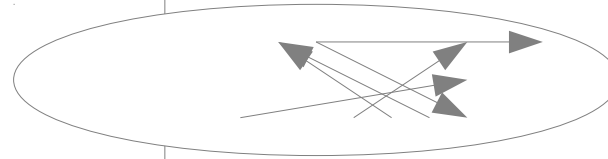
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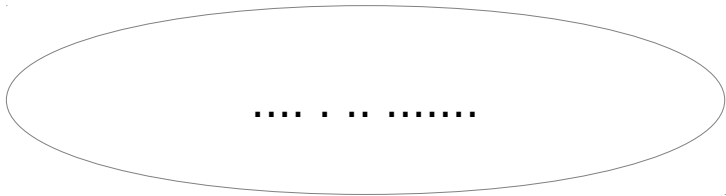
Major Freedom and Autonomy  
(Free software & license)



More Collaborative

Closeness decision-making

Openness



Larger

(Proprietary software & copyright license)

Dependency

# Digital commons *versus* natural commons

Ostrom studies on natural commons points that self-governance favor outcomes.

In digital commons, more community self-governance conditions of the community favor outcomes in terms of *collaborativeness*, but not on size.

Thank you!

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**<http://www.onlinecreation.info/noc>**