

Utility, value and Knowledge Communities

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ABSTRACT: The relationship between organizations and communities, including their implication in the organization structure, IT systems and business model, depends on the nature of the value derived of them. This area has not been sufficiently mapped before, and this paper explores it starting with the nature of knowledge, the translation into value for individuals and organizations, the definition of community taxonomies and its influence on organizational drivers.

1 INTRODUCTION

1.1 *Presentation*

This paper is a short excerpt of the first chapter of a book in preparation on the subject of the Communities of Knowledge. It is based in the results of three years of action-oriented research in the field, with incidence on the definition and the management of Communities and a detailed observation and measurement of user behavior.

1.2 *Scope*

This paper will not attempt a comprehensive analysis of the Communities field. It will deal directly with the aspect of their motivation, and will do so from an economicistic point of view.

In other words, we will be trying to understand the dynamics of Communities as far as motivations are concerned, and we will use classical economics as our tool of choice.

1.3 *Definition of Communities*

For the purposes of this paper, we will define “communities” as groups where knowledge and best practices in a given field are developed, nurtured and transmitted through the social interaction of its members. A Community’s field of interest does not need to cover a practical, work-related subject.

In other words, a Community is where members’ tacit knowledge is transmitted to other members, and

where this know-how is occasionally codified and made explicit. There is copious literature on the different angles in which this can be explained, but for the purpose of this paper they are not relevant.

IT has played a catalytic role in these communities, allowing not just the collaboration of thousands of geographically dispersed people but the formation of IT-mediated groups with the critical mass to establish a coherent community on almost any subject.

Their role in organizations is much discussed: they have even been presented as the “next shape of organizations” and even an “economic imperative”. We will see that this is a very debatable subject, but one that has clear and reasonable parameters.

1.4 *Homo economicus*

We will base this search for motives in the basic economic model: the homo economicus hypothesis. This hypothesis states basically that the behaviour of people is driven by the maximization of their own perceived utility. People act, or don’t act, in order to accrue the highest possible utility.

2 KNOWLEDGE AND VALUE

2.1 *Utility and value*

We will use the classic concept of “utility” (the capacity to satisfy a demand for a person) as a proxy for value.

The definition of “utility” has been progressively widened to include all sorts of things from which a human derives satisfaction. This can include the

benefit of third parties or even valued “causes”. Some types of satisfaction are more objective and comparable than others, but everything that is a “good”, by its own nature, will generate “utility” of one sort or another.

Economists use “utility” as a way to construct equivalents between two goods. In theory, different combinations of two given goods can produce the same level of satisfaction (or “utility”), thus describing a curve of equivalence. A higher level of utility will require different quantities of the goods.

When one of those goods is money, the curve will show the equivalences between money and different quantities of the good for a given level of satisfaction (“utility”). This is the basis for price formation: the prices of a given good will be theoretically determined by the highest relative utility among the buyers who can afford the trade: the person for whom the good generates a higher relative utility compared with money will be the highest bidder, all other things equal.

Of course, some goods are harder to compare than others, and some don’t have a relevant equivalent in money: they have very low relative utility.

2.2 *Knowledge and utility*

We will now make an arbitrary decision and define knowledge as “the information required to satisfy a need”. The data and the context required for a person to perform a task: knowledge is such when it enables a person to do something. Even when that something is simply satisfying a personal curiosity, it is solving a need and effecting a change.

If it is not good for anything but the person can understand it, it will simply be called “information”. If the person can’t make sense of it, it will be merely considered “data”.

When knowledge is such, it enables the person to satisfy a need. This satisfaction, as stated above, can also be called “utility”.

This is the link between knowledge and utility.

2.3 *Organizations and utility*

At this stage, we won’t be modelling organizations in any complexity. But even simplifying we will assume that they have the capacity to make decisions based on their own operational needs: maximizing utility will be equivalent to furthering their own entrepreneurial goals, such as benefit and growth.

The main road for knowledge-derived utility to accrue to an organization is through the enablement of the people that constitute it.

3 DIFFERENT TYPES OF UTILITY

3.1 *Utility for people*

Individual persons can derive two different types of utility from their participation in a Community, defined by their effects on the person’s observed behaviour.

3.1.1 *Objective utility*

When the received utility can be compared with the utility derived from other productive factors used in the development of the person’s activity, or in other words, when the knowledge received can be directly applied to the improvement of the person’s economic situation or even in the execution of the person’s job. This area will cover such knowledge as methodologies, precedents, solutions to problems, professional growth tools.

3.1.2 *Subjective utility*

This is provided by knowledge that can’t be directly related to the improvement of the economic situation or working abilities. In other words, it can be compared with the utility derived from economic factors. But it does exist, and encompasses knowledge that can sate the person’s curiosity, or sustain the person’s need for a sense of belonging or appreciation. The means for attending to the social and psychological needs of the individual.

3.2 *Utility for organizations*

We can also differentiate two types of utility that determine substantially different behaviour in organizations.

3.2.1 *Direct utility*

Such as the organization can perceive and measure, and put in direct relationship with improvements in processes and operations. It will usually derive from the knowledge acquired by members of the organization.

3.2.2 *Indirect utility*

When the organization knows that it is benefiting from the acquired knowledge but can’t identify the mechanism with clarity, and it therefore can’t find a reliable way to measure and value it. Advertising is another classic source of this type of utility.

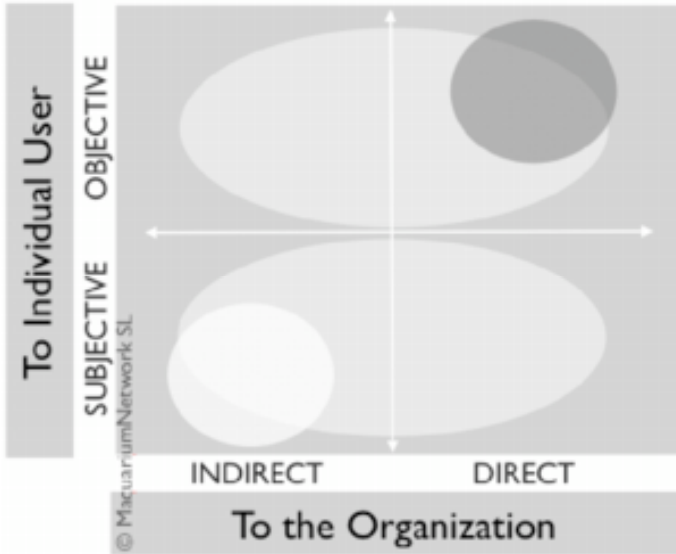
4 A PREDICTIVE MODEL

With the above elements we will try to build a basic predictive model that should allow us to understand better the dynamics of the different types of communities.

It is important to realize that this model will rest on a prediction of individual behaviours. Just as markets work by aggregation, the dynamics of communities will depend on the aggregations of the motivations of their users.

Utility on the model is not represented by quantity, but rather by degree in which it belongs to one or other type.

Last but not least, we will be representing only communities that generate some type of utility for someone. Entities that do not provide members with any type of knowledge improvement or sharing may not generate utility, but that will not figure in the model.



Macuarium's Community Quadrant

4.1 Types of Community on the Quadrant

4.1.1 Communities of Practice

On the model, we can point them out as those in which the people (users) derive from the acquired knowledge a kind of utility due to the improvement of their productive and economic situation. These communities present the user with an "objective utility".

This Quadrant allows us to underscore something else important: the "practitioners" are individuals, the Community of Practice need not belong to any particular organization for it to accrue benefits from the improvement of its members.

When the organization is able to pinpoint the direct relationship between that knowledge and improvements in its processes and results, we will be talking about "direct utility". When it is aware that somehow that knowledge reverts in some unquantifiable improvements to its situation, we will be talking about "indirect utility".

4.1.2 Communities of Interest

In contrast to the above mentioned, this type of Community is defined by a different sort of utility:

that derived from satisfying other needs such as curiosity, debate, belonging, recognition.

In the model, we see that described as "subjective utility" for the individual.

For the organization, the same division appears: a Community of interest can generate either "direct" or "indirect" utility depending on how measurable that utility is.

4.1.3 Project Communities

A particular type of knowledge exchange environment which was traditionally hard to place is that made up of project-oriented teams and knowledge units. Typical examples include product development teams, project implementation teams, customer pre-sales teams...

These groups were often excluded from the definition of Community due to their working methods and organization. We will see that these are nothing more than the results of an extreme set of motivations... which are present in many other communities. This will help understand the place of Communities inside the organization.

Project Communities are those in which individuals derive an extremely "objective utility", directly related to their jobs and their economic subsistence. Their attitude to the Community is directly marked by this.

On the other hand, organizations extract a clearly "direct utility" from their work, in as much as the project is related to the efficacy of its processes and the achievement of its aims.

To put it in a nutshell, both parts of the deal regard this type of communities with the utmost seriousness and want the highest control on them.

4.1.4 Amorphous Communities

Reality shows many examples of environments in which knowledge is somehow exchanged, but the supposed virtues of Communities are hard to find. We see fragmented environments, discontinuous participation, lack of a stable funding mechanisms... and we even doubt that these things can be called a Community.

But it can. They can even be fit onto the Quadrant. The reason for these apparently failed communities lies squarely in the motivations that are supposed to push it forward.

When the individual users derive from them a purely "subjective utility", with no translation into objective value (no cost and no benefit), and the organizations involved have a totally "indirect utility" such as that usually derived from marketing and promotional tools, we have those sorry, but frequent examples of "Amorphous Communities".

Users won't be held to rules nor go out of their way to improve or maintain them. The organizations can't justify serious investment in moderation or IT

infrastructure. The community just drifts on, receiving disconnected bursts of activity.

5 CONCLUSIONS

Reciprocity, bonding, apportioning of material resources, responsibility, delegation, relevance to the organization and the individual, pricing... they all depend directly from the perception that individuals and organizations have of a Community. And that in turns depends on the utility they get off it.

The most relevant aspects in which an organization will need to decide are:

- Organization. The way in which activities related to the Community will be managed.
- Integration. The Community's role in the organization. What will it be responsible for, if anything. What departments or structures is it related to, and how.
- Resources. Apportioning of the relevant means to the Community.
- Intellectual property. Treatment of knowledge assets used by, and generated through, the Community.
- IT support required. Integration in the IT infrastructure of the organization, and impact on its strategy and design.
- Value for whom. Identification of the value goals that the Community should be measured against.
- Price formation. That value can be measured in money, and therefore charged to value recipients (be they consumers, partners, internal departments or other initiatives).

These decisions need to start by knowing just what that Community is to the organization, and to its eventual users. They need to start by analysing the utility provided to each party and acting in consequence. Otherwise, inefficient or simply erroneous decisions are sure to follow.