ICT implementation. Going beyond expectations? An essay of interpretation through competitive intelligence

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ABSTRACT

This article focuses on the uncertain relationship between organizational intelligence and ICT usage. It recalls the implementation effects of information and communication technologies ICT under the gaze of collective intelligence. Accordingly, the approach was tested through the observation and interpretation of interactions between a tool of collective intelligence, namely an online-system of indicators, and a network of agricultural cooperatives of a regional federation in southern France. The teachings of this research overstep traditional and theoretical approaches in terms of acceptance and appropriation. Consequently, the actor-network approach has been mobilized - It has revealed that the use of the translation process has led to the occurrence of interactions that go beyond previously intended objectives. Surprisingly, the tool appears as a collective intelligence support in the sense of revealing four facets: inductor (of projects) tool, a symbol (of new networks of exchange) tool, a reference (informational) tool, and lastly a pretext (or a support) tool of the network's concretization. Hence, this paper shows that the use of ICT could promote organizational intelligence in the measure of allowing a refocus on the human but also on perfect subjective information.

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I. General Introduction

1. Research deficit in management sciences in terms of the light shed on the link between organizational intelligence and ICT usage in organizations

The ambiguity and uncertainty of the link between ICT and organizational intelligence result from the fact that there are things we know about the reasons behind ICT implementation inside organizations, but also things we do not know in terms of ICT outcome and the reasons for which they were designed and implemented inside companies.

Research in information systems and those concerning the different approaches related to ICT usage in particular, evokes a link between the use of ICT and their usefulness, to the extent that the more ICT are useful, the more we accept their usage [1], [2]. Moreover, those theoretical approaches do not identify a link between the acceptance of ICT usage and the pre-intended purposes for which ICT have been created, and...
therefore we know little about the relationship between the acceptance of ICT usage and firms’ organizational intelligence. As for the theories concerning the appropriation and the use of ICT, the diversity of the proposed approaches makes it difficult to identify situations in which the appropriation of ICT allows firms to become more intelligent at the organizational level. ( Appropriation as a dynamic and contextual process [3], appropriation through usage adjustment [4], appropriation as a collective process [5] and structural approaches of appropriation related to innovation [6]).

Aside from the stated above theories and this time on a sociological scale related to the actor-network theoretical approach [7], the sociology of translation seems able to propose a framework in which we could disambiguate the link between ICT project implementation and organizational intelligence. It remains to see if this is possible. Therefore, it is relevant or interesting to recall the actor-network theoretical approach to deepen what we can learn from the lack of knowledge found on the relationship between ICT usage and organizational intelligence.

2. a. The Project

At a time when agriculture is on a very important turning point of its history (heightened international competition, the rise of emerging countries, enlargement of the European Union and threats on the PAC, unprecedented crises on viticulture, fruit and vegetables), and where cooperatives of the Languedoc-Roussillon region proceed increasingly with operations of alliances and mergers to adapt to their competitive environment, it has become essential to the Regional Federation of Agricultural Cooperation in the Languedoc-Roussillon (FRCA LR) to have a collective intelligence tool for monitoring and management of the sector, although no regional multi-process mechanism exists at the present time. This is dedicated to the leaders of agricultural cooperatives in the Languedoc-Roussillon (LR) and has three main objectives: (1) Provide managers of LR agricultural cooperatives with a dashboard of key indicators (economic, social, commercial, and environmental) specific to each sector. (2) Allow directors of LR agricultural cooperatives to know their position in relation to their environment by comparing (Benchmark) with the regional average of cooperatives of the same status and the same sector. (3) Build and implement a comprehensive online administrative directory of agricultural cooperatives to promote relationships between leaders of agricultural cooperatives, while at the same time follow the development of the regional agricultural cooperative perimeter.

2.b. The holder of the project and its context

FRCA LR is the first agricultural and agri-food network of territorial enterprises, representing the agricultural cooperatives in their entirety. It assembles over 300 cooperatives via specialized federations. It represents and promotes the cooperatives with regards to professional agricultural organizations, governmental departments, local authorities and national and European authorities. It also provides cooperatives with solutions to their specific operational needs and development. Additionally, it conducts various development missions, consulting, auditing, and training for the benefit of cooperative enterprises.

The agricultural cooperation of LR has a cultural heritage of emphasizing socio-political issues on economic issues. In this socio-economic context, the culture and skills of the leaders of the LR agricultural cooperatives are more technical than economical. [8]

At the individual level a culture of compartmentalization and opacity characterizes much of the leaders of Languedoc agricultural cooperatives. At the institutional level, the tensions and challenges of power have long opposed the institutions of the Languedoc agricultural cooperation.

3. Research Question and Issue

As part of this research, by “collective intelligence” we temporarily mean: the sharing of information through specific tools. By “organizational intelligence” we mean: the ability to solve problems within a group of individuals through collaboration. In other words, generally speaking, we are in a situation in which organizational intelligence refers to an organization which is able to recognize its problems through collective action.

At a time when the deployment of collaborative tools (collective intelligence) that belongs to ICT becomes widespread, it is difficult to know (or it is necessary to check) if their implementation promotes an evolution in terms of organizational intelligence in firms, and thus lead to the purposes for which they were designed. Therefore, our research question is the following:

Could the implementation of a collective intelligence tool induce interactions that foster organizational intelligence, especially in a group of structures of a specific type?

II. The Method

The context in which we are, the LR network of agricultural cooperatives, has a number of properties (historical, cultural, organizational etc...) that makes it well suited to conduct a research-action that concerns: the Creation and Observation of interactions between this collective intelligence tool and the network of agricultural cooperatives in the LR. Indeed, the research-action is necessary because we are in the heart of an empirical study in which the real needs are raised by agricultural cooperative actors. Additionally, our field is constantly confronted with literature back and forth, also, the creation and observation of interactions seems to be adapted to our field because we can expect that the fundamental properties of the natural environment are that everyone agrees with this tool (collaboration is reflected by cooperation so as interaction), while at the same time it could be expected that everyone rejects (as a cooperative manner) this tool for different reasons, this time socio-political and historical per example. All this, makes this diverse and complex business environment conducive to the study of interaction. Our epistemological posture is interpretative. Means that we have mobilized to gather information are: unstructured interviews, observations, field notes, meetings, focus groups, documentary analysis.
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