How to Manage Virtual Communities and Teams using Adjacencies: A process based on Functional Analysis and Adaptive Structuration Theory

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ABSTRACT
This paper aims at responding to the need for specific management of virtual entities. It proposes a flexible process based on Functional Analysis and Adaptive Structuration Theory, called Virtual Entities Management Support (VEMS). Starting from environmental requirements analysis, the method helps to choose functions, attitudes, and tools based on a strategic vision in three dimensions: the virtual entity value addition, the members’ satisfaction, and the entity flexible frontiers. It leverages the powerful concept of adjacent individuals and adjacent communities inside the 3-D model. The full process is detailed and applied to five virtual entities inside and outside the industry. It raised a common view of 21 best attitudes. The paper provides managerial guidelines to managers of virtual entities.

Keywords: E-Collaboration, Virtual Communities, Virtual Management, Virtual Teams, Web 2.0

INTRODUCTION
Large organizations have an increasing need to build workgroups with geographically distributed members. Virtual teams, defined as teams that work remotely, are growing internationally. In 2002, a survey in Germany with 376 managers concluded that over 20% of workgroups work virtually (Bundesverband, 2002). Not only inside but also outside organizations, web 2.0 tools allowing distance collaborative interaction (DiNucci, 1999) have enabled an explosion of virtual communities, defined as networks with individual and collective identities (Cova, 2010). Communities of customers, partners, cooperation projects, or groups of more general interest are created spontaneously or through the influence of organizations. Internally and externally, the management of virtual groups includes multiple activities, such as: project administration, knowledge management, decision-making, relationship management, entertainment or events organization, experience sharing, etc. Virtual collaboration (i.e.,...
remote collective communication) becomes a
day-to-day professional reality. The literature
has detailed successful cases of virtual col-
laboration (Harwood, 2010), but there are also
risks of failure. Virtuality, or the combination
of distance between individuals and use of web
2.0 interactive technology, imposes special
conditions and transforms relations:

- People meet rarely, if ever
- Dialogues are mostly asynchronous and
  only sometimes synchronous
- Written communication dominates
- Emotions are less visible and difficult to
  express
- Traces of communication are available
- Archives are abundant
- Web 2.0 technological tools dominate
- Members belong to multiple virtual entities
- They participate in several conversations
  at the same time
- Members statuses and roles are less visible

These characteristics generate weaker pro-
fessional links, new attitudes in conversations,
larger exposure, and trust issues (Montoya,
2009). On one hand, virtuality can be seen as
an impediment; on the other, it can be seen
as potential for greater efficiency, as commu-
nication is written, asynchronous, and better
thought-out. Internally, as well as externally,
virtual entities share a common goal: They
exchange experience, look for solutions, and
develop goals amidst a backdrop of up to 100
web tools (Good, 2011). Virtual entities require
new management skills. According to French
marketing managers, this “virtuality challenge”
appears to be headed in a direction of progress:
Managers rated their satisfaction with virtual
collaboration as 2.6 on a 0 to 5 point scale in
2010 (Diviné, 2010).

In this context, the subject of this research
was how to provide a method to support the
management of virtual organizations. The aim
of this method was to help managers of virtual
groups to deal with virtuality conditions, includ-
ing: formulating goals, identifying attitudes,
and choosing web 2.0 tools. With this method,
called Virtual Entities Management Support
(VEMS), managers should be able to create their
own practice route. It is a framework to build
one’s own solutions, not merely a generic list
of recommendations. VEMS applies internally
and externally to help achieve the objectives
of virtual groups managers. Internally, it will
help managers of virtual teams of employees
when they do not have an established procedure
for using project management software that
fully determines activities and types of com-
munication. It applies to any team transversal
— permanent or ephemeral — of a distributed
organization, which must define its objectives,
govern modes of living and working to accom-
modate virtuality and benefit from it. Externally,
community managers need to further define their
goals and attitudes with participants; they will
acquire principles and reflexes with the method.
VEMS helps in the design of a vision, helps
managers choose functions and attitudes, and
defines the most suitable tools. It covers three
kinds of management activities, with upstream
assistance in defining objectives and constraints
and downstream assistance in selecting the best
association of tools.

VEMS provides a model representing a
virtual entity in three dimensions and a stepwise
process for producing a vision, and identify
functions, attitudes, and tools to manage the
entity. It is based on a theoretical framework,
which includes functional analysis (Le Moigne,
1999) and the Adaptive Structuration Theory
(AST; DeSanctis & Pool, 1994; Orlikowski,
2000). The functional analysis helps define
the steps for identifying the constraints of the
environment, the inferred and complete list of
functions, and the attitudes. AST introduced the
concept of Technology Spirit, which represents
the intents of the designers of the technologies
and the structure of the social group of users. It
allows building a model of representation of the
virtual entity. We will use the three dimensional
model (Diviné, 2012), based on ACP analysis
of the internal and external use of 17 web 2.0
tools on a sample of 179 large enterprises. The
dimensions are the value addition, defined as
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