# Social Technology, agriculture and income generation: effects of networks on the reapplication of innovative experiences in Latin American countries

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#### Abstract

Social Technologies (STs) represent effective mechanisms to overcome some limits of Conventional Technology and to generate social and productive inclusion. Understanding how the articulation of actors on a network around a ST influences the potential of a technological diffusion to other places that are not those of its origin is, thus, fundamental to propagate the participatory local development, and the results indicate that the reapplicability can be related to the density of the internal network to ST and the form of communication between the actors.

## Key words:

Income generation, Social Technology, Latin America.

### Introduction

The formation of more permeable and autonomous collective decision-making arrangements, that decentralize power in its territorial and functional dimensions and that convoke the presence of civil society1, is an effective solution to face the limits of Conventional Technology, created by and for the big capital<sup>2</sup>. In this scenario, Social Technology (ST) brings the proposal of social and technical adequacy to the reality of small producers and consumers with low economic power: to economically make feasible previously segmented undertakings dominated and hierarchized by capitalist control - such as popular cooperatives, agrarian reform settlements, family farming and small businesses2.

The objective of this work – which was part of a macro research project developed under UNICAMP's Laboratory of Public Sector Studies, coordinated by four professors and with the participation of nine undergraduates and two graduates – was to understand how the formal and informal networks of actors involved in these innovative initiatives impact the potential of this technology to be reapplied elsewhere far of its origin. In order to do so, it was mapped experiences of STs that have generated income to agricultural producers in four Latin American countries (Argentina, Brazil, Colombia and Mexico), for later comparison in perspective with other experiences of the four countries.

### **Results and Discussion**

It was found 41 ST experiences that generated income in the agriculture sector. From this total, one experience from each country was selected according to the degree of availability of information, level of interaction in networks and coherence in relation to specific research objectives and to the concept of ST.

The guiding hypothesis of this study was that the larger and denser the internal network to the ST implementation, the more likely it will be its reapplication. In order to verify if this relationship does exist, two questionnaires were made (one written in Portuguese and one in Spanish) with fifty semi-structured questions about the technology itself, the networks formed and the reapplication.

Contrary to what was expected – since that those responsible for the four STs had already indicated a

willingness to respond to the questionnaire –, only two answers, referring to the same brazilian ST, were obtained. Partial results have indicated, on some topics of the questionnaire, convergence and complementarity and, on others, divergence in the answers of the two respondents (responsible for the same ST).

Financial situation, need of the local population, environmental awareness and scientific research were the main motivations for the development and construction of the ST in question. The network formed in the social and technical environment of ST involved fifteen actors (among Federal Universities, municipal and federal instances and research promotion institutions) who communicated mainly via e-mail and in person, with the intention of promoting reapplication.

# **Conclusions**

The potential for reapplication of a ST can be related to the degree of connectivity between the nodes of the network of actors, especially regarding the transversal sharing of financial, informational and scientific resources – which reinforces the centrality of the State role –, which meet the main motivations for the development of ST. The different answers obtained in relation to the same ST experience also point out faults in the communication and perception of the network actors in relation to the concepts of ST and reapplication, most probably because of the large number of actors involved.

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<sup>&</sup>lt;sup>1</sup> JUNQUEIRA, Luciano A. Prates. **Descentralização e intersetorialidade: a construção de um modelo de gestão municipal.** Revista de Administração Pública - RAP, Rio de Janeiro, v. 32, n. 2, p.11-22, mar./abr. 1998.

<sup>&</sup>lt;sup>2</sup> DAGNINO, Renato et al. **Tecnologia social: ferramenta para construir outra sociedade.** 2. ed. Campinas: Komedi, 2010.