

Urban projects and managerial models: a creative approach

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An urban project is a *project within a complex system*. It therefore includes the necessity of *collective creativity*. The multifaceted context of the system includes economic and organizational aspects. In *management science* researchers have also developed various concepts of *project*. What are then the possible understandings of the design and implementation process of an urban district, of the rejuvenation of a part of a city... from the point of view of project management?

The urban project can be understood as a pure planning procedure as well as firm's management can be designed in a hierarchical (top down) mode. Nevertheless in many cases the development of a new area must be dealt with as the adaptation/creation of a complex system, like operating on a living body, and not like a pure mechanical creation from scratch. In this case the managerial equivalent is not the classical model of optimized planning and control, but a more creative process whose rationale is called "effectuation" by Saras Sarasvathy, a specialist of entrepreneurship studies. It is interesting for urbanists to get some hints about such managerial topics because of the similarities in the underlying philosophy of action for urban planning and innovation management.

Sarasvathy's approach of entrepreneurship is akin to creativity management and innovation economics. It applies to the founding of a firm as well as to the management of an innovative project in an existing organization (intra-preneurship). Strategic design in the context of complex multi-actor systems needs more than the regular technical and economic knowledge. Optimization techniques do not apply as global tools: they can only be used in some parts of the design process. In many aspects of the global problem, pure deterministic reasoning is not possible. The latter approach is called *causation* and opposed to *effectuation* in the literature on entrepreneurship.

Causal philosophy of action is possible when goals are very clear and given ex ante, when causality is linear with no ambiguity, and future events can be forecasted. To take an example already proposed by Aristotle, the "cause" of the house (or the statue) is the laws of physics (or material sciences, chemistry, mechanics...), but other "causes" exists like the competencies and talents of the architect (artist) and of course also the desire of the future owner of the object which is the *final cause*. Effectuation is a philosophy of action more focused on final causes and related to situations where means and goals are not clearly expressed and articulated in a linear way. Instead of starting from the goal and providing the necessary means in an optimized planning agenda (like an assembly line in industry), one starts from the existing means and opportunities, and tries to imagine possible desirable futures by testing various goals and means. Exploring final causes as well as intermediary means is the core of the effectuation approach.

The effectuation approach is the only one that can be considered in complex multi-actors systems. It is very important to consider the present situation of the system, including the mental representations of the actors: their present perceptions of the system and their representations of the possible/desirable futures of the system. The project is then a process of collective experimentation and creation, both of the goals and the means. It must be underlined that participatory decision-making is not only a question of associating all the categories of citizens and organizations to the design of the future system, but also to reveal the cognitive potential of all of them. It is therefore a full-fledged process of collective creativity.

Let us precise two points regarding such collective project management in the effectuation mode. The first one is related to the notion of *future*, the second to the notion of *creativity*.

The *causation approach* of project management supposes clear goal-setting at the beginning. Ideally, in order to give an optimal response to the problem of meeting the target, all the relevant "laws of nature" must be known (technology, economic analysis, human behaviors...), plus the assumption that they will remain unchanged in the future is also required. It does not mean that the future is completely deterministic, but it must be at least calculable following probabilistic laws. The economist call "risk" that sort of uncertainty that can be computed. If we know the probability functions, optimal planning in uncertain situations remains a realistic aim. It is the ordinary job of insurance companies and specialists of financial markets.

In a *creative context*, where the effectuation method is needed, the situation is different: there is nothing like a probability function being tested on the past, ready for use in forecasting exercises. The uncertainty about the future is not "risk" but strong uncertainty: no complete knowledge of the set of possible futures is available, and no probability function has been tested on large numbers of previous situations (because the situation is radically new). This issue reflects the difference between financing ordinary risky projects and funding an entrepreneurial (innovative) venture. The ordinary bank or insurance company can provide capital in this case of ordinary business situations, not in the case of startups or firm' radically innovative projects. In creative processes the future is not to be "forecasted", it has to be designed through imagination and reflection. In cases of collective projects, *the future is collectively designed*: by crossing individual representations and then by negotiating the desirable possible common futures (the "*futuribles*" in the sense of the French school of foresight - *la prospective*).

Radical changes express a form of creativity in a strong sense. Using the wording of the economics of innovation: *incremental* progresses can be achieved by regular research programs (in a way that is compatible with the causation approach), but *breakthrough* innovation needs more than intellectual work within existing cognitive frames. Facing very complex problems, we are forced to think "out of the box". Big urban projects are akin to radical innovation because they modify complex and original systems. No city, indeed, can be considered as similar to another, and we advocate the idea that importing/adapting foreign solutions is generally not the best strategy. The change must be self-organized in an original way. At least we believe that the latter principle has to be at the core of the understanding of the expression "urban project".

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