More information: A mapping system for visualising a post-COVID South Africa

Article by Dr Roy Marcus

As South Africa emerges from one of its worst political and economic crises since democracy was achieved in 1994, the country finds itself having to cope with the surreal Covid-19 pandemic. The social media is awash with commentaries, advice and a whole lot of confusion.

Sadly, in all of the confusion there is little evidence of a systemic approach to gain a better appreciation of the real impact of both the virus itself, as well as the raft of legislation that has been promulgated to lessen the burden of the pandemic.

For example, we are witnessing the demise of two major airlines in the country. Both SAA and Comair are in business rescue. There is limited evidence of any discussion relating to the harsh realities the country will face with severely restricted air travel once the lockdown is lifted.

In view of these realties it is suggested that a way of gaining some insight into the impact of the Covid-19 pandemic, as well as testing some ideas that may go some way in alleviating the burden, is to produce a systems map. Such a map will go a long way to "tell the story" and present some ideas as to what the implications of various actions could be on the long-term future of the country.

This map attempts to present all the key role players and their influence on the future of this country. The map based on a Systems and Design Thinking approach suggests a number of possible outcomes, which could result from either ill-defined decisions or well-informed actions taken by the key stakeholders.

Based on a Design Thinking approach, the model sets out to identify all those factors which contribute to the *Mess Formulation*. Identifying the "mess" is key to finding a way out of the difficulties. The key question in identifying all those factors which contribute to the mess is to determine how the country would eventually destroy itself if it were to continue behaving as it currently is.

The mess provides a factual, verifiable and unemotional picture of the current reality. The model is based on the following framework:
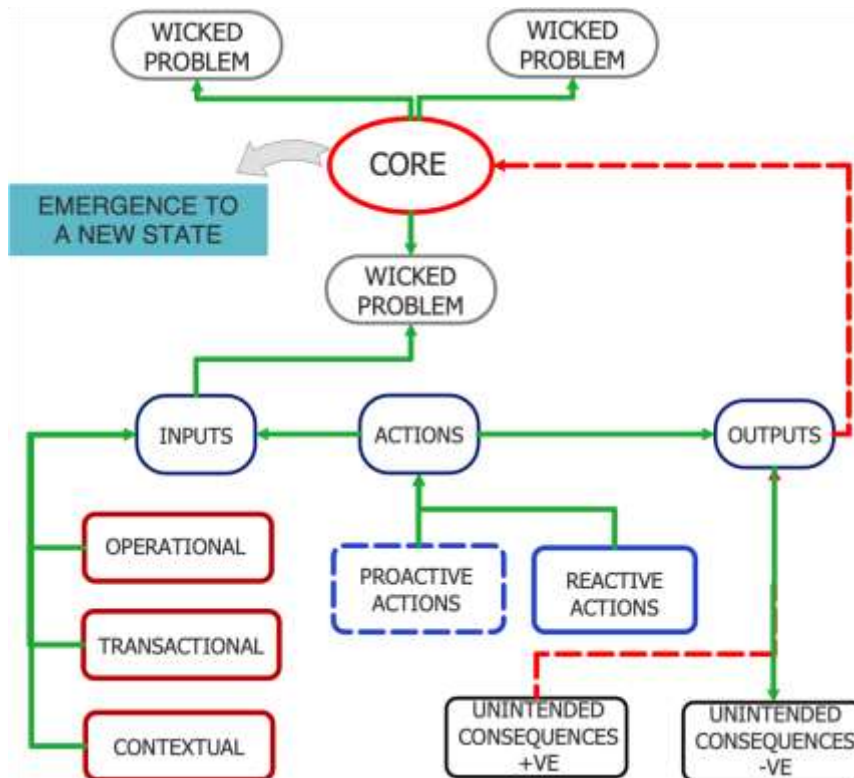
The map is built around a Core issue which in this case could be **Leadership.** The Core is connected to what is believed to be the real "Wicked Problems". It is normal that in any complex situation, there a are a number of 'Wicked Problems' the genesis of which need to be explored.

A wicked problem is a social or cultural problem that's difficult or impossible to solve—normally because of its complex and interconnected nature. Wicked problems lack clarity in both their aims and solutions, and are subject to real-world constraints which hinder risk-free attempts to find a solution. (https://www.interaction-design.org/literature/topics/wicked-problems).

To gain some insights into the drivers which influence a Wicked Problem, we need to identify some of those INPUTS which directly influence the characteristics of a particular Wicked Problem. The INPUTS from which a Wicked Problem can be viewed are identified by probing three "Environments".

1. The first environment is known as the *Operations Environment* which in this case represents the Government and is described by those entities with whom the responsibility of implementing government policy resides.

2. The second environment is the *Transactional Environment*. We define this environment as all those entities which lie outside the domain of operations. These entities are considered to be key influencers over which the operational environment has little or no "control". Elements such as the Unions, Business, NGO's and the like are typical of what constitute this environment.

3. The third environment is the *Contextual Environment*. This environment includes all those external factors, normally of a global nature, which influence the system. Issues such as Global Technological Developments, Ratings Agencies, United Nations and the like are identified in this environment.

The *Wicked Problem* is further influenced by a series of ACTIONS. We define two types of ACTIONS. The first group are the REACTIVE ACTIONS. Whilst some of these actions are deemed to be positive and could contribute to lessening the impact of the Wicked Problem, in most situations where government and politicians are concerned, such actions are often knee jerk, ill-conceived and fail to take into account the consequential damage which such actions can have on society.

In the Systems Thinking world we state that you cannot solve a Wicked Problem, you can only dissolve it. Further, we state that dissolution can only be achieved through re-designing the system. There is a second group of Actions, which we define as PROACTIVE ACTIONS. These are typical of what should take place if the decision makers take into account the reality of the situation taking a systems view rather than a linear, single dimension view.

As a consequence of the ACTIONS and the INPUTS there are two outcomes which will determine the end state of the Wicked Problem. The first outcome is an Undesirable Outcome which we designate as negative, UNINTENDED CONSEQUENCES. The second outcome is designated as a positive, UNINTENDED CONSEQUENCES. This outcome is the one which will create the necessary changes to dissolve the Wicked Problem.

As a result of the interaction of all the components which make up a system, the system *emerges* to a new state. Such an emerged state could provide an exciting future for the country and its citizens.

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