
Appendix 5

Decision Explorer

Background

This note explains the Decision Explorer displays presented in this volume.

According to its producers, Decision Explorer is a proven cognitive mapping software package for managing "soft" issues - the qualitative information that surrounds complex or uncertain situations. It allows users to capture in detail thoughts and ideas, to explore them, and gain new understanding and insight. The product was developed by academics at the universities of Bath and Strathclyde and currently by Banxia Software (<http://www.banxia.com>), in conjunction with major organisations. It now has hundreds of major international users.

A considerable advantage of this package, from the policy perspective of this project, is that it has been designed with strategy-making as its main focus. The package therefore has a whole range of analytical and display tools built in. The inventors (Professor Colin Eden and Dr Fran Ackermann of the Strathclyde Business School) provide background argumentation in a recent book, *Making Strategy: The Journey of Strategic Management* (1998), offering an integrated and practical resource for all those concerned with translating strategic theory into management practice using cognitive mapping tools and in the light of a number of case studies, including the Scottish Natural Heritage, the National Health Service, the Northern Ireland Prison Service and Reed Business Publishing.

Application to UIA data

The challenge has been to demonstrate the value of this software package to exploration of data made available online by the UIA – especially since its main function is not simply as a mapping tool but also as a very powerful analytical tool in the policy-making process.

The most recent release allows importation of data, like that of UIA, in formats compatible with those that can be output under user control during the Java spring mapping process (see **Appendix 4**). In effect the web user can now save the UIA relationship data in a format that allows it to be read by Decision Explorer (at the user's location) and formed into a cognitive map. A Decision Explorer model viewer can be downloaded for this purpose and is available on the CD-ROM (see **Appendix 8**). Alternatively the saved data can be converted into such a map at the UIA site (as a fee paying service) and sent to the user.

The package can handle several thousand conceptual entities and relationships, meeting a basic requirement of the complexity of the UIA data.

The UIA has therefore been able to provide users with an alternative way of presenting relationship networks. But, unlike the preoccupation of many Decision Explorer users, the UIA has been able to bypass the cognitive mapping phase and allow maps to be directly constructed from the UIA relationship data on the fly by web users, after preliminary exploration using the spring map technique. It is important to stress that the editorial research through which UIA databases profiles are constructed and linked is effectively a cognitive mapping process based, whenever possible, on materials from competent international organizations in the subject area.

Users can either work with static maps provided on request from users by the UIA, or else with the full facilities of Decision Explorer to analyse (with over 40 functions) and restructure a cognitive map. The software allows very large and complex maps, of the kind emerging from UIA data, to be printed as a linked set of individual maps. As with

the spring maps (see **Appendix 4**), URLs are associated with individual entities on each map to provide a direct link into the full profiles in the UIA databases.

The full version of the Decision Explorer package also enables users to amend the map – adding entities or links between them and changing the visual presentation in a variety of ways. It is designed to be used in strategy meetings to gather information from a variety of perspectives. Those provided on the CD-ROM can be improved and extended in this way.

Selection of maps

The intention has been to produce a selection of interesting cognitive maps that suggest new ways of exploring networks of organizations, problems, strategies, or values – both from a substantive perspective and as a trigger for the imagination in promoting attention to a particular network (eg for a conference or in promotional material).

The maps selected cover a wide variety of organizations, problems or strategies. The selection was not made so as to provide any systematic coverage. The purpose was primarily indicative of possibilities for the future, or for particular program initiatives (conferences, education, presentations, etc).

The online facility enables thousands of maps of this type to be generated and manipulated over the web – varying colour, detail (up to several thousand nodes), layout, etc – according to the preferences of the user. Although the maps are generated, a certain amount of manual reconfiguration was required to make them suitable for printing in this volume.

Future developments

For the UIA this facility also means that users will be able to provide meetings, at any location, with preliminary cognitive maps from its data with the possibility of exploring ways of building on, or correcting, such a map in the light of insights emerging during the meeting. This has the considerable advantage of allowing meetings to optionally access data at a higher level of complexity rather than having to work solely with a weaker overview because of communication challenges during the meeting. In this way a meeting can see an explicit picture of an issue, clearing indicating the inter-relatedness and interdependencies between different aspects so that these can be explored and debated in a controllable setting.

Models and images on CD-ROM

The CD-ROM accompanying this volume (see **Appendix 8**) includes:

- Decision Explorer model files for all figures that have been created via this cognitive mapping package (by right-clicking on a concept in the map, and using the option "launch memo link", access is provided to the UIA online database service, to view the profile of that concept).
- Screenshots of the same figures (in colour).

Decision Explorer Viewer for exploring the models is available on the CD-ROM or downloadable from <http://www.banxia.com/dexplore/viewer.html>