

(not sharing); (4) limiting the search for options; (5) misusing evaluations (not sharing); (6) ignoring ethical questions (not sharing); and finally, (7) failing to reflect on earlier results to learn what worked and what did not.

If one examines all these blunders and many of the traps, drawn from a massive collection of evidence, one sees that one way or another, they are all failures to share the decision, whether with experts (which takes time, money, and effort) or with stakeholders (which requires one to abandon coercion, consider people's interests, and address ethics).

Nutt also distinguished between decisions made with an "idea-driven" process, which defined the problem or its possible options (the idea) very early in the process, versus a "discovery-driven" process that took the time to explore the actual definition of the problem as well as the options. He found poor outcomes were four times more likely with the idea-driven process, and that all the "debacles" had used the idea-driven process. A key difference between the two processes is the early and honest sharing not only of the decision, but its formulation in the first place, i.e. the goal. Perhaps, for example, stakeholders invited to select among predetermined treatment or exhibition options are not interested in those decisions at all, rather they want to decide which objects or parts of a site to consider in the first place.

Tool 1: the decision matrix

A brief history of the decision matrix

Benjamin Franklin proposed a method for decision-making, based on a list of pros and cons, which one then crossed off in pairs, taking account of their relative weight, until only one side remained (Yoon and Hwang, 1995). By the eighteenth century, the utilitarian philosopher, Bentham argued that only a moral arithmetic, the summing of the greater good, could decide whether actions were moral or not (Driver, 2014). Such utilitarian logic still underlies the preservation and access goals of conservation decisions today (Michalski, 2008). Greene (2013) argues convincingly that it remains the only rational principle for moral decision-making in general.

The multicriteria decision matrix emerged in its current form (Table 2, Figure 1) for prosaic business decisions in the 1950s, and by 1968 it was an established method applied in almost a hundred different journals (Hwang and Yoon, 1981). A decade later, Kepner and Tregoe (1976) promoted the tool in their book *The rational manager; a systematic approach to problem solving and decision-making*. Today, the literature extends to highly mathematical theories where hundreds of options, criteria, and probabilities are in play (Hwang and Yoon, 1981; Yoon and Hwang, 1995), but the average manager, if they use a decision matrix at all, uses the same simple types of fifty years ago (Mindtools,2017).