

etc. will be met very differently by the different schools. If we made a radar plot using all the competing criteria and placed all the schools proposals on it, we would find plots that all shared a high score on competence but otherwise scored well only on those criteria favoured by the goal of each school. Hedley concludes that this global ensemble provides a richer result for humanity than a single standard.

Consider the standard approach to the display of light-sensitive objects: rotation of the collection. We can agree that in a perfect world, we would set very high minima for both access and preservation, i.e., criteria 1 is “objects fade negligibly over centuries” and criteria 2 is “objects are seen well every day by visitors”. Rotation fails both, it presumes that one must lower the minima of both criteria and find a conjunctive solution, i.e. a compromise. Disjunctive reasoning would look for paths that have part of the collection meeting the difficult minimum of criteria 1, so that part must stay archived in storage, and the other part of the collection must score well on criteria 2, so that part is on display permanently. This is an ensemble or teamwork solution – there will always be authentic brightly coloured exemplars available for whatever new reproduction technology comes along.

Tool 2: the decision tree

Although the name ‘tree’ for diagrams such as Figure 3 was inevitable, I believe it is the metaphor of paths taken and paths not taken that helps to explain the power of decision trees. There are two varieties of decision tree: predicting a set of outcomes, and guiding a sequence of contingent decisions.

Decision trees that calculate a set of outcomes usually incorporate probabilities of success along each path from each node. These trees begin on the left side of the page with an initial entry point, and end on the right side with a long column of possible end results that are the product of the interacting probabilities. Caple (2000) provides two examples for a conservation manager exploring collection care options in terms of costs and benefits.

Figure 3 is a decision tree for a range of possibilities in treating a painting. On the right-hand side, the predicted outcome of each possibility is given a score using pluses and minuses. The purpose of this tree was not to make the decision, but to document the many possibilities that were carefully considered but rejected (Michalski and Rossi-Doria, 2011). This tree also incorporates a small decision matrix at the end of the dominant pathway. (Trees and matrices are not incompatible.)

Decision trees that guide a sequence of smaller decisions look exactly like Figure 3, with simple yes/no decisions directing one’s path, but rather than using the many endpoints to determine the best path of all, these decision trees point you down the right path for your