PRAM Optimization Using an Evolutionary Algorithm

Abstract

PRAM (Post Randomization Method) was introduced in 1997 but it is still one of the least used methods in statistical categorical data protection. This fact is because of the difficulty to obtain a good transition matrix in order to obtain a good protection. In this paper, we describe how to obtain a better protection using an evolutionary algorithm with integrated information loss and disclosure risk measures to find the best matrix. We also provide experiments using a real dataset of 1000 records in order to empirically evaluate the application of this technique.