Properties of \( n \)-to-one functions

If \( n \) is a positive integer, a function \( f : X \rightarrow Y \) is \( n \)-to-one if \( f^{-1}(y) \) has exactly \( n \) elements for each \( y \in Y \). In this talk, we survey some results dealing with questions of the following sorts. For a given space \( X \) and integer \( n \), does there exist an \( n \)-to-one continuous function with domain \( X \)? In case such a function exists, what can be said about the range of the function?