Ordinal Regression Problem

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infant: 1   child: 2   teenager: 3   adult:4

Given some pairs (input $x_n$, rank $y_n$) with a total order associated with the discrete ranks, find a function $r(x)$ that predicts the rank of an unseen $x$ well.
Our Contributions

A new reduction framework that transforms ordinal regression to binary classification systematically, and ...

- reveals many new ordinal regression results from well-known binary classification ones
- makes the design and implementation of ordinal regression algorithms much easier
- explains many existing ordinal regression algorithms as special cases
- enlightens original methods for proving new ordinal regression theorems
- leads to promising experimental results

Poster #12:
Ordinal Regression by Extended Binary Classification