

A Learning Aid for Ushering Logistic Regression Early in Introductory Analytics Courses

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Abstract

Logistic regression (LR) is a foundational supervised machine learning algorithm and yet, unlike linear regression, appears rarely taught early on where analogy to linear regression is an advantage. In this paper, we investigate prevalence of LR in the learning outcomes and topic coverage of undergraduate statistics courses that are part of analytics curricula. A sample of 50 syllabi from undergraduate business statistics courses shows only two percent of the courses included LR. Conceivable reasons for this dearth of LR content is likely related to topic complexity, time constraints, and varying degrees of tool ease of use and support. These constraints represent an opportunity to fill-in-the-gaps using easy to understand and non-intimidating techniques. We propose a logistic regression flow diagramming visual aid that can be used by instructors and novice students learning regression leveraging the introduction proximity to linear regression to readily boost their understanding of a foundational technique.

Keywords: Logistic Regression, Flow Diagram, Predictive Analytics, Data Analytics, Flow Chart, Pedagogical Aid

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