The Joy of Data: *Row and Column Names*

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"The beginning of wisdom is to call things by their right names."
--Confucious (Kongzi) (551 B.C.E. – 479 B.C.E.)

Introduction:
Part of data literacy for business is learning many terms. That is part of college, part of learning, and part of growing as a person and as a professional. Sometimes, terms are confusing because terms can be used one way in everyday speech and a different way when analyzing data. Also, terms can be confusing because different terms can actually mean the same thing. Part of the reason for this is that different aspects of data and analysis technology develop at different times in history, and they develop in different "domains" (disciplines). Understanding where the terms for rows and columns are similar and where they are occasionally distinctive is part of data literacy. Finally, a "value" is stored at the intersection of each row and column.

The following are examples of different terms for same things in business analytics.

Domain	**First Dimension**	**Second Dimension**	**Reason**
Business Spreadsheet	row	column	This matches the structure and format of a business ledger on paper.
Database	record	field	A relational database "records" information with various "fields".
Research Data	observation (or response)	variable	One collects "observations" and "responses" each having "variables".
Computer Science	tuple	attribute	Data can be stored and accessed in a variety of ways on a variety of media.
Machine Learning	instance	Feature	One is mostly concerned with how an algorithm "reduces" or "combines" features to obtain a result.
Statistics	element	Vector	One combines the general nature of the row data with the specific nature of the column names.
Math	*i* (or *n*)	*j* (or *m*)	These are the subscripts in a matrix.