

## **The Decade of Linearity: How $ax + b$ transformed Search, Jobs, and Health**

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When analysis of social networks began, cubic and quadratic algorithms were the order of the day. They provided break through insights into understanding how information travels, who people are, and what influences them. Since then, the growth of data has outpaced the increase of computational power and rendered super linear algorithms near unusable. However, the appetite for insights has only grown with data and spurred the development of the data science field. To rapidly deliver insights, linear algorithms and linear equations have proved invaluable. To show the power of linearity we will explore case studies from how search became location based, how jobs within industries migrate, and what it takes to become healthy.