Glossary
Daniel Egger, Duke University
Created by Talles Tatagiba Martins De Souza
Business Metrics for Data-Driven Companies

Glossary by Alphabet

0

0-level inventory (potential opportunity cost) - When a product is "sold out" and none is available were a potential new customer to request it. Week 1 - Profitability/Efficiency Metrics: Inventory Management

A

AB testing - Trying two versions of something to determine which is more effective. Week 2 - Bricks-and-Mortar

Accenture - Week 2 - Strategic Business Consulting: Focus on Software/IT Systems Integration

accounts receivable - Monies a company's customers owe it for products or services we have already delivered. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

active investment - Investment in a fraction of all possible investments in a universe, chosen because they are expected to generate a better return than the benchmark index. Week 3 - Passive and Active Equity Managers

actual CPC - Because winning an AdWords auction only requires paying \$0.01 more than the next highest bidder, Actual CPC will be lower than Max CPC - especially when an advertiser has a high "quality score." Week 3 - Web Marketing: AdWords Metrics

ad relevance - A metric developed by Google that is based on how closely advertisement text relates to the viewers original search terms.
Week 3 - Web Marketing: AdWords Metrics

AdWords - Words purchased by auction to show sponsored links on Google search results. **Week 3 - Web Marketing**

aged receivables - Tracking how long cash owed is overdue. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

algorithms - A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 2

annualized continuously compounded return - $\frac{\ln{(\frac{p_1}{p_0})}}{n}$

Where,

 $p_1 = Price \ at \ time \ t_1$

 $p_0 = Price \ at \ time \ t_0$

 $n = Number\ of\ years$

Week 3 - Financial Services Metrics: Money Management & Investing

annualized discrete return - $(\frac{p_1}{p_0})^{(\frac{1}{n})} - 1$

Where.

 $p_1 = Price \ at \ time \ t_1$

 $p_0 = Price \ at \ time \ t_0$

 $n = Number\ of\ years$

Week 3 - Financial Services Metrics: Money Management & Investing

annualized volatility of return - The standard deviation increases as the square root of time; for example, if the standard deviation is 5.77% per month, than it can be estimated that it is $5.77\sqrt{(12)\%} = 20\%$ per year. If the daily volatility is 1.26% per trading day, then we can estimate the monthly volatility to be $1.26\sqrt{(252)\%} = 20\%$ per year. Week 3 - Equivalence of Different Returns: The Sharpe Ratio

area under the ROC curve - A metric used to evaluate the effectiveness of a binary classification model. Week 2 - The Business Analyst

\mathbf{B}

balance sheet - The document that shows a company's assets, liabilities, and shareholder's equity. Traditional financial accounting uses three systems: profit and loss, cash flow, and the balance sheet, to capture all changes in economic value. Week 1 - Distinguishing Traditional and Dynamic Metrics

Bayesian Learning - Algorithms that interpret new information using Bayes' theorem in order to reduce the uncertainty of a probabilistic outcome. Week 2 - The Data Scientist

benchmark return - The return of an index or other metric based on the "universe" combining all possible investments a manager could make. Week
3 - Passive and Active Equity Managers

big data culture - Awareness that real-time data-processing is a positive development that allows for better products and services to be delivered more efficiently, and will soon be an essential part of almost all business transactions. "Big Box" stores - Large retailers such as Walmart, Costco, etc. Week 2 - Overview of the 5 Types of Companies

Week 2 - Roles & Companies

binary classification - Separating items into two exclusive groups. For example, defining all credit card customers as "in default" or "not in default." Week 2 - The Business Analyst

booking revenue (a completed sale) - When a commitment to buy becomes contractually enforceable and is recorded under accounting rules.

Week 1 - Revenue Metrics - Traditional Enterprise Sales Funnel

bounce - When a visitor to a home page or landing page leaves the site immediately, without clicking on any internal links. **Week 3 - Web Marketing: Segmentation**

BRIC - Brazil, Russia, India, China. Week 3 - Passive and Active Equity Managers

bricks-and-mortar - Traditional product and service companies with physical stores and locations.
 Week 2 - Roles & Companies

browsing (to "view" a book in Amazon) - Clicking on the link referencing a book to the web page with more detailed information about it. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 2

burn rate - Actual net negative cash flow for a time interval, typically a month, or projected net negative cash flow for the next month. Week 1 - Egger's Roast Coffee Case Study Part 2 - How a Profitable Growing Company can go Bankrupt

business analyst - As defined here, someone who works with an external or internal client to develop requirements, documents and reports. Week 2 - Roles & Companies

business data analyst - As defined here, someone who assembles information stored in databases and translates it into business recommendations. **Week 2 - Roles & Companies**

\mathbf{C}

"call" or "draw" - When a fund manager makes a contractually obligatory request for cash from fund investors. Week 3 - Venture Capital Investors and Hedge Funds

capital expenditure - Synonym for capital investment. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

capital investment - Money spent for capital assets such as manufacturing

equipment that, under standard accounting rules, is "depreciated", or allocated across a large number of products or services over time. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

cash flow - How cash "on hand" - meaning in the Company's bank accounts
- has changed over a give time interval. Week 1 - Egger's Roast Coffee
Case Study - Part 1 - Definitions

Cash on Delivery (COD) - Being required to pay in cash when items are delivered. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

churn rate - The portion of customers who leave within a year. Week1 - Distinguishing Revenue, Profitability, and Risk Metrics

click-stream - The exact path a visitor follows through a website - what they view, how much they spend on each page visited and etc. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

click-through - When a web visitor clicks on an advertisement or sponsored link and arrives at the "landing page" of the sponsor. Week 1 - Metrics Help us Ask the Right Questions

click-stream - The exact path a visitor follows through a web site - what do they view, where do they spend the most time, etc. Week 3 - Web Marketing: Segmentation

cloud - Data storage with redundancy, and processing capacity, offered as a service with access from anywhere. Week 2 - Hardware & Software Companies

co-occurrence - When two events happen at the same time or within a single defined interval, such as a web user session.
Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 2

co-occurrence matrix - A way of representing mathematically all pos-

sible co-occurrence events. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 2

co-occurring sales - When someone buys two items during the same store visit or web session.
Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 2

commitments - The contractual obligation to provide cash to a venture or private equity fund when called upon to do so by the fund managers. Week 3 - Venture Capital Investors and Hedge Funds

communications protocols - Week 2 - Hardware & Software Companies

complete wastage - When a product or service loses all value if not sold by a certain date. Examples are hotel rooms and airline seats.
Week 1 - Profitability/Efficiency Metrics: Inventory Management

consulting with IT focus - Companies that sell business advice and as part of their recommendations build or install custom information technology systems for their clients. **Week 2 - Roles & Companies**

Content Delivery Network (CDN) - Companies that provide edge caching for a fee. The best-known is Akamai. Week 1 - Distinguishing Traditional and Dynamic Metrics

continuously compounded return - $\ln \left(\frac{p_1}{p_0} \right)$

Where,

 $p_1 = Price \ at \ time \ t_1$

 $p_0 = Price \ at \ time \ t_0$

Week 3 - Financial Services Metrics: Money Management & Investing

controlled-vocabulary index - An index with a relatively small number of words. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

conversion - When a web visitor becomes a paying customer. Also used

to refer to a lesser step when a visitor registers and provides identity information. Week 2 - Bricks-and-Mortar

conversion rate (to registration) - The percentage of not previously registered visitors in a website who register and provide identity information - typically an e-mail address, phone number, etc. **Week 3 - Web Marketing: Segmentation**

conversion rate (to revenues) - The percentage of visitors not previously customers who become customers. Week 3 - Web Marketing: Segmentation

correct decision-maker - Someone who has the budget and authority to decide on purchases and sign purchase orders. Week 1 - Revenue Metrics - Traditional Enterprise Sales Funnel

correlation with equity markets - What is the linear correlation of returns between an investment and its appropriate stock market benchmark over time. Week 3 - Venture Capital Investors and Hedge Funds

cost of goods sold - Costs that are allocated to each unit of production. Week 1 - Egger's Roast Coffee Case Study Part 2 - how a profitable growing company can go bankrupt

cost of goods sold - P&L Item - The standard accounting calculation of what it costs to manufacture a given unit of a product. Week 1 - Profitability/Efficiency Metrics: Inventory Management

CPC - "Cost per Click-through" - for ads where the advertiser pays only when a potential customer clicks through o the advertiser's landing page. **Week 3 - Web Marketing: AdWords Metrics**

Credit Bureau - A company that evaluates individuals and companies' likelihood of default and ability to manage additional indebtedness.
Week
2 - Traditional Strategic Business Consulting

customer loyalty - The fact that repeat customers are typically motivated by more than only lowest price alone - they have positive associations with

D

data scientist - As defined here, someone responsible for recommending and designing new technologies including real-time or just-in-time data-processing, in particular predictive analytics using machine learning. Week 2 - Roles & Companies

days inventory - The average number of days between when a product is completed (or arrives at a retail location) and when it is sold. Week 1 - Profitability/Efficiency Metrics: Inventory Management

default - Failure to pay interest or principal on a debt. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

demographic categories - Common ways to classify people, such as by income, age, employment, education, nation and region, etc. Week 3 - Web Marketing

depreciation - Accounting methodology for reducing the value of a capital investment over time and allocating that expenditure to products or services produced. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

derivatives - Financial instruments such as puts and calls that derive their value from the market price of some other asset, such as a stock, which is known as the "underlying" asset. Week 3 - Venture Capital Investors and Hedge Funds

device (when tracking origin of web site visitor) - A metric that considers whether the visitor viewed the site from a PC or Mac, or a mobile device. Week 3 - Web Marketing: Segmentation

digital businesses - Internet-based companies, typically with minimal phys-

ical stores and locations. Week 2 - Roles & Companies

direct - A metric for website visitors meaning the visitor typed the Company URL directly into their browser themselves.Week 3 - Web Marketing: Segmentation

```
discrete return - \frac{p_1}{p_0} – 1 
 Where, p_1 = Price\ at\ time\ t_1 p_0 = Price\ at\ time\ t_0 
 Week 3 - Financial Services Metrics: Money Management & Investing
```

duration - The time interval that a visitor spends on some part of a company's site. **Week 3 - Web Marketing: Segmentation**

dynamic metrics - Defined here as Business metrics that show significant change over time intervals of a month or less, and can be impacted directly by changes in business processes. Week 1 - Distinguishing Traditional and Dynamic Metrics

\mathbf{E}

early adopter - A group of customers who are motivated to try new products or services before they are established as mainstream. Week 2 - Strategic Business Consulting: Focus on Software/IT Systems Integration

economies of scale - Rising marginal profits on higher sales and production volumes - due to fixed costs and capital investment being high compared to variable costs. Week 1 - Egger's Roast Coffee Case Study Part 2 - how a profitable growing company can go bankrupt

edge-caching - Paying third parties (Content Delivery Networks) to locate copies of one's web content on servers physically nearer to customers and other visitors. Week 1 - Distinguishing Traditional and Dynamic

Metrics

efficiency - Delivering products or services of consistent quality while minimizing the cost of doing so. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

efficient market - A market, such as the U.S. public equities market, where active investors rarely outperform a passive index of the market assets. The efficient markets theory states that this failure is because the information that moves prices is available to everyone and stocks already reflect this information in their market prices - they are priced "efficiently." Week 3 - Passive and Active Equity Managers

enterprise - Defined here as any sale that requires involvement by fultime sales people. Enterprise sales must be large to be viable. Week 1 - Revenue Metrics - Traditional Enterprise Sales Funnel

excess return (over benchmark) - The manager's return minus the return of their designated benchmark, usually an index of the stocks from which they chose - their "universe." Week 3 - Passive and Active Equity Managers

excess return (over risk-free rate) - An investment return minus the return offered by stable governments for bonds in their own currency - this return is considered to have no default risk and so have zero volatility of return. Week 3 - Passive and Active Equity Managers

Exchange Traded Fund (ETF) - A fund that holds all the stocks in an index or market, passively, and simply tries to maintain the ratios used in the index. Week 3 - Passive and Active Equity Managers

expected click-through rate - When used to generate a "Quality Score"
Google's estimate, based on historical data or mathematical models, of the percentage of viewers who will click-through a particular sponsored link.
Week 3 - Web Marketing: AdWords Metrics

expense ratio - The costs of running an investment fund each year, including fees paid to the fund's managers, divided by the total value of assets under management. Week 3 - Passive and Active Equity Managers

expiration - "sell-by" dates - Legal requirements that a product can only be sold within a certain time interval. Week 1 - Profitability/Efficiency Metrics: Inventory Management

expression of interest - When a decision-maker informs you that they want to engage with you about the possibility of buying your product. Week 1 - Revenue Metrics - Traditional Enterprise Sales Funnel

\mathbf{F}

factoring (accounts receivable financing) - A short-term loan secured by accounts receivable. Week 1 - Egger's Roast Coffee Case Study Part 2 - how a profitable growing company can go bankrupt

fixed costs - Costs that do not increase or decrease with small changes in production. An example are salaries for current full-time employees. Week
1 - Distinguishing Revenue, Profitability, and Risk Metrics

fixed costs - Costs that do not increase or decrease with small changes in production. An example are salaries for current full-time employees. Week
1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

floor rate - The minimal price of a room, based on accounting breakeven - its share of fixed costs plus variable cost. Week 1 - Profitability Metrics Examples: Hotel Room Occupancy

frequently bought together - An Amazon metric for items with a high likelihood of co-occurring sales. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 2

fund life - The pre-agreed number of years that a temporary investment vehicle, such as a venture fund, will be in operation. At the end of the "fund life" any remaining liquid assets, such as shares of stock, are distributed to investors. Week 3 - Venture Capital Investors and Hedge Funds

gatekeeper - People whose job it is to stand between you and the person who will ultimately make a decision. Week 1 - Revenue Metrics - Traditional Enterprise Sales Funnel

general and administrative (G&A) expenses - Overhead not directly tied to individual products or services - for example, rent, utilities, insurance, required business licenses, salaries of central office employees. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

geometric mean return - For a series of various returns $r_1, r_2, ..., r_n$, the geometric mean return is defined below: $\sqrt[n]{(1+r_1)(1+r_2)...(1+r_n)}-1$ $r_i=rate\ of\ returni$ $n=number\ of\ periods\ Week\ 3$ - Financial Services Metrics: Money Management & Investing

Google Ad Rank - Google's system for rating a company's desirability as bidder on a sponsored link. It combines the bid expected click-through rate, ad quality and landing page experience. Week 2 - Bricks-and-Mortar

gross profit - Usually refers to the difference between the sales price of a product and its marginal cost. Does not include indirect costs that should be allocated to the product to determine net profits. Week 1 - Risk Metrics: Leverage and Reputational Risk

GSPC - The stock ticker symbol for the S&P 500 index. Week 3 - Passive and Active Equity Managers

\mathbf{H}

hardware & software - Companies that sell information technology. Week2 - Roles & Companies

home page - The main web page of a company, linked to its primary URL address. Week 3 - Web Marketing

horizontal metrics - Business metrics that are useful for many types of industry. Week 2 - The Business Analyst

hosting services - Companies that are paid to offer web sites or applications for public, or private, corporate access. Week 2 - Digital Companies

Ι

index (equal weighted) - An index in which the contribution to the overall index return has equal weights among the stocks. For example, EWI is an index tracking the same stocks as in the S&P 500 but with equal weights. Week 3 - Passive and Active Equity Managers

index (market-capitalization weighted) - An index in which the contribution to the overall index return is weighted according to the market capitalization of each company with stock in the index. An example of a market-capitalization weighted index is the S&P 500. Week 3 - Passive and Active Equity Managers

index fund - A fund, usually but not always structured as an Exchange Traded Fund, that is intended to mimic as closely as possible the performance of an index. Week 3 - Passive and Active Equity Managers

information ratio - The ratio of annualized excess returns over a manager's benchmark, divided by the standard deviation of the time series of excess returns. Week 3 - Passive and Active Equity Managers

information theory - Information theory is a branch of applied mathematics, electrical engineering, and computer science involving the quantification of information.
Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 2

insolvent - When a company does not have the cash to meet its immediate obligations to creditors. Week 1 - Risk Metrics: Leverage and Reputational Risk

internal rate of return (IRR) - Rate on which the present values for the cash inflows equalize to the present value of the cash outflow(s) as defined below:

 $\frac{Payment\ 1}{(1+r)^{t_1-1}} + \frac{Payment\ 2}{(1+r)^{t_2-t}}...\frac{Payment\ n}{(1+r)^{t_n-t}} = \frac{Payment\ out}{(1+r)^{t_{out}-t}} \ \textbf{Week\ 3-Financial\ Services} \\ \textbf{Metrics:\ Money\ Management\ \&\ Investing}$

inventory - Finished goods on hand and not yet sold. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

inventory management - The optimization process of simultaneously minimizing days inventory while avoiding the opportunity cost of having zero inventory when more product could be sold. Week 1 - Profitability/Efficiency Metrics: Inventory Management

inventory on hand - (value as balance sheet item) - The value of inventory on hand at a given moment in time (usually the end of the fiscal or calendar year).
 Week 1 - Profitability/Efficiency Metrics: Inventory Management

inventory turnaround - same as inventory turnover - Synonym for inventory turnover. Week 1 - Profitability/Efficiency Metrics: Inventory Management

inventory turnover = 365/days' inventory - The inverse of days' inventory - simply calculates how many times in a year a given product on average is delivered and sold to a retail location, based on days' inventory. Week 1 - Profitability/Efficiency Metrics: Inventory Management

IP address - The unique numerical ID for devices connected to the internet.

Week 2 - Bricks-and-Mortar

\mathbf{J}

just-in-time data - When all relevant historical information about a customer, including prior sales, support, and complaint contacts, is available at the time a customer interacts with a company employee, whether in sales, product support, etc. **Week 2 - The Data Scientist**

\mathbf{K}

key words - On Google, the words bid in AdWords auctions. Week 3 - Web Marketing: AdWords Metrics

\mathbf{L}

landing page - The web page URL, not necessarily a home page, that a sponsored link or marketing campaign link points to. Week 3 - Web Marketing

landing page experience - A metric developed by Google that is based on how focused, factual, current, and informative the landing page text is, relative to key word and sponsored link text. Week 3 - Web Marketing: AdWords Metrics

latency - The time delay in a computerized response caused by processing requirements or distance a signal must travel. Week 1 - Metrics Help

us Ask the Right Questions

layers - Distinct functional parts of an information technology system. For example applications and operating systems can be thought of as two layers of software. This course uses a simple three-layer model for the IT "stack" - hardware and communications, enterprise software systems, business desktop software. Week 2 - The Senior Software Engineer

lead - A person whose name and contact information you know, whom you believe may be interested in buying something from you.
Week 1 - Revenue Metrics - Traditional Enterprise Sales Funnel

leverage - Purchasing an asset, in particular an investment asset, partly or completely with borrowed money. Week 1 - Risk Metrics: Leverage and Reputational Risk

leverage - Using borrowed money to buy an asset. Week 3 - Equivalence of Different Returns: The Sharpe Ratio

linearity of log wealth - Describes how linear is the return when evaluated on a log wealth scale. A continuously compounded rate of return that never varies (volatility of 0) will have a linear correlation of 1. **Week 3** - **Venture Capital Investors and Hedge Funds**

local knowledge - Ability to identify the most important and relevant business metrics in a particular market sector or niche. Week 2 - The Business
Analyst

logistics - Planning for all physical stages of a commercial enterprise from delivery of raw materials to a factory through delivery of products to customers. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

long-only" funds - Funds, such as U.S. equity mutual funds, that are forbidden by rule from investing in options, or in selling shares "short" in order to make money if their price goes down. Week 3 - Passive and Active Equity Managers LTV - various measures - Life Time Value - a metric intended to estimate the discounted present value of all future revenues from a new customer. It is calculated a number of different ways depending on context. What method to use is a matter of individual preference and judgment. Week 3 - Web Marketing: Segmentation

\mathbf{M}

machine learning - The process by which computers improve their models when they take in new information. Week 2 - Overview of the 5 Types of Companies

manager skill - Manager skill is usually defined as the ability to consistently generate an excess return over the manager's benchmark, without excessive additional volatility - the risk-adjusted return should be better than the benchmark index. Week 3 - Equivalence of Different Returns: The Sharpe Ratio

managerial accounting - Accounting used to determine the profitability of individual products and services and make management decisions. Week 1 - Distinguishing Traditional and Dynamic Metrics

marginal profit - Profit per one additional unit of production. Week 1 - Egger's Roast Coffee Case Study Part 2 - how a profitable growing company can go bankrupt

market differentiation - The ways in which a product or service is described as being different than competitive offerings. Week 3 - Web Marketing

market-capitalization - Market-capitalization of a company equals the most recent market price per share, multiplied by the number of shares of stock of that company not held by the company itself (shares "outstanding"). Week 3 - Passive and Active Equity Managers

marketing - The systematic process of creating and increasing positive awareness about a brand, product, or service with a target audience. Week 3 - Web Marketing

max CPC - The maximum cost per click-through that a Google AdWords bidder is theoretically willing to pay. Week 3 - Web Marketing: AdWords Metrics

maximum drawdown from high water mark - A peak-to-valley measure: If you entered in the investment at the unluckiest possible moment, what would your maximum % losses be? Sometimes it is referred as maximum draw down from water mark. Week 3 - Venture Capital Investors and Hedge Funds

Membership programs - Programs where companies offer additional benefits to customers who agree to register and provide identifying information, or to pay an annual fee. **Week 2** - **Bricks-and-Mortar**

metrics - Numbers with significant business relevance. Metrics guide the process of inquiry - What decision should we make? What processes should we change to increase revenues, improve efficiency, or minimize risk? Week 1 - Metrics Help us Ask the Right Questions

models - Simplified mathematical representations of complex real-world situations. Week 2 - The Business Analyst

money manager - Someone who seeks to generate profits (returns) on someone else's money, either through dividends, interest, or through buying assets that are expected to increase in price. Week 3 - Financial Services Metrics: Money Management & Investing

N

natural-language processing - Algorithms for computer study of written texts or spoken voice.Week 2 - The Senior Software Engineer

negative float - Needing working capital to make and deliver products or services for which one is paid cash later. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

net 60 - Paying cash for products or services 60 days after they are received. "Net 30" and "net 90" are also common terms. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

net cash flow - The change in actual cash on hand held by a business over a particular time interval.
 Week 1 - Distinguishing Traditional and Dynamic Metrics

net earnings - Synonym for profits. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

"noisy" vs "twitchy" metrics - Informal terms to contrast aggregate metric - which many factors impact - and highly focused metrics that can easily be impacted by changing a single factor. Week 1 - Distinguishing Traditional and Dynamic Metrics

\mathbf{O}

obsolescence - When a product is no longer in demand due to newer, better, or equivalent but less expensive, alternatives being available. Week 1 - Profitability/Efficiency Metrics: Inventory Management

occupancy rates - The percentage of rooms in a hotel that are booked by paying customers on a given night. Week 1 - Profitability Metrics Examples: Hotel Room Occupancy

Online Travel Agencies (OTAs) - Companies that acts as intermediaries and sell airline tickets or hotel rooms from multiple suppliers. Week 1 - Profitability Metrics Examples: Hotel Room Occupancy

opaque inventory market - A market, such as the market for hotel rooms, where opaque pricing is offered. **Week 1 - Profitability Metrics Examples: Hotel Room Occupancy**

opaque pricing - The practice of offering hotel rooms for (non-refundable)
sale in a given city without disclosing until after the sale what hotel is meant.
Week 1 - Profitability Metrics Examples: Hotel Room Occupancy

operational metrics - Metrics related to production, and in particular, to production efficiency. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

operationalize - What specific steps need to be taken, by whom, in what order, in order to solve the problem. Week 2 - The Business Analyst

options - Options give the contractual right, but not the obligation, for a certain fixed period of time, to buy a stock at a pre-determined price (a "call") or sell a stock at a pre-determined price (a "put"). Week 3 - Venture Capital Investors and Hedge Funds

organic link - Search results that are not paid for. Week 3 - Web Marketing: Segmentation

\mathbf{P}

page-load time - How much time is required for a web page to be complete and usable from the point of view of a visitor.
Week 1 - Distinguishing Traditional and Dynamic Metrics

passive investment - Investment in a basket of all the stocks in a market,
either in equal-weighted portions, or based on their market-capitalization.
Week 3 - Passive and Active Equity Managers

Populating (databases) - Importing data into a database structure for later retrieval and analysis. Week 2 - The Data Scientist

positive float - Holding customer cash for a product or service to be delivered later. The classic example is insurance.
 Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

pre-processed data - Data to which an algorithmic process has already been applied so that the result can be retrieval rapidly. An example is Google's calculation of "pagerank" for all known web sites before any individual text search is run. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

predictive analytics - Week 2 - The Data Scientist

preference engine - A computer system that makes customized recommendations to users based on their prior purchase history, demographics, or expressed preferences. **Week 2 - The Data Scientist**

Price per click-through (CPC) - Cost per Click-through - for ads where the advertiser pays only when a potential customer clicks through to the advertiser's landing page. **Week 2 - Bricks-and-Mortar**

profit - The positive difference between revenue and expenses, using standard accounting methods for capital expenditures.
 Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

profitability - Net Income, or gross sales minus all accounted expenses
during a certain time period. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

profits and losses - Accounting measure of whether a company is generating net economic value, after including capital investment and other sunk costs.
 Week 1 - Distinguishing Traditional and Dynamic Metrics

promotional rate - A rate between the rack rate and floor rate, typically offered to repeat customers on a limited-time basis. Week 1 - Profitability Metrics Examples: Hotel Room Occupancy

\mathbf{Q}

qualified lead - A lead that you have determined to have the budget and the decision-making authority to purchase your product or service. Week 1
- Revenue Metrics - Traditional Enterprise Sales Funnel

quality score - A metric developed by Google that combines expected click-through rates, "ad relevance" and "landing page experience." **Week 3 - Web Marketing: Adword Metrics**

query (query terms) - What someone types into a search engine when looking for information. The exact characters they type are known as a "string." Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

\mathbf{R}

rack price - The official, list price of a hotel room. Week 1 - Profitability Metrics Examples: Hotel Room Occupancy

real-time - Computer systems that provide a customized response immediately (typically in less than 1 second). Week 1 - Metrics Help us Ask the Right Questions

real-time data - Data that is provided with an almost immediate response (typically in less than 1 second). Week 2 - The Data Scientist

recurring-revenue customers - Customers who buy again repeatedly after a first sale. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

reputational risk - Events that can damage a company's brand, goodwill, or future attractiveness to customers and potential customers. Week 1 - Risk Metrics: Leverage and Reputational Risk

retrieval - The process of recovering relevant information from an index or database, in response to a query. Week 2 - The Senior Software Engineer

return on equity - The investment return on an investor's cash. For example, an investment that returns 5% would have a 5% "return on equity" if it were purchased for cash. The same investment, if purchased 50% with investor's cash and 50% with money borrowed at 1% interest, would have a return on equity of 9%. Week 1 - Risk Metrics: Leverage and Reputational Risk

retweet - A tweet that originates with one author and is reposted by another - the format is RT@username. Retweets indicate that the retweeting party (a holder of a Twitter account) thinks your tweet will be of interest to his or her audience as well as your own. Week 3 - Web Marketing: Segmentation

revenue - Gross income, the dollar amount of sales booked during a certain time period. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

revenues as an "aggregate number" - Total revenues are an "aggregate" metric because they reflect sales across all products and services, and combine new sales and long-term contracts, and involve an element of random variation. For this reason even big process changes for the better or worse may be hard to detect in total revenues. Week 1 - Distinguishing Traditional and Dynamic Metrics

risk - The chance of a major negative event such as a product recall, default on a debt, insolvency, etc. In finance, "risk" is often also used to refer to volatility (standard deviation) of returns from an investment. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

risk-free rate of return - An investment return minus the return offered by stable governments for bonds in their own currency - this return is considered to have no default risk and so have zero volatility of return. Week 3 - Equivalence of Different Returns: The Sharpe Ratio **root mean square** - For a set of n numbers or values of a discrete distribution $x_i, ..., x_n$, the root-mean-square (abbreviated "RMS" and sometimes called the quadratic mean), is the square root of mean of the values x_i^2 , namely:

$$x_{(RMS)} = \sqrt{(x_1^2 + x_2^2 + \dots + x_n^2)/n}$$

$$= \sqrt{\sum_{i=1}^n (x_i^2)/n}$$
The proof of the state of the stat

The RMS difference between each value in a set $x_1, x_1, ..., x_n$ and the mean of all values N equals the standard deviation for the set. Week 3 - Financial Services Metrics: Money Management & Investing

routers - Hardware for communicating using Internet protocols. Week 2 - Hardware & Software Companies

runway (for a company) - Net cash on hand divided by current monthly burn rate gives the number of months a company can survive under present conditions. Week 1 - Egger's Roast Coffee Case Study Part 2 - how a profitable growing company can go bankrupt

 \mathbf{S}

sales "funnel" - The metrics used to track the steps in the process of converting individuals or Companies with a potential interest in one's product or service into paying customers. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

sales & marketing - The process of creating positive awareness about a company's products or services in a target audience, and converting members of that audience into paying customers. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

secured creditors - Entities, such as banks, with the contractual right to seize certain assets ("secured" assets) if they are not paid on time. Week
1 - Distinguishing Revenue, Profitability, and Risk Metrics

segmentation - The process of classifying one's current customers or target customers by recognizable, traceable attributes such as how much on average they purchase in a year. **Week 3 - Web Marketing: Segmentation**

semiconductor chip - The technology that allows computers to be very small and inexpensive. Week 2 - Hardware & Software Companies

sentiment analysis - The algorithmic study of large amounts of web-based text to evaluate public opinion - and any changes in public opinion - about a product or company. Week 2 - The Data Scientist

shareholder's equity - Also known as "stockholder's equity" - the accounting value of a company's assets minus its liabilities. Week 1 - Distinguishing Traditional and Dynamic Metrics

sharpe ratio - the ratio of a manager's excess return over the risk-free rate (the manager return minus the risk-free return) divided by the volatility of the manager's return. Week 3 - Equivalence of Different Returns: The Sharpe Ratio

short, also known as "short selling" or "shorting" - Practice of selling securities or other financial instruments that are not currently owned, but are merely borrowed, subsequently repurchasing them and returning them to their owners. Week 3 - Venture Capital Investors and Hedge Funds

SKUs - Abbreviation for "Stock Keeping Unit" - every item sold has a unique ID in the form of an SKU. Week 1 - Profitability/Efficiency Metrics: Inventory Management

social link (when tracking origin of web site visitor) - A URL to a company landing page that is embedded in a Facebook post, tweet, Instagram, or other social media. Week 3 - Web Marketing: Segmentation

social signal - The fact that search engine rankings are influenced by a company's activity and success on social media, including Facebook likes, retweets, etc. The stronger the "social signal", the higher the ranking. **Week 3** - **Web Marketing: Segmentation**

soft-circle sale - A verbal commitment to buy that is not yet an enforceable contract. Week 1 - Revenue Metrics - Traditional Enterprise Sales Funnel

software engineer - Someone responsible for the application of engineering to the design, development, and maintenance of software.
Week 2 - Roles
Companies

spoilage - The portion of inventory of a perishable product that becomes unsaleable because it is held too long. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

sponsored link - An advertisement shown along with organic search results. Week 3 - Web Marketing: Segmentation

SPY - The stock ticker symbol for the State Street S&P 500 Exchange Traded Fund. Week 3 - Passive and Active Equity Managers

SQL - Structured Query Language. A standard for communicating with databases. Week 2 - Distinguishing the Business Data Analyst and Business Analyst Roles

stack - The combined "layers" of an information technology system.Week2 - Hardware & Software Companies

standard deviation - The standard deviation, commonly represented by the greek letter sigma, σ , is a measure that is used to quantify the amount of variation or dispersion of a set of data values. For a set of N discrete values, the standard deviation is given by:

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^{N} (x_i - \mu)^2}$$
Where.

 $\mu = Mean\ of\ the\ set\ Week\ 3$ - Financial Services Metrics: Money Management & Investing

straight line depreciation - Depreciation of the same amount over each of several time periods: for example, 20% reduction in value over each of 5 years. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Defini-

tions

subject index - A pre-processed index consisting of defined topic areas that permits documents to be located based on their subject matter. Week
1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

subtopics - A lower, more specific level in a hierarchical organization of subject matter. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

sunk cost - Money already spent - such as the cost of an empty hotel
 room even absent the variable costs of occupancy.
 Week 1 - Profitability
 Metrics Examples: Hotel Room Occupancy

switching costs - The costs in time, money and inconvenience in leaving one's old supplier of a product or service and moving to a new one.
Week
3 - Web Marketing

\mathbf{T}

target demographic - A group with common characteristics, such as nationality, age range, or participating in a Facebook interest group, that permits a focused marketing effort. Week 3 - Web Marketing

terabyte - 1,000 billion, or 1 trillion, bytes of information. A byte is 8 bits - and a bit is simply a binary indicator, 0 or 1. **Week 2 - Hardware & Software Companies**

text index - A pre-processed index used to permit a list of documents on which all contain a common word or phrase to be retrieved rapidly. Week
1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

thesaurus - A specialized dictionary of synonyms or near synonyms. Week

1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

third-party web site - Any web site that is not part of a company or its paid advertising network - blogs, review sites, news sites, etc. **Week 3 - Web Marketing: Segmentation**

to book sales - To record sales at the time when, under accounting rules, a mutual contractual obligation is created. Week 1 - Egger's Roast Coffee Case Study - Part 1 - Definitions

tracking error - The standard deviation of excess returns (difference in returns) between a fund manager's performance and their designated benchmark. **Week 3 - Passive and Active Equity Managers**

traditional metrics - As defined here, Business metrics related to financial and managerial accounting, in particular those used for required quarterly or annual financial reporting. In contrast to dynamic metrics, traditional metrics rarely, if ever, show significant changes within the time interval of a single month, and as aggregated measures, are difficult to impact with isolated business changes. Week 1 - Distinguishing Traditional and Dynamic Metrics

traditional strategic consulting - Companies that sell business advice. Week 2 - Roles & Companies

tranches - One of a series of payments spread out over time. Week 3 - Venture Capital Investors and Hedge Funds

tweet - A 140-character message in response to Twitter's "What are you doing?" Week 3 - Web Marketing: Segmentation

\mathbf{U}

universe (for a fund manager) - The pool of permissible assets from which an active manager chooses when trying to generate an excess risk-adjusted return.Week 3 - Passive and Active Equity Managers

unrecoverable (debt) - Money loaned out that will never be repaid. Week1 - Risk Metrics: Leverage and Reputational Risk

unstructured data - Week 2 - The Senior Software Engineer

useful life - The time interval over which a capital investment is allocated
in theory, it corresponds to the time required for a piece of equipment to
wear out and need to be replaced. Week 1 - Egger's Roast Coffee Case
Study - Part 1 - Definitions

user experience - The subjective quality of a visitor's interactions with a web site - is the web site clear, informative, easy to navigate, or confusing, unhelpful, and difficult to navigate? Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

user experience (UX) - Week 2 - The Data Scientist

user session - One visitor's single interaction with a web site from beginning to end. Week 1 - Revenue Metrics - Amazon.com as a Leading Example of Use of Dynamic Metrics - Part 1

\mathbf{V}

variable costs - Costs that go up when production increases and go down when production decreases. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

variable pricing - The practice of charging more or less for the same good or service depending upon current supply and demand. Week 1 - Prof-

itability Metrics Examples: Hotel Room Occupancy

vertical metrics - Business metrics that are specific to a particular industry or market sector. Week 2 - The Business Analyst

volatility of returns - The standard deviation of a time series of investment returns. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

\mathbf{W}

wastage - The portion of inventory that becomes unsaleable because it is damaged or lost before sale. Week 1 - Distinguishing Revenue, Profitability, and Risk Metrics

whales - Slang for repeat customers individuals who tend to gamble large amounts at casinos. Week 2 - Bricks-and-Mortar

working capital (credit line) - Money provided by a bank or a factor - or made available if needed - to cover negative float. Week 1 - Egger's Roast Coffee Case Study Part 2 - how a profitable growing company can go bankrupt

\mathbf{Y}

years to breakeven - How many years, at average return, it would take to get back to breakeven from the maximum draw-down. Calculated as |maxdraw - downpeak - to - valley|/annualizedrateofreturn. Week 3 - Venture Capital Investors and Hedge Funds