Algorithms to Live By - The Computer Science of Human Decisions

by Brian Christian and Tom Griffiths.

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|  | Word/ Term/ Collocation | Lithuanian equivalent | English definition | Context / Collocations |
|  | Benchmark | Standartas | a standard or point of reference against which things may be compared. | They had no real benchmark of other relationships by which to judge it. |
|  | implications | Padariniai | the conclusion that can be drawn from something although it is not explicitly stated. | These problems turn out to have implications not only for lovers and renters, but also for drivers, homeowners, burglars, and beyond. |
|  | eavesdropping | Klausyti svetimo pokalbio | secretly listen to a conversation. | Reading paper correspondence is a bit like eavesdropping on someone who’s on the phone: you’re only hearing one side of the exchange, and must infer the other. |
|  | infer | Manyti/ speti | deduce or conclude (something) from evidence and reasoning rather than from explicit statements. |
|  | incarnations | Įsikūnijimai | a person or thing who/that embodies in the flesh a deity, spirit, or quality. | Likewise, optimal stopping problems have had a number of incarnations, each reflecting the predominating concerns of its time. |
|  | Threshold | Slenkstis | the magnitude or intensity that must be exceeded for a certain reaction, phenomenon, result, or condition to occur or be manifested. | Having this information, we don’t need to look noncommittally to set a threshold. |
|  | Function | funkcija | a relation or expression involving one or more variables. | As it turns out, the math here is quite clean, giving us an explicit function for stopping price as a function of the cost of waiting for an offer. |
|  | explicit | aiškus | stated clearly and in detail, leaving no room for confusion or doubt. |
|  | Principle | principas | a fundamental truth or proposition that serves as the foundation for a system of belief or behavior or for a chain of reasoning. | This principle applies to any situation where you get a series of offers and pay a cost to seek or wait for the next. |
|  | Congestion | Grūstis | too blocked or crowded and causing difficulties | Parking is also a process-an optimal stopping problem-and it’s one that consumes attention, time, and fuel, and generates both pollution and congestion. |
|  | Consistent | nuoseklus | compatible or in agreement with something. | Most people acted in a way that was consistent with the Look-Then-Leap Rule, but they leapt sooner than they should have more than four-fifths of the time |
|  | Constantly | nuolat | continuously over a period of time; always. | Every day we are constantly forced to make decisions between options that differ in a very specific dimension: do we try new things or stick with our favorite ones? |
|  | dimension | aspektas | an aspect or feature of a situation. |
|  | Superior | Aukštesnės pozicijos | higher in rank, status, or quality. | He endorses an alternative as vastly superior: “What’s best?” |
|  | endorses | Pritaria/ skatina | declare one's public approval or support of. |
|  | aphorisms | aforizmai | a pithy observation which contains a general truth. | Age-worn aphorisms acknowledge this tension but don’t solve it. |
|  | connotations | konotacijos | the abstract meaning or intension of a term, which forms a principle determining which objects or concepts it applies to. | In English, the words “explore” and “exploit” come loaded with completely opposite connotations. |
|  | Loaded with | pilnas | Full of |
|  | Wading | skaityti | read laboriously through (a long piece of writing). | His desperate urges to stop wading through unheard tunes of dubious quality and just listen to what he loved were so strong that Plagenhoef would put only new music on his iPod, to make himself physically incapable of abandoning his duties in those moments when he just really, really, really wanted to listen to the Smiths. |
|  | dubious | abejotinas | of questionable value. |
|  | colloquial | šnekamasis | used in ordinary or familiar conversation; not formal or literary. | The odd name comes from the colloquial term for a casino slot machine, the “one armed bandit.” |
|  | Embodies | įkūnija | be an expression of or give a tangible or visible form to (an idea, quality, or feeling). | In this way, writes mathematician Peter Whittle, the bandit problem “embodies in essential from a conflict evident in all human action.” |
|  | Self-contradictory | Prieštaraujantis sau | expressing one thing that is the opposite of another thing that was already said | It’s also somewhat self-contradictory. |
|  | endeavors | Pastangos/ bandymai | earnest, prolonged, and industrious effort. | Seizing a day and seizing a lifetime are two entirely different endeavors. |
|  | Sobering | rimtas | making you feel serious or think about serious matters | A sobering property of trying new things is that the value of exploration, of finding a new favorite, can only go down over time, as the remaining opportunities to savor it dwindle. |
|  | Dwindle | sumažėja | diminish gradually in size, amount, or strength. |
|  | Enchanting | kerintis | fill (someone) with great delight; charm. | Discovering an enchanting café on your last night in town doesn’t give you the opportunity to return. |
|  | hypothesize | Speti/ numanyti | deduce or conclude (something) from evidence and reasoning rather than from explicit statements. | Interestingly, since the interval makes the strategy, then by observing the strategy we can also hypothesize the interval. |
|  | Cash cow | Melžiama karvė | a business, investment, or product that provides a steady income or profit. | From a studio’s perspective, a sequel is a movie with a guaranteed fan base: a cash cow, a sure thing, an exploit |
|  | exploit | Išnaudojamas objektas | An object made full use of and derived benefit from (a resource). |
|  | Deluge | pasikartojimas | a great quantity of something arriving at the same time. | Such a sequel deluge is not only lamentable (certainly critics think so); it’s also somewhat poignant. |
|  | lamentable | Apgailėtinas/ liūdnas | very bad; deplorable. |
|  | poignant | skaudus | evoking a keen sense of sadness or regret. |
|  | Performs | atlieka | carry out, accomplish, or fulfil (an action, task, or function). | Although this sample strategy is far from a complete solution, Robbins proved in 1952 that it performs reliably better than chance. |
|  | induce | Sukelti/ paskatinti | succeed in persuading or leading (someone) to do something. | Would one disappointment be enough to induce you to give up on it? |
|  | penalized | nubaustas | subject to a penalty or punishment. | Good options shouldn’t be penalized too strongly for being imperfect. |
|  | probability | tikimybė | the quality or state of being probable; the extent to which something is likely to happen or be the case. | Gittins tried to cast the problem in the most general form he could: multiple options to pursue, a different probability of reward for each option, and a certain amount of effort (or money, or time) to be allocated among them. |
|  | allocated | paskirta | distribute (resources or duties) for a particular purpose. |
|  | Flourishing | Klesti | developing rapidly and successfully; thriving. | Companies want to invest R & D money into the discovery of new drugs, but also want to make sure their profitable current product lines are flourishing. |
|  | Crucially | Svarbiausia | with decisive or vital importance. | Crucially, it doesn’t even matter how many arms are involved, since the index for each arm is calculated separately. |
|  | observations | stebėjimai | the action or process of closely observing or monitoring something or someone. | Looking at the Gittins index values in the table, there are a few other interesting observations. |
|  | Hindsight | atidumas | understanding of a situation or event only after it has happened or developed. | Regret is the result of comparing what we actually did with what would have been best in hindsight. |
|  | Omniscient | Visažinis | knowing everything. | First, assuming you’re not omniscient, your total amount of regret will probably never stop increasing, even if you pick the best possible strategy – because even the best strategy isn’t perfect every time. |
|  | Arrangements | išdėstymai | The way things or people are placed together | Perhaps they try different colors or images, or different headlines for a news article, or different arrangements of items on the screen. |
|  | Monitored | stebimi | observe and check the progress or quality of (something) over a period of time; keep under systematic review. | The relevant metric are then monitored. |
|  | Simultaneously | Tuo pačiu metu | at the same time. | Companies want to discover the things that make them the most money while simultaneously making as much of it as they can – explore, exploit. |
|  | algorithm | Algoritmas | a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer. | Instead of “the” Google search algorithm and “the” Amazon checkout flow, there are now untold and unfathomably subtle permutations. |
|  | Unfathomably | nesuvokiamas | Difficult or impossible to understand; incomprehensible: |
|  | permutations | permutacijos | each of several possible ways in which a set or number of things can be ordered or arranged. |
|  | Pattern | modelis | an example for others to follow./ an arrangement or design regularly found in comparable objects. | So it’s instructive to see how the general pattern of early exploration and late exploitation appears over the course of a lifetime. |
|  | Continuum | tęsinys | a continuous sequence in which adjacent elements are not perceptibly different from each other, but the extremes are quite distinct. | And that difference is partly the result of where we are on the explore/exploit continuum at those stages of our lives. |
|  | Sorting | Rūšiavimas | arrange systematically | And no wonder – sorting is essential to working with almost any kind of information. |
|  | Tallying | susumuoti | calculate the total number of. | Whether it’s finding the largest or the smallest, the most common or the rarest, tallying, indexing, flagging duplicates or just plain looking for the thing you want, they all generally begin under the hood with a sort. |
|  | Indexing | indeksavimas | the action or process of compiling an index. |
|  | Flagging | pažymėjimas | mark (an item) for attention or treatment in a specified way. |
|  | Duplicates | duplikatai | one of two or more identical things. |
|  | Under the hood | Po kapotu | Behind the scenes |
|  | Pervasive | paplitęs | spreading widely throughout an area or a group of people. | But sorting is more pervasive, even, than this. |
|  | Ubiquitous | visuotinis | present, appearing, or found everywhere. | Sorted lists are so ubiquitous that – like the fish who asks, “What is water?” – we must consciously work to perceive them at all. |
|  | perceive | suvokti | become aware or conscious of (something); come to realize or understand. |
|  | Search engines | Paieškos sistemos | a program that searches for and identifies items in a database that correspond to keywords or characters specified by the user, used especially for finding particular sites on the World Wide Web. | We refer to things like Google and Bing as “search engines,” but that is something of a misnomer: they’re really sort engines. |
|  | Misnomer | Neteisingas vardas | a wrong or inaccurate use of a name or term. |
|  | Truncated | Apipjaustytas/ aptrumpintas | shorten (something) by cutting off the top or the end. | The truncated top of an immense, sorted list is in many ways the universal user interface. |
|  | Immense | Nepaprastai išsiskiriantis | extremely large or great, especially in scale or degree. |
|  | User interface | Vartotojo sąsaja | the means by which the user and a computer system interact, in particular the use of input devices and software. |
|  | Fortnightly | Kas dvi savaites | happening or produced every two weeks. | Even at a modest, fortnightly scope we can see the scale of sorting beginning to grow untenable. |
|  | Untenable | Neišlaikomas/ neatlaikomas/ neapginamas | not able to be maintained or defended against attack or objection. |
|  | eschew | Vengti/ susilaikyti | deliberately avoid using; abstain from. | Obama was right to eschew Bubble Sort, an algorithm which has become something of a punching bag for computer science students: it’s simple, it’s intuitive, and it’s extremely inefficient. |
|  | Punching bag | išnaudojamas | one who is routinely abused or defeated by another |
|  | Daunting | Bauginantis | seeming difficult to deal with in prospect; intimidating. | But all the same, that squared term can get daunting quickly. |