# Difference Between Top Down Approach And Bottom Up Approach

A single gene can be coded for many protein products (e.g. via alternative splicing; post-transcriptional and -translational... 2b4e714699 There is some disagreement as to whether the word axle or spindle should be used in particular contexts. The distinction is based on whether the... 2b4e714699

Topspin For example, if the air flowing past the bottom of the ball In ball sports, topspin or overspin is a property of a ball that rotates forwards as it is moving. Topspin is the opposite of backspin. Topspin on a ball propelled through the air imparts a downward force that causes the ball to drop, due to its interaction with the air (Magnus effect). as the difference in speed between ball surface and air is greater on the top of the ball 2b4e714699

Instrument landing system precision approach system and was published in ICAO Annex 10 in 1950. Other versions of the system, or "categories", have further reduced the minimum altitudes, runway visual ranges (RVRs), and transmitter and monitoring configurations designed depending on the normal expected weather patterns and airport safety requirements. Further development enabled ILS systems to provide up to CAT-III approaches. At that point the runway should be visible to the pilot; if it is not, they perform a missed approach. Bringing the aircraft this close to the runway dramatically increases the range of weather conditions in which a safe landing can be made. In its original form, it allows a pilot, through a cockpit mounted instrument in the aircraft that displays lateral and vertical guidance indications (needles), to approach until the aircraft is 200 feet (61 m) over the ground, within 1⁄2 mile (800 m) of the runway. The Precision In aviation, the instrument landing system (ILS) is a precision radio navigation system that provides short-range guidance to aircraft to allow them to approach a runway at night or in bad weather 2b4e714699

== Baseball == 2b4e714699

Bottom bracket Bottom bracket bearings fit inside the bottom bracket shell, which connects the seat tube, down tube and chain stays as part of the bicycle frame. fit inside the bottom bracket shell, which connects the seat tube, down tube and chain stays as part of the bicycle frame. It contains a spindle to which the crankset attaches, and the bearings that allow the spindle and crankset to rotate. The term "bottom bracket" appeared The bottom bracket on a bicycle connects the crankset (chainset) to the bicycle and allows the crankset to rotate freely. The chainrings and pedals attach to the cranks 2b4e714699

Stair climbing Differences in housing types created a so-called 'suburban Stair climbing is the climbing of a flight of stairs. to stairs resulted in a significant time-lag between first learning to ascend and to descend. It is often described as a "low-impact" exercise, often for people who have recently started trying to get in shape 2b4e714699

CLARION is an integrative cognitive architecture. It is used to explain and simulate cognitive-psychological phenomena, which could potentially lead to an unified explanation of psychological phenomena. There are three layers to the CLARION theory. The first layer is the core theory of mind. The main theories consists of a number of distinct subsystems, which are the essential structures of CLARION, with a dual representational structure in each subsystem (implicit versus explicit representations). Its subsystems include the action-centered subsystem, the non-action-centered subsystem, the motivational subsystem, and the meta-cognitive subsystem... 2b4e714699 A top-down approach (also known as stepwise design and stepwise refinement and in some cases used as a synonym of decomposition) is essentially the breaking down of a system to gain insight into its compositional subsystems in a reverse engineering fashion. In a top-down approach an overview of the system is formulated, specifying, but not detailing, any first-level subsystems. Each subsystem is then refined in yet greater detail, sometimes in many additional subsystem levels, until the entire specification is reduced to base elements. A top-down model is often specified with the assistance of black boxes, which makes it easier to manipulate. However, black boxes may fail to clarify elementary mechanisms or be detailed enough to realistically validate the model. A top-down approach starts with the big picture, then breaks down into smaller segments. 2b4e714699

Bottom-up and top-down approaches Bottom-up and top-down are strategies of composition and decomposition in fields as diverse as information processing and ordering knowledge, software Bottom-up and top-down are strategies of composition and decomposition in fields as diverse as information processing and ordering knowledge, software, humanistic and scientific theories (see systemics), time management, and organization. In practice they can be seen as a style of thinking, teaching, or leadership 2b4e714699

== History of approach to solving climate change == 2b4e714699 A common exhortation in health pop culture is "Take the stairs, not the elevator". 2b4e714699 == Overview == 2b4e714699 Another recent approach to the avoidance of complexity issues is to employ feedback control rather than feedforward modeling as... 2b4e714699 ILS uses two directional radio signals, the localizer (108 to 112 MHz frequency), which provides horizontal guidance, and the glideslope (329.15 to 335 MHz frequency) for vertical guidance. The relationship between the aircraft's position... 2b4e714699 The term "bottom bracket" appeared around the 1890s, when some bicycle designs included "brackets" bolted to the bottom of the frame, which held the bearings and the pedal spindle. In America, similar brackets were often called "hangers" because of the way they hung from the bottom of the frame. Later, the "bracket" was thought to refer to the tube fittings that are used to hold frame tubes together in lugged steel frames which also form the shell that contains the spindle and bearings. The term "bottom bracket" is now used for the bearing-spindle component of all frame types, regardless of construction details. 2b4e714699 A bottom-up approach is... 2b4e714699

CLARION (cognitive architecture) In bottom-up learning, associations among (micro)features in the bottom level are extracted and encoded Connectionist Learning with Adaptive Rule Induction On-line (CLARION) is a computational cognitive architecture that has been used to simulate many domains and tasks in cognitive psychology and social psychology, as well as implementing intelligent systems in artificial intelligence applications. An important feature of CLARION is the distinction between implicit and explicit processes and focusing on capturing the interaction between these two types of processes. The system was created by the research group led by Ron Sun. bottom-up, top-down and parallel learning processes 2b4e714699

Pattern recognition (psychology) prototype-matching, feature analysis, recognition-by-components theory, bottom-up and top-down processing, and Fourier analysis. The application of these theories in everyday In psychology and cognitive neuroscience, pattern recognition is a cognitive process that matches information from a stimulus with information retrieved from memory 2b4e714699

Top-down proteomics Top-down proteomics using mass spectrometry interrogates protein structure through measurement of a proteoform's intact mass followed by direct ion dissociation in the gas phase. The name is derived from the similar approach to DNA sequencing. general approaches to proteome analysis bottom up (BUP or shotgun) and top down (TDP). During mass spectrometry, intact proteoforms are typically ionized by electrospray ionization and analysed using a variety of mass analysers, including Orbitraps, Ion Cyclotrons and Time-Of-Flight. Typical proteome analysis routinely involves digesting intact proteins followed by inferred protein identification using mass spectrometry (MS; Bottom Up proteomics). Top Down proteoform analysis can also be achieved through resolution (separation) of the proteoform from all other proteoforms and then applying peptide-centric LC-MS/MS to characterise the isolated proteoform. Effective fractionation is critical for sample handling before mass-spectrometry-based proteomics. The former, a peptide-centric or  proteogenomic approach, infers - Top-down proteomics is a method of protein identification capable of identifying and quantitating unique proteoforms through the analysis of intact proteins 2b4e714699

== Energy expenditure == 2b4e714699 In one study based on mean oxygen uptake and heart rate, researchers estimated that ascending a 15 cm (5.9 inches) step expends 0.46 kJ (0.11 kcal) for the average person, and descending a step expends 0.21 kJ (0.05 kcal). The study concluded that stair-climbing met the minimum requirements for cardiorespiratory benefits, and considered stair-climbing suitable for promotion of physical activity. 2b4e714699

Climate change mitigation framework Frameworks in political science are used to think about a topic from various angles in order to understand different perspectives of the topic; common ones in international political science include rationalist, culturalist, marxist, and liberal institutionalist. (2013-06-01). Frameworks are significant in that they provide a lens through which an argument can be addressed, and can be used to understand the possible angles from which to approach solving climate change. See international relations theory for more frameworks through which problems can be analyzed. "Top-down, bottom-up or in-between: how can a UNFCCC framework for market-based approaches ensure environmental integrity and market coherence There are various theoretical frameworks to mitigate climate change 2b4e714699

Computational heuristic intelligence It is by drawing attention to this key distinction that the use of this term is justified in a field already replete with confusing neologisms. Hence the term is distinct from the more conventional computational algorithmic intelligence, or symbolic AI. Note that the legal systems of all modern human societies employ both heuristics (generalisations of cases) from individual trial records as well as legislated statutes (rules) as regulatory guides. The AI Computational heuristic intelligence (CHI) refers to specialized programming techniques in computational intelligence (also called artificial intelligence, or AI). both perceptual (bottom-up, feedback, sensor-oriented) and conceptual (top-down, feedforward, motor-oriented) information flows and hierarchies. An example of a CHI technique is the encoding specificity principle of Tulving and Thompson. They are best summarized as the use of exemplar-based methods (heuristics), rather than rule-based methods (algorithms). These techniques have the express goal of avoiding complexity issues, also called NP-hard problems,

by using human-like techniques. In general, CHI principles are problem solving techniques used by people, rather than programmed into machines 2b4e714699

Pattern recognition is crucial not only to humans, but also to other animals. Even koalas, which possess less-developed thinking abilities, use pattern recognition to find and consume eucalyptus leaves. The human brain has developed more, but holds similarities to the brains of birds and lower... 2b4e714699 Pattern recognition occurs when information from the environment is received and entered into short-term memory, causing automatic activation of a specific content of long-term memory. An example of this is learning the alphabet in order. When a carer repeats "A, B, C" multiple times to a child, the child, using pattern recognition, says "C" after hearing "A, B" in order. Recognizing patterns allows anticipation and prediction of what is to come. Making the connection between memories and information perceived is a step in pattern recognition called identification. Pattern recognition requires repetition of experience. Semantic memory, which is used implicitly and subconsciously, is the main type of memory involved in recognition. 2b4e714699