## Chapter 1 : Vietnam and the Turbulent Times Dictionary and Gazetter

*Identity: Assertive vs. Turbulent Our last scale, Identity, affects all others, showing how confident we are in our abilities and decisions. In a way, it acts as an internal sensor, reacting to the input we get from the environment - for instance, success or failure, feedback from other people, pressure caused by unexpected events and so on.*

School of Aquatic and Fishery Sciences think they know why Bristol Bay is so productive year after year: Several hundred discrete populations of sockeye salmon inhabit the network of rivers and lakes that empty into the bay, and this tremendous population diversity buffers the entire fishery against the vicissitudes of the environment. Diversity within the species creates what the scientists call a "portfolio effect," named for its resemblance to a diversified investment portfolio: Some salmon stocks do better under certain conditions, whereas others thrive under different constraints, but the fishery as a whole remains stable. Scientists have long known that biological diversity stabilizes ecosystems. But as the U. Schindler, lead author of the paper. Scientific American is part of Nature Publishing Group. Each fish returns to its birthplace, and the diversity of these nurseries is what produces variance within the species. For example, male sockeye coming home to a deep lake grow humped backs to attract females, becoming so round they look like dinner plates. But male sockeye returning to a shallow stream would be easy targets for grizzly bears if they had humps protruding from the water. Instead, these fish are shaped like torpedoes. Timing also contributes to diversity: Some Bristol Bay sockeye spend a year in freshwater before migrating to the ocean, whereas others stay for two years. Some remain at sea longerâ€"and in different locationsâ€"than others do; some return to spawn earlier in the season. Not all of these life-history strategies pay off every year, Schindler says, but "there are enough winners to make up for the losers. In places where population diversity is much lowerâ€"such as the Sacramento River in California and the once-mighty Columbia in Washington State â€"salmon fisheries have declined precipitously and go through frequent boom and bust cycles. The scientists say that their paper, which is the first to quantify the stabilizing effects of population diversity, is a "game changer" because it suggests better ways of managing species everywhere. One way to promote diversity is by aggressively protecting habitat, rather than focusing on the stocks that seem to be doing well at the moment. The portfolio effect also suggests that managers should minimize the use of hatcheries , which produce a more homogeneous population, and that weak stocks should be protected from overharvesting. The Bristol Bay findings offer hope for species affected by the Gulf oil spill , according to Schindler and his colleagues. Even if oil wipes out some populations of fish and other animals, others within the same speciesâ€"occupying different habitat niches or hatching at different timesâ€"are likely to survive. The portfolio effect is also expected to help species adapt to climate change. Although Bristol Bay is targeted for mining and hydropower, it is currently surrounded by mostly undisturbed habitat, with no dams or hatcheries. Protecting this salmon stronghold will be even more important in a warmer future, says Michael Webster of the Gordon and Betty Moore Foundation, a co-author of the paper along with the U.

## Chapter 2 : The Turbulent s and what it Means for and Beyond | Reimagining the Future

*The population of the Pernambuco sertao has always been noted for its turbulent, lawless character, due partly to distance from the coast where the bulk of the population is concentrated, partly to difficult means of communication, and partly to the fact that this remote region has long been the refuge of criminals from the coast towns.*

Do is the inside diameter of the outer pipe, Di is the outside diameter of the inner pipe. Laminarâ€"turbulent transition In boundary layer flow over a flat plate, experiments confirm that, after a certain length of flow, a laminar boundary layer will become unstable and turbulent. The flow in between will begin to transition from laminar to turbulent and then back to laminar at irregular intervals, called intermittent flow. Laminar flow tends to dominate in the fast-moving center of the pipe while slower-moving turbulent flow dominates near the wall. This is consistent with the annular duct and rectangular duct cases above taken to a limiting aspect ratio. Flow in an open channel[ edit ] For flow of liquid with a free surface, the hydraulic radius must be determined. This is the cross-sectional area of the channel divided by the wetted perimeter. For a semi-circular channel, it is quarter the radius. Some texts then use a characteristic dimension that is four times the hydraulic radius, chosen because it gives the same value of Re for the onset of turbulence as in pipe flow, [18] while others use the hydraulic radius as the characteristic length-scale with consequently different values of Re for transition and turbulent flow. It characterizes the nature of the surrounding flow and its fall velocity. In viscous fluids[ edit ] This section does not cite any sources. Please help improve this section by adding citations to reliable sources. Unsourced material may be challenged and removed. February Learn how and when to remove this template message The high viscosity of honey results in perfectly laminar flow when poured from a bucket, while the low surface tension allows it to remain sheet-like even after reaching the fluid below. Analogous to turbulence, when the flow meets resistance it slows and begins oscillating back and forth, piling upon itself. Creeping flow past a falling sphere: Where the viscosity is naturally high, such as polymer solutions and polymer melts, flow is normally laminar. Spheres are allowed to fall through the fluid and they reach the terminal velocity quickly, from which the viscosity can be determined. The laminar flow of polymer solutions is exploited by animals such as fish and dolphins, who exude viscous solutions from their skin to aid flow over their bodies while swimming. It has been used in yacht racing by owners who want to gain a speed advantage by pumping a polymer solution such as low molecular weight polyoxyethylene in water, over the wetted surface of the hull. It is, however, a problem for mixing of polymers, because turbulence is needed to distribute fine filler for example through the material. Inventions such as the "cavity transfer mixer" have been developed to produce multiple folds into a moving melt so as to improve mixing efficiency. The device can be fitted onto extruders to aid mixing. Sphere in a fluid[ edit ] For a sphere in a fluid, the characteristic length-scale is the diameter of the sphere and the characteristic velocity is that of the sphere relative to the fluid some distance away from the sphere, such that the motion of the sphere does not disturb that reference parcel of fluid. The density and viscosity are those belonging to the fluid. Such considerations are important in natural streams, for example, where there are few perfectly spherical grains. For grains in which measurement of each axis is impractical, sieve diameters are used instead as the characteristic particle length-scale. Both approximations alter the values of the critical Reynolds number. Fall velocity[ edit ] The particle Reynolds number is important in determining the fall velocity of a particle. When the particle Reynolds number indicates turbulent flow, a turbulent drag law must be constructed to model the appropriate settling velocity.

## Chapter 3 : Turbulent Flow â€" SA Geography

*Note: Citations are based on reference standards. However, formatting rules can vary widely between applications and fields of interest or study. The specific requirements or preferences of your reviewing publisher, classroom teacher, institution or organization should be applied.*

Tabasco Hot Sauce - U. Also used by U. Tadpole - Nickname for the OH-6 helicopter. Tarmac - The hard surface of landing strips, helipads, etc. TC - Tactical Commander. A family of dioxins that contain four 4 chlorine atoms each. TDY - Temporary Duty. Tea - The favorite beverage of the Vietnamese people. Tee-tee - Very small or little. Ten-Forty-Nine - Military personnel transfer request form. Tet - The beginning of the Vietnamese New Year. January 31, - The first invasion of Saigon occurred the beginning of Tet. A turning point with U. This offensive left approximately 14, Vietnamese civilians dead. Thump gun or thumper - M Grenade Launcher. Thunderchief - F jet. Tieu-uy - Vietnamese for 2nd Lieutenant. Tieu-ta - Vietnamese for Major. Tiger Suit - The camouflage suits worn by South Vietnamese military. TL - Team Leader. Toe popper - U. This began the U. My brother, Bernard "Bud" Moore was a gunners mate aboard the Maddox during this fateful attack. Normally, a First Sergeant or Sergeant Major. Tracer - An electronically equipped Navy plane. A bullet or shell that leaves a trail of smoke or fire. Triage - The medical term meaning sorting for treatment of wounded often performed by nurses in Vietnam. Tropical Monsoon - The climate of Vietnam. Trung-uy - Vietnamese for 1st Lieutenant. Trung-ta - Vietnamese for Lieutenant Colonel. In Vietnamese it means, freedom. Tunnel Rat - A person who crawled into VC tunnel systems. Turtles - Slang term used by U. Typhoon - Asian name for a hurricane. Gary Powers was shot down in this type of plane over Russia in the 60s. Veterans - Vietnam and Era. The average age of the U. Viet Minh - Ho Chi Minh created this party in Land area is approximately the size of New Mexico. Located on the Asian continent. Population estimated to be 58,, in  Weather - Tropical-Monsoon climate. Religious freedom is suppressed by the current government. The official language is Vietnamese. It is monosyllabic and belongs to the Mon-Khmer family. Education is compulsory for children ages 6 to  Per capita income is US dollars annually. Vietnam Monument - the Wall in Washington D. Vietnamization - The plan by Nixon to turn the war over to the South Vietnamese military while the U. Vunh Tau - A city at the mouth of the Mekong River. It was the location of a 60 foot U. The rd Airborne first landed here in May  He was also the commander at Dien Bien Phu in  VooDoo - F, a high flying jet used to photograph North Vietnam. VR - Visual Reconnaissance. On April 23, , this group marched in Washington D. Army personnel not in the medical branches. War of Deception - The name used by many in the media and young people for the war in Vietnam. Watts - A section of Los Angeles that erupted in race riots in August  Weathermen - The name of the radical and often violent group in the sixties. Westmoreland, William - The U. Commander of military forces in Vietnam until August  White Mice - South Vietnamese Secret Police, who wore white uniforms on the streets of Saigon , and were very, very corrupt. Whitewalls - A military haircut.

## Chapter 4 : Reynolds number - Wikipedia

*Turbulent Past: When it boils down to it, by comparing this dataset to that of our galaxy's disk, we see that Andromeda's past (recent and distant) was far more bloody than the Milky Way's.*

The Collision of Demographics, Automation and Inequality will shape the s â€" a collision that is already in motion. By , the authors see a global economy wrestling with a major transformation, dominated by an unusual level of volatility. Even as longer, healthier lives allow us to work into our sixties and beyond, it is not likely to offset the negative effects of aging populations. This labor force stagnation will slow economic growth, with negative side effects including surging healthcare costs, old-age pensions and high debt levels. On the positive side, supply and demand dynamics could benefit lagging wages for mid-to-lower skilled workers in advanced economies through the simple economics of greater demand and lesser supply â€" but that leads to their second major force: A significant boost in productivity is likely, but the authors warn of an imbalance between supply and demand: Their analysis shows automation is likely to push output potential far ahead of demand potential. While the impact to jobs is a widely debated topic, most estimates show a significant loss of jobs. The authors estimate that 40 million workers will be displaced, and wage growth depressed for many more workers. The other beneficiaries are the owners of capital. The existing scarcity of highly skilled workers will grow more acute â€" pushing their incomes even higher relative to lesser-skilled workers; which leads to the third force: They provide data supporting the fact that income and wealth inequality have been growing for decades, reaching or exceeding historic highs in many countries. An interesting correlation exists between people with higher incomes and their longevity and education level. Their longer, healthier lives enable a longer period of wealth accumulation, and more education has an interesting effect on longevity. Between and , the life expectancy for a year-old in the U. As we can see, the life expectancy of people without a high school degree declined from 74 years to 73 years. The authors project that by , the life-expectancy gap between an American with a college degree or higher vs. I highly recommend it for anyone focused on the future, as well as potential scenarios and their implications. Other key messages from the report: Their base-case scenario forecasts that aging populations will depress supply growth as workers move into retirement, but automation will more than compensate for the shortfall by generating higher productivity. Supply growth potential will therefore accelerate. But as automation displaces millions of workers and inequality grows, we will be faced with demand-constrained growth. A key hypothesis in the report is that government intervention may be required to deal with the collision of these three forces and their implications. Most retirees likely will require government transfers if they are to sustain their consumption. Governments, in turn, will require a pool of income to tax to fund the transfers. Generational differences likely play a major role in the future. Research from the World Values Survey indicates that support for authoritarian alternatives to democracies is notably higher for millennials in the US and Western Europe than for other recently surveyed generations. In the US, one in six agree it would be better for the army to rule vs. Similar upward trends are seen in Germany, Sweden and the UK. The sharpest rise has come from younger, more affluent millennials. In our context, this suggests that with millennials increasingly at the helm, societies may be more willing to embrace an increased role of government in the marketplace. The conclusion from this analysis is consistent with my thinking: Turbulent times will require us all to be adaptive. The authors hone in on one of our biggest challenges: In their analysis, a focus on financial efficiency at the expense of future competitiveness is dangerous when companies face this much change. Becoming a resilient organization involves investing in an ability to quickly recover from disruptions and regain momentum.

## Chapter 5 : Millon® Clinical Multiaxial Inventory-IV

*A TURBULENT Person was brought before a Judge to be tried for an assault with intent to commit murder, and it was proved that he had been variously obstreperous without apparent provocation, had affected the peripheries of several luckless fellow-citizens with the trunk of a small tree, and subsequently cleaned out the town.*

## Chapter 6 : Vietnam Population

*This method allows the population behavior to be described at the outcome of the interaction between the intracellular state of its individual cells and the turbulent flow field in the bioreactor.*

## Chapter 7 : Largest metropolitan areas in the Nordic countries - Wikipedia

*The v2-f model is based on the argument that k/Îµ is the correct turbulent time scale in the flow (close to the wall and in the outer region) but k is not the appropriate turbulent velocity scale.*

## Chapter 8 : Germany's population : turbulent past, uncertain future (Book, ) [blog.quintoapp.com]

*The moon's surface is more complex than previously thought and was bombarded by two distinct populations of asteroids or comets in its youth, according to three new papers in the Sept. 17 issue of Science that describe data from NASA's Lunar Reconnaissance Orbiter.*

## Chapter 9 : Turbulent End to Civil War | The Huntington

*The Turbulent scale on the MCMI-IV provides clinicians with a deeper understanding of adult patients who are primarily oriented towards seeking active life enhancement experiences and who show abnormal personality traits, such as a lost sense of reality or unwavering optimism.*