

Links für 2024 KW 34

Zusammengefasst von [LlongOrca](#).

Ethernet History Deepdive - Why Do We Have Different Frame Types? - Daniels Networking Blog:

The history of Ethernet is fascinating, with the reason for having three different frame types being that DIX used the Ethernet II frame that is prevalent today, while IEEE intended to use a different frame format that could be used for different MAC layers, such as token bus, token ring, FDDI, and so on. The IEEE were also inspired by HDLC, and modeled their frame header more in alignment with the OSI reference model that had the concept of SAPs. When they discovered that the number of available SAPs weren't enough, they made an addition to the 802 standard to support SNAP frames. In networks today, Ethernet II is dominant, but some control protocols may use LLC and/or SNAP frames.

No "Hello", No "Quick Call", and no Meetings Without an Agenda:

The article discusses common mistakes people make when working remotely, such as starting conversations with „Hi“ or „Hello,“ asking for a quick call without explaining the issue, and inviting others to meetings without an agenda. It emphasizes the importance of providing context, detailed descriptions, and proper planning to save time and improve communication in remote work environments.

The surprising cause of fasting's regenerative powers:

A study in mice showed that breaking a fast may have more health benefits than the actual fasting itself. The research found that stem cells surged to repair damage in the intestines only when mice were eating again, but this activation came with a risk as they were more likely to develop precancerous polyps in their intestines if they experienced a cancer-causing genetic change during the post-fasting period. The findings emphasize that regeneration isn't cost-free and highlights the importance of considering potential downsides.

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This article includes a collection of blog posts and articles that cover various topics, such as life, family, news, management, investing, nature, and technology. Some notable themes include personal experiences, observations about businesses, and reflections on personal growth through work or hobbies.

Beastie Boys dismantled their 'Paul's Boutique' gold record plaque to find it didn't contain

their own music:

The Beastie Boys recently recounted their discovery that the gold record plaque they received after the certification of their 1989 album, „Paul's Boutique,“ did not contain an actual pressing of their music. Upon closely examining the plaque years later, Ad-Rock and Mike D realized there was a discrepancy between the number of tracks on the gold record and the album's tracklisting. Upon breaking the glass and inspecting the vinyl, they found that it contained piano versions of songs like Barry Manilow's music and Morris Albert's „Feelings.“ The Beastie Boys' „Paul's Boutique“ went on to gain recognition after its gold certification, eventually being certified platinum in 1995.

Leaked Microsoft pay data shows how much hundreds of software engineers report making in units like Azure and AI:

A spreadsheet shared by Microsoft employees has revealed the salaries, raises, promotions and bonuses of hundreds of software engineers working in departments such as Azure and AI. Business Insider analyzed over 500 submissions from US-based employees which included data on salaries, performance-based raises, promotions, and bonus percentages. The pay for software engineers ranged between \$148,436 to \$1,230,000, with Microsoft AI reporting the highest average pay at \$377,611.

Peloton to start charging subscribers with used equipment \$95 activation fee:

Peloton has introduced a one-time \$95 activation fee for new subscribers who purchased their hardware on the secondary market, such as Facebook Marketplace. This move comes as more consumers buy lightly used equipment at a fraction of the usual retail price. The company is starting to see an increase in new members who bought used Bikes or Treads from peer-to-peer markets and claims that these subscribers have lower net churn rates than rental subscribers. Peloton's interim co-CEO, Christopher Bruzzo, stated that the activation fee will be a source of incremental revenue and gross profit for the company, supporting investments in improving the fitness experience for members.

The Atlantic is cooling at record speed and nobody knows why:

The Atlantic Ocean is cooling down more quickly than ever recorded, possibly impacting weather around the world. This shift from hot to cool temperatures in the equatorial Atlantic Ocean has occurred at record speed, potentially leading to an „Atlantic Niña“ pattern just before a transition to a cooler La Niña in the Pacific Ocean. These back-to-back events could influence weather patterns globally, with both potential La Niñas affecting temperature and humidity. The cycles could also influence each other directly, potentially delaying the development of La Niña in the Pacific and slowing its cooling effects across the global climate.

Mimalloc Cigarette: Losing one week of my life catching a memory leak:

The article discusses the challenges faced in a RAM-bound pricing engine at work. It highlights the

importance of efficient memory management and allocation, as well as the impact of different allocators on performance. The author shares their experience with mimalloc - an allocator that fights for performance but can lead to unexpected behavior when used with specific code structures. To resolve this issue, they opted to keep all refreshing tasks on a single dedicated thread, communicating through channels.

Russia fears Ukraine hijacking home CCTV systems for intel:

Russia's Ministry of Internal Affairs is warning residents in under-siege regions such as Bryansk, Kursk, and Belgorod to switch off home surveillance systems and dating apps due to Ukraine possibly using them for intel-gathering purposes. The warnings come amidst Russia being rattled by Ukraine's incursion into the country's southwest. The ministry has issued a public memo aimed at protecting the identities of high-value Russian individuals, including military personnel and nuclear energy workers. They have urged Russians to control their chats and delete accounts that have been captured or compromised by enemy forces.

Code review antipatterns:

The article discusses various antipatterns related to code review, which can hinder the development process. These include „The Death of a Thousand Round Trips,“ where a reviewer nitpicks multiple times before approving the patch; „The Ransom Note,“ where a developer holds a change hostage for additional work; and „The Priority Inversion,“ where minor issues are criticized in a large-scale project. The article emphasizes the importance of using code review responsibly and not abusing authority, as it can lead to software projects being doomed.

Duck Typing (horror) in Go:

This article discusses Go's structural typing, which is a static typing system that determines type compatibility and equivalence by a type's structure. The article debunks the misconception that Go does not support duck typing because it is statically typed. It explains that Go can indeed implement „duck typing“ when using dynamic features such as any and type assertions, without requiring reflection like in Java. However, the author emphasizes that this should be used only for specific use cases, rather than general duck typing.

Major Backdoor in Millions of RFID Cards Allows Instant Cloning:

French security firm Quarkslab has discovered a significant backdoor in millions of contactless cards made by Shanghai Fudan Microelectronics Group, a leading chip manufacturer in China. This backdoor allows instantaneous cloning of RFID smart cards used for opening doors and hotel rooms worldwide. The vulnerability, present in MIFARE Classic cards, was discovered while conducting security experiments, and has potential implications for those using these cards in public transportation and the hospitality industry. Quarkslab warns that many users are likely unaware of the presence of these backdoors in the cards they've obtained from their suppliers.

Why has nuclear power been a flop?:

The book „Why Nuclear Power Has Been a Flop“ by Jack Devanney argues that nuclear power has failed to live up to its potential due to various reasons, including technological limitations and overly strict regulation. It claims that nuclear power could have been significantly cheaper than other forms of energy generation, but high construction costs and stringent safety standards have prevented this from happening. The book also suggests replacing the current Linear No Threshold model with a Sigmoid No Threshold model, which would more accurately reflect risk based on dose rather than assuming there is no safe level of radiation exposure. Additionally, Devanney calls for enabling testing and aligning regulator incentives with the industry to encourage growth and innovation in nuclear power.

Clear Linux OS:

Clear Linux OS is a Linux distribution developed and maintained on Intel's 01.org open-source platform, optimized for Intel's microprocessors with an emphasis on performance and security. Its optimizations are also effective on AMD systems. Clear Linux OS follows a rolling release model and is not intended to be a general-purpose Linux distribution; it is designed to be used by IT professionals for DevOps, AI application development, cloud computing, and containers.

Missing scissors cause 36 flight cancellations in Japan:

Thirty-six flights were cancelled at Japan's New Chitose airport due to a pair of scissors going missing on Saturday. Retail outlets at the airport are required to store scissors in lockers, but last Saturday, one retailer was unable to find a pair. This led to security checks being paused for two hours and chaos ensuing as flights were delayed, cancelled, and passengers were denied entry. The scissors were eventually found in the same shop they went missing from, but not before causing significant disruption during the Obon festival.

Unbundling Profile: MIT Libraries - SPARC:

The Massachusetts Institute of Technology (MIT) has described its experience of not renewing its largest journal contract with Elsevier as overwhelmingly positive. MIT has long tried to avoid vendor lock-in through big deal contracts and, in 2019, maintained individual title-by-title subscriptions to approximately 675 Elsevier titles. In 2020, they took the significant step of canceling the full Elsevier journals contract – all 675 titles - leaving users with immediate access to only pre-2020 backfile content. Since the cancellation, MIT Libraries estimates annual savings at more than 80% of its original spend, saving approximately \$2 million each year. Most faculty have been supportive of the Libraries in taking a principled stand in line with MIT values and are finding alternative means of access to needed research without an Elsevier subscription.

Sorgenkind 12-V-Batterie: Wie Sie Pannen vorbeugen können:

The article discusses the importance of maintaining the 12-V battery in electric vehicles, as it remains a primary source of issues. Despite attempts to hide the battery system, they have not been successful because batteries are still the main cause of problems. The 12-V battery is an integral part of all vehicles and is also the main cause of faults. Even newer ADAC statistics show that the most common defect lies in the 12-V battery, affecting both combustion engines and electric vehicles alike.

The article explains that there is a separate 12-V battery system with its own dedicated battery in electric vehicles, and it is essential to ensure that the vehicle starts reliably by avoiding defects and maintaining the 12-V battery. Without the 12-V battery, nothing works. The 12-V battery serves as a power source for everything, including the starter motor or the starting of the battery management system in electric vehicles or hybrids.

In case of a 12-V battery failure, there are ways to get an electric vehicle running again by using a battery booster from another car, or vice versa for combustion engines. To prevent such issues, it's crucial to ensure the 12-V battery is charged regularly and not left discharged for extended periods.

The article also mentions that often, problems arise due to inadequate charging times or high consumption within the 12-V network, leading to insufficient charging of the battery. This can happen during short distances driven with the heater on, causing other consumers to draw more power from the battery than the generator can recharge. Electric vehicles are less susceptible to such issues as they typically have longer driving ranges.

In conclusion, maintaining a healthy 12-V battery is crucial for any vehicle, regardless of the propulsion system. It's essential to monitor its charge and avoid excessive discharges or long periods of inactivity that could lead to issues later on.

Being on The Semantic Web is easy, and, frankly, well worth the bother:

The Semantic Web, also known as Web 3.0, is now widely adopted and integrated into websites through the use of JSON-LD markup. This machine-readable data allows bots to parse information from web pages, such as blog posts, making it easier for social media platforms and search engines to display enhanced link previews and provide more relevant search results. Adoption of this technology benefits users by increasing the chances of their content being discovered and shared online.

An unpopular perspective on the SSO tax:

The „SSO Tax“ is a term used to describe the pricing tactic where software vendors reserve advanced features, such as single sign-on (SSO), for more expensive pricing tiers. This practice has earned negative feedback from customers who feel they are being charged more for these features. However, it is important to recognize that price discrimination can be a valuable tool in resource allocation and maximizing sales, particularly when used with packaging strategies such as good-better-best pricing structures. Additionally, some companies may be eligible for customized deals or discounts if they have significant buying power or contact a sales representative.

Wissenschaft: Schüler baut Fusionsreaktor und erhält Auszeichnung:

In Großbritannien hat ein Schüler, Cesare Mencarini, als Teil seiner Schulabschlussprüfung einen funktionsfähigen Fusionsreaktor gebaut, möglicherweise den ersten an einer Schule. Er erhielt die Bestnote A* (hervorragend) und erzielt im Juni ein erstes Plasma nach acht Monaten Entwicklungszeit. Die Schule lobt Mencarini und seine Arbeitsethik.

Windows-11-Vorschau blockiert Trick zur Installation auf alter Hardware:

The article discusses how Microsoft has removed a trick in the Windows 11 preview version from the „Canary“ channel, which allowed users to install Windows 11 on older, unofficially unsupported hardware by using an input prompt [1]. This trick enabled installation of Windows 11 on systems without TPM-2.0 chips, but with sufficient processing power for the Microsoft operating system. The article also mentions other popular workarounds that have been blocked in recent months and criticizes Microsoft's hardware requirements for Windows 11, stating that they cause many devices to become obsolete prematurely.

Fefes Blog:

This article discusses the growing density of solar panels on German rooftops and raises concerns about their central management, which is mostly handled by a few companies from countries outside Europe. It mentions that there are minimal regulations and laws governing these administrators in Europe. The author suggests that there should be more oversight for such centralized control, especially considering the increasing number of solar panels installed in households. Additionally, the article brings up the potential vulnerability of IoT (Internet of Things) systems to cyber threats.

Fefes Blog:

In the article, it is mentioned that Bernklau is accused of being a child molester, prison escapee, and con artist targeting widows. However, Copilot, Microsoft's AI, seems to confuse the journalist with the accused in these cases, as the AI might not understand that the journalist was reporting on the cases. The company has announced their intention to prioritize using Copilot for security over training their employees.

Sourcegraph went dark | Eric Fritz:

The author laments the decision made by Sourcegraph to make their main repository private, as this marks the end of an open-source culture they had appreciated and contributed to. They discuss how the new privacy measures have affected their previous work and references in their writing. In response, they detail how they undertook a series of processes to maintain accessibility to certain commit information by moving it into a publicly accessible repository under their control.

Nasir Ahmed: an Unsung Hero of Digital Media:

Nasir Ahmed's discrete cosine transform (DCT) compression algorithm, invented in 1974, played a major role in allowing digital files to be transmitted across computer networks. DCT has been one of the key components of past image- and video-coding algorithms for more than three decades. Ahmed's work led to JPEG and MPEG standards that underpin much of the modern Internet. His compression algorithms enabled photo-quality images and video to accompany text on computer screens, transforming the way we consume information online.

Host Your Own CoPilot:

This article discusses the downsides of coding co-pilots such as GitHub Co-pilot, SourceGraph Cody, and Amazon Code Whisperer, including subscription fees and data exfiltration concerns. It also mentions that there are open source and open weight LLM options available for self-hosting, such as DeepSeek-Coder-V2. The article provides a step-by-step guide on how to set up a VSCode extension, use Mistral Large 2 with Nvidia NIM, and wire up Codestral 22B via Continue.dev. It also mentions the possibility of self-hosting these models on the cloud using Ray Serve or a multi-GPU rig.

Finding a 'harmless' Pi-hole vulnerability:

The author discusses their journey as a bug bounty hunter and testing Pi-hole, an open-source ad blocker for network-level ad blocking. They explore the security controls implemented to control access to the dashboard and settings pages in Pi-hole's PHP code and find a minor unprotected endpoint that could be exploited. The author reports the issue to the project maintainers and adds a check of the \$auth variable, which is accepted and merged into the developmental branch of version 5.21.08/19/2024. The MITRE Corporation later creates an official CVE for this vulnerability (CVE-2024-44069).

Avoiding Sun as Dangerous as Smoking:

A study published in the Journal of Internal Medicine found that nonsmokers who avoided sun exposure had a life expectancy similar to smokers with high sun exposure, indicating that avoiding the sun is a risk factor for death. Compared to those with the highest sun exposure, life expectancy decreased by 0.6 to 2.1 years in those who avoided sun. The researchers discovered that women who sought out sun were generally at lower risk for cardiovascular disease and noncancer/non-CVD diseases than those who avoided sun exposure. Sweden's restrictive guidance against sun exposure may be particularly ill-advised, as it has low UV index for up to 9 months of the year. The study suggests that women should not overexpose themselves to sun, but underexposure might be more dangerous than previously thought.

'Rare species' not seen in the area for 50 years spotted on Arizona trail camera:

Researcher Kinley Ragan discovered an ocelot in the Atascosa Highlands region of Arizona, marking the first sighting in the area in 50 years. The Phoenix Zoo set up 50 cameras across the area as part of the Atascosa Complex Wildlife Study to better understand medium and large mammals. Ocelots are critically endangered in Arizona but are listed as „least concern“ by the International Union for

Conservation of Nature. The study aims to provide more understanding of the animal, which Ragan plans to continue monitoring with the remaining cameras at the end of August.

Late Again:

The article discusses the importance of punctuality in meetings, particularly for leaders who consistently arrive late. It argues that being constantly late indicates a lack of management skills and delegation. The author suggests that such individuals should reevaluate their schedules, prioritize tasks, and empower others to take on responsibilities as part of growing as a leader.

Good Refactoring vs Bad Refactoring:

Refactoring is an essential part of software development but should be done thoughtfully and respectfully towards the existing codebase and team dynamics. The goal of refactoring is to improve internal structure without altering external behavior. Poor refactorings can lead to harder-to-understand and slower code, making it crucial for developers to know when and how to apply abstractions. Common pitfalls include changing coding styles substantially, adding unnecessary abstractions, inconsistency in updates, not understanding the code before refactoring, and over-consolidating code. To successfully refactor, developers should be incremental, deeply understand the code, match existing styles, avoid unnecessary abstractions, add new libraries only with team consensus, use linting tools, conduct thorough code reviews, utilize testing, and leverage AI tools when appropriate.

Midea PortaSplit im Test: Eine Split-Klimaanlage für Mieter:

In this article, the author talks about their experience using the Midea PortaSplit, a heat pump specifically designed for renters. They mention that they have had several air conditioning and cooling devices in the past but were not truly satisfied with them. The main feature of the PortaSplit is its outdoor unit, which uses a heat pump technology to provide heating, cooling, and dehumidification.

The author mentions that installation is easy and can be done without any tools. They also note that the noise level decreases as you move further away from the unit, but a fan helps in mixing air. The PortaSplit is capable of covering 42 square meters to 105 cubic meters with its cooling capacity.

The author emphasizes their satisfaction with the product and recommends it to others. They mention that the initial cost might be higher than traditional 0815-style air conditioners, but the improved quality and increased convenience make the investment worthwhile. The article concludes by stating that for renters looking for an effective cooling solution, the Midea PortaSplit is a strong contender.

How I Learned To Love Tail Calls in C:

The Clang compiler has introduced `clang::musttail` statement attributes for guaranteed tail calls in C, C++, and Objective-C programming languages. Tail calls are associated with a functional

programming style but are used here purely for performance reasons. With the new attributes, protobuf parsing has achieved remarkable results, demonstrating an improvement of over 2GB/s, double the previous state of the art. Using tail calls in interpreters can potentially provide significant performance benefits for languages like Python, Ruby, PHP, and Lua. However, a downside to this approach is portability as musttail is currently a nonstandard compiler extension.

The CEO Who Made a Fortune While His Hospital Chain Collapsed:

The article discusses the high compensation paid to CEOs, such as at least \$250 million to Steward's chief executive officer while the company was losing hundreds of millions of dollars a year. It raises concerns that this incentivizes unsustainable changes in companies, which may look good on paper when the bonus is paid out but ultimately lead to the company's long-term destruction. The article also mentions that boards of directors are often „captured“ entities filled with relatives and cronies of the CEO, making it difficult for them to intervene.

The CEO Who Made a Fortune While His Hospital Chain Collapsed (Archive.is):

The article discusses the case of Steward Health Care System, a hospital chain that filed for bankruptcy due to its dire financial situation, while its CEO, Dr. Ralph de la Torre, received payments totaling at least \$250 million during his tenure. Conditions at some of Steward's hospitals have deteriorated, leading to government scrutiny and an investigation by a Senate committee. De la Torre's wealth and extravagant lifestyle, including his yachts and mansions, have further fueled criticism. The bankruptcy has led to the closure of some hospitals, and Steward is currently attempting to sell its remaining facilities.

Tool support · Ollama Blog:

Ollama has introduced tool calling functionality for popular models like Llama 3.1, enabling them to interact with various tools such as functions and APIs, web browsing, code interpreters, and more. Tool support allows these models to perform complex tasks or interact with the outside world by providing a list of available tools via Ollama's API. OpenAI compatibility is also now supported for tool calling functionality. Future improvements include streaming tool calls and tool choice options.

Optimizing global message transit latency: a journey through TCP configuration:

This article discusses the challenges faced by Ably, a realtime messaging service, in maintaining low and consistent latency for their customers. The company deployed dedicated infrastructure for a new customer whose workload involved time-critical updates between locations in Europe, South America, and Southeast Asia. They observed unusually high variance in the latency of messages passing through Ably between these locations, with a 90ms minimum transit time but slowest 5% taking over 400ms.

They investigated the issue by examining their own code stack and realizing that the source of delay was message propagation delays on the TCP/IP connection. By sending high-frequency heartbeats,

they could eliminate the latency variance. Further investigation led them to discover the problem in the Linux TCP stack's setting, 'tcp_slow_start_after_idle', which they disabled successfully reducing p99 times from 358ms to 200ms.

However, disabling this setting on their machines did not remove the tail latencies in their production system, so they investigated Docker containers and discovered that tcp_slow_start_after_idle needs to be disabled within the container as well. This solved the issue and helped maintain low and consistent latency for their customers' realtime messaging needs.

The gigantic and unregulated power plants in the cloud - Bert Hubert's writings:

A Dutch hacker recently took control of 4 million solar panel installations, raising concerns about centralized management of solar panels and the potential for a massive power grid collapse in Europe. Most consumer and business solar panels are managed by a few companies, primarily from countries outside of Europe, with little to no regulation governing these administrators. The recent findings of ethical hackers and confirmation from Dutch electricity network manager TenneT highlight the potential danger of a simultaneous shutdown of millions of solar panels. To avoid such scenarios, central control capabilities must be removed or regulations put in place to treat central administrators as energy companies.

Homebound: The Long-Term Rise in Time Spent at Home Among U.S. Adults:

The article provides an overview of the long-term rise in time spent at home among U.S. adults, analyzing data from the American Time Use Survey from 2003 to 2022. The article discusses the potential reasons behind this trend, such as demographic changes, technological advancements, and social factors, and also examines the consequences of increased time at home on emotional wellbeing and other aspects of daily life.

Positive consequences can include greater flexibility in scheduling, reduced commute times, increased leisure time, and increased opportunities for self-care and personal growth. However, there are also negative consequences, such as feelings of isolation, sedentary behavior, and disrupted sleep patterns, which can lead to decreased mental and physical health.

Additionally, spending more time at home can potentially affect relationships and communication within families and communities. People may become more reliant on technology for social interaction, leading to decreased face-to-face communication and increased screen time. This can, in turn, contribute to feelings of loneliness and disconnection from others.

Auf dem Donnerbalken saßen zwei Gestalten (Klopapier) * Volksliederarchiv (11.000 Lieder):

The article is a humorous poem about ten people sitting on a beam, shouting for „Klopapier“ and eventually bringing it to them. With each addition, the situation becomes more chaotic until the eleventh person arrives, who is half of what was expected and still shouts for „Klopapier.“ The text and music are by an unknown author and can be sung by children aged 8 or older.

Who needs GitHub Copilot when you roll your own:

Continue is an open-source code assistant that aims to compete with Microsoft's GitHub Copilot by utilizing large language models (LLMs) for code generation. Users can integrate the app into popular IDEs like JetBrains or Visual Studio Code and connect it to LLM runners such as Ollama, Llama.cpp, and LM Studio. Continue offers features like code completion, optimization, refactoring, commenting, and an integrated chatbot with RAG functionality. The app also allows users to swap out models based on their programming language or preferences.

Sorry, Moxie. Blaming Agile for software stagnation is wrong:

Security superstar Moxie Marlinspike delivered a keynote at Black Hat, stating that software development has lost its magic due to the stifling straitjacket of Agile. He argued that full-stack deep appreciation of software engineering exemplified by security researchers is the cure and encouraged them to be the wizards who can save the world. However, the article suggests that innovation isn't locked in the frozen meat store of Agile; instead, it has evolved over time. The focus should be on addressing new challenges brought about by digital technology and finding innovative solutions for them.

Best Geoguessr Tips & Tricks for Beginners:

The article suggests several ways to improve GeoGuessr skills and learn tips and tricks from YouTubers who specialize in the game. These include playing regularly to recognize places, observing similarities between locations, and visiting websites like Geohints, Geotips, and Unwinnable for more information on techniques and strategies. The article also explains various features of the game such as Country Streak, Classic mode, Event, Explorer Mode, Duels, Team Duels, Bull's Eye, and World Population Review to provide context about the different aspects of GeoGuessr.

2:2:7CGD-SL7 Familienstammbaum Anton Fink:

TODO

Study: Air purifier use at daycare centres cut kids' sick days by a third:

A study by E3 Pandemic Response found that using air purifiers at two daycare centers in Helsinki led to a 30% reduction in illnesses among children and staff during cold and flu seasons. The research aimed to create an air purification scheme for other daycare centers, focusing on ways to clean the air without being too noisy or expensive. The study will continue until April, with final results expected in spring 2022.

Linux Pipes are Slow | Quentin Santos:

The article discusses how `vmsplice`, a particular system call to move data faster through a pipe, enables significantly improved performance in certain programs, particularly those involved in Morse code encoding or decoding. When not using `vmsplice`, Linux pipes are slower than expected and cannot always be used due to the large gap between ideal conditions (167 GB/s) and actual performance (17 GB/s). The article explores how `vmsplice` works, comparing it with other methods like `write` and how it avoids copying data to and from kernel space. It also explains that the use of `vmsplice` bypasses the expensive parts of the `write` system call in Linux kernels, leading to better performance.

Fair Source licensing is the worst thing to happen to open source-definitely maybe:

Fair Source is an attempt by some pseudo-open source advocates to resist the future of software licensing, trying to make a compromise between open source and closed source. The Fair Source License allows users to use the source code for free within their organization but charges once it becomes popular or when it crosses a certain threshold of usage. This type of licensing introduces unnecessary complexity and is not beneficial to developers. Instead, companies should consider indirectly monetizing open source through support and software services like Red Hat.

□ Sennheiser E 945:

The article promotes the use of cookies on a website, offering customized offers, personalized advertisements, and saved settings. It mentions the E 945 - a professional dynamic microphone with supercardioid characteristic designed for professional use. This microphone is suitable for singers and speeches due to its ability to capture natural, powerful vocals in noisy environments. The article also highlights Sennheiser's history as a leading manufacturer of high-quality microphones and headphones since 1945.

□ Rode M5 MP:

The article introduces the Rode M5 MP, a stereo set that consists of two carefully selected M5 small diaphragm condenser microphones with a flat frequency response from 20 Hz to 20 kHz and high sensitivity. It has a wide dynamic range and low self-noise. The M5 microphone is transformerless with a gold-sputtered 1/2" capsule, providing compatibility with various systems. The stereo set is suitable for live performances and studio recording. The Rode brand is known for producing high-quality studio microphones since its founding in Sydney in 1990.

7 Things I Learned From Doing Triathlon In My 70s:

The article discusses the experiences and lessons learned from a man who has completed multiple Ironman triathlons after the age of 70. Some key points include: 1. Acknowledging reality and living within it, which allows for a more successful aging experience. 2. Asking „How can I?“ instead of „Can I?“ opens up new possibilities. 3. Focusing on enjoyment rather than winning or being the best. 4.

Pursuing personal goals without expecting external recognition. 5. Accepting one's age and realizing it's okay to act accordingly. 6. Prioritizing rest days for better overall well-being. 7. Embracing the wisdom and appreciation that come with aging, leading to a more fulfilling life.

Mizzou scientists achieve more than 98% efficiency removing nanoplastics from water // Show Me Mizzou // University of Missouri:

University of Missouri scientists have developed a new liquid-based solution that can eliminate more than 98% of microscopic plastic particles from water. The method involves using water-repelling solvents made from natural ingredients, which offer a practical solution to the pressing issue of nanoplastic pollution and pave the way for further research in advanced water purification technologies. The solvents are made from safe, non-toxic components and can be applied to both fresh and saltwater sources.

Bananas almost went extinct 70 years ago -- Now a deadly fungus is trying again:

The race is on to save bananas from extinction due to *Fusarium oxysporum* f.sp. *cubense* (Foc) tropical race 4 (TR4), a fungus that causes deadly disease in banana crops. Recent outbreaks among Cavendish bananas, the world's most popular variety, are particularly concerning. However, new research published in *Nature Microbiology* suggests that this fungus is different from the one responsible for wiping out almost all banana crops in the 1950s. The study found that the Foc TR4 fungus consists of „accessory genes“ involved in making nitric oxide, which could help devise an effective counterstrategy against its spread.

Fefes Blog:

Microsoft has found a lucrative business model in ransomware distribution. The company is selling Minecraft for Android without the ability to back up game data locally, forcing users to pay for a subscription service called „Minecraft Realms“ to access their own data. This change has caused frustration among players who previously could use an „Export World“ button to save data onto local storage. The article highlights this as an example of how large corporations control technology and dictate user behavior, making it harder for individuals to understand or manage the systems they use.

UK government can't kick consultancy habit despite promises:

The UK public expenditure on management consultancies has returned to pre-COVID levels, despite plans by the previous government to reduce dependency on external expertise. Market research company Tussell's latest data shows that spending on frameworks has increased 57% over five years, reaching £3.4 billion in fiscal 2023/24. Central government accounted for between 52% and 63% of the spending in the last five years. The use of taxpayers' cash through framework agreements highlights the amount going to tech consultancies. UK's new finance minister, Rachel Reeves, has pledged to reduce public sector budget spending on external management consultancies, as previous government officials have also attempted in the past.

SCOTUS could deal another blow to climate action:

The Supreme Court is considering whether to pause new pollution regulations for coal-fired power plants in the US, which could stall action on climate change. Red states and industry groups are challenging the Environmental Protection Agency (EPA) in court over the rules aimed at curbing greenhouse gas emissions from coal plants. The request is now in the Supreme Court's „shadow docket“, allowing it to essentially issue a stay on the rules at its whim. The case involves the EPA's plans to rein in greenhouse gas emissions, which requires fossil fuel power plants to reduce their climate pollution by 90 percent. Industry is arguing that carbon capture and storage technologies aren't yet ready to help fight climate change.

Small strings in Rust:

This article is a comparison of different string implementations in Rust: String, SmolStr, and SmartString. The author discusses the features of each type, such as their support for Serde, maximum inline length, stream-friendliness, mutability, safety, and clone capabilities.

The author also provides microbenchmarks to compare the performance of these string implementations. They note that SmolStr has a slight constant overhead over SmartString and String for long strings, while SmartString wins for short strings in terms of cloning performance. In contrast, SmolStr's clone operation is $O(1)$, making it more efficient for longer strings.

Additionally, the author explores memory usage characteristics, finding that String has the highest peak memory usage, followed by SmolStr and SmartString. They also discuss the trade-offs between allocation count and memory usage, highlighting that reducing allocations can lead to performance improvements.

The article concludes with a note on the specific use cases of each type, such as SmolStr being used in rowan for good enough default storage for tokens of typical programming languages and SmartString being recommended for B-tree keys due to its improved cache locality.

The Vital Necessity of Very Old Books:

This article discusses the importance of reading old books in today's self-serving culture. It highlights that although some ideas from the past might seem outdated, they offer cognitive and conceptual diversity and can open new pathways for thinking. Reading old books not only provides access to original sources but also helps to ground modern thought and enrich STEM disciplines. The author argues that without old books, we are limited by our current cultural biases and assumptions, making it crucial to explore different perspectives from the past.

AMD's Radeon 890M: Strix Point's Bigger iGPU:

AMD's latest mobile chip, Strix Point, is set to continue the success of its integrated graphics (iGPU). The chip features an even larger GPU than before and a slight architecture upgrade. Handheld gaming

devices like Valve's Steam Deck and Asus's ROG Ally both use AMD iGPUs, which have seen increased performance against competitors Intel and Qualcomm. Strix Point is expected to perform well in games such as Cyberpunk 2077 at low settings and 1080P resolution.

Defenders think in lists. Attackers think in graphs. As long as this is true, attackers win.:

The article discusses how defenders need to rethink network defense by focusing on the connections between assets rather than just protecting individual assets. It emphasizes that attackers can breach a network by navigating through these connections and targeting vulnerable systems. The article suggests visualizing the network as a graph to better understand its security dependencies, and implementing controls to prune the graph, such as reducing the number of admins and using two-factor authentication. Defenders should ensure that their understanding of the network is based on reality rather than incomplete asset inventory systems or outdated network diagrams.

Looming Liability Machines (LLMs):

The article discusses the potential issues with using large language models (LLMs) for automatic root cause analysis (RCA) in cloud incidents, particularly as it relates to safety engineering and preventing accidents in complex systems. The author raises concerns about systemic failures if LLMs are adopted to replace human experts in RCA investigations, potentially leading to cost-cutting measures and decline in the development of new engineers with this crucial skill. Additionally, the article highlights the possibility of automation surprise occurring when users don't fully understand how LLMs work or their range of possible outcomes, which could lead to confusion and dangerous situations if not addressed properly. The author concludes by expressing concern about the potential erosion of operational culture at companies such as Amazon Web Services (AWS) due to early success with using LLMs in software development tasks.

Documentation for Ruby 3.4:

The article discusses Ruby, an interpreted object-oriented programming language used for web development and scripting plain text and serialized files. It has simple syntax, offers advanced object-oriented features, operator overloading, exception handling, and dynamic loading of object files on some architectures. Ruby is highly portable and works across various platforms such as Unix-like/POSIX compatible, Windows, and macOS. The article provides information on how to install Ruby and lists its features, mailing list, and how to contribute or report bugs.

How a flawed idea is teaching millions of kids to be poor readers:

This article discusses the three-cueing system, a theory in education that suggests readers use three different kinds of information - graphic cues (what do the letters tell you about what the word might be?), syntactic cues (what kind of word could it be, for example, a noun or a verb?), and semantic cues (what word would make sense here, based on the context?) - to identify words as they are reading. The theory was proposed by Ken Goodman in 1967 and has been widely adopted in American schools despite being debunked by cognitive scientists.

The article presents evidence from scientific research that contradicts the three-cueing system. It argues that skilled readers rely more on accurate word recognition, not context or prediction, to read words quickly and accurately. The article also discusses how teaching cueing can lead to a downward spiral in reading development, affecting behavior, vocabulary, knowledge, and other cognitive skills, and potentially leading to high school dropouts and involvement in the criminal justice system.

The article provides examples of the three-cueing system in action, such as the „picture power“ lesson in a kindergarten classroom in Oakland, California. It also highlights efforts by educators like Margaret Goldberg and Lani Mednick to raise awareness about the problems with cueing and promote more effective approaches to teaching reading, such as explicit phonics instruction and lessons that build oral vocabulary and background knowledge.

The article concludes by questioning why the three-cueing system continues to be included in instructional materials sold to schools and suggesting that educators need to take a closer look at the evidence about how children learn to read.

Elektronische Patientenakte für alle: Ärzte erwarten Diskussionen mit Patienten:

The electronic patient file (ePA) will not change much by early 2025 and is still facing criticism for not being able to save large files like MRT images. However, Gematik has recently released the final specifications for ePA's further development in July 2025, which includes technical requirements for data forwarding to the health research data center. The KVN Digitalization Committee, formed specifically for digitalization, had previously submitted an outline paper with demands for the electronic patient file in primary care. While ePA is expected to be implemented nationwide by early 2025, concerns remain about its usability and functionality in practice.

You Are NOT Dumb, You Just Lack the Prerequisites:

The author shares their experience struggling with math throughout school due to a lack of prerequisite knowledge. They recently realized that the struggle was not because they were incapable but rather because they had gaps in prerequisite knowledge. To address this, the author decided to rebuild their math skills from the ground up, revisiting foundational concepts and learning better methods. The process has been slow and humbling, but it is helping them gradually improve their understanding of complex subjects like math and computer science.

SQL Has Problems. We Can Fix Them: Pipe Syntax In SQL:

The article discusses the challenges of using SQL as the primary query language for working with data in mainstream database-like systems. Despite its success, SQL has design problems that make it difficult to learn, use and extend. There have been attempts to replace SQL with new languages, but none have succeeded in displacing it. GoogleSQL takes a different approach by extending SQL instead of replacing it entirely. By adding piped data flow syntax to SQL, the language becomes more flexible, easier to learn and use, while still maintaining compatibility with the existing ecosystem and userbase. This incremental adoption method allows for improved features without requiring migrations or learning a new language, making GoogleSQL a productive approach to enhance standard SQL.

JS Dates Are About to Be Fixed | TimeTime:

The Temporal proposal for ECMAScript introduces a native object called ZonedDateTime to represent „Zoned Date Time“ in JavaScript. This allows developers to accurately handle time zones, including Daylight Saving Time (DST), and has been designed to support different calendars such as Buddhist, Chinese, Coptic, Dangi, Ethioaa, Gregorian, Hebrew, Indian, Islamic, Persian, and others. The new API aims to eliminate common pitfalls in working with traditional Date objects by ensuring time zones are correctly represented within the specified time zone. This feature is particularly useful for events scheduling or logging actions that need consistency across different regions.

Why Ed-tech Startups Don't Scale:

The article discusses the difficulties and challenges faced by ed-tech companies while attempting to scale their businesses. It highlights how education is a sector that is not easily translatable across borders due to varying cultural expectations, laws, and market dynamics. Ed-tech products also face monetization issues as they struggle to strike a balance between satisfying all stakeholders involved in the education system, while maintaining product quality and retention. The article concludes by mentioning that building a generational ed-tech company is difficult due to high capital requirements, low upside potential, and lack of global success.

Badeseen "Tiefer See":

The article discusses the history and features of the Tiefen See, a lake in Maulbronn, Germany, which has been used as a recreational bathing site since 1898. The lake has a long and interesting history, having been likely created by the Zisterzienser monks in the first half of the 12th century. It is fed by the Salzach, and is located near the former Cistercian abbey of Maulbronn, which is now a UNESCO World Heritage Site. The article also provides information on the facilities available at the lake, including modern changing rooms, showers, and toilets, and a kiosk offering snacks and drinks. The lake is subject to regular water quality checks by the local health authorities. Finally, the article provides information on rules and regulations for visiting the lake, including restrictions on dogs and their access to the water.

Projekt Cinema Central - Filmklassiker neu erleben. Auf großer Leinwand. Im ältesten Kino Süddeutschlands.:

The article announces a screening of the film „The Graduate“ directed by Mike Nichols on September 22, 2024 at 18:00 at Kino Süddeutschland Central Theater. The movie stars Dustin Hoffman and Anne Bancroft and follows Benjamin Braddock's journey after graduating college with a bright future ahead of him. Despite having all doors open to him, Benjamin feels uncertain about his life choices and starts an affair with Mrs. Robinson (Bancroft), the mother of Elaine (Katharine Ross). Benjamin eventually falls in love with Elaine, making the situation more complicated. The event is part of a series offering cinema classics.

Senderstadt Mühlacker - Neue Zusatzbezeichnungen: Mühlacker ist "Senderstadt", Lienzingen ist "Etterdorf":

Since early October, Mühlacker has officially been allowed to use the title „Senderstadt,“ while Lienzingen has received the title „Etterdorf.“ Innenminister Thomas Strobl presented both cities with their respective certificates. The title „Senderstadt“ refers to Mühlacker's long-standing radio broadcasting history, which dates back to 1930 when it became Germany's first large transmitter station. Additionally, Lienzingen received the name „Etterdorf,“ as its medieval town center features numerous half-timbered houses surrounded by a nearly complete ring of barns. These additional titles aim to strengthen community identity and promote local self-governance.

What if Germany had invested in nuclear power?:

This discussion revolves around Germany's energy policies, particularly their transition from nuclear power and reliance on Russian gas. The anti-nuclear sentiment in Germany has roots in historical events such as Chernobyl and the Soviet Union's influence over East European countries. Germany could have chosen to keep and expand its nuclear power program instead of investing in renewables, but this decision was primarily driven by public opposition and safety concerns. The article also mentions that Germany is now stationing nuclear capable missiles again with approval from the Green Party.

Fefes Blog:

Amazon has discontinued the Echo Show 8 Photos Edition, a „smart“ picture frame introduced last year that allowed users to display their own photos. This was originally sold as a „smart display/speaker,“ but without the Photos Edition feature. Users could view their own photos with an annual subscription of \$2 per month. The article emphasizes the capitalistic nature of this decision, where control is outsourced and profits are prioritized over improving users' overall situations.

buzl.uk:

In August 2024, a user shared their experience of developing an open-source non-commercial Reddit client called Geddit and receiving a permanent ban from the platform due to API pricing changes. The story highlights the development of Geddit, its growing popularity, and the eventual email received from Reddit leading to the temporary suspension of its development.

La Gyrocrêpe NEO - Gyrdis:

The Gyrocrêpe® NEO is a user-friendly, robust, and visually appealing machine that allows you to automatically create up to 180 crêpes or galettes per hour with the same quality as homemade crepes. By choosing this product, you invest in unique equipment designed to increase your revenue and profits. The Gyrocrêpe® NEO has two diameters (36 cm standard or 30 cm optional), allowing for

customization of temperature, cooking duration, crêpe size, and thickness. It is ideal for events with a production rate of 180 crepes per hour. This machine can be used with mixes or traditional dough and comes with an automatic stacker, a 4-liter dough bowl, a rotor protection grid, and other accessories.

I lost my Google Play dev account:

This article discusses how a developer named Ed Grace had his game IdleTale removed from Google Play due to „Malware or Deceptive Behavior.“ The issue was caused by a single line of code that kept the phone screen on without user consent, violating Google Play's policies. Despite appealing and offering to fix the problem, Ed's developer account was permanently closed, preventing future app submissions.

Molecule restores cognition and memory in Alzheimer's disease mouse study:

A new study by UCLA Health researchers identified a molecule, DDL-920, which can restore cognitive functions in mice with Alzheimer's disease symptoms by jump-starting the brain's memory circuitry. If proven to have similar effects in humans, this candidate compound would be unique among Alzheimer's treatments for its ability to revitalize memory and cognition. The molecule works differently from recent FDA-approved drugs that focus on removing harmful plaque, which does not restore memory or remedy cognitive impairments. Further research is needed to determine the safety and effectiveness of this treatment in humans.

Elon Musk was just forced to reveal who really owns X. Here's the list.:

Billionaire investor Bill Ackman and rapper Sean „Diddy“ Combs are among the 100 or so owners of Elon Musk's social media platform, X (formerly known as Twitter). The list of investors was revealed due to a lawsuit brought by former employees seeking payment of arbitration fees incurred following Musk's acquisition of the site. Other notable names on the list include Larry Ellison, founder of Oracle; HRH Prince Alwaleed Bin Talal Bin Abdulaziz Alsaud; and Jack Dorsey, co-founder of Twitter, who has since distanced himself from the platform.

Surreal Engine:

This article is a documentation of a project called „Surreal Engine,“ which aims to reimplement the original Unreal Engine to make Unreal Tournament (UT99) maps playable. The current status of the project includes loading and rendering the maps, as well as almost feature-complete Unrealscript VM, except for arrays and network conditional execution. The engine can detect a list of UE1 games, with Unreal Tournament v436 and Unreal Gold v226 being in a relatively playable state. The project offers build instructions for Windows and Linux using CMake.

A Visualization Grammar:

Vega is a visualization grammar, using JSON format, which allows users to create interactive visualization designs and share them through web-based views such as Canvas or SVG. It provides building blocks for various visualization designs like data loading, scales, map projections, axes, legends, and graphical marks. Interactive behavior can be defined via reactive signals that modify the visualization based on input events. A Vega specification can generate both static images and interactive web-based views. To learn more about Vega or get started, explore tutorials, example galleries, usage guides, and APIs like Altair Python for Vega-Lite.

MaischeMalzundMehr:

The article discusses the creation of a user input box, followed by various input lists such as malt, hops, additional ingredients, and yeast. It also includes information on populating child select boxes based on parent options, deleting comments from the database, editing comments in the database, and animating the scrolling effect to showcase beauty elements within the page.

OpenSSH Backdoors:

The article discusses two OpenSSH backdoor attacks - one that occurred in 2002 and another in the xz-utils repository earlier this year. Both incidents highlighted the risks associated with supply-chain attacks, emphasizing the importance of reducing attack surfaces and compartmentalization. Despite advances in security technology, there is still a need for further innovation in operating system design and application development to better defend against such attacks in the future.

Adding 16 KB Page Size to Android:

The article discusses how Android 15 is designed to support different page sizes, namely 4 KB and 16 KB, to improve operating system performance and provide device manufacturers with an option for memory trade-offs. By making Android more agnostic to page size, the system can focus on improving video quality, gameplay, and application smoothness. This change also involves modifications to file systems (EROFS, F2FS, UFS storage), filesystem block sizes, memory management, Linux kernel, and Android applications. The developer option for 16 KB page size is available for testing purposes on Pixel 8 and Pixel 8 Pro devices.

Is AI eating all the energy? Part 1/2 / GioCities:

The article discusses the energy consumption and efficiency of artificial intelligence (AI) systems, comparing them to other forms of technology such as cryptocurrency and traditional software development. The author provides a detailed analysis of the energy costs associated with training and using AI models, arguing that while these costs are significant, they are often overstated when compared to the value provided by AI services.

The article also touches on the potential ethical implications of AI use, but ultimately focuses on the question of whether or not AI is a wasteful use of energy. The author concludes that, in most cases, AI is more efficient than other forms of technology and can provide significant benefits when used

responsibly.

Microsoft's controversial Windows Recall feature is coming back in October - gHacks Tech News:

Microsoft plans to bring back its Windows Recall feature, initially announced in May 2024, with an opt-in option by default. The company will introduce it in test builds of the Windows 11 operating system in October 2024 before potentially rolling it out to stable Windows 11 PCs in 2025. Recall was designed to capture screenshots every few seconds, analyze them with AI, and provide users the option to interact with that content. However, concerns were raised regarding privacy and security. Microsoft aims to address these issues by making Recall opt-in by default and enrolling in Windows Hello and other features. The feature will be available on Copilot+ PCs only.

Study explains why laws are written in an incomprehensible style:

MIT cognitive scientists have discovered that the convoluted language of legalese is used to convey authority and power, similar to „magic spells“ in stories. Legal documents frequently use center-embedding, a structure that can make text more difficult to understand. The researchers found that even non-lawyers write laws using this type of language when asked to do so. In follow-up studies, it was also discovered that legalese makes documents more difficult for lawyers to understand. The study suggests that the origins of center-embedding in legal documents could be traced back to early American laws and even further back to the Hammurabi Code.

German Navy ship blasts out Darth Vader theme on Thames:

A German Navy ship was spotted playing the Imperial March theme, also known as Darth Vader's music, near Tower Bridge in London. The vessel was in London for training and a supply stop, with a spokesperson stating that the music had „no deeper message“ and the commander can choose the music freely.

Python's Preprocessor:

This article discusses the use of custom codecs and path configuration files to drastically change the behavior of Python interpreters. Custom codecs can be created through various methods, including preprocessor directives, magic lines, and tokenizing. Path configuration files allow users to define a source code encoding and load site-specific paths to the module search path. The article also mentions projects like pythonql, future-typing, future-fstrings, and future-annotations that use custom codecs for different purposes. Finally, it provides information on extending magic_codec with user-defined preprocessors by creating a Python package prefixed with „magic_“ and implementing the function preprocess in it.

Mpox ☐ Wie gefährlich ist das Virus ☐ ☐ ARTE Europa - die Woche (Video):

The World Health Organization declared the outbreak of Mpox (formerly known as monkeypox) a global health emergency due to the spreading of a new, highly contagious and deadly variant of the virus. This newer type was first detected in the Democratic Republic of Congo at the end of 2023 and has since spread across multiple African countries, causing thousands of infections. Mpox is primarily transmitted through close contact with infected people or animals, but can also be transmitted via contaminated surfaces or clothing.

The symptoms of Mpox include fever, headache, muscle aches, and fatigue, followed by a rash that may progress to blisters or pustules on the skin. In some cases, the virus can also cause inflammation of mucous membranes like the mouth and genitals. Mpox has been known to have an incubation period between 5-21 days. While it is usually self-limiting and resolves within two to four weeks after the last skin crusts fall off, severe cases can result in hospitalization or death.

There is a vaccine available for Mpox called Imvanex, manufactured by Bavarian Nordic. Europe has already pre-purchased millions of doses, and there are calls to distribute these to affected countries immediately. It is crucial that the price of this vaccine be made more affordable for lower-income nations as well.

In conclusion, Mpox is a serious global health concern that requires coordinated international efforts for prevention, control, and treatment. As with COVID-19, it is essential to avoid repeating the mistakes of the past, such as prioritizing access to vaccines and treatments based on income level. The ultimate goal is to establish a fairer distribution system that aligns with public health needs, ensuring that Mpox does not become another global crisis.

Warum streiten wir mit denen, die wir lieben **Offene Ideen** **ARTE (Video):**

The YouTube video discusses the importance of understanding and managing conflict through philosophical concepts, particularly focusing on interpersonal relationships. Key points include:

1. Interpersonal conflicts involve people we love and care about, making them more intense than other conflicts.
2. The conversation covers the idea that emotions are uncontrollable energies that can either drive us or lead to chaos in our lives.
3. Maxime Rouvert introduces the concept of interactional ethics, which focuses on understanding and managing interpersonal conflicts through rational thought instead of blaming individuals involved in the conflict.
4. The importance of empathy is highlighted as a way to overcome conflicts and gain a deeper understanding of others' emotions and perspectives.
5. The video also discusses the idea that people tend to see themselves as single entities, which can lead to misunderstandings and conflict when dealing with complex situations or emotional experiences.
6. Verbal communication is emphasized as a key aspect in managing conflicts and understanding others' perspectives.
7. Finally, the video concludes by stating that understanding and changing our own perspectives are crucial for navigating through life and embracing our interconnected nature with others.

5 AMAZING JavaScript Features You Probably Don't Know (Video):

The transcript of the YouTube video discusses five quirky features of the JavaScript programming language that might not be widely known or used by developers:

1. Variable scoping in JavaScript allows variables declared within functions to be accessible at the top level, regardless of where they are declared within the function. This means that if a variable is declared and assigned a value inside a function, it can still be accessed outside of that function.
 2. Let and const are two keywords used in JavaScript for declaring block scoped variables. While let creates a variable that can only be reassigned once, const makes a variable immutable, ensuring it cannot be changed after its initial declaration.
 3. Destructuring is a feature of JavaScript that allows developers to manipulate arrays and objects by assigning values from them directly to variables or function parameters. This can save time and reduce the amount of code required for complex operations involving arrays and objects.
 4. IIFE (Immediately-Invoked Function Expression) is an immediate invocation of a function in its own scope, creating a namespace that isolates data and functions from global namespaces. It is particularly useful in browsers that do not support top-level asynchronous programming.
 5. Proxies and reflect are advanced features of JavaScript used to intercept properties and methods of objects or functions. Proxies can be used for tasks such as input sanitization, while reflect can be employed to change the behavior of a target object based on its attributes.
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Alle Denkfehler beim Investieren in 15 Min. erklärt! (Video):

The video discusses 15 common investment decision-making biases, including the representative heuristic bias, anchoring effect, availability heuristic, self-attribution bias, and survivorship bias. These biases can lead to inaccurate decision-making and poor investment outcomes. Key points include:

1. Representative heuristic: We tend to overestimate the probability of a person belonging to certain professions based on their hobbies or interests.
 2. Anchoring effect: Our decisions are influenced by an initial piece of information, leading us to ignore other relevant facts.
 3. Availability heuristic: We tend to give more weight to information that is easily remembered and readily available.
 4. Self-attribution bias: When an investment is successful, we attribute it to our own abilities; when unsuccessful, we blame external factors.
 5. Survivorship bias: We focus on success stories and overlook the majority of failed attempts in a particular strategy or approach.
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Fotobücher erstellen ☐ günstig und schön ☐ ☐☐☐ Markt WDR (Video):

The video compares three smartphone apps for creating photo books - Journey Print, Pixum, and LaLaLab - and discusses their features and functionality. Key points include:

1. The three apps offer similar core services but have varying pricing structures and designs.
2. Each app has a different minimum page count, with Journey Print requiring at least 26 pages for €27, Pixum allowing customization, and LaLaLab's default being 24 pages for €37.
3. The apps offer varying levels of user control over design options and photo arrangement. For example, Pixum allows for more customization in page layouts and overall design.
4. The video demonstrates the final products from each app, with Journey Print producing a faded-looking result, Pixum offering high-quality prints, and LaLaLab having issues with color reproduction and a print defect.
5. Overall, the video suggests that users should compare options before choosing an app for creating photo books, as quality and price can vary significantly between providers.

Schlaflosigkeit [Wie gefährlich kann Schlafmangel werden](#) [Puls Check](#) [SRF \(Video\)](#):

The Transcript eines Youtube Videos discusses the effects of sleep deprivation on physical and mental health, as well as providing tips for parents to maintain good sleep habits. Key points include:

1. Sleep deprivation can have negative effects on both physical and mental health, including increased risk of obesity, diabetes, high blood pressure, heart diseases, infections, and even cancer. It can also impair cognitive functions such as memory, attention, reaction time, and mood regulation.
2. Parents, especially those with young children, are more prone to sleep deprivation due to disrupted and irregular sleep patterns caused by taking care of their child's needs like feeding, changing diapers, and calming them during the night.
3. To address sleep deprivation, parents can prioritize self-care, delegate household chores, switch off parental responsibilities, seek help when needed, and encourage sleep support from family members or professional counselors.
4. The video also highlights a challenge where Willi, the host of the YouTube channel, is tasked to take care of an infant simulator for five days without any proper sleep, experiencing the effects of sleep deprivation firsthand and providing insight into its consequences on daily life activities like concentration, mood, and decision-making.
5. The video emphasizes the importance of catching up on lost sleep and recognizing when one is too tired to ensure the well-being of both oneself and their child.

Ökonom erklärt einfach, was Christian Lindner nicht versteht [Interview mit @Maurice_Hoefgen \(Video\)](#):

The transcript of the YouTube video covers several topics related to politics, economics, and current events. Here's a detailed summary:

- 1. Resignation of Left Party Leaders (Wissler and Schürdde):** The hosts discuss the recent resignation of Bodo Wissler and Janine Schürdde as co-leaders of the German Left Party. They analyze the timing of their departure, just before crucial state elections in Thuringia, which they perceive as a negative sign for the party's chances.

- 2. The Future of the German Left Party:** The hosts explore the challenges faced by the German Left Party and discuss potential strategies to make it more appealing to voters. They emphasize the need for a focus on social issues that affect the lower 70% of the population, such as fair wages and affordable housing, rather than identity politics.
- 3. Mortgage Rate Brakes in Germany:** The hosts discuss the effectiveness of mortgage rate brakes, which are intended to control rising property prices but often go unenforced. They suggest that more proactive measures, such as a special fund for social housing or changes to the rental market, could be more effective in addressing the housing crisis.
- 4. Possible End of Ampel Government and Future of CDU:** The hosts predict that the current Ampel coalition government is unlikely to last beyond the next federal election, due to its perceived ineffectiveness. They discuss potential candidates for leadership within the Christian Democratic Union (CDU) and speculate on whether they might reform or abolish the debt brake.
- 5. European Union Trade Tensions with China:** The hosts address the EU's decision to impose tariffs on Chinese electric vehicles, comparing it to similar measures by the United States. They argue that these actions could lead to retaliation from China and further escalate trade tensions.
- 6. Ukraine-Russia War:** The hosts discuss the ongoing war in Ukraine and express their support for providing aid to the country in its defense against Russia. They also highlight the economic consequences of the conflict, particularly for Europe and the United States.
- 7. Monopoly Game as an Analogy for Government Debt:** The host uses the Monopoly board game as a metaphor to explain the differences between government debt and private debt. He argues that while governments can create their own currency and therefore cannot go bankrupt, this does not mean that poor policy decisions are acceptable.
- 8. Inflation in Japan:** The hosts discuss Japan's high level of public debt without significant inflation or bankruptcy. They attribute this to the government's ability to create new money to counterbalance private savings during a period of economic stagnation.
- 9. Economic Impulses in Germany:** The hosts consider the implications of both private and corporate saving, as well as potential government austerity measures, on the German economy. They note that while these factors may slow growth, the country's strong export surplus helps to balance out the impact.
- 10. Executive Summary:** In summary, the discussion covered a range of political and economic topics, from the future of the German Left Party to the implications of trade tensions with China and the ongoing war in Ukraine. The hosts emphasized the importance of focusing on social issues that affect the majority of the population, rather than identity politics, and highlighted the need for more proactive measures to address housing affordability in Germany. They also stressed the unique nature of government debt compared to private debt and explored potential explanations for Japan's high public debt without significant economic consequences.

Billionaire Pavel Durov arrested... The truth about Telegram (Video):

Telegram is a social platform created by Pavel Durov, who has been arrested in France and faces potential charges for money laundering, fraud, sanctions evasion, and more. The French government is unhappy with the lack of moderation on Telegram and its use of disposable phone numbers to

facilitate cryptocurrency transfers that cannot be monitored by authorities. While most things on Telegram are encrypted, not all content is end-to-end encrypted, which has led to criticism from security researchers. The distributed infrastructure across multiple countries makes it difficult for authorities to access user data without coordinating with multiple legal systems. As the case of Pavel Durov unfolds, it raises questions about the role of encryption in preserving privacy and freedom against government surveillance and interference.

Wohnung mieten ☐ Warum fehlt es an bezahlbarem Wohnraum ☐ ☐ #NDRfragt (Video):

The main topics of the transcript are: 1) Rising rent costs in Germany; 2) Mieterschutzbund's role in mitigating drastic rent hikes; and 3) the challenges faced by both tenants and landlords due to increasing living expenses.

Key points and arguments include:

1) Kimberly Zybock and her husband, who have been renting a 140 sqm apartment for about seven years, faced a 25% rent increase from their landlord last year; they managed to temporarily avoid the hike with help from the Mieterschutzbund.

2) Increased living costs are a problem for many people, as shown by survey results in which 59% of Niedersachsen respondents stated that they don't necessarily have to financially cut back due to high rent, but 39% claimed that they often or occasionally save money elsewhere because of their high rent.

3) Rainer Stutzmann, a private landlord and homeowner, has experienced financial challenges with his own investments in renovating an old house; he believes the current situation is not sustainable due to increasing costs for landlords and tenants alike.

4) The majority of survey respondents (75%) believe there is a shortage of affordable housing in their region, with many citing high construction and energy costs as well as a lack of social housing as significant issues.

5) Migration and the increasing power of a few real estate conglomerates are also seen as contributing factors to the housing crisis.

Executive Summary: The transcript discusses the challenges faced by tenants and landlords in Germany due to rising living costs, including rent hikes and increased construction expenses. The Mieterschutzbund plays a role in mitigating drastic rent increases for some tenants, but many still struggle to find affordable housing. Many believe that there is an insufficient supply of reasonably priced housing available, and this issue has been exacerbated by factors such as migration, high construction costs, and the growing power of real estate conglomerates.

Warum im Irak jetzt Ehen mit Minderjährigen erlaubt werden sollen ☐ DW Nachrichten (Video):

The discussion revolves around the controversial proposed amendment to the Iraqi Personal Status Law that has sparked debates and concerns among people in the country. One of the main topics is the issue of child marriage, which remains prevalent in Iraq due to economic reasons. A key argument

against the proposed amendment is the promotion of sectarianism and the undermining of women's rights. Critics argue that this change could lead to legalizing child marriages and thus harming girls who are forced into early marriages, impacting their overall well-being. Another significant topic is the potential restriction of women's rights within the country, which has been a longstanding struggle for the Iraqi female community. The speaker emphasizes that such an amendment would not only affect young girls but also potentially jeopardize the progress made in terms of women's rights. In summary, the debate revolves around the potential negative consequences of the proposed amendment to the Personal Status Law on women's rights and well-being in Iraq.

Das üble Geschäft mit Wasser (Video):

The topic of the video is about the business of bottled water and how it affects our environment, health, and economy. Key points include:

1. **Bottled Water Industry:** Michael Schäf, who runs Altmühltaler Mineralbrunnen GmbH, has become a billionaire through selling groundwater for an incredibly low price and making huge profits from bottling it as mineral water.
 2. **Environmental Impact:** Treuchtlingen's water supply is being drained for the sake of bottled water production by Nestlé, which often has to pump more water than is naturally replenished. This has led to a decline in groundwater levels and negative effects on local ecosystems.
 3. **Health Concerns:** Drinking bottled water instead of tap water can lead to increased consumption of sugary drinks, which contribute to obesity and other health issues.
 4. **Economic Implications:** The bottled water industry is highly profitable but has a negative impact on the environment and local communities. It also encourages people in developing countries to spend a large portion of their income on something that should be easily available for free.
 5. **Alternatives:** Encouraging tap water consumption, recycling plastic bottles, and adopting refillable systems can help reduce the environmental impact of the bottled water industry.
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6 Inventions That Are Older Than You Think (Video):

The video discusses six inventions that were ahead of their time and shares the origins of these inventions. Here are the key points:

1. Heron of Alexandria invented the world's first steam turbine, an aeolipile, around the late first century AD. This invention paved the way for more efficient engines that powered machines during the Industrial Revolution.
2. Nicolas-Joseph Cugnot built the first horseless carriage, a three-wheeled vehicle called fardier à vapeur, in 1769, which was powered by steam. This concept eventually led to modern automobiles.
3. The ice-making refrigerator dates back to ancient Persian yakchals, used for storing ice in the desert. These yakchals were capable of making their own ice through passive cooling and insulation techniques.
4. Early Paleolithic cave art may have been an early form of animation due to the flickering firelight

that would have created movement when viewing the images.

5. Contact lenses have been around since the 12th century, with Thomas Young crafting the first-ever contact lenses in 1801. Advancements in materials and design led to corrective contact lenses becoming viable by the 1940s.

6. The countersign lock, invented around 1908, was a voice authentication device based on phonograph technology. Modern voice authentication relies on more sophisticated software that analyzes various aspects of an individual's voice.

What Mic Type Should You Get? Studio, Lav, Headset, Shotgun (PGOA 1.3) (Video):

This transcript discusses the various types of microphones available for different use cases. Some key points include:

1. Large diaphragm dynamic microphones, such as Shure SM7B and ElectroVoice RE20, are popular for podcasting.
2. Studio condenser microphones, like Lewitt LCT440 and Audio-Technica AT2035, are primarily geared towards music but can work well for spoken word.
3. Handheld mics, including Shure SM58 and Sennheiser MK4, are stage mics that reject background noise and offer more freedom to move around.
4. Small diaphragm condenser or shotgun microphones can be used overhead to capture audio without blocking the subject's face.
5. Lavalier or lapel microphones clip directly to clothing, providing flexibility while minimizing background noise and unwanted sound.
6. Headset microphones are suitable for work calls and voice recording, offering good audio quality without being too invasive.

The video explains how the use of microphones depends on their proximity to the subject (from 1 inch to 12 inches) and whether they are within or out of frame. Proximity effect, sensitivity, and signal-to-noise ratio play a crucial role in determining the best microphone type for each use case. The video also introduces polar patterns as a topic for further exploration.

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