

# Links für 2024 KW 38

Zusammengefasst von [LlongOrca](#).

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## **No One Builds in Public:**

The article discusses the „build in public“ practice within the indie hacker community, where creators share their company's story and progress with transparency and vulnerability. The author questions whether people are overdoing it by focusing on achievements rather than ideas and plans for their products. They also question the effectiveness of build in public, as attention may be diluted when everyone is sharing their experiences. The article suggests that while build in public can work for some, it's not the only way to succeed, and indie hackers should not feel pressure to follow this method if it doesn't align with their goals or preferences.

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## **Long genetic and social isolation in Neanderthals before their extinction:**

The article discusses the discovery of a Neanderthal body and its genome found in Grotte Mandrin in Mediterranean France. The genetic analysis reveals that this individual, nicknamed „Thorin,“ belonged to a population with a small group size and a long genetic isolation. These findings suggest a more complex population structure among late European Neanderthals than previously thought and may provide new insights into their social organization and extinction.

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## **Love of cargo bikes is changing how we deliver goods in our cities:**

Cargo bikes are increasingly popular in Europe as a sustainable alternative to delivery vans, with up to 50% of motorized trips involving transport of goods in cities potentially being made by cargo bikes and bicycles. These larger, typically electric bikes with separate carriers can transport various loads and are ideal for urban deliveries. Cargo bikes offer faster delivery times, lower emissions, and reduced costs compared to traditional vans. However, challenges such as limited load capacity and range, as well as weather conditions, exist. Subsidies and improved cycling infrastructure can help increase cargo bike adoption.

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## **Ask HN: Is Nextcloud a Great Alternative to Dropbox/Google Drive for Startups?:**

The article discusses the pros and cons of self-hosting email calendaring systems versus using third-party services like Google Workspace. Self-hosted solutions can be more cost-effective, but they may come with higher maintenance requirements, security concerns, and downtime risks. In conclusion, whether to self-host or use a third-party service depends on the specific needs and resources of an organization.

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## Table of Contents:

This article explains how to create Android apps using C programming language and NDK (Native Development Kit) without the need for Java. It provides a framework named „rawdrawandroid“ that allows users to create their own APKs, install them in a matter of seconds, and use them with a small size of around 25kB (with API 26). The article also discusses the benefits of using C code for Android development and includes a Youtube video and GitHub repository for more information.

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## Training LoRA on Flux:

This article discusses the process of training models using Flux AI technology. The steps involved in training models include gathering and refining datasets, choosing appropriate training software, setting up training parameters, testing model versions, and generating outputs. It also highlights the importance of captioning and the quantity of images in creating high-quality results. Finally, the article emphasizes that Flux is a forgiving model for realistic image creation but may require more fine-tuning for specific purposes or commercial use.

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## The sorry state of Java deserialization:

This article discusses the challenges faced when reading data from disk, especially in high-performance search engine work. The author compares various methods for accessing and processing large amounts of data, such as Parquet, Protobuf, JDBC, Java's stream and NIO APIs, and DuckDB. It highlights that modern hardware is fast, but using high-level tools at one's disposal can lead to significant performance issues when dealing with hundreds of gigabytes of data. The article concludes by emphasizing the importance of focusing on disk I/O performance for faster and more efficient operations in search engine work.

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## The unknowns surrounding the mysterious rise of cancer in young adults:

The European Society for Medical Oncology (ESMO) has highlighted an increase in cancer among young adults, with tumors in people under 50 increasing by almost 80% over the past 30 years. While experts agree that current lifestyle habits play a significant role, they are unsure whether this alone is responsible for the rise in early-onset cancer cases. Cancer researcher Shuji Ogino emphasizes that early-onset cancer may be influenced by both nature and nurture, with exposure to long-term risk factors beginning in childhood or even before birth. The exact weight of each risk factor at any given time and how they interact is currently unclear.

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## PuLID:

The article discusses the PuLID, or Pure and Lightning ID Customization via Contrastive Alignment, an open-source code repository for image generation. The project was developed by the authors and aims to create high-quality images through contrastive alignment. The repo is regularly updated with new features and improvements, and users are encouraged to explore the provided examples and demos to utilize PuLID effectively. The article also mentions other third-party implementations and

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resources related to PuLID, and provides information on installing and using the code.

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### **Insecure software makers are the real cyber villains - CISA:**

Jen Easterly, the boss of the US government's Cybersecurity and Infrastructure Security Agency, has argued that technology vendors are the main cause of cyber crime problems due to shipping buggy and insecure code. She stated that these issues open doors for villains to attack their victims. Easterly called for more responsibility from software companies and suggested using terms like „product defects“ instead of „software vulnerabilities.“ Additionally, she encouraged the use of procurement power by technology buyers to pressure vendors to adopt secure-by-design practices in their development process.

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### **Nextcloud: Open-Source Cloud Apps | Hacker News:**

Nextcloud is a popular open-source cloud storage platform that allows users to host their own private cloud servers. It has been around since the fork from OwnCloud in 2016 and offers a range of features such as file storage, syncing, and sharing, as well as integration with other services like calendars, contacts, and notes.

However, Nextcloud has faced criticism for its performance issues, instability, and lack of focus on core functionality while expanding into different areas. Some users have also experienced data loss during upgrades or reported bugs in the software. Despite these challenges, many people continue to use Nextcloud for its ease of use, ability to replace Google services like Drive and Docs, and the control it gives over personal data.

There are alternatives available such as OwnCloud Infinite Scale, but overall, Nextcloud remains a popular choice among self-hosters due to its comprehensive feature set and community support.

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### **How streaming LLM APIs work:**

This article discusses the HTTP streaming APIs from various hosted LLM providers, including OpenAI, Anthropic, and Google Gemini. These APIs use a content-type: text/event-stream header that matches the server-sent events mechanism, streaming blocks separated by \r\n\r\n. The article explores how to access these streams using HTTPX and provides examples of accessing OpenAI's stream with Python.

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### **Mini-Omni:**

Mini-Omni is an open-source multimodal large language model that can hear, talk while thinking, and offers real-time end-to-end speech input and streaming audio output conversational capabilities. It features real-time speech-to-speech conversational capabilities, and no extra ASR or TTS models are required.

## **Sanding UI:**

The article describes the process of testing and refining web development through trial and error. It highlights the importance of clicking around and trying to break things as a QA tactic, comparing it to woodworking where you smooth out rough edges until satisfied with the result. The author shares an example of discovering a dead spot in the UI while working on a list of radio options and how they fixed the issue by adjusting padding and removing the gap from the flex display.

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## **ComfyUI-All-in-One-FluxDev-Workflow:**

This article describes a GitHub repository featuring an all-in-one FluxDev workflow for image generation with ComfyUI. The workflow combines various techniques like img-to-img, text-to-img, LoRAs, ControlNets, Ksampler, and more. It aims to help users create high-quality images while efficiently utilizing the ComfyUI manager. The author also provides installation instructions and recommendations for different versions of the Flux model and its compatibility with specific hardware configurations.

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## **mistralai/Mistral-Small-Instruct-2409 · Hugging Face:**

This article explains how to determine the frequency of the letter „r“ in the word „Mistral.“ By breaking down the word into its individual letters and counting, it is concluded that there is only one instance of „r“ in the word.

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## **stepfun-ai/GOT-OCR2\_0 · Hugging Face:**

This article discusses using Huggingface transformers on NVIDIA GPUs for UsageInference, with requirements tested on Python 3.10. The main contributors are Haoran Wei, Chenglong Liu, Jinyue Chen, and others. The paper focuses on a unified end-to-end model for OCR-2.0, fine-grained multi-page document understanding, vision vocabulary scaling up, and more multimodal projects by the team.

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## **Zeitung: Bislang rund 180 unerlaubte Einreiseversuche an Westgrenze:**

The expansion of controls to Germany's West and North borders aims to reduce irregular migration, but the results so far are disappointing. According to an initial report, after extending border controls to all German land borders, 182 unauthorized entry attempts have been detected at the Western border, with 100 of them being prevented from entering directly. Asylum seekers are not currently being turned away as their applications must be assessed first; however, a change is currently under political discussion. The number of asylum requests has not shown any decrease, and even increased slightly during the initial days following the expansion of controls. Based on data from the Federal Office for Migration and Refugees, there have been 3,626 asylum applications in the first four days after the expanded border controls started, compared to 3,581 and 3,063 during the same time

periods two weeks prior. The contribution of the new border controls to reducing irregular migration is „negligible“, according to the article.

Numbers from the Eastern and Southern borders suggest that unauthorized entry attempts and refusals are much higher in these areas compared to the Western border. Since mid-October, around 52,000 unauthorized entries have been detected and approximately 30,000 people have been turned away at the Eastern and Southern borders due to invalid or missing travel documents.

Border controls on the West and North German borders were implemented by Interior Minister Nancy Faeser as a means of further restricting irregular migration, stopping human traffickers, identifying and preventing Islamists from entering Germany. However, critics argue that these borders are less significant for irregular migration than those in the south or east, and it is difficult to control borders within an open European Union without causing considerable disruption to regular traffic and personnel.

The German police union (GdP) has also highlighted this issue, stating that known checkpoints will be avoided by unauthorized migrants. Border controls are mainly carried out at major road crossings rather than throughout the entire border. Additionally, officials have pointed out that the increased focus on border controls may lead to a shortage of personnel in other areas.

Criticism from neighboring countries has not abated; Luxembourg's Interior Minister Leon Gloden emphasized that the Schengen Agreement with open EU internal borders should not be called into question, as it is an achievement of European integration. He warned against reestablishing mental barriers between nations. The President of the Federal Criminal Police Office, Holger Münch, praised the expanded border controls for their impact on human trafficking. However, he also emphasized the need for strong international cooperation in fighting human smuggling networks.

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### **The Collapse of Self-Worth in the Digital Age | The Walrus:**

This article discusses the impact of market forces on artists and their work. The author argues that the intrinsic value of art becomes emptied out when it enters the market, as its worth is compacted by external metrics such as sales figures and rankings. Artists are increasingly pressured to monetize their personal lives through social media in order to succeed financially. The article also highlights how technology automates our inner worlds and influences our decisions, creating a dependency on the public internet for validation of self-worth. It concludes by emphasizing that there's always more line left to braid, as artists can reinflate their sense of value through continuous creation.

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### **Sotergreco:**

In this article, the author shares their experience as an engineer for over 7 years and discusses some tricks they've learned to help climb the programming ladder. They emphasize the importance of creating software that is reliable and easy to work with. The author also talks about the #1 problem everyone should focus on - Developer Experience, which can often be overlooked in the pursuit of fast results. They provide examples of good coding practices and discuss unit testing, code coverage, and tools like Husky for improving code quality. Overall, the article aims to help readers improve their programming skills and create better applications by emphasizing the importance of slowing down and focusing on creating reliable software.

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## Cards against humanity sues Elon Musk:

In 2017, Cards Against Humanity raised \$15 from 150,000 people to protect a plot of land from Trump's wall. Elon Musk, another billionaire, took over the land and damaged it with gravel, tractors, and space waste. Cards Against Humanity is now suing Musk for \$15 million, with the intention to equally split the lawsuit's proceeds among its original subscribers. This action aims to preserve Cards Against Humanity's reputation for fulfilling its promises and to ensure they can trust the company in the future.

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## GitHub - myshell-ai/MeloTTS: High-quality multi-lingual text-to-speech library by MyShell.ai. Support English, Spanish, French, Chinese, Japanese and Korean.:

The article discusses the MeloTTS library, a high-quality multi-lingual text-to-speech (TTS) library developed by MIT and MyShell.ai. The library supports various languages, such as English, Spanish, French, Chinese, Japanese, and Korean. Some features of MeloTTS include Chinese speaker support for mixed Chinese and English, and real-time inference capabilities for CPU. The article also highlights the Python API, model cards, and various usage options, as well as the possibility of contributing to the repo and citing the authors.

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## I Like Makefiles:

The author likes makefiles, a simple automation tool that can be used across different technologies and frameworks. Makefiles follow an unwritten convention for implementing commands to build and deploy projects. They are easy to write, fast, and do not require additional dependencies as they often come pre-installed on Linux systems. While the author appreciates other build tools, makefiles provide a familiar set of commands for managing various project types with different tools.

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## Porsche's idea for a six-stroke internal combustion engine:

The article is discussing the continuation of research and development on internal combustion engines (ICE) alongside electric vehicles (EV). Some argue that ICEs are a „dead end“ technology, while others believe there is still value in refining and advancing the technology. Factors contributing to the continued focus on ICE include niche applications, efficiency gains, and the potential for alternative fuels such as biofuels or e-fuels. The article highlights that even though electric vehicles are gaining popularity, it will likely take several decades to completely replace all fossil fuel-powered vehicles with EVs, making ICE research and development a worthwhile endeavor.

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## The WWII German Army was 80% Horse Drawn; Business Lessons from History:

The German Army's reliance on horses for transport during WWII was a key factor in their military operations. With 80% of their entire transport being equestrian, they had an average of 1.1 million horses throughout the war. The allies had a strategic advantage with mass production of motorized

vehicles and access to fuel worldwide. Collaboration plays a significant role in modern businesses and can be compared to the machine gun's development and usage during WWI. Legacy IT infrastructure can become outdated, reinforcing old-fashioned ways of doing things. Seeking tactical advantage through collaboration is crucial for companies to stay competitive in a constantly evolving economic climate.

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### **Bürger wählen Bürgermeister, der gar nicht kandidiert:**

In the Bavarian city of Röttingen, citizens elected a mayor by an absolute majority who was not even on the ballot paper. The only candidate for the position, a CSU politician, was defeated by the non-candidate. Under Bavarian municipal elections, any German over 18 years old can be listed on the ballot, which was the case with Steffen Romstöck. Citizens campaigned for him through WhatsApp groups even though he did not officially run. The main reason for the apparent dissatisfaction seems to be that a CSU politician was ultimately elected with the help of a political alliance in the city council. Despite being a non-candidate, Romstöck has prior local experience having served as third mayor for six years.

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### **Why Ruby on Rails Will Never Die: A Veteran Coder's Perspective | by Kenroy Reid:**

The article discusses why Ruby on Rails continues to thrive in the web development world despite its age and numerous claims of being „dead.“ Key reasons for its continued success include maturity and stability, productivity out of the box, a vibrant ecosystem, a supportive community, powering major platforms, continuous evolution, applicability beyond startups, and the human element. With many large companies still utilizing Rails, its adaptability to modern development trends, and its focus on developer happiness, it is unlikely that Ruby on Rails will be replaced anytime soon.

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### **Porsche's Idea for a Six-Stroke Internal Combustion Engine Looks Brilliant:**

Porsche has patented a six-stroke internal combustion engine design that uses a special crankshaft to create extra compression and power strokes per cycle, potentially generating more power with better efficiency in comparison to traditional four-stroke engines. This innovative concept may be an attempt by the company to find ways to maintain combustion engines amidst increasing electric vehicle adoption.

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### **Container Desktop:**

The article discusses Container Desktop, a cross-platform desktop integrated application that works on Windows, Mac, and Linux with the same graphical interface. It is designed to help users improve their skills and learn features of 'podman'. The dashboard provides essential functions for managing containers, images, networks, pods, machines, secrets, and volumes in a user-friendly manner. Users can also access logs, environment variables, mounts, opened ports, monitoring stats, and more through the application's interface.

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## **The Algorithm and the Hippocratic Oath:**

The article discusses the challenges faced by doctors today due to changes in their work environment. With the rise of large companies employing more doctors, an increase in rules for practicing medicine, and a focus on patients over doctors, many doctors feel lost and disoriented. Medical humanities, particularly bioethics and narrative medicine, have attempted to help doctors deal with these issues but have not been as helpful as needed due to their emphasis on patients' rights and experiences rather than doctors' inner worlds. The author proposes a fourth iteration of medical humanities - clinical humanities - which would focus on mental health and scientific medicine, the scientific method, the „good life,“ and a doctor's identity and role in society. This new approach could potentially stabilize doctors' sense of identity and improve their understanding of various situations, ultimately giving them more control over their professional lives.

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## **Dropbox keeps threatening to delete my files - Stanislav Khromov:**

The user narrates their experience with Dropbox, where they were assured that files would not be deleted even after canceling the subscription and leaving a terabyte of data with them. Despite the company's assurance, Dropbox tried various tactics to win back the user, such as setting a date for file deletion and then retracting it. The user questions whether they can trust corporations to keep their word and highlights flaws in the business model where files are hosted indefinitely for non-paying customers.

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## **MemoRAG: Moving Towards Next-Gen RAG Via Memory-Inspired Knowledge Discovery:**

The article discusses a memory-based data interface called RAG for all-purpose applications. It is licensed under Apache-2.0 and has 463 stars and 27 forks.

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## **Stop Designing Your Web Application for Millions of Users When You Don't Even Have 100:**

The article advises against designing web apps for millions of users from the outset, as it is a waste of time, money, and energy that could be better spent on improving product features and growing the user base. It is important to focus on building something people want to use in the present moment, rather than worrying about future scalability needs. As you gain more users, you'll have a better understanding of what kind of scaling your app will require. Scaling infrastructure can be done later when there is a need for it, and modern cloud platforms make this easier than ever before.

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## **Foundations:**

This article summarizes the economic state of Britain and proposes a path to its rejuvenation through investment, housing, infrastructure, and energy reforms. It argues that the UK's current economic stagnation is due to systemic barriers preventing necessary investments in these areas. The essay compares Britain's performance with other developed countries like France, highlighting how France's

more permissive development policies have contributed to its higher productivity despite heavier taxation and regulation.

The article identifies several key issues: underinvestment, housing shortages, high infrastructure costs, and rising energy prices. It suggests that these problems are interconnected and can be traced back to the 1947 Town and Country Planning Act, which introduced restrictive development controls. This act has limited housing supply, particularly in prosperous cities, leading to high costs and a lack of affordable homes. The result is that people cannot move to take up better jobs, businesses struggle to expand, and overall productivity suffers.

In terms of infrastructure, the article argues that Britain's centralized system for funding and consenting projects has led to increased costs and delays, making it difficult to build necessary roads, railways, trams, and other systems. This is compounded by environmental assessments, judicial reviews, and consultations that add expense and time to project delivery.

Energy costs have also risen significantly in Britain due to a reliance on intermittent renewable sources like wind and solar power, which are more expensive than traditional power plants when considering the full system-level costs. The article suggests that nuclear power could provide a solution with its constant output and zero carbon emissions. However, high construction costs due to regulatory processes have made it less competitive compared to other countries like South Korea.

The essay concludes by asserting that Britain can experience rapid economic growth if these barriers are removed, allowing for increased investment in housing, infrastructure, and energy projects. This would lead to higher productivity, innovation, and prosperity, addressing many of the country's social and economic challenges. The authors believe that previous periods of reform like the 1930s offer a model for successful rejuvenation, suggesting that with the right policies, Britain can regain its position as an economic leader.

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### **Linux/4004 - Dmitry.GR:**

This article is about a project to run Linux on an Intel 4004 microprocessor from 1971, which is considered the first microprocessor in the world. The author explains the architecture and limitations of the 4004, and how they overcame these challenges to create a working system that can boot a version of Linux. They also discuss the process of building hardware to support this project, including level shifters, power supplies, and debugging techniques. Additionally, they provide insights into optimizing the performance of their emulator and offer advice for anyone interested in replicating the project.

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### **CuPy : NumPy & SciPy for GPU:**

The article discusses the popularity and features of the NumPy & SciPy libraries, which have been combined with GPUcupy.dev for a powerful GPU computing solution. The project is licensed under MIT license, has received 8.4k stars, and is currently being developed by 818 contributors. Users can fork the project and customize their notifications. However, some actions may be temporarily unavailable to users who are not signed in.

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## **Linux Horror Stories and Protection Spells (Volume I):**

The article discusses the author's experiences with using Linux and some common problems faced by users, such as updating drivers, accidentally removing files, and dealing with too many files in a directory. It also provides tips on how to avoid these issues, such as using find command for locating and deleting specific files, protecting folders from being removed, and regularly backing up the machine. The author emphasizes that while there may be challenges in using Linux, these can often be overcome with careful usage of certain commands like find.

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## **Rice research could make weird AI images a thing of the past:**

Researchers at Rice University have developed a new method, ElasticDiffusion, to address the inconsistencies in generative artificial intelligence (AI) images. This method separates the local and global signals and applies them to the image in quadrants, ensuring global consistency while minimizing repetitive details. Although the new method currently takes up to six to nine times longer than other models like Stable Diffusion or DALL-E, the researchers are working towards reducing inference time.

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## **The Architecture of Open Source Applications:**

The Architecture of Open Source Applications (AOSA) is a book that explores the architectural design and development process of open source applications, while providing insights into how developers think. With contributions from authors of 48 open source projects, AOSA aims to change the way software developers learn from one another's work. The first volume focuses on major components of these programs, while the second volume covers their performance and the third volume features short, simple applications with 500 lines or less of code. All royalties from sales are donated to Amnesty International.

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## **Die häufigsten Geburtstage:**

On average, 19,400 people in Austria celebrate their birthdays every day. The most common birthday is September 22nd, with 20,994 people celebrating it. In the second half of September, seven out of ten most frequent holidays fall. Births peak nine months earlier during the festive and cold period between Christmas and Epiphany. Overall, many people have birthdays above average from mid-January to mid-March and mid-September to early October. Fewer birthdays occur after October, especially on public holidays like National Day (17,617 on October 26th) and All Saints' Day (17,615 on November 1st). Births on Christmas Eve are even rarer, with only 17,061 people celebrating in Austria. On Leap Year, February 29th, a total of 4,950 people celebrate their birthdays, which is almost two percent higher than the expected average of 4,856 people. The likelihood of being born on a leap day is one in 1,461. Births are also lower on weekends, with an average decrease of two

percent on Saturdays and four percent on Sundays due to hospital scheduling for cesarean sections.

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### **Bürokratieentlastungsgesetz: "Ein Geschenk an Kriminelle":**

The German government is set to pass a new law that could make it more difficult for tax authorities to investigate complex fraud cases like Cum-Ex and Cum-Cum, which have seen billions of euros stolen from the public purse. The proposed legislation reduces the retention period for tax and accounting documents from ten years to eight. Critics argue that this makes it easier for criminals to destroy evidence before they can be prosecuted, while supporters claim the move will save businesses money by reducing the need for costly company archives. The German Tax Gewerkschaft (GTG) warns that public trust in the country's tax system could be undermined by the changes.

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### **How Israel Built a Modern-Day Trojan Horse: Exploding Pagers:**

The Israeli government orchestrated an elaborate ruse by manufacturing Hezbollah devices that exploded, resulting in at least 20 deaths and over 2,700 injuries across Lebanon. The pagers alerted Hezbollah operatives to a message from their leadership, followed by the sounds of explosions and cries of pain. The explosives were contained within just a few ounces of an unspecified compound. This event occurred a day after walkie-talkies began mysteriously exploding in Lebanon, killing more people and wounding hundreds more.

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### **EU-Verordnung: Immer mehr Medizinprodukte verschwinden:**

The EU-Medical Device Regulation (EU-MDR) has come under criticism since 2017, as it requires all medical devices to be recertified, leading some products to disappear from clinics due to them not being manufactured for the European market anymore. Instead, manufacturers are opting to produce for non-European markets instead, finding that EU certification is too expensive and time-consuming. This has caused a scarcity of certain medical products in Europe, particularly niche items or those used less frequently. The issue affects clinics across Germany, with some reporting difficulties in acquiring necessary materials, and even product shortages or discontinuations. Klinikum Bamberg has reported that up to 10% of their medical supplies are affected by this issue.

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### **Up to a Quarter of Rental Inflation Is Due to Price-Fixing:**

The Department of Justice (DOJ) has filed a complaint against software and consulting firm RealPage, accusing it of participating in a broad conspiracy among corporate landlords to increase rents nationwide. RealPage's clients control 16 million units across the US, which is equivalent to 36% of America's renting households. The alleged price-fixing scheme has potentially contributed up to a quarter of rental inflation between 2020 and 2024. RealPage's software is designed to offer a „revenue lift“ of 3% to 7% year-over-year, even during downturns. The company allegedly encouraged excessive rent prices by collecting sensitive information about the market and providing clients with data from other subscribers.

## **GitHub Notification Emails Hijacked to Send Malware:**

The article highlights an attack on GitHub users where attackers impersonate GitHub security to send malicious emails directly to project maintainers. Using a throw-away GitHub account, attackers create issues, delete them, and then the owner receives a notification email. When they click the link in the email, it infects their system with malware. The article suggests that GitHub can improve its notification emails to reduce the effectiveness of this type of attack by providing more context about what action the email is for, reducing attacker-controlled content, and improving clarity about the sender of the email.

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## **Visual guide to SSH tunneling and port forwarding:**

The article discusses the uses of SSH tunneling and port forwarding, their configurations, and various use cases. It highlights how these techniques can encrypt insecure connections, access web admin panels securely, and bypass firewalls or content filters. Some limitations are mentioned, such as UDP not being supported due to a lack of reliability and SSH tunneling not being a VPN replacement. The author also shares some experiences and tips for troubleshooting and keeping SSH connections alive.

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## **Simple Icons:**

This article is a comprehensive list of various technology-related terms and their respective logos, including programming languages, software tools, platforms, and companies. The list covers a wide range of topics such as web development, cloud services, gaming, social media, and more. It includes well-known entities like Google, Microsoft, Apple, Amazon, Facebook, Twitter, GitHub, Netflix, Spotify, Tesla, and many others. Each entry is followed by the logo associated with it.

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## **gaining access to anyones browser without them even visiting a website - eva's site:**

This article discusses a vulnerability in the ARC browser that allowed attackers to potentially execute arbitrary code on targeted websites. The issue was rooted in the way ARC stored boosts and user IDs, which could be manipulated by an attacker using various methods such as user referrals or sharing easels. The vulnerability was fixed after being reported and a bounty was awarded to the researcher who discovered it.

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## **Yes, you can have exactly-once delivery:**

The article discusses an obscure technical issue in distributed systems and its relation to human communications, particularly regarding disagreements that appear to be about technical issues but are actually about the meanings of words. It highlights how a debate on whether „exactly-once delivery“ is possible turned into a dispute over terminology. The author explains his perspective on the subject based on his background in computer science and experience with network architecture, and argues that „exactly-once delivery“ is achievable through various methods.

## **How We Found Bin Laden: The Basics of Foreign Signals Intelligence:**

No Such Podcast is set to be released on September 5th, 2024. It will feature various episodes discussing the history and contributions of women in the National Security Agency (NSA), artificial intelligence (AI) and its implications for national security, as well as the integration of cybersecurity into overall national security efforts. The podcast aims to shed light on NSA's work and provide insight into the agency's missions and operations.

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## **Simple Icons:**

The article is a comprehensive list of various software, platforms, and services across different industries such as technology, design, gaming, finance, etc. The list includes both well-known entities like Google, Apple, Amazon, and lesser-known ones like Zingat, Zyte, etc. Each entry in the list provides information about the brand, its logo, and sometimes additional details such as the license under which it operates. The article is a valuable resource for anyone looking to reference or research various software and services across different sectors.

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## **Simple Icons:**

This article provides a comprehensive list of various technology companies, programming languages, frameworks, platforms, and tools used in the tech industry. The list includes well-known organizations like Google, Facebook, Microsoft, Apple, and Amazon, as well as lesser-known entities such as Zaim, Zalando, and Zigbee2MQTT. It covers a wide range of areas including cloud services, operating systems, software development tools, gaming platforms, social media networks, cybersecurity solutions, and more. The list is organized alphabetically for easy reference.

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## **An In-Depth Guide to Contrastive Learning: Techniques, Models, and Applications:**

This article discusses the concept of self-supervised learning, specifically contrastive learning (CL), and its application in machine learning. Contrastive learning focuses on maximizing similarities between positive data pairs while minimizing them for negative pairs. It has been successfully applied to computer vision tasks such as image classification and has recently emerged in the field of natural language processing with models like CLIP. In addition, contrastive learning can be used in conjunction with vector databases for various applications like zero-shot recognition, recommendation systems, document retrieval, and anomaly detection.

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## **Diversification is a negative price lunch - Outcast Beta:**

The diversification assessment framework provided by conventional finance theory is not applicable to what long-term investors really care about - compounded returns. As long-term investors care about geometric (instead of arithmetic) expected return, we find that diversifiable risk is uncompensated and costly. Consequently, diversification is free and has a negative price lunch effect.

The Markowitz single period model based on annualized arithmetic returns cannot be used to assess the diversification effect on returns compounded over time as it does not consider idiosyncratic variance drag. Diversification premium is determined by portfolio's idiosyncratic variance, which is scaled by the square of investment fraction (stock allocation), and high stock allocation emphasizes diversification premium. Fat-tailedness of stock returns further increases the need for diversification.

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### **How to Measure Progress in a Software Project:**

The Agile Manifesto emphasizes working software as the primary measure of progress, rather than estimates or sizing. This approach focuses on delivering software frequently and gathering feedback from customers. However, some practitioners have reverted to traditional estimation methods, leading to failed projects similar to those in waterfall processes.

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### **How Pediatricians Created the Peanut Allergy Epidemic (Archive.is):**

This article discusses the peanut allergy epidemic in the US and how pediatricians contributed to its creation. In the 1990s, the American Academy of Pediatrics (AAP) recommended that children avoid all peanuts before age 3 due to public concern. This advice led many well-meaning pediatricians and parents to follow the guideline. However, by 2004, the rate of peanut allergies had soared, leading many schools to enact peanut bans. Dr. Gideon Lack, a pediatric allergist and immunologist, discovered that Israeli infants were fed a peanut-based snack and had much lower rates of peanut allergies. A later clinical trial in 2015 supported Lack's findings, suggesting early exposure to peanuts could reduce the risk of peanut allergies. The article criticizes medical dogma and highlights the importance of basing health recommendations on scientific studies rather than opinions.

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### **Fashion design with tariffs in mind:**

Columbia Sportswear, a global company that makes outdoor and sports clothing, has been dealing with tariffs for decades by designing products in accordance with American tariff policy. They practice „tariff engineering“, intentionally designing women's garments with pockets below the waist to lower the cost of importing them. The current duty rate on an item might have been lowered because of a previous trade negotiation, and the rationale for a specific duty rate is often arbitrary. Tariffs on textiles date back to President George Washington signing the first tariff bill into law in 1789.

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### **How we accidentally burned through 200GB of proxy bandwidth in 6 hours:**

Skyvern is an AI agent that helps companies automate workflows in the browser using proxy networks and headful browser instances in the cloud. The company experienced a sudden increase in proxy bandwidth usage, leading to further investigation. It was discovered that Google's machine learning model was being downloaded repeatedly due to Skyvern not persisting browser state between sessions. To solve the issue, two potential solutions were implemented: running chrome locally and saving the user\_data\_dir which includes the model, and introducing a rule into the sidecar proxy to block the specific URL.

## **The Anti-Rock Star:**

Leonard Cohen, a renowned singer-songwriter and poet, never enjoyed touring but eventually returned to the stage in 2005 after discovering his bank account had been nearly emptied by his business manager. Despite being in his late 50s at the time, he rehearsed with a band for months, focusing on playing his songs more quietly and elegantly than ever before. His audience grew larger as Cohen's performances touched emotional chords across generational divides, which was attributed to his music being distinctive due to its utter lack of bombast, preening, or rhetorical inflation. Cohen's career happened apart from the dynamic of apotheosis and adulation that converted teenage boys with guitars into rock stars, resulting in an accident of timing and a unique musical persona.

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## **Learning Rate Schedulers, Network Dimension and Alpha:**

This article is an intermediate level blog post about LoRA usage, local training setup, and network rank (dimension) and network alpha parameters in character training. The author discusses the importance of learning rate schedulers, class images, and optimizers for improving model performance. They also provide examples with various settings and models to showcase different results and outcomes.

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## **PEX:**

The article discusses pex, a Python library for generating .pex (Python EXecutable) files, which are executable Python environments similar to virtualenvs. It can be built using the pex tool or through build systems such as Pants, Buck, and PyGradle. The library offers various use cases, such as saving dependencies from Pip, launching ephemeral environments, using entry points, specifying a specific interpreter, and integrating pex into workflows. The installation, simple examples, and documentation are also covered in the article.

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## **mistralai/Pixtral-12B-2409 · Hugging Face:**

The Pixtral-12B-2409 is a multimodal model with 12B parameters and a 400M parameter vision encoder. It offers native multimodal, interleaved image and text data training, and supports variable image sizes. This model outperforms other models in its weight class on multimodal tasks and maintains state-of-the-art performance on text-only benchmarks. Pixtral-12B-2409 can be used with the vLLM library for production-ready inference pipelines and is available to use via `mistral_inference`, `mistral-chat` CLI command, or directly in Python.

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## **upstage/solar-pro-preview-instruct · Hugging Face:**

Solar Pro Preview is an advanced large language model (LLM) with 22 billion parameters, designed to fit into a single GPU and deliver superior performance compared to models with less than 30 billion parameters. Developed using an enhanced version of the previous depth up-scaling method, this

model has significantly improved performance on benchmarks like MMLU-Pro and IFEval, known for evaluating a model's knowledge and instruction-following abilities. The official Solar Pro will be released in November 2024 with expanded language support beyond English and longer context windows.

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## **Pantsbuild:**

Pants is a build system designed to be easy to adopt, use, and extend for various programming languages such as Go, Java, Python, Scala, Kotlin, and Shell. Its distinctive features include minimal BUILD file metadata/boilerplate, out-of-the-box support for multiple dependency resolvers and lockfiles for hermetic builds, a rich plugin API in idiomatic async Python 3, native git integration, full support for Python, and compatibility with many linting and formatting tools. Pants has a welcoming community that actively engages with users to improve the build system. It is trusted by organizations like Coinbase, IBM, Orca Security, Rippling, Slack, Salesforce, and more.

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## **How to Train a FLUX.1 LoRA for \$1:**

This article provides a step-by-step guide on how to train an LoRA (Low-Rank Adaptation) using the FLUX1 model on X-ray images or any type of image. The author uses Ostris' AI Toolkit and Hugging Face's FLUX1-dev model to train on a custom dataset. The process involves uploading 30 X-ray images, setting up the training parameters, starting the training, and then uploading the LoRA to Hugging Face for sharing and access. The author also mentions that there is an easier way to train FLUX LoRA using Train-On-My-Face.com, a work in progress website that simplifies the process of training an LoRA for users without requiring in-depth knowledge about the training process.

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## **Why Flux LoRA So Hard to Train and How to Overcome It?:**

This article discusses difficulties in training LoRA on Flux-dev, a recently released model by BlackForest Lab that is impressive for its text comprehension and image quality. The author suggests training LoRA on a finetuned model with input guidance set to 1.0, rather than directly on Flux-dev. They provide a fine-tuned model „Flux-Dev2Pro“ and examples of generated images as an example. The article concludes that while there may not be easy solutions, improvements can be made by training LoRA on the fine-tuned model and applying it to original Flux-dev, producing better results than using the distilled model directly.

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## **Reports of the Death of Dental Cavities Are Greatly Exaggerated:**

The most common chronic disease in children is not asthma, but rather dental cavities or caries. Dental cavities can be considered a chronic disease because they are ongoing and can lead to more severe issues if untreated. A product called Lumina has been developed that promises pain-free protection against dental caries using a bacterium applied directly to the teeth. However, there is concern over the safety of this approach and whether it can truly prevent future cavities. The understanding of dental caries as an infectious disease caused by *Streptococcus mutans* has advanced significantly since the 1970s, with research showing that it contributes to less than 2% of all

cases and is not always present in those who have caries. Instead, a shift in the oral bacterial ecosystem leads to dental cavities, and reducing sugar consumption and using fluoride-containing toothpaste are more effective preventative measures.

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### **Intel Processor N95 vs N97 vs N100 vs Core i3-N305 benchmarks comparison - CNX Software:**

This article compares the performance of Intel Alder Lake-N processors found in mini PCs and single board computers, including the N95, N97, N100, and Core i3-N305 CPUs. The Intel Processor N97 stands out as a winner for its good CPU performance and better 3D graphics, making it an attractive choice for its price/performance ratio. Linux benchmarks showed similar results with the Core i3-N305 being more powerful but the Processor N97 offering comparable performance in most tests except for 3D graphics.

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### **A gentle guide to self-hosting your software:**

The article discusses the benefits and joys of self-hosting as a hobby in 2024. It highlights the importance of rebellion against monopolies, offering freedom and control over one's digital life. Additionally, it mentions practical aspects like saving money, the zen of constant tweaking, and intellectual growth through learning about various technologies. The article also provides a gentle introduction to self-hosting using Uberspace as an example, highlighting resources for software installation and offering tips on hosting finance and video trackers.

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### **Tax The Rich:**

The European Citizens Initiative (ECI) proposes a European wealth tax to finance the transition to renewable energy and address social inequality. The initiative needs one million signatures in Europe to force the European Commission to consider the proposal. Supporters of the ECI include economist Thomas Piketty, Millionaires for Humanity, UBI4ALL, and Citizens for Ecological Learning & Living. The initiative aims to raise funds to tackle climate change and reduce inequality by taxing the ultra-rich.

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### **Low Background Steel For AI:**

This article discusses various archives and online resources available for accessing word frequencies, images, artwork, maps, astronomical imagery, and public domain literature. Some of these resources include the wordfreq project, Internet Archive Image Library, Prints & Photographs Online Catalog from the Library of Congress, Project Gutenberg, and the Arctic Code Vault. The article also highlights the preservation efforts of GitHub by archiving a snapshot of every active public repository on February 2, 2020, in the Arctic Code Vault.

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### **Why wordfreq will not be updated:**

The wordfreq dataset, which tracked language usage up until 2021, will not be updated anymore due to unreliable information on post-2021 language use. Since then, large language models have generated vast amounts of text that skews the word frequencies and has become difficult to manage. As a result, the dataset no longer accurately reflects language usage. Twitter and Reddit were previously used as sources for collecting conversational language data but are now unavailable or restricted. The field of natural language processing is being overshadowed by generative AI, with limited research happening outside of companies like OpenAI and Google.

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### **Ban warnings fly as users dare to probe the “thoughts” of OpenAI’s latest model:**

OpenAI has released its „Strawberry“ AI model family, which includes the o1-preview and o1-mini models touting reasoning abilities. The company is sending out warning emails and threats of bans to users who attempt to probe how these models work. Unlike previous models from OpenAI, such as GPT-4, o1 is designed to go through a step-by-step problem-solving process before generating an answer. However, the raw chain of thought is hidden from users and presented in a filtered interpretation created by another AI model. This decision has led to concerns about transparency and competitive advantages for OpenAI’s models.

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### **Flux complete Lora settings and dataset guide - post-mortem of two weeks of learning:**

This article discusses the author’s experience with training Loras using Flux and provides tips on setting up an effective training environment, using proper version control, and creating diverse datasets for both style and character Loras. The article also offers insights on training settings, configs, and the importance of experimentation in achieving the desired results. Additionally, the author shares their appreciation for Flux and welcomes any questions or feedback from readers.

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### **Taxes on everyday Europeans bring in 13 times more revenue than taxes on wealth | Oxfam International:**

The tax burden on Europe’s richest and largest corporations has decreased in recent decades, while consumption and labor taxes have increased, according to a new Oxfam analysis. Over 300,000 Europeans signed a petition asking the EU to tax the wealthiest citizens. The study found that taxes affecting ordinary people, such as consumption and labor taxes, brought in 13 times more revenue than taxes on wealth. Between 2000 and 2023, the top personal income tax rate for EU’s richest fell from 44.8% to 37.9%, while the top corporate income tax rate dropped from 32.1% to 21.2%. The European Commission’s 2024 Annual Report on Taxation states that wealth taxation is gaining traction globally as a tool for ensuring a fairer sharing of the tax burden across individuals.

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### **Things you really should know about Windows Input, but would rather not - Raw Mouse edition:**

The article discusses the challenges developers face when dealing with user input in PC games, specifically mouse, keyboard, and gamepad inputs. It highlights the complexity of properly handling mouse input on Windows, mentioning issues with high-end mice causing severe performance

problems. The article explores the Raw Input API as a solution for receiving precise mouse input but acknowledges that there is no easy way to do this efficiently without complications. Additionally, the author discusses the problems caused by legacy input and suggests methods to improve the situation, such as using separate message-only windows or processes for input processing. The article concludes with an unsatisfactory solution of enabling legacy input but limiting its impact on performance by not processing more than a certain number of messages per frame.

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## **Running a public or community server:**

This article provides a comprehensive guide for those planning to set up and manage public or community Friendica servers, which are social networks based on decentralization principles. It discusses the technical environment, initial configuration, and various plugins that can be used with Friendica.

The article begins by stating who this document is intended for - individuals setting up large-scale public or community Friendica servers, rather than personal servers for a small group of friends. It emphasizes that running such servers requires careful consideration of each step due to the potential impact on all users.

The differences between public and community sites are highlighted, with the latter catering to specific groups while the former serves the general public. This affects registration policies, as public servers must be open and reliable, while community servers can set more defined membership criteria.

Choosing the right technical environment is crucial. The article recommends using Debian for its widespread use among Friendica support providers. For web servers, Nginx is preferred due to its superior performance compared to Apache. It also suggests that SSL should be used and not self-signed certificates, as they can lead to browser warnings scaring off users.

The initial configuration section covers various aspects of setting up a Friendica server, such as the site name, banner/logo, system language, system theme, and SSL policy. It also discusses options for registration text, register policy, and block multiple registrations. Plugins are then addressed, with each explained in terms of their purpose and potential impact on resources and support requests.

Finally, advanced options like managing the poller (the process that retrieves content from external sources) and setting a maximum daily number of registrations are discussed. The article concludes by stressing the importance of not changing settings both in the admin panel and directly in the .htconfig.php file to avoid unpredictable results.

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## **Openchangelog:**

This article discusses OpenChangelog, a tool that takes Markdown files stored on GitHub or locally and turns them into a beautiful Changelog Website. OpenChangelog offers various features, such as Dark, Light, and System themes, an automatic RSS feed, and easy self-hosting with just a single config file. Written in Go, the tool can be configured through an openchangelog.yml file and supports a variety of integrations. It also provides options for a local data source, GitHub data source, and cache configuration.

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## **Datenlecks bei Verivox und Check24: Sensible Kundendaten wochenlang frei im Netz:**

The article discusses security breaches at two major comparison websites, Verivox and Check24, which left customers' sensitive data, such as names, income, and addresses, easily accessible for an unknown period of time. The issues were discovered by an anonymous IT expert and reported by the Chaos Computer Club. Although the companies claimed not to have detected any unauthorized access, they may face legal consequences and compensation demands, as well as potential obligations to inform their customers of the data breach.

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## **Why To Not Write A Book · Gwern.net:**

The article discusses the author's decision not to write a book based on their website, Gwern.net, and how writing a book can be harmful for many writers. It highlights the time-consuming nature of writing a book, which could limit new writing or exploration, while also freezing them in place. The article also mentions the opportunity cost of writing a book and how it may affect their mental health, as well as the risk of not completing the book or having it become an albatross that burns them out. Lastly, the author suggests that many writers should keep their book ideas inside them rather than attempting to write them down.

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## **Android notifications might finally sync across devices soon:**

The article discusses the discovery of code references to a new „sync across devices“ option in the Android 15 beta by Mishaal Rahman from Android Authority. This suggests that Google may be working on a way to synchronize notifications across devices within its ecosystem, which would be a welcome change for many users. Currently, there is no such feature available in Android, so dismissing a notification on one device does not sync it with the others. The new code is located under the Notifications section of Settings and appears to apply to all Android devices rather than just Pixel devices. However, further confirmation is needed, as there's no accompanying description.

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## **The Subprime AI Crisis:**

This article discusses the unsustainability of the artificial intelligence (AI) boom, specifically the generative AI boom, which is characterized by large language models like OpenAI's GPT and Anthropic's Claude. The author argues that these models are deeply unprofitable to operate due to their compute-intensive nature and the costs associated with training data.

The author also points out the potential human cost of an AI bubble implosion, as big tech companies like Microsoft and Google may need to slow down or even cut costs related to AI, which could lead to mass layoffs. The article concludes that the tech industry is building toward a grotesque reckoning with a lack of creativity enabled by an economy that rewards growth over innovation and management over those who actually build things.

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## **The Real Reason Why Music Is Getting Worse: Rick Beato Explains:**

A North Carolina man was charged for generating songs using artificial intelligence and configuring bots to stream them automatically, earning \$10 million in illegal royalties. Rick Beato, a prominent music YouTuber, believes that technological progress has backfired on music, causing both musicians and listeners to suffer. The ease of music creation has led to an oversaturation of content, making it harder to find exceptional music. Beato urges people to „vote with their attention“ by consciously listening to music without distraction in order to support the music industry.

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## **Earth may have had a ring system 466 million years ago:**

Researchers have found evidence suggesting that Earth may have had a ring system 466 million years ago, at the beginning of the Ordovician impact spike, a period of intense meteorite bombardment. This hypothesis is based on the positions of 21 asteroid impact craters, which are all located within 30 degrees of the equator. The research team believes that a large asteroid had a close encounter with Earth, breaking apart due to tidal forces and creating a debris ring around the planet. This ring system could have cast a shadow on Earth, contributing to the Hirnantian Icehouse, a global cooling event. This discovery has implications not only for geology but also for the broader impact of celestial events on Earth's evolutionary history.

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## **"Golden Lettuce" genetically engineered to pack 30 times more vitamins:**

Scientists at Spain's Research Institute for Plant Molecular and Cellular Biology (IBMCP) have genetically engineered a „Golden Lettuce“ with 30 times more nutrients than regular lettuce. The new lettuce has increased levels of beta-carotene, an antioxidant that supports healthy vision, immune function, and cell growth, as well as being protective against Alzheimer's disease, heart disease, and some cancers. The Golden Lettuce is colored yellow due to its higher levels of beta-carotene and has improved bioaccessibility for easier extraction by the digestive system. This innovation could lead to a more nutritious lettuce and other genetically enhanced vegetables joining the salad market in the future, benefiting consumers looking to increase their fruit and veggie intake.

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## **Flux Gym:**

The article discusses a simple web UI for training FLUX LoRAs with low VRAM support, known as FluxGym. It provides a user-friendly interface and flexibility by using Kohya Scripts underneath, offering 100% support for Kohya sd-scripts features. The UI offers features like automatic sample image generation, custom resolution, and an advanced tab for more control over the training process. Additionally, it supports publishing the trained LoRAs to Huggingface. The installation process and usage of FluxGym are also explained in the article, including the option to use the UI via Docker.

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## **A (more) Modern CSS Reset:**

This article discusses a reset CSS file that works well for the author's personal website and Set Studio. The article includes a list of box sizing rules, preventing font size inflation, removing default margin in

favor of authored CSS, and setting core body defaults. Additionally, it adjusts line heights on headings and interactive elements, balances text wrapping on headings, sets fonts for inputs and buttons, ensures text areas without a rows attribute are not too small, adds extra scroll margin to anchored elements, and more. The author encourages users to take pieces of the reset that they like and create their own personalized version.

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## **How to Lead Your Team when the House Is on Fire:**

The tech industry is undergoing challenges with funding drying up and rapid AI development disrupting business models. Companies are forced into „wartime“ mode, which requires a different type of leadership compared to the relative prosperity of „peacetime“. Engineering Managers (EMs) play a crucial role in ensuring goal-aligned delivery, building high-performing teams, and supporting team members' success. In wartime conditions, EMs must focus on ruthless prioritization, empowering the team to move fast, protecting their focus time, managing tech debt strategically, retaining team members, hiring experienced engineers, performance management, and supporting individuals for growth. Additionally, it's important for EMs to take care of themselves by maintaining a healthy lifestyle, seeking support from peers, and finding sources of satisfaction outside their work.

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## **LinkedIn is gone, So Welcome to Edgemap Discussions! · resiliencecetheatre/rpi4edgemapdisplay · Discussion #4:**

This Github discussion is centered around user „resiliencecetheatre“ who experienced issues with their LinkedIn account, with their account being flagged and disabled for unknown reasons. The user discusses the potential reasons behind the suspension and the challenges faced by open-source developers in an increasingly complex online environment. The user is also considering alternative platforms, such as GitLab, to continue their open-source work. Throughout the discussion, other users share their experiences with similar issues and offer advice and suggestions for the user's situation.

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## **Data center emissions likely 662% higher than big tech claims. Can it keep up the ruse?:**

A Guardian analysis shows that from 2020 to 2022, the real greenhouse gas emissions from Google, Microsoft, Meta, and Apple's data centers were about 662% higher than officially reported. Amazon is the largest emitter among the big five tech companies but has not been included in the calculations due to its different business model. The International Energy Agency states that data centers accounted for 1-1.5% of global electricity consumption in 2022, before the AI boom with ChatGPT's launch. AI is more energy-intensive on data centers than typical cloud-based applications, and it is projected that data center emissions will accumulate to 2.5 billion metric tons of CO2 equivalent by 2030. Big tech companies are facing criticism for using renewable energy certificates (Recs) in official reporting, which can misrepresent the actual emissions generated from their data centers.

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## **Protocol Buffer Design: Principles and Practices for Collaborative Development:**

The article discusses best practices in protocol design using Protocol Buffers (protobufs) for building native ad products at Lyft Media. It highlights the importance of clarity and extensibility in design,

along with providing examples and practices to improve protocol design quality. Some key principles include: clarity (avoiding ambiguity), extensibility (considering future changes), well-known types, explicit optional fields, validation rules, cross-entity constants, and language-dependent behaviors. Lyft Media encourages developers interested in working on complex systems to explore career opportunities with the team.

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## **Antibiotika und Schlachtabfälle** Welches Fleisch können wir noch genießen Die Tricks NDR & SWR (Video):

The Transcript eines Youtube Videos covers several topics related to the meat industry, animal welfare, and food production. Here is a detailed summary of each topic:

1. Trickery with Meat Content in Fertiggerichten (Pre-cooked Meals): The video discusses the use of finely ground meat in pre-cooked meals, which may include various types of waste from the meat industry such as bones, tendons, and internal organs. This is often indicated on labels as „finely ground meat“ but does not necessarily mean it's high-quality or healthy. The video also includes an experiment where two professional chefs create frikadellen (meatballs) with different types of meat, including finely ground waste meat. In a blind taste test, participants could not identify the difference between the high-quality and low-quality meatballs, demonstrating how difficult it is for consumers to discern the quality of meat in pre-cooked meals.
2. Antibiotic Use in Poultry Production: The video explores the excessive use of antibiotics in poultry farming, which can lead to the development of antibiotic-resistant bacteria. These bacteria can be transmitted from animals to humans through consumption of contaminated food, potentially causing severe health issues. The video highlights the need for stricter regulations and more frequent inspections by veterinary offices to control the overuse of antibiotics.
3. Deceptive Marketing in Fertiggerichten (Pre-cooked Meals): The video points out that pre-cooked meals often use misleading marketing tactics, such as emphasizing natural ingredients or featuring large meat pieces on their packaging. However, upon closer inspection, these products often contain only small amounts of meat and may be high in fat or other unhealthy ingredients.
4. Deception with the Quality of Meat: The video discusses how some pre-cooked meals have labels that indicate a high quality of meat (e.g., „Premium“), but the actual conditions for the animals are far from ideal. In some cases, these animals live in extremely unsanitary and cramped environments, which can lead to health problems and even death. The video also reveals that there is no guarantee that the quality of life for the animals meets the standards indicated on the label due to self-regulation by the meat industry and limited government oversight.
5. Deception with Haltungsform (Housing Form) Labels: The video explains that labels indicating the housing form of animals (e.g., „Haltungsform 4“) do not necessarily mean that the animals are well cared for or have a good quality of life. Some farms labeled as providing high-quality housing can still treat their animals poorly, and there is limited government control over these conditions.
6. Need for Stricter Regulations and Oversight: The video emphasizes the need for stricter regulations and oversight in the meat industry to ensure that animal welfare standards are met, antibiotics are not overused, and consumers are provided with accurate information about the products they purchase. It also suggests potential solutions such as increasing the value-added tax on meat or implementing a „Tierwohl-Cent“ (animal welfare fee) to cover the costs of improving animal living conditions.

**Executive Summary:** The Transcript eines Youtube Videos exposes several deceptive practices in the meat industry, including the use of low-quality and waste meat in pre-cooked meals, excessive use of antibiotics in poultry production, misleading marketing tactics, and a lack of transparency regarding the quality of life for animals. It calls for stricter regulations and oversight to ensure animal welfare standards are met, overuse of antibiotics is controlled, and consumers receive accurate information about the products they purchase.

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### **Exposing The Flaw In Our Phone System (Video):**

The transcript of the YouTube video is about the vulnerabilities in SS7 (Signaling System 7), the global network used for roaming mobile phone connections. Hackers can exploit these vulnerabilities to intercept calls, texts, and location information. The presenter demonstrates how they used SS7 to hack into Linus Tech Tips' phone number and intercept his calls. The video also mentions that criminals have used SS7 to bypass two-factor authentication and steal money from bank accounts. The creators of the video acknowledge that there is no perfect solution to protect against SS7 exploits, but they recommend using alternative two-factor authentication methods like authenticator apps or hardware tokens.

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### **Die wahren Gründe hinter Stefan Raabs Comeback (Video):**

The YouTube video discusses Stefan Raab's return to television after a long hiatus, which has garnered nearly 8 million viewers and resulted in his comeback song reaching number one on the charts. The reasons behind this sudden and aggressive comeback are examined, as well as his previous statements against pursuing a career in television. His personal life and background are explored, including his upbringing, studies in Jura, metzgerei work, Bundeswehr service, and music production.

Raab's rise to fame began with his involvement in the founding of Viva and hosting his own show on the channel. As a result, he attracted attention from other broadcasters, which led him to form RaabTV alongside Brainpool. His successful career continued through popular formats like TV Total, Schlag den Raab, and various music events. In 2015, he stepped away from television to spend time with his family and pursue other life goals.

However, the lure of show business proved too strong, leading him to return with a lucrative deal with RTL for his comeback. This deal is backed by Raab Entertainment GmbH, which promises a budget of at least 90 million euros over four years. The video also examines Raab's previous relationship with ProSieben and Brainpool, as well as the tensions that arose between him and Sebastian, leading to his split from ProSieben.

In conclusion, Stefan Raab's return to television is attributed to a combination of personal reasons and professional motivations, including his desire to provide entertainment for a new generation and the prospect of working with RTL against his former production company, Brainpool.

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### **The Best RAG Technique Yet! Anthropic's Contextual Retrieval Explained! (Video):**

Anthropic has released a new retrieval mechanism called Contextual Retrieval that combines

semantic search with traditional methods like BM25 for keyword-based search. The aim is to address the limitations of existing rack systems, such as losing contextual information and reducing performance in large-scale data sets. By including more contextual information in each chunk, Anthropic claims this approach improves overall document retrieval. To implement Contextual Retrieval, LLMs are used to add contextual information automatically or by prompting the model with specific contextual information for each chunk. This is combined with embedding models and keyword-based search mechanisms such as BM25 in an updated retrieval pipeline. The results of this approach include a 30% decrease in top 20 chunk retrieval failures and further improvements when re-ranking the most relevant chunks before feeding them to the LLM for response generation.

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