**Week4 Annotated Bibliography on Cloud Computing**

Hang Yang

IS 5503: Cloud Computing

Dr. Tom Vang

April 5, 2025

**Annotated Bibliography on Cloud Computing**

Google Cloud. (n.d.). PaaS vs. IaaS vs. SaaS vs. CaaS: How are they different? Google Cloud. https://cloud.google.com/learn/paas-vs-iaas-vs-saas

This article is published by Google Cloud team and targets its service consumers. However, this article could be seen as a more generic computing science article for all people who are interested in cloud computing models. It gives us the very fundamental briefings on cloud computing and “as a service” terms explanation, as well as the differences among most popular models IaaS, PaaS and SaaS. This is mostly determined by how depth we integrate with the cloud and the degree of management on service consumers.

Slingerland, C. (2024, September 3). The 4 Types of Cloud Computing: Choosing the best model. Cloud Zero. https://www.cloudzero.com/blog/types-of-cloud-computing/#:~:text=The%20SaaS%20model%20is%20the,their%20own%20software%20from%20scratch.

This blog is written by a FinOps certified practitioner with rich experience in SaaS. Even though this blog is more of an advertisement on the Cloud Zero platform, it has introduced some useful information on the selection of different cloud models. We already knew these models from the very first article from Google Cloud. We can focus on the special model (Function as a Service) which gradually draws public attention. Also, this blog has commented on the pros/cons of different cloud types (public, private, hybrid, multi-cloud and community).

Mark R. (2023, November 17). Choosing the right cloud service model: IaaS, PaaS, or SaaS. Medium. https://medium.com/technology-buzz/choosing-the-right-cloud-service-model-iaas-paas-or-saas-e493ba103f4f

This blog is written by a technology contributor of Technology Buzz. The reason that I chose this blog is the detailed pricing models illustrated across private, public, hybrid cloud service providers. What’s more, the content is well organized with a fine chart table which gives readers a full overview of differences between IaaS, PaaS and SaaS over aspects of primary offering, user control, customization, set up and deployment, target users, scalability, and typical use cases.

Amazon Web Service. (n.d.). Types of Cloud Computing. Amazon Web Service. https://aws.amazon.com/types-of-cloud-computing/

This article is published by Amazon Web Service (AWS) team, and it could be a good comparison to the article from Google Cloud team as a respectful rival in the cloud market. As AWS still owns a dominant market share as public cloud providers, it continues extending its service coverage to almost every industry domain. It not only provides flexible and robust services, but also good documentation, like technical guides, successful enterprise integration business cases, references etc. This article does not show ads but is full of pride on its products and services and could provide users with full customization cloud service.

Saxena, A. (2024, March 11). Navigating the Challenges of cloud computing. SPRINTO. https://sprinto.com/blog/challenges-in-cloud-computing/

This blog is published by a senior security and compliance writer. This blog could be a good reminder for those who are lost in the promotions and advertisements on benefits of cloud computing technologies. The blog demonstrates one thing that nothing could be perfect, especially for things that you are not familiar with. It could be a great addition to understanding the potential risks and challenges of integration with cloud computing. In my viewpoint, I would highly recommend more research on areas like data security and privacy, performance challenges, interoperability and flexibility, cost management and compliance.

Zhang G. (2025, February 18). Cloud computing convergence: integrating computer applications and information management for enhanced efficiency. Front. Big Data 8:1508087. doi: 10.3389/fdata.2025.1508087

This article is for research staff and focuses on the advantages cloud computing brings to the integration of computer applications and information management systems. The author is an assistant professor in the college, and he has provided robust infrastructure and utilizing empirical testing and analysis strategies in the article to demonstrate the operational efficiency improvement of computing applications through the integration with cloud-based solutions.

Edwards, J. (2025, March 24). Five Years of Cloud Innovation: 2020 to 2025. Information Week. https://www.informationweek.com/it-infrastructure/five-years-of-cloud-innovation-2020-to-2025

This article is for the public written by a business journalist. It highlights the unignorable fact that the world has been transformed by cloud computing dramatically in the past five years. The author has listed below summaries, zero-trust IAM architecture, FinOps standards of cloud spending, popularity of public cloud adoption, cloud security development, and Serverless computing to demonstrate his viewpoint. This blog inspires me to think about embracing the migration and challenges of cloud computing.

eInfochips. (2023, October 18). How Cloud Computing is Revolutionizing the Retail Industry. LinkedIn. https://www.linkedin.com/pulse/how-cloud-computing-revolutionizing-retail-industry-einfochips-ylkif

The blog is for retail business written by a IT consulting company. As cloud computing becomes more and more popular in different industries, it has also become a game changer in the retail business. This article is to talk about the benefits that cloud computing has brought to the retail business from areas like real-time everywhere data access across location regions and time zones, higher data security with encryption both on the fly and on the rest, on demand pricing strategies without expensive preinstallation fee.

Arora, A. (n.d.). The future of cloud computing 2025-2030: Trends and Predictions. CloudDefense.AI. https://www.clouddefense.ai/future-of-cloud-computing/

This blog is generally for people who are interested in cloud computing and the author is a co-founder, COO and investor with a strong background in software engineering. This article focuses not only on the existing cloud computing business cases, but on the prediction of how the future of cloud computing is going to be. With primary introduction on the definition of cloud computing, and its main cloud models (SaaS, IaaS, and PaaS). It highlights the 10 future trends of cloud computing in areas like higher adoption of hybrid and multi-cloud, integration of AI and ML, Edge computing, IoT, Serverless, and Service Mesh.

Prado, J. (2025, January 27). Cloud computing trends that will reshape business in 2025. VISMA. https://www.visma.com/resources/content/cloud-computing-trends-that-will-reshape-business-in-2025

This article is published by the VISMA innovation and development team, and targets VISMA customers. By introducing Gartner’s report on promising cloud usage in the year 2025, it further explains what the cloud trends the VISMA team has predicted and built. The first trend is AI in cloud, followed by the favorite of hybrid and multi-cloud adoption. The development of quantum computing comes next. The last point is sustainability, which personally I could not agree with.

Messuri, M. (2021, December 4). Cloud is booming and it is going to get better in 2025 an beyond. CIS MAG. https://cisomag.com/cloud-is-booming-and-it-is-going-to-get-better-in-2025-and-beyond/

This article is written by a senior software engineer with rich experience in different programming languages, system security and software projects. It provides more details on the topics on the Identity and Access management (IAM), hybrid and multi-cloud, confidential computing, as well as quantum computing. This has brought many challenges to the existing digital word, like Single Sign-On, potential cracking of existing encryption mechanisms, the transformation to hybrid cloud environment.

Law, M. (2024, September 5). IaaS: Powering the future of Cloud Computing. Technology Magazine. https://technologymagazine.com/articles/iaas-powering-the-future-of-cloud-computing

This article is written by the editor director for the technology portfolio at Bizclik. Among different cloud models, it promotes the usage of Infrastructure as a Service (IaaS) model to be dominant in the coming era. Due to the fact that the IaaS model gains more and more prominence over flexibility and scalability, the author introduces lots of detailed aspects of IaaS model, like its landscape, business cases, challenges of IaaS migration, and the IaaS development trends. In the end, it also gives suggestions on whether your business fits IaaS or not.

Sayegh, E. (2023, November 28). How Cloud Computing revolutionized business operations and what lies ahead. Forbes. https://www.forbes.com/sites/emilsayegh/2023/11/28/how-cloud-computing-revolutionized-business-operations-and-what-lies-ahead/

This article is written by a seasoned technology professional with rich experience in cybersecurity. Among all the previous articles, it is also a blog to introducing the promising trend over cloud computing. However, it has a different focus on its contributions to the business innovation and AI revolution. This could bring huge benefits from startups to global enterprises by features of cloud computing, like experimental, agility, cost-efficiency and rapid scalability.

Watters, A. (2024, February 26). What is the future of Cloud Computing? CompTIA. https://www.comptia.org/blog/what-is-the-future-of-cloud-computing

This blog is from CompTIA author to the public. With an interesting history-tracking journey of cloud computing back to 1960s, it covers the history, current state and future trends of cloud computing. What inspires me in this blog are the parts of Cloud Automation, AI predictions, Next Generation UI, Governance and Compliance, and Cloud security. As we know the unstoppable trend of transition to cloud computing, it’s really critical to have mature strategies to handle the governance and compliance over the usage of cloud computing.

BasuMallick, C. (2021, July 2). What is Cloud Computing? Definition, Benefits, Types and Trends

This blog is from a technical writer to the public. As we already include many definition and trending blogs over cloud computing, why do I still put this one in the list? It is because I really like the drawbacks or downslides of cloud computing which are never covered before. Besides the normal introduction of cloud computing types, architecture, use cases, and promising trends, it highlights the challenges of cloud computing in the areas like downtime, internet connection dependency, subscription contracts, security concerns, access and control conflicts.