

WP13

# Trends & Developments

**Design of Software Architectures**

Dr. Vadim Zaytsev aka @grammarware, 30 September 2022

A trend is...





# Top 22 Software Development Trends 2022



Mar 23  
2022

11



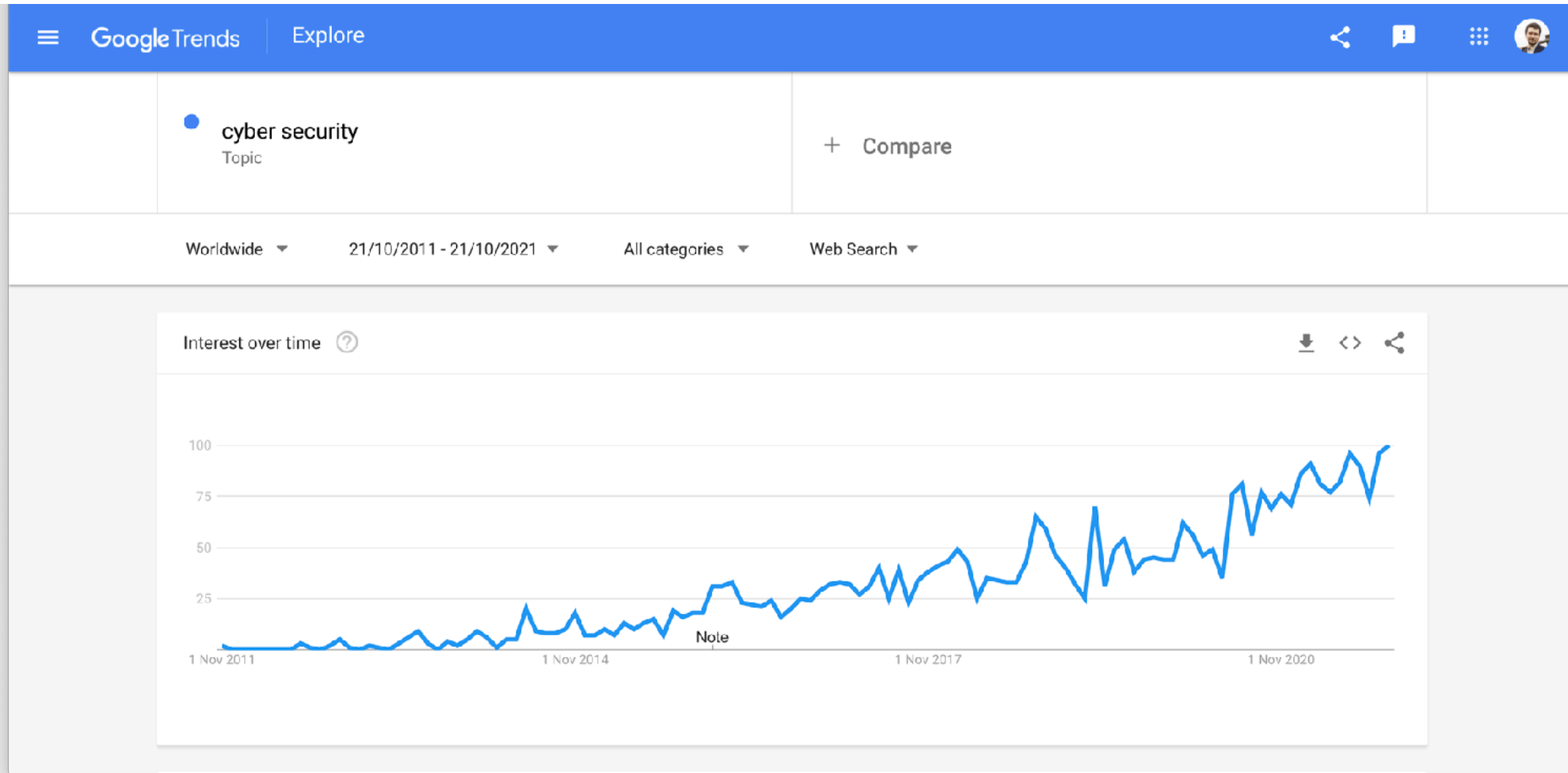
## Categories

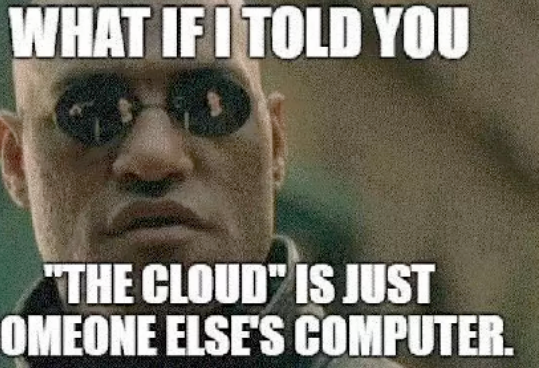
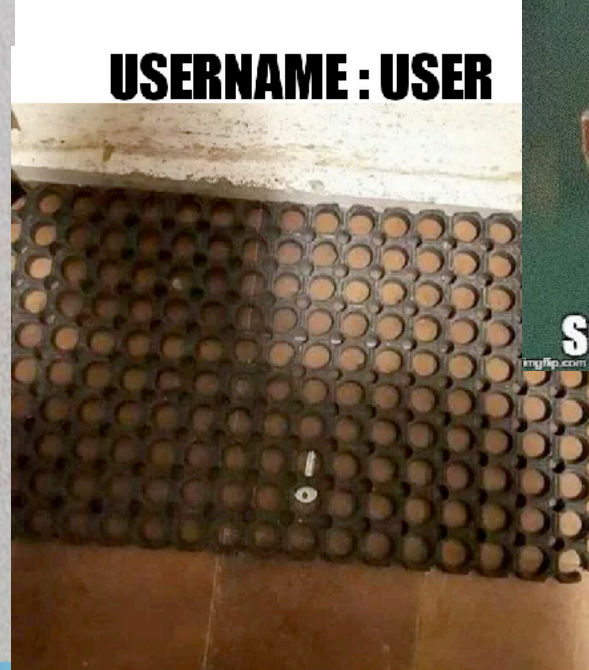
- AI & Machine Learning
- Cloud Computing
- Digital Enterprise
- Digital Transformation
- E-Commerce & CX
- Healthcare
- IoT & Embedded
- Magento
- Manufacturing
- Mobile Development
- Other
- Quality Assurance
- Retail & Wholesale
- SAP CX
- Sitecore
- Software Development
- Technologies & Tools

# Software Development Trends 2022

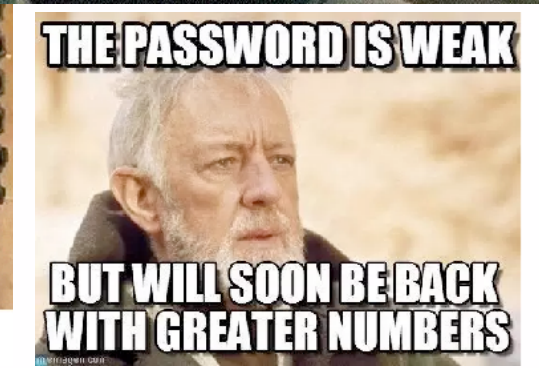
1. Automated Code Reviews
2. Focus on Software Quality Standards
3. Legacy System Migration
4. The Realm of Kubernetes
5. Cloud-Native Technology Prevalence
6. Blockchain Beyond Cryptocurrency
7. Machine Learning Expansion with AutoML and AI
8. Narrow Artificial Intelligence (AI)
9. DevOps Observability Tools
10. Infrastructure Management with GitOps
11. Python Takes the Lead
12. Java Regains its Popularity
13. Low-Code/No-Code (LCNC) Speeds Up Software Development
14. SRE and DevOps Work Together
15. Multimodal and Multipurpose Database
16. Cybersecurity Is a Hot Issue
17. Deep Learning with TensorFlow
18. React and Angular: Top Web Development Frameworks
19. Progressive Web Applications (PWA) on the Rise
20. Testing Centers of Excellence (TCoE) Expansion
21. Growing Demand for Outsourcing
22. A New Approach to Remote and Hybrid Work

# Trend "Cyber security"

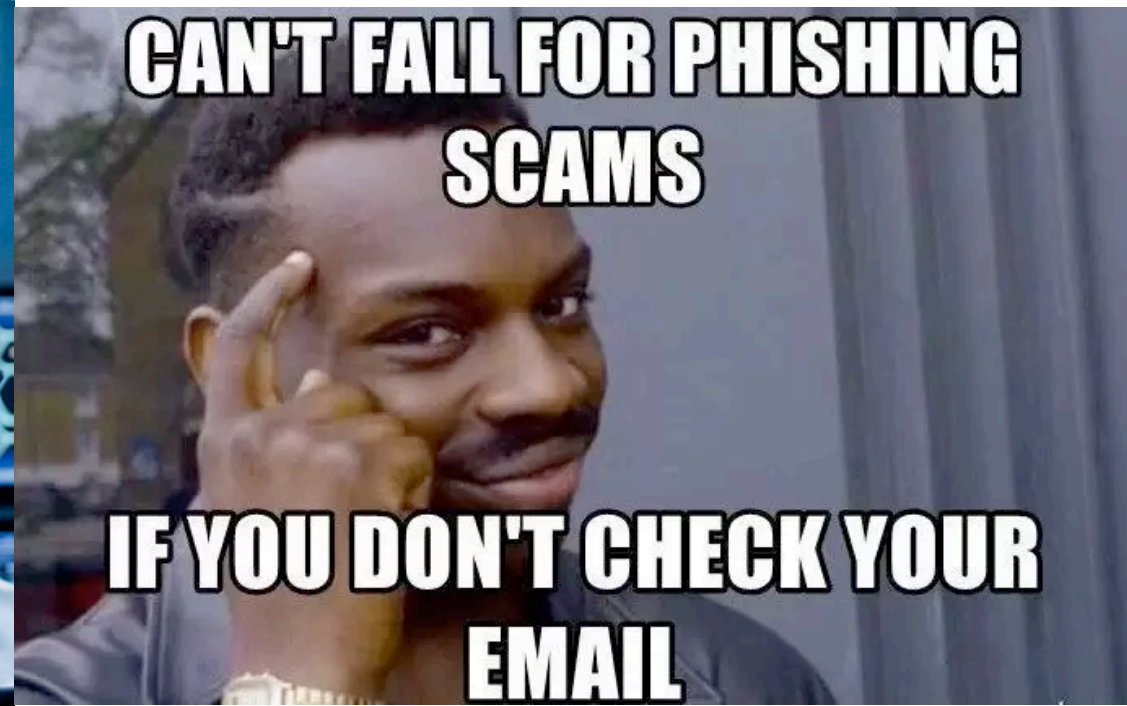




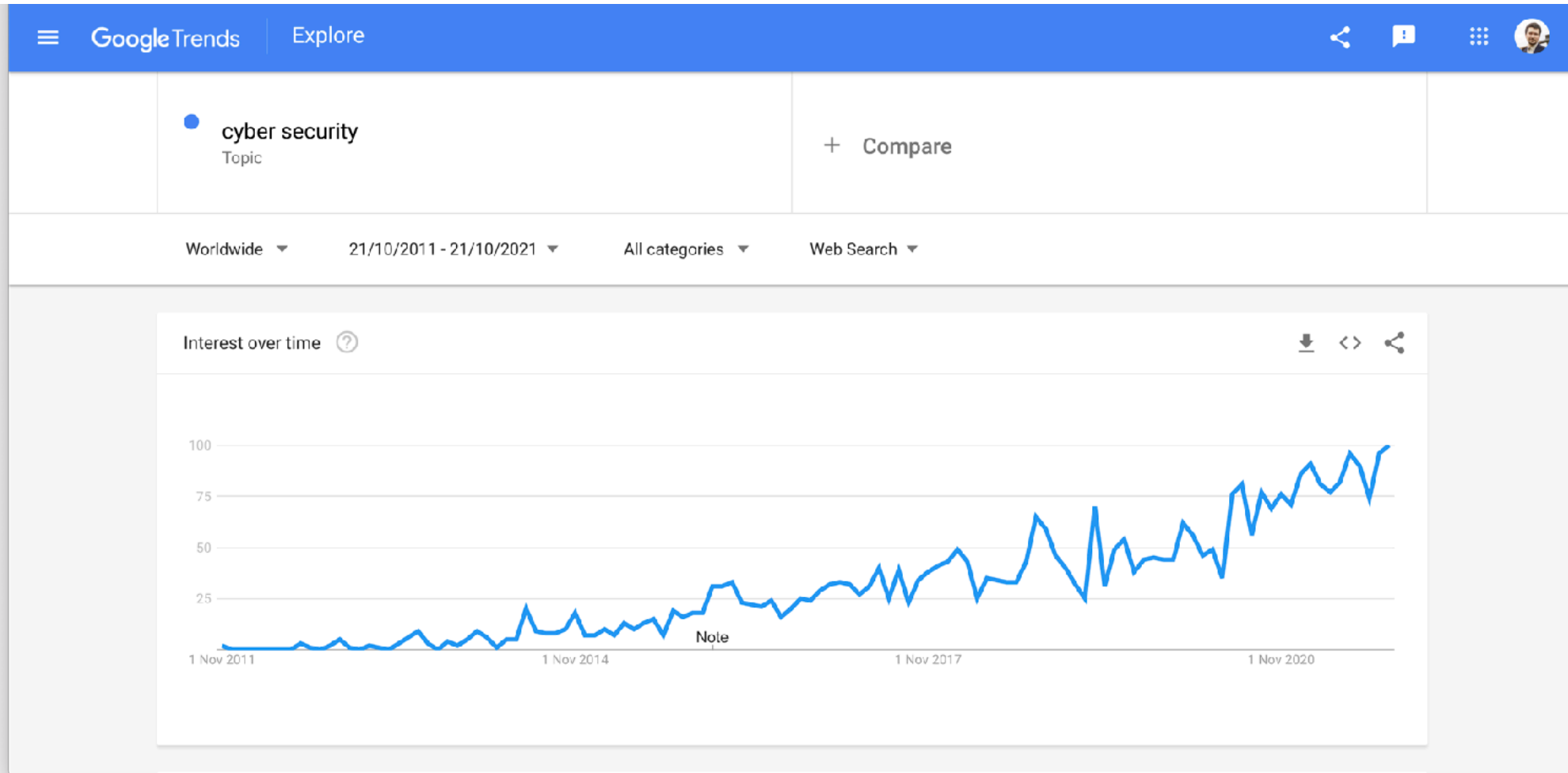
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When you type 'password' in the password field and it works



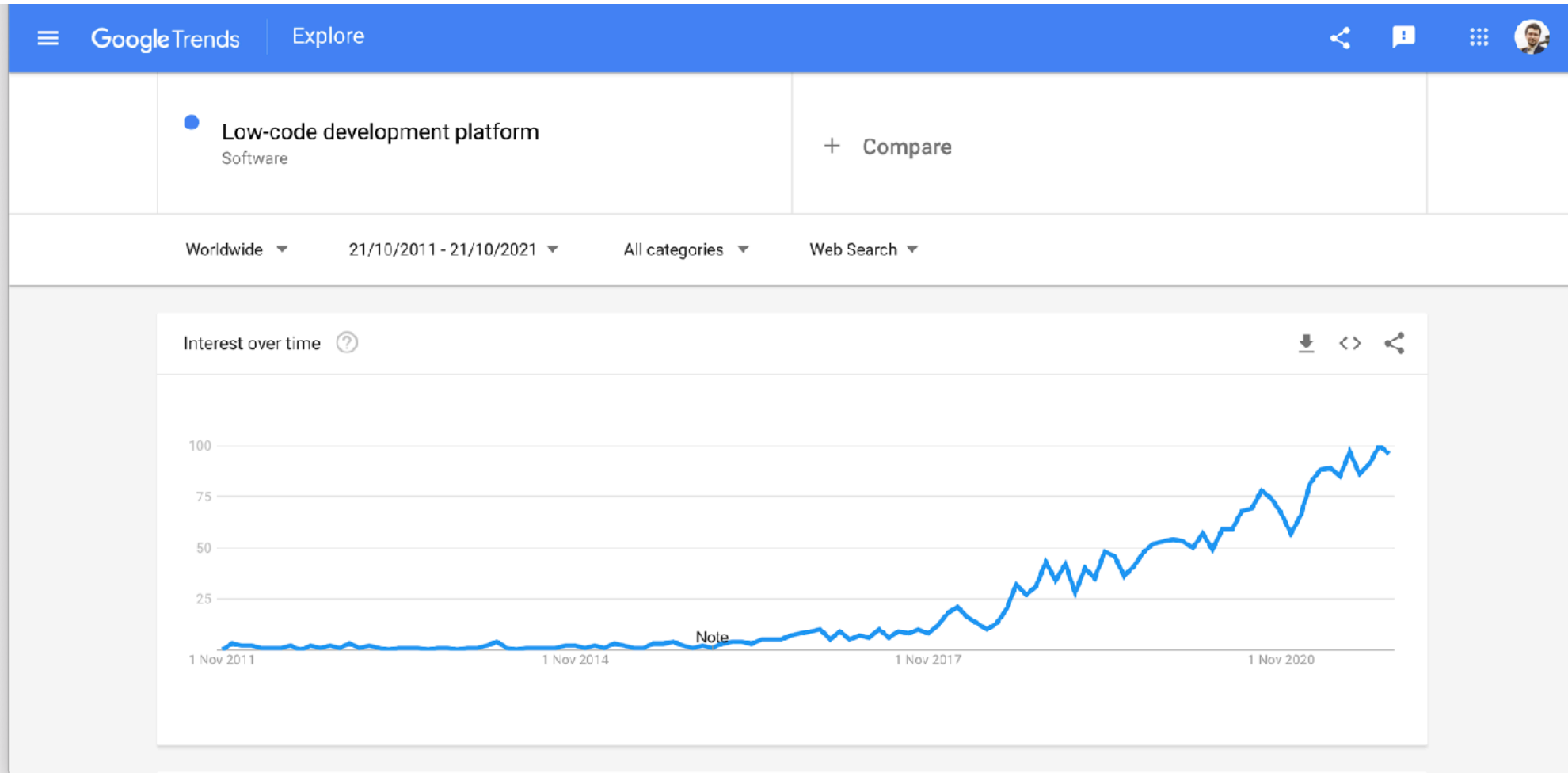
**PASSWORD : PASSWORD**



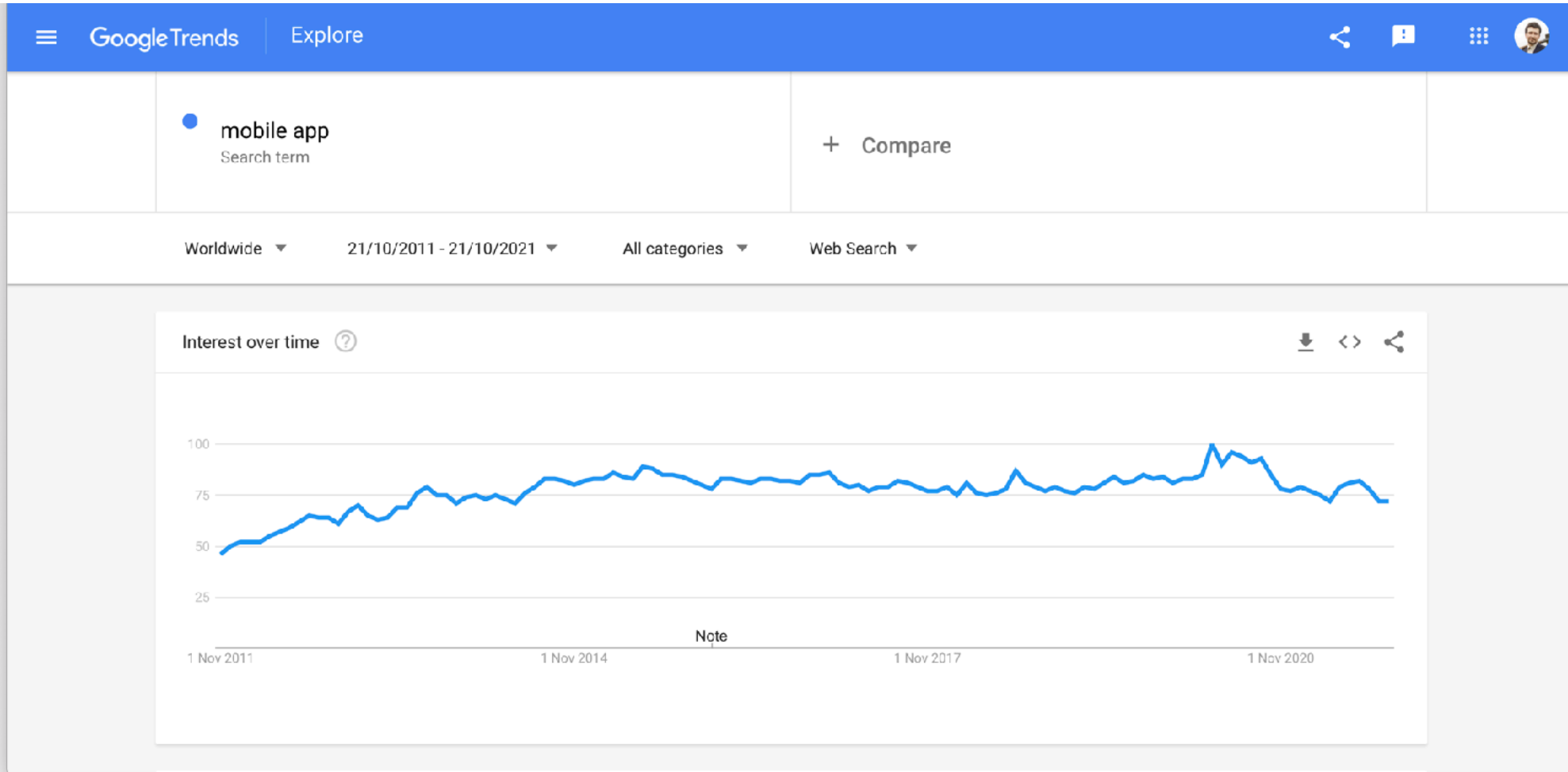
# Trend "Cyber security"



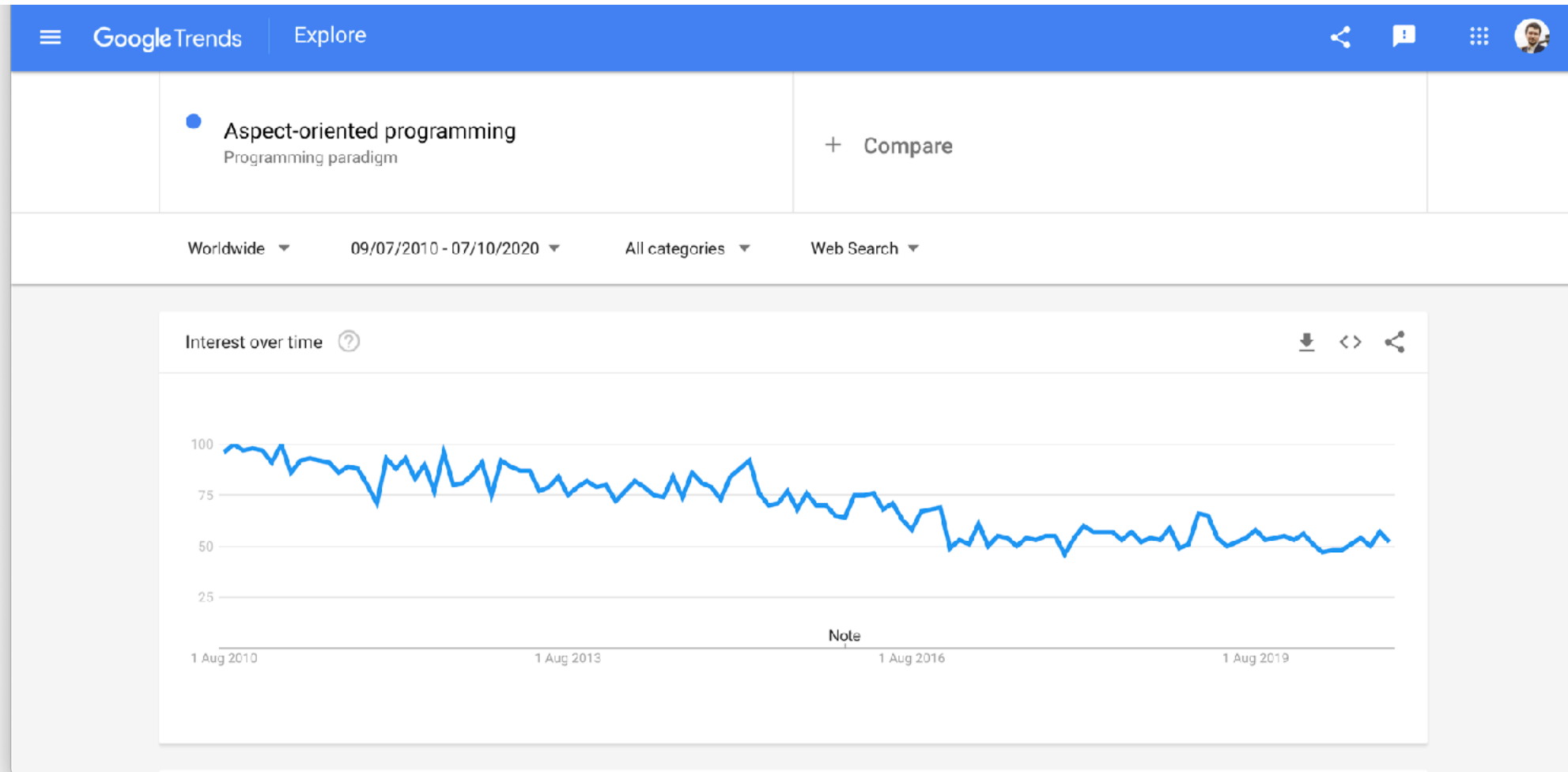
# Trend "Low code"



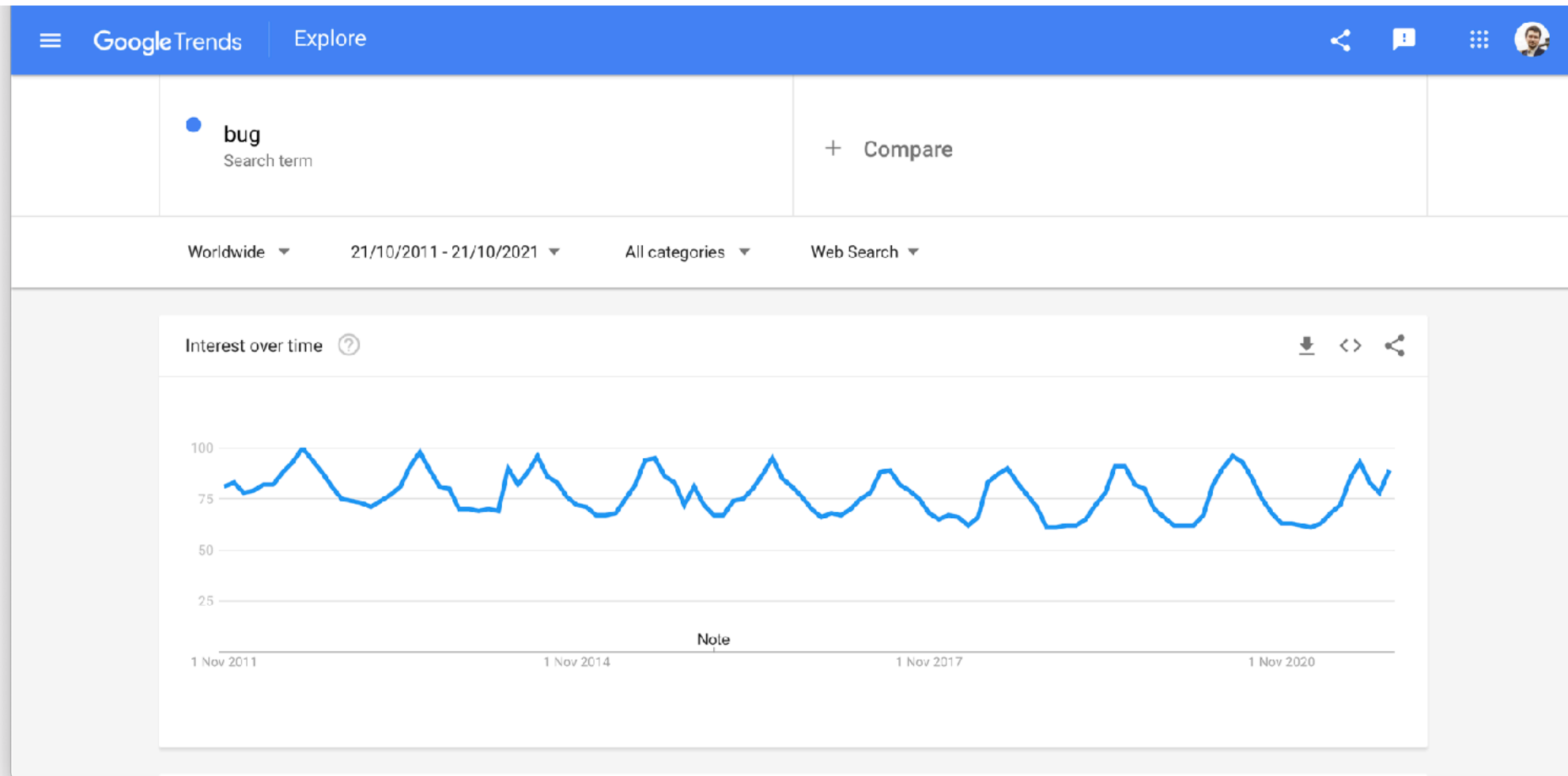
# Trend "Mobile app"



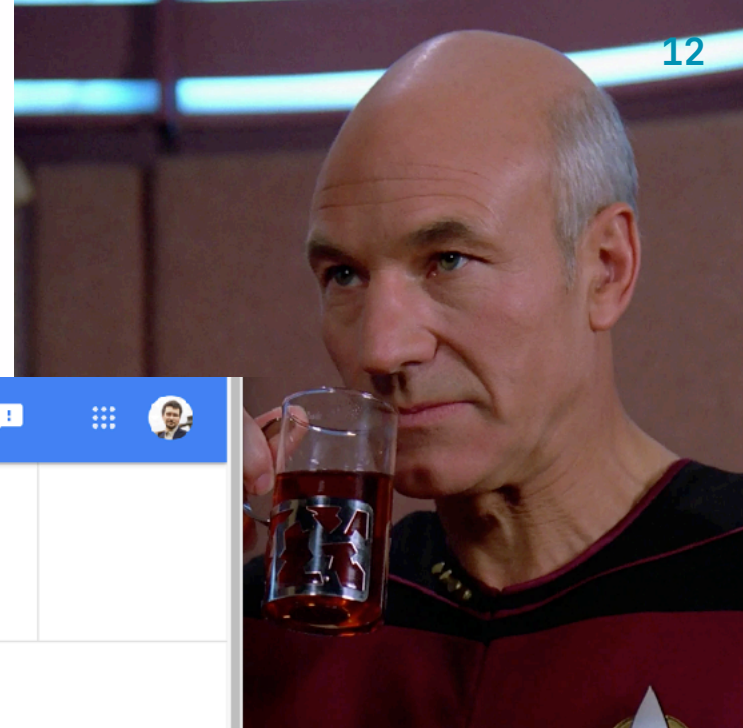
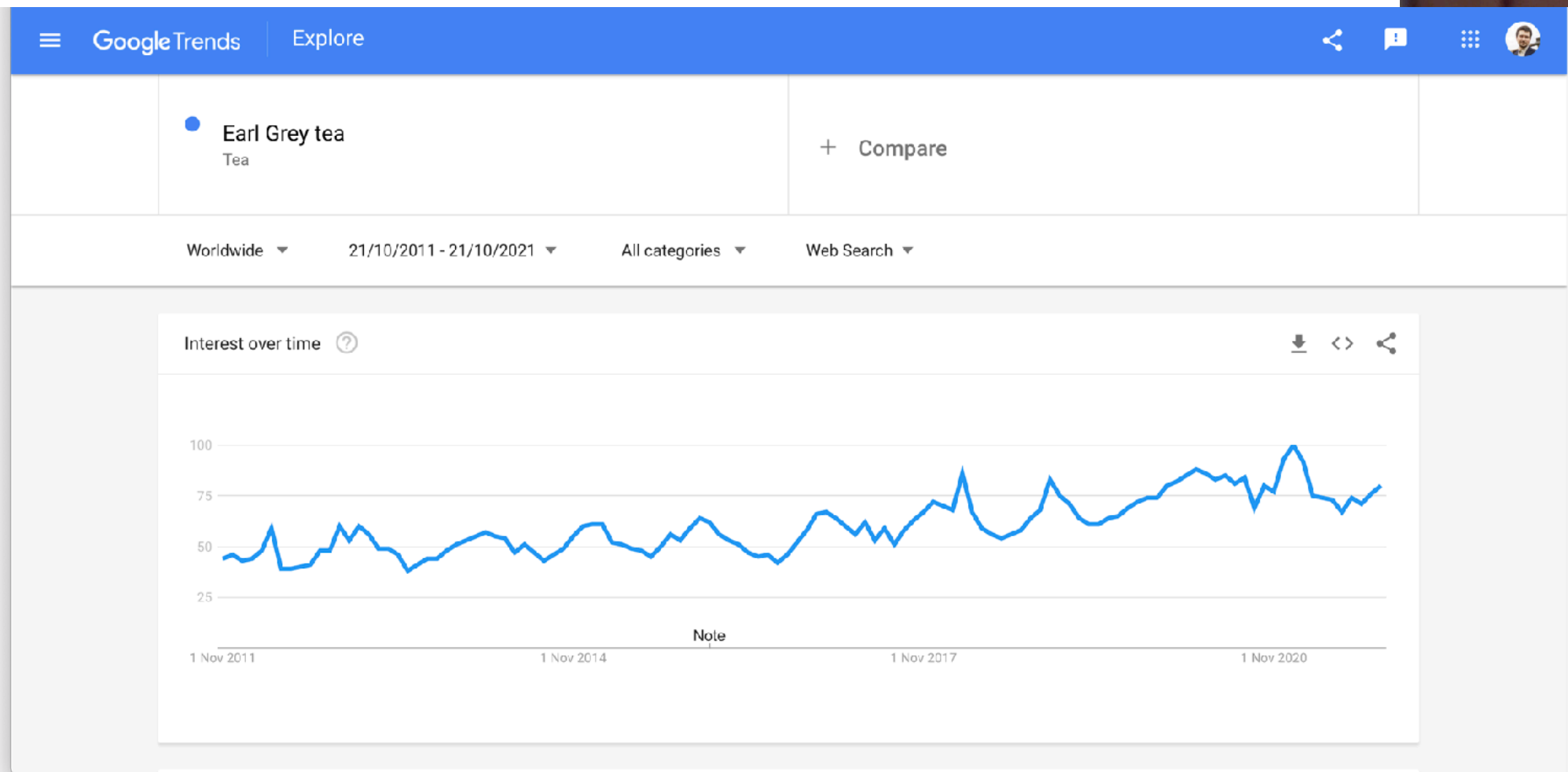
# Trend "AOP"



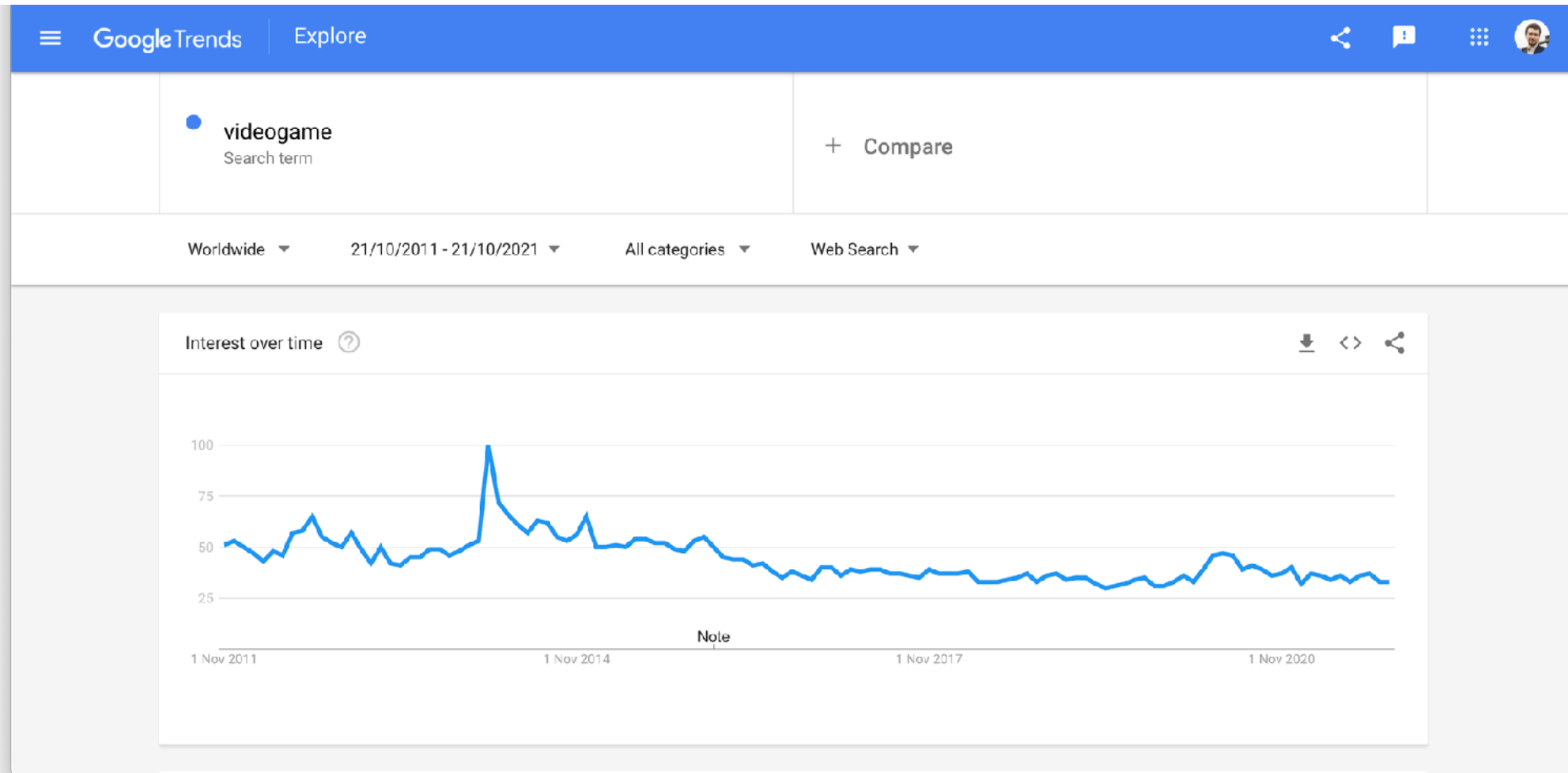
# Trend "bug"



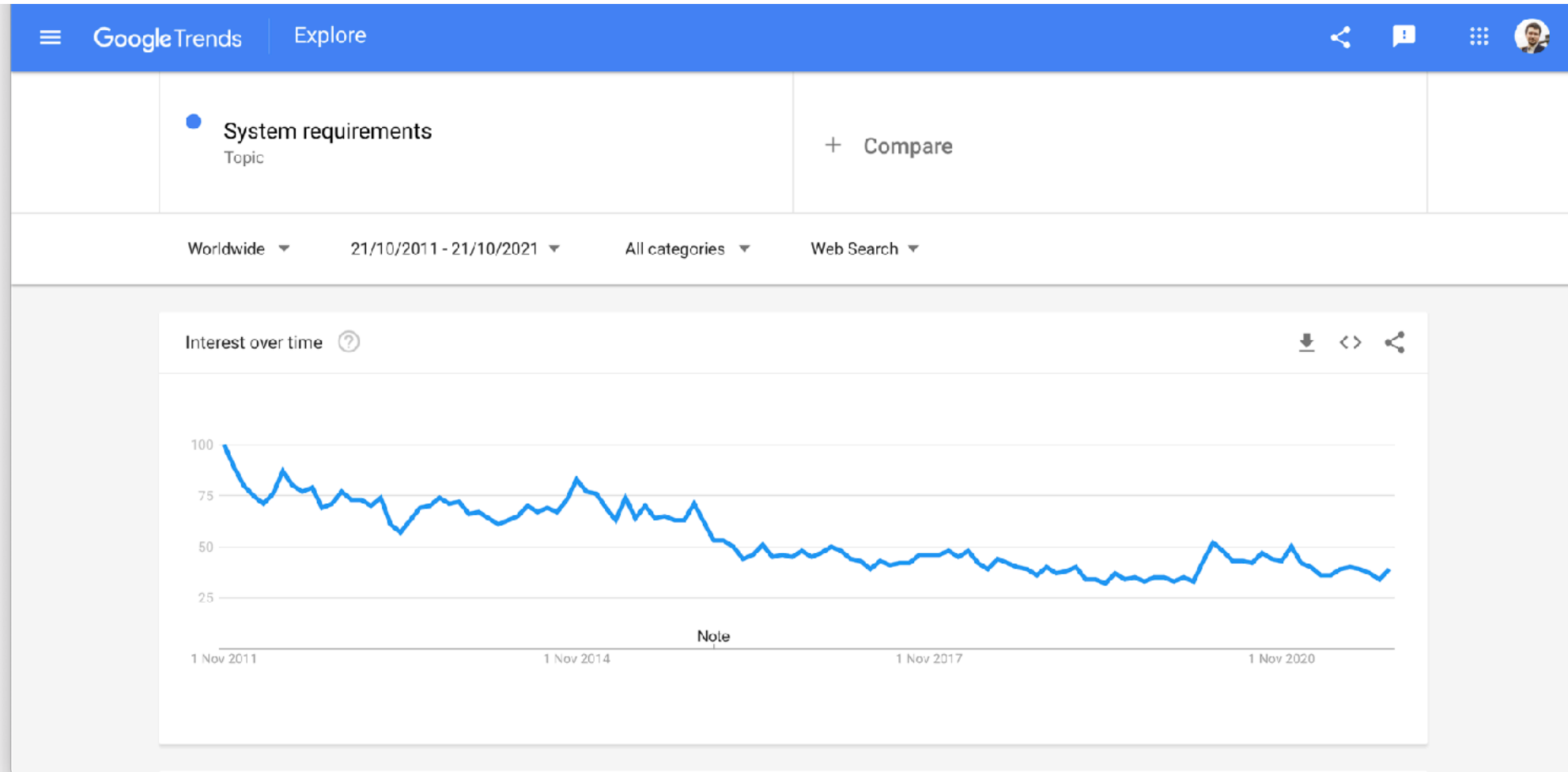
# Trend "Earl grey"



# Trend "videogame"



# Trend “requirements”



### 3. Legacy System Migration

Many enterprises still use outdated software systems. As a rule, they are based on old technologies that are incompatible with the latest advancements, which results in a range of difficulties:

- Poor performance
- High maintenance costs
- Inability to fulfill customer requirements
- Data security breaches

Consequently, more companies now want to migrate their data and processes to new platforms in order to ensure the reliable functioning of their IT systems, helping them retain clients and remain competitive. Experts anticipate the [legacy application migration](#) trend to increase in 2022.

<https://www.sam-solutions.com/blog/software-development-trends/>

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# Trends/developments in the env

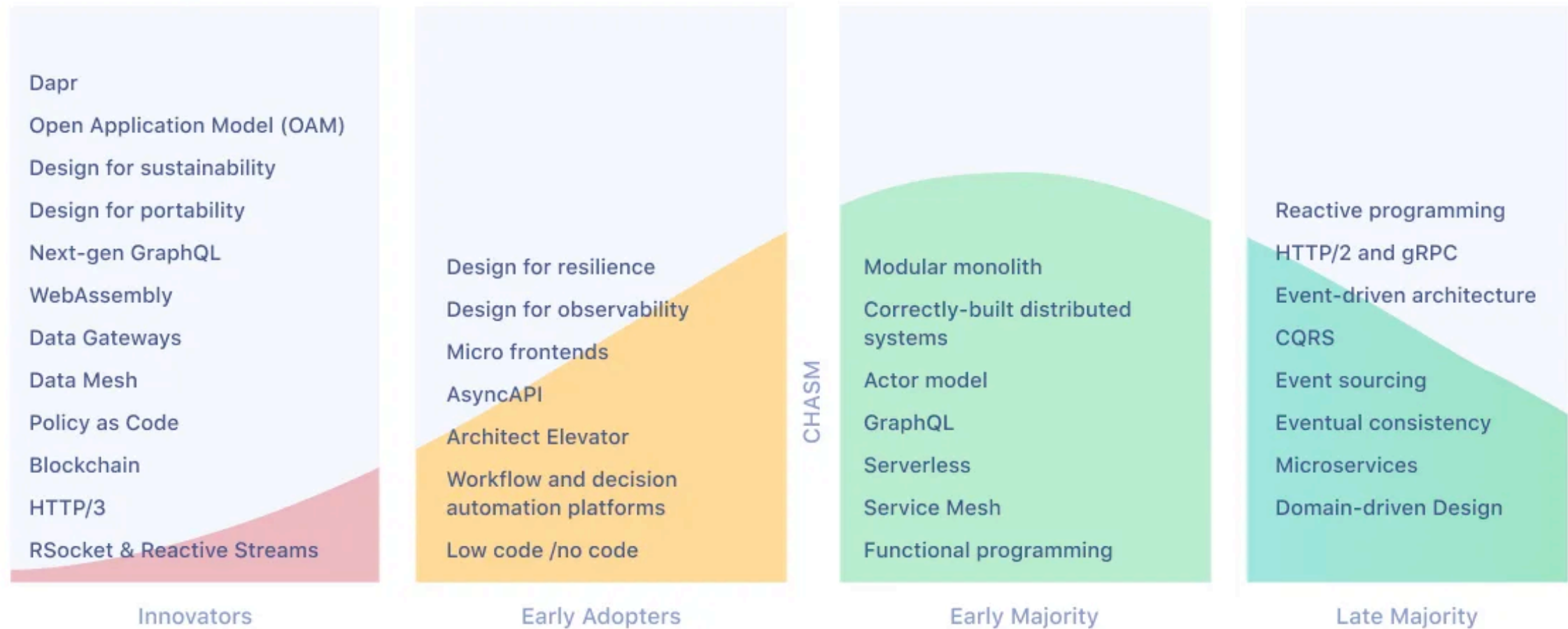
- Market, technology, realisation processes, personnel
- Find and identify:
  - Google, colleagues, competitors, literature, ...
- Choose to consider/ignore a trend:
  - together with stakeholders
  - reasoning
  - clear and shared scope  $\Rightarrow$  relevance

# Trends?

## Software Development Architecture and Design 2021 Graph

<http://infoq.link/architecture-trends-2021>

InfoQ



# Trends & developments

- **Identify trends/developments** in the context of your system
  - at least 5
- **Think** about:
  - application/function
  - design
  - realisation
- **Describe**:
  - what is the development (one sentence)
  - about what **aspects** is it?
  - why **consider/ignore**?
  - related to **goals/reqs/scope**