The NASA Astrophysics Data System: New Architecture and User Interface

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Overview

- Search
- Microservices
- API
- User Interface
Search

- Cornerstone of the new ADS services
- ADS Classic vs SOLR search
  - Size vs speed vs functionality
- Solved problems
- Un(re)solved challenges
Microservices

● Architecture overview
  ○ Monolithic vs domain-oriented
  ○ Local vs distributed

● Challenges
  ○ Reliability (user expectations)
  ○ Complexity (cost)

● Future
Microservices cont.
API

● If it works everything is great, when it doesn’t …
● Industry standards
  ○ HTTP, JSON, OAuth (permissions/privileges)
● What we learned
  ○ #users
  ○ #requests
● What is more important?
  ○ User interface
  ○ New services (spinoffs)
  ○ Robots, crawlers
User Interface

● Architecture and few why’s
● Was it meant to be pretty?
  ○ We have to work hard to stay focused NOT on the picture
  ○ UX vs strictly functional
● Statistics/adoPTION
● Future opportunities
User Interface

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  - We have to work hard to stay focused NOT on the picture
  - UX vs strictly functional
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- Future opportunities