

Web 2.0 and Grids

Overlap or Complementary?

Literature Study Course Presentation

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Web 2.0 and Grids: Research Questions

- ▶ What is Web 2.0?
- ▶ What are (Computer) Grids?
- ▶ Which Grid-requirements can be satisfied by Web 2.0?
- ▶ Which Grid-requirements can't be satisfied by Web 2.0?
- ▶ Where is the mutual benefit between Grids and Web 2.0?

What is Web 2.0?

- ▶ Easy answer: everything successful since dot-com crash
- ▶ Attempt at formal definition by Tim O'Reilly
- ▶ Hype, controversy
- ▶ 7 "Web 2.0 rules"

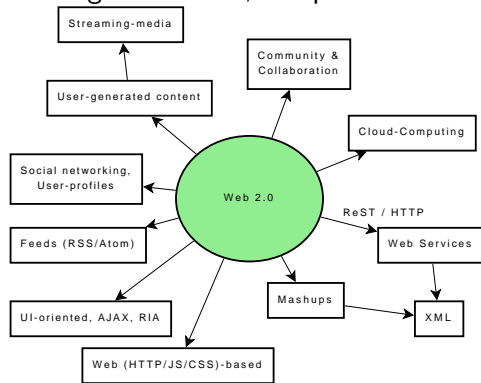


Web 2.0 rules

- ▶ The Web as Platform
- ▶ Harnessing Collective Intelligence
- ▶ Data is the next Intel Inside
- ▶ End of the Software Release Cycle
- ▶ Lightweight Programming Models
- ▶ Software Above the Level of a Single Device
- ▶ Rich User Experience

Web 2.0 Concepts

No single definition, but possible to show related concepts



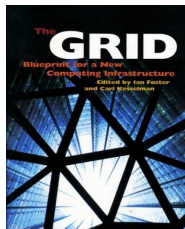
What are (Computer) Grids?

- ▶ Ian Foster, Carl Kesselman
- ▶ Distributed compute and data resources (Just "plug in" to get access)
- ▶ More than merely using multiple computers
- ▶ Multiple sites, multiple organizations
- ▶ Globus current de-facto grid middleware

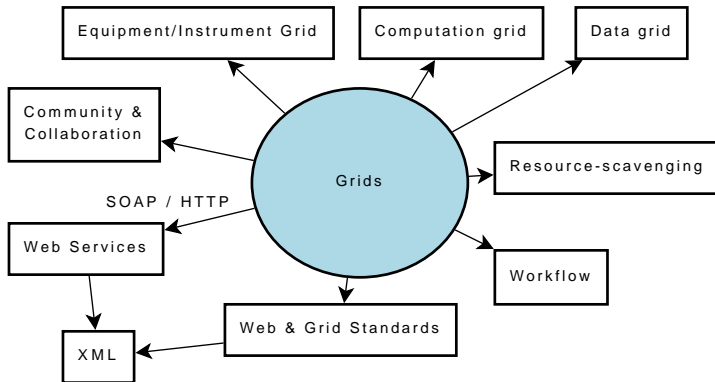


Grid definition

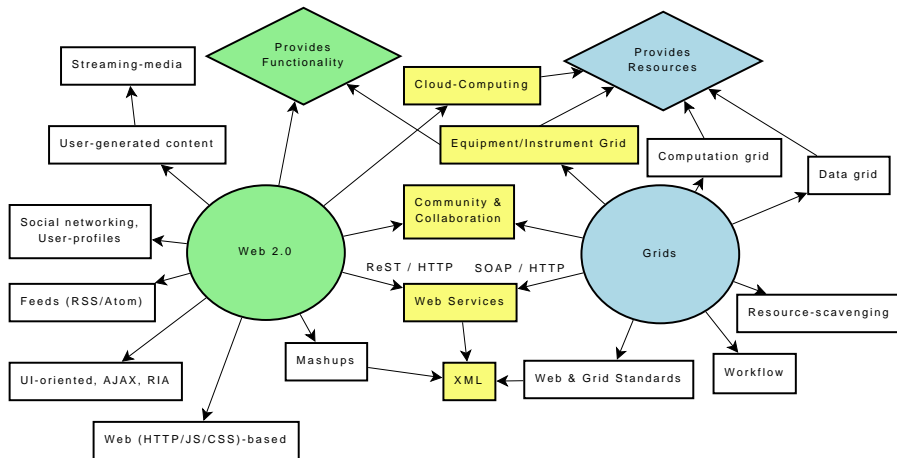
A Grid is a system that coordinates resources that are not subject to centralized control using standard, open, general-purpose protocols and interfaces to deliver nontrivial qualities of service. (Foster, 2002)



Grid concepts



Overlapping concepts and relationships



Overlapping concepts

- ▶ Web Services and XML
- ▶ Cloud Computing
- ▶ Community and Collaboration
- ▶ Equipment and Instrument Grids

Conclusion

- ▶ Cloud Computing concept closest to Grid Computing; resources are coordinated and offered via an interface with a predefined quality of service.
- ▶ Instrument Grids are probably in the best position to profit from Web 2.0 concepts.
- ▶ Grid-based Virtual Organization should go beyond mere trust and access control towards the fostering of cooperation and relationships between organizations active on similar projects using Web 2.0 concepts.

