The Dynamic Web

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The WWW in a Dynamic World

- Web based communication: people and information systems
  - traveling scenarios
  - logistics
  - cyber physical systems
  - „smart cities“

- Internet of things
State of the Art

- Message passing
  - Twitter etc.

- Web services (more for distributed Web based computation then for communication)

- Business Processes (BPEL etc.)

- Active databases (not really Web-enabled)

- Agents
Dynamic Web: Events and Actions

- Today: dedicated ICT for events and actions
  - CEP – complex event processing
  - Complex actions

- Reactivity: event condition action rules

- Declarative approach to dynamic processes

- to be integrated with semantic technologies
The Dynamic Web Layer Cake

Dynamic applications: Business Processes, Business intelligence, Cyber-Physical Systems, dynamic social networks, machine learning, robotics, …

Agent based reasoning and communication

Complex Event Processing / Actions / Reactivity / Semantics / Coordination

The reference Model: EACO

Internet of Things / Message oriented Middleware / Web services
Active Databases / Stream Computing /

Network protocols distributed operation systems