

# Tool Support for Distributed Software Development

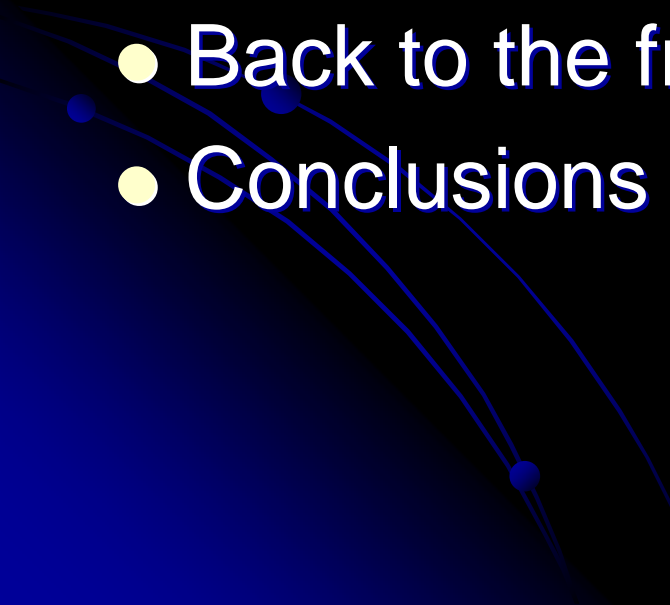
Past – Present – Future  
of gaps between user  
requirements and tool functionality

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# Outline of the presentation

- Presenting the framework for analysis
  - The past (1997 – 2002)
  - The present (2002 – 2007)
  - The future (2007 - )
  - Back to the framework (recap)
  - Conclusions
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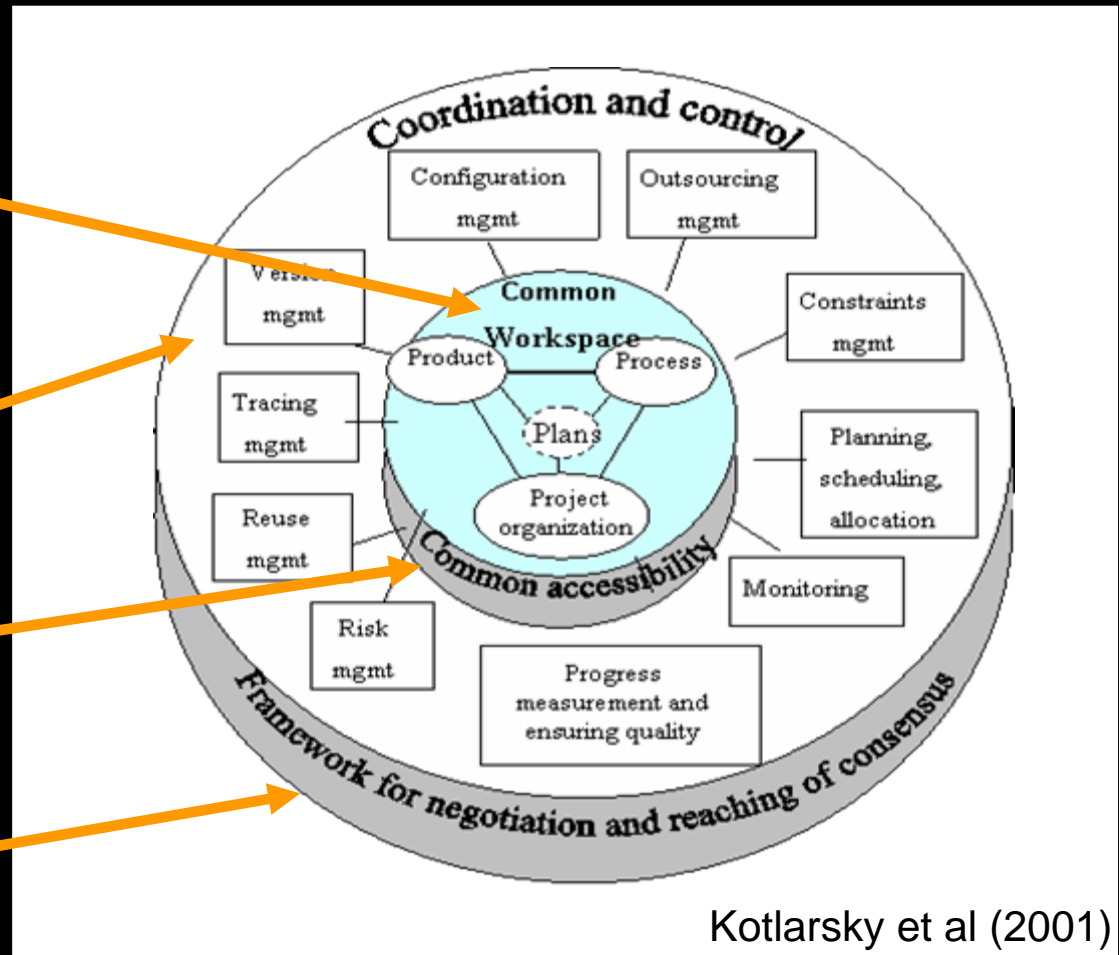
# Framework of analysis

UR1: Describe and maintain data information during the product development life cycle.

UR2: Coordinate and control during a project and across projects.

UR3: Have common/remote accessibility to the project environment.

UR4: Negotiate and reach consensus with other GDSD team members.



Kotlarsky et al (2001)

# The Past (1997 – 2002)

- Millennium and fast adoption of internet  
-> global projects
- Challenges: sharing storing designs, sharing ideas and experiences  
-> tool support
- Lack of standardization and limited alignment with SW process  
-> not easy to manage

Management

- Support of GSS functionality in CASE tools was in its infancy  
-> Knight tool and JComposer (Grundy, J. 1998)

Tool Vendor

Research

- CASE tools, VMS tools and GSS tools  
-> gap vs overlap

**Product Oriented/ Vendor driven market**

# The Present (2002 – 2007)

- After the 'Internet Bubble' (A.I.B.)
- Process as central nerve in GDSD
- Competitive advantage
  - > Balance Quality-Cost-Time
- 'Hype' behind out/off-sourcing
- Project risk management
  - > Trust, culture, collaborative communication

Management

- GDSD tools complex issues to address|
  - > UI, levels of requirements, multiple views.
- CAISE architecture (Cook Carl. 2006)
  - > high dev. Cost involved

Tool Vendor

- Market consolidation
  - > IBM, Microsoft
- Integrated collaboration platform
  - > IBM workplace and MS Vista
- Community SW: low cost single tools
- SW process: Method Composer, EPF Visual Studio Team Systems

Research

**Process oriented – Costs & Time**

# The Future (2007 -



- Gartner: through 2009, 30% of global 2000 Ent. -> high level maturity in supporting practices, services and infra.
- Focus towards managing different organizational structures.
- Challenges:
  - > increasing complexity of SW
  - > technological changes
  - > KM
  - > cultural and language diff.

Management

- MDA
- Complexity of systems: monitoring and analysis capabilities
- Tools combining social network analysis, to architecture and design tools
- KM as source of reqs. and design specs
- Integration language

Tool Vendor

Research

- Towards a common architecture
- Shared and customized workspace
- No one tool providing all functionality
  - > P-to-P MS Office Groove 2007
  - > SiteScape include native WF functions

***Orchestrating global development***

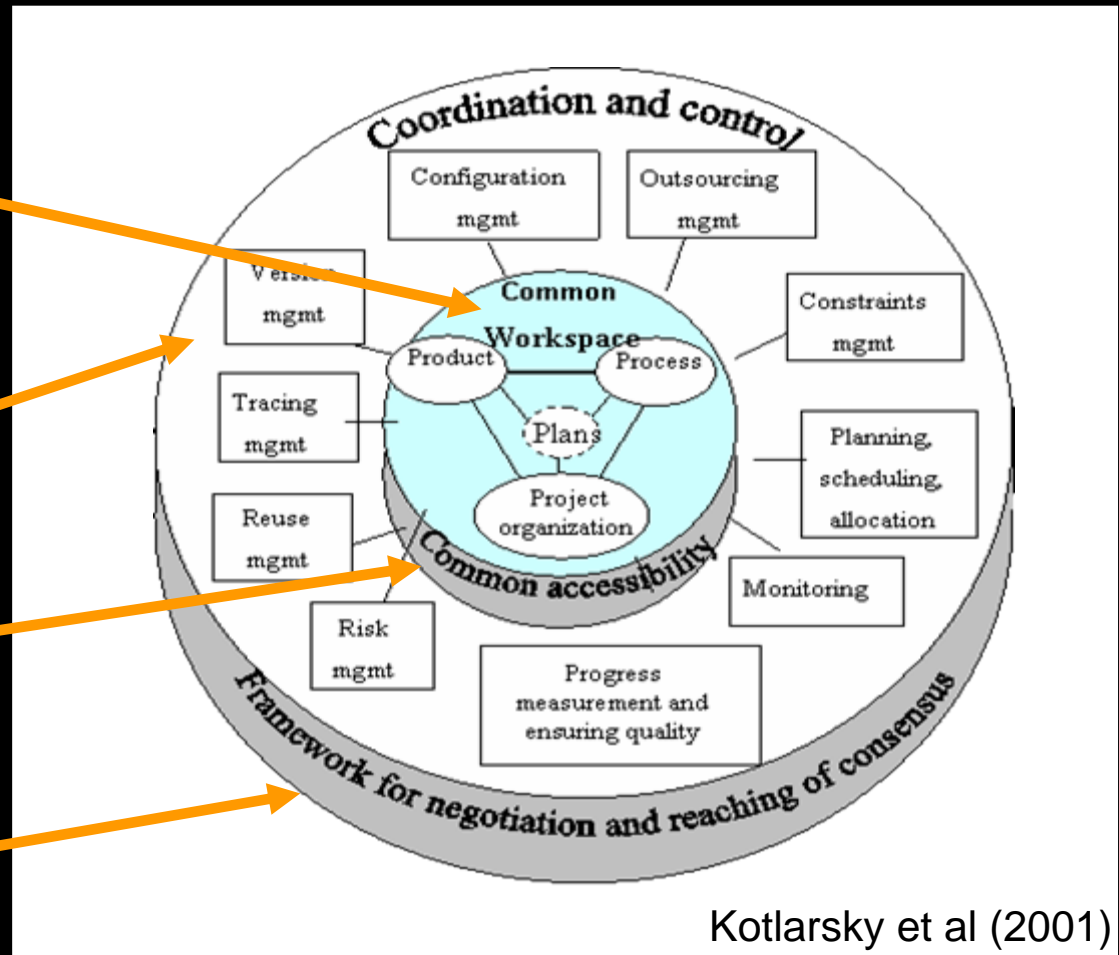
# Back to the Framework (recap) 1

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# Back to the Framework (recap) 2

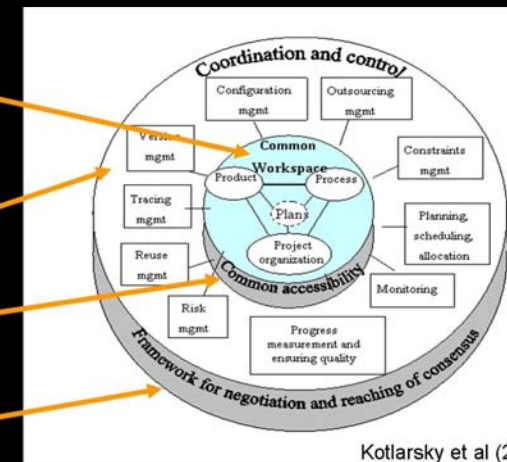
Period	1997-2002	2002-2007	2007-
Characteristic	<i>Product Oriented/ Vendor driven market</i>	<i>Process oriented – Costs &amp; Time</i>	<i>Orchestrating global development</i>
Use Case	U1		
		U2, U3, U4	
Common Workspace	Product	Process	Project Organization
Coord. & Control	Config. & version mgnt	Outsourcing & Risk mgnt	Monitoring & Reuse mgnt
Common accessibility and negotiation and reaching of consensus	VMS, CMS, email	Groupware, Sharepoint, Chat	Virtual work as a way of life

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# Conclusions

- With the further globalization, new mgnt organizational structures for GDSD
- Collaborative support remains important
  - > need for governance
  - > common understanding of req. diff locations, cultures, and Kn lev.

Management

- SOA and service on demand will add new dimension to the model of GDSD

Tool Vendor

Research

- Common SW architecture too expensive current low cost collaboration tools on desktop level (MS, IBM)
- Market players focusing on specialization rather than generalization

# Thank you!



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