

Service Oriented
Architectures without
Openness –
a contradiction of terms.
Reflection on the Norwegian situation.

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The story behind

Mål for dagen

- Primærmål: *Skape en forståelse for hva eNorge 2009-planens mål om å implementere tjenesteorientert arkitektur innebærer for utdanningssektoren. Gi innspill til KDs strategiske tenkning på området og arbeidet med Stortingsmelding om IKT-politikken.*
- Sekundærmål: *Ekspløatere en modell for strategiutvikling som opphever evt dichotomier mellom politiske-administrative og faglig-akademiske miljøer og sikrer effektiv interaksjon og god rolledeling mellom politikk/adm. – fag/forskning/operative miljøer – til fellesskapets beste*



The themes for my talk

- Nature of the talk: theoretical (or rather political) – based on one empirical “provocation”
- Software development
- SOA – and eGovernment policies
- Vocabularies for the most wanted professional dialogue
- The need for a “clean-up” of Government processes

Software development

- **Lack of user involvement** is the number one reason for **project failure** (ref. Chaos report from Standish Group, 1995)
- Waterfall model (requirements, analysis, design, implement & test, and roll out): Requirements perfectly known. That's not the case with Learning, Education & Training

Why we fail?

- Introducing new software changes practices & processes
- It's hard to co-design software and new ways of working
- Users don't know what is feasible
- Technologists don't understand the practices
- It's even hard to identify where to apply development

And the solution?

- New approach to software development and systems architectures
 - **Service-oriented Architectures** may be a good approach
- A **dialogue** is needed **between users & technologists!**

Service Oriented Architectures

Service Oriented Architecture (SOA) is an **enabling strategy**.

SOA is the sets of policies, practices and frameworks that enable **application functionality** to be **provided** and **consumed** as sets of services published at a **granularity** relevant to the service consumer that can be **invoked**, **published** and **discovered**, which are abstracted away from the implementation using a **single, standards based form of interface**

eGovernment

- top down policies

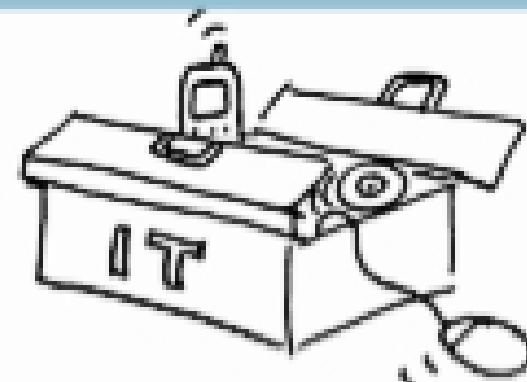
- "Interoperability based on standards, open specifications and open interfaces has become a crucial, crosscutting task."
(EU Commission)
- European Interoperability Framework (2004)
- eNorway - the digital leap (2005)

“By 2006, all public sector agencies shall have incorporated how they are going to use **open standards**, **service-oriented architecture** and **open source** applications in the relevant planning documents.”



eNorway 2009

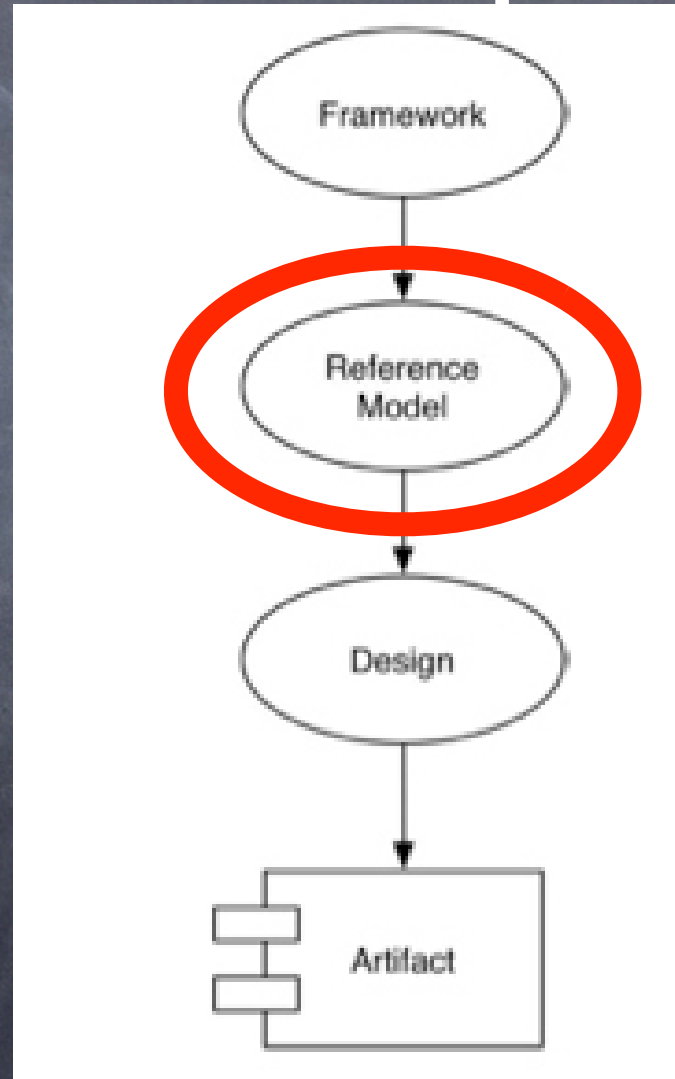
– the digital leap



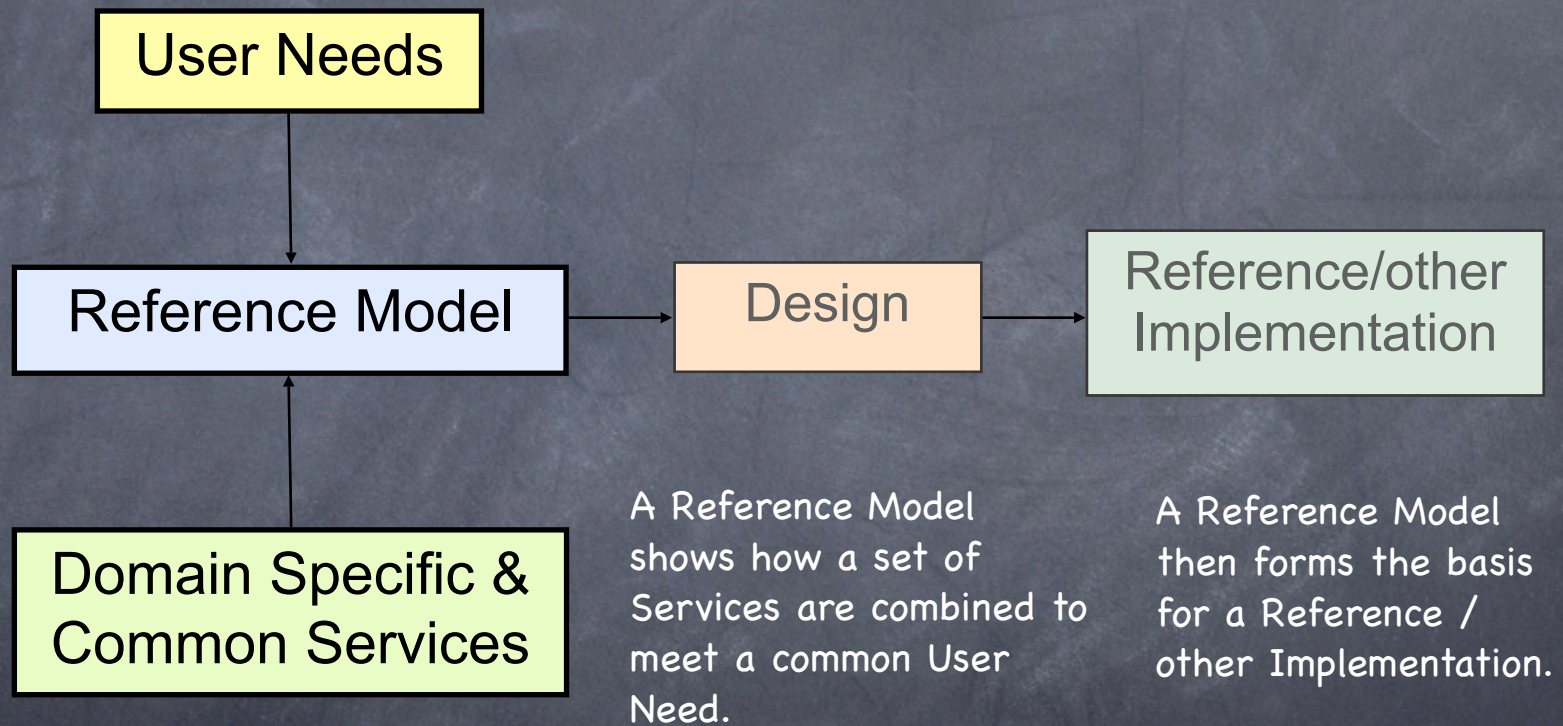
How to facilitate a dialogue?

- Technologies pose as **black boxes** (ref. ANT) – they just work, and the interests behind are hidden
- Need to create a **vocabulary** for the dialogue between the pedagogues and the technicians
- The e-Framework solution: **Reference models**

The e-Framework's concepts



Reference models



Reference models form a **bridge** between the Users' Needs and the Services

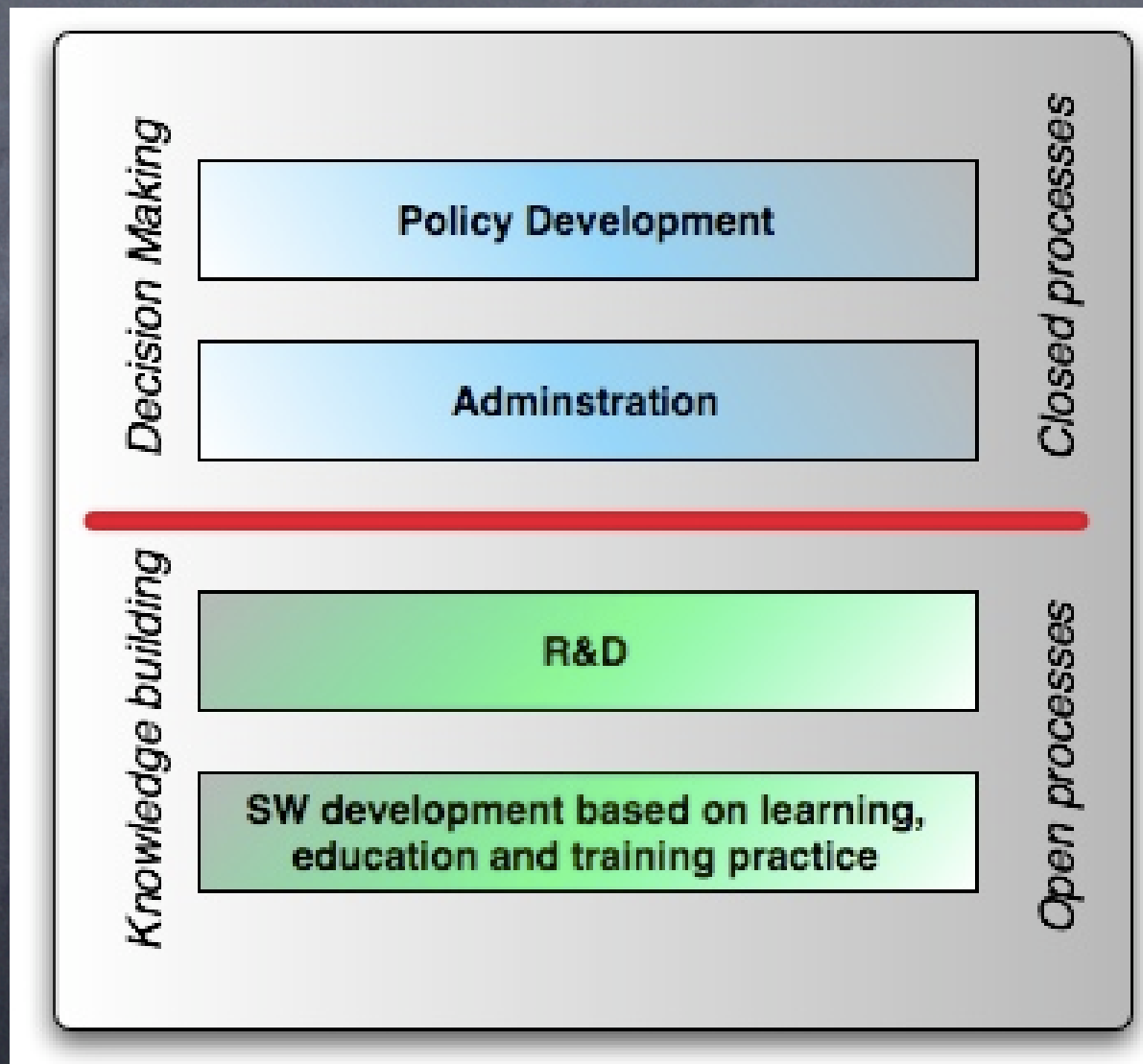
The top down approach meets reality

- The e-Framework presupposes that there is a **community** of developers engaged in an **open discourse** about learning technologies
- This is **not** the situation in Norway
 - The learning technology discourse is within the context of the LMS only ->
 - Vendors have got the grip of development
 - The authorities and institutions are hesitant to do any factorisation or orchestration of services

Is providing a vocabulary enough?

- The example of the commissioning of a new systems for administering tests within Norwegian primary education
- Not possible to see where it will fit within an overall architecture
- Documents not public...
 - ... due to Legal and Commercial reasons

4 Process Layers Model



Conclusion

- Closed soa development is a contradiction of terms
- Development of service-oriented architectures without government policies that ensure open processes is impossible
- The Authorities must watch the balance between knowledge building and decision making to foster open processes

Thanks!

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