Multi-channel Provisioning of Public Services

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Outline of the talk

• Background and motivation
• Research goal
• Design science research approach
• Research process
  – Research questions (RQ)
  – Research publications (P)
  – Research contributions (C)
• Proposed further work
• Summary and implications
Background & motivation

• IT-supported public service provisioning
• Use of Internet and the world wide web
• External requirements and customer expectations
• Responsiveness to change
• The technology component of service-providing systems should not be considered as the barrier for change
Research goal

Going from My Page to My Processes

- My information
- Find services (tjenester.norge.no)

- Multi-channel
- Citizen-centric
- Demand driven
- Process-oriented

Research method


Study overview

Legend:

- Research publication
- Area / nature of work
- Study / iteration

Problem environment
- Case study 1: Sectoral
- Case study 2: National
- Case study 3: Cross-national

Design work
- Design 1: Object design
- Design 2: Object design
- Design 3: Realisation design
- Design 4: Object design

Knowlege base
- Literature study 1: Problem awareness
- Literature study 2: Technologies and methods
- Literature study 3: Technologies and methods

Informs

Evaluation

Design
Research Questions

RQ1  How to define a model that describes the relationship between important concepts influencing service provisioning which can be used as a basis for understanding the e-government domain?

RQ2  What are the requirements to a future process support system for public service provisioning?

RQ3  How to apply the description of process work within the context of enterprises as a basis for a design artefact, i.e. a conceptual process work model, which meets the requirements to future infrastructures for public service provisioning?

RQ4  What is the maturity of the available affordances supporting the realisation of the proposed artefact?

RQ5  Assuming the realisation of the proposed artefact, how to conceptualise the needed governance?
RQ1

How to define a model that describes the relationship between important concepts influencing service provisioning which can be used as a basis for understanding the e-government domain?
What are the requirements to a future process support system for public service provisioning?

• Future scenarios (C2)
  – “My processes” (PAIS)
  – Multi-role view of the citizen
  – Innovation toolkits (von Hippel)
  – Virtual organisations
  – Citizen as an electronic entity

• Requirements for an e-service infrastructure (C3)
  – Multi-channel provisioning
  – Participating citizen
  – Transparency and transformation
  – Local services in a global setting
  – Process support

RQ3

How to apply the description of process work within the context of enterprises as a basis for a design artefact, i.e. a conceptual process work model, which meets the requirements to future infrastructures for public service provisioning?

• National e-service infrastructure (C4)
  – Conceptual model – Service and network viewpoint

• Evaluation
  – Conceptual
  – Informed argument
  – Demonstrator case study (P8)
  – Related work
    • Schroth and Schmid (2008); Dais et al. (2008); Overbeek et al. (2009);


Fig 14
Fig 15
RQ4 What is the maturity of the available affordances supporting the realisation of the proposed artefact?

- **Purpose:** Inform design
- **Case studies in the problem environment**
  - Case handling for planning and zoning (*Sectoral*) *(P5)*
  - Service development in Altinn 2 (*National*) *(P6)*
- **Information systems knowledge base**
  - Business Process Modelling Notation *(P2)*
  - Flexibility and process aware information systems *(P9)*
RQ5  Assuming the realisation of the proposed artefact, how to conceptualise the needed governance?
Proposed further work (I)

Service primitives

FW1 What are the common service interactions and tasks, as a basis for service primitives in the context of public service provisioning, which can be used in the modelling of process work based on an interactive modelling approach?

FW2 What is the appropriate level of detail of the identified service primitives with regards to reuse, and complexity of configuration, and appropriateness on the level of the domain, organisation, and modeller?
Proposed further work (II)

Service process model configuration management

FW3 How is it possible to support distributed collaborative editing of interactive process models using a domain specific modelling approach?

FW4 How is it possible to implement process logging, using the occurrence of events, to maintain process state for interactive processes in a multi-actor service network?
Proposed further work (III)

Validation of artefact agility

FW5 What are the generic type-wise changes to public service provisioning, having an origin both internal and external to the service, which have consequences for the planned service provisioning?

FW6 How to construct scenarios for citizen-centric and demand driven public service provisioning, based on the proposed artefact, as a basis for demonstrating the agility of the design artefact?
Summary and implications

• Contributions
  – C1: A model for describing the dynamics of e-government
  – C2: Future scenarios for citizen-centric and demand driven public services
  – C3: Requirements for an e-service infrastructure for public service provisioning
  – C4: A conceptual design for a national e-service infrastructure.
  – C5: A conceptual e-service governance model.

• Proposed further work
• Method and limitations
• Implication of work
THANK YOU.


P3  Gustav Aagesen (2009) Citizen-centric process views for government service provisioning, Norsk Konferanse for Organisasjoners Bruk av IT, Tapir Forlag


P7  Gustav Aagesen, Anne Fleur van Veenstra, Marijn Janssen, and John Krogstie (2011) The entanglement of enterprise architecture and IT-governance: The cases of Norway and the Netherlands, 44th Annual Hawaii International Conference on System Sciences (HICSS’11)


P9  Gustav Aagesen and John Krogstie (2010) Public service provisioning and ICT development. Synchronising the flexibility of organisations and ICT, Norsk Konferanse for Organisasjoners Bruk av IT, Tapir Forlag