

Future e-Government: From Monologue to Dialogue

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Abstract: This paper focuses on the next generation of e-Government services, based on the technological development of e-Services in the Norwegian public sector. We present the concept of e-Dialogues, and show how e-Dialogues may be designed and realized. We discuss the challenges connected to the realization of e-Dialogues, and we present methodological requirements.

1. Introduction

During the last decade, the Norwegian public sector has undergone many changes and taken quantum leaps towards e-Government. The focus of the public sector has been on accessibility to governmental services, and the citizen has been defined as a driver for the development. This citizen-centric strategy has been an important rationale behind several public initiatives and has resulted in several policy and strategy documents [1, 2, 3, 4, 5].

We have experienced the public sector going from offering simple electronic services for information and reporting, as in the late nineties when the first very limited e-service on tax return was offered to the Norwegian citizens (only a few information elements were possible to report), to more complex services offering two-way interaction (with prefilled information elements) between citizens/businesses and government (C2G, B2G).

In December 2003 the Norwegian Tax Administration [6] together with Statistics Norway [7] and the Brønnøysund Register Centre [8] launched the Altinn internet portal [9]. Altinn is a service through which citizens and businesses can report information to public authorities. Since then more than 120 forms and services from 20 Norwegian government agencies have become available through the Altinn portal. More than 23 million forms have been submitted through the system. In 2006, the internet portal MyPage [10] was launched as a political initiative to give all Norwegian citizens an online one-stop public service portal for common access to all public services. MyPage allows the citizen to use online public services, submit public service application forms and data and access personal data stored in public registers.

Although these public service portals represent an important progress in the development of Norwegian e-Government, there is still a long way to go before we reach a public sector where the different governmental bodies collaborate horizontally in order to offer consistent services to the citizens and businesses. There are several examples where services as of today are offered to the end users in a fragmented manner, so that citizens and businesses have to report the same information several times to different agencies.

This paper describes how the e-Dialogue initiative answers to the challenges of leveraging eGovernment and cross-sector collaboration in the public sector in Norway in order to offer better and more user oriented services to the public.

2. Challenges

We strive to achieve a situation where different public bodies collaborate on a cross-sector basis in order to offer better services to both citizens and businesses. As mentioned above, a number of policies and strategies are guiding our way towards more and more modern and advanced public sector. On the research frontier, the Semicolon project [13] is working on topics related to better semantic and organizational interoperability in the public sector. Research and development, thematically closely related to the European IDABC and EIF frameworks [11, 12], is being conducted in a number of participating organizations.

The Norwegian Tax Administration has, as a public partner in the Semicolon project, defined the e-Dialogue initiative as a collaboration project case, where the issues of interoperability and collaboration are central in order to offer consistent cross-sector services in a seamless way to the end users (citizens and businesses). In this context, we face two major challenges. These are presented in Chapters 2.1 and 2.2 below.

2.1 *Fragmented Public Services*

A main argument put forward by the Semicolon project is that public services are far too often fragmented, and they are poorly aligned with the end users' work processes. On the one hand, the way the different public e-Services are organized directly reflects the way the government is organized. On the other hand, the e-Services for businesses and individuals are only elements of more complex processes. One example is the process of having a baby. The pregnant person is exposed to a number of different healthcare services during the pregnancy. When the baby is born, the parents can, among other services, apply for parental benefits, parental leave and for kindergarten. Such processes often run across different jurisdictional areas, and the individuals strive to reach the complete understanding of how the different services relate to each other. It is difficult to get a grip on the complete set of rights and duties within the given contextual process.

There is a general call for solutions which align the different public services into integrated or clustered processes which guide the user through the different stages, actions or events (i.e., alignment within a given thematic context, such as having a baby, starting a new business etc.). This is an ambitious goal, the realization of which would bring about great rationalization and efficiency benefits for the end users who would not have to search for relevant services in the "jungle" of public services, and who would be able to complete the process more swiftly.

2.2 *Fragmented Government*

Due to legislation and the delegated jurisdictions among the different governmental ministries, the government is very fragmented by definition. The different ministries concentrate on their own areas of management and make their budgets correspond to the core business within their own jurisdictions.

Cooperation and collaboration across the different sectors or jurisdictions have not been on the list of responsibilities of any of the governmental ministries and their underlying agencies. There is, however, one ministry, the Ministry of Government Administration, Reform and Church Affairs [14], that is, among other things, responsible for coordinating the public sector reform, government administration policy and ICT policy. This ministry is working proactively to enforce the coordination and collaboration across the public sector in order to attain a more efficient and effective government. Still, we experience that the other ministries are given neither budgets nor concrete objectives to enforce cross-sector collaboration. These issues are described in detail in the so-called FAOS report from 2008 [15].

3. Future e-Services: the e-Dialogue Initiative

As mentioned in Chapter 1, the Norwegian e-Government strategies “eNorway” [2], “Easier Norway” [4] and reports no. 17 [1] and 19 [5] to the Storting have paved the way toward e-Government in Norway. Report no. 17 “An Information Society for All” describes the maturity of e-Government as a four-step ladder. The four levels are “Publication (on-line brochures)”, “Communication geared to target audience (information and simple interactive services)”, “Individualized communication (two-way communication based on vertical integration ICT systems and services)” and “Interaction with other bodies (two-way communication based on horizontal integration ICT systems and services of several organizations)”. The highest level that should be achieved contains cross-sector cooperation and collaboration in order to offer better and more complete services to the citizens and businesses.

A concrete example of how this can be implemented is through an initiative called e-Dialogue, run by the Norwegian Tax Administration. The Tax Administration has taken an initiative to coordinate a common effort between different governmental bodies to offer a complete set of services to the end users (citizens and businesses), orchestrated in thematic processes where the different services interrelate within a common context. The e-Dialogue initiative comprises several aspects of what the UN defines as the next generation governmental services, defined as “connected governance” [16]. The e-Dialogue initiative is currently mobilizing for a joint effort between different governmental bodies and applying for cross-sector funding.

3.1 The Essence of e-Dialogues

The e-Dialogue initiative is based on the vision of having an end-user focused, collaborative public sector within which all public services are coordinated and where the public ownership to the different services is transparent to the end users (Figure 1). The end user does not have to know how the different services or the public sector is organized, but can access the services at one point and independently of the responsible public bodies. The e-Dialogue concept is composed of thematically sorted services, connected to and orchestrated within a given context that the end user relates to.

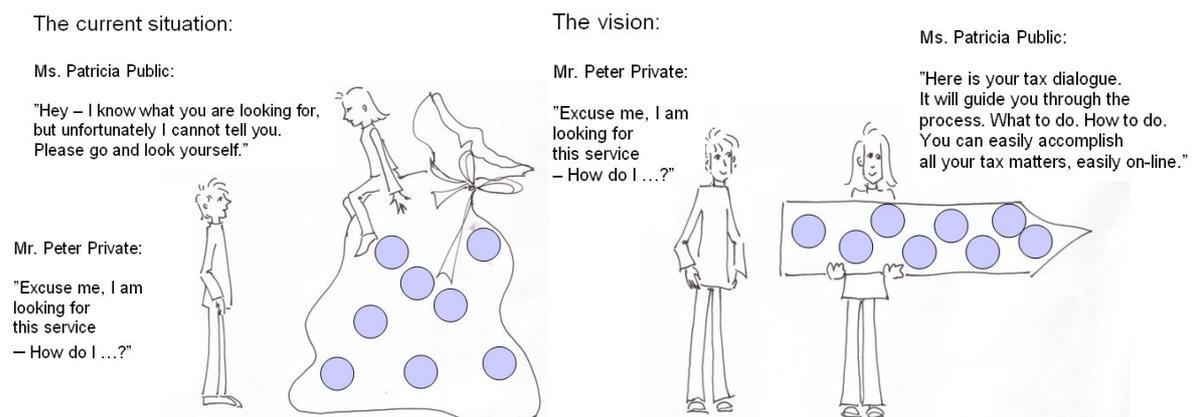


Figure 1. The Vision of the e-Dialogue Initiative.

3.2 e-Dialogue Architecture

The e-Dialogues will be built on the Altinn platform, and as part of the realization of the first e-Dialogues the Altinn e-Dialogue collaboration framework will be developed and then

also provided for future e-Dialogues. Altinn and the e-Dialogue frameworks are then elements in a common public ICT architecture for e-Governmental services, as addressed by Norwegian policy and strategy documents [1, 2, 3, 4, 5] and explicitly described in the FAOS report from 2008 [15].

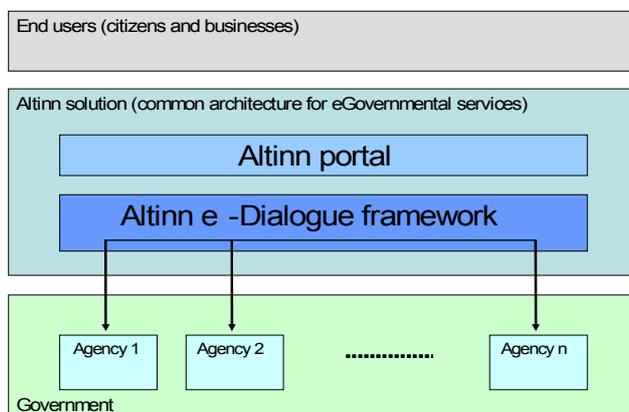


Figure 2. *Altinn and e-Dialogue Architecture (Simplified).*

The different agencies collaborating to provide the end users with the e-Dialogues can then compose and orchestrate their services in common e-Dialogue processes by using the e-Dialogue framework in the Altinn solution platform.

The first cross sector e-Dialogues to be implemented are the following four:

1. e-Dialogue of having a new baby.
2. e-Dialogue of handling a deceased.
3. e-Dialogue of starting a new enterprise (see section 3.3 below)
4. e-Dialogue of foreigners coming to Norway.

These four e-Dialogues have all been selected as the first pilot e-Dialogues because they all contain services from the Norwegian Tax Administration; this because the Tax Administration is the initial driver of this initiative. Later e-Dialogues will also be driven by other government agencies.

3.3 *The e-Dialogue of Starting a New Enterprise*

The Norwegian Ministry of Trade and Industry [24] is currently focusing on making the process of starting new businesses as easy and cost-efficient as possible for the Norwegian society. There have been several initiatives to coordinate the public information in order to make this process easier for Norwegian entrepreneurs, but still the process has many challenging steps. Therefore, the e-Dialogue of starting a new enterprise has been chosen as a pilot e-Dialogue for the ongoing project of preparing for this next generation of public e-Services. The registration process of a new enterprise has already been structured in a coordinated way so that one registration service is set up to update several registers across the public sector. This service was established in 2004 by the Brønnøysund Register Centre, and is, in fact, an example of an existing collaborative e-Service. The e-Dialogue of starting a new enterprise takes this service one step further, and aims at offering the entrepreneurs initial help in establishing and evaluating the business case before starting the registration process, and also offers help in the early stage of the enterprise's life. How to set up a business and market plan and how to apply for funding through different funding institutions are some of the challenges that first-time entrepreneurs face before getting started. Very few of the newly established companies are familiar with the reporting and filing obligations (i.e., VAT and tax return filing). This first phase of managing the enterprise will then also be within the scope of the e-Dialogue of starting a new enterprise.

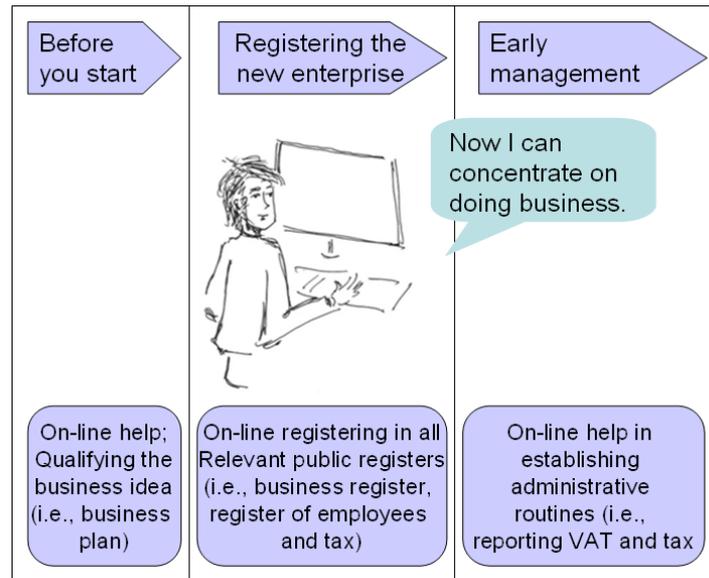


Figure 3. *The e-Dialogue of Starting a New Enterprise*

3.4 Similar Initiatives in Other Countries

In other Scandinavian countries, there are similar initiatives to be observed. The Danish government, Local Government Denmark and Danish Regions have joined forces to provide better, more cohesive and efficient digital service to citizens and businesses [17]. The e-Government strategy comprises general goals as well as 35 specific initiatives. Among these, we find the Citizen Portal Borger.dk, the Business Portal Virk.dk, and the clustered services MyHome and My Children. Virk.dk [18] is a business internet portal monitored by the public sector in Denmark. The overall objective of Virk.dk is to relieve Danish companies from administrative burdens and to provide a single entrance to the public sector. On Virk.dk, over 50 public authorities and all Danish communes offer access to approximately 1300 electronic services and electronic/interactive application or filing forms. Although broad in scope, Virk.dk does not seem to provide interconnected electronic services in the sense the e-Dialogues attempt to do. For citizens, public authorities in Denmark offer the portal Borger.dk [19] for information and self-services from cities, communes, regions and the government. These services are thematically organised, but do not offer interconnectivity of related services. Initiatives that, in fact, resemble the e-Dialogue initiative are MyHome (MinBolig), clustering all services concerning the citizens' homes such as housing subsidy and tax on real estate, and MyChildren clustering services concerning children and related areas; day-care, school, children's health care, etc.

In Sweden, three government agencies have established a "business link to government" for those who run or are about to start a business: Verksam.se [20]. This service clearly resembles e-Dialogues. On this website, three government agencies (Swedish Companies Registration Office [21], Swedish Tax Agency [22] and Swedish Agency for Economic and Regional Growth [23]) have brought together and structured information and services of value to those who consider, start, run, develop or close down businesses. Verksam.se is just beginning, but it is possible to use it, irrespective of where in his path as an entrepreneur the user is.

4. Discussion

Initiatives such as the e-Dialogue offer a platform for expanding the current scope of e-Services. There are, however challenges and barriers that have to be overcome in order to

realize e-Dialogues and to achieve full benefits from initiatives of this type. In this chapter, we discuss some of these and we touch upon future work.

4.1 *Financial Frames*

The e-Dialogue initiative challenges the existing, traditional governmental organization model, because the different bodies lie within different jurisdictional and administrative areas and governmental ministries. The different ministries traditionally focus on their own area and on underlying bodies, and are actually set up to “defend” and “fight for” their own jurisdictional area and thus funding within isolated jurisdictions. This represents a serious barrier for achieving the necessary financial frames and resources to implement cross-sector initiatives such as the e-Dialogue services, and has to be battled by conscious cross-sector budgeting and explicit letters of allowances from ministries to involved agencies. This among other organizational barriers to cross-sector collaboration have been documented by Hellman [25].

The first step in implementing e-Dialogues would then be to establish the appropriate financial frames. This requires initial efforts from the different involved governmental bodies in suggesting to their own ministry this co-operative initiative to be prioritized. This bottom-up approach has already been initiated by the Norwegian Tax Administration (2009/2010) and resulted in a common letter of suggested cross-sector efforts for the years 2011-2012 to the Ministry of Government Administration, Reform and Church Affairs. This ministry was, based on its given area of responsibility, found to be the most natural ministry to promote the e-Dialogue initiative to the Norwegian government. The suggestion is now being reviewed by the Norwegian government and is yet to be concluded upon.

4.2 *Governance*

Managing the cross-sector based e-Dialogue initiative and the different e-Dialogues will challenge the same traditional organization model. Which governmental body amongst others should be the one in charge? And which should be the owner of a given e-Dialogue? Basically the same question is raised by de Bri and Bannister [26]: “*Who owns an integrated system?*” They refer to an informant who answers “*A different organisation*”. We believe that the most natural owner of an e-Dialogue will be the owner of the most services in the given e-Dialogue, and that this matter would have to be discussed and evaluated in every case. There must be an owner in order to coordinate all common interests and to serve the end-users on any common cross-sector issue.

There are no existing interdepartmental structures to base the e-Dialogue initiative upon, so there will be a need for establishing a new regime and governance model for the handling of the e-Dialogue initiative and the different e-Dialogues.

4.3 *Legislation*

Orchestrating the original services into common service processes, as with the e-Dialogues, will in many cases conflict with existing legislation. One must then consider possible needs for changes in legislation and regulations, processes that might require a lot of efforts and be of high complexity, due to many involved parties with different legislations. These processes must then be given time and an early start.

4.4 *Open Architecture and Business Process Re-Engineering*

There are a number of technological and implementation-related issues connected to e-Dialogues. In the efforts of putting the end user in the centre of the development and design

of an e-Dialogue service, one should also be aware of the risk of cementing the existing services. It is reasonable to assume that one must not just “glue” existing services together. By taking a step back and considering the design process from the perspective of how an ideal e-Dialogue should look like, one may enhance the service design noticeable. In other words, business process re-engineering is a necessary prerequisite for successful e-Dialogues. This must be considered in conjunction with the legislation (see 4.3 above).

4.5 *User Acceptance, Benefits Realisation and Incremental Development Process*

E-Dialogues may cover a substantial amount of data processing, and be composed of a large number of “sub-e-Services”. In the realization of an e-Dialogue, the total feasibility may be increased by first implementing a subset of the services in the target picture, and then extend the spectre of services incrementally. This approach will give the opportunity to learn from the early user experiences and then compensate for possible challenges at an early stage. It will also stimulate the different government agencies to engage with further services into the e-Dialogues after first experiencing the cross-sector e-Dialogue collaboration with a minor set of services involved (i.e. the “*snowball effect*”).

The first services to be realized in early versions of the e-Dialogues should then be chosen based on what gives the highest value to the end users. As the e-Dialogue initiative is based on an end-user centred focus, the user acceptance is critical to the success of the initiative. So there will be a continuous focus on user acceptance and benefits realisation to the end-users (i.e. citizens and businesses) throughout the realization process. The incremental development approach introduces two main requirements to the development process: 1. Incremental realization of e-Dialogues requires a methodological approach to system development. The development team has to choose among system methods which support incremental development and are part of agile software development frameworks. 2. Incremental step-by-step-development imposes the use of open architectures on the realization of e-Dialogues (see 4.4 above). It has to be possible for example to add and upgrade modules, or redesign processes composed of these components.

5. Conclusion

We are at an early stage of mobilizing the project with funding for the further process. The traditional and existing governmental organisation model represents a fundamental prerequisite to the realization of the e-Dialogues, and the aspects listed in chapter 4 represent what we expect to be the most challenging in order to accomplish the initiative and realize the e-Dialogues. Due to the complexity of these different aspects we are planning on launching the first cross-sector e-Dialogues in the years 2013-15, first given the necessary technology in the Altinn platform (planned 2011) and e-Dialog piloting 2011-2012. Experiences so far already confirm that the e-Dialogue initiative represents an important driver for cross-sector collaboration and addresses the two main challenges given in chapter 2: 1. Fragmented public services, and 2. Fragmented government.

This is based on the fact that the involved government agencies and public service representatives would not have met in such a collaborative context if not for the cause of the cross-sector e-Dialogue initiative. This has led to important exchange of knowledge and information across the sector silos and has already triggered the different agencies to work for better and more effective business processes and services to the public.

Acknowledgements

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