

# Information Management and E-services Development: The Follow-up Process of Residential Care Homes for Children and Young People in Two Swedish Municipalities

# Proscovia Svärd\*, Sheila Zimic\*\*

\*Information Systems and Technology (IST), Mid Sweden University, Sweden and University of South Africa, Department of information Science, Pretoria\*, proscovia.svard@miun.se
\*\*Information Systems and Technology (IST) Mid Sweden University, sheila.zimic@miun.se

Abstract: This article presents preliminary results of a study that explores the management of information critical to the follow-up process of the placement of children and young people in residential care homes in two municipalities in Sweden. The placement of children and young people is regulated by a stringent legal framework to protect their integrity. However, there is need to effectively capture, manage, use and re-use information for follow-up purposes. An effective follow-up is of paramount importance to the wellbeing of the placed individuals and to improve service delivery which can be innovatively pursued through the development of eservices. The study applied Participatory Action Research (PAR) and it also used an Enterprise Content Management (ECM) model with a focus on the Life Cycle Management of Information. The research findings confirmed lack of effective ways of managing information for the follow-up process, which makes the development of e-services more difficult.

Keywords: Information, Management, Residential, Care, Homes

## 1. Introduction

This article explores the management of information that is critical to the follow-up process of the placement of children and young people in residential care homes in two municipalities in Sweden. The preliminary results, presented in the article, come from a pre-study entitled, "Innovative and co-creative information management for the follow-up of residential care homes for children and young people", with a goal to help the municipalities to achieve an information management environment that promotes informed decisions and knowledge management for effective follow-up. The follow-up of residential care homes constitutes two different units of assessment; one is the legislated follow-up of the individual in placement (minimum four times per year) and the other is the follow-up of the contracts with residential care homes to establish whether they deliver the services and care agreed upon. These two processes are interrelated since the service and quality of care can only be evaluated with regard to the effect it has had on the individual under placement.

However, several reports have confirmed inadequacies in the social service's follow-up processes of residential care homes (IVO 2018-7; 2020-2) and it has been argued that knowledge regarding the quality and the effect of care is scarce (Vårdanalys, 2018:9). Part of the problem is that most of the residential care homes are run by private providers but it is the municipalities that have to ensure that the services delivered are of good quality (Sallnäs, 2005).

Ensuring good quality services to the citizens is one of the main arguments for the development and use of e-services (Bernhard et.al., 2018), promoting transparency, access, and efficiency in public administrations (Bekkers & Homburg, 2007). There are claims that Sweden's third-generation e-government development is needs-driven, fosters collaboration among its institutions and involves private companies and citizens in its development (Eriksson, 2014). Therefore Bernhard, et.al. (2018) argued, that e-government development in Swedish municipalities is expected to increase administrative cost-effectiveness, promote democratic values, and increase inclusion. From this perspective e-government development could enhance service delivery and facilitate an effective follow-up of residential care homes.

Despite the third-generation e-government development, previous studies demonstrate that the social services in Sweden are "stuck" in what they call a 'first wave of digitalization' (Svensson & Larsson, 2018), and they point to the fact that the many regulations that public authorities must follow, create uncertainties in 'digital practices' of social work. This means that the stringent laws such as; the Public Access and Secrecy Acts, the Archival Law (Gränström, 2000), the Social Services Act and the European General Data Protection Regulation (GDPR) (Ayala-Rivera & Pasquale, 2018) that govern the management of government information have implications for the use and re-use of information in social work (Svensson & Larsson, 2018). Yet previous research shows that the management of information (the capture, use, preservation, and re-use of information) is crucial to the development of e-services (Scholl, 2006; SOU 2009:86; Svärd, 2011; 2014). Despite the stringent legal frameworks, the municipalities need effective information management practices that would enable them to effectively use and re-use all critical information created in the follow-up process, to address any inadequacies there might be and to improve the quality of care and cost effectiveness. Good information management practices would address the challenge of managing both structured and unstructured information (see section 2.1) within the organization. Several previous studies have argued that standardized documentation practices and standard operating procures hinder the creative use of information, in the sense that it loses touch with the chronological and narrative aspects, central to the social work (De Witte et.al., 2016).

The two municipalities in the study are striving to achieve an information management environment that promotes informed decisions and knowledge management for effective follow-up that would be in line with social services' efforts to work according to evidence-based practice<sup>1</sup>. Good information management would promote a follow-up process that builds on information and knowledge generated by those working with the process, but currently there is no system to facilitate the capture, management, organization, sharing and re-use of this information for all the involved stakeholders. Often, information systems are assumed to be the solution to the management of

<sup>&</sup>lt;sup>1</sup> https://kunskapsguiden.se/omraden-och-teman/verksamhetsutveckling/evidensbaserad-praktik

information in complex processes in public administrations (Zouridis & Thaens, 2003). However, the fixation on information technology de-contextualizes information, in the sense that the focus is put on the quantities of information. Information is perceived in non-meaningful ways and used as proxy (Webster, 2014).

To emphasize the importance of social context and practice, we argue for a proactive and holistic approach to information (Svensson & Larsson, 2018). Further, we argue that a proactive and holistic approach could lead to identification of well established, aware, and purposeful e-services from a professional logic. The article presents the theoretical points of departure upon which the rationale of the paper is based, the method applied to the study, the research findings, and concluding remarks.

# 2. Theoretical Points of Departure

The section below presents research that is relevant to the study and which has been used as a framework for collection and analysis of the empirical data.

# 2.1 Information Management

Information management is a broad concept that involves planning, organizing, structuring, processing, controlling, evaluating, and reporting information activities to meet organizational needs. It is further the capability to provide information to users with appropriate levels of accuracy, timeliness, reliability, security, confidentiality, connectivity, and access (Mithas et.al., 2011). Most organizations such as the municipalities, are however still struggling with the challenges posed by a hybrid environment that constitutes both analogue and digitally born information. Effective information management is therefore not easy to achieve. To solve the challenges of information management, organizations operate a broad range of information systems. However, the lack of integration between the information systems sometimes causes information islands (Svärd, 2011; 2014; 23. Svärd & Somya, 2015). This is exacerbated by business processes that are complex and pursued in a networked environment. Municipalities are further expected to manage their information according to the legal framework that governs government information in Sweden (Gränström et.al., 2000).

Information management research emphasizes an information infrastructure that constitutes: information systems, routines, legal requirements and clearly pronounced information management roles. This is what is claimed to promote a holistic information management environment that must further strive to: i) promote co-operation among stakeholders; ii) have integrated information management systems; iii) trains personnel when organizational changes occur as well as during the implementation of new systems; iv) focuses on process engineering and the re-use of information (Davenport, 1997; McLeod et.al., 2011; Svärd 2011; 2014). Organizations have structured and unstructured information. Structured information such as records, is traditionally captured according to the rules and regulations and the unstructured information is information which is also equally important to an organization's business activities but is often in dispersed environments (MacMillan & Huff, 2009). The Enterprise Content Management approach focusses on the

management of all an organizations information resources whether structured or unstructured. It could be a system or a strategy. The ECM Salient Features Model constitutes: *Enterprise Architecture*: helps organizations to understand the impact of technology investments on overall operations and assists with legislative compliance; *Business Process Management*: the analysis of work enables the identification of business-critical information; *Collaboration*: includes awareness of information shared between departments, communicating internal knowledge and experience; *Change Management*: change is inevitable in today's organizations and once implemented the reasons for change have to be effectively communicated; *Repurposing of Information*: Knowledge Management: is an increasingly important part of modern and learning organizations; *System Integration*: allows systems to "talk" to each other; and *The life cycle management of information*: entails the management of information from creation to preservation and re-use (MacMillan & Huff, 2009; Munkvold et.al., 2006; Tyrväinen et.al., 2006).



Figure 4: ECM Salient Features Model (Svärd, 2011; 2014)

This article applied the above ECM Salient Features Model (fig. 1) that was developed by Svärd (2011; 2014) during her research in Swedish municipalities. The model represents the eight salient features mentioned above. The article however has only focused on the life cycle management of information which entails the effective creation, capture, organization, preservation, and re-use of information.

# 2.1.1 E-services Development and Information Management

E-services development entails the use of information technologies and information to create new e-services. Torres et. al. (2005) argued that this is providing new opportunities to improve service delivery. Authors such as Stamoulis et al. (2001) argued that the effective management of public information is a prerequisite for effective e-services development. They advocated for a new information management philosophy that would promote its effective use. Svärd and Somya (2015) who conducted research in municipalities argued that the effective management of information

required the implementation of information systems and necessitated an enterprise and information management architecture. Their research confirmed that the municipalities had disparate information systems which created "information islands" that prevented the effective use of information. Kaurahalme, Syväjärvi and Stenvall (2011) also contended that public information management was still the missing link between e-government policy research and e-government as technology applications domain. Their study acknowledged the central role information played in e-government development.

Therefore Reffat (2003) expressed that to effectively manage information within e-services, information skills from different disciplines are a necessity. This is because of the need to manage information content, quality, format, storage, transmission, accessibility, usability, security, and preservation. Anderson et. al. (2011) researched the management of records amidst the development of complex e-services and argued that they required adequate recordkeeping and long-term preservation requirements especially where private service providers and the outsourcing of government services are concerned. Svärd's research (2011; 2014) further confirmed that the management of information is quite central to the development of e-services. The results of her research in two Swedish municipalities revealed that despite e-government initiatives, the management of information was still a challenge.

## 3. The Method

The study was conducted in a small and a medium sized municipality in Sweden. The small municipality will be referred to as A while the medium sized municipality will be referred to as B were necessary. The investigations of the needs of the children in the society's care is the responsibility of the Social Services of the municipalities and is in most municipal organizations referred to as department for "the individual and family care" with a special unit that focuses on children and young people. Municipality A's organizational structure had a unit for children and young people with resources (social secretaries) allocated to work with placements at residential care homes. Municipality B had a department for children and young people divided into two units; one for investigation of the needs and the second one for placements. At the investigation unit social secretaries identified the needs of the individuals to be placed and made assessments of the care homes based on the requirements they are supposed to meet with. At the placement unit, the social secretaries worked with individual cases based on the decisions made by the investigation unit.

To conduct a study in the environment described above, we identified the qualitative research method of Participatory Action Research (PAR) as most suitable because the method addresses a problem in a given community and enables finding solutions to the problem together with the community. The municipalities experienced an information management problem and we, the researchers, had to work with them to identify a solution. PAR is therefore defined as "a systematic investigation, with the collaboration of those affected by the issue being studied, for the purposes of education and taking action or effecting social change" (Minkler, 2000, p. 192). PAR constitutes three stages: *inquiry*, *action*, and *reflection*. The multiple cycles of these stages improve the knowledge and understanding of those involved in the inquiry. This leads to social action, while reflection leads to new understandings and opens up new areas of inquiry (Mackenzie et.al., 2012). What is distinctive

of PAR is the active involvement of people whose lives are affected by the phenomenon under study. Pain (2004) posits that participatory research allows research participants to self-represent rather than being represented by the researcher. It further generates rich accounts based on qualitative inquiry. The researchers and practitioners together in a reflexive process contributed to enhanced knowledge by identifying the challenges and solutions.

As per the first stage, *inquiry*, we carried out interviews via the Teams Application due to COVID19 circumstances using an interview guide which was informed by Fig. 1, the ECM Salient Features Model. The interview guide constituted semi-structured questions. The questions covered themes such as; the organization, work processes, information governance, information systems, information security, e-government development, collaboration, knowledge management and long-term preservation and re-use of information (Svärd, 2014). We also wrote a letter of information and consent that we sent to the heads of units prior to the interviews. The heads of units helped us to identify the people they deemed competent to participate in the study. Each interview took the maximum time of an hour and half. A total of 23 interviews were conducted with key people in the procurement and follow-up processes. These included managers, politicians, social secretaries, case supervisors, business developers, system administrators, procurement officers and officers who identify the residential homes, contract administrators and residential care homes managers. This article only presents preliminary results on the follow-up process that focused on Life Cycle Management of information management.

Data from the transcribed interviews were mapped to the themes on the interview guide such as information governance, information systems, information security, e-government development, collaboration, and knowledge management. The themes were used to label passages of data that enabled us to understand the Life Cycle management of information in the municipalities (Williamson, 2002). This way, we were able to identify the challenges of managing critical information in the follow-up process. As per the *action* and *reflection* phases of PAR, we conducted two workshops (via the Zoom Application) with the following aim: To share the preliminary results from the completed interviews and together with the participants reflect upon the identified problems regarding the information management challenges and hence allow them to think about their role in the information management environment.

# 4. The Research Findings

To understand the information management practices of the two municipalities required a holistic approach (Svärd, 2014). This article only presents preliminary results from one of the ECM salient features which is, the life cycle management of information. We argue that the focus on life cycle management could contribute to an understanding of the role of information in service delivery and the development of e-services. The next two sections account for the findings on the information management environment and how it impacted the development of e-services.

# 4.1 The Departments' Information Management Environment

The creation of information started with the social secretaries' assessment of the needs of the individuals to be placed, which followed a structured documentation process. The information that accrued was captured in a module called BBIC (literally translated as "Children's needs at the Centre") that was created by the National Board for Health and Welfare. All the information about the individual was captured in an information system and constituted the individual's digital dossier. Contrary to De Witte et.al. (2016) stating negative effects of structured documentation practices (see the introduction), the social secretaries did not express any concerns to that regard. They instead emphasized their own role in creating information about the individual cases. The creation of information deeply depended on how much information they elicited from the actors involved in each individual case. The inclusion of relevant information further depended on the social secretaries' professional judgement, and the BBIC was a guideline for documentation. When a need for a placement at a residential care home was identified, a collective and collegial process was initiated to find out if other types of interventions had been tried out before for the children that were in need of placement. The managers of the unit were involved in the process and sometimes the case supervisors were consulted.

If a decision was made to proceed with a placement, the social secretaries would choose a home which met with the individual's needs. Choosing a suitable residential care home was a complex process and involved not only matching individual needs with suitable treatment and care, but also skills in contracting residential care homes. This aimed to ensure that critical questions were asked and to finalize the contract between the social service and the residential care home. Municipality A and B had different procedures. In municipality A, the choice of, and negotiation with, residential care homes was the responsibility of each individual social secretary. Municipality B had an officer who helped to identify the residential care homes that matched the individual's needs, and a contract administrator who systematically followed up contracts.

In both municipalities it was the politicians in the local social welfare board who made the final decision regarding placements though they were not professional experts as far as the needs of the individuals to be placed were concerned. They sometimes asked for additional information to justify extra costs, expensive placements, or treatments.

The above-described procedure clearly demonstrated the demands put on the social services to deliver information to the different stakeholders (such as; the individual under placement, the individual's custodians, other professionals involved in the process of placement, and the politicians in the local social welfare board). As we argued in the introduction this process required a holistic approach to information management (Svärd, 2014). Right from the beginning of the study, we discovered that study participants were not familiar with the term "information management" though they were involved in information management activities. Both municipalities were in a "data intensive area" which meant that they were required to preserve all the information they produced.

We also noticed that the focus was on the legislated follow-up of the individuals under placement according to standard operating procedures. However, the systematic follow-up that required

aggregated information, and that could inform the follow-up of contracts to improve business operations, was still a challenge. For example, the following participant from Municipality B argued:

"We find ways to help each other on a daily basis, for example by sharing good examples. But to search in a client system and find...to conduct an analysis of a client group, such as "ten-year-old girls who have had a contact person as an intervention during the year 2020 ... Why? And how did it work out?" We do not have that. We are miles apart from that."

The re-use of information was a challenge and so was the capture of information that the social secretaries received from clients, in different formats such as SMS messages or audio messages. The information contained in the above-mentioned formats had to be typewritten, sent to the social secretaries' email boxes, or scanned for inclusion in the individuals' dossiers. To capture information effectively, information systems should be aligned with the business processes, in this case, the follow-up process. However, some of the participants expressed that they were not consulted during the procurement of new information management systems. There were clear challenges with the effective capture of all the information in a convenient manner. The information systems did not facilitate the capture of all critical information from the different stakeholders. The lack of optimal information management systems had to do with the fact that the system procurement process was not well anchored in the needs of the social workers yet, McLeod et.al. (2011) and Davenport (1997) highlighted the need to put the employees at the center of the information management solutions.

The effective use and re-use of information required all the stakeholders to understand that the information each person created in a particular process affected the entire follow-up process. Information if effectively managed and organized, could be used, and re-used as a common resource to improve service delivery. However, for this to happen, the employees needed information management skills as argued by Reffat (2003). During the two workshops that we conducted, we noticed a difference in understanding of information usage among the different professions. The business developers had a broader view of information usage. They mentioned for example the need to anonymize and aggregate information to produce statistics to improve service delivery. On the contrary, what mattered mostly to some of the social secretaries, was to capture the information according to the standard operating procedure and the legal requirements. The different professionals had different follow-up processes in mind, none the less, it was the information created by the social secretaries that was critical for both follow-up processes (whether it was at the individual level or aggregated level). To be able to address some of the above-mentioned challenges, the municipalities needed to find ways to re-use information created by the social secretaries to improve the quality of services. Authors such as Bernhard et.al. (2018) argued that the development and use of e-services improved service delivery.

# 4.2 The Departments' E-Services Development Efforts

The development of e-services hinged on the effective capture and re-use of information that emanated from the follow-up process. To develop e-services, the municipalities needed an electronic archive. Without one it would be difficult to manage the entire life cycle of information and to reuse it in a meaningful way. In municipality A an electronic archive had been implemented but the department had not started delivering information to it. In Municipality B, the social services

department was planning to implement an electronic archive. The absence of an electronic archive in Municipality B meant that digital information was printed on paper and sent to the analogue archive for preservation. This contradicted the logic of digital information that is supposed to support e-services development ambition that requires the effective capture and re-use of information to improve service delivery and to create new services (Torres et.al., 2005; Bernhard et.al., 2018; Davenport, 1997). It further meant that information was maintained in business information systems.

The research results in both municipalities revealed that there are currently no electronic services connected to the follow-up process of residential care homes but there were contemplations to create some. In municipality A, areas of development included; creating a service that would enable the residential care homes to report directly into the municipalities information management systems. This service would also give the custodians of the placed individuals access to the reports. Currently these reports are paper based and sometimes they are delivered in form of telephone conversations. A participant from Municipality A for example argued:

"Currently, the reports from the residential care homes are in a paper format or delivered via the telephone, there are for sure inadequacies in many ways, really."

There was therefore need to create electronic services that could cater for all the stakeholders involved. The many challenges regarding the capture and re-use of information constrained any such efforts or possibilities to develop e-services to improve the follow-up processes. It was also argued by the participants that those who were knowledgeable in information systems needed to collaborate with those who worked with the identification of potential areas of electronic services development.

# 5. Concluding Remarks

In this article we have acknowledged the proactive and holistic approach to information (Svärd, 2014). Based on the findings, the study confirms that municipalities still lack a holistic information management approach and are therefore far from embracing effective use and re-use of information as a common resource. This complicates the improvement of the follow-up process as well as the development of electronic services to improve service delivery. The stringent legal framework aimed to protect the individuals' integrity, complicates creative use of information. Furthermore, preliminary results show that the municipalities are grappling with a hybrid environment which deals with both analogue and digital information, structured and unstructured information. They lack full implementation of an e-archiving solution, which complicates the information management environment, the effective use of information and the development of e-services. They also face the challenge of managing unconventional formats such as SMS messages and audio files which create a time-consuming process and requires the typing and scanning of received messages if they are to be captured into the dossiers of the placed individuals.

To innovatively use information and to develop e-services, all the involved stakeholders need to have a common understanding of the different uses of the information they create, beyond their own processes. Information management does not happen in a vacuum. It requires resources, trained

personnel, optimal systems, and an understanding of the value of the information each employee creates for purposes of the follow-up process. This is what constitutes a well-functioning information management infrastructure.

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#### **About the Authors**

#### Proscovia Svärd

Proscovia Svärd is Associate Professor in Archives and Information Science, Department of Information Systems and Technology, Forum for Digitalization, Mid Sweden University at Mid Sweden University. Her research interests include e-government development and its impact on the management of public information, information access issues, open data developments and the role of archives in enhancing accountability and transparency in government institutions.

## Sheila Zimic

Sheila Zimic is Adjugated lecturer in Information Systems, Department of Information Systems and Technology, Forum for Digitalization, Mid Sweden University. She also works at the Research and Development Unit, at the Association of Local Authorities, Västernorrland County. Lately, her research mainly focuses digitalization and professional practices in social work.