Technology to Support Children's Social Care: Opportunities and Challenges

Nancy L. Russo
Malmö University, nancy.russo@mau.se

Jeanette Eriksson
Malmö University, jeanette.eriksson@mau.se

Annika Staaf
Department of Social Work, Malmö University, annika.staaf@mau.se

Karin Tillberg-Mattson
Region Gävle, karin.tillberg.mattsson@regiongavleborg.se

Björn Hofvander
Region Skåne and Department of Clinical Psychiatry, Lund University, Lund, Sweden,
bjorn.hofvander@med.lu.se

Follow this and additional works at: https://aisel.aisnet.org/ukais2022

TECHNOLOGY TO SUPPORT CHILDREN'S SOCIAL CARE: OPPORTUNITIES AND CHALLENGES

Nancy L Russo and Jeanette Eriksson
Department of Computer Science & Media Technology
Malmö University, Malmö, Sweden
nancy.russo@mau.se, jeanette.eriksson@mau.se

Annika Staaf
Department of Social Work, Malmö University, Malmö, Sweden
annika.staaf@mau.se

Karin Tillberg-Mattson
Region Gävle, Sweden
karin.tillberg.mattsson@regiongavleborg.se

Björn Hofvander
Region Skåne and Department of Clinical Psychiatry, Lund University, Lund, Sweden
bjorn.hofvander@med.lu.se

Abstract
The potential for information and communication technology (ICT) to support the delivery of social services, and the possible benefits afforded, have been acknowledged in numerous studies. The many obstacles to the adoption and integration of ICT into social services have also been documented. This paper provides a summary of those issues as the backdrop to the description of a study conducted to understand the adoption of a specific technology (OmMej) in the context of children's social care in Sweden. This study looks at the perceived benefits provided through the use of OmMej, particularly in terms of the opportunity for children to have a voice in their care and the impact on this technology on social work practice. The study also identifies barriers to the successful deployment of the tool, and some lessons learned that can inform other implementation efforts.

Keywords: social care informatics, ICT implementation in social work, welfare technology, digitisation of social work, implementation barriers, UN Convention on Rights of the Child

1.0   Introduction

The digitsation of social work, while promoted by government policies and programs, has been slow to take off in practice (Peckover et al., 2008; Taylor, 2017). Many reasons for this have been suggested, from the philosophical to the pragmatic. One view is that the use of technology in social work has been driven by goals that are in conflict with the social care context. Tools such as databases of service users and other administrative systems have been criticized for their "panoptic potential to invade privacy and override professional discretion and judgment." (Peckover et al., 2008, p. 375), and for serving as surveillance tools that favour algorithms over people and that act as "instruments of oppression" (Parton, 2009, p. 719).

Another popular view is that while the goals for introducing the technology have been good, the implementation is faulty. ICTs have at times been introduced to overcome deficiencies in inter-professional communication and multi-agency intervention, and the devastating results of such failures (Peckover et al., 2008). These initiatives are introduced with the best of intentions – such as 'every child matters'– and ostensibly to provide a more holistic view of service users (Baines et al., 2014), and support preventative and early intervention efforts. However, these objectives are often paired with expectations of economic benefits and standardization of practice implied behind the scenes. Practitioners recognize the opportunity provided by technology to engage with service users, especially children, in new ways such as entering data remotely and sharing with those involved in their care (SCIE 2019), but they also recognize that the technology provides opportunities for mis-use, particularly in terms of accountability, confidentiality, and compromise of public trust (Taylor, 2017). Another concern is that digital technology will increase the marginalization of segments of society already on the 'wrong' side of the digital divide (Taylor, 2017).

While the negative aspects of welfare technology implementations are acknowledged, there is nonetheless an on-going push for a greater digitalization of social work. The potential transformative power ICT is clear in the recognition of this issue as one of the grand challenges for the social work field (Berzin et al., 2015). "Understanding the benefits of how technology can be leveraged to deliver flexible, collaborative, data-driven, and efficient services is essential for transforming, implementing, and sustaining effective child welfare practices into the future." (Collins-Camargo et al., 2019, p. 89).

This paper provides an overview of the opportunities and challenges of using technology tools to support social care, as a foundation for the analysis of results of a pilot study to evaluate the introduction of one such tool that was intended to increase children's participation in the decisions made about their care in the social welfare system in Sweden. The focus of this analysis is on the potential benefits of the tool and the identified barriers to its adoption. This is part of a pilot study to examine the adoption of a particular technology in several municipalities in Sweden. The tool, OmMej, is a web-based system with an app-like front end for children to provide detailed information that can be used by social support staff to determine appropriate care plans. (More details on OmMej will be provided later in the paper.) Specifically, the information reported here addresses the research question: What motivates the adoption and use of the tool and what are the barriers or obstacles that prevent use or make it difficult to use?

The next section of the paper will discuss the perceived benefits and barriers to successful adoption and use of technological tools in social work, potential negative impacts and other risks in the context of social care, as well as factors that have been seen to contribute to a positive deployment.

2.0   Social Care Information Systems: Benefits and Barriers

This section provides an overview of the previous research regarding the use of information and communication technologies (ICT) in social work, particularly on the

implementation of social care information systems, rather than simply the use of existing ICT tools (e.g., email or text messaging) in the daily activities of social work.

2.1 Potential benefits of social care information systems

There are a number of reasons why a social care agency or organisation would look to technology to support their work practices in providing social care. Some benefits can be seen at the organisational level, such as increasing efficiency and improving coordination with and across services. Recording data digitally can at times be quicker than recording it manually, especially when the manual recording requires re-entry of data multiple times, or into multiple systems. Digital data is easier to share than paper-based records, which makes it easier to share data among social workers within a particular service, or to share data with other services that will be involved in providing care (Peckover et al., 2008). It can make tracking cases over time easier, reducing the chances that a client will "fall through the cracks". Greater efficiency is beneficial both in terms of cost savings, and also because it enables social care agencies weakened by staff shortages to deliver care to more people.

Others potential benefits from utilising ICT in social work are more closely related to the interaction between social workers and the individuals and families to which they are providing services (hereafter referred to as clients). ICT has the potential to strengthen relationships between social workers and clients by making it possible to communicate more frequently, without limitations due to location or time, and potentially without disability, literacy or language barriers (Berzin et al., 2015; Tregeagle & Darcy, 2007). The asynchronous and impersonal natures of ICT-enabled communication can have a positive impact in that it may support more self-disclosure of sensitive or stigmatized issues that could cause social embarrassment (Ben-Ze'ev, 2004), and it gives people time to reflect on their situations which can aid both in self-disclosure and recognition of which issues are most important to address (Joinson, 2005). Table 1 provides a summary of these factors.

Factor/Issue	Description	Source(s)
Asynchronous communication	Communicating asynchronously via ICT allows both social worker and client the opportunity to think through what they want to discuss. (This is also related to issues such as social embarrassment and self-disclosure, access, and prioritization of issues.)	Joinson, 2005; Tregeagle & Darcy, 2007
Access	Difficulty in scheduling meeting times during regular work hours or traveling long distances to obtain services can be overcome via ICT-mediated communications. ICT can also overcome barriers related to literacy, language and disabilities by providing translation, explanations, and multiple modes of receiving and conveying information.	Berzin et al., 2015; Tregeagle & Darcy, 2007

Self-Disclosure	It can be easier to discuss personal, sensitive, or potentially embarrassing issues via ICT-mediated communications rather than face-to-face, and this may result in greater levels of self-disclosure which can enable the proper interventions to be possible.	Ben-Ze'ev, 2004; Tregeagle & Darcy, 2007
Prioritization	The ability to access records over time makes it easier for clients and social workers to determine which issues are of greater long-term importance.	Berzin et al, 2015; Joinson, 2005; Tregeagle & Darcy, 2007
Personalised care	With multiple modes of delivery and customisable services, treatment plans may be more individualized and allow for more communication and closer relationships between social worker and client.	Berzin et al., 2015
Resources	Many regions face on-going shortages in social care staff, and potential efficiencies provided by ICT can help to mediate this.	Meagher and Healy, 2005
Cost effective	Tasks such as identifying vulnerable individuals, assessment, and care planning can be efficiently conducted via ICT.	Dellor et al., 2015; Peckover et al., 2008
Coordination	Information sharing and inter-professional communication is facilitated by ICT.	Dellor et al., 2015; Peckover et al., 2008

Table 1. Potential benefits of using digital technologies in social work (expected or experienced)

2.2 Challenges in implementing ICT in social work

Studies that have examined the implementation and use of digital technologies in social work have identified a number of problems with and/or barriers to using these systems. Historically, many criticisms were related to the misfit between the record-keeping and standardization focus of the systems and the actual working practices of the social workers – transforming social work into an informational rather than relational activity (Parton 2009). Practitioners view ICT systems as additional administrative burdens that reduce their contact with clients rather than a tool to support their day-to-day working (Baines et al., 2014). There is a tendency to treat ICT as magic box and information as relatively unproblematic. Underlying this is the false assumption that the data recorded in the systems is correct and complete and its interpretation is unambiguous (Peckover et al., 2008). The expected integration, data sharing, and ability to use this information to inform decision-making processes may not happen due to limits in the data and technological incompatibility across systems and agencies (Baines et al., 2014).

Both social work practitioners and clients have expressed concerns about the confidential and sensitive nature of the data. Security issues arise regarding storing, sharing and accessing this data, particularly via mobile technology (Baines et al., 2014; Lagsten & Andersson, 2018; SCIE, 2019). This has led to problems in getting consent from parents to record their children's information in social care systems (SCIE, 2019),

and reluctance by social workers to record their own involvement with a case (Peckover et al., 2008).

Studies have reported other barriers, such as technology that is difficult to use, confounded with practical realities of resource limitations, historical practices, and insufficient preparation of the workforce in regards to technology. Whereas most social workers report that there was some digital literacy aspect of their university training, this is not considered sufficient for the complex tasks and critical implications of technology that must be considered today (Campbell & McColgan, 2016; Lagsten & Andersson, 2018; Taylor, 2017; SCIE, 2019).

Decisions made at the state, regional, or local level also impact the deployment of ICTs in social work practice. Different priorities and requirements, oscillation of policy between centralization and localization, and divisions of responsibilities, funding and decision-making bodies (Baines et al., 2014) can stall technology deployment efforts. The "deployment of ICTs in professional practice is highly contingent upon local policy implementation, the local arrangement of services and the everyday practices of busy and sceptical practitioners" (Peckover et al., 2008, p. 375). Top-down or 'push' strategies have not generally been successful in social care deployments nor in the deployment of healthcare systems, where this approach has been linked to implementation failures and delays (Eason, 2005).

The potential negative impact of ICT use in social work is one set of challenges facing the deployment of these technologies. These are summarized in Table 2. Other challenges are related to the context of social work: characteristics of the technology and the personnel and the decision-making environments. This set of barriers is described in Table 3.

Factor/Issue	Description	Source(s)
Lack of fit with tasks	Prioritizing data entry and statistical production over care activities.	Parton, 2009; Lagsten & Andersson, 2018
Visibility	If social worker records their involvement with a case, or records concerns that they have with a child or family situation, this information can be viewed by clients.	Peckover et al., 2008
Delays in care	Technological tools can add time to the process, and slow the delivery of care.	Peckover et al., 2008
Depersonalization	Less contact with clients, and feeling of less of a personal role and less personal control.	Baines et al., 2014; Lagsten & Andersson, 2018
Data problems	Duplication and errors in data; systems are fragmented and lack interoperability.	Peckover et al., 2008; SCIE 2019
Micro-management	Form-filling, standardization, and targets support bureaucracy rather than supporting practice or improving care.	Wastell & White, 2014
Unequal access	Socioeconomic and digital literacy disparity ('digital divide') means that some users will not be able to access digital services.	Lagsten & Andersson, 2018

Table 2. Negative impacts of using digital technologies in social work (expected or experienced)

Factor/Issue	Description	Source(s)
Push strategies	Resistance or lack of support or low understanding may lead to implementation failures and delays, partial use, inefficient workarounds, etc	Eason 2005
Administrative burden	Practitioners view ICT systems as additional administrative tasks that reduce their contact with clients rather than a tool to support their day-to-day working.	Baines et al., 2014
Local policies and unclear regulations	Multiple levels of regulations, politicians responsible for decision-making, and 'better safe than sorry' approach.	Peckover et al., 2008; Lagsten & Andersson, 2018
Concern about data security	Storage of data and access via mobile technology of concern due to confidential and sensitive nature of the data; ethical and legal issues.	Lagsten & Andersson, 2018; SCIE, 2019
System access	Users are locked out of systems due to security features or physical access issues.	Lagsten & Andersson, 2018; SCIE, 2019
Concern about government surveillance	Both social work professionals and clients (parents) concerned about the amount of data stored over multiple systems and the ability to integrate data between systems.	Parton, 2009, Baines et al., 2014; SCIE, 2019
Leadership	Lack of managerial leadership to identify areas where technology could be beneficial; lack of digital literacy.	Wastell & White, 2014; SCIE, 2019
Lack of common vocabulary	Technology staff and social work professionals have difficulty communicating about system functions.	Lagsten & Andersson, 2018
Lack of digital skills	University training may not include the depth of digital training that is needed in practice.	Campbell & McColgan, 2016; Lagsten & Andersson, 2018; SCIE 2019
Poorly designed technology	Poor designs mean that the tools are difficult and/or slow to use, and may make it easier to inadvertently enter errors into the data.	Lagsten & Andersson, 2018; SCIE, 2019
Data governance	Restrictive local data governance protocols, risk-averse policies can limit sharing of data.	Lagsten & Andersson, 2018; SCIE, 2019

Table 3. Barriers to adoption or use of digital technologies in social work

2.3. Recommendation for increasing success in introducing ICT in social work

Following studies of implementations of technology in social work, researchers have made a number of recommendations for how better to support social work with technology. Rather than top-down deployment strategies, pull strategies where local agencies can examine how they can improve practices in ways important to their context are more likely to be successful (Eason, 2005). Ethnographic approaches, user-centered design and realizing that virtual technologies supplement rather than replace real activities, and instead of making things faster, may actually make them slower, are

also recommended. (Lagsten & Andersson, 2018; Peckover et al., 2008; SCIE, 2019; Wastell & White, 2014). Designers of digital tools for social care must have a shared understanding of the real, day-to-day practice of social workers if they are to create tools that are truly useful. Co-production (or co-design) is a way of involving practitioners in the design and creation of tools to support their work. A fuller understanding of the context, including understanding the history of technology adoption in the agency and in similar situations, can also contribute to success (Gillingham, 2018). These factors are summarized in Table 4 below.

Factor/Issue	Description	Source(s)
Ethnographic and user centered approaches	Technologists should seek to understand the situated practice and involve practitioners in the design work (co-design and co-production)	Peckover et al., 2008; Wastell & White, 2014; Lagsten & Andersson, 2018; SCIE, 2019
Use technology to supplement rather than replace human actions	Practitioners want to be enhanced, not restricted, by technology	SCIE, 2019
Pull strategies or "bottom-up" strategies	Local agencies can examine how they can improve practices in ways important to their context., allowing for more flexibility and autonomy.	Eason, 2005; Wastell & White, 2014
Consider data context	Consider who will enter data and under what circumstances	Gillingham, 2018
Avoid technology conflict	Consider what other technology is currently in use.	Gillingham, 2018
Learn from others	Seek out accounts of other localities' or agencies' experiences with the same or similar technology; share data among agencies.	Gillingham, 2018; SCIE 2019

Table 4. Recommendations for improving deployment of digital technologies in social work

In addition to studies of digitalization of social work, there are many other bodies of work that have examined factors related to the adoption of technology and to the success of technology deployment. In the information systems field, for example, there is the Unified Theory of Acceptance and Use of Technology (UTAUT) that identifies factors related to the uptake of technology such as ease of use (effort expectancy), perceived usefulness (performance expectancy), social influence, and facilitating conditions (resources, support, and knowledge), moderated by age, gender, and experience (Venkatesh et al., 2003). There has also been a large body of work in the information systems field related to the success of system deployments. A meta-analysis of IS success research (Petter, DeLone & McLean, 2018) identified a broad range of factors that may influence the dimensions of success (system quality, information quality, user satisfaction, impact, use). These factors are related to the task, the user, the development process, and the organisational context. Other fields that could be explored to broaden our understanding of factors that contribute to the successful adoption and use of technology in this study's primary focus of social work are e-government and public services (DeVries et al., 2018) and health services (Gagnon, et al., 2016). While it is not possible to provide a full review of these here, relevant factors from these studies

are integrated into the evaluation plan described in this paper. Because keeping context in focus is so important in this area, literature on digitization of social work provides the foundation for this study.

The remainder of the paper will address a study undertaken to explore the implementation of a particular technology in the area of children's social care. The next section describes that technology and its intended benefits. This is followed by a description of the study design and discussion of the results.

3.0   OmMej --The Digital Tool

OmMej (Swedish for "About Me") is a digital service developed to solve a social problem that has been identified by social work practitioners, the government's national coordinator for social services for children and young people, and researchers (Heimer et al., 2018): specifically, the difficulty in supporting children in their right to participate in decisions about their care. The tool was designed in collaboration with children to ensure that both the means of providing self-reported data by the children and the information provided by the service are done in an age-appropriate and engaging manner.

The OmMej system is an app and web-based tool aimed at helping organisations (e.g., social services and schools) that work with children and who are expected to comply with national legislation requiring that children participate in decisions related to their care. In the app children create avatars representing themselves and their significant family members. They respond to questions regarding their life situations, and can indicate which issues are important to them. The dynamic structure of OmMej means that children do not need to receive in-depth questions about areas that they do not indicate as being a concern or problem. The social worker uses the responses to determine which areas to follow-up on when meeting with the child and to track changes over time, individually or over an area of responsibility. A number of short informative videos, for example about children's rights, are shown to all children using the OmMe app. Other videos that deal with problem areas such as anxiety or honor issues are shown when the child's responses indicate that this type of problem is experienced. Screen shots of the app illustrating the child's view of the system such as creation of avatars in the description of the living situation and answering questions about their lives are shown on the left in Figure 1. On the right is a graph that would be part of the report that a social worker would receive summarizing children's responses. For more information, see a https://ommej.se/.
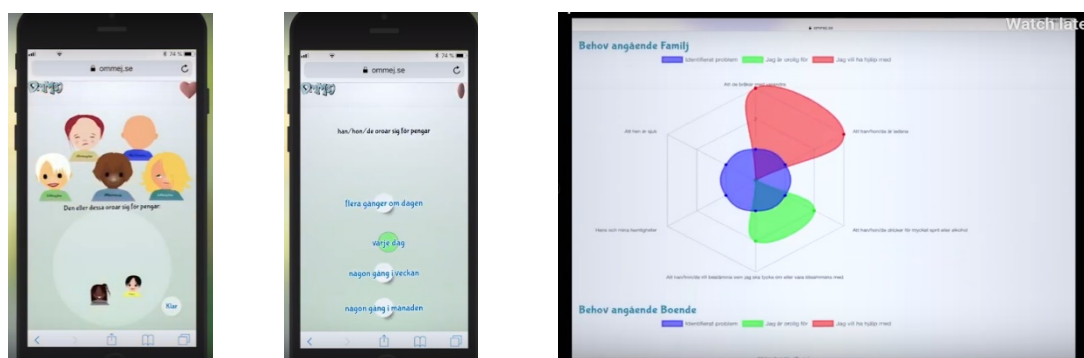

Figure 1. Screen shots from OmMej

4.0   Study Design

The study was conducted over approximately eighteen months in 2020 and 2021, in three municipalities in Sweden (Helsingborg, Karlskrona, and Hudiksvall). The adoption of OmMej by social service agencies (organized at the municipal level in Sweden) began in 2019 and is on-going. Purchasing decisions are made at the local level. The tool has been presented to municipalities and social workers throughout Sweden, and our interest in conducting an evaluation was presented at a gathering of social care professionals in the Norrland region of Sweden and in direct communication with municipalities.

4.1 Research Approach
Our design of the evaluation study is influenced by Guba and Lincoln's (1989) "Fourth Generation Evaluation" which encourages us to try to understand the human, social, political, contextual and value-oriented aspects from the perspective of multiple stakeholders (Guba & Lincoln, 1989; Lagsten & Andersson, 2013). The evaluation is also action-oriented, in that our ultimate goal is to provide recommendations for municipalities and government agencies regarding the use of digital tools such as OmMej.

This is a qualitative study, using in-depth interviews as the main data collection method. The interviews were semi-structured, with a script to ensure that the main issues were covered, but with open-ended questions and the flexibility to allow unexpected issues to come into the conversations. Interviews were recorded and transcribed. Ethical approval was obtained from the appropriate Swedish authority.

This study looks to uncover the motivations behind the adoption of a tool such as OmMej and the barriers or obstacles faced by organisations (primarily social service agencies) and individuals (social workers) when deploying such a tool, along with their perception of the approach taken to introducing the tool (communication, training, etc.). The social workers were asked about their current work practices around collecting information from children, communicating with children regarding the services available, and making decisions regarding providing services to children. They were asked about their views regarding the potential for improved communication with children in the social care process, issues with using the tool (easy/difficult, problems, missing functionality), their view about the manner in which the tool was introduced to them and the training they received, and any initial reactions when introducing the tool to children.

4.2 Data analysis

Interview transcripts were analyzed (coded) to identify relevant themes that indicate potentially important aspects of the context, introduction methods, and use of the tool that impact the ultimate goal of empowering children in social care to exercise their right to participate in decisions made about their lives. Researchers identified issues related to the successful deployment and use of the tool, as well as barriers that may have delayed, prevented, or increased the efforts necessary to implement and use the tool. Researchers from the four different perspectives (psychology, law, technology,

and social work practice) collaboratively performed the analysis and interpretation of the results.

5.0   Study Results

Nineteen interviews with social workers were conducted in this round of interviews. Each interview lasted approximately one hour. Interviews were conducted in Swedish. Most were done via telephone or Zoom. In all three municipalities, training had been conducted and the tool was available for use but deployment was moving slowly and social workers had introduced the tool to only a few children.

Overall, there was a clear will and ambition among the informants to get started and use OmMej. This was linked to the positive effects they expected from starting to use the app. Some of the informants had become aware of OmMej at an early stage, even before their managers, and had been pushing for the app to start being used. Others experienced that they were suddenly asked to go to training about something they had never heard of and that the management seemed to have decided they would use without involving the staff in the decision. After attending the training, however, even these informants were positive about trying the app at least among some of children.

5.1 Opportunities

Interview subjects expected to see a number of benefits from using OmMej in their interactions with children. They viewed the digital environment as "the children's home arena" and thus a place where children would be comfortable. There was some concern that the avatars would appear "too babyish" or that the app was too simple to appeal to older children, but in the end it seemed to be more up to the personal preference of each child. One informant mentioned that OmMej was a good thing for the social services, because it made it appear that the service was "on the forefront of technology". Informants from all municipalities stated that OmMej provides the opportunity to help earlier and better in a more efficient way. It enables a faster process.

All the informants commented on the fact that OmMej would make it easier for children to express their feelings and experiences, and offered the benefit that the child does not have to tell the same thing to several different people. Some expected that they would get a more truthful and nuanced picture of the child's situation through OmMej.

> "I imagine that it will be easier to answer in an app than to sit in a conversation with a person you do not really know."

> "They may sit at home on the couch or lie in bed. They may be somewhere where they feel comfortable."

> " I imagine that it will give a broader picture and a more detailed picture of what the child experiences, and feels and thinks."

After the child has responded to the questions on OmMej, the results are available on the web-based platform for social workers to review. This allows the social workers to be more prepared for the first conversation with the child. The social worker does not have to "shoot from the hip" with questions but has topics to raise in the meeting, about

both problems and the child's answers as well as about what leisure interests the child has.

Several interview subjects explained that they expected the app to be particularly useful for some "hard to reach" children. Some children prefer to talk, while others have difficulty expressing themselves orally and may prefer the app as a tool to convey their experiences. The app allows the child to report whether an issue is something that they would like to address, which can aid the social worker in targeting the issues most important to the child.

Several informants suggested that OmMej may reduce time required for documentation because answers are saved in the app; the social workers don't have to sit and write everything down. In addition, the OmMej data is a living document where the child can respond over and over again as the situation changes, allowing the intervention to be adjusted.

5.2 Challenges

While there were no complaints that the app itself was difficult to use, there were issues with forgotten passwords and with certain browsers, and some concern for children who did not have the reading comprehension level to answer the questions accurately. A few informants suggested that some of their colleagues were reluctant to use OmMej because they were "afraid of technology". In one municipality, reluctance was linked to previous adoption of another tool that required considerable additional time to record information gathered from children. An issue that came up in several municipalities was that the amount of information provided by OmMej was substantial and could be difficult to sort through. One informant suggested that this led to some of her colleagues fearing that they would miss important information from the child (although she acknowledged that missing information was even more likely when the traditional face-to-face interview method was used for obtaining information from the child).

The more significant barriers to use were organisational. Informants felt there was a lack of a clear and coherent plan for "how do we move forward with this?"

> "There is a need for clarity about who is responsible ... and in which situations the app should be used, and how the use must be coordinated between the staff at the various units that meet the child, such as the Reception Unit, the Children and Youth Unit, and the Prevention Unit."

One municipality had a strong implementation leader, and her efforts and support were mentioned by every interview subject in that municipality. Even in that municipality, informants saw organisational implementation problems such as not making sure all managers were comfortable with the tool and why it was needed before beginning general training, and not having a formal plan for rolling out the tool into daily work practices. Many informants saw the decision to use OmMej as theirs to make; there was no mandate from their managers. In addition, there was no internal marketing to spread the use of OmMej among the staff.

In order to introduce OmMej to the children, the informants stated that they need to feel confident in how the technology works both from their own and the child's perspective.

The relatively short (one day) training period and lack of manuals, videos or other materials to refresh the training contributed to a lack of confidence. Technical help was available, but not on-site. The decreased spontaneous collegial contacts due to pandemic restrictions meant that it wasn't possible to simply ask a nearby colleague how something worked.

Most interventions require parental consent. Social workers are required to obtain parental consent before introducing OmMej to the child. Informants reported that this had not been a big problem. However, a more serious concern was with transparency. How much could a parent influence a child's answers on the app? And could parents view the child's responses?

> *"I do not know what parents can have access to. If it disappears or if there is any history or if there is something they can sneak out. Because in a conversation, then it really disappears. But in a technical apparatus, or in a system, then ... I do not know"*

Many informants reported uncertainty about the GDPR and sensitive data. A concern was raised about disseminating or sharing information because there is uncertainty about where the data ends up. Informants from all municipalities discussed privacy aspects and concerns about breaches of confidentiality.

5.3 Suggestions for improvement / Lessons Learned

The interview subjects provide information on their experiences that can be used to improve future implementation processes in municipalities, or to improve on-going deployment efforts.

Improving coordination and governance and establishing a project steering group consisting of relevant unit managers more clearly leads the direction of the work and has strengthened the mandate for using OmMej in one municipality. The use of OmMej needs to be clearly anchored and actively supported by the section heads.

Internal marketing is necessary for spreading use of OmMej. Success stories should be shared.

Both regular "booster sessions" to refresh training and training sessions for new employees are needed. Written materials and videos are also needed. Brochures or leaflets about OmMej would be useful when explaining the tool to parents and children. Tablets should be available in the meeting rooms so that social workers can demonstrate OmMej. A working group in one municipality developed an "information / remember-note" to use when introducing the app, giving hints on what to discuss and how to present the app to parents.

In another municipality, OmMej has also been introduced as a standing item at regular staff meetings to keep it "top of mind" for social workers. At one of these the participants got a new opportunity to test the login to the app and practice how they can describe the app to children and parents, thus building confidence.

A point that several informants raised was that everyone needs different things. Organisations should support employees and managers more individually based on what they need. Multiple approaches and communication channels should be used, and many levels and types of support should be offered.

6.0   Conclusions

Because OmMej is not solely an administrative tool, we did not hear many of the criticisms that have been leveled at earlier ICT implementations in the social work field. Rather than supporting bureaucracy, OmMej is a tool promoted for its ability to assist in assessments and enable social workers to provide care that is more in line with the child's need and desires. Instead of pushing the social worker farther away from care-related activities, this tool is intended to directly support their efforts. This was recognized by the social workers who participated in our study. In fact, many of the expected benefits of ICT use identified in previous research were reflected here such as the ability to respond in one's own time and place, the potential for more self-disclosure, and an improved ability to personalize care by prioritizing the issues most important for the child. Organisational benefits such as sharing data and quicker documentation were also mentioned.

However, some issues related to technology itself, particularly issues related to data governance and training, were viewed as barriers to use. The implementation process in these municipalities were described as top-down, and lacking in clarity and coherence, so there were clearly things that could have been done better in the decision-making and deployment processes.

While the lessons learned here may be useful to others involved in digitization of social work, it must be acknowledged that the results described in this paper addresses a particular digital tool, OmMej, in the specific context of social care for children in Sweden. Data was collected from a relatively small sample of social workers from three municipalities. The interview responses may not reflect the views of all individuals impacted in the selected municipalities. Therefore care should be taken when applying the results in other contexts.

References

Baines, S., Hill, P., and Garrety, K. (2014) *What happens when digital information systems are brought into health and social care? Comparing approaches to social policy in England and Australia*. Social Policy and Society, 13:4, 569-578.

Berzin, S. C., Singer, J., & Chan, C. (2015). Practice innovation through technology in the digital age: A grand challenge for social work. Retrieved from

http://aaswsw. org/ grand-challenges-initiative/12-challenges/ (accessed 7 July 2017).

Ben-Ze'ev, A. (2004) *Love Online: Emotions on the Internet*, Cambridge, Cambridge University Press.

Campbell, A. and McColgan, M. (2016) *Making Social Work Education App'ier : The Process of Developing Information-based Apps for Social Work Education and Practice*, Social Work Education, 35:3, 297-309, DOI: 10.1080/02615479.2015.1130805.

Collins-Camargo, C., Strolin, J., & Akin, B. (2019). *Use of technology to facilitate practice improvement in trauma-informed child welfare systems*. Child Welfare, 97(3), 85-108. Retrieved from https://www.proquest.com/scholarly-journals/use-technology-facilitate-practice-improvement/docview/2308151657/se-2?accountid=12249.

Dellor, E., Lovato-Hermann, K., Price Wolf, J., Curry, S. R., & Freisthler, B. (2015). Introducing technology in child welfare referrals: A case study. Journal of Technology in Human Services, 33(4), 330-344.

De Vries, H., Tummers, L., and Bekkers, V. (2018) *The diffusion and adoption of public sector innovations: A meta-synthesis of the literature*. Perspectives on Public Management and Governance, 1:3, 159-176.

Eason, K. (2005) *Exploiting the potential of the NPfIT: a local design approach*, British Journal of Healthcare Computing and Information Management, 22:7, 14-16.

Gillingham, P. (2018) *Decision-making about the adoption of information technology in social welfare agencies: some key considerations*, European Journal of Social Work, 21:4, 521-529, DOI: 10.1080/13691457.2017.1297773

Gagnon, M. P., Ngangue, P., Payne-Gagnon, J., & Desmartis, M. (2016) *m-Health adoption by healthcare professionals: a systematic review*, Journal of the American Medical Informatics Association, 23:1, 212-220.

Guba, E.G., and Lincoln, Y.S. (1989) Fourth Generation Evaluation. Newbury Park, Calif: Sage.

Heimer, M., Näsman, E., and Palme, J. (2018) *Vulnerable children's rights to participation, protection, and provision: The process of defining the problem in Swedish child and family welfare.* Child & Family Social Work, 23:2, 316-323.

Joinson, A. N. (2005) 'Internet behaviour and the design of virtual methods', in C. Hine (ed.), Virtual Methods: Issues in Social Research on the Internet, New York, Berg.

Lagsten, J. and Andersson, A. (2018) *Use of information systems in social work – challenges and an agenda for future research*, European Journal of Social Work, 21:6, 850-862, DOI: 10.1080/13691457.2018.1423554

Meagher, G. and Healy, K. (2005) *Who cares? Australia's community services workforce*, Impact, Winter, 18–19.

Parton, N. (2009) *Challenges to practice and knowledge in child welfare social work: From the 'social' to the 'informational'?* Children and Youth Services Review, 31:7, 715-721.

Parton, N. (2010) '*From dangerousness to risk': The growing importance of screening and surveillance systems for safeguarding and promoting the well-being of children in England*, Health, Risk & Society, 12:1, 51-64.

Peckover, S., White, S. and Hall, C. (2008) *Making and managing electronic children: E-assessment in child welfare*, Information, Community & Society, 11:3, 375-394, DOI: 10.1080/13691180802025574

Petter, S., DeLone, W. and McLean, E.R. (2013) *Information Systems Success: The Quest for the Independent Variables*, Journal of Management Information Systems, 29:4, 7-62, DOI: 10.2753/MIS0742-1222290401

SCIE (Social Care Institute for Excellence, 2019) *Digital capabilities for social workers: Stakeholders' Report*, available at https://www.scie.org.uk/social-work/digital-capabilities/stakeholders/findings

Smith, G., Sochor , J. and Karlsson, I.C.M. (2019) *Public–private innovation: barriers in the case of mobility as a service in West Sweden*, Public Management Review, 21:1, 116-137, DOI: 10.1080/14719037.2018.1462399

Taylor, A. (2017) *Social work and digitalisation: bridging the knowledge gaps*, Social Work Education, 36:8, 869-879, DOI: 10.1080/02615479.2017.1361924

Tregeagle, S. & Darcy, M. (2007) *Child Welfare and Information and Communication Technology: Today's Challenge*, The British Journal of Social Work, Volume 38, Issue 8, 1481–1498, https://doi.org/10.1093/bjsw/bcm048.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003) *User acceptance of information technology: Toward a unified view*, MIS Quarterly, 27:3, 425-478.

Wastell, D., & White, S. (2014) *Beyond bureaucracy: Emerging trends in social care informatics*, Health Informatics Journal, 20:3, 213-219.