



Alon Elias Küster

Estonia's ICT4D Projects – Perspectives from Recipient States

Master Thesis

at the Chair for Information Systems and Information Management
(Westfälische Wilhelms-Universität, Münster)

Supervisor: Veiko Lember
Co-Supervisor: Peeter Vihma

Presented by: Alon Elias Küster

Date of Submission: 2024-06-07

Content

Tables	III
Abbreviations	IV
1 Introduction	1
2 Literature Review	7
2.1 General	7
2.2 Drivers of ICT4D	8
2.3 Development Cooperation.....	9
2.4 Participants	11
2.5 Collaborative Practices	12
2.6 Constraints	14
2.7 Collaborative Practices	17
2.8 Solution.....	18
2.9 Estonian Development Practices	21
2.10Estonian Digital Development Practices	22
3 Methodology.....	24
3.1 Case Study	24
3.2 Coding	25
3.3 Interview Questions.....	27
3.4 Interviews	28
3.5 Themes	30
4 Analysis	32
4.1 Sharing Estonia’s digital experience	32
4.2 Collaborative Practices	41
4.3 Local Context and Local Partners	47
4.4 Constraints.....	55
5 Discussion.....	64
5.1 Why Cooperate with Estonia?	64
5.2 Local Context	69
5.3 Constraints.....	72
5.4 Limitations.....	75
5.5 Avenue for Future Research.....	76
5.6 Synthesis.....	77
6 Conclusion.....	79
References	81
Appendix	91

Tables

Table 1: Overview of Interviewees

Table 2: Overview of Themes

Abbreviations

D4D Hub	Digital for Development Hub
EU	European Union
ICT	Information Communication Technology
ICT4D	Information Communication Technology for Development
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
SDGs	Sustainable Development Goals
UN	United Nations

1 Introduction

Digital transformation is growing more important globally as technology has an increased impact on the economy throughout the world (Qureshi, 2022). Organisations understand the growing potential that digitalisation can provide as an administrative advantage for service delivery (Lusimba & Kwanya, 2019). The field of Information Communication Technology for Development (ICT4D) is interested in the use of ICTs for development cooperation (Mwapwele & van Biljon, 2021),

However, ICT4D projects have a high failure rate which has become a growing concern for scholars and practitioners alike (Heeks, 2003; Marais & Vannini, 2021). This is because actors have divergent practices on planning or implementation, or fail to consider the context in which a project is implemented in. There is a growing need to consider context in ICT4D projects and to improve cooperation with local stakeholders. Despite this high failure rate, the number and importance of digital projects is only increasing (Marais & Vannini, 2021). ICT4D projects are often treated as a black box that automatically leads to positive outcomes. This thesis academic relevance is to examine the black box of ICT4D projects. To understand what practices may or may not lead to successful projects, that have long-term impact, I will examine some of the common assumptions that the literature on this topic? makes about the high failure rate of ICT4D projects and provide some insight on strategies and? methods to combat these weaknesses.

Within development projects the number of stakeholders is increasing; consequently, different perspectives on problem definition and solution are proliferating. Digital development projects are growing more complex which raises the importance of effective development cooperation. This thesis contributes to the current debate on digital development by providing new insight into the perspectives of recipient countries and effective collaborative practices.

This thesis will focus on Estonian digital development projects, a relatively new actor whose importance in digital development projects is growing. Estonia is a small Eastern European country which is widely recognized for having a digitally advanced society. This ranges from digital initiatives in streamlining government administration to having a wide variety of technology start-ups. Its digital initiatives range from "X-Road", a cybersecurity system for the whole of government administrative systems, and digital identification system which have drawn the praise of other actors. Estonia's approach to

international relations has significantly changed in the last five years. The Estonian public sector has traditionally focused on Eastern Partnership countries in development cooperation such as Ukraine and Georgia. Its private sector and third sector have been active globally for longer. The Estonian government released its first Africa strategy in 2021 which outlined its economic and political objectives in the region. This emphasizes how the Estonian government is taking a proactive role in development cooperation.

This thesis will use Estonian digital development cooperation as a case study into this field. According to Yin (2017), case studies should be used when behaviour cannot be controlled. This thesis will highlight the phenomenon of research cooperation. Due to Estonia's unique position of being a new actor in the development cooperation, this is a unique case study (Yin, 2017). Estonia represents a significant difference to other Western development actors. Other actors such as Germany and France have a long history of development cooperation which influences recipients' states' perception of them. Similarly, development agencies often focus their attention on former colonies. Estonia neither has a colonial history nor a history of development projects. This also means that Estonia does not have a tradition in collaborating with other actors in development cooperation.

This thesis's goal is to understand limitations facing ICT4D projects. The limitations are often described as a design-reality gap in which projects are not designed with the recipient context in mind (Heeks, 2003; Marais & Vannini, 2021). Another is to understand the collaborative practices between Estonia and recipient states. This thesis research question is: "How does Estonia follow its intent to approach development project with a mind of equal partnership?" The focus of this research question will be on the development partners of Estonia. Since Estonia is relatively new in this field it represents a clean slate in which only recent events will influence responses to this question. Estonia has not left behind a legacy, be it good or bad, on development cooperation. It is a study to understand whether Estonia follows through with implementing projects in an equal manner. Estonia has rarely been the focus of development projects. This thesis will provide some knowledge about Estonian digital development practices.

This thesis has three sub research questions to examine this field. The first focuses on the specific role Estonia plays in ICT4D projects. The second examines how projects are adapted to local context. The final sub research questions examine organisational weaknesses of ICT4D projects.

The first sub research question examines the role that Estonia plays in ICT4D projects. Estonia represents a new and unique case in ICT4D projects. This thesis believes that some of the knowledge generated in this research will be specific to Estonia. Therefore, it makes sense to examine the unique circumstances that Estonia may play in these projects. Hence, the first research question is: “What are the drivers that convince recipients to work with Estonia in ICT4D projects?” It is important to understand the motivations of recipients to understand the process of implementing an ICT4D projects. I will provide conceptualisation of stakeholders in ICT4D projects. By examining this question, I will contribute to the field of development studies by providing some insight into the practices that Estonia engages in ICT4D projects from the perspective of recipients. This contributes to my overall research question to understand the context as to what compels recipients’ organisations want to work with Estonia. This thesis will make the assumption that recipients have agency in choosing the donors with which to work together with.

This thesis second sub research question is: “How do ICT4D projects incorporate local context and stakeholders?”- A core failure identified in the that academic literature for the lack of failure of ICT4D projects is the gap between design and reality of ICT4D projects (Heeks, 2003). Therefore, to overcome this limitation recipient should improve local stakeholder engagement in projects to adapt these projects better to their local context. This implies that ICT4D projects do not engage in these practices enough. This sub research question examines the role that local stakeholders play in ICT4D projects.

This thesis final sub research question is “What are organization constraints facing ICT4D projects?” Through examining constraints, I aim to understand both strengths and potential weaknesses. Considering the high failure, I believe that organisational constraints play a core role in ICT4D projects that impede success. This thesis places a focus on organizational constraints as these could be changed in the future as organizations evolve to increase the success rate of ICT4D projects.

The common failures of ICT4D projects involve missing local context and missing stakeholder engagement. This thesis aims to provide analysis of the drivers of these weaknesses and to engage in a discussion that can mitigates these weaknesses. The research question examines whether intent is enough to mitigate the highlighted failures. The sub-research questions aid in understanding Estonian development projects to understand how situation may arise that leads to ICT4D projects failing.

This thesis draws on collaborative governance and development cooperation literature to understand how collaboration works in the context of implementing ICT4D projects. This thesis investigates how differences between recipient and partner states are overcome by placing a focus on Estonian ICT4D projects. This thesis will aim to provide an overview on common constraints faced in ICT4D projects and suggest pathways to overcome them. This will then lead to focusing on Estonia ICT4D projects to understand the constraint facing them or the lack of them. Finally, this thesis hopes to increase understanding of the motivations faced by recipient organisations in ICT4D projects of the motivations faced by recipient organizations in ICT4D projects.

This thesis will use interviews to collect qualitative data. I will interview representatives from recipient countries. These interviewees will be those that cooperate with Estonia and other development partners in development projects. Their understanding is crucial to gain insight into how they perceive development cooperation with Estonia. Questions will revolve around understanding the context of the organisation and why it seeks to cooperate with Estonia. Furthermore, I will look into factors within recipient organisations to understand their motivations and goals in development projects. This thesis will use these findings to guide a discussion on how to improve Estonian ICT4D projects and then generally apply these findings to ICT4D projects in general. These themes mentioned during these interviews will form the structure of the analysis. I will conduct an inductive analysis in which themes will arise as I code the interviews. Through this analysis I hope to shed light on Estonian practices in development practice to understand if Estonians mean what they say.

Secondly, I will conduct some brief ethnographic research by following individuals working on Estonian development projects in a recipient country. The aim is to understand the best practices they engage in and the response interviewees have towards them. During public events, Estonian development projects were showcased leading to recipients commenting on their work with Estonia to introduce them. This varied data provides this thesis with crucial insight by observing this phenomenon with little impact on the process.

To enable reflexivity and flexibility in the analysis of the interviews, this thesis will use reflexive thematic analysis. Reflexive thematic analysis is an inductive approach to coding interview responses. This method encourages the researcher to keep an open mind when finding commonalities and themes among the responses. It means that codes and themes will be developed without prior preconceptions. I will use the theoretical framework

to justify coding decisions in this analysis. This method gives the agency of defining the research direction to the interviewee instead of the researcher.

Finally, knowledge generated in the ICT4D field is dominated by a Western perspective which favours knowledge generated in a Western context and mindset of knowledge generated in the global south. To help position myself and to avoid some of these limitations of this research, methodological steps in the research design process will be influenced by critical realism. Critical realism encourages the researcher to be critical of their own assumptions throughout the research process. By implementing this approach, I aim to minimise and use my own biases throughout this thesis. This is further supported by using reflexive thematic analysis in the coding section. This methodology encourages researchers to reflect on their coding through iteration. The idea is that codes get more refined as the process continues.

Through taking a reflexive approach I aim to provide insight into the recipient's goals and views. This thesis has taken step that led to ensure that specifics of recipients' points does not get missed. I will assess Estonia development cooperation from the perspective of the recipients whilst individually having a similar mindset to Estonian stakeholders. However, through the listed methods I will minimise researcher bias in this thesis.

This thesis is structured as follows; first, I will provide an overview into ICT4D projects and development cooperation in the following literature review. The focus will be on how ICT4D projects are typically structured and highlight the common weaknesses that are faced in the projects. The section of collaboration practices will provide insight into how stakeholders interact with each other in cooperative settings and how projects may not always achieve goals that benefit recipients. Following this I will provide an overview of Estonian development cooperation and its ICT4D projects. This thesis will then introduce how data is gathered and analysed in line with critical realism and reflexive thematic analysis.

The second half of the thesis will introduce the themes found by speaking with recipients of Estonian development projects. I find that recipients often mention common weaknesses of ICT4D projects but also emphasis the strengths of incorporating co-creation process in ICT4D projects to mitigate these weaknesses. From these interviewees and ethnographic research, pathways to mitigate weaknesses of ICT4D projects will be highlighted. This will also shed light into Estonian development cooperation practices.

Following a synthesis this thesis will answer the question whether Estonian development cooperation matches the intent of these projects.

2 Literature Review

2.1 General

This thesis will focus on ICT4D projects as an example of cooperation between Estonia and another stakeholder. Digital development projects are examined as ICT4D within academia. ICT4D is a combination of ICT studies and development studies (Bello-Bravo et al., 2019). It is the process of implementing a development project in a recipient state which have digital components. ICT4D project aim to improve development outcomes in recipient countries (Heeks, 2020b). These projects can be implemented in the agriculture sector, health sector, education sector or improving government administration. ICT4D projects are usually applied to specific domains. All these domains require a good understanding of the relevant process by all relevant stakeholders to ensure it is effective (X. Zheng et al., 2024). Due to the potential of these projects many development organisations have pivoted to digital development cooperation projects.

Digital development projects are schemes in which a digital technologies or digital trainings are implemented donor states to improve development outcomes within a recipient country (Heeks, 2020a). ICT4D projects can help improve development outcomes in multiple ways (Zelenkov & Lashkevich, 2023). The first is that it can improve knowledge about implementing and developing ICT systems. The second is that it leads to economic opportunities and finally that technology can be a means in itself to improve development outcomes. COVID-19 has led to government prioritising digital transformation which can lead to improvements in other regions of the countries (Onyango & Ondiek, 2021).

ICT4D implements projects and digital tools aimed to improve socio-economic conditions (Abubakre & Mkansi, 2022). ICT4D is built on the promise that ICT can be used to improve societies (Abubakre & Mkansi, 2022). Overtime this field has evolved to be more focused on policy and hardware transfer in which development agencies share expertise on digital issues instead of just providing infrastructure or hardware (Ojo, 2016). ICT4D initiatives are becoming more knowledge focused (Thomas et al., 2023).

ICT4D is a techno-optimistic field, meaning that more technology is almost always better. ICT4D projects aim to improve living conditions within a state (Bello-Bravo et al., 2019). The internet can provide opportunities for economic growth throughout Africa however there is little evidence to back this claim up (Anwar & Graham, 2022). According to these

authors the internet can improve economic under certain conditions. Within Africa, digital technology has led to economic growth and has improved the domestic security situation (Schia, 2018).

There is a growing need to place ICT4D outside of the Information Systems (Akbari & Masiero, 2023). ICT4D research is now being placed within decolonization theory (Akbari & Masiero, 2023). Academia can work in silos so there can be limited interactions between these different disciplines which hinders ICT4D theory development (Walsham, 2020). Within IS studies there is a growing understanding that power dynamics are important to study to understand the success of ICT4D (Akbari & Masiero, 2023). Ismail et al. (2018) call for more articles on the intricacies of development partnerships.

Sustainability of ICT4D projects is a concern as practitioners and researchers are worried that projects will fade away once external technical and financial assistance gets withdrawn (Sahay & Mukherjee, 2017). Exploring and understanding the sustainability (or lack thereof) is crucial to improve the long-term success of ICT4D projects (Zoysa & Letch, 2013).

2.2 Drivers of ICT4D

Having introduced ICT4D projects this thesis will now introduce the growing relevance of these projects globally and what has led to an increase of these projects.

The supporters of ICT4D projects point towards the increasing importance of technology in driving economic and social development of states (Bello-Bravo et al., 2019; Cruz-Jesus et al., 2017). Scholars have observed the close relations between digital and economic development (Bello-Bravo et al., 2019; Cruz-Jesus et al., 2017). States which are more technically developed are also more economically development, hence, improving the digital realm in a state would improve socio-economic outcomes.

Major donors believe that implementing digital technology can support to achieve the sustainable development goals (SDGs) (Yoo & Song, 2021). To help support this potential Yoo & Song (2021), recommend that cooperation among actors should be strengthened. ICT4D has become popular among international agencies as it sees poverty as a problem that can be solved by adding more technology (Qureshi, 2022). ICT4D projects of the EU and its members states are either in improving connectivity or in improving digital

outcomes within a state (Okano-Heijmans & Vosse, 2021). This ranges from improving infrastructure, to improve regulation or to achieve business objectives (Okano-Heijmans & Vosse, 2021).

Development institutions believe that digitalisation can solve development challenges which then push recipients to adopt technologies (Mutung'u, 2023). This optimism in technology was further pushed by the technology industry (Mutung'u, 2023). This reflects the belief that data can solve major development challenges (Mutung'u, 2023). How technology is framed has played a role in public sector adoption among recipient states (Mutung'u, 2023).

ICT4D projects are increasingly popular among development agencies which point to the above facts as the reason as to why digital projects are essential to improve development outcomes. ICT4D projects have expanded in scope from just being focused on technical assistance to assisting in design of infrastructure broadband projects and capacity building (Okano-Heijmans & Vosse, 2021).

Digital technology can have positive development impact in the social, economic, and political sphere of recipient states (Schia, 2018). The digitalization of the Global South has provided economic opportunity for these states (Schia, 2018). But the rise of technologies has also shifted the focus on cybersecurity of digital technologies (Schia, 2018). Only focusing on implementing technologies without the relevant cybersecurity measures may also lead to adverse impacts (Schia, 2018). This indicates that implementing ICT4D projects may lead to new problems.

2.3 Development Cooperation

What is development cooperation? According to Sumner and Tribe (2008), development cooperation could be one of three definitions: The first is a project with a long-term impact and process of socio-economic transformation. The second is a project which achieves its projected targets in the short to medium term. The third is that the project brings a country closer to the Western idea of a productive state (Sumner & Tribe, 2008). Frequently development projects follow the second definition.

The public sector has been projectified (Jacobsen, 2022). This means that projects play an increasing important role in understand the role of public sector organisations and its

outputs (Jacobsen, 2022). Organisations are implementing an ever-increasing number of projects to achieve their goals (Fred, 2020). Project thinking has spread to many different parts in society, including development cooperation (Jacobsen, 2022). Development agencies are executing development projects and are funding the initiatives on a project basis.

However, projects are distinct from sustainable development which both have different time horizon (Cerne & Jansson, 2019). Projects usually change something in the short term whereas sustainable development seeks to implement changes over the long term (Cerne & Jansson, 2019). This means that projects may not bring about the desired long-term impact that academics and practitioners are searching for (Cerne & Jansson, 2019).

A collective set of standards that constitutes good aid is still missing (Develtere et al., 2021). Improving the effectiveness of development cooperation has been on the political agenda of donor states for over 20 years (Mawdsley et al., 2014). This is represented by multiple high-level conferences organized by the OECD and other donor states. All donors under pressure to show the positive impact of their development projects and to show that their projects are sustainable (Develtere et al., 2021). While these aims make sense in theory, in practice this has led projects to be more concerned with achieving abstract goals which can be measured and does not effectively engage with the local community to bring sustainable change (Develtere et al., 2021).

There is a growing interest among academics to understand how both donor and recipient states should behave to improve success of development projects (Develtere et al., 2021). The network among development actors has become increasingly important to understand the life cycle of development projects (Develtere et al., 2021). There is an increased focus on how to actor cooperate as there are many methods in which actors could cooperate (Torfing et al., 2012). Development projects can be seen as the outcome of different stakeholders with varying degrees of power working together to find a solution (Gurumurthy & Chami, 2019).

Often weaker parties can be coerced into partnerships that do not serve their own interests (Gray et al., 2022). Achieving effective partnership involves degrees of power sharing among actors (Gray et al., 2022). Partnerships are not silver bullets that magically solve problems that they are created to solve (Gray et al., 2022). A common assumption is that stakeholders collaborate voluntarily but often power plays a role in dictating cooperation

in that the interests of the more powerful actors gets advantaged (Gray et al., 2022). Different actors may prioritize different goals as an innovation is negotiated and implemented within a given context (Aka, 2019).

According to Gray et al. (2022), there are four indicators of disruptive power dynamics. The first is that critical stakeholders are excluded or undermined from discussions (Gray et al., 2022). The second is that the more powerful entities find exemptions from agreements negotiated with their partners (Gray et al., 2022). The third is that practices that govern the relationship may restrain weaker actors (Gray et al., 2022). The last is that the cost of implementation is disproportionately borne by low power actors (Gray et al., 2022).

2.4 Participants

This thesis now turns to from understanding why these constraints exist in development projects to examine how actors behave in these projects. The literature focuses on Western development actors so these will be the focus during this section.

Actors within interactive governance both aim to create their own images but can also take on the roles thrust upon them by other actors (Torfing et al., 2012). Nation branding is important to understand international governance (Torfing et al., 2012). There is a limited understanding within the literature on what effective collaboration means and what practices ensure a positive working environment (Torfing et al., 2012).

Within international development, the West often sees itself as a role model in which other countries need to adapt and become more western to develop (Bello-Bravo et al., 2019). According to decency theory, it makes the west to blame for underdevelopment (Bello-Bravo et al., 2019). The EU seeks to promote development in Africa along the EUs fundamental norms: democracy, human rights, solidarity, good governance in the rule of law (Langan, 2023), The EU's aid programs are usually linked with free trade partnerships (Langan, 2023). Furthermore, development agencies have their own incentives when implementing projects which are not always aligned with recipients. They favour executing a project to spend their budget rather than waiting for sustainable results to emerge (Carbone, 2011).

Power is an importance concept to understand the dynamics of governance and ignoring the role it plays may overlook some key facets (Torfing et al., 2012). Power is defined as the “ability to shape and secure particular outcomes” (Torfing et al., 2012). However, the study of power is neglected by practitioners and academics which typically see interactive governance and collaboration as an apolitical means of governance (Torfing et al., 2012). This position is also a representation of power dynamics. How actors frame problems and solutions represent their position but also is influenced by power within interactive governance (Torfing et al., 2012). Power disparities may be the root of many challenges so neglecting power in studies can have adverse impacts (Gray et al., 2022).

Furthermore, different stakeholders have different ideas of what good development is and what constitutes good development practices (Garcés-Velástegui, 2022). Perception of what is considered a successful project differs from stakeholder to stakeholder (Burga & Reznia, 2017). Development cooperation is a political exercise between separate stakeholders (Garcés-Velástegui, 2022). Stakeholders have different political values and perspectives that makes finding a solution more difficult (Head & Alford, 2015). Effectively this means that good development practices are dominated by experience from global northern actors. Global Northern dominates ICT4D research and theory development (Mwapwele & van Biljon, 2021).

2.5 Collaborative Practices

After the discussion on the limitations and constraints of development projects this thesis now investigates collaborative practices that actors engage in to overcome these differences.

Torfing et al, (2012) suggest multiple conditions which generate effective collaboration. The first is that governance networks develop a clear understanding of the policy problems and policy opportunities amongst each other (Torfing et al., 2012). The second is the ability of networks to develop innovative opportunities to develop solutions (Torfing et al., 2012). The third is that actors can compromise and shift their own position closer to each other for major policy decisions (Torfing et al., 2012). The fourth is that actors can find solutions together in productive manners (Torfing et al., 2012). The fifth is that actors can be flexible in attempting to find solutions (Torfing et al., 2012). The last is that actors improve the conditions for future cooperation by having successful cooperation in the first place (Torfing et al., 2012). These six criteria analyses whether

governance networks deliver what they set out to do before cooperating (Torfing et al., 2012).

According to Montenegro & Bulgacov (2014), qualitative research is essential to understand governance dynamics between the public and private sector. By understanding the actions and interests of actors can one understand a governance network (Montenegro & Bulgacov, 2014). Interactions between actors are crucial for a successful project outcome to ensure success (Kaur & Ahmed, 2019). Actor identities are shaped by the environment they exist in (Ansari et al., 2013).

According to Emerson (2020), “it is assumed that collaborative arrangements inevitably results in greater inclusion or pro-poor policy change”. This reiterates the importance of analysing the dynamics of collaborative agreements as these are treated as a black box by literature. It is important to understand the power dynamics of these relations (Emerson, 2020). However, coordination is a driving concept within development studies to help improve development effectiveness (Lundsgaarde & Keijzer, 2019).

Ran and Qi (2018) outlined several factors that ensures successful collaboration in public sector projects. The first is that all actors trust in the institutional system (Ran & Qi, 2018). The second is that the mission should be long term to encourage more resource being used by both actors (Ran & Qi, 2018). The third is that the collaboration should be voluntary (Ran & Qi, 2018). The fourth is that the actors should have had previous experience working together (Ran & Qi, 2018). The fifth is “the less diffuse power sources are the less effective power sharing” (Ran & Qi, 2018). The last is that the benefits should outweigh the costs (Ran & Qi, 2018). Zheng et al, (2018), recommend studies that analyse under what conditions ICT4D projects improve socio-economic outcomes within a community. This thesis follows this idea by studying what collaborative conditions leads to more successful ICT4D projects. This thesis will focus on the power sharing and trust aspects of cooperation in ICT4D projects.

Co-creation can be used to design projects with recipients in mind (Steyn & van Greunen, 2015). It is the process in which two or more actors solve a shared problem together through communication with each other (Torfing et al., 2019). It should be used to determine how the project is executed but also to decide the development approach of the project (Steyn & van Greunen, 2015). Co-creation does not automatically make a project better as effective institutional mechanisms are needed to ensure participation is inclusive

and that all stakeholders are able to impact discussions in a similar manner (Keeys & Huemann, 2017; Torfing et al., 2019).

This may lead to the creation of new mechanisms that enable cooperation between all actors (Torfing et al., 2019). It should lead to approaches that enable to integration of multiple viewpoints and approaches into the project (Keeys & Huemann, 2017). This then means that project activities such as planning and implementing includes all different stakeholders and can integrate all the different perspective (Keeys & Huemann, 2017). Furthermore, it aims to incorporate the local context of communities into the design of the project to better achieve its goals (Steyn & van Greunen, 2015).

This thesis has now introduced the general overview of development projects and the constraints facing them. Furthermore, it has highlighted some of the conditions that creates effective collaboration. This thesis will now introduce the research on digital development projects.

2.6 Constraints

This thesis will now examine the role that constraints play in development projects as differences between partners happen the success of development projects. This section examines why such differences may exist.

According to Torfing et al., (2012), the complexity of governing ourselves has increased which corresponds to the rise of the complexity of problems. This places an increased emphasis on cooperating together with different actors to solve complicated policy problems. This could be done through interactive governance: “a complex process in which a plurality of social and political actors with divergent interests interact to formulate, promote and achieve common objectives by means of mobilising, exchanging and deploying a range of ideas, rules and resources (Torfing et al., 2012).

Furthermore, some development projects are implemented political reasons and are therefore considered ineffective (Smith & Lie, 2022). ICT4D projects from EU states also aim to influence the digital governance to reflect European norms and values of technology (Okano-Heijmans & Vosse, 2021). This paragraph underlines that donor’s motivation and attitude play an important role in understanding the success or failure of a development project.

Common neo-colonial practices still exist in development despite well-intentioned plans (Hanson-DeFusco et al., 2024). Development policy is dominated by Western actors who fail to consider the context in recipient countries (Hanson-DeFusco et al., 2024). Local partners are often given less power to shape policies and development program of the implementing agency (Hanson-DeFusco et al., 2024).

This thesis has already introduced factors that constrain development projects. Now this thesis will introduce factors that constrain ICT4D projects.

Research on the failure of ICT4D projects is extensive (Marais & Vannini, 2021). These failures range from failing to consider local social-cultural factors to failing to take power dynamics into account (Marais & Vannini, 2021). ICT4D project would benefit further from taking context into consideration (Marais & Vannini, 2021). Furthermore, digitalization within a state also requires a need of knowledge and understanding on how to effectively use digital resources to achieve positive development impacts (Schia, 2018). This research aims to fulfil this gap in the literature in which recipient stakeholders and the role of power are not conceptualized within ICT4D studies (Thomas et al., 2023).

ICT4D projects fail because of a design-gap reality, that projects are designed without understanding the reality in which the solution will be implemented in (Heeks, 2003). ICT4D projects frequently fail because of these differences, the bigger the gap between “project design and on-the ground reality” the larger the risk of the project failing (Heeks, 2003). In other words, not understanding the context of the project increases the chances of it failing and of the project having limited long term success.

Frequently ICT4D training programs as designed from Western states instead of recipient states (Bass & Heeks, 2011). This is another example of the design gap reality in which these programs were designed in the West and inserted one for one in the recipient country (Bass & Heeks, 2011). Hence, such projects have a higher chance of failing and bringing about limited long term chance (Heeks, 2003).

Scholars question whether ICT4D leads to positive development outcomes in recipient states (Bello-Bravo et al., 2019). Western theories dominated early ICT4D initiatives however, digital development projects did not enable the desired impact (Heeks, 2022). There has been a focus from development agencies to bring in the private sector in

bridging the digital divide (Ojo, 2016). However, privatization was not helpful in improving digital development within Africa (Gillwald et al., 2019). Some donors and recipient states have unrealistic expectations of development leapfrogging some stages (Ojo, 2016). This paragraph question as to whether Western approaches are the right approach to solve problems outside of its own context. There is a significant mismatch between the realities of perception of digital development projects of donor states and what recipient countries need. Western approaches of delegating responsibilities to the private sector are unsuccessful in improving ICT access (Heeks, 2022).

However, despite the perceived potential of digital development projects from implementing agencies these projects have a high failure rate and lack long term sustainability (Heeks, 2003; Mamba & Isabirye, 2015; Sahay & Mukherjee, 2017). This has become a growing headache for practitioners (Mamba & Isabirye, 2015; Sahay & Mukherjee, 2017). Actors may cooperate to create agreements but may fail in establishing sustainable practices when working together (Develtere et al., 2021). Furthermore, power dynamics in ICT4D projects have received limited attention in the literature (Emerson, 2020).

Scholars have pointed to multiple reasons for the high failure rate among ICT4D projects. ICT4D projects need to be properly budgeted and staffed as well as having effective coordination which is rarely the case (Okano-Heijmans & Vosse, 2021). ICT4D are hindered by government administrations which are unskilled in ICT (Ondiek, 2020). If public administrators are skilled in digital technologies, then this has positive impacts for ICT4D projects (Ondiek, 2020). It is the role of public services leaders to ensure that administrators have the relevant skills (Meru & Kinoti, 2022).

Another reason why ICT4D projects fail is that these projects are not guided by evidence (Marais & Vannini, 2021). Projects are instead driven by political and budgetary motivations (Smith & Lie, 2022). Politically motivated development aid is generally seen as less effective than non-political aid (Dreher et al., 2015).

Donors may implement projects to fulfil their own goals without being driven evidence. Another reason can be that as external funding from the project disappears the project gets dropped (Marais & Vannini, 2021; Sahay & Mukherjee, 2017). Finally, scholars point towards that ICT4D projects do not consider context in their planning and implementation phases. Projects require an understanding of the local context to be implemented correctly

(Lin et al., 2015). Having effective stakeholder engagement in ICT4D projects is associated with successful projects (Kaur & Ahmed, 2019).

This section underlines the importance of taking local context into consideration when planning a ICT4D project (Bon & Akkermans, 2019). This should be done by increasing the focus of working together with beneficiaries (Bon & Akkermans, 2019). A multi-stakeholder intervention is needed to ensure positive outcomes of development projects (Ojo, 2016). This would allow networks to distribute responsibility more effectively to improve the success of a project (Marais & Vannini, 2021). This research will now place some attention into collaboration dynamics of different projects to conceptualise how effective collaboration can take place. These projects need to be adapted to the local context as a project that works in one country, but they may not necessarily work in another country (Y. Zheng et al., 2018). This means it is necessary to have an open mind when implementing ICT4D projects (Y. Zheng et al., 2018).

If ICT4D projects are not driven by context and evidence, what are they driven by then? These projects are analysed by a technical approach, one which does not consider power dynamic within a collaborative process (Khene & Masiero, 2022). Khene & Masiero (2022), argue that an approach outside of Information Systems is necessary to understand the real-world outcomes of ICT4D projects. ICT4D largely ignores power and structural issues that may arise through implementation of an ICT4D project (Schelenz & Pawelec, 2022). Furthermore, this field rarely drew on development theories to develop its insights or to further the field (Bello-Bravo et al., 2019; Heffernan et al., 2016).

2.7 Collaborative Practices

Following a discussion on the limitations and constraints of development projects this thesis now investigates collaborative practices that actors engage in to overcome these differences.

Torfining et al, (2012) suggest multiple conditions which generates effective collaboration. The first is that governance networks develop a clear understanding of the policy problems and policy opportunities amongst each other (Torfining et al., 2012). The second is the ability of networks to develop innovative opportunities to develop solutions (Torfining et al., 2012). The third is that actors can compromise and shift their own position closer to each other for major policy decisions (Torfining et al., 2012). The fourth is that

actors can find solutions together in productive manners (Torfing et al., 2012). The fifth is that actors can be flexible in attempting to find solutions (Torfing et al., 2012). The sixth criteria is that actors improve the conditions for future cooperation by having successful cooperation in the first place (Torfing et al., 2012). These six criteria analyses whether governance networks deliver what they set out to do before cooperating (Torfing et al., 2012).

According to Montenegro & Bulgacov (2014), qualitative research is essential to understand governance dynamics between the public and private sector. By understanding the actions of individual actors can one better understand a network in which these actors are involved in (Montenegro & Bulgacov, 2014). Interactions between actors are crucial for a successful project outcome to ensure success (Kaur & Ahmed, 2019). Actor identities are shaped by the environment they exist in (Ansari et al., 2013).

According to Emerson (2020), “it is assumed that collaborative arrangements inevitability results in greater inclusion or pro-poor policy change”. This reiterates the importance of analysing the dynamics of collaborative agreements as these are treated as a black box by literature. It is important to understand the power dynamics of these relations (Emerson, 2020). However, coordination is a driving concept within development studies to help improve development effectiveness (Lundsgaarde & Keijzer, 2019).

This thesis has now introduced the general overview of development projects and the constraints facing them. Furthermore, it has highlighted some of the conditions that creates effective collaboration. This thesis will now introduce the research on digital development projects.

2.8 Solution

Having introduced constraints this thesis will now examine the research that has been done that examines how to solve these issues and make ICT4D projects more effective.

Scholars argue that effective ICT4D projects are those that consider both the offline and online realms (Rothe et al., 2023). Digital projects do not exist within a vacuum, the socio-economic context of how the project interacts within a community is important to consider ensuring positive outcomes (Lin et al., 2015). ICT4D requires an understanding of the context it is implemented in (Lin et al., 2015), The individual is not just a technical

factor in a project, they also play a human role in the lifecycle of a digital project which influences whether the project can lead to positive or negative outcomes (Ojo, 2016; Qureshi, 2019).

The focus of ICT4D research should move away from projects and instead analyses the systemic reasons of what is sustainable development (Marais & Vannini, 2021). The failure of ICT4D is well researched with a core failure being the lack of understanding of the social context in which a project is implemented in (Marais & Vannini, 2021). Successful ICT4D projects should also focus on social factors to ensure success (Mamba & Isabirye, 2015).

Effective interactions between actors is important to ensure the success of ICT4D projects (Kaur et al., 2020). These interactions are often overlooked in ICT4D research (Kaur et al., 2020). ICT4D can be considered as projects between actors working together for a common goal (Kaur et al., 2020). Analysing these interactions could help understand dynamics within a partnership (Kaur et al., 2020).

To overcome power imbalances Marias & Vannini (2021) recommend multiple methods to ensure a positive working environment. The first is to encourage peer-to-peer relations which recognises the value of all individuals. The second is to consider every individual to take a leadership position to start collaborations. Conversely, it is important for a leadership role to be distributed among to ensure effective collaboration for ICT4D projects. Essentially, this means that all individuals should be empowered to be proactive in identifying problems and suggesting solutions. This reiterates that the failure of ICT4D projects is on the human factors of these projects and not the technical factors.

However, it would be questionable to say that technology is value free. Digital technologies often reinforce existing power dynamics within societies (Fuchs, 2018). These dynamics are reflected in the exploitative conditions surrounding production or in the conditions of consumption of these technologies (Fuchs, 2018). Implementing digital development projects can also lead to more problems (Gritsenko, 2024).

Solving social problems requires a thorough understanding of stakeholders within a given context (Dwivedi et al., 2015). Technology is dependent on how an actor understand the use of a technology, their perspective will undermine their actions in solving problems

(Dwivedi et al, 2015). The digitalization of development contributes to increasing complexity, diversity, and uncertainty of problems (Winkel, 2021). Rather, ICT4D projects represent a multifaceted complex sociotechnical process which require a holistic socio-technical approach to implement effectively (Bello-Bravo et al., 2019; Fouche et al., 2022).

ICT4D should be more community focused rather than focusing on individuals (Marais & Vannini, 2021). Siphiosami, Maba and Isabirye (2015) argue that ICT4D projects tend to fail due to a lack of frameworks to guide implementation of digital technologies in developing countries. Scholars argue that development agencies should implement digital projects whilst understanding the local socio-economic context of communities (Lin et al., 2015). These scholars point towards that integrating beneficiaries of development project into the planning and implanting phases can improve success (Bon & Akkermans, 2019).

Effective interactions between actors are important to ensure the success of ICT4D projects (Kaur et al., 2020). Knowledge about perceived limitations about ICT4D projects are not new, as actors should be aware of evidence if they desired positive outcomes (Marais & Vannini, 2021). This dynamic underline that dialogue between donor and recipient states is lacking or is undervalued in the planning phases of these projects. Donors prefer to implement short term project-based initiatives while the literature outlines that longer lasting initiatives which focus on expanding their networks driven by the grassroot level can provide sustainable change (Gumbo et al., 2012; Marais & Vannini, 2021). Long term projects and success is not the norm for ICT4D projects (Marais & Vannini, 2021).

Projects should focus on networks to distribute responsibility and ownership of the project (Marais & Vannini, 2021). These types of projects are considered more sustainable in the long run (Marais & Vannini, 2021). ICT4D research should place increasingly focus on a network approach to ensure sustainable projects (Marais & Vannini, 2021)

Zheng et al, (2018), recommend studies that analyse under what conditions ICT4D projects improve socio-economic outcomes within a community. This thesis follows this idea by studying what collaborative conditions leads to more successful ICT4D projects.

2.9 Estonian Development Practices

The focus of this thesis is Estonia. Therefore, in this section I will introduce the history of Estonian development practices. This will provide context to understand how recipients perceive Estonian development practices and to examine how Estonia enters development cooperation projects.

Development cooperation is new for Estonia as it is not traditionally a country that gives out development aid (Made, 2015). Estonia started engaging in development cooperation in 1998 when it aspired to join the EU (Made, 2015). These funds were primarily spent through multilateral institutions and initiatives (Made, 2015).

Estonia expanded its focus in international relations in 2019 when it aimed to secure enough votes to get a seat at the UN Security Council thereby needing to increase its engagement with African states (Crandall & Allan, 2015). In 2021 Estonia released its first Africa strategy which was also released in English. This two-page strategy talks about an equal partnership between Estonia and African states with the main objective being “to increase the security and prosperity and stability of the African continent” and “support global sustainable development”. This thesis will test whether Estonia follows its intent to approach development projects with the mindset of an equal partnership and if it aims to implement global sustainable development projects.

In April 2021, Estonia established EstDev as an agency to execute its development cooperation programme (EstDev, n.d.). EstDev aims to use development cooperation to “reduce poverty, strengthen democratic governance [and], build sustainable economies” (EstDev, n.d.). Estonia is a relatively new country when it comes to international development cooperation and has joined the OECD Development Assistance Committee in July 4th, 2023 (OECD, 2023). Estonia has previously focused its development cooperation with countries in the Eastern Neighbourhood (Moldova, Ukraine and Georgia) (Crandall & Allan, 2015).

Estonia needs to do more with its limited resource to cooperate with other states (Crandall & Allan, 2015). They have three overarching goals, to improve Estonian visibility as an international donor and partner, increase its own foreign funding and to link development cooperation with Estonia’s foreign policy (EstDev, 2024). Its global projects are usually done in cooperation with other allies (Crandall & Allan, 2015).

The primary purpose of Estonia’s foreign aid program is to improve the visibility of Estonia and serve geopolitical aspects (Made, 2015). Reputation and positive nation branding drives Estonian international cooperation. It wants to show its allies that it is a

role model European country and often engages in policy to improve its reputation rather than economic or geopolitical objectives (Made, 2015). This thesis aims to contribute to the limited literature on that analysis's Estonian development cooperation (Made, 2015).

Traditionally, Estonia's development cooperation is driven by NGOs and companies and not the state (Made, 2015). Furthermore, Estonian development projects were knowledge based in the form of workshops, lectures, or study visits (Made, 2015). Estonia's recommendation on e-Governance has tangible impact (Made, 2015). Made (2015), recommends that Estonia should move towards more tangible development cooperation projects to gain more relevance in the digital development sphere (Made, 2015).

According to Made (2015), Estonian development cooperation countries can be divided into three groups. The firsts are states which have clear foreign policy importance for Estonia, these are usually states in Eastern Europe and former soviet republics (Made, 2015). The second are in areas experiencing internal crisis, here Estonia cooperates as part of multilateral initiatives. The third are the rest of the states which used to not be a significant part of Estonia's portfolio.

Each of Estonia's focus country in the Eastern Partner hood has its own comprehensive strategy on Estonia's focus in cooperating with these countries (Ukraine, Moldova, Georgia). Commonalities of these strategies is the focus on improving democracy within these states. This is done by supporting the development of democratic structures in these countries and by strengthening civil society. Furthermore, Estonia aims to improve by supporting local innovation and entrepreneurship. Finally, Estonia supports the improvement of the education systems in these three states. Notably, digitalization does not play a central role in these projects. Instead, digital projects play a secondary role in achieving the stated goals. For these states, it will be interesting to examine the long-term impact of Estonian development cooperation and collaborative practices.

2.10 Estonian Digital Development Practices

Estonia is an increasingly important actor in international development and sees its own niche in promoting e- governance, an open internet, and a high level of cyber security (Crandall & Allan, 2015). Estonia believes that good ICT systems is crucial for developing countries (Robinson & Hardy, 2021). Estonia aims to share use of their own experiences in digitalisation with partner countries (EstDev, n.d.). The country has invested significant resources to build up the brand of its own nation. These campaigns revolve around e-Estonia which highlights the digitally advanced nature of its society. This could be by highlighting its efficient government administration or its eResidency program.

Estonia has pivoted to use this success in its branding of being a digital pioneer to take an “international leading role” in digital development (Robinson & Hardy, 2021). Furthermore, it has pivoted its development cooperation strategy to become more public facing by for example releasing documents in English (Robinson & Hardy, 2021). The reputation of Estonia plays a dual role in understand the strengths of Estonian development cooperation. The strengths of the Estonian experience can be complemented by entering in cooperative partnerships with other stakeholders.

Estonia’s Africa strategy also places emphasis on digital development projects. This is done by highlighting its role in multilateral initiatives that encourages these projects with its African and European partner. For example, it refers to Estonia’s role in founding the Digital for Development hub with other European partners. Together with its African partners, Estonia works with pan-African organisations to share its expertise in e-governance and e-services. Its focus within Africa is on Kenya, Namibia, Botswana and Uganda.

This strategy links digital cooperation with economic development which is in line to what scholars say about the attractiveness of ICT4D development policies. Finally, the Estonia public sector highlights what other Estonian private sector or third sector organisations are doing within Africa to promote development. This is either through Mondo, an NGO or through e-Governance Academy, a not-for-profit consultancy. These organisations have traditionally represented Estonian development projects outside of its region. Prior to state involvement, Estonian NGOs and companies were active globally in development cooperation (Made, 2015)

Due to the experience of Estonia’s private sector, Estonia aims to collaborate with other countries and its own private sector on development cooperation projects to retain a leading role in the field (Robinson & Hardy, 2021). Following the academic literature already reviewed, Estonia and its priority countries will have different perceptions for projects success and weaknesses. Furthermore, the focus will be to understand the collaborative practices between these actors. This thesis will then explore mechanisms used by actors that aim to reduce these differences.

3 Methodology

3.1 Case Study

This thesis will use a case study method to analyse Estonia's collaborative practices and reputation. A case study investigates a certain case chosen by the researcher (Campbell, 2015). According to Campell (2015), a case study could be an individual, situation, organisation, phenomenon, or a relationship. Case study research is an intensive investigation into a specific phenomenon when behaviour cannot be controlled (Yin, 2017). This research method should be able to capture the complexity of the case (Ebneyamini & Sadeghi Moghadam, 2018).

A case study is used to answer “how” and “why” questions when investigating current phenomenon (Yin, 2017). A case study of a specific program may reveal variations in program definitions or highlight components that exist before the formal establishment of a program (Yin, 2017). A case study requires multiple sources to create a thorough picture. Therefore, project documents also need to be analysed. These could come from prior documentation or statements made by representatives during events (Yin, 2017).

However, using a case study method raises complexity as there is no routine data collection procedures despite it following a formal protocol (Yin, 2017). This weakness will be mitigated by using a reflexive thematic analysis which ensure I develop multiple themes by diving into the data and not before it. To aid in data collection, critical realism will help provide some structure in how I will collect data throughout this thesis. This assists in this thesis goal to use this case study to develop theory.

The researcher plays a crucial role in the design of the case study method; therefore, efforts should be made to minimise researchers bias (Campbell, 2015). This thesis adopts critical realism and reflective thematic analysis to minimise my biases in this research. This plays an important role in attempting to reduce Western bias when representing voices outside of my direct experiences.

Estonia represents an unusual case among European states in digital development cooperation. It does not have the historical legacy that other European states have in development cooperation nor a prior colonial history. This allows this research to focus primarily on collaboration practices between Estonia and recipient states. However, it

might be difficult to say too much about other cases due to the uniqueness of Estonia in digitalization (Yin, 2017).

The purpose of this thesis is to better understand some of the mechanisms of how Estonia collaborates in digital development cooperation. Furthermore, this thesis will use data from multiple different interview sources to test this thesis research question. In this case, interviewees will come from a wide range of contexts. However, as the focus of this thesis are Estonian development practices, I will neglect some of the context of each specific development case. By focussing on a width of cases I should be able to capture core development practices of Estonia which are usually present.

3.2 Coding

The researcher should be conceptualized in such a study as the research influences research outcomes (Houston, 2010). The field of ICT4D is dominated by a global “Northern” perspective (Jimenez et al., 2022; Mwapwele & van Biljon, 2021). This limitation will be present in this research however, it can be mitigated by being flexible and reflective (Jimenez et al., 2022). For this purpose, this thesis will adopt the reflexive thematic analysis. This method developed by Braun and Clark (2022), emphasizes that the researcher be critical of their own assumptions coding the analysis.

Thematic Analysis is a qualitative analysis method that focuses on analysing and interpreting patterns across a qualitative dataset (Braun & Clarke, 2022). The method promoted by these authors underlines practicing reflexivity (Braun & Clarke, 2022). Reflexivity means that the researcher should be critical about the research practice and process (Braun & Clarke, 2022). The bias of the researcher is natural and should instead be seen as a resource for undertaking analysis (Braun & Clarke, 2022). Implicit and explicit assumptions will always shape the research process (Braun & Clarke, 2022). Furthermore, uncertainty is natural in conducting analysis (Braun & Clarke, 2022). This research method provides the research a lot of flexibility in how to conduct analysis (Braun & Clarke, 2022). Being reflexive is the most important part about conducting thematic analysis (Braun & Clarke, 2022).

Coding for reflexive thematic analysis revolves around finding what is relevant based on the research’s focus (Braun & Clarke, 2022). It is a process in which the researcher highlights important aspects in interviews to find meanings with what was said (Braun &

Clarke, 2022). Then the researcher aims to find commonalities among identified codes (Braun & Clarke, 2022). This process is continuous, and the coding and coding labels can change through the entire process (Braun & Clarke, 2022). Codes will evolve as the insights grow (Braun & Clarke, 2022). There is significant flexibility behind how to apply the techniques on thematic analysis (Braun & Clarke, 2022). Coding can go on forever but the authors recommend stopping once the researcher starts to over tweak the codes (Braun & Clarke, 2022).

After coding, the researcher should engage in theme development (Braun & Clarke, 2022). According to Braun and Clark (2022), a theme is “a pattern of shared meaning organized around a central concept”. This is a cluster of codes that have a common meaning and share a relationship (Braun & Clarke, 2022). However, these themes should not be too narrow as this can hinder effective analysis (Braun & Clarke, 2022). Finally, the importance of a theme is not determined by the frequency but by the importance of theme in relation to the research question (Braun & Clarke, 2022).

To further help position the researcher this thesis will adopt the philosophical approach of critical realism. Critical Realism provides scholars a philosophical framework for understanding the world (Houston, 2010). This philosophical approach will aid this thesis to help in designing different research steps. Critical realism is a philosophical approach that underlines the need of context in understanding a phenomenon (O’Mahoney et al., 2017). Critical realist scholars identify three different spheres: the individual, the reality from which the individual perceives events and the wider world which influences event (Maxwell, 2018; S.Lewis-Beck et al., 2004; Vincent & Wapshott, 2014). Furthermore, critical realism believes that the researchers perspective plays a role in shaping research outcomes (Houston, 2010). Researchers may also play a role in replicating power dynamics within multistakeholder partnerships (Gray et al., 2022).

Data collected under critical realism should be seen as evidence for real world phenomena and processes (Maxwell, 2018). Furthermore, critical realism believes that the researchers perspective plays a role in shaping research outcomes (Houston, 2010). By acknowledging my biases this paper will attempt to minimize the biases present throughout this thesis. Critical Realism will be used in this research to help design and guide the data collection and analysis process.

The researcher should be conceptualized in such a study as the research influences research outcomes (Houston, 2010). The field of ICT4D is dominated by a global “Northern” perspective (Jimenez et al., 2022). This limitation will be present in this research however, it can be mitigated by being flexible and reflective (Jimenez et al., 2022). To help overcome this limitation, the philosophical approach of critical realism will be adopted. Critical Realisms provides scholars a philosophical framework for understanding the world and helps to position the researcher (Houston, 2010). According to Thapa (2018), critical realism is effective to study ICT4D and to provide a holistic understand to digital development.

Applying critical realism to ICT4D underlines that understanding contextual mechanism to ensure successful ICT4D projects (Smith & Lie, 2022). Hussain & Brown (2018) have shown that using critical realism in ICT4D can help to underline mechanisms in ICT4D projects. Such an approach can provide an understanding of the causal relationship that drive an ICT4D project (Hussain & Brown, 2018). Being reflexive and critical is important for this topic, as I expect to obtain information that may challenge dominant assumptions of ICT4D. I accept that ICT4D is a discipline that is dominated by a Western perspective however I hope to bring a fresh perspective to this research field. This is why this thesis will implement both reflexive thematic analysis and critical realism to mitigate some of these biases.

3.3 Interview Questions

The information provided by interviews will be analysed according to the Thematic Analysis method by Braun & Clarke (2022) which emphasizes reflectiveness when coding interviews. Thematical analysis is one of the most popular data analysis methods since it is easy for researchers to implement (Christodoulou, 2023; Wiltshire & Ronkainen, 2021). Christodoulou (2023) provides a guideline on how critical realism should be used in thematic analysis.

To collect empirical data semi-structured interviews will be held with partners of the Estonian Development Cooperation (Ukraine, Georgia, Moldova, Kenya, Uganda, Namibia and Botswana). These interviews will provide insight into a project’s goal, project’s strengths and project’s weaknesses related to ICT4D projects. Furthermore, I will ask about collaborative practices to understand how Estonia engages in development cooperation.

Interviews offers a window into current affairs for a phenomenon when one cannot control the analysed phenomenon. Conducting interviews provides in-depth information collected can help explain social world mechanisms (Brönnimann, 2022). Critical Realist interview questions should use Why and How Questions in the interview with participants responding with their real-world experiences (Brönnimann, 2022). By asking open-ended questions allow me to effectively develop my own codes and code themes (Creswell & Báez, 2020). The purpose of interviewing recipient states is to understand the perspective of recipient countries in digital development projects.

This thesis has conducted interviews through Microsoft Team for approximately one hour each. During this time, I followed the interview protocol prepared beforehand and used the questions to ask follow up questions that dive into the interviewee's perspective. During the interview I made notes on key facts that became apparent during the interview. I made sure to ask How and Why questions to encourage the interviewee to share and elaborate on their own perspective. Afterwards, I wrote up my initial impressions of important pieces of information that came up whilst talking with interviewees. I let these insights rest as I create the transcripts which I analysed using thematic analysis.

I used the software Nvivo to aid in coding and theme development. This helped me to inductively create codes and themes surrounding these findings. I went through the transcripts multiple times to support theme development.

3.4 Interviews

Interviewee A	High-Level Decision Makers	Government	Kenya	14/03/24	Face-to Face	15 min
Interviewee B	Head of Department	Ministry	Moldova	29/03/24	Virtual	60 min
Interviewee C	Project Manager	Implementing Organisation	Kenya	28/03/24 & 04/04/24	Virtual	30 min x 2
Interviewee D	Project Manager	Implementing Organisation	Kenya	25/04/24	Face-to-Face	10 min

Interviewee E	Dean	University	Kenya	25/04/24	Face-to-Face	10 min
Interviewee F	Various Decision makers	University	Kenya	26/04/24	Face to Face	45 min
Interviewee G	Head of Department	NGO	Georgia	30/04/24	Virtual	60 min
Interviewee H	Project Manager	Public Sector	Namibia	02/05/24	Virtual	30 min
Interviewee I	Head of Department	Public Sector	Benin	07/05/24	Virtual	30 min
Interviewee J	Head of Department	Public Sector	Egypt	13/05/24	Virtual	30 min
Interviewee K	Head of Company	NGO	Estonia	17/05/24	Virtual	30 min
Interviewee L	Various Project Members	NGO	Estonia	20/05/24	Virtual	45 min

Table 1: Overview of Interviewees

The table above shows with whom I interviewed to understand Estonian development practices. The majority of interviewees were from Kenya, this should be seen as a result of Estonia's focus in development cooperation in Africa. However, many themes from the Kenyan context re-emerged in other countries. The majority of interviewees are implementing projects with Estonia's public sector. Some interviewees were cooperating to implement projects with Estonian companies. There were similarities between public and private sector projects with recipients' projects.

Conducting these interviewees frequently went in different directions. This is the result of the professional background of interviewees and how they interpret the questions I ask them. High-level decision makers touch upon themes of Why Estonia from a technical experience whereas project manager touch upon collaborative practices with Estonia.

Interviewees D-F were interviewed whilst conducting ethnographic research. As such these were significantly briefer and followed a condensed interviewee protocol. The same applies to Interviewee A. Transcriptions for these meetings are not present as interviewees were not comfortable with being recorded for the questions. All virtual meetings were conducted over Microsoft Teams. For Interviewee I and J the interview invites were sent out by the interviewees. As they also set the time for the interview.

An interview guide can be found in the annex. Interviewees followed a semi-structured format in which I follow the guide for questions which were applicable and dependent on the flow of the conversation with them. Often, I would ask follow up questions on interesting facets that interviewees mentioned that were mentioned in the theory. This means that not all interviewees were asked the same questions. However, the purpose of the interviews is to understand the recipient's experience. This method helped to achieve this goal.

3.5 Themes

Initial Theme	Frequency
Local Context	37
Administrative Burden	35
Digital Training	35
Bottom-up approach	34
Support Local Stakeholders	28
Top-down approach	26
Estonain Branding	26
Lack of Sustainability	18
Technical Information	17
Adjust to Partners	16
Digitalisation	13
Sustainable Project	12
Funding	11

Cooperation	10
Multilateral	9
Advocacy	9
Economic Growth	9
Coordination	8
Missing Context	7

Table 2: Overview of Themes

Table 2 shows the initial themes found over 5 frequencies during the initial coding phase. Themes that were mentioned frequently are: Local Context, Administrative Burden and Digital Training. These indicate themes that were generally important for interviewees. Coding examples can be found in the annex to better understand this researchers' coding choices. Some themes are also specific to the interviewee as others didn't mention this theme at all.

From the themes identified these were then regrouped back into the themes of my sub research questions. This first was mentioning Estonia specific factors, these themes regrouped into this was usually: Estonian branding, technical information and digitalisation. However, statements that fall into this theme are contextual. The second sub research question was on collaborative practices, commonly themes that fell into this were from local context, bottom-up approach and supporting local stakeholders. The final sub research question was on constraints, themes that fell into this group was on administrative burden, top-down approach and lack of sustainability. This also highlights some of the findings of this research even if quantity of themes should be seen as the strength of the theme. That both local context plays a crucial role in ICT4D projects and that recipients organisations are overworked to implement all these projects.

4 Analysis

The top themes, most mentioned topics are related to context of project, expertise of Estonian in ICT4D and the support of local stakeholders. Interviewees also mentioned the constraints facing the ICT4D projects such as projects missing context or the administrative burden facing them when implementing ICT4D sections. Interviewees talked about the reasons why they collaborated with Estonia and mentioned the positive practices that Estonia is engaging in when compared to its peers in this field. Furthermore, interviewees emphasised the role that they played in shaping the project and the role that local context played for them. Funding and administrative burden were constraints facing organisations collaborating with Estonia. Interviewees frequently mentioned Estonia in comparison to other development actors. This was usually done to praise Estonian practices when compared to other development actors. Context is important for understanding the perspectives of interviewees and their motivations.

This thesis will now go in depth into the responses that interviewees provided regarding Estonian ICT4D projects. It will begin with how Estonia shares its digital experience and why organisations partner with Estonia. This will be followed by diving deeper going in depth into the importance of local context and partners or the lack of either aspect. Afterwards, I will talk about the collaborative practices that organisations engage in and the reception to this. Finally, I will focus on the constraints facing ICT4D projects either on the Estonian side or the recipient side.

4.1 Sharing Estonia's digital experience

Interviewees frequently mentioned the benefits of cooperating with Estonia and its ICT4D programs (Interviewee A, B, H, I and J). This section collects these findings in which recipients talked about these factors. This section will start generally with a quote from Interviewee H:

“And this is something that our side is also very limited in in terms of resources, in terms of skills. So these partnerships really help us. To make sure that we, we sort of have like a coordinated approach to solving these constraints through partnerships.”

This emphasises the motives as to why recipients generally engage in development cooperation. For interviewee H it is to solve constraints facing them. Often this recipient has identified a skill, organisational or technical gap within their country or organisation

and are now engaging in development cooperation to solve the identified gap. Interviewees identified aspects about Estonia that they wish to adapt to their own context and environment to solve their problems (Interviewee A, B F and H). In which case, workshops are implemented together with an Estonian partner to attempt to bring about the desired long-term change that the recipients organisation goal state.

Estonian experience in successfully digitalising its country are what attracts stakeholders to work with Estonia (Interview A, I). Interviewees mentioned how working with Estonia shows them practical applications of digitalisation. The Estonian story and context is in demand by recipients as they are all interested in the Estonian experience in digitalising their country and creating an innovative ecosystem for its own context (Interview A, B, H and I). Estonian actors still focus on primarily upskilling programs (Interview L). These projects have changed in that they now also focus on linking digital skills with improving economic livelihoods (Interview L).

The expertise Estonia brings to digital development projects is positive (Interview B). It allows cooperation with other donors or partners that would like to digitalise their own administration. Recipients note that the benefits of government digitalisation with Estonia is obvious when visiting Estonia:

“Okay, you want to start the strength. Estonian company have not theoretical digitalization, we have very real digitalisation of the country. You can see it, we can test it people have real return of experience of the eGov. And when we go again to Tallinn we visit different administration and we really see, so how we can work.”

Interviewee A and I highlighted this strength of working with Estonia. When visiting they can experience and understand the returns that digitalisation has brought to Estonian society (Interview A and I). Recipients can interact with the systems when visiting in Estonia. They can understand how it works and see the benefits it brings to society. This shows that the way Estonia presents its experience to foreign partners in digitalisation is important as this leads to recipients understanding the end goal of digitalisation (Interview A and I). Digitalisation for respondents means digitalisation of processes, improved transparency, and reduced costs (Interview I).

To digitalise processes in other countries, similar analogue processes already exist in recipient countries (interview B and C). In some cases, new processes need to be designed to be implemented in recipient states (Interview B, I). The expertise Estonia brings to development project is positive (Interview B, C) and includes best practices and demonstrates the mindset of participants of how they digitalised their society.

This engagement was under the umbrella of the EU Egypt flagship agreement. So it was not like we did not approach these podium partners directly because, as far as I know, part of internal bidding also that's done by EU among different partners. And the best one qualifies for the for this particular project or engagement was chosen by as the D4D Hub as the first layer and then D4D subcontracted some experts from Estonia, for example. Others from Germany and so on. So, the engagement had multiple organisations from Europe, not all from Estonia. But also, some from Germany.

As Interview J indicates in this quote, multilateral projects contain an extra dimension in which European stakeholders play a role in the tender process in deciding whom to engage in the project. In this case, this development project was won by an Estonian company for the purposes of improving a recipient's country system. This raises a new supra-national dimension of development projects in which the recipient goes to the EU for a development project. This increases competition for Estonian stakeholders to stand out among EU actors. This also raises another avenue in which Estonians can win tenders for development projects in which EU stakeholders chose to award the project to Estonia.

The purpose of the project for interview J is for the recipient country regulations to become more like the EU as shown through the following quote from interviewee J.

“So we there was an emerged need to have mutual recognition, this signature in between Egypt and other countries across the globe to be able to facilitate the trade and to be able to verify that. For example, shipping documents have come in any EU member state is recognised were recognised by the Suez Canal Authority and hence allows the shipment to enter the country with legal proof that the signed shipping documents are really signed by an authorised entity. In EU members, people from an EU Member state”.

This focus by recipients highlights the purpose of why the recipient organization wants to engage with Estonian stakeholders. The purpose is to implement solutions that follow EU regulation to aid in cross border flow. It also alludes to the economic motivation of the recipient state to want to work with Estonian stakeholders. This ICT4D projects is for businesses to benefit and to improve cross border trade flows. What interview J also highlights is how this becomes important for the recipient country to engage in this project as seen below:

“A need for example from our side was one of the use cases was on the Suez Canal you know, the Suez Canal, of course, the shipping agents during COVID time we’re not able to exchange in shipping documents in paper, because all the cross border transfers were blocked at that time.”

Covid-19 represented a time when cross border exchanges were not possible for health-related reasons. For the recipient it highlighted a time where the reliance on physical presence for economic value. It also emphasized that digital solutions are crucial to be resilient in a crisis. The hope is that this development project will overcome technical barriers to improve economic value for the recipient country. Recipient considers for ICT4D projects have a economic component of using technical solutions to improve administrative burden for the recipient. However, for Interview J they observed some different regarding to Covid-19:

“Has somehow the COVID has no, no, no effect at all. If any then only. It raised the importance because COVID exposed the number of cyber threats that that that people were not so aware that come, for example, with the digitalisation of of meeting spaces, work from home, increase of cyber crime.”

Interview J provides evidence for little Covid-19 influence and significant influence in the same quote. They state that Covid-19 did not influence their work but at the same time it provided awareness of individuals of the threat of cybercrime. This indicates that Covid-19 did not influence the structure of problems but instead highlights already present tensions for recipients. Covid-19 changed attitudes for recipients and highlighted the importance of having good digital systems to ensure they are resilient in crises situations.

Interview F highlighted best practices they wish for their own country to adopt. For example, the adopting of user centric design principles with interviewees stating they hope to see their platform more digitally inclusive (Interview F). They directly mentioned that they hope that systems adopted can be use principles such as inclusiveness of interoperability in their own country (Interview F). Both Interviewee A and F highlight that cybersecurity is one of the biggest challenges for their state. They need more skills and privacy regulations to help the digital transformation in this country. Interview F highlighted the positive experience in collaborating with Estonian stakeholders to improving education on these aspects. Furthermore, they would like to cooperate more in the future based on this cooperation.

According to interviewees, Estonia has great expertise in digitalisation which is a strength of collaborating with them (Interview A, B, C, F and I). Both the branding of Estonia as a digital nation and the mindset of Estonia are both seen as positives when cooperating with the country hi (Interview B, F, H and I). This also extends to professional attitudes that Estonians carry into developmental work (Interview B and I). This is shown by the following quote from Interviewee B:

“I think that Estonia is probably the best example of digitalization and even digitalization of education. That's why this collaboration is valuable for us. There are some opportunities of exchange of experience”.

For Interviewee B, Estonia represents the one of best example of digitalisation. The reputation of Estonia as a digitally advanced nation plays an important role for recipients. This point was identified as a reason as to why recipients want to cooperate, in this case in education ICT4D projects. More than that, recipients not only wish for development projects but also to exchange experiences and best practices. Interview B also talked about wanting to be more similar to Estonia as it helps them join the EU. The people involved in digitalisations projects are “really good professionals in this field” (Interview B). There is high quality of work being done for the documents created out of this development process.

Meetings are efficient and productive, and recipients believe they “always have some good solutions for us after this collaboration” (Interview B). The output of working with Estonia is positive. By cooperating with Estonia, the recipient countries can understand Estonian best practices in their fields which can provide inspiration to further improve

their sectors (Interview I). For interviewee I, the Estonian mindset or approach was highlighted as a reason as to why they chose to cooperate with Estonia instead of another country.

“Like main point strength is the mindset we discuss with different countries to have MoU in digitalization, but in Estonian we find a different mindset. Goal was to add us and to give us autonomy a lot of other country when we discuss have a lot of proposal to help us but want also to be sure that we have to depend on expertise for the long time.”

Interview I, emphasised further on is that they got the impression from other actors that they wanted to make the recipients dependent on them when implementing an ICT system. They did not get this impression from cooperating with Estonia. Furthermore, according to several responses Estonia was the best country to cooperate with and sign an MoU since they transferred the IP to the local context and gave them the training to deal with the system that was implemented from Estonia (Interview I). This was a deciding factor as the interviewees directly mentioned that being dependent on other countries was a turn down for them wanting to cooperate with them.

Interviewee I perceived Estonian companies to help them to achieve autonomy and to reap the benefits of digitalisation. The Estonian approach to development cooperation is significantly different from other development approaches. Development organisation and companies do not frequently want the recipients to gain autonomy. The Estonian development approach in ICT4D projects is unique in this way.

“Because for all the proposal, when develop or add, or create a new solution it gives us the source code give us the training, all information to ensure that if Estonian people don't deliver, RECIPIENT people can continue the work and improve it if necessary. And I think this mindset was very important to help the RECIPIENT to be where we have today.”

For interviewee I, training and ownership for recipients of the IT system was an increasing important factor for cooperating with Estonia. It was the understanding that if in the future it is needed, locals can continue working on digitalisation in the recipient's country. The training was important both for the system and to help the recipients achieve their own goals. This quote also implies that this situation is specific to how Estonia act in the

development sector. Other donors do not seem to train locals to the level that allows them to work with the source code being delivered to the recipient state. Transferring the Estonian IP to the recipient is something highly valued and an aspect that is neglected by other actors.

“One more time I will say about experience, really great experience in the digitalization. This is of course a strength. Part of our collaboration. Professionalism. Attitude, of course, and. OK, profession is there. Competence in this field people are involved in our projects are really good professionals in this field.”

Here interviewee B is speaking about the attitude or mindset that Estonians bring to development projects. That Estonians have a wealth of knowledge in digitalisation but also are good professionals in this field. This perception is the same across different continents. The positive attitudes that Estonians bring into development cooperation is well received by recipients.

Interviewee I noticed a gap in their own country in skills that companies have however, local companies were able to learn from cooperating with Estonian actors:

“So the Estonian company work with a local company not only to transfer the technical skills, but also all the process that we go to deliver the project is not only the technical team, but if we can get have all the process that you that you use. It will be it will be helpful for those companies to improve the way they approach projects.”

This represents an identified gap that Interview I noticed when interacting with Estonian companies, that domestic actors lack some process skills or business best practices. But that domestic actors can learn this from Estonian companies by interacting with them and seeing how they do things in the digital space. This represents another strength of Estonian but also highlights positive attitudes that both sides bring to development cooperation. Recipients are willing to learn from Estonian actors but also that Estonian companies are willing to engage in these practices. This also represents something that Estonian companies are leverage when applicable in other projects.

Recipients also noted that they would like closer collaboration with Estonia (Interview I, J, B). They found that Estonians poses certain mindsets and soft skills which recipients

would also like to receive. In-person collaboration is one method of understanding how Estonians work. Interviewees would like to intensify this exchange by either Estonians working in the country or local stakeholders working briefly in Estonia for 1-2 months (Interview I). This is further highlighted by the following quote:

“So the Estonian company work with a local company not only to transfer the technical skills, but also all the process that we go to deliver the project is not only the technical team, but if we can get have all the process that you that you use. It will be it will be helpful for those companies to improve the way they approach projects.”

This section highlights this interviewees desire to work more closely with Estonian companies. That in this case the recipients not only desire to learn technical skills from the Estonian company but also an understanding of what the Estonian business processes is. Interviewee B and I noted how local stakeholders working with Estonian stakeholders have elevated local stakeholders working practices and have optimised their processes. It indicates that recipients value and wish to understand parts of the Estonian mindset of best practices. Furthermore, this should be achieved by closer collaboration between Estonia and the recipient’s country. This section highlights that development cooperation is positively received by recipients and that they want even more cooperation between Estonia and the recipient’s country. Later on this interviewee mentioned how Estonia’s reputation in the field was increasing. Recipients share the experiences with other states which in turn can open the door for the demand of Estonian development cooperation to increased.

According to Interviewee B, Estonia’s are perceived to have rich backgrounds and knowledge on digitalisation which recipient organisations respect and appreciate. This branding of Estonia makes them more likely to want to cooperate with Estonia on digital issues. Estonia has a good reputation. This is clear from interviews with recipients but also other development agencies who would like to cooperate with Estonia on these issues (Interview C and I).

Estonia is perceived to be a small country with technology and innovation at the core of its identity. These ideas and understanding about Estonia are important to understand why interviewees are attracted to working with Estonia. For other interviewees, other aspects of Estonia’s reputation are highlighted. For Interview H the innovation element dominates.

“I think right now sort of the reason why we wanted to work with Estonian government was because we've seen similarities between the two countries. We're also a relatively small country with very high potential and Estonian sort of Estonia has that sort of tech element of it, a little bit more advanced, but you find that innovation in terms of ICT is way much more ahead than the RECIPIENT economy or the RECIPIENT ecosystem. So the only reason why we found that it is a perfect match is really because we saw that it's very easy for us to leverage on your expertise and your skills.”

For Interviewee H, there are aspects that they wish to leverage Estonian expertise on. Estonia provides inspiration for recipient as they see things they would also like to adopt. Perhaps not 1-1 similarity but the Estonian experience resonates with them. Estonia represents a small country that was able to digitalise and innovate with ICT and create/ attract many different start-ups. Interviewees would like to imitate the cooperation they have with Estonia seeing it to be a success and something they would like to achieve for their country. For interviewees, Estonia represents the right government which can help recipient countries with solutions adapted from the Estonian context (Interview B and I, H). It is then interesting to consider that most development partners are from larger countries.

The size of Estonia and volume of the economy represents another aspect that recipients latch onto. This is an identified strength of Estonia. It is a small country which has highly trained professionals who are innovative and are technically advanced (Interview B and C). Furthermore, it does not get bogged down by bureaucracy and can be agile to change projects or implement new ones (interview C, E). However, on the other hand, Estonia is a small country with limited resources and funding which makes it difficult to implement many projects as well as large scale ones (Interview C).

Finally, Interviewees F, H and I would like to see more resources invested by Estonia into their country because of this positive cooperation. They are inspired by Estonian best practices and would like to adopt them in the future in their own country (Interview B and I). Interviewees noted their very positive experience with Estonia and talked about a growing desire of other countries to cooperate with Estonia in digital issues (Interview I). Estonia's positive reputation with other actors is spreading.

Interviewee I was representing a successful project that they implemented together with Estonian stakeholders. This positive experience was then shared with other recipient states in Africa:

“We are really proud of this. I was in Kenya last week to discuss about digitalization in Africa. And we spoke about it I take as a part of Estonia and to say how Estonian help us and I think a lot of country in Africa would like to work with Estonian people to help us also.”

This shows that Estonia’s reputation among other actors is increasing. Positive experience that recipients have with development actors get shared. This then leads to increased demand of Estonian projects among recipients (Interview I). Reputations is important to understand why recipients want to work with whom (Interview I). It also implies that negative experiences with actors gets shared around as recipients understand each other’s situation and face similar problems (Interview I). The development sphere is an open system in which many actors communicate and talk with each other (Interview I).

Throughout this section I have provided findings that show the complexity of stakeholder motivations for why recipients want to work with stakeholders. The first is that recipients find the Estonian digitalisation attractive and aim to learn from it (Interview A, B H and I). Secondly, recipients are noticing the increased importance of digitalisation which is accessible and secure (Interview E, F J, K and L). Third, Estonians bring a positive mindset to development practices (Interview B and I). This thesis will now examine the collaborative practices that Estonia engages in.

4.2 Collaborative Practices

Having now understood why recipients work with Estonia this thesis will now examine how Estonia works together with recipients in collaborative projects. Understanding how will show whether recipients believe that Estonia engages in development projects with an open mindset.

Different stakeholders bring their expertise to different projects. Some recipient organisations also aim to nurture the right relationship within their ecosystem and to connect them with relevant factors that could help companies within their country

(Interview I). To this end organisation have high administrative burden as they coordinate with a lot of international donor organisations (Interview G and I).

“That also hampers the reception. The focus should not be on reinventing what worked for your country. It should be on co-creating based on your experience, co-creating with them. “

Interviewee C is speaking from a position as having observed the life cycle of many development projects, not just Estonian and understanding the recipient’s position. Recipients have their own ideas of what works in their country and what is needed. They do not wish to have prescriptive solution on what should be changed based on the donors’ experiences in implementing projects in another country. This interviewee continues to say if this situation is the case, then recipient will implement the projects for the projects sakes and then drop it once the funding is pulled.

Parameters were put into place before the project team started (Interview C). Some aspects were not validated with the stakeholder. Interviewee C suggest that agreements should be signed after partners shows intent and willingness to cooperate instead of the other way round. This could either be captured through a high-level document. Project parameters could be clarified and ensure that it is realistic within the given context. The project should be “validated by the beneficiary” (Interview C). According to a recipient, you should agree on the context of what you are collaborating before the beginning of the project (Interview C). This is further shown through the following statement from Interview C:

“So a lot of our partnership agreements, or stakeholder agreements had to come in a bit later and after we've already introduced the project. Some of the stakeholders felt that we may be having some prescriptive solutions. We didn't have any engagement before you told us you want to do this project.”

Interview C is commenting on the contradictory order how agreements are implemented in the recipient’s country. Recipient stakeholders are forced into a project because of an agreement Estonia has with another organisation. Estonia then goes into this project to implement an already agreed upon solution. However, the recipients had no say in this

solution whether it is needed or not. Interviewee C says that from the recipient's perspective, the solution is prescriptive and does not help them.

This implies that recipients are not interested in implementing a project because the donor told them to. They will not spend their own resources to continue a project that does not fulfil the recipient's needs. It is therefore important to co-create the project together from the very beginning to ensure long term success of the project (Interview C). This already hamper reception of the project in which the recipients will then implement the project for the projects sake which in turn limits the long-term potential of the project.

“That's something that we have received very positive feedback on we're engaging the stakeholders to make sure that what we're developing for them is what they need. Where we're able to make variations on what test specifications are. We do that we're not able to, we just have to be honest and that we are tied within some certain parameters, but we can help you come up with some sort of framework or plan to look at these additional areas later either with individually with your own budget or with another development partner or maybe even with us later we'll be able to get the funding.”

This comment is from Interview C which shows the positive impact that co-creation has in ICT4D projects. It highlights the Estonian practices in implementing a project once the project has already started and project guidelines already set. Despite these project parameters already being finalised, there is flexibility in what Estonian actors can do in these projects. They are able to adapt the project so it fulfils the recipient's needs. When a gap is identified that the project is not set out to achieve then the recipients is notified about it which can lead it to focus on this gap in another project. Estonian projects may restrict the adaptability of actors while at the same time Estonian actors may be flexible to ensure recipients needs are being addressed.

Other interviewees emphasised the need for co-creation in designing and implementing projects (Interview C, G, H, K). Interviewee C continues to emphasise the importance of listening to the recipients to co-create to project together to ensure positive reception of the project and long-term success.

“We came in and had some perspective around what we want to do and then we're like, OK, now you guys need to sign, I think it needs to work the other way around. We first

established that there's intent and willingness to work together. That can be captured in a high-level document, maybe a Memorandum of Understanding Partnership Agreement and then with that a project is then Co created. Is this what you need?"

Interviewee C highlights practices of development actors being convinced to sign to a project that they had little say in creating. Many projects happen because the development actor believes this project is good for the recipients so now recipients should sign so the project can start. Instead, Interviewee C argues that development actors should listen already at the pre-project development phases to understand the needs of the recipients and if there is a willingness to work together. This method makes sense to ensure recipients want the project and to improve the chances of the project still existing once Estonia stops funding the project.

To solve this limitation projects should be co-created from the beginning to include the recipients in the design of the process and validate project parameters. The importance of having pre-project processes is highlighted below:

"There needs to be some sort of process like a pre-project process. That is, that is actually signed off on, because then it also gives it leads to something about project ownership and this is something that has plagued a lot of development partners. Unfortunately, in Kenya, a long time, very many projects are shelved the same day that they're completed because development partners sat in a corner."

Interviewee C links pre-project process and discussions on whether a project is needed within the recipient's state with long term sustainability and impact of the project. This also implies that many projects in the recipient's country do not speak with recipients to understand with a need being fulfilled which leads to the project being dropped rather quickly. Project ownership is important if projects should continue once the development partner stops funding the projects and providing their expertise. This should be achieved by closer cooperation and listening to the recipients. Understanding what recipients need a prerequisite for a sustainable project is.

However, Interviewee C has highlighted some weaknesses of Estonian development cooperation which is as follows:

“Just do a lot more listening first. And then probably retreating with the different partners and then come back have joint engagements. So I think some of the conversations have been held with some old, some already prescriptive ideas or thoughts.”

It indicates a nature of Estonian and other development partners to have prescriptive ideas on what the solution of the development project should be. What this says is that during the pre-project phase when tenders are still being developed and projects planned that these conversations do not happen with recipients. Needs are being identified without directly consulting the recipients, or meetings that happen with recipients are not done in the most productive manner that encourages the recipients to say no. This interviewee states that early meetings should take place more openly from the Estonian side to see where Estonian expertise is needed and what the recipients need.

However, this contradicts the experience provided by Interviewee E explicitly mentioned that co-creation has made this project a success and it was mentioned that co-creation should stay. Recipients gets treated “as the solution” in the Estonian development project. This was compared to other development actors which are significantly less flexible. The recipient would like to create a culture of long-term cooperation with Estonia based on their experiences in this project (Interview I). It also implies that Estonian development cooperation is different from other development partners in how they treat recipients.

From ethnographic research it seems that Estonians do listen. From sitting in during meetings both sides presented their own preferences and what kind of cooperation is needed and what their goals of the recipient and the partner organisation are. Conversations happened in a mostly open manner in which the recipient’s side was able to set the agenda and set the tone of the conversation. From this experience, I would question what the interviewee said about Estonian development practices.

However, I think this indicates the capacity of Estonian development cooperation to learn and change its behaviour after engaging in projects and understanding the local context better. I believe Interviewee C’s perspective represents the Estonian development pre-project process before projects have decided. Estonia is a new development actor that has

shown to be able to learn from prior practices to listen more to recipients. Estonia's size and history has given the organisation flexibility to change its behaviour.

“How can there be a then position themselves to be a recipient of that support? So it's really a two way thing. I can't say that there's no flexibility because again, this is a conversation that needs to happen between 2 levels or two parties where we then say, OK, what is it that you're offering and then know what you're offering might not necessarily align to what we're sort of working towards, but what you've seen is especially for the programmes that we're doing in the digital space.”

Finally, interview H highlights the complexities of recipients' organisations wanting to work with partners. Here the interviewee describes meeting development donors halfway to ensure cooperation fits with the strategy of Estonia (Interview H). In this case, that development cooperation can lead to market access for Estonian companies. Recipients try to position themselves to the partners strategy to ensure alignment between both parties in the development project (Interview I). Adjustment between donor and recipient is a two-way process. Both parties adjust themselves to ensure cooperation. The ICT4D projects should align themselves with what the recipient strategy is focusing on. Estonia has been flexible to adapt the content and level of skill needed to implement the ICT4D project.

By having bilateral discussions both parties can examine understand each other's interests to see if there is potential for a project. This follows from my own experiences from following Estonian development actors in which both sides present their preferences to see if there is potential for cooperation. However, this already happened once Estonia engaged with a country. It may be a different situation when Estonia is cooperating with a country for the first time.

Recipients try to position themselves to the partners strategy to ensure alignment between both parties in the development project (Interview I). Adjustment between donor and recipient is a two-way process. Both parties adjust themselves to ensure cooperation. The ICT4D projects should align themselves with what the recipient strategy is focusing on. Estonia has been flexible to adapt the content and level of skill needed to implement the ICT4D project. Interviewee E and H explicitly mentioned that Estonia is provides more competent support in this regard when compared to other development actors.

An important indicator for a sustainable project was whether the project was able to have a life of its own (Interview C). It takes time to align administrative processes between recipient and donor however this can have positive impacts in the long run. Interviewee C see these project as means to strengthen the relationship between their two countries, so it leads to more cooperation in the future.

Forums and conference are seen as the main method of reaching out to Estonia and sharing expertise to see where there can be future potential of cooperation between Estonia and recipient states (Interview H). Working in person allows more intensive exchange and sharing of information that may not be possible in an online format (Interview I). However, recipients noted that there should be consideration on the administrative burden and time needed to implement a project in their own context (Interview B and H).

This section has shown both positive and negative collaborative practices of Estonian development projects. Interviewee E spoke positively of Estonian development practices during the implementation phase. Interviewee C spoke critically of Estonian development practices during pre-project processes. Interviewee H highlights that their organisation understands what Estonia aims to achieve and positions themselves to be a recipient of the Estonian development projects. However, interviewee H prefer to work on long-term projects together with the projects. Overall, there are a plurality of collaborative practices but generally interviewees spoke positively of working with Estonia (Interview B, E, F and I).

4.3 Local Context and Local Partners

Local context plays an important role in development projects which was emphasised by various development partners. This section contains information about how local context is incorporated in Estonian development projects and the role local partners play in ensuring This section contains both praise and criticism of Estonia's development approach. This leads this thesis to the hypothesis that Estonia changed its development practices as it learnt about cooperation with recipient actors.

Interviewee spoke about how it is important to enter the cooperation with the desire to understand the context more, to understand how the project will be implemented (Interview C). This is either through understanding the mandate, objectives, and plans of

an organisation to understand how Estonia can fit in to offer their expertise best. This is an example from Interview B:

“Yes, because when we had the discussions when we work together on this document or when we introduce them in the context the company or the teams that is working with us always asked us about all the legislation. Or if we don't have any something they will give us recommendations that we have to adjust some things in our regulations.”

Interviewee B is speaking about if Estonian partners ask about local context with the recipient country. Estonian stakeholders ask questions to clarify specifics about the recipient context in which the context is implemented in. In this example it is through understanding the legislation of the recipient's country. It also highlights the willingness of Estonians to give suggestion to legislation to improve the legal framework of the recipient's country if Estonians notice something wrong. This was the case with Interviewee L which (in the same country) was able to advise against a certain law when implementing a project in the country.

This highlights Estonian practices to understand recipients' countries context in development projects. They take a proactive response to fix perceived gaps or to highlight the perceived gaps which Interviewee C also mentioned. Or this could be done by understand the context in which a project could be implemented in. It is important to adapt projects to the needs of recipients. Estonians operating from Tallinn are only able to see parts of the picture (Interview C and I).

At the beginning it was difficult to adapt Estonian projects to the local context they have gotten better at it (Interview I). After a couple of meetings, Estonian stakeholders understand the local context and can better provide their help to the local services. This is shown through the following quote:

“For example, we have 12 million people, and we have a lot of issues for the digitalization. We have technical infrastructure issues that you don't have in Estonia. So it was complicated at the beginning to understand really our reality. I think, but now is clear, I think, after the first meeting and discussion, the

Estonian people with EGA and Cybernetica understand our issue and help us to digitalize all the services. “

Interviewee I was coming from a situation in which they have awarded a tender to an Estonian company to help them digitalise their government administration. It shows that Estonian companies have limited awareness of the local situation and challenges facing recipients' countries. It alludes that the Estonian company wanted to approach the situation in the recipient's company in a technical manner that ignores real world realities. It was only after interaction and meetings between the recipient and Estonian company which highlighted the issues facing the recipients. However, after overcoming the hurdle of understanding the local context this recipient was increasingly happy with the work of Estonian companies and desires closer collaboration between Estonia and their country.

One of the main limitations of Estonian development cooperation is that Estonians may have certain ideas about what is possible based on misleading assumptions they received from talking with and doing research (Interview C). However, this is not a deal breaker as Interviewee C remarked the flexibility of Estonians to adjust to the recipient context.

Listening more and letting the local partners carry the project would elevate the success and sustainability of Estonian development projects (Interview F). This interviewee criticised that Estonia would sometimes enter partners with “some old, some already prescriptive ideas or thoughts” (Interview F). This implies that letting a project grow from the bottom-up would improve Estonian development cooperation. Interviewees emphasise the importance of understanding the context before formulating the goal about projects (Interview E). They emphasised that listening to lower levels would carry Estonian development cooperation, especially since Estonia does not have the funds to compete with the bigger funders. Interviewees suggest relying on a bottom-up approach is more resilient in crisis situations (Interview G).

To understand local context, it is crucial for Estonian actors to have a local presence to be in touch with the recipient (Interview K). It is important to have “good relations on the ground” (Interview K). This is further shown through the following quote:

Talk to the energy companies, but we would also talk to the Ministry of Energy, for example. So what? What are their needs? We would talk other government

stakeholders, let's say presidential administration or office of the Prime Minister to understand if there are any issues pending”

This emphasise the importance of having a good reputation and network to understand what the recipient's need. In the case for this interviewee, it was using the contacts to speak with the relevant local stakeholders to better understand their needs. By doing this, Estonian stakeholders can align their practices to ensure that they fulfil a set out upon aim and to ensure the recipients need to the development projects. However, this also indicates the importance of being close to stakeholders in the recipient country. As Interviewee K puts it:

“I think it comes through definitely personal contacts. The presence that we have definitely reputation. Some local partners that that we work with Estonian partners. A typical, I would say, typical classic network reputation building is the key.”

Reputation plays an important role for recipients to want to work with Estonian stakeholders. Reputations grows by having a physical presence within the recipient state to build up the network of recipient stakeholders. Positive reputation and good development projects lead to more development projects and closer contacts to facilitate this. However, this raises the barrier to have good development projects as some assumptions might be made when donors do not have a good network in the recipient country (Interview C). This is difficult to mitigate without having a sufficient presence in the recipient country. Estonian stakeholders are dependent on their local partners to ensure that the projects are adapted to the local context.

“Maybe I'll just add also that we so we work mostly through local partners, so they know the context very well and we are in close collaboration with them when we develop the proposals and also during implementation. So I think it's also really helps to have the project's target the actual needs of the beneficiaries.”

Interviewee K places value on projects being aligned with what beneficiaries need to ensure that development projects are fulfilling a goal that was already decided upon. They then involve the local partner in the pre-project phases and the implementing phase of the project. It underlines the importance of involving the beneficiaries in all parts of the project. However, it is also important to foster positive relations with this organization. I

can say little about how this cooperation happens, but it is important for these co-creation aspects to happen in a positive environment to ensure the recipient wants the projects to succeed. This again emphasizes the importance of having a local presence in the country to implement ICT4D projects in a successful manner that considers the local context.

“Yes, I was just going to say that yes, that our partners are really like they go through a due diligence process. We assess their previous projects partners and their capacity. So based on that, we make a decision whether we, we partner with them or we look for other organisations.”

Interviewee K understands the importance that local partners play and puts them through a significant process. Local partners play a crucial role in ensuring that the projects a success. That development project reaches difficult to reach parts of the population and that these projects reduce the global inequality (Interview K). Local partners are examined if they have similar goals and values to Estonian organization to improve success. But again, this quote raises the point that getting initial access to a partner and having a reputation is important to foster positive development projects. Estonia as a new actor might have difficulties in reaching these relevant actors when planning their first development projects in the recipient country. For implementing agencies, they aim to show proof of the importance of the project to win the tender process.

We have had a support letter from the respective ministry which also serves as validation that that this is really what they need. This is this is really that will give the recipient the benefit. So we don't. We don't want to sort of channel those projects down the throat of the of the recipients.

Interviewee K highlights the importance of talking to the recipient and providing proof that the donor organization can solve an identified need for the recipient (Interview K). This is within the context of them aim to win a tender to obtain funding to implement this project in the recipient country (Interviewee K and L). This also underlines the desire of donor to understand what the recipients need to ensure there is some kind of long-term sustainability of the project. This also shows a requirement from the awarding agency to ensure that the project fulfils some of the recipients 'goals. However, this centralized focus on development projects also means that concrete goals need to be fulfilled:

“We have always a careful metrics to evaluate success. And again, there are a number of factors. So, one very good measure of success is that our projects tend to be very concrete. So, the deliverables are easily measurable. So, we first of all, it starts with definition of deliverables themselves. So, what we are delivering and then based on those deliverables, we are able to measure.”

Interviewee K highlights the importance for them to be able to measurable the impact of the development project. This is to fulfil requirements form the tender to show impact of the development project. Proving impact for interviewee J is important for them to show to EstDev that their money was able to fulfil set upon goals. This inherently minimizes the importance of achieving long term goals as these do not show impact by the recipients. Short term indicators are important to fulfil goals. The awarding agency also prioritizes cultivating the image of Estonia being a digitally advanced nation (Interview L).

“Well, it can be the number of beneficiaries at first, then the number of people whose capacities have increased as a result, and the percentage of participants who are satisfied with the project and those parameters or those you know, this comes from the EstDev. Sort of indicator list what they would like to see. As you know, a proof for the success of the project.”

Interviewee K highlights that the projects indicators come from EstDev. These indicators are general indicators that apply to a wider variety of contexts. These indicators also place increased focus on quantitative measures such as how many individuals attended the project to show that positive impact of Estonian deliverables. Interviewee K criticized that this means that projects in the countryside which inherently have fewer participants get disadvantaged. Development projects usually stay in the capital city as project reach is easier there. The indicators that EstDev creates influences the projects that implementing organization can implement as they still need to fulfil goals as decided by these indicators.

Some organisations are approached by developmental actors in which discussion take place to understand how cooperation could benefit all stakeholders (Interview G). Directly engaging with locals and getting to understand both the local and Estonian context is the effective. It is important to have frequent interaction as Estonia is a new development partner. Different authorities expect bigger budgets from Estonia more akin to more prominent European countries which engage in development cooperation

(Interview C). There are many local nuances and sensitivities that can only be understood by interacting and living within a country. Interviewee C talked about the importance of sensitising partners to the specificities of these countries to ensure successful projects. In the case of one country this has been through empowering the local team. For example, both sides could share best practices that they can pick up when working directly with together.

Recipients are less likely to be receptive to projects that has been implemented in another country and adapted into their context (Interview C). The focus should instead be on “co-creating based on your experience” (Interview C). Interviewee B see it as their responsibility to adjust the projects to the local context. Interviewees praised the Estonian written documents as they only needed to adjust some things about the document to fit into their national legislation. They underline the importance of co-creation in ensuring effective and positive outcomes for projects. This means that projects involve the end-user in the design phase instead of just as a concept to deliver the project to. Interviewee C noted that Estonia is already focusing on co-creation together with their development partners.

Interviewee E talked about the strengths of Estonian development cooperation, praising the open-minded attitude of Estonian development cooperation. They specifically mentioned that Estonia “treats local as experts” and as if “you are the solution” (Interview E). These attitudes should be continued as it enhances the recipient’s perspective of cooperating with Estonia. It was mentioned that cooperating with Estonia is more productive than cooperating with other donors. Finally, Estonia was very flexible when cooperating with them.

It is also important to co-create the terms of reference together to sensitise both sides to the point of the project. (Interview C). This also transfers ownership of the project to the recipient which in turn benefits the end-user and hopefully makes it more sustainable. Interviewee C go further to emphasise the need of co-creation in a development projects. Stating that a co-created project has a higher chance of being sustainable. If the project runs over time or over-budget, it is not a failed project if the project has been co-created.

According to interviewees, co-creating projects has multiple benefits (Interview B and H). One is to adapt the project to the local legislation to ensure smooth implementation (Interview B). The other is to work together with Estonia to understand their best

practices, either in project management or by understanding how a similar project would work in the Estonian context (Interview B). Estonia is solving challenges of digitalisation therefore similar countries may have similar challenges (Interview H). Recipients have a strong desire to understand Estonian best practices and wish to work more closely with the Estonian side.

Estonia has had many of discussions with local representatives to understand the context to and to provide solutions on the national level (Interview B). Estonian development cooperation emphasis an open discussion between stakeholders to ensure regular feedback (Interview C). This means that possible limitations can come up earlier and then be adjusted to ensure a sustainable project. Some aspects of the project may have been decided early in the process however, this can then be adjusted if it fits for both stakeholders (Interview C). However, the value of projects is adjusted from time to time to better fit into the local context.

Interviewee H mentioned the importance of letting recipients have the full ownership of the project early on. It is important to make it clear that the project is in line with their strategic goals that fulfils their needs. By doing this there is a higher chance of the project outliving its mandate that let it become sustainable. Training individuals can lead a multiplier effect in which changing their behaviour has impact on the behaviour of others (Interview E and H).

Local organisations need to prove to their domestic audience that they are enacting positive change in their own country (Interview H). Therefore, they have a distinct interest in the project that can be leveraged to ensure sustainable ICT4D projects. Organisations usually measure impact in terms of short-term indicators when organisations would prefer to measure their long-term impact (Interview F and H).

Some local stakeholders see their role in matching donors with local organisations to ensure that donor projects can be executed in the recipient country. (Interview G and H). Local stakeholders know what they need and try to fit in their preferences and goals with that of the development partners (Interview B, G and H). Recipients look for the best partner to solve their own problems. Recipients share what they have and what they need for their goals with the hope that donors will find a way to fit their strategy in (Interview H and Ethnographic Research). They aim to meet partners halfway by understanding what the partners strength is and what they would like to do. By being transparent on potential

collaboration, they hope donors can fit in easily. Recipients noted it is important to meet the donor halfway to ensure it also fits in with the donor's strategy (Interview G). Recipients understand that both parties' need to benefit from collaboration (Interview G and H).

Recipients value the support of external actors as it helps them link themselves culturally with these countries (Interview B and I). They are dependent on this cooperation due to the limited resources they may have in solving domestic challenges.

This section overlaps with collaborative practices as having practices that incorporates local stakeholders through co-creation increases the likelihood that local context is implemented in the project (Interview B and H). Local stakeholders are important to ensure that local context is a driving factor in design and implementation of the projects (Interview B, G, H, K and L). Interviewee C and F highlighted the importance of letting recipients play a bigger role in pre-project processes. Whereas Interviewee K and L underline the role that recipients play in pre-project processes.

4.4 Constraints

Constraints limit the potential of ICT4D projects. Interviewees highlighted a number of constraints in ICT4D projects from working with Estonia. This section hopes to underline the goals that recipients are aiming for and the administrative burden of implementing ICT4D projects. Some projects are restricted by limited considerations of local contacts.

Not all projects have co-creation process that satisfies recipients. It is important for Estonian actors to consider local contacts more closely in recipients states. Else through closer cooperation or through being flexible. This is indicated through the following quote by Interviewee G:

“Not only for Estonian partners, but in general for Western partners that they should consider local contacts more effectively, because I understand that they have bureaucracy and all this stuff and they cannot change some decisions very quickly. But maybe international donors should have some flexibility when it comes to ongoing development and some kind of unpredictable changes.”

This section highlights the inflexibility of Western development actor in development projects. In this example, the interviewee was speaking from a position of domestic instability regarding the political situation. They were criticising Estonian actors limited flexibility considering unpredictable situations. However, it also highlights that development actors are not flexible in general as their own administrative processes take precedent over the recipients. Some flexibility is needed to make decisions outside that take the recipients best interested to mind. As it seems now donors want to fulfil their own goals whilst not always heading local contexts advice.

Recipients face an administrative burden in implementing development projects (Interview B, G, H and I). As public institutions themselves they face their own requirements on what needs to be done (Interview B and I). Furthermore, all their engagements need to fulfil their agreed upon mandate and goals. This is shown through this quote from interviewee B:

“I would say that sometimes we have a problem, maybe, but it's regarding to the fact that we are the public institution and sometimes we have to coordinate a lot of processes and probably we could have some difficulties in communication because of that. Like if we had to make some decision and to give really fast response. It's not always it's possible. And I'm not sure if it's OK like in collaboration process.”

It highlights administrative burden on the recipient's side for development projects. Interviews discussed in length how it is difficult on their side to coordinate “a lot of processes” which leads to “difficulties in communications”. That some responses and communication with Estonia takes longer than initially planned because of their own process and communication between different public institutions. Administrative restriction on their side limit flexibility when fast decisions are needed. Coordination from the recipient's side adds some time to the project being executed or planned when initial time horizons did not consider this. Recipients question whether such actions are ok in collaborative processes.

Interviewee B continues by talking about understanding how it looks like for Estonian stakeholders and questions if it is appropriate for things to take so long. This also limits the ability to implement efficient project on their side as administrative burden as their human resources are overstretched to follow all their projects (Interview B). Project leads

are responsible for multiple projects and different kinds of administrative activities (Interview B and H).

Interviewees suggested that it is necessary for someone to be dedicated to the project from the beginning to the end to have good overview of everything and to jump in when it is wrong (Interview B and H). Effective communications take a lot of energy and time so because of the lack of human resources, communication is sometimes not very effective which leads to further delays. Interviewees further expanded the need for capacity to have a project lead to for ICT4D projects however, lamented their limited capacity as an organisation.

Interview B highlighted the limitation of administrative capacity to implement projects with development partners. This is underlined through the following quote:

“I think that one of the things that we have to develop from our part. From our side is to increase the number of human resources, because now we really have a big problem within this sense, we don't have enough.”

Interviewee B directly identifies as their own weakness to be a lack of human resources. As this is something that limits the capacity of this organisation to implement more development projects. They identify a brain drain occurring within their own country in which recipients often leave, leaving government understaffed. It also makes it difficult to execute a project to the fullest potential and focus on a specific project. This recipient is limited by its own capability to execute a project. However, this was also identified by Interviewee I as a limitation in their own capacity to implement projects. This is shown by:

“Sometimes we have a project lead, but because they are running many other projects it becomes difficult to prioritise a specific project. So I think as a as an institution, that's the one thing that we've really struggled with. And then again time frames.”

This indicates that this problem is faced by other public institutions as well. This interviewee H highlights the difficulties in differentiating between projects and prioritising projects. Either through not fulfilling these time frames or by condensing the project to work within a narrow time frame. Project leads in this organisation and in

interviewees B organisation are running multiple projects. This makes it hard for all projects to receive the same focus by the recipients (interview B and H). This highlights how the proliferation of actors and development projects has increased but this has not been followed by an increase in the recipient's organisation capacity to implement the projects.

Interview F, E and H primarily want to engage in project that have a long term impact on their own country. This is exemplified by the quote from interviewee H:

“One thing that we really, really struggled with was making sure that we work on projects that have a long term impact on the ecosystem, the projects that we've currently been working on are very, very short term.”

For interviewee H, having projects with a long-term impact is a priority for the recipient's organisation. Short term projects do little to achieve the goals that the recipients has set out to achieve. This highlights that the length of the project is primarily dependent on donor fundings and expertise, recipients generally prefer longer term projects. This is re-emphasised by the following statement interviewee H:

“Because what we've seen is in Namibia, one of trainings don't work. People don't actually learn much, but if you have sort of like a longer time frame to implement a project where we also come back and then do some level of monitoring evaluation just to sort of check that process as well or check the impact of that project. “

In this quote, a short-term project is seen as ineffective to bring about the desired change that recipient envision when they cooperate with Estonia (Interview H). The purpose of these projects is for recipients to leverage the Estonian experience with the hope that participants can learn something that can elevate their practices (Interview F and H). Training is difficult to measure since this aims to give a behavioural change, so in the end only short-term measures of attendance can be used to understand impact of a digital training program (Interview H).

Implemented workshops over a short period of time do not lead to substantial changes (Interview H). This also leads to resistance of local actors to support such a project if the time frame of implementation is too short (Interview H). The costs of such a project do

not outweigh the positive impact of it. This interview talked about how they prefer other development partners due to the long-term potential of these projects compared to shorter ones. One or two training sessions is not enough to have long term positive change.

Tracking impact on short term projects is difficult (Interview F and H). Developing long term impact benefits both recipient and beneficiaries' goals on development projects. This also makes it difficult to motivate future partnerships if the long-term impact is difficult to be seen (Interview H). Some trainings only go on for a short time, then recipients won't learn or change their working practices to change (Interview H). For interviewees having long term projects is important and the goal for cooperating with Estonia. This interviewee mentions that they wish to align their project with Estonian goals, so they hope to see long term impact in these projects soon.

Recipient states are resource strapped so they aim to use partnerships to solve problems within their countries (Interview B, H and I). However, interviewees discussed how a main constraint of development projects is their own capacity as an organisation to implement them (Interview B and H). Due to the limited human resources of the recipient organisation, there are cases when projects get rushed to be implemented. This shows that projects rarely consider administrative delays to their projects, so they rarely implement what the full extent of what the project aims to do (Interview H). However, this rush then occurs due to requirements on the donor side which is shown below:

“Last year when we wanted to partner with the Estonian Government. I don't know how we pulled that off. It took almost maybe four to six months, just paperwork, paperwork, consultations, consultation and in a week we had to sign off things really, really quickly because then the government had a cut-off date in terms of when the projects must be signed off, so that only gave us, I think, like a month of implementation, whereas initially you had identified the year of implementation.”

This quote highlights the limited capacity of recipient's organisations to implement projects. For interviewees H, organisations is needs to fulfil their own domestic requirements because of how the organisation is built up. Domestic requirements and governance process take a long time to pass and implement, more so in developing countries as well which this interviewee also alluded to. This also means that adapting the project to the local context takes more time and resources to implement successfully (Interview B). Finally, rushing a project is not productive as less significantly less

implementation time significantly hinders the long-term impact of the projects (Interview H).

For interviewee B this also means that recipient organisation has limited resources to engage in potential digital development project. Often, projects were planned without the administrative burden in mind on the recipient side this leads to rushed implementation which hurts sustainability of the project and increases administrative burden in the receiving country (Interview B and H). For example, according to interviewee B implementing an ICT4D project falls to an employee who does not have enough time to also ensure the implementation of the ICT4D project.

“That means that your impact at the end of the project is now sort of compromised because you had to do things a little bit quickly and ultimately at the end of the day, the beneficiaries should be the companies or the startups of the ecosystem that we work with and not necessarily what we've gone through in the first six months of trying to put it together”

This section underlines that rushed projects are compromised and have limited impact in the recipients' countries. But also, that these projects are counterproductive in their aims or goals. Administrative burden takes up a significant amount of time to implement a project (Interview H). In this example, interviewee H talked about how after the cooperation agreement was signed it took a year for them to pass it through their own administrative hurdles to implement what was agreed on. Such situations limit the impact on the target audience. These situation in which the project must be done faster to fulfil different donor requirements are counterproductive.

But it also indicates that projects are rushed through for the donor's sake to keep them happy. Likely to ensure the donors project goals are achieved as was set out upon and likely agreed upon. Recipients must fulfil multiple requirements to fulfil these requirements from different donors. To counteract the high administrative burden, recipients prefer longer projects compared to shorter ones (Interview H). Often recipients own reporting guidelines focus on long term transformation of their own societies.

Interview H understand that the high number of administrative delays are frustrating on the Estonian side however, the bureaucracy speed should be put into context of the

recipient country that things sometimes take longer than they would in Estonia. Multiple internal stakeholders need to sign off on a project and that this takes a long time and sometimes getting all the stakeholders to sign off on the project in the limited time available is impossible.

Interviewee H indicated their preference to do longer projects to overcome the hurdle identified previously:

“That's sort of what I mean by we want to be able to do longer projects, but it's just really difficult to do long term projects because even though you've identified the time frame, half of that time frame is just sort of the governance of it the, the, the legal frameworks of it that it very bureaucratic but. That's sort of, I think that's the one main thing that we really struggle with.”

Interviewee H understands that rushed projects are not productive and frustrating for the Estonian side. This then leads to the preference of this organisation to implement longer term projects, as the administrative burden for the organisation remains similar. Furthermore, the goals of this organisation are long-term goals that they aim to improve broad indicators of the recipient's country (Interview F and H). Hence, they aim to implement longer term projects to achieve their goals. A short project has a similar administrative burden to a long project.

This underlines the desire from the recipients to implement long term projects that bring about a sustainable change. But so long these projects are also in line with the recipients' goals that they need to achieve as a public organisation. Working on short term projects makes it difficult to implement high quality projects (Interview H). This restricts the potential long-term sustainability of a project. which makes actors hesitant to engage in such projects.

“My boss would always say this: we don't treat stakeholders like one-night stands. So, we want to reach a level where we can really, really see the long-term impact of a project. And right now, the projects that we've been working with Estonia are very short term. Which again makes it makes it really difficult to operate on that level. So, but I mean that's something that we're also working on to see if it's possible.”

This quote from interview H further reiterates the priorities of recipients in wanting to work with stakeholders for long term impacts and projects. Working with partners on brief projects does little to fulfil the recipients' goals as it the case with Estonia (Interview F and H). However, it also implies perspective on the recipient's side understanding that projects take a while to ramp up. They accept Estonia's short-term projects with the hope that eventually these projects become more long term and sustainable. Short-term projects are not desirable for recipients as the administrative burden they face is limited.

Recipient organisations also have different time constraints and incentives. In the case of recipient organisation, they may have tighter deadlines to fulfil domestic requirements set up by different organisations (interview H). Recipients have split attention because of how many projects they are implementing together with other partners (Interview G). It is difficult for Estonian projects to stand out due to small scale and impact (Interview C).

Another limitation that is country dependent but is on language factors. Estonian language capabilities may not always fit with the local partner. For interviewee I, this may then lead to increased administrative burden as documents need to get translated for domestic decisions to be made about the cooperation and for decisions to be made.

Interview E, F and H measure their project primarily in terms of long-term indicators. They hope that this upskilling program has a multiplier effect in which individuals who got educated teach others (Interview F and H). So that they are more people with the right skills aiding in the digital transformation in the country. They aim to see long term sustainable impact within society in the given field because of this project (Interview H).

This section has provided insight to constraints facing ICT4D projects. Recipients often have limited human resources to implement projects to their fullest potential (Interview B, G and H). Some projects do not account the administrative processes that need to be cleared for the development project to be implement in recipient states (Interview H). Many recipients prefer to implement long term projects as they aim to see sustainable change within their society (Interview F and H). Furthermore, Estonian projects do not have large amounts of funding linked to them which limits the potential for them to stand out (Interview C). Few of these limitations meant that recipients did not want to work with Estonia as they were still generally impressed by Estonia mindset towards them (Interview C and H).

5 Discussion

5.1 Why Cooperate with Estonia?

This thesis has provided insight into the perspectives of the recipient organisations in other states. Recipient organisations have their own goals to achieve which they aim to fulfil. Hence, they choose certain partnerships over others to fulfil these goals. Partner organisations choose Estonia to focus on eGovernment and to enhance their start-up ecosystem of their state. Throughout this section I will link findings from interviewees to academic literature to explore constraints of ICT4D projects and to explore solutions to improve the sustainability of these projects

Most interviewees are satisfied with their cooperation with Estonia and would like a closer cooperation with Estonia (Interviewee A, B, E, F, H, I). The Estonian niche expertise in eGovernment has proven to be in demand by recipient countries. There is alignment between what recipients need for their countries to improve digitalisation and what Estonia aims to share in its ICT4D projects (Crandall & Allan, 2015; Robinson & Hardy, 2021). The Estonian story as an innovative start-up country is attractive to interviewees and motivates future cooperation with Estonia.

Estonian development cooperation is primarily on knowledge transfer in which Estonia shares its expertise (Crandall & Allan, 2015; Made, 2015). Estonian development project is still primarily knowledge based (Made, 2015). However, Estonia projects are slowly moving towards focusing on implementing IT systems (Made, 2015) This thesis shows that the Estonian expertise in digitalisation is in demand by recipient countries as digitalisation efforts around the world increase.

Visits from local representatives of partner organisations to Estonia are effective as more knowledge is shared about specific problems that arise during implementation (Interview A and I). Visiting partners are impressed about the level of digitalisation of Estonia. (Interview A and I). Information such as about cybersecurity and interoperability inspire visitors and let them understand the need of digitalisation in their country which in turn are useful for kick -starting cooperation with recipients (Interview A and I). Interoperability is a key concern for many recipients which in turn they hope to improve by cooperating with Estonia (Interview A, I and J). This is either interoperability within its own domestic context or interoperability with other countries (Interview I and J). Further relevant is that countries aim to adapt similar best practices and technical

legislations with EU countries (Interview B, I and J). The EU interoperability requirements and technical requirements get adopted in countries abroad (Interview B and J). The reasons for specific to each local context but generally having interoperability with European systems ensures a better cooperation between these countries and economic benefits by reducing cross border barriers in trade (Interview J).

Bello-Bravo et al., (2019), stated that the West sees itself as a role model in development projects. However, recipient countries are interested in this expertise aim to adapt similar regulations and policies to the West (Interview B, I and J). In the Estonian case, recipients aim to learn from Estonian best practices to adapt policies (Interviews B, I and J). It is not overly negative that the West sees itself as a role model as countries do aim to become similar to Estonia (Bello-Bravo et al., 2019). Perhaps it is the attitudes that Western countries hold towards partner countries that may incline recipients to perceive them negatively (Interview I). Furthermore, partner countries want to adapt policies from donor countries however, they do not want to become them. They aim to adapt Western practices to their own context to fulfil their own goals (interview A and H). Projects should not be prescriptive in nature towards recipients or else they might have an aversion towards them (Interview C).

Recipients would like to learn from the Estonian experiences on digitalisation. (Interview A, B, F, H and I). It is difficult to strike the balance between Estonian experiences and taking local experiences and expertise into account. The then increases the importance of co-creation in such settings to ensure contextual factors do not constrain projects (Interview B, C, E, F and I). However, it seems that Estonia has stroke a balance as one interviewee said Estonia “treats the locals like the solution” (Interview E).

ICT4D is becoming significantly more important as digitalising is becoming more apparent, also as a result of the COVID-19 pandemic (Interview A and J) (Cruz-Jesus et al., 2017; Qureshi, 2022). However, recipients emphasise the need to improve their own processes and procedures to support their citizens and improve economic outcomes (Interview H, I, J) Recipients also see ICT4D projects as means to overcome poverty (Qureshi, 2022). Estonia is known for having good expertise in digital projects both domestically and abroad which is attractive for recipients. Being able to interact with Estonian government systems turns digitalisation into something more concrete as they understand the end goal. As a rather small country Estonia was able to drive digital development with limited resources. This is perceived as an additional strength which has motivated Interviewee H to work with Estonia.

The Estonia eID system is attractive to many countries which aim to implement a version of it (Interview I and J). Together with X-Road which both ensures cybersecurity and availability touch upon security concerns of recipients who aim to implement such systems (Interview A, F, I and J).

Recipients would like to learn from Estonia the accessibility of systems (Interview F). To make sure that disadvantaged groups can use similar system and to ensure everyone can access them (Interview F). This indicates that at least the groups Estonia works with do not implement systems that exacerbate negative social dynamics in the country but instead leave a positive impact (Interview F).

Estonian ICT4D projects do believe that technology is usually improves outcomes in recipient societies (Bello-Bravo et al. 2019) (Interview L). Estonian ICT4D projects are tech-optimistic (Interview L). However, projects also have a human component when aiming to train recipients in using technology (Interview E, F and H). Recipients identify the need for training in using technologies which they aim to learn by cooperating with Estonia in upskilling programs (Interview E, F and H). These initiatives support the trend that ICT4D projects becoming knowledge focused (Thomas et al., 2023).

Recipients are interested in learning both technical and business skills when cooperating with Estonia (Interview B, E, F I and J). Multiple interviewees stated that having in person exchanges to learn about interpersonal skills and project management skills is important for them and a motivation to want to cooperate closer with Estonia (Interview B, E, F I and J). Suggested methods were exchange program to work in Estonia and vice versa (Interview I). This is best exemplified by the Digital Explorer program in which Kenyan students learn and working in Estonia (Ethnographic Research). Another interviewee stated that a similar program would be of interest to the recipient organisations (Interview I). Exchange programs would help recipients to learn about non-technical skills needed to implement government services (Interview I).

This also follows how eGovernment is also requires good business processes to implement effectively. In some cases, new business processes are needed as are new methods and regulations related to different technologies. Estonian expertise is sought after on these areas as recipients are willing to improve as long as they still have some control over the project.

As this research has shown Estonian development cooperation is still linked to economic incentives which follows motivations of EU actors in engaging in development projects (Langan, 2023). Both recipients and donors have different incentives in development projects (Interview C and H) (Garcés-Velástegui, 2022). However, both actors aim to understand each other's incentives in development project. Sometimes Estonian projects aim to spend budgets and achieve their own goals instead of waiting for long term goals (Interviewee H) (Carbone, 2011). However, there is a growing understanding of Estonian actors to support local stakeholders to support long term success (Interview C and E). Recipients usually measure their own success in terms of both long term and short-term goals (Interviewee F, G and H). This follows the findings of Bon & Akkermans (2014), that incorporating beneficiaries early on during the projects can improve the chances of success.

Development agencies are under increasing pressure to show their projects have positive impact however, development agencies can have additional positive impacts by co-creating policies with recipients (Mawdsley et al., 2014). The way positive impact is defined it may lead to working practices that may not lead in the right direction. The Estonian case shows that co-creation and directly engaging with locals to define the project goals together are effective methods to have positive impacts (Interview C, D, E and F).

The Estonian practices of having a local team and office helps to adapt projects to the local context (Interview C and K). Both Estonia and the recipient side should be sensitised to each other preferences and practices (Interview C). It is difficult for recipients to understand Estonian best practices and constraints without direct face to face interaction between the different stakeholders (Interview C). This could also possibly reduce time spent discussing issues which would in turn improve the effectiveness of ICT4D projects implemented by Estonia.

According to Ran & Qi (2018), positive development projects are primarily long term, cooperation is voluntary and that stakeholders have experience in working together. Recipients prefer projects that have long term impact instead of short-term impact (Interview F, G and H). Cooperation is usually voluntary in Estonian ICT4D projects (Interview C). Recipients also believe that positive cooperation leads to better projects in the future. Interviewee H highlighted that they engage in a project that they hope leads to longer cooperation.

The Estonian case shows that donors are still focusing on executing project whereas recipients focus on long term goals (Marais & Vannini, 2021). Furthermore, this thesis has shown sustainable projects are usually those that create the projects together with recipients to ensure the project solve the goals and problems of the organisation (Marais & Vannini, 2021).

In the literature review section, I placed some focus on looking at neo-colonialism believing that some neo-colonial practices could be implemented consciously or unconsciously by Estonian actors. It was an important consideration of this thesis to ensure that ICT4D projects cover some aspect which considers power and neo-colonialism.

The majority of interviewees emphasised how positive their cooperation and working practise with Estonia is. Therefore, I believe this underlines that neo-colonial attitudes play a limited role in Estonian development practice. Whilst Estonians may hold specific ideas on how to cooperate and how to implement projects these attitudes are not dominant. I believe that Estonia listens to partners effectively during project implementation than initially theorised. However, interviewees criticised how local stakeholders played a minimal role in pre-project process. This could be an avenue for future research as the aspect of power was not a core consideration of this thesis. Power did not play a core role in the research design of this thesis.

Interviewee C supports this point by stating that Estonia enters cooperation with having too many of its own ideas and preconceptions onto the project. Instead, it makes sense to focus on how the locals perceive the project and how to support locals to support themselves. I believe both points of view make sense in the Estonia development cooperation. To align both points of view one could say that Estonia enters cooperation with its own ideas and preconceptions about perceived weaknesses of the project and what the potential solutions to this project could be.

Estonian development projects have not changed since 2015, Estonian ICT4D projects are still knowledge based (Made, 2015). However, recipients want to learn from Estonia and to bring their country in line with either technical best practices or practices that come from a European context (Interview A, B, F, H, I, J and L). Estonian ICT4D projects favour achieving short term objectives instead of long-term goals which limits the potential of ICT4D projects (Marais & Vannini, 2021; Mawdsley et al., 2014) (Interview

H, K and L). However, the majority of interviewees were positive about their interactions with Estonia and hope that the projects implemented leads to recipient organisations achieving their long-term objective (Interview F, H and I).

5.2 Local Context

Local context plays an important role to improve the chances of success of an ICT4D projects (Bon & Akkermans, 2019; Heeks, 2003). In this section I will show how Estonian ICT4D projects bring in context and local stakeholders into ICT4D projects. Recipients are able to play an active role during the projects which leads to context being respected as the project goes on (Interview B, F, H and I).

The Estonian case mostly follows the co-creating approach once project have started (Interview C, D and E). One interviewee when so far as to say that Estonia treats locals as the solution to the ICT4D projects (Interview F). According to the literature, Estonian projects have a higher chance to be sustainable compared to others as they incorporate local context and minimise the design-gap (Interview B, C, F, E, H and I) (Bon & Akkermans, 2019; Heeks, 2003). In comparison to other development partners Estonia show more flexibility to integrating development partners in the local projects than other partners (Interview E).

To increase chances of success for ICT4D projects is to understand local context (Bon & Akkermans, 2019). Interviewees reiterated the importance of understanding local context in ICT4D projects (Bon & Akkermans, 2019). Discussions are important to understand what recipients need and want. From my own observations, discussions between Estonian and recipients happens in an open manner. During these meetings, mission and objective get presented between the actors for participant to see if alignment is possible (Ethnographic research). This alignment ensures that both Estonia and participants can find their niches to understand how best to engage which each other in development cooperation projects. This treats both partners as equals in the relationship instead of enforcing uneven power dynamics that some scholars say exist because of these projects. This enhances co-creation between the different stakeholders which in turn leads to local project ownership of the local projects.

Commonly this can be done through co-creation as recipients know their own challenges and want something specific to their context. Co-creation leads to smoother

implementation and long impact of projects. If recipients should continue the project once the donor pulls out it makes sense that recipients should have ownership of the project.

Another criticism levelled against Western ICT4D projects is that projects are not guided by evidence instead by political considerations. In Estonia one could say it is a mix of both. Estonian projects are guided by a political strategy which links political and economic objectives as a core motivation for ICT4D projects. Estonia aims to understand the local context of these projects whilst implementing them (Interview B, C, E, F, I and J).

However, it seems that this is not a deal breaker for some recipients (Interview C and E). How Estonia acts during a project shows if the project will last beyond set out time frame. Aspects that donors should consider is flexibility to adapt the project to the recipient's context. Recipients should own the project if it should have long-term sustainability. Recipients are not interested in continuing a project that does not serve their goals. This might be the reason as to why projects end once external funding ends, the project is not in line with recipients' goals (Marais & Vannini, 2021; Sahay & Mukherjee, 2017). Projects that consider local recipients' input are likely to consider context in ICT4D projects (Lin et al., 2015). These results mirror the findings by (Marias & Vannin, 2021).

Estonia cooperates closely between local stakeholders which has improved the success rate of ICT4D projects (Interview E and I). Furthermore, they have successfully engaged in shared ownership and made it clear that recipients they are the owners of the project (Interview C). In turn Estonia also adopts different attitudes to make this obvious to recipients and more effectively supports them in ICT4D projects (Interview C, E and I) (Bryan, 2004). Coordination among Estonian actors and recipient actors has improved the effectiveness of these development projects (Lundsgaarde & Keijzer, 2019).

Most organisations that engage in development cooperation, recipient, or donor, have short term indicators they need to fulfil. Partner organisations however place increased focus on long term impact of project and desire projects that bring long term change (Interview F and H). For this reason, recipient organisations prefer to engage in long term projects instead of short-term projects.

As Zheng et al., (2018) note, ICT4D projects may lead to increased inequities with societies. However, this is something that recipients acknowledge and hope that these inequalities do not get introduced in society. Marais & Vannini (2021), believe that diffused responsibilities of project increase effectiveness by ensuring that project are successful by ensuring project ownerships. In development studies this should be done by aligning projects with what recipients need and not the goals which donor partners need to achieve.

I believe that this avenue should be researched further. ~~by the literature~~. Scholars and practitioners should aim to understand the incentives and constraints faced by the recipient organisations. This thesis has started to open the black box of stakeholders by speaking with them. Stakeholders have their own incentives which they aim to achieve and make explicit choices on who to cooperate with and how. These choices and decisions should be the focus of research.

A collective set of standards on improving development cooperation has been in discussion (Develtere et al., 2021; Mawdsley et al., 2014). However, from this research it seems that good development project's touch upon themes such as listening more to recipients and understanding context. It would make sense that discussion on aid effectiveness are not effective. Academics researching sustainable ICT4D projects should ask themselves why recipients should continue a project they had little impact in shaping.

Academics point towards understanding context for ICT4D projects to ensure success (Heeks, 2003). It is important to understand the local actors and stakeholders that implement these projects together with donors. These recipients are active participants that change their positions to fit with what recipients offer.

Estonian partners are adaptable and learn from the local context once they engage with local stakeholders (Interview C and E). Interviewees mention that it takes time for Estonians to adapt to the local context and change project parameters (Interview B). Here a recommendation could be to avoid the series of steps that leads to Estonians adapting and be more open to different points of view at the beginning.

According to interviewees some Estonian projects are driven by evidence (Interview B, C, E, F, G). The first reason in which Estonian projects are driven by evidence is through

effective co-creation with local stakeholders (Interview E and F). However, this also means that Estonian experts *eventually* get an effective understand of local context in which these projects are implemented in. Locals do want Estonians to verify that they have followed the projects which indicates that these reports do effectively take both technical aspect and the local context into account (Interview J).

This thesis has found a link between understanding the different perspectives on how to solve differences in opinion in ICT4D projects and effective co-creation. While Estonia does have different context and ideas of what should be done in recipient countries, these opinions do not dominate ICT4D projects (Interview C, D and E). Estonia engages in effective collaboration to mitigate limitations identified by the literature such as that of not adapting project to the local context or project being dropped as soon as funding tries up (Interview E and F). Estonia brings a positive attitude to ICT4D projects (Interview E and I).

This section underlines that Estonian stakeholders generally respect the importance of context and co-creation in ICT4D projects. However, this is usually done whilst the project is being implemented instead of during pre-project phases (Interview C). This highlights that having a local presence within the recipient state is a prerequisite for Estonian ICT4D projects to bring in local context in the pre-project phases.

5.3 Constraints

It is difficult to tell at this stage whether Estonian ICT4D projects have a high failure rate as the projects are in an early stage, I interviewed representatives whom are currently implementing projects with Estonia. However, given that stakeholders were generally impressed with Estonia one could assume that these projects were or will be a success in the eye of recipients. I have not interviewed recipients from failed projects. Most interviewees mentioned the desire to continue working with Estonia in the future and desire longer term projects than which are currently implemented.

The Estonian projects represent cases in which there is a degree of power sharing in the partnerships among different stakeholders (Interview E and F) (Gray et al., 2022). This indicates that accordingly these projects have a higher chance to succeed. However, it should be noted that a characteristic of disruptive partnership applies to the Estonian ICT4D projects, in which implementation is disproportionately borne by low power actor

(Gray et al., 2022). This could be seen in which administrative burden is borne by recipient actors which have limited resources in the first place. This follows the finding of Okano-Heijmans & Vosse (2021), that ICT4D projects are not properly budgeted or staffed at least from the recipient side (Interview B, H and K). Recipients struggle to implement projects due to a lack of resources and increased administrative burden from dealing with many different development agencies.

Recipients enter cooperation to overcome their identified limit. They still want to implement projects to overcome these gaps even if it burdens the organisation to implement the increasing number of projects. For example, ICT4D projects are hindered by government administrators who may not be skilled in digital technologies (Ondiek, 2020). However, in the case of Interview F, Estonia was partnering with an organisation to fulfil the gap identified. However, Estonian development cooperation generally follows this approach in which their programs primarily focus on upskilling (Interview C, E, F and H) (Made, 2015). This is a limitation that Estonia is well equipped to handle and solve.

Recipients' organisations face administrative burden when implementing projects which is only partially highlighted by Okano-Heijmans & Vosse (2021). Frequently public organisations are limited by their human resources to execute projects to their fullest potential. These characteristics are not discussed sufficiently by ICT4D to understand limited success of ICT4D projects. Still, recipients' organisations know that they are overworked but continue to accept more projects. Therefore, I would argue that recipient organisation is motivated to engage in ICT4D as this helps them to overcome their own challenges.

These administrative constraints are communication processes, approval processes and translation processes. This bloats up projects with processes that recipients are not sure are obvious to the donor (Interview A). Recipients' organisations have their own goals and time constraint to implement projects. Some projects are implemented not to fulfil recipients' goals but donor goals which are rushed to finish these goals.

Estonian ICT4D projects implement common traps that sideline recipients during the pre-project phases for a project (Interview C). This is in line with Gray et al (2022), that stakeholders do not always cooperate voluntarily. Interviewees highlighted that Estonia should do more listening early on to understand what recipients want and need (Interview

C). This implies that Estonia does not listen enough early on during ICT4D projects (Interview I). As a result, from this it follows what Lin et al., (2015), state that projects do not consider context until later in the project (Interview I). These conversations should happen in the planning phases of the project not after the project has already begun. Furthermore, this implies that some stakeholders do not voluntarily engage with Estonia at the beginning as recipients' interests get neglected. This paragraph primarily criticises the pre-project processes that Estonian actors engage in.

This criticism is contextual on the project that Estonia engages in. In other situations, this criticism does not apply as interviewees talk about their positive experiences in cooperating with Estonia. This can be examined in the future as to what situations leads to Estonia side-lining recipients in pre-project discussions. These considerations might be important for the future to attempt to reduce costs early on during the project. From interviewee reception it does not seem like Estonian development projects do not have a high failure rate (Interviewee B, D, H, I, J)

Interviewees reference other development agencies when speaking about Estonian development practices. Usually, to highlight practices that Estonia is engaging in that recipients perceive positively (Interview C, E and I). These interviewees imply that other development donors are still engaging in neo-colonial practices (Hanson-DeFusco et al., 2024). Western actors do fail to consider context and local recipients which leads to projects getting dropped after donor funding dries up (Interview C) (Hanson-DeFusco et al., 2024). It does not make sense to further an analysis on neo-colonial practices that Estonia engages in (Hanson-DeFusco et al, 2024). While some working practices linger these do not shape the cooperation that Estonia engages in. Estonian actors consider the context in recipient countries and considers that local partners can shape the programs implemented by the development agency (Hanson-DeFusco et al, 2024).

As Interview E has highlighted in reference to other development actors is that local actors are given less power to shape development program and meetings which has also been mentioned by (Hanson-DeFusco et al., 2024). In development project, cooperation does automatically not lead to better projects, effective cooperation practices is needed (Interview C) (Emerson, 2020).

This section highlights that some common weaknesses of development practice in which Estonia does not implement projects that rely context exist early on (Interview C and I)

(Lin et al., 2015) . Furthermore, some projects may have started without recipients being consulted which leads to solutions feeling prescriptive (Interview C) (Gray et al (2022). Recipient organisations on the other hand are burdened with the implementation and administrative process of the projects (Interview B, F and H) (Okano-Heijmans & Vosse, 2021). However, these organisations still engage in development projects as a means to overcome some of their perceived limitations (Interview B, F and H).

5.4 Limitations

This thesis is limited by several factors. The first was the chosen academic fields to analyse this research in. ICT4D literature primarily looks at ICT4D projects from an apolitical lense which limits analyse from the collaborative side of things. This thesis aimed to mitigate these limitations by looking at projects from a collaborative angle. However, other academic fields might be just as relevant to use.

An obvious angle is a development studies/ neo-colonial lens to gain a better understanding on the role that power plays in these projects. I acknowledged the role that power plays, but I did not make it a central focus of my thesis. Perhaps management studies or a project management lens could also be used to analyse this topic. I spoke with those who implement projects hence it might make sense to use an academic framework that looks at projects from an academic point of view. This could be potential avenues that future research could explore development cooperation or Estonia's approach to development cooperation.

Another limitation is based on interviewees I spoke to. Most of the interviewees I spoke with and focused on are those that cooperate with EstDev and Estonian Ministry of Foreign Affairs. I speak of Estonian development cooperation, but this thesis primarily looks at what the public sector is doing in this field. Organisations that may implement digital tools in their development projects such as Mondo was not the focus. Nor were private organisations which have implemented technology solutions in recipient countries.

Some interviewees highlighted that they started working with Estonia because of Estonia's multilateral engagements, such as through the Digital 4 Development Hub by other European actors. This thesis did not attempt to understand Estonia's role in multilateral development projects in which projects are implemented with together with

other European partners such as the GIZ. This would then need to take another perspective to better understand this angle. There could be another avenue for future research to get a better picture of Estonian research.

Another limitation is something which I have tried to combat through choice made in the design projects. That I am primarily trying to understand recipient perspective on development cooperation without having a similar cultural upbringing to them. I am a white European male which may represent certain unconscious biases. I have done my best to mitigate my own biases in my research by adopting critical realisms and a deductive approach towards coding interviewee transcripts. Interviewees might be more comfortable speaking to someone from a similar background to them instead of someone from a Western context conducting research from Estonia. This may lead to different points being highlighted by interviewees. It might be an interesting avenue for researchers in recipient states to ask them what they think of development with recipient states. Furthermore, my ethnicity might have also played a role during interviewees in which some aspects were not mentioned by interviewees, or some points were raised because of who I am. To interviewees, I am a student from Estonia conducting research. Perhaps recipient responses would be different if I represented another ethnicity. Perhaps this might lead to different findings by other researchers. This may lead to interviewees giving me biased information which paints an overly positive picture of Estonian development cooperation. Some interviewees said something positive when given the chance to provide feedback about Estonian development practices.

5.5 Avenue for Future Research

Future research can focus more directly on recipient organisations. As I have found in this research, recipient organisations have their own incentives in engaging with development partners. It would be interesting to look at this research from the angle of other development agencies such as the GIZ/ German side. Would development partners of the GIZ engage differently with the GIZ within the size of its portfolio and the funding available? Would recipients in different states act the same or differently? These could be questions that other researchers could look at in this field. The primary geographic focus of this research was Eastern Partnerships states and Africa. Therefore, the questions remains whether this thesis findings also applies to Latin America and Caribbeans, Asian states, and Oceanic states.

Finally, the number of development partners is proliferating with Global Southern states engaging in development cooperation with other Global Southern states, for example India's and China's growing development portfolio. Future research could look at the motives and reasons as to why recipient organisations engage in development projects with these states. If being a non-DAC country changes the motivations of recipient organisations to work with them.

Another aspect to look at is the relationship between recipient and implementing organisational in the case of multilateral project. Trilateral cooperation looks at the plurality of actors in implementing development projects (Zoccal, 2021). Therefore, future research can analyse the administrative burden placed on recipients by engaging in trilateral project and whether the burden would somehow be different.

Future research could also focus in more depth on Estonian development cooperation. There are not many academic articles on this topic. Therefore, aspects of this research can be used to better inform research that aims to conceptualise Estonia as a development actor. Estonian development cooperation has limited funds as they aim to use their funds effectively. There could be an interesting avenue for research when compared to more dominant funders of development projects such Germany or the US.

5.6 Synthesis

Estonia is a new country in development cooperation, and this is both a pro and con. The country is able to engage in development projects with limited historical package and is able to use its reputation in digital solutions and a start-up country to obtain development projects (Interviewee A, B, C, D, E, H, I and J). Estonia brings a positive and open mindset to development projects that recipient's notes and encourages them to work with Estonia (Interviewee E, F and I). However, through being a new development actor it is establishing a physical presence in the recipient countries (Interview C). Having a physical presence in the physical country is crucial to ensure that projects minimize the design gap reality and are in line with what recipient's need (Interview K and L) (Heeks, 2003). Estonia was criticized for having projects that were not validated by the beneficiary and projects which were rushed to fulfil its own goals instead of the recipient's (Interviewee C and H).

I believe these aspects are indicative of Estonia being a new country in development cooperation, having access to recipient's is difficult with little presence in the recipient

country and by having little influence on development projects. Estonia reputation as a development actor is new and it is growing.

Estonia does engage in an equal mindset for development projects once it has started to implement projects together with the recipients. Interviewees noted the positive attitudes that Estonians bring to development cooperation once it has started (Interview B, E and I). This shows that intensive long-term engagement with recipients is more likely once projects have started and both sides are able to share their realities with each other. Though this thesis has identified that having information about the context in which the project is implemented in is important to have in the pre-project phase to improve the sustainability of the project (Interviewee C, K and L).

Recipients are driven to work with Estonia in digital projects as they value the expertise that Estonian actors bring to development projects (F, I and J). They aim to implement their own digital systems which leads them to consider Estonian stakeholders to fulfil this need. However, it is also the attitudes Estonian stakeholders bring to development cooperation that convinces some recipient to work with Estonia (Interviewee I).

Incorporating local context for Estonian projects is dependent on incorporating local stakeholders (Interviewee K and L). Local partners often know a lot about the context that recipients find themselves in and can help to ensure these projects are a success. However, Estonian ICT4D projects currently incorporate local stakeholders in the implementation phase (Interview B, C E, H and I). Recipients noted that their voices are heard in the implementation phase as projects get adapted to better suit the recipient's context (Interview E).

Recipient organisations are overworked by choice as they aim to implement a lot of ICT4D projects that aim to overcome gaps identified by recipients (Interviewee B and H). These organisations are burdened by internal administrative requirements whilst not having enough human resources to ensure the success of ICT4D projects (Interviewee B and H). Estonian projects therefore should try to stand out on quality instead of quantity (Interviewee C). Funding is another problem facing Estonian ICT4D projects (Interviewee C and H). Recipients understand the limitations facing them but still engage in development projects to with the hope of overcoming administrative constraints facing their own processes (Interviewee J).

6 Conclusion

This thesis has set out to provide a better understanding of the landscape of Estonian ICT4D projects by conducting research on Estonian development practices. This was supported by examining common failures the literature has identified on ICT4D projects. These failures are commonly related to missing engagement with stakeholders and misaligned expectations by both recipients and donors. This thesis has examined the case of Estonian development projects to understand these failures.

Throughout this research, the “black box” of ICT4D projects has been opened by speaking to recipient organisations to understand their constraint and motivations when engaging in ICT4D projects. This thesis has placed the spotlight on Estonia to understand how a small Baltic country engages in ICT4D projects. The thesis has found that Estonia engages in co-creation and to incorporate local stakeholders in the implementing stages of ICT4D projects. However, it makes more sense to integrate these stakeholders earlier to ensure important project parameters makes sense within the given context.

This research has talked to different recipients of development projects, those that organise the cooperation with Estonia. These organisations face of similar constraints: Their first constraint is the lack of human resources as they have limited capacity to follow the number of different projects which are implemented with recipients. They are implementing many different projects that all need their own project leads and which need to clear their own administrative hurdles. Furthermore, these projects also need to follow guidelines set up by donor states. Donor states desire certain outcomes with these projects that recipients need to manage to implement in both their projects and reports.

Recipient organisations aim to implement projects according to their own goals. This means they pick and choose projects that best fulfil their own aims. Recipient organisations do not desire short term projects that do not help them achieve their goals. Short term projects also increase the administrative burden on themselves to implement successful projects. Projects that do this have a higher chance to have more sustainable impact as recipients have a reason to continue these projects. The reason being that recipients’ goals get achieved through these development projects.

Recipients value co-creation efforts and efforts to work together closely with them. They have their own expertise in ICT4D along with their own goals which they wish to achieve. Organisations choose countries for cooperation to achieve their own goals. Estonia was chosen for having good expertise on eGovernance and through the attitude of wanting to help recipients instead of making them dependent on Estonia. Co-creation is important to ensure sustainable ICT4D projects that get a life of their own.

Throughout this thesis I have looked at the shortcomings of ICT4D literature and projects. The literature has identified many shortcomings of these projects in solving the problem they aim to tackle. Some authors talk about that technology doesn't do what it is supposed to do in some countries. Other authors talk about the prevailing practice in which recipient is not involved substantially to ensure projects with positive outcomes. This thesis used the case of Estonian digital development projects to understand the common limitations surrounding ICT4D projects.

Estonia represents a new case of ICT4D projects as it has engaged in development cooperation for a comparatively short time when compared to other European actors. This means that Estonia may not follow the norm when it comes to development cooperation and ICT4D. This thesis has found that this might be the case as assumptions made early on during this research does not strongly apply to the Estonian projects analysed. The landscape, of bilateral Estonia ICT4D projects are primarily based on training projects. These projects generally have positive reception from recipients when they are co-created.

ICT4D projects fail because of missing context and because of missing cooperation between recipient and donor. Local stakeholders and recipient play an active role in development projects. They play a role in ensuring that development projects consider context in their approach. Furthermore, long term success of an ICT4D projects is dependent on whether or not recipients want to continue implementing the project. Therefore, to ensure higher success rate of ICT4D projects donors should understand what recipients need and treat them as equal partners.

References

- Abubakre, M., & Mkansi, M. (2022). How do technologists do “ICT for development”? A contextualised perspective on ICT4D in South Africa. *European Journal of Information Systems*, 31(1), 7–24. <https://doi.org/10.1080/0960085X.2021.1978343>
- Aka, K. G. (2019). Actor-network theory to understand, track and succeed in a sustainable innovation development process. *Journal of Cleaner Production*, 225, 524–540. <https://doi.org/10.1016/j.jclepro.2019.03.351>
- Akbari, A., & Masiero, S. (2023). Critical ICT4D: The Need for a Paradigm Change. In M. R. Jones, A. S. Mukherjee, D. Thapa, & Y. Zheng (Eds.), *After Latour: Globalisation, Inequity and Climate Change* (pp. 350–355). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-50154-8_25
- Ansari, S. (Shaz), Wijen, F., & Gray, B. (2013). Constructing a Climate Change Logic: An Institutional Perspective on the “Tragedy of the Commons”. *Organization Science*, 24(4), 1014–1040. <https://doi.org/10.1287/orsc.1120.0799>
- Anwar, M. A., & Graham, M. (2022). Africa’s New Digital Connectivity and Economic Change. In M. Amir Anwar & M. Graham (Eds.), *The Digital Continent: Placing Africa in Planetary Networks of Work* (p. 0). Oxford University Press. <https://doi.org/10.1093/oso/9780198840800.003.0002>
- Bass, J. M., & Heeks, R. (2011). Changing Computing Curricula in African Universities: Evaluating Progress and Challenges via Design-Reality Gap Analysis. *THE ELECTRONIC JOURNAL OF INFORMATION SYSTEMS IN DEVELOPING COUNTRIES*, 48(1), 1–39. <https://doi.org/10.1002/j.1681-4835.2011.tb00341.x>
- Bello-Bravo, J., Zakari, O. A., Baoua, I., & Pittendrigh, B. R. (2019). Facilitated discussions increase learning gains from dialectically localized animated educational videos in Niger. *Information Technology for Development*, 25(3), 579–603. <https://doi.org/10.1080/02681102.2018.1485004>
- Bon, A., & Akkermans, H. (2019). Digital Development: Elements of a Critical ICT4D Theory and Praxis. In P. Nielsen & H. C. Kimaro (Eds.), *Information and Communication Technologies for Development. Strengthening Southern-Driven Cooperation as a Catalyst for ICT4D* (pp. 26–38). Springer International Publishing. https://doi.org/10.1007/978-3-030-19115-3_3
- Braun, V., & Clarke, V. (2022). *Thematic Analysis: A practical Guide*. SAGE Publications Ltd.

- Brönnimann, A. (2022). How to phrase critical realist interview questions in applied social science research. *Journal of Critical Realism*, 21(1), 1–24.
<https://doi.org/10.1080/14767430.2021.1966719>
- Bryan, T. A. (2004). Tragedy Averted: The Promise of Collaboration. *Society & Natural Resources*, 17(10), 881–896. <https://doi.org/10.1080/08941920490505284>
- Burga, R., & Rezanian, D. (2017). Project accountability: An exploratory case study using actor–network theory. *International Journal of Project Management*, 35(6), 1024–1036.
<https://doi.org/10.1016/j.ijproman.2017.05.001>
- Campbell, S. (2015). Conducting Case Study Research. *American Society for Clinical Laboratory Science*, 28(3), 201–205. <https://doi.org/10.29074/ascls.28.3.201>
- Carbone, M. (2011). The European Union and China’s rise in Africa: Competing visions, external coherence and trilateral cooperation. *Journal of Contemporary African Studies*, 29(2), 203–221.
<https://doi.org/10.1080/02589001.2011.555195>
- Cerne, A., & Jansson, J. (2019). Projectification of sustainable development: Implications from a critical review. *International Journal of Managing Projects in Business*, 12(2), 356–376.
<https://doi.org/10.1108/IJMPB-04-2018-0079>
- Christodoulou, M. (2023). The four C’s model of thematic analysis. A critical realist perspective. *Journal of Critical Realism*, 0(0), 1–20. <https://doi.org/10.1080/14767430.2023.2256109>
- Crandall, M., & Allan, C. (2015). Small States and Big Ideas: Estonia’s Battle for Cybersecurity Norms. *Contemporary Security Policy*, 36(2), 346–368. <https://doi.org/10.1080/13523260.2015.1061765>
- Creswell, J., & Báez, J. (2020). *30 essential skills for the qualitative researcher*. Sage Publications.
- Cruz-Jesus, F., Oliveira, T., Bacao, F., & Irani, Z. (2017). Assessing the pattern between economic and digital development of countries. *Information Systems Frontiers*, 19(4), 835–854.
<https://doi.org/10.1007/s10796-016-9634-1>
- Develtere, P., Huysse, H., & Van Ongevalle, J. (2021). *International Development Cooperation Today: A Radical Shift Towards a Global Paradigm*. Leuven University Press.
<http://ebookcentral.proquest.com/lib/kuleuvenul/detail.action?docID=6529804>
- Dreher, A., Nunnenkamp, P., & Schmaljohann, M. (2015). The Allocation of German Aid: Self-interest and Government Ideology. *Economics & Politics*, 27(1), 160–184.
<https://doi.org/10.1111/ecpo.12053>

- Dwivedi, Y. K., Wastell, D., Laumer, S., Henriksen, H. Z., Myers, M. D., Bunker, D., Elbanna, A., Ravishankar, M. N., & Srivastava, S. C. (2015). Research on information systems failures and successes: Status update and future directions. *Information Systems Frontiers, 17*(1), 143–157. <https://doi.org/10.1007/s10796-014-9500-y>
- Ebneyamini, S., & Sadeghi Moghadam, M. R. (2018). Toward Developing a Framework for Conducting Case Study Research. *International Journal of Qualitative Methods, 17*(1), 1609406918817954. <https://doi.org/10.1177/1609406918817954>
- Emerson, R. O. (2020). Power dynamics in international development evaluations: A case study of the Girls Education Challenge programme. *African Evaluation Journal, 8*(1), 1–11. <https://doi.org/10.4102/aej.v8i1.459>
- EstDev. (n.d.). *Estonian development cooperation – Estdev*. Retrieved 5 September 2023, from <https://estdev.ee/estonian-development-cooperation/?lang=en>
- Fouche, L. L., Grobbelaar, S. S. (Saartjie), & Bam, W. G. (2022). Towards a process framework to guide the development of ICT4D programs: A South African perspective. *Information Technology for Development, 0*(0), 1–37. <https://doi.org/10.1080/02681102.2022.2123442>
- Fred, M. (2020). Local government projectification in practice – a multiple institutional logic perspective. *Local Government Studies, 46*(3), 351–370. <https://doi.org/10.1080/03003930.2019.1606799>
- Fuchs, C. (2018). Capitalism, Patriarchy, Slavery, and Racism in the Age of Digital Capitalism and Digital Labour. *Critical Sociology, 44*(4–5), 677–702. <https://doi.org/10.1177/0896920517691108>
- Garcés-Velástegui, P. (2022). Governancing development in the Andes: From wicked problem to clumsy solutions via messy institutions. *Latin American Policy, 13*(2), 258–275. <https://doi.org/10.1111/lamp.12266>
- Gillwald, A., Mothobi, O., Ndiwalana, A., & Tsubira, T. (2019). *The State of ICT in Uganda*. <https://nru.uncst.go.ug/handle/123456789/3750>
- Gray, B., Purdy, J., & Ansari, S. (2022). Confronting Power Asymmetries in Partnerships to Address Grand Challenges. *Organization Theory, 3*(2), 26317877221098765. <https://doi.org/10.1177/26317877221098765>
- Gritsenko, D. (2024). Advancing UN digital cooperation: Lessons from environmental policy and governance. *World Development, 173*, 106392. <https://doi.org/10.1016/j.worlddev.2023.106392>

- Gumbo, S., Thinyane, H., Thinyane, M., Terzoli, A., & Hansen, S. (2012). *Living Lab Methodology as an Approach to Innovation in ICT4D: The Siyakhula Living Lab Experience*.
- Gurumurthy, A., & Chami, N. (2019). *The Wicked Problem of AI Governance* (SSRN Scholarly Paper 3872588). <https://papers.ssrn.com/abstract=3872588>
- Hanson-DeFusco, J., Malik, S., Assamoi, R., Chiromba, A., Davis, D., Hounnouvi, F. M., Irfan, F. B., Faley, P., Matangwa, D. D., Muzenda, T., Nakiryowa, H., Obondoh, A., Parveen, S., Pinales, A. J., & Zimunya, R. (2024). Unethical Issues in Twenty-First Century International Development and Global Health Policy. *International Studies Perspectives*, 25(1), 60–85.
<https://doi.org/10.1093/isp/ekad016>
- Head, B. W., & Alford, J. (2015). Wicked Problems: Implications for Public Policy and Management. *Administration & Society*, 47(6), 711–739. <https://doi.org/10.1177/0095399713481601>
- Heeks, R. (2003). *Most eGovernment-for-Development Projects Fail: How Can Risks be Reduced?* (SSRN Scholarly Paper 3540052). <https://doi.org/10.2139/ssrn.3540052>
- Heeks, R. (2020a). ICT4D 3.0? Part 1—The components of an emerging “digital-for-development” paradigm. *THE ELECTRONIC JOURNAL OF INFORMATION SYSTEMS IN DEVELOPING COUNTRIES*, 86(3), e12124. <https://doi.org/10.1002/isd2.12124>
- Heeks, R. (2020b). ICT4D 3.0? Part 2—The patterns of an emerging “digital-for-development” paradigm. *THE ELECTRONIC JOURNAL OF INFORMATION SYSTEMS IN DEVELOPING COUNTRIES*, 86(3), e12123. <https://doi.org/10.1002/isd2.12123>
- Heeks, R. (2022). Digital inequality beyond the digital divide: Conceptualizing adverse digital incorporation in the global South. *Information Technology for Development*, 28(4), 688–704.
<https://doi.org/10.1080/02681102.2022.2068492>
- Heffernan, C., Lin, Y., & Thomson, K. (2016). Drawing from Development: Towards Unifying Theory and Practice of ICT4D. *Journal of International Development*, 28(6), 902–918.
<https://doi.org/10.1002/jid.2882>
- Houston, S. (2010). Prising Open the Black Box: Critical Realism, Action Research and Social Work. *Qualitative Social Work*, 9(1), 73–91. <https://doi.org/10.1177/1473325009355622>
- Hussain, F., & Brown, S. (2018). Developing a comparative framework of ICT4D initiatives in the global South: A critical realist approach. *THE ELECTRONIC JOURNAL OF INFORMATION SYSTEMS IN DEVELOPING COUNTRIES*, 84(6), e12055. <https://doi.org/10.1002/isd2.12055>

- Jacobsen, R. (2022). Public Sector Projectification – A Systematic Review of the Literature. *Scandinavian Journal of Public Administration*, 26(4), Article 4.
<https://doi.org/10.58235/sjpa.v26i4.10588>
- Jimenez, A., Abbott, P., & Dasuki, S. (2022). In-betweenness in ICT4D research: Critically examining the role of the researcher. *European Journal of Information Systems*, 31(1), 25–39.
<https://doi.org/10.1080/0960085X.2021.1978340>
- Kaur, R., & Ahmed, A. (2019). *Unpacking Actor Interactions in ICT4D Ecosystem*.
- Kaur, R., Sargent, J., Ahamed, A., & Stockdale, R. (2020). *Interactions in ICT4D Projects: A Sociotechnical Perspective*.
- Keeys, L. A., & Huemann, M. (2017). Project benefits co-creation: Shaping sustainable development benefits. *International Journal of Project Management*, 35(6), 1196–1212.
<https://doi.org/10.1016/j.ijproman.2017.02.008>
- Khene, C., & Masiero, S. (2022). From research to action: The practice of decolonizing ICT4D. *Information Technology for Development*, 28(3), 443–450.
<https://doi.org/10.1080/02681102.2022.2103951>
- Langan, M. (2023). An unhealthy relationship? The reputational risks of Europe’s health focused public diplomacy in Africa. *Journal of Contemporary European Studies*, 31(1), 76–89.
<https://doi.org/10.1080/14782804.2022.2084050>
- Lin, C. I. C., Kuo, F.-Y., & Myers, M. D. (2015). Extending ICT4D Studies: The Value of Critical Research. *MIS Quarterly*, 39(3), 697–712.
- Lundsgaarde, E., & Keijzer, N. (2019). Development Cooperation in a Multilevel and Multistakeholder Setting: From Planning towards Enabling Coordinated Action? *The European Journal of Development Research*, 31(2), 215–234. <https://doi.org/10.1057/s41287-018-0143-6>
- Lusimba, M., & Kwanya, T. (2019). *Records Digitisation Technologies and Systems in the Banking Sector in Kenya*.
- Made, V. (2015). Estonia: Coming Out of the Messianic Period. In O. Horký-Hluch n & S. Lightfoot (Eds.), *Development Cooperation of the ‘New’ EU Member States: Beyond Europeanization* (pp. 109–129). Palgrave Macmillan UK. https://doi.org/10.1057/9781137505415_6

- Mamba, M. S. N., & Isabirye, N. (2015). A Framework to Guide Development Through ICTs in Rural Areas in South Africa. *Information Technology for Development*, 21(1), 135–150.
<https://doi.org/10.1080/02681102.2013.874321>
- Marais, M. A., & Vannini, S. (2021). *Network Weaving to Foster Resilience and Sustainability in ICT4D* (arXiv:2108.09808). arXiv. <https://doi.org/10.48550/arXiv.2108.09808>
- Mawdsley, E., Savage, L., & Kim, S.-M. (2014). A ‘post-aid world’? Paradigm shift in foreign aid and development cooperation at the 2011 Busan High Level Forum. *The Geographical Journal*, 180(1), 27–38. <https://doi.org/10.1111/j.1475-4959.2012.00490.x>
- Maxwell, J. A. (2018). *The SAGE Handbook of Qualitative Data Collection*. SAGE Publications Ltd.
<https://doi.org/10.4135/9781526416070>
- Meru, A. K., & Kinoti, M. W. (2022). Digitalisation and Public Sector Service Delivery in Kenya. In O. Adeola, J. N. Edeh, R. E. Hinson, & F. Netswera (Eds.), *Digital Service Delivery in Africa: Platforms and Practices* (pp. 229–248). Springer International Publishing.
https://doi.org/10.1007/978-3-030-83909-3_10
- Montenegro, L. M., & Bulgacov, S. (2014). Reflections on actor-network theory, governance networks, and strategic outcomes. *BAR - Brazilian Administration Review*, 11, 107–124.
<https://doi.org/10.1590/S1807-76922014000100007>
- Mutung’u, G. (2023). Checking the Power of Technology Business in Public Roles through Strategic Litigation: Case Examples from Kenya. *Javnost - The Public*, 30(2), 236–252.
<https://doi.org/10.1080/13183222.2023.2201796>
- Mwapwele, S. D., & van Biljon, J. (2021). Digital platforms in supporting ICTD research collaboration: A case study from South Africa. *Proceedings of the 3rd African Human-Computer Interaction Conference: Inclusiveness and Empowerment*, 125–130.
<https://doi.org/10.1145/3448696.3448714>
- OECD. (2023). *Estonia joins the OECD Development Assistance Committee (DAC)—OECD*.
<https://www.oecd.org/newsroom/estonia-joins-the-oecd-development-assistance-committee-dac.htm>
- Ojo, T. (2016). Global agenda and ICT4D in Africa: Constraints of localizing ‘universal norm’. *Telecommunications Policy*, 40(7), 704–713. <https://doi.org/10.1016/j.telpol.2016.05.002>

- Okano-Heijmans, M., & Vosse, W. (2021). Promoting open and inclusive connectivity: The case for digital development cooperation. *Research in Globalization*, 3, 100061.
<https://doi.org/10.1016/j.resglo.2021.100061>
- O'Mahoney, J., O'Mahoney, H., & Al-Amoudi, I. (2017). How can the loggerhead sea-turtle survive? Exploring the journeys of the *Caretta caretta* using ANT and critical realism. *Organization*, 24(6), 781–799. <https://doi.org/10.1177/1350508416672738>
- Ondiek, J. O. (2020). *Digitalisation And Implementation Of Supranational Policy Programmes In Kenya: A Case Study Of Sustainable Development Goals (Sdgs)*. [Thesis, University of Nairobi].
<http://erepository.uonbi.ac.ke/handle/11295/154126>
- Onyango, G., & Ondiek, J. O. (2021). Digitalization and Integration of Sustainable Development Goals (SGDs) in Public Organizations in Kenya. *Public Organization Review*, 21(3), 511–526.
<https://doi.org/10.1007/s11115-020-00504-2>
- Qureshi, S. (2019). Perspectives on development: Why does studying information and communication technology for development (ICT4D) matter? *Information Technology for Development*, 25(3), 381–389. <https://doi.org/10.1080/02681102.2019.1658478>
- Qureshi, S. (2022). Digital transformation at the margins: A battle for the soul of self-sovereignty. *Information Technology for Development*, 28(2), 215–229.
<https://doi.org/10.1080/02681102.2022.2062291>
- Ran, B., & Qi, H. (2018). *Contingencies of Power Sharing in Collaborative Governance*.
https://journals.sagepub.com/doi/full/10.1177/0275074017745355?casa_token=yeqTAczdQbAAA%3AzJC9P2JcLyeSMwRNPfPDE1dtbnd9Gaa6AeEZ6YAFsJtQWqrbOLt0wig6iq8K_rbD1R2qD5S7cpCWTw
- Robinson, H., & Hardy, A. (2021). Estonia: From the “Bronze Night” to cybersecurity pioneers. In *Routledge Companion to Global Cyber-Security Strategy* (pp. 211–225).
- Rothe, F.-F., Van Audenhove, L., & Loisen, J. (2023). Digital development, inequalities & the Sustainable Development Goals: What does ‘Leave No-One Behind’ mean for ICT4D? *Information Technology for Development*, 29(1), 9–26.
<https://doi.org/10.1080/02681102.2022.2076640>
- Sahay, S., & Mukherjee, A. (2017). Self-Reinforcing Linkages Between Value and Local Ownership: Rethinking Sustainability of ICT4D Project. In J. Choudrie, M. S. Islam, F. Wahid, J. M. Bass,

- & J. E. Priyatma (Eds.), *Information and Communication Technologies for Development* (Vol. 504, pp. 487–497). Springer International Publishing. https://doi.org/10.1007/978-3-319-59111-7_40
- Schelenz, L., & Pawelec, M. (2022). Information and Communication Technologies for Development (ICT4D) critique. *Information Technology for Development*, 28(1), 165–188. <https://doi.org/10.1080/02681102.2021.1937473>
- Schia, N. N. (2018). The cyber frontier and digital pitfalls in the Global South. *Third World Quarterly*, 39(5), 821–837. <https://doi.org/10.1080/01436597.2017.1408403>
- S.Lewis-Beck, M., Bryman, A., & Liao, T. F. (2004). *The SAGE Encyclopedia of Social Science Research Methods*. Sage Publications, Inc. <https://doi.org/10.4135/9781412950589>
- Smith, S., & Lie, R. (2022). Designing ICTs for development. A Delphi study on problem framing, approach, and team composition. *Information Technology for Development*, 0(0), 1–33. <https://doi.org/10.1080/02681102.2022.2128286>
- Steyn, J., & van Greunen, D. (2015). *ICTs for Inclusive Communities in Developing Societies*. Cambridge Scholars Publishers.
- Sumner, A., & Tribe, M. (2008). *International Development Studies: Theories and Methods in Research and Practice*. <https://doi.org/10.4135/9781446279397>
- Thomas, M. A., Li, Y., Sistenich, V., Diango, K. N., & Kabongo, D. (2023). A multi-stakeholder engagement framework for knowledge management in ICT4D. *Journal of the Association for Information Science and Technology*, 74(12), 1384–1400. <https://doi.org/10.1002/asi.24703>
- Torfig, J., Peters, G., Pierre, J., & Sørensen, E. (2012). *Interactive governance: Advancing the paradigm*. Oxford University Press, USA. https://books.google.com/books?hl=en&lr=&id=mgLIheNnyX8C&oi=fnd&pg=PP1&dq=info:7y_KiNHcMnwJ:scholar.google.com&ots=3_ZyPp-Ybb&sig=w74SSbxTis4P75aoa90qVeFYepI
- Torfig, J., Sørensen, E., & Røiseland, A. (2019). Transforming the Public Sector Into an Arena for Co-Creation: Barriers, Drivers, Benefits, and Ways Forward. *Administration & Society*, 51(5), 795–825. <https://doi.org/10.1177/0095399716680057>
- Vincent, S., & Wapshott, R. (2014). Critical Realism and the Organizational Case Study: A Guide to Discovering Institutional Mechanisms. *Studying Organizations Using Critical Realism: A Practical Guide*. <https://eprints.ncl.ac.uk>

- Walsham, G. (2020). South-South and triangular cooperation in ICT4D. *THE ELECTRONIC JOURNAL OF INFORMATION SYSTEMS IN DEVELOPING COUNTRIES*, 86(4), e12130.
<https://doi.org/10.1002/isd2.12130>
- Wiltshire, G., & Ronkainen, N. (2021). A realist approach to thematic analysis: Making sense of qualitative data through experiential, inferential and dispositional themes. *Journal of Critical Realism*, 20(2), 159–180. <https://doi.org/10.1080/14767430.2021.1894909>
- Winkel, O. (2021). The digitally induced increase of wicked problems as a challenge for politics and public management. *Journal of Public Administration and Policy Research*, 13(1), 1–10.
<https://doi.org/10.5897/JPAPR2020.0467>
- Yin, R. (2017). *Case Study Research and Applications Design and Methods* (6th ed.). SAGE Publications, Inc.
- Yoo, S., & Song, Y. (2021). Role of Digital Technology in Achieving the Sustainable Development Goals: Focus on the Efforts of the International Community. *Journal of International Development Cooperation*, 16(2), 31–57. <https://doi.org/10.34225/jidc.2021.16.2.31>
- Zelenkov, Y., & Lashkevich, E. (2023). Does information and communication technology really affect human development? An empirical analysis. *Information Technology for Development*, 29(2–3), 329–347. <https://doi.org/10.1080/02681102.2022.2081116>
- Zheng, X., Sun, C., & Liu, J. (2024). Exploring stakeholder engagement in urban village renovation projects through a mixed-method approach to social network analysis: A case study of Tianjin. *Humanities and Social Sciences Communications*, 11(1). Scopus.
<https://doi.org/10.1057/s41599-023-02536-7>
- Zheng, Y., Hatakka, M., Sahay, S., & Andersson, A. (2018). Conceptualizing development in information and communication technology for development (ICT4D). *Information Technology for Development*, 24(1), 1–14. <https://doi.org/10.1080/02681102.2017.1396020>
- Zoccal, G. (2021). Triangular Cooperation: Enabling Policy Spaces. In S. Chaturvedi, H. Janus, S. Klingebiel, X. Li, A. de Mello e Souza, E. Sidiropoulos, & D. Wehrmann (Eds.), *The Palgrave Handbook of Development Cooperation for Achieving the 2030 Agenda: Contested Collaboration* (pp. 583–603). Springer International Publishing. https://doi.org/10.1007/978-3-030-57938-8_27
- Zoysa, M. R. D., & Letch, N. (2013). *ICT4D Project Sustainability: An ANT-based Analysis*.