

Human Rights Documentation by Civil Society – Technological Needs, Challenges, and Workflows

Perspectives from
Documenters,
Transitional Justice
Experts, and Tool
Developers.

November 2020



ABOUT THIS REPORT

The needs assessment detailed in this Report forms the first phase of a larger project undertaken by the Public International Law & Policy Group (PILPG) and is hereinafter referred to as the “Project”. The Project aims to assist civil society organizations in conducting human rights documentation by ensuring they have access to sustainable, tailored, and secure technological solutions that facilitate their documentation efforts for truth, justice, and accountability purposes. During this phase, PILPG, in partnership with The Engine Room and HURIDOCS, sought to discover the specific technology needs of civil society organizations in conducting human rights documentation. In the next phase of the Project, PILPG is partnering with The Engine Room and three civil society organizations that conduct human rights documentation. Based on the findings of this first phase needs assessment, and closer consideration of documentation partners’ needs and priorities, PILPG and its partners will work with a technology partner to co-develop a new technology or improve an existing one. Finally, this report would not have been possible without the extraordinary expertise of over one hundred participants. These dedicated professionals generously gave their time and energy and for that the report authors owe a debt of gratitude.

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EXECUTIVE SUMMARY

This Report sets out the findings of the needs assessment conducted by the Public International Law & Policy Group (PILPG), in partnership with The Engine Room and HURIDOCS, as part of the first phase of the Project which aims to assist civil society organizations in documenting human rights violations by ensuring they have access to sustainable, tailored, and secure technological solutions. The needs assessment gathers perspectives from civil society organizations conducting human rights documentation, established civil society organizations that both conduct human rights documentation as well as support other civil society organizations in the field, transitional justice experts, and tool developers.

Civil society organizations conducting human rights documentation identified resource constraints problematizing the establishment and maintenance of data management systems, limited technical capacity, including capacity to keep up with the latest technological developments in the field, and concerns with security and accessibility of solutions as core challenges. Consultations with established civil society organizations identified a number of needs including the importance of attunement to the operating context, engaging documenters in the design and development of technological solutions, and catering to variable data literacy levels. Transitional justice experts put forward three main considerations for civil society documenters, namely: the challenges related to meeting evidentiary standards throughout the data life cycle, managing large volumes of data, and security. Interviews with tool developers outlined challenges related to ensuring the continued relevance of solutions in a fast-paced landscape and an emerging trend towards developing interoperable discrete technology solutions.

The Report first outlines key findings of the needs assessment. The overarching observations relate to recognizing the diversity of documentation workflows and methodologies that may be effectively employed, promoting further understanding of documentation technology and related legal requirements, and pursuing further opportunities for dialogue on the subject-matter of this report.

The findings set out in this Report will inform the next phase of the Project, involving the co-development of a suitable technological solution for human rights documentation

INTRODUCTION

In many conflict-affected settings, civil society organizations are engaging in documentation of human rights violations. They are often in the best position to do this work because of their access to survivors, trust from impacted communities, contextual knowledge, and implicit long-term stake in the process. Supporting these organizations is critical in building a complete picture of human rights violations and their impact, connecting with affected populations, and creating a sustainable reach to as many people as possible. Frequently working in restricted and insecure environments, these organizations employ a range of documentation methodologies and conduct documentation for multiple purposes or ultimate uses. In many instances, they collect information with the aim of contributing to truth, justice, and accountability processes.

A range of technology tools are available to assist civil society organizations in conducting human rights documentation for transitional justice purposes. Each tool may facilitate one or more stages of the documentation process, from the collection of data, to its management and analysis, and finally to external transmission of data. However, in the absence of a comprehensive study to this effect, the extent to which currently available technology tools meet the needs of civil society organizations conducting human rights documentation remains unclear.

To help fill this information gap, the Public International Law & Policy Group (PILPG), in partnership with The Engine Room and HURIDOCS, engaged in a wide-ranging needs assessment with relevant stakeholders. In doing so, PILPG and its partners sought to discover the specific technology needs of civil society organizations in conducting human rights documentation for truth, justice, and accountability purposes. This enquiry involved consultations with a number of organizations conducting human rights documentation, spanning different contexts, workflow processes, and resource levels. Complementing information gathered directly from organizations conducting human rights documentation, PILPG and its partners extended this research enquiry to other stakeholders, including civil society organizations supporting human rights documentation, representatives from transitional justice mechanisms to whom civil society organizations often seek to transmit data that is collected, and other transitional justice experts. Crucially, PILPG and its partners also involved tool developers in this needs assessment, seeking to explore the ability of currently available solutions to meet the needs that surfaced. The results of this needs assessment are detailed in this Report, which first sets out key findings by research groups and then details findings, organized by categories of stakeholders consulted.

– CHAPTER 1 –

KEY FINDINGS

The following chapters of this report elaborate on the findings of each research enquiry conducted as part of the Project. While these findings are complex and nuanced, this chapter provides a brief summary of the key findings for each group of research participants consulted.

Key findings for civil society organizations documenting human rights violations:

Clear processes and documentation methodologies will assist in effective use of a tool: While technology may assist civil society documenters in certain tasks, the overall process of documentation still requires attention. Documenters may benefit from outlining an overall methodology and process into which tools can be integrated. This can continue to be refined as tools are further integrated into workflows, in order to ensure that data collected serves the goals of the organization and retains evidentiary value in a court of law. Technology alone cannot adequately grapple with questions such as governance, to what extent information is verified and how, and who handles information, how, and with what oversight.

Clearly defined and prioritized goals in documentation are crucial for receiving support from other stakeholders: Documentation support intermediaries and developers are best positioned to support civil society organizations in creating and finding appropriate tools when civil society organizations are able to clearly identify the objectives of their documentation work. Developers and intermediaries can then work with civil society organizations to identify the appropriate means by which to accomplish the end goals of their documentation work.

Documentation requires a combination of different tools and an ongoing understanding of the technology landscape: Organizations consulted in this research reported adopting a combination of tools to fit their goals and workflows, despite frustrations around interoperability and the challenge of staying up to date with technology developments. Tool developers expressed awareness of this frustration and some have already begun working to improve interoperability and flexibility. Given that offerings in the tool environment will likely change fairly fast in the coming years, civil society organizations would benefit from exploring lightweight ways to keep their understanding of available options as up to date as possible.

Key findings for transitional justice mechanisms and practitioners:

Understanding of evidentiary standards among stakeholders could be improved: Information on evidentiary standards at transitional justice mechanisms is inaccessible to many civil society organizations documenting human rights violations, especially those not already transmitting information to transitional justice mechanisms. Transitional justice mechanisms may continue to refine their modes of engagement with these organizations on evidentiary

requirements, so as to inform the development and refinement of documentation methodologies. More dialogue between transitional justice mechanisms, tool developers, and other intermediaries on evidentiary standards may also contribute to more effective coordination with documenters.

Technological implications of evidentiary standards could be better clarified: Civil society organizations and tool developers alike expressed significant confusion as to how particular features of a technology tool may impact the evidentiary value of data that is handled through that tool. Greater clarity on what particular evidentiary standards require of civil society documentation processes, governance, and tools may assist civil society and tool developers in their contributions to truth, justice, and accountability.

Technological expertise and capacity of transitional justice mechanisms may require enhancement: Depending on the transitional justice mechanism, clarifying the technological implications of evidentiary standards may require the dedication of greater resources to enhancing technological expertise at these mechanisms. Relatedly, transitional justice experts revealed various challenges arising from the limited capacity of transitional justice mechanisms to cope with large volumes of data, suggesting a corresponding need for enhanced technological and data capacity at these mechanisms.

Understanding of documentation technology among transitional justice experts could be improved: Like other stakeholders, transitional justice experts may benefit from developing a comprehensive understanding of the documentation technology landscape, including the features, capabilities, and limitations of technology that is currently available to facilitate effective dialogue with other stakeholders in accountability.

Key findings for tool developers:

Documenters have no “one” need that technology can solve: Collectively, the research enquiries revealed that there is no “correct” or “best” technology solution or methodology for conducting human rights documentation. The documenters consulted cited a diverse set of needs, which they hoped could be met through documentation technology tools. They also prioritized these needs differently. Documentation technology tools that are appropriate to one documenter’s purposes and methods may not be well-suited for another. The context in which a documenter operates is crucial in this regard, with factors such as documentation goals, availability of financial and human resources, level and type of security threats faced, languages of operation, and so on, informing the suitability of any technology tool utilized.

Continuing efforts to respond to identified needs and realities of documenters may increase usefulness of tools: While there is no “one” need of all documenters, and tool developers consulted in this research devoted considerable resources to understanding the variety of needs, there continues to be a gap between documenter needs and the tools available to them. Given the diversity of these needs, the research in this report highlights the importance of continuing to create and iterate tools in close consultation with documenters themselves.

As documentation workflows increasingly rely on multiple tools, there are opportunities for increased interoperability between tools: The sunsetting of tools aspiring to conduct functions at every stage of a documentation workflow, and the rising trend toward exploring and implementing tool interoperability, suggests that tool developers are increasingly designing tools to respond to a more limited set of needs within a broader workflow that could incorporate other tools. Creating space for further discussion among tool developers on current plans and to discover new possibilities may be beneficial for the growth of a responsive and sustainable ecosystem.

– CHAPTER 2 –

INSIGHTS FROM CIVIL SOCIETY ORGANIZATIONS CONDUCTING HUMAN RIGHTS DOCUMENTATION

INTRODUCTION

Background and Purpose

In order to understand how technology can better serve the needs of civil society organizations documenting human rights violations, it is crucial to get a deeper, and up-to-date, understanding of what these needs actually are. What technologies are documenters currently using, and how do they make decisions around the tools they adopt? What works well, and what could work better? What aspects of identifying and using new technologies present challenges? What would documenters like to be able to do? With these and other questions in mind, The Engine Room led research aiming to talk to a wide range of organizations directly involved in human rights documentation work in different contexts around the world. The research aimed to surface common challenges and needs as an important first step towards understanding what might help to mitigate those challenges and better meet those needs.

Research Methodology

For this research, The Engine Room interviewed 22 civil society organizations working across different areas of human rights violations documentation. These organizations focused on, and were spread across, different regions, including Africa, East Asia, Eastern Europe, Latin America, the Middle East and Southeast Asia. Most interviews were conducted in English, with a small number conducted in Spanish and Arabic. The annual budgets of these organizations ranged from less than 10,000 USD to over 1 million USD, with staff capacity varying from two full-time employees to more than 100 people spread out through different country offices.

The organizations interviewed had varying degrees of access to and use of digital technologies – from offices that relied mostly on physical archives (organized or not) or on an ad-hoc computer folder system, to groups using highly customized databases and advanced tools (e.g. GIS mapping). Alongside variations in systems used, the organizations interviewed also conducted documentation with different, often multiple, goals in mind, including advocacy, memorialization, and support of accountability mechanisms. In some cases, data collection and analysis was conducted primarily as part of, or to inform, victim/survivor support services, such as psychological or legal aid. Interview questions focused on documentation workflows and

challenges, particularly as these related to technology – from collecting data to managing, analyzing and sharing it.

Given the relatively small sample size, these findings cannot offer a fully comprehensive picture of the human rights documentation field; however, the range of the sample offers insight into the many ways in which human rights documentation is being practiced on the ground, as well as a number of the challenges these groups face in all phases of their work. A wide array of practices and challenges faced by documenters arose in the research process. The findings below highlight issues that came up repeatedly across different organizations, as well as specific issues related to evidence collection for accountability mechanisms.

SUMMARY OF FINDINGS

Interviews with civil society organizations documenting human rights violations surfaced a number of key challenges, the most significant relating to a lack of resources. Most of the organizations consulted were operating in contexts marked by scarcity of financial resources, staff time and capacity, and/or technical knowledge, and this had a significant impact on their selection and use of technology.

The organizations interviewed also primarily operated in challenging contexts – hostile environments, countries experiencing armed conflict or suffering under repressive state apparatuses and/or widespread criminal group activity – making their documentation work a risky endeavor. As such, physical and information security were cited as principal concerns. However, when working with technology tools, most organizations were uncertain how to best mitigate the digital risks they face.

In terms of the tools themselves, challenges clustered around two areas: i) a need for improved or enhanced functionality, and ii) a need for stronger internal methodologies and processes. Some frequent functionality wishes revolved around language and connectivity, and more options and flexibility when it comes to tagging, exporting, and analysis. In terms of needs related to methodology and process, the research reveals that, though digital tools can help organizations organize and analyze large amounts of information, they also add complexity and require a shared methodology in order to be effective.

Finally, this space is marked by diversity – of needs, of organizational purpose, and of tools themselves. The research indicates that most organizations used a combination of tools, rather than just one all-encompassing system. While this enabled them to expand what they were able to do, it also posed challenges around interoperability. The organizations consulted also had distinct visions of how they fit within the documentation and transitional justice landscape, and though

many were concerned with verifying the evidence they collected, most did not see their role as creators of court-ready evidence, but rather as providing groundwork for investigators to build on.

FINDINGS

Resource Constraints

Systems are contingent on resources, which tend to be limited

Most of the organizations interviewed were operating in contexts marked by scarcity of financial resources, staff time and capacity, and/or technical knowledge. Each of these kinds of scarcity can have a marked impact on an organization's ability to select, use and maintain documentation tools.

The affordability of a tool can eclipse other considerations relevant to a human rights context. Cost may often become the key determining factor in choosing a tool. As one interviewee said, "Tools are expensive, and you need multiple licenses. For a low resource organization, it's impossible to spend so much money on software." Another said: "Tools need to be as accessible as possible to local communities that might not have access to funding/resources."

Organizations also reported difficulty in accurately weighing up the security tradeoffs they might be making by selecting certain tools. As one interviewee said, "Google Docs works for us because it is easy to use and it's free. We continue to use Google Drive because we have no way to pay for another mechanism. There could be [security] issues we are not aware of, but so far things are ok. Problems came more from user non-familiarity [with the tool] than from safety."

Availability of funding is also particularly relevant to decisions around storage and digitization. Some organizations reported struggling with the **digitization of files** due to a lack of funds to acquire proper tools, or a lack of staff time. As relayed by one interviewee who works mainly with legal documentation: "We don't have the proper materials or work tools. The [physical] files [from cases] have many pages and we can spend a whole day taking photos of each case. We have no resources to do otherwise, because scanners are very expensive."

The question of how to secure funding, especially ongoing funding, for **storing both physical and digital archives** was flagged by a number of organizations as being a relevant issue. Organizations also noted the importance of these decisions in terms of their security ramifications – the secure storage of sensitive information that hostile actors would like to acquire can be costly in terms of both financial and human resources.

The question of storage is especially important for documenters collecting witness accounts of human rights violations through video-recorded interviews, which are normally lengthy,

resulting in large files. Interviews are usually also transcribed and their notes digitized, meaning a number of files can be generated by, and attached to, each testimony. Alternatively, some organizations working with large files, such as those created by audio/video recordings, reported having to convert the original files/recordings into smaller and lighter formats, in order to save storage space and therefore cost. An important concern here, raised by a number of organizations, had to do with the integrity of audio and video files that had been converted to smaller sizes. One concern was that this could render files unusable for the organization's own documentation workflows, for example, through file corruption; another was that it might damage their evidentiary value for court procedures and accountability mechanisms in general.

Resource scarcity impacts multiple aspects of an organization's data management system(s). Even when organizations had tools in place to collect and digitize information, they often lacked the financial and human resources to establish systematic methodologies (be that for digital *or* physical archives) for data organization and management. The absence of basic data management systems was, among all interviewees, due to scarcity of resources – that is, funds to cover hardware, software or server costs, to employ staff dedicated exclusively to knowledge management, to train staff on shared data management practices and methodology, and so on. As an example, one organization we interviewed kept years of sensitive physical archives that had yet to be organized.

The effects of scarce financial resources become more accentuated given the high staff turnover present in many of the organizations consulted – for those without established methodologies, any ad hoc processes that *were* eventually developed tended to disappear when key staff exited the organization.

Staff turnover is a significant challenge to an organization's technological capacity. This happens for a variety of reasons, but the research indicates that a lack of resources to maintain staff who had become proficient in the organization's tools and systems, combined with a lack of resources for staff training, contributed greatly to gaps in an organization's overall technological capacity. As one interviewee put it: “Turnover is a problem. People might tag things inaccurately, and that harms the data. We put out a publication every two years, which makes us review everything and keep track of all the information. When a person [that is, a member of staff] is getting into it, it works. But sometimes [staff members] leave once they are already good at coding, so we have to retrain someone else.”

Some organizations mentioned the importance of ongoing capacity-building efforts, and frequent trainings, in order to overcome the challenges raised by high staff turnover. Another strategy, as described by one interviewee, was to make sure their documentation methodology was constantly updated, with the team having open and active discussions on, for example, how data

should be entered into the management system. For them, this meant revisiting the research tags and updating their databases accordingly.

Staff technical capacity and intuition¹ across the team was another frequently-mentioned limiting factor in selecting, setting up, and effectively using and maintaining systems. Interviewees said that challenges around choosing tools were compounded by an insufficient understanding of the technology landscape, as well as a lack of the resources needed to keep track of technological changes. It is noteworthy that, in most of the organizations interviewed, individual members of staff were often working in multiple roles, which limited the time they had available to dedicate to these issues. This was mitigated to some extent by the establishment of relationships with external technology consultants and tool providers such as Benetech, HURIDOCS, and WITNESS, who could support technical processes and needs.

Even the organizations with the most robust technical structures usually had only one person on their staff, or at most two, dedicated to technical and technology-related issues. Those organizations that did not have dedicated in-house technology staff relied, for the most part, on the members of their team with higher levels of technical intuition; in some cases, they also resorted to pro-bono ad hoc external support. “We don’t have much IT staff, resources are insufficient to create a good workflow,” said one interviewee. “The office technology team is not very well equipped, lacks proper training, and doesn’t have access to materials or equipment. It is hard to deal [with this], they deal with sensitive things, but have a hard time due to the limitations.”

Security and Risk Mitigation

Documenters understand the importance of security, but see few accessible risk mitigation strategies

Data collection, storage and sharing within the contexts these organizations work in – hostile environments, armed conflict, countries under repressive state apparatuses, and/or widespread criminal group activity – is a risky endeavor. As such, physical and information security were cited as principal concerns throughout all stages of documentation work, from collection to storage to sharing, in both analog and digital contexts. However, when working with tech tools, most organizations consulted were uncertain how to mitigate the digital risks they face.

Organizations have a deep appreciation for what is at stake in matters of security. Most documenters interviewed deal with highly sensitive information, the collection of which – if accessed by an unwanted party such as an individual perpetrator or a repressive regime – they know could have disturbing repercussions. “When you store information about different war

¹ By ‘technical intuition,’ we mean comfort and familiarity with technology basics, such that individuals can ask questions and consider possibilities presented by technology. We do not strictly refer to technical skills. For more, see: <https://medium.com/@alixtrot/technical-intuition-instincts-in-a-digital-world-a6bfda669a91>.

crimes, you are in constant risk of such information being disclosed. No matter what high protection you put in place, there is always a risk,” said one interviewee.

Many of the organizations consulted expressed concerns about the **risks that documenters face when collecting evidence and documenting violations in hostile environments**. In these contexts, data collection tools themselves can jeopardize the safety of documenters. Possessing cameras, audio recorders, notebooks and notepads in hostile environments could put documenters at risk of detention and repression. To mitigate this, a high number of documenters resort to their personal mobile phones as their main tool, since a phone is less single-purpose, and therefore less obvious, than a dedicated recording device, be it analog or digital. However, storing data such as photos on a mobile device still carries significant risks – interviewees relayed the need to be able to conceal the data they collect and store on their device, at least upon a first look, for situations such as being stopped by a hostile actor and having their device searched. Interviewees also expressed concern that their mobile phones might not be sufficiently secure for documentation work, and that in areas with poor internet access it could be difficult to ensure that data got transferred to their designated database.

Organizations consulted also reported **concerns about the safety of victims/survivors and witnesses whose testimonies they collect, store and share**. Worries about the safety of the data collected and concerns around potential hacking or manipulation were raised for all stages of the documentation process.

Compounding the risk is the fact that **the hostile actors seeking to get this information often have much more in the way of resources than the organizations seeking to protect it**. As put by one interviewee: “We are aware that the information we have is very interesting to governments and that we are under physical surveillance, by the government, by the intelligence agency. We try to make sure things are secure, but since the government is using [advanced] spyware, we know that if they want the information, they’ll probably be able to get it.”

These concerns impact both the documenters’ work and the willingness of victims/survivors and witnesses to share information in the first place. “[In our context] most perpetrators are from the military, so we are careful about sharing this information; there’s the potential of being sued, or even tortured. This is why many times, even when we know about a situation, we can’t document for fear of retaliation. Sometimes victims also refrain from sharing what they know for fear of retaliation,” said one interviewee.

To protect against attacks or hostile actors gaining access to information collected, some organizations keep their main raw data in hard drives in secure locations, or on computers with no internet access. Some also reported keeping files in two different secure locations, one based abroad or hosted by a cloud provider. Establishing secure locations for

information to be stored presents a challenge in itself, both in terms of physical offices – for instance, securing building space unaffiliated with the organization, purchasing password-protected computers – and cloud servers – for instance, identifying which country is the safest to host a server, in light of what the organization is collecting data on. Maintaining data in secure locations also presents challenges to organizing and sharing the information. “We have data on the computer connected to the internet and on the computer not connected to the internet, so [there is an] inherent problem. [We] can’t integrate data. We want to create a customized database to be able to do some things in the same environment, which will allow for more data integration,” said one interviewee.

As for organizations that rely on fully cloud-based systems, one reported challenge was managing access across the team while making sure the data stored in these spaces was safe. “We have over 500 entries and it is challenging to keep track of what information is in each entry and the [access] permissions. We created extra steps to sharing, and it takes a lot of time. Even though it is important for security, it is time-consuming and we could be working on other things during that time,” said one interviewee.

In terms of sharing sensitive information, organizations have different strategies – some will only share information in person with trusted partners, including, in some cases, accountability mechanisms. This information-sharing could take the form of handing over a hard drive. Some share information via an encrypted email service like Protonmail. Other organizations, however, do not have a formalized process, defaulting to sharing information via email.

Most organizations interviewed, given their focus on advocacy, tended to share their data in aggregated form. These reports usually contained statistics of violations by country/region/city, broad trends and some testimony, often anonymized. Intended audiences for this advocacy work included civil society, the media, public actors and also transitional justice mechanisms and other United Nations bodies.

While interviewees held an understanding of the risks they face, a significant number had low awareness of safer practices they could adopt in their approach to tech tools. “Technology is far from us, we do not know a lot about security and hidden security issues. We cannot tell how secure the network we are using is, or the country [the server] is based in. We are not techy people and hiring a ‘tech expert’ is expensive,” said one interviewee. During the interviews, it was clear that many organizations are almost at an impasse when it comes to dealing with security concerns. While many organizations are aware of the multiple security risks they face, the combination of being resource-constrained, under-staffed and lacking technical capacity means that they have neither the tools nor the resources needed to mitigate security threats.

Resource and time constraints were cited as major barriers for organizations wanting to dedicate more time to organizational security. “We’ve had a couple of hacking attempts in the past. We don’t know how it happened [...] we are super interested in learning more about what we can do, but we don’t have the capacity to research all the latest trends of what [types of digital security threats] are happening to documenters,” said one interviewee.

One organization raised the fact that the compounded work of thinking about security and data management generated stress across the staff: “[One challenge is for the staff to be] managing security concerns and doing data management. [There is a] big concern about burnout.”

Ultimately, the design and implementation of documentation tools need to take into account the multiple facets of security challenges that exist – from the safety of documenters, victims/survivors and witnesses during the data collection process to the security of information once it has already been collected – together with an organization’s capacity to adopt safer technology practices.

Consent Processes

All documentation workflows incorporate consent processes in some form, even if consent is not always documented fully

In the research, organizations were asked about the ways they treated consent and privacy, given the sensitive nature of the information they hold. Each interviewee reported having a process in place, but these processes tended to be unique, shaped by specific contextual needs. Further investigation of the technology can help – or hinder – the process of gathering informed consent could be beneficial.

Informed consent is generally taken very seriously, and handled with care. All the organizations interviewed had processes in place to ensure that the data collected was protected and shared according to the wishes of those they had interviewed. Most interviewees said they used a paper or digital form to ensure consent was properly registered. A number of organizations, however, preferred collecting consent from interviewees only verbally, anonymizing all the data they collected to mitigate the risk of victims/survivors and witnesses experiencing retaliation in the case of a data breach, or a documenter being arrested and their documentation accessed.

One organization mentioned they were looking for safe tools to collect informed consent, which could be sent directly from people's personal phones into the organization’s data management system.

In terms of sharing information with transitional justice mechanisms, some organizations said that they have needed to reconsider consent given by a victim/survivor or witness in light of

changes in context, such as worsening conflict or changes in the political climate, between the time consent was given for sharing the data and the time they were actually considering sharing it. In some cases, this has meant deciding against sharing data with a mechanism even though the organization received consent at the time the data was collected, as the risks involved became significantly elevated in the interim.

Internal Practices and Methodologies

Successful adoption of documentation tools requires both appropriate technology and strong internal practices and methodologies

The volume of information organizations have, both digitized and on paper, represents a significant challenge in itself, as they need to manage and organize massive amounts of information in different formats. While digital tools can assist in this process, they also add complexity, can put strain upon already limited resources, and require shared methodologies to guide their use.

Organizations currently use a variety of systems to try and make sure their information is organized in a systematic and accessible way. Many resort to a combination of spreadsheets to organize and track cases, and quantify occurrences/incidents; and Word documents to detail specific events and describe relevant cases. “We use spreadsheets for analyzing information about cases, not to store the case itself, but more for statistical information that is not detailed. We want to see who is the main perpetrator, where it happened, etc. The details of the case are stored in an external folder, some on Word documents, some on Excel sheets,” said one interviewee. These systems present challenges, however; one issue reported by organizations working with Word documents, for example, was that they were not able to see, in a systematic way, the content of the documents they had stored unless they actually opened them.

Those organizations with more capacity and resources had databases in place specifically designed for the type of work they were doing – these included data management tools such as Uwazi, or custom databases developed specifically for their own workflows and needs.

Organizations commonly reported difficulties in maintaining consistency throughout the data management process. Across all these groups – whether they were using Word documents and spreadsheets, data management tools, or bespoke databases – consistency came up repeatedly as an issue.

This was in general due either to a lack of centralized methodology for documentation or, if a methodology existed, to not all staff following it to the letter. “Inconsistency in how data is handled is a problem for us. For example, every time a registry is done, there’s a different approach

taken. We are currently trying to develop a model, a more consistent methodology that everyone can follow,” said one interviewee.

Consistency was especially mentioned as a challenge for organizations that offer support services (for example legal assistance, mental health assistance, and so on). This can lead to an organization gathering data in uneven, non-centralized ways, depending on the purpose the information is being collected for, as well as staff capacity, and differences in tools used within the organization.

A number of organizations noted that a centralized methodology played an important part in helping them achieve their core documentation goals. As one interviewee put it, “We are looking into digital archiving, because we need a systematic way of managing this information and sharing information with people working on this, such as investigation teams. We want to prepare and preserve this information, so it can be better used by those working on justice mechanisms,” shared another interviewee. Consistency, shared methodologies and organizational schemas are not just a means to greater efficiency, but key to impactful documentation work as a whole.

Relatedly, a number of organizations mentioned **a need for and interest in receiving training on methodology and tools for documentation**. “We need more training. We need to use only a few tools and use them consistently. Right now our skills are unevenly shared,” said one interviewee. “I sometimes find that we have a lack of experience when it comes to analyzing information. We do need training to enable us to analyze data in the bigger picture,” shared another.

Tool Functionalities

Desired tool functionalities are shaped by both workflow and context

Interviewees reported a number of tool functionalities that they found lacking in the tools they were using. While some were related to the contexts in which they operate – language, technical capacity and connectivity needs – many stemmed from the nature of the work itself. Desired functionalities include more easily updatable entities, more flexible tagging, additional customization and analysis options, and more easily exportable data.

The issue of tool usability, especially when it comes to language, was flagged as a major problem for organizations using documentation tools. Most tools used by interviewees have English as their default language and tend to offer a limited number of other languages, which frequently do not include languages and dialects that are less widely spoken. It can also be the case that databases are altogether unable to recognize the alphabets certain languages are written in, forcing documenters to transliterate their documentation into, for example, a Latin script. This can take up large amounts of their time.

As put by one interviewee: “Language is a challenge when inputting information into the database. [The tool we used] allowed only for English, so when we got information, we tried to translate it all from [redacted language] into English. But local researchers would get information in local languages and translate to [redacted language]. Nowadays, Facebook and internet users use non-standard [redacted language] fonts which can be put into the tool, but this makes it difficult for us to find information in the database.”

This is especially burdensome for organizations who want to unify workflows and systems within a documentation network. In this context, one organization flagged the need for forms and database templates to be in local languages, “so people can input their information directly into the [central] system.”

Relatedly, organizations, especially those positioned as central nodes or hubs of broader human rights documentation networks, reported being interested in accessing tools’ technical documentation – that is, not just the tools themselves – in languages other than English. This kind of documentation could help them establish network-wide methodologies and tool use processes. These organizations flagged that most systems available for data management, and the documentation around them, operate in a limited number of languages, which in turn affects access for those populations who do not speak such languages. “English is not an accessible language at the local level. Ideally, a tool that has other languages as options would be amazing,” said one interviewee.

Organizations are looking for tools designed in ways that are accessible for a variety of technological capacities. Given the diversity of technical skills present on many teams, as well as, typically, a lack of dedicated technical staff, organizations expressed a need for tools that are easy to use for most people on their team.

Usability was also cited as a significant factor in choosing tools, alongside cost. In some cases, documenters incorporate popular apps that they are already using for other purposes, such as for more general communication, particularly when it comes to information collection and transmission. “Whatsapp is used a lot because it is what most people are using in the region. Often the reports come in chronological order of what happens, and sometimes include photos and videos,” noted one interviewee, continuing, however, by noting the challenges the app presents: “We struggle to keep the files altogether; we have a limitation with tech capacity internally. We focus on doing what works and tend to document the narrative more than the photos because of the platforms we are working with. But we are keen to explore other options.”

Other messaging apps mentioned in this context were Signal and Telegram, noted by interviewees as being more secure and privacy-protecting.

A significant number of documenters need tools that can work in low-connectivity environments. A number of documenters noted that they operate in contexts with very limited internet access, and that this affects their ability to transmit information collected in a timely manner. “Using the internet is a challenge in many areas, especially where the government and the military shut it down because of conflict,” said one interviewee.

At least two organizations cited SMS as being their most reliable form of communication in the space they collect evidence in; they hoped to find a tool that would be able to process or automatically upload information sent via SMS to a data management or storage platform.

Several organizations flagged updating information and adding new data to already registered cases as a challenge. If a database did not easily allow for this, it could be time-consuming; as one interviewee explained: “Our database is a living resource. The status [of the people registered there] keeps changing, so it’s not easy to keep it updated. Also, verification doesn’t happen only one time. For example, after an explosion, the number of deaths keep rising for a few days, so we keep checking and ensuring that all the names are included in the database. Sometimes family members contact us with updates on the cases, and then we update the database.”

Interviewees also noted a need for additional customization options and more flexibility in tagging. Multiple interviewees flagged the need for databases to have a more flexible categorization setup – that is, a tagging system that allows for one data entry to have multiple tags. Another interviewee said: “We find it hard to look at intersections of certain violations right now and that is something we would like to do. For example, one case may qualify both as ‘judicial harassment’ and as ‘violence’. When looking at the data, it is [currently] possible to tell the number of one or the other, but not when it happens simultaneously.” Talking about a tool, another organization mentioned: “It was pretty secure, and it was free, but difficult to customize. [The tool did not allow us] to import and export and analyze the data.”

Documenters would like to be better able to accompany the full trajectory of violations in a given context; as noted by one interviewee, one violation can often be an entry point to others, or is accompanied simultaneously by others. “The nature of violations means that multiple violations happen at the same time and we can’t currently analyze overlapping tags.” A more flexible data categorization setup would also support another need flagged by a number of organizations: being able to disaggregate information according to themes/tags.

Organizations also reported wanting tools that would facilitate and expedite analysis and exporting – tools that would enhance their ability to extract information for further analysis, such as data visualization features. Report writing and aggregating outputs were pointed to as

labor- and time-consuming activities. “I am certain that there are methods and technologies that we haven’t used that might help us do the analysis quicker. Some programs may be able to analyze information faster than we can,” said one interviewee. Another interviewee, talking about the database tool they were working with, said: “I would like to create something that lets the database be turned into a report easily.” Among the data analysis needs flagged by these organizations, the following were highlighted:

- **Tracking trends across time and place:** Most organizations either try to, or would like to be able to, perform this type of analysis, in order to identify patterns, establish narratives and map out the most affected groups/contexts (for example, increase of occurrence of X violation in X region by X perpetrator).
- **Identifying repeat perpetrators:** This was flagged as essential, especially for organizations documenting instances of impunity as well.
- **Cross-checking information from multiple sources:** This was highlighted as an important part of much documentation work, and something that technology could potentially support.

Relatedly, some organizations already using specific database tools were concerned with the limitations of these tools in terms of extracting data to share. One organization reported facing issues in extracting data in downloadable format from the tool they were using. Another interviewee faced problems when working through the public and private features of a database tool that offered both options.

Organizations using dedicated information management tools also reported struggles related to technical problems and glitches. As put by one interviewee using one such tool: “It feels like an unfinished project, there are lots of bugs here and there. It is not stable, they keep developing it, new issues keep occurring. Since we are self-hosted, our backend relies a lot on Github. It is hard to keep it running smoothly.”

Workflows

Documentation workflows tend to rely on a combination of formats and tools, not one all-encompassing system

Most interviewees reported using a diverse collection of tools, both analog and digital, to manage their data and documents. However, a challenge often arose due to this variety – the need for more interoperability between tools and/or the need for smoother data export processes.

Data collection and management setups commonly involve a combination of tools, including paper documents and physical archives, digital/digitized documents, Word documents and Excel spreadsheets, all hosted on external hard drives, computers or online servers. Tools designed specifically for human rights documentation and/or advanced databases for data

collection and management were used primarily in organizations with more resources and experience, and more advanced analysis goals.

Using an array of tools which did not integrate with one another made analysis more difficult, as their ability to extract the information they needed was hindered. Interviewees noted that they would manually find and cross-check information across platforms or databases, instead of using any built-in functionalities, to ensure they were capturing the full picture. As put by one interviewee, “We need to be able to import and merge information from different platforms to make [our outputs] coherent.” Another interviewee noted, “Our data collection is consistent, but our data analysis is not. The lack of a centralized platform keeps us from testing assumptions and checking our own methodology.”

Compounding these challenges is the fact that most organizations work with high volumes of data. “There is a huge amount of information; we aren’t able to analyze it in the best way possible,” said one interviewee.

Organizations that are part of a documentation network reported additional challenges in trying to unify data workflows and database systems between members. These challenges included factors like variations in the tools and methodologies used by different organizations in the network; more limited access to tools experienced by the grassroots organizations in the network, in comparison to the national or international-level organizations; and language barriers, for example, if a central database for network members was only available in English or another language not spoken at the local level. This often generated a double workload, especially where the local and grassroots organizations were doing the bulk of the documentation work. As put by one interviewee: “Sometimes partners need to do double work, using their own detailed documentation and then coding it again in our database.”

Relevance of Documentation Goals

Human rights documentation is often conducted with different goals in mind, which shape workflows more so than the requirements of transitional justice mechanisms

Most organizations consulted understand the role documentation data can play in pursuing accountability and justice, but view their role as providing a starting point for investigations, rather than as creators of court-ready evidence. Most conduct documentation with several goals in mind, with some citing evidence-building for transitional justice mechanisms as one of these goals. Advocacy is often a primary goal, with intended audiences including civil society, governments, international organizations and multilateral bodies. Documentation is also often done for memorialization purposes. Those organizations that do see their role as partially being in the space of creating evidence for accountability mechanisms stress the difficulty faced in both collecting and storing data in ways that maintain its evidentiary value.

Most organizations interviewed collect a combination of primary and secondary sources, often in support of multiple goals. The main primary sources cited were interviews with victims/survivors and witnesses, focus group sessions, observation missions/visits, and legal documents. Secondary sources collected included news articles, blog posts written by local organizations and activists, and social media content.

Secondary sources were usually used to back up and cross-check the information collected from primary sources, although a number of organizations worked solely with secondary sources due to high levels of risk in the context they were operating in and/or limited documentation capacity. **The long-term evidentiary value of social media posts was flagged by some of these organizations as being a source of worry,** mainly around the reliability of information collected from social media, as well as the possibility of content being removed.

Most organizations consulted view themselves as providing a *starting point* for investigations, not as contributors of information to be used directly by accountability mechanisms. Since there are specific requirements around collecting evidence, and stringent rules around evidentiary value, the organizations we interviewed understand their role as providing the information they do have, even if it is not ready to be presented as evidence in court, for commissions or investigative bodies to then take forward. Hence, many organizations consulted do not design their data collection methods with the specific evidence-gathering requirements of accountability mechanisms in mind.

For organizations that *do* hope to use their data as evidence for accountability mechanisms, a key challenge is making sure that all data collected retains its evidentiary value from collection to storage, archiving, and sharing. For some, the ability to collect information with greater evidentiary value had more to do with their internal capacities, such as in-house legal expertise or staff trained to collect evidence in a manner that is acceptable to transitional justice mechanisms, and the context in which they operated; than the documentation tools they were using.

Some interviewees expressed that they would like a tool that facilitates documentation under legal standards and requirements for individuals who do not necessarily have legal training – for example, a tool that has some legal requirements already embedded in the data collection. The Basic Investigative Standards for International Crimes (BIS) app, developed by Global Rights Compliance to provide information on minimum standards for the investigation of international crimes, was cited by one interviewee as being potentially useful for their work, as well as for some of their partners conducting documentation in a local context: “Non-legal people might appreciate the support of an app in the field.”

One organization, working in an active conflict context and relying on mostly untrained documenters to collect evidence on the ground, expressed a need for a tool that would allow them to capture images that automatically met standards required by accountability mechanisms: for example, through preserving metadata, not allowing edits, ensuring authenticity, and so on.

Another interviewee noted, “Our main challenge is secure storage – we haven’t figured out a way of preserving physical evidence. Like hard drives, how do you prove they haven’t been tampered with?”

– CHAPTER 3 –

INSIGHTS FROM ESTABLISHED CIVIL SOCIETY
ORGANIZATIONS CONDUCTING AND SUPPORTING HUMAN
RIGHTS DOCUMENTATION

INTRODUCTION

Background & Purpose

As part of the Project, HURIDOCS led research with established civil society organizations that either directly document human rights violations, or support other organizations in doing so, referred to collectively as “established documentation actors.” Through this research, lessons learned and good practices from established documentation actors will potentially impact the development of a new technological solution to support documentation efforts of human rights documentation actors in the next phase of the Project. Ultimately, it is hoped this research will contribute to strengthening accountability for serious human rights abuses and violations by supporting civil society documentation.

Research Methodology

The research was conducted following a plan of action which included qualitative and quantitative, direct and indirect observation methods. Qualitative methods relied on direct communication with established documentation actors via interviews and roundtables, whereas quantitative indirect methods used surveys to collect lean data.

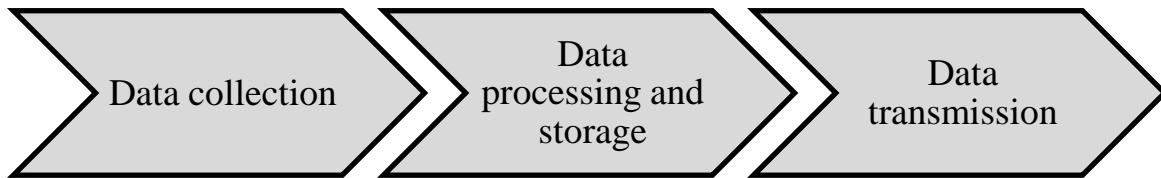
Research participants were selected according to their area and level of experience in the field of human rights documentation of violations. Thus, three profiles were targeted: (1) organizations with an effective documentation workflow; (2) established actors with significant experience documenting violations within a network of organizations; (3) intermediaries – individuals that support civil society documenters of human rights violations, but do not engage in documentation themselves. The organizations consulted conducted their work and were based in different regions, including South Asia, East Asia, Eastern Europe, Latin America, the Middle East, Southeast Asia, North America and Northern Africa.

Following the process of identification of established actors, HURIDOCS sent surveys to 36 organizations and conducted 14 one-on-one, in-depth interviews. Surveys were designed following the Lean Survey Canvas methodology, a useful methodology to quickly create short

surveys in a collaborative manner in order to efficiently obtain the information sought. The methodology focuses on describing targeted “users” and on identifying insights needed for validating hypotheses. This allowed the mining of lean quantitative data that served as a baseline for the in-depth interviews.

The themes that emerged from the surveys allowed for the configuration and structure of the interview scripts, which were accommodated and customized according to the specific profile of each interviewee’s organization. These scripts followed a concrete line of questioning. By doing so, HURIDOCS was able to delve into the most pressing issues regarding the stages of the data life cycle and workflow that documenters face. Participants were able to share insightful responses about the collection, processing, understanding, and use of the information they gather and how their technological management of this information impacts their workflow and contributes to the completion of the ultimate goal of their documentation efforts.

The research in this chapter is framed in accordance with the stages of the data life cycle:



In addition, HURIDOCS remotely conducted two roundtable discussions. The first roundtable included representatives from organizations with an effective workflow and organizations with extensive experience working within a network of documenters. This roundtable allowed for the consolidation of the pre-identified main challenge areas in the data life cycle and created a forum for organizations interested in sharing the technological solutions they employ to overcome relevant challenges. The second roundtable was held with intermediaries, and aimed at learning about their experiences and observations as external actors on challenges, lessons learned, and best practices of organizations around the globe. Advice for tool developers was also discussed during this session.

SUMMARY OF FINDINGS

HURIDOCS shared surveys with 36 organizations, conducted 14 one-on-one interviews, and organized two roundtable discussions on the technological challenges civil society documenters of human rights violations face, and possible solutions to address these challenges. Research participants were selected according to their level of experience in this field, and provided great insights on their workflows and the advantages and disadvantages of implementing technological solutions to documentation efforts.

Technology can contribute greatly to civil society documentation of human rights violations. However, the effective configuration and implementation of a tool into an organization's documentation workflow is likely to entail not only overcoming specific technological challenges, but also attunement to sociological, cultural and political circumstances in which that organization operates. Tools that can be widely used and adapted to different contexts have the ability to better support the work of documenters. Involving documenters in the design and development of technology solutions is a valuable method of ensuring tools are more attuned to their needs. The level of data literacy among documenters should be thoroughly assessed along with their capacity, in order to build a technological solution that will, realistically, adjust to and serve their degree of knowledge and specific needs. Organizations consulted also expressed the need for an easier way to determine, document, and share their documentation methodology, including the data life cycle and workflows. Developing these methodological processes would greatly improve the ability of organizations to effectively onboard new documenters.

FINDINGS

The research indicates that participants gather information for two main reasons: (i) case-building for accountability purposes; and (ii) advocacy. The research also reveals that documenters that were surveyed and interviewed followed one of these general workflows:

- Collecting information from primary sources, either themselves or via partners;
- Collecting information from secondary sources;
- Collecting and preserving information from primary and/or secondary sources, specifically for the purpose of accountability; and
- Utilizing information gathered through their work in providing direct services to victims/survivors to support advocacy efforts.

Surveys, interviews and roundtable discussions conducted in this research revealed that there are **three main cross-cutting challenge areas** that established documentation actors cope with on a regular basis. First, analyzing information to best support transitional justice efforts. Second, preserving information and verifying accuracy for future use as evidence. Third, protecting information and sources from potential threats.

The first challenge area concerns the manner in which documenters approach the **analysis of information**; the obstacles they encounter at a human, financial and technological level; and the specificity of purpose for data analysis. This section underscores the importance of having a direct connection between documentation goals and the analysis conducted, relating information in the system to capture and understand context, source, case progress, "who did what to whom." In this sense, the importance of having a proper and comprehensive methodology is highlighted. The section also includes a classification of types of analysis that organizations view as most relevant to their work.

The second challenge area, concerning **preservation and verification of information**, canvasses rapid diversification of sources, insufficient resources and training for organizations, and the difficulty in preserving the evidentiary value of information for transitional justice mechanisms. In a world where technology and information is moving faster than ever before, participants highlighted the importance of a tool that is able to rapidly adapt to changes over time while guaranteeing the veracity of the information when collected, and the preservation of its accuracy.

The third challenge area relates to the importance of **protecting information and sources**. This section of the chapter suggests some solutions implemented in the field by research participants and offers elements to take into consideration when developing a technological tool, especially in the data collection and transmission stages.

All three challenge areas are separately described and contain particular characteristics. Nevertheless, there are cross-cutting elements to the three such as organizational capacity, context, and cultural awareness.

Analyzing Information in Support of Transitional Justice

This section underscores the importance of having a direct relation between the analysis conducted and documentation goals. Often, this means relating information in the system to capture and understand context, source, case progress, and/or “who did what to whom.” This section explores the main goals of documenters when conducting documentation work, the types of analysis prioritized by documenters, and the gaps between the two. The section concludes by addressing the role of documentation methodologies in addressing these challenges.

Connecting Documentation Goals to Types of Analysis

Many research participants cited the importance of clarity around the goals and objectives of documentation work. These objectives determine what information is collected and how it is analyzed.

Identifying objectives of documentation work relates directly to the types of analysis that documentation tools can/should conduct, hence analysis of collected information should be informed by the specific documentation goal an organization is seeking to accomplish. If the work of a documenter centers around advocacy programs and campaigns, the level of analysis to be conducted is likely to include counts by gender or age, or mapping of events. On the other hand, if the goal of the documentation work is to build a case for litigation, more complex analytical features may be required.

Civil society organizations conducting human rights documentation face different circumstances, such that each organization’s workflow, needs, gaps and aspirations are distinct. Consultations with documenters reveal that organizations document a variety of human rights violations and conduct their analysis with different goals in mind. These goals include:

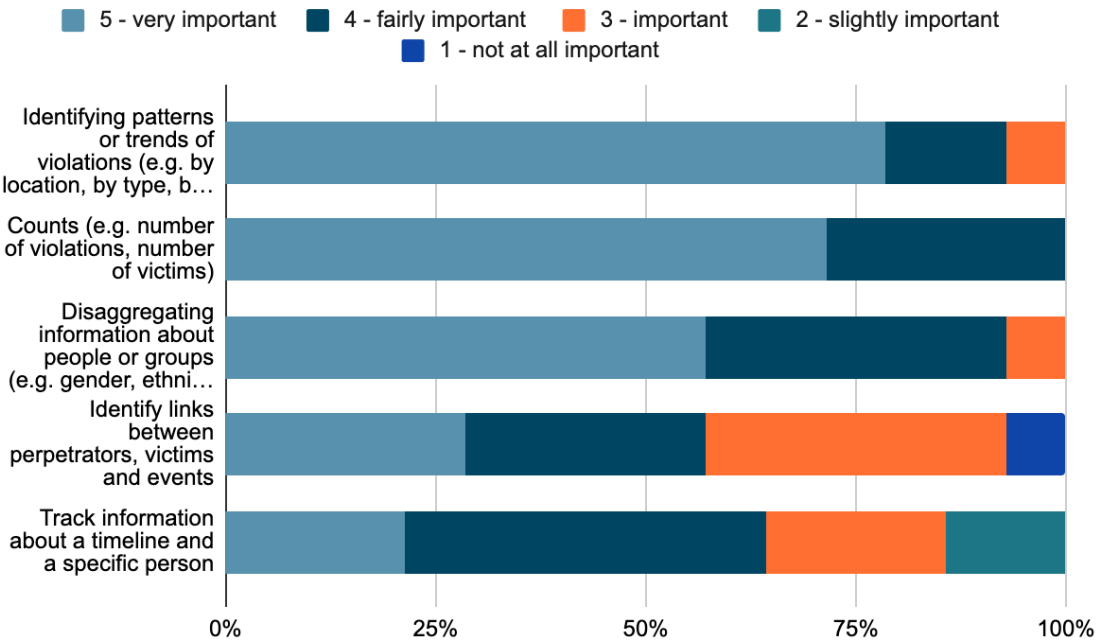
- Investigating and documenting evidence of human rights violations for justice and accountability processes
- Advocating for stronger human rights standards and implementation (e.g. policy, laws)
- Tracking and responding to complaints made to human rights institutions and advocacy organizations
- Assessing progress around the implementation of human rights-related policies
- Building a collective memory that support transitional justice and reconciliation
- Providing direct services to victims/survivors and families (e.g. psychosocial, legal)

Each of these goals requires different insights from the information, and therefore different types of analysis. From HURIDOCS’s experience working with documenters, the table below provides some examples of the different types of analysis organizations tend to use, based on the type of documentation goal they have:

Documentation Goal	Related Types of Analysis
Investigating and documenting evidence of human rights violations for justice and accountability processes	<ul style="list-style-type: none"> → Who was in command during a specific time at a specific location? → Of the victims of enforced disappearances, how many are related to a specific religion, ethnic group, and/or political party?
Advocating for stronger human rights standards and implementation (e.g. policy, laws)	<ul style="list-style-type: none"> → Patterns and trends of violations (e.g. who did what to whom?) → Patterns when comparing the official reason for arrest versus the crime a HRD is charged with
Tracking and responding to complaints made to human rights institutions and advocacy organizations	<ul style="list-style-type: none"> → How has this incident impacted the complainant and their family? → What are the most common types of violations described in complaints?
Assessing progress around the implementation of human rights-related policies	<ul style="list-style-type: none"> → Has the government followed through with its human rights commitments? To what extent?
Building a collective memory that support transitional justice and	<ul style="list-style-type: none"> → What is the story of an individual person who was involved in a specific event?

reconciliation	→ What impact did this event have on a specific community?
Providing direct services to victims and families (e.g. psychosocial, legal)	<ul style="list-style-type: none"> → Is this client improving? → In what ways do our clients improve? → Which interventions work better than others?

These different documentation goals and analysis types are visible in the findings of this needs assessment. Based on HURIDOCS’s understanding of common analysis types used when documenting violations, 14 organizations were surveyed on how they would prioritize the following types of analysis:



*Source. Compilation based. These categories were established in house by the HURIDOCS team.

The survey results indicate diversity in analytical functions that documenters consider important to achieving their documentation goals, with identifying patterns and trends, being able to perform analysis on counts by numbers of violations, and the disaggregation of information forming the top three analysis types selected by participants. Tracking information appears as the fourth priority. Analysis to identify links between perpetrator and victims/survivors is last in this ranking of analysis types, as expressed by surveyed participants.

However, the research conducted with established documentation actors reveals a potential disconnect between the analytical functions a documentation tool is capable of performing, and

research participants' understanding of those analytical functions and consequently how they contribute to the fulfilment of their documentation goals.

During the survey phase, HURIDOCs asked organizations about the type of analysis that their current tool was able to perform and how these types helped them fulfill their documentation goals. Surprisingly, almost 55% of participants claimed to be “uncertain” about what types of analysis their current tool can perform. Yet the same organizations gave high scores when asked how important that “uncertain” type of analysis was for their organization. Thus, some documenters are using a tool that, properly explored and utilized, could offer more in-depth analysis of their findings. Instead, due to various factors, documenters may under-utilize these tools, for instance by using them simply as a data repository. One interviewee mentioned that “the tool does not define the workflow of our organization but if we knew how to use all the features, maybe the use of the tool would go beyond a repository.”

Consultations with research participants reveal three potential reasons for inconsistencies or gaps between established documentation actors' goals and the types of analysis they conduct:

- The **tool does not perform** this type of analysis, at least as far as the documenter is aware.
- The **methodology (or lack thereof) does not support** this kind of analysis because the necessary type, format, or quantity of information is not available.
- **Lack of capacity** to understand and implement the form of analysis sought by documenters.

The research detailed above indicates that documenters have a wide variety of analytical needs, based on the purpose of their documentation efforts, and documenters' level of clarity as to that purpose. Thus, needs vary not only from organization to organization, but also within the same organization over time. Whether one tool can address all of these analytical needs is unknown, but attempts to address the needs of documenters may be well-served through a consideration of documentation goals.

Specific Challenges Relating to Information Analysis

This section considers the specific challenges that documenters face when analyzing information, including: vast volumes of data, difficulty in organizing and understanding large and sometimes incomplete sets of data, lack of standardization and uniform understanding of data categories, difficulty in tracking progress and background information for case management purpose, and difficulties in contextualizing and linking information.

As mentioned by some research participants, in the spirit of covering all bases, **there is a tendency to collect everything without a clear direction on what this information could and**

would be used for. Participants felt a sense of responsibility in collecting deeply personal information, and decried their lack of clarity of purpose in collecting information.

As one participant put it: “Over the last six to seven years we have learnt a lot, where we started out was that we wanted to collect everything, but one problem with that was that we failed to consider that what we are collecting are fragments of people’s lives and we are responsible for how we use it. Key reason why it is important: we have seen with ourselves and others that people are not clear against which evidentiary standards they are collecting the data or information.”

In order to carry out their analysis, participants expressed the **need for a system to organize information.** But, as mentioned above, organizations struggle to ascertain what kind of analysis they need to meet their objectives, deciding which tool or feature of a tool is best suited for a certain type of analysis presents further challenge. Participants shared that an entry point to building this system could be for documenters to receive more training on tools and their features, and proper methodologies that they can resort to when needed.

The complex analysis that documenters often seek to perform requires a level of technical skill only acquired through time and experience. However, to overcome challenges with the analysis of data, some research participants found success through **applying a sound methodological protocol that provides step-by-step orientation to staff members (old and new) on how to approach the stages of the data life cycle.** One research participant shared their experience: “Our program seeks to strengthen the capacities of clinicians, police officers, judges how they gather and preserve forensic evidence for prosecutions. It is very important to have a methodology step by step for new staffers.”

Another challenge related to methodology is the question of **addressing incomplete datasets.** Often, documenters attempt to process datasets that are incomplete for a variety of reasons, for example, constraints on collection capacity in challenging environments and limited access to certain pieces of information. Therefore, analysis of incomplete data can be misleading and raise concerns as to reliability. One of the organizations interviewed noted: “Tracking the progress of a case with incomplete information is a huge challenge for us. First what do we do with the missing data? Police reports always don't have all the information complete. If we have half of the information. How representative is that? How can we be accurate about statistics?”

None of the organizations consulted had data scientists on their team, and hence they were concerned as to whether a tool could address the analysis/understanding of incomplete datasets. If the information documenters upload onto a tool is not complete, the analysis is very likely to be reliable only to a certain degree. For example, one of the most common types of analysis documenters are very interested in having incorporated as a feature is counts by age and gender. If the information that is uploaded onto the tool does not include age and gender, documenters

might not be able to conduct this type of analysis at all. Some participants expressed that they have faced this challenge when processing data from multiple victims and single or multiple perpetrators into their digital tool.

In addition, some interviewees told us that the **distinction between data categories is sometimes unclear**, directly affecting how staff members enter and analyze data. As one interviewee explained: “A lot of people inside the organization enter different data to the database and sometimes in different ways. We have a problem sometimes where the distinction between data categories is not very clear for the staff so the same incident with multiple victims sometimes is registered differently because a lot of people intervene in the registration phase.” Developing and implementing a methodology and training program that could cover many of the identified challenges was viewed as highly instrumental to effective human rights documentation by civil society organizations.

Several interviewees also mentioned the **need for case management functionalities**, supporting various forms of cases pursued. Specifically, interviewees wished to track the progress of cases, including tracking demographic factors and other information on relevant individuals such as survivors of human rights violations. Interviewees were not aware of any human rights documentation tools that adequately supported these functionalities.

Organizations that rely on secondary sources of data, such as newspaper articles and reports, cited a **relational database** that can enable them to place information in context, time frame and relate it to other sources as crucial to fulfilling their documentation efforts. For example, in cases of police violence, it is important for organizations to understand whether several crimes were committed by the same perpetrator to hold them accountable. The capacity to conduct trustworthy analysis and establish robust connections between pieces of data, relies partially on the verification of information, but also on the implementation of a well-structured methodology. For instance, if a secondary source piece of information is a police report, information might be incomplete, polluted or manipulated depending on the context. Therefore, verification of secondary sources of information may be a feature to explore in tool development. In this regard, one expert participant stated, “the systems should be able to proof the reliability of the data, so it can be used in court procedures.” Due to the preliminary nature of this suggestion, the feasibility and utility of such a feature would need to be fully explored.

Furthermore, organizations consulted noted that, due to limited staff capacity, they often resort to volunteer workers to alleviate the workload. Some of these organizations specifically involve victims/survivors and their families in data analysis, owing to their contextual knowledge stemming from direct experience. However, even with the potential benefits of first-hand understanding, organizations consulted recognized that a team of professionals is preferable in conducting analysis for accountability, not only due to technological and technical experience but

also due to the risk of re-traumatization of survivors and their families. These organizations cited funding shortages as the reason for having to supplement their workforce with volunteers, thereby impacting the quality of analysis and the fulfillment of its purpose. One interviewee noted, in this regard, that it is particularly relevant when working with volunteers to have a **proper methodology in place that establishes clear guidelines on handling information.**

A clear research methodology could support the work of documenters at all stages of the data life cycle by:

- Clarifying the documentation goal
- Guiding towards more efficient ways to collect and analyze information to meet specific evidentiary standards, where applicable
- Providing well-structured and searchable methods of record keeping
- Addressing incomplete data sets to mitigate reliability concerns
- Clarifying data categories to support counts and other analysis
- Designing meaningful relationships between information in the data structure
- Finding the most efficient way to manage cases and track their progress
- Building capacity within their staff, especially in cases of high turnover

Although research participants were generally eager to institute such documentation methodologies, the majority reported facing difficulties in designing a sound methodology or in its effective implementation.

Finally, some research participants with a strong advocacy focus expressed **frustration with traditional modes of illustrating information**, which can be ineffective and confusing. These participants considered that visualization carries incredible untapped potential as an analytical tool, although great visualization features often require a relatively high investment of time and resources. Participants expressed their openness to collaboratively explore alternatives in this area and to work towards building capacity on visualization skills within their teams.

Preserving Information and Verifying Accuracy for Future Use as Evidence

The research shed light on a number of challenges pertaining to verification and preservation of data, such as **rapid diversification of sources**, and **difficulty in preserving the evidentiary value of information for transitional justice mechanisms**. While most of these challenges might be addressed with concrete technological solutions, others can only be addressed through behavioral changes.

Data Collection

Documenters face many challenges related to data collection from primary and secondary sources. For instance, **groups who gather most of their information in the form of direct testimonies of victims of torture or other grave human rights violations, may not be able to get a completely accurate representation of what happened**, because of the effect on victims' memory. As one participant explained: "It is important to note that torture victims have been known to be very hard to get to know. It is because it can be a time-consuming process. Their trauma can prevent them from disclosing what happened and in some cases if you don't disclose what happened you may miss the statute of limitations or miss your window for the asylum process." Similarly, the background of the person gathering information, as well as the interview techniques they use, might directly affect the ways in which this information is recorded and then analyzed.

Organizations **collecting information either solely or significantly through secondary sources** identified a different set of challenges, only diversified through the ample variety of secondary sources that have proliferated over time. Innovative and complementary types of secondary sources have emerged, such as open source investigative techniques to buffer the more traditional interview-based techniques, satellite imagery, citizen journalism, information with short lifespan like Instagram and Facebook posts, and other social media content. "One of the areas that jumps at me – over the last 10 years at least in this context the types of sources have changed, before we have captured interview testimonies and now there is so much equivalent of citizen journalism: people observe what is happening and observe it on social media. There is greater diversity of secondary sources that have changed dramatically over the past year, tech has not been able to address this, to manage all this information including verifying it," said one roundtable participant.

Even though no concrete recommendation was made by research participants as to how a tool could address the verification challenge, a suggestion can be made that a tool should be able to record and preserve these various types of secondary sources in order to keep up with the rapid diversification and adapt to changes over time.

Data Processing and Storage

Interviews, testimonies, records, and other documentation collected by civil society organizations are valuable not just because they help to document a human rights violation to further a range of transitional justice purposes, but also specifically because they carry evidentiary value in accountability processes. However, if proper documentation methods and practices are not employed, this essential value can be lost. To avoid that eventuality, documenters may be well-advised to **consider the future use of information collected and ensure to the best of their ability that its evidentiary value is preserved in data processing and storage**.

Consultations with intermediaries supporting documenters highlighted the **importance of adherence to international legal standards in preserving information**. In particular, it was suggested that information intended for use in future legal proceedings should be properly archived to ensure that the sources that it came from are reliable and have been verified, that documents collected are original and the chain of custody is established, and that the methods with which it was preserved are known. During the roundtable with intermediaries, a participant noted: “I want to call attention to the importance of archiving; I am familiar with the minds of activists and human rights documenters and they are living in a present tense so they don’t want to archive for the future, they want to use info in the now. But proper archiving is vital for the future of the whole case.”

For **developing a documentation tool compatible with international standards**, intermediaries interviewed suggested that the documentation tool should be designed in a way that is compatible with international standard archival description, such as ISAD(G),² with special regard to designing the structure and content of database fields, and compatible with existing archival software to ensure that exporting and converting data sets is possible and easy between the systems. In other words, the backbone of the tool should be designed in a way that helps groups record their data in line with international standards. To allow this, tool developers would need to create metadata fields that are compatible with other tools that process information. Another issue that such a tool could address is data portability.

Whether such a tool could be a universal solution is unclear, and may depend on its adaptability to different contexts. Civil society organizations documenting human rights violations are diverse, not least because of the specific contexts they operate in, so it is an extremely complex task to build a tool that would suit everyone’s needs and goals. Unlike those organizations that aim to use collected documentation at international accountability mechanisms, some aim to address human rights violations on a local level, building a tool to specifically fit local documentation standards so that they can be accepted and processed by local law enforcement and justice institutions.

Intermediaries interviewed agreed that it is challenging to build a tool that will be able to address all the needs of different documenters, including verifying and preserving the accuracy of collected information. However, they expressed a strong belief that **tools can and should be designed to be widely useful and applicable to different situations**. One way to approach that is to understand what tools and services are already widely used by civil society documenters and to make them interoperable at a level that would make different stages of the documentation process easier and more efficient.

² International Council on Archives, *ISAD(G): General International Standard Archival Description – Second Edition* (2011), available at <https://www.ica.org/en/isadg-general-international-standard-archival-description-second-edition>.

Some organizations interviewed stated that they rely on a **hybrid model of case management to preserve information**. Having access to original hard copies of the documents as well as the digitized documents provides backup, ensures longevity and preservation of data.

Protecting Information and Sources from Potential Threats

Documenting human rights violations can introduce significant risks for all involved – survivors, witnesses, families, whistleblowers, lawyers and others. Organizations with information on violations are often vulnerable to office raids, cuts to electricity and internet, malware being installed on devices, surveillance, and other threats. Consequently, data security and the safety of the sources who provide information, has surfaced as a concern in all discussions with participants during this research.

Protection of Primary Sources

Protection of primary sources is of paramount importance to established documentation actors who operate in high risk environments. A person or community becomes a primary source of information by experiencing or witnessing a human rights violation. Documenters collect information from primary sources either in-person or remotely through a technology tool, such as email or WhatsApp. In both situations, participants shared concerns related to the security of the primary source. Documenters often go to great measures to make sure no information that can help identify a primary source becomes known to hostile actors. As one interviewee explained: “Protecting the sources of information and our team is of great importance, it has a very significant role to play, because if your information is not secure than another person’s family will become victimized, the lives of the people who are working with you will be at risk.”

Consultations with participants reflected the **strong necessity to incorporate and improve technological measures that guarantee anonymity** especially for people on the ground. Human rights documenters widely use encrypted messaging tools such as Protonmail, Tutanota Mail and Signal Messenger to protect themselves, the recipient, and the information they are sending/receiving. One of the interviewed organizations said that, “Encryption and anonymity mechanisms provide individuals and groups with a zone of privacy where they can communicate without arbitrary and unlawful interference or attacks.” However, ensuring anonymity and encryption of information, while vital for source and information protection, may not adequately fit an organization’s documentation workflow and/or may inhibit the future use of information before transitional justice mechanisms. Research participants were largely unaware of these tradeoffs that may arise.

Research participants suggested well-designed **onboarding programs and methodologies** on the technological solutions, tailored to meet specific contextual needs, may

contribute to the security of the sources. Although early identification of primary sources is a challenge because of the unpredictable nature of documenting violations, these onboarding processes can aim at training a whole at-risk community and invest in local partners' understanding of data collection security and safety of their on-ground informants. Thus, onboarding programs can become a risk management action. In addition, training programs for tools and security can contribute to positive capacity-building when designed properly.

Additionally, **information is collected in very different formats and through a variety of channels and tools.** Some established documentation actors indicated that they are developing tools that will facilitate the safe collection of data. These tools are being specifically designed to allow professionals to collect proof and securely store it in the cloud, so that information can be transferred and shared with transitional justice mechanisms thereafter.

Online vs. Offline Tools

The research revealed an ongoing conversation amongst established documentation actors about protection and security advantages and disadvantages of online versus offline tools. From unreliable internet access to power outages to surveillance, there are many reasons why documenters would like tools that can be used both online and/or offline.

Some research participants conveyed a fear that, if they were to operate “in the cloud”, the vulnerability of their data would be greater. Therefore, in order to protect data and sources, these organizations have chosen to collect data offline and to store it on local machines. Some organizations completely disconnect their computers from the internet and only extract information from their database systems in a static report format which has no association with the database.

Some interviewees expressed their awareness that this offline approach to information security has its own set of security challenges, but they ultimately felt more comfortable following this approach because they feel more “in control” of the information. One established documentation actor interviewed that had provided a database tool to a partner organization stated: “[The organization] needs to make sure nobody else accesses the information, it is one of the main reasons that the database is not online. Even after conversations with IT specialists, they came to the conclusion that having an online database did not mean full security thus they still have an offline database. They also realize that the local database is not completely safe, but they feel that if it is locally based then partners have a better chance of understanding security risks than if the information was online.”

Protecting Data Transmission

Research participants readily recognized that, with determination, hostile actors could breach any kind of “secure” system they implement. Following from this finding, it may be observed that it is crucial to offer organizations **strong mechanisms along with clear and transparent information about what the tool or technological solution can and cannot do in terms of security**. This includes being aware that not all technologies translate across contexts and that the nature of risks and challenges might modify over time and in different contexts. However, in the long term, it is recommended that **tool developers work with documenters to explore how to leverage the digital context to build stronger security mechanisms**. This task requires a deep and comprehensive understanding of the context, and local communities may have relevant insight into how to intensify digital security mechanisms and efforts.

Lastly, the **relevance of metadata** was mentioned in discussions with intermediaries. Intermediaries consulted agreed that developers should care for metadata in two senses. First, the metadata can make the system compatible with international evidentiary standards. Second, in interpersonal communication, sometimes the messages are encrypted but not the metadata, so hostile actors can access key information about the participants, because metadata is revealing information.

Despite the challenges that research participants highlighted in the area of protection and security, or perhaps as a result of encountering those challenges, **some technological solutions have been engineered**. The use of messaging apps like Signal and encrypted emails is a common practice amongst documenters when collecting and transmitting highly sensitive data, whereas it is advised to keep phone communications to a minimum. Participants also noted that, besides technological solutions like Two-Factor Authentication set up locally, obscuring information or apps on mobile devices, strong user roles/permissions, and strong passwords; other widely-implemented security measures include training handbooks, training in low technology methods, standardized operating procedures and protocols that introduce digital tool security, and vigilant monitoring of access to the system.

Additional Observations

In addition to the key findings on main challenge areas, a few further discoveries and reflections emerge from the research.

It is **rare for one organization on its own to complete the data life cycle**. Oftentimes, an organization or network will center its documentation efforts on a specific stage. This decision shapes the workflow of organizations, which directly impacts and affects the use and implementation of a technological solution. This point should be taken into consideration when

working closely on the development of a new tool. Do selected organizations need a tool that will facilitate the completion of the data life cycle, or are they more interested in co-designing a tool that will focus on a particular stage? Consultations with established documentation actors suggest that the answer to this question will be closely related to the clarity organizations have in regards to the ultimate use of their data and their expectations of a technology solution's features.

Participants also revealed that **there is an overall positive curiosity about Artificial Intelligence and Machine Learning tools, but these technologies raise concerns** about time investment when training a machine to learn. Consultations also stressed how allowing an algorithm to lead the way might represent a potential risk. For some, this type of technology is still a distant alternative. Two participants felt Artificial Intelligence and Machine Learning should constitute their next steps in order to amplify the completion of their documentation efforts. As shared by one participant: "Most of the civil society organizations collecting data are losing so much time in a) conducting interviews; b) transcribing interviews into text; c) entering data manually in the database. If the electronic file they are filling the text of the statement and certain specified data fields could be structured and formatted in a template that could be readable by Artificial Intelligence software and automatically transposed in the database that could save a lot of time spent on manually entering the same data in the database. Of course, that depends on the civil society organizations' various methodologies, but they should be encouraged to harmonize their methodologies in order to adapt them towards what technology could offer for them. There's an additional problem related to this, and that is the fact that most civil society organizations have already collected large amount of information and this information is stored in semi-structured or unstructured and not-readable electronic format, so there's also a challenge how to transform that data into a more approachable and reviewable source."

Organizations included in this research emphasized the **importance of knowledge sharing to upgrade their insights on successful technological solutions**. Even if their specific settings are different, organizations conducting human rights documentation often face similar challenges. There is considerable interest amongst participants to periodically hold knowledge exchange sessions about technology and other topics, where organizations would have the opportunity to converse with their peers and partners. Knowledge-sharing is perceived as a missing piece in order to build learning organizations and stimulate digital cultural exchange and innovation. It may also assist with reducing the loss of technical and technological know-how that participants reported.

Lastly, there is a global need to emphasize that documentation tools should be further attuned to the needs and circumstances of civil society documenters, whose ability and capacity to collect, process, and transmit information is integral to documentation efforts. This underscores the common assertion among participants as to the importance of local organizations and collaborators in utilizing technological solutions to seek justice and accountability.

– CHAPTER 4 –
INSIGHTS FROM TRANSITIONAL JUSTICE EXPERTS

INTRODUCTION

Background and Purpose

Transitional justice lies at the center of the Project, which aims to advance transitional justice efforts by supporting civil society documentation of human rights violations for truth, justice, and accountability purposes through technological innovation. The pursuit of the truth, justice, and accountability aims that characterize transitional justice may involve mechanisms such as truth commissions, reparations authorities, international investigation mechanisms, and international, hybrid, and domestic courts and tribunals. These transitional justice mechanisms are key end-users of civil society documentation of human rights violations. Thus, to enhance the ability of this documentation to effectively contribute to transitional justice efforts, it is crucial to understand the needs and requirements of transitional justice mechanisms in relation to the collection, processing, and transmission of information by civil society documenters of human rights violations.

As part of the needs assessment for the Project, PILPG led consultations with transitional justice experts. These consultations sought to develop an understanding of the manner in which technology tools used and workflows employed by civil society organizations to collect, process, and transmit information may impact the utility, acceptability, and admissibility of that information before transitional justice mechanisms. Insights gained through this research, and analyzed in this chapter, will help inform the process of technology development or refinement in the next phase of the Project. As a result, the technology solution reached will equip civil society organizations documenting human rights violations to more effectively contribute to truth, justice, and accountability efforts.

Research Methodology

The target participants for the research detailed in this chapter were transitional justice experts, including actors from transitional justice mechanisms with insights on receiving civil society documentation, legal scholars, legal practitioners, digital investigation experts, civil society organizations, and donor groups. Participants were selected for their ability to provide valuable insight on theoretical and practical obstacles to the utility, acceptability, and admissibility of civil society documentation before transitional justice mechanisms. To ensure a range of perspectives, participants with varied levels of knowledge and expertise on documentation

technology were consulted. The identification process involved consultations with partners and the use of snowball sampling to gain access to more transitional justice experts with relevant experience.

Following this identification process, PILPG conducted remote one-on-one interviews with 15 transitional justice experts, mainly actors from transitional justice mechanisms. These interviews provided in-depth insight into the policies and practices of a range of transitional justice mechanisms on the acceptance and use of human rights documentation from civil society sources, including a range of civil society organizations. The interviews also indicated how features of technology tools used by civil society organizations to document human rights violations may better align with these policies and practices.

In addition, PILPG remotely conducted a preliminary focus group, and two further focus groups. Participants in focus groups included transitional justice experts generally and also actors from transitional justice mechanisms. By including a range of transitional justice experts, the focus groups sought to elicit information on the interplay between the priorities and concerns of different transitional justice actors. The complementary perspectives of the varied participants enhanced discussions on pressing issues and challenges regarding civil society use of documentation technology for accountability, including the collection of digital evidence and use of open-source investigation tools, as well as technology needs related to information-sharing with transitional justice mechanisms.

SUMMARY OF FINDINGS

PILPG conducted 15 one-on-one interviews, a preliminary focus group, and two further focus groups with transitional justice experts to gather information on the challenges, risks, needs, and observations of transitional justice experts relating to the use of technology by civil society documenters. Consultations with transitional justice experts revealed that three main areas pose an obstacle to the effective use of civil society documentation of human rights violations for transitional justice purposes. First, the evidentiary requirements of transitional justice mechanisms may preclude human rights documentation collected by civil society actors from being admitted as evidence. Standards on informed consent and chain of custody are particularly relevant in this regard. Second, human rights documenters and transitional justice mechanisms face technological challenges in managing the sheer volume of data collected, produced, and involved in documentation and transitional justice processes. The third challenge of human and data security is pertinent at every stage of civil society documentation, including the transmission of information to transitional justice mechanisms and between civil society documenters. For each of these challenges, research participants raised a number of pertinent suggestions for the effective utilization of technology. Other considerations raised by research participants for the development of a documentation technology tool include the appropriate scope for a human rights

documentation tool, potential uses of civil society documentation, access to technology, and language capabilities.

FINDINGS

This section explores research findings in relation to each of the key challenges identified. For each challenge, the analysis discusses specific concerns noted by research participants in relation to each stage of the data life cycle—information and evidence collection; data processing, including intake, management, storage, and analysis; and communication and transmission to and between transitional justice actors—and their suggestions on technology tools and their utilization to mitigate that challenge.

Further, this section sets out other relevant considerations for the development of a documentation technology tool, as raised by research participants. These considerations include the appropriate scope for a human rights documentation tool, potential uses of civil society documentation, access to technology, and language capabilities.

Evidentiary Standards

While research participants acknowledged the difficult operational conditions and crucial work of civil society documenters, a number of them noted that **failure to meet evidentiary standards of transitional justice mechanisms frequently poses a challenge to the acceptability and admissibility of civil society documentation** before these mechanisms. In this regard, research participants identified methods of data collection and processing available to, and utilized by, some civil society documenters as potentially problematizing the legal viability of the information in question. While some transitional justice mechanisms do not admit civil society documentation as evidence at all, research participants from transitional justice mechanisms that do so noted that failure to meet evidentiary standards on informed consent, chain of custody, and authenticity formed a particularly strenuous challenge to admissibility of this information. Some also emphasized the inability of transitional justice mechanisms to admit documentation into evidence where there are doubts as to these critical evidentiary elements.

Research participants had **differing opinions on how to mitigate evidentiary challenges** relating to civil society documentation. Besides technological use, some research participants suggested that training in evidentiary standards could ease obstacles in civil society transmission of documentation. Other research participants, particularly those involved with criminal tribunals, expressed concern as to the potential for overburdening and dissuading civil society documenters by requiring that their efforts accord with rigorous evidentiary standards of transitional justice mechanisms. Some research participants also raised the importance of civil society documentation of human rights violations as a source of lead evidence, with investigation teams of transitional

justice mechanisms equipped to conduct documentation based on that lead evidence in a manner that accords with evidentiary standards at transitional justice mechanisms. A few research participants from criminal tribunals that do not currently admit civil society documentation acknowledged the potential for more criminal tribunals to do so in the future, due to ongoing consequences of the COVID-19 travel restrictions barring access to the field.

Data Collection

Many research participants expressed their personal inclination to trust information received from civil society documenters, but emphasized the need for rigorous scrutiny of evidence as part of legal due process. Research participants mentioned **reliability of information from an evidentiary standpoint** as a major concern, referencing opacity in handling of images up to the point of transmission to a transitional justice mechanism. In this advanced digital age of ever-improving technology, “deepfake” videos with fabricated content are becoming more prevalent. To deal with these sorts of challenges, several research participants spoke to the importance of capturing metadata, which could help to verify the authenticity of images or videos. A few research participants identified technologies such as Truepic which already perform this task. However, these research participants noted that the existing technologies capturing metadata that they were aware of were not designed specifically for human rights documentation. Furthermore, at least one research participant mentioned that training for civil society documenters on these topics could mitigate reliability issues. In this regard, the research participant noted that it is much easier for information from survivors and witnesses to reach an admissibility standard when these individuals are trained in non-intensive methods of improving reliability of evidence, including turning on a phone GPS and taking contextual notes to accompany photo or video.

Many research participants identified the **methodology employed for taking witness statements** as a major challenge to the evidentiary value of civil society documentation. Two major concerns repeatedly flagged by research participants in this regard include the lack of standardization across documentation efforts and entities, and lack of knowledge and training on evidentiary standards. Particular areas of concern raised by research participants include informed consent, chain of custody, framing of questions, uniformity of questions across interviewees, and potential re-traumatization of survivors and witnesses. For all transitional justice mechanisms represented, acute concerns were raised as to a lack of informed consent procedures for sharing information with third parties.

Several research participants were optimistic as to the ability of new technologies to address these major concerns on the reliability of information and procedures for collecting witness statements. Research participants commonly opined that technology design could address the lack of standardization and training implicated within these concerns. Research participants proposed simple, user-friendly documentation technology designed around evidentiary standards as a

method to assist civil society documenters. To this end, several research participants suggested incorporating legal training into the user-interface and experience of documentation technology for civil society users. For instance, some referenced a user-interface and design that would build the “muscle memory” of documenters by subtly nudging them to follow legal best practices at each step. A tool that guides documenters through information collection in accordance with evidentiary standards could achieve results without overburdening them. This could potentially facilitate high quality documentation of human rights violations by civil society organizations and individuals who have not received training from established documentation partners.

A number of research participants also suggested using new technologies to **enable survivors and witnesses to directly capture video and photo** of human rights violations and automatically upload this information to a secure, centralized location. Civil society organizations and transitional justice mechanisms, with growing need for remote documentation capabilities to circumvent travel restrictions and hostile state authorities, could then directly process and analyze the information. Research participants opined that this approach would remove intermediary steps from the process, with direct transfer allowing for heightened security for survivors and witnesses, and minimizing chain of custody concerns. Direct capture of violations would also preclude hearsay concerns that can pose a significant obstacle to admissibility for other forms of civil society information, as noted by some research participants.

Research participants indicated that **open source investigations**, defined as the process of identifying, collecting, and/or analyzing open source information as part of an investigative process, are useful for transitional justice mechanisms for information and corroboration purposes. A challenge lies in the fact that the authenticity of open-source evidence or information is often vulnerable to increased scrutiny since images and videos are increasingly easy to fabricate. Research participants identified detection software, such as Truepic, as mitigating these concerns. Research participants with particular expertise in open source investigations observed that transitional justice mechanisms are increasingly expecting open source materials with relevant metadata including hash values.

Data Processing and Storage

Chain of custody is a legal concept, referring to a sequential record of the individuals in custody or possession of information sought to be admitted as evidence.³ Chain of custody takes the entire data life cycle into account, from capture to eventual presentation in court. While chain of custody requirements differ by jurisdiction, ensuring that data stands up to the scrutiny of tribunals and courts with the strictest standards requires that documenters employ stringent

³ See International Criminal Tribunal for the Former Yugoslavia, *ICTY Manual on Developed Practices*, 28 (2009), available at https://www.icty.org/x/file/About/Reports%20and%20Publications/ICTY_Manual_on_Developed_Practices.pdf.

processes for data storage and analysis. Among research participants, the **management and storage of information by civil society documenters raised concerns as to chain of custody**, and consequently for the eventual use of that information as evidence by a transitional justice mechanism. Research participants highlighted the encryption of storage space as an important method for safeguarding the chain of custody. One research participant raised the concern that lack of encryption in storage or the use of cloud storage could potentially play a role in a transitional justice mechanism's determination that the chain of custody has been broken, although this outcome has yet to eventuate in practice.

Data Transmission

The research enquiry revealed that there is **no singular, standardized method for civil society documenters to transmit information on human rights violations to transitional justice mechanisms**. Rather, the method of transfer varies depending on the civil society documenter, the transitional justice mechanism, and the type of data involved. Generally, however, research participants reported that data is sent to transitional justice mechanisms via encrypted files, and civil society documenters and transitional justice mechanisms then utilize encrypted communication platforms, like Signal, to discuss amongst one another. Some research participants also noted the need for communication and data transfer between civil society organizations before transmission to transitional justice mechanisms. One participant noted the preservation of metadata during transmission as crucial for the admissibility of videos and images as evidence.

Managing Large Volumes of Data

The second primary challenge emerging from the research enquiry was the management of the **sheer volume of data produced** in relation to human rights violations and atrocity crimes. Research participants commonly noted the transition from traditional pen and paper-based methods to modern technology-based methods for data collection, with the rise in mobile technology allowing broader access to data collection methods, and thereby increasing the variety and amount of raw data produced that is relevant to transitional justice mechanisms. Another cross-cutting observation raised by research participants was the **related constraint on capacity**, with transitional justice actors increasingly unable to review all information received, even with large teams, and thereby potentially failing to disclose exculpatory evidence. Research participants discussed how this challenge arises throughout the data life cycle, and provided insight into technological features that may be of assistance. Research participants identified **lack of interoperability as a reoccurring disruption** in the data life cycle and the need for tools to “talk to each other” both intra-institutionally and inter-institutionally. The continued prevalence of Microsoft Office throughout the documentation process, both within transitional justice mechanisms and within civil society organizations, raised the need for interoperability with the Microsoft Office suite in particular.

Data Collection

Research participants noted that survivors and witnesses engaging in data collection would be better able to assist transitional justice mechanisms in the use of that data if the tool utilized had the **capability to ensure the collection of relevant metadata**, especially GPS. Research participants were also hopeful that the development of this type of technology would open opportunities for remote human rights documentation, an issue that arose in the context of international travel restrictions related to the COVID-19 pandemic. Some research participants referenced the organization *eyeWitness to atrocities*, which has already developed an application with these features. Several suggested that there may be opportunities to improve on this technology and to integrate it into a larger, more holistic, platform or process. Research participants often stressed that the design and function of the user-experience must prioritize survivors and witnesses. One research participant suggested that any technology available to civilians for direct human rights documentation should be simple to use, as individuals with varying levels of technological literacy would likely make use of the tool in personally traumatic circumstances.

Many research participants observed the challenge of **managing witness statements collected by various documenters**, especially where transitional justice mechanisms receive large volumes of paper files and are faced with the time cost in digitization. Research participants advocating for a holistic workflow approach to technology development indicated that bypassing the need for digitization through the use of technology tools at the time of collection could enhance efficiencies at a later date. However, others noted that the need to take a survivor-centric approach that recognizes some survivors' skepticism of technology.

Open source investigations contribute to the challenge of managing large amounts of data and information. Mitigating this challenge requires the collection of relevant metadata and the use of an organized and systematic method for collection. Research participants identified the Hunchly tool as an example of this technology utilized in the human rights documentation space, with the tool automatically saving all pages that investigators traverse as they browse open source platforms like social media. Technology tools such as these could be integrated into a more holistic tool.

Data Processing and Storage

Several research participants stressed the **need for transitional justice mechanisms to be able to canvass information received from a variety of civil society sources and subsequently store that information** in one location. Some research participants with experience in managing human rights documentation information noted that there is no standard method or technology for this process of canvassing and storing all available information. Some popular methods currently

in use include scanning physical documents into PDF form; saving online videos, images, and audio locally; and uploading computer notes to a centralized location.

One of the fundamental steps several research participants referenced in the context of data intake was the need to **make paper documents easier to digitize**. As mentioned, many research participants stressed that the sheer volume of information is a major challenge to address in the documentation space. Much of this volume takes the form of paper documents. This is especially pronounced when the commission of the alleged human rights violations or atrocity crimes predated the digital era. However, research participants noted that documenters of recent human rights violations and atrocities may provide transitional justice mechanisms with printed copies of documentation that requires digitization. In this regard, several research participants expressed that equipping civil society documenters with the technology to digitize large archives of paper documents for easier organization and transmission would improve their capacity and thereby facilitate the transmission of civil society documentation to transitional justice mechanisms.

Several research participants discussed the **potential for the implementation of machine learning techniques** at the intake stage to manage the large amounts of documentation data and prepare for subsequent analysis. Research participants highlighted optical character recognition (“OCR”) as highly useful and considered its implementation to be relatively straightforward. The use of this technology would enable transitional justice mechanisms to search and catalog names, places, dates, and other relevant data points. Similarly, automated transcription, or audio-to-text functionality, would convert video and audio files to searchable textual data. Moreover, research participants raised the potential for more advanced techniques to aid in data intake. These technologies include self-extraction of key data points from text to automate the population of fields and machine translation of extracted texts.

Some research participants identified **concerns as to working with tools using natural language processing** beyond the use of OCR. Natural language processing remains at an early stage for many languages spoken by persecuted populations, especially where the languages in question include multiple dialects and non-standard forms of speech. Participants recognized that tools utilizing natural language processing may hence be currently ill-equipped for processing data on human rights violations, and therefore other developments in human rights documentation tools may be more suitably prioritized. Moreover, some participants were concerned about the risk of algorithmic bias and replicating existing human biases with regard to the information that is gathered when developing and using this technology.

In relation to data storage, research participants observed that the **storage and analysis capabilities of a new technology should prioritize the following issues**: usage by civil society documenters, chain of custody, searchability, narrative-building capabilities, and customizability. Several research participants also suggested that any new technology should consider giving users

the option to store information locally or in the cloud, to cater to different data security assessments. Secure data storage is often prohibitively expensive and information as to the security offerings of specific services may not be widely accessible. One research participant disclosed that, in light of these challenges, inadequately-resourced civil society organizations conducting human rights documentation may seek out organizations with more advanced technologies that could store their data for them. Some research participants also suggested that archivists should play a central role in the development of a technology that seeks to store and manage data. This reveals an opportunity to build technology that would allow smaller, less-resourced civil society documenters to store and manage large amounts of data with the same ease as larger ones.

Data Transmission

There was **no consensus among research participants as to the preferred format of data transmitted to transitional justice mechanisms**. Research participants revealed that some transitional justice mechanisms prefer to receive raw, unprocessed data that investigators could use for corroboration purposes, whereas others prefer to receive pre-analyzed admissible evidence. One research participant highlighted the ability to select and transmit parts of the dataset as particularly useful. This would minimize the volume of data the transitional justice mechanism receives and processes.

Human and Data Security

The final cross-cutting challenge that emerged in the research enquiry was the protection of data and human actors in the documentation space. Research participants raised this issue throughout the data life cycle, expressing particular concern for survivors, witnesses, and documenters with videos, images, and notes of atrocities on their devices. Human security intersects with data security in the human rights documentation space, as breaches in data security can reveal the identities of documenters, as well as survivors and witnesses, and pose risks from hostile actors. In discussions on evidentiary standards, research participants observed that breaches in data security can also result in the chain of custody concerns highlighted above. Research participants regarded implementing high levels of security and ensuring the anonymity of survivors, witnesses, documenters, and other actors as necessary for any new documentation technology. Research participants also raised the possibility of integrating methods to hide videos and images on the devices of survivors, witnesses, and documenters to safeguard both data and human security if these devices were seized by an adverse party.

Data Collection

Many research participants raised human security concerns for survivors and witnesses engaging in the collection of information. Survivors and witnesses who are untrained in conducting documentation safely may be exposed to a high degree of risk through the use of documentation technology. Research participants observed that crises are not always easy to predict, preventing documentation training for laypersons. The risks posed are applicable in the moment of data collection and remain thereafter. There is a risk of increased danger if hostile actors discover that documenters have installed documentation applications on their devices. While this risk is applicable to all documenters, it is particularly heightened among untrained survivors and witnesses. As such, research participants indicated that those seeking to innovate in human rights documentation technology might consider building **direct collection capabilities** into a more holistic technology.

Research participants were **divided as to the best method for collecting witness statements in a safe manner**. Those prioritizing digital security considered pen and paper a safer method to limit the potential for cyberattacks and breaches of cybersecurity. Conversely, those more concerned as to the threats to human security arising from the possession of witness statements recommended documentation via a technological tool to limit exposure to this risk. One research participant noted the potential of using electronic pens that record and transmit writing to a secure, centralized cloud location.

Data Processing and Storage

Research participants raised human security concerns regarding the long-term storage of human rights violations and atrocity crime data. They noted that those storing data and those identifiable within text, audio, and video could be at risk in the future, even if there was no immediate risk. A number of research participants were particularly concerned regarding the use of cloud storage and the need for impenetrable servers. Some research participants cited the heightened levels of emotion and publicity surrounding transitional justice mechanisms as a reason for extra caution. For both evidentiary and security reasons, research participants regarded **secure management and storage of data as a cornerstone in the implementation of any technology for civil society documentation**.

Data Transmission

Most research participants highlighted the security risks of transmitting collected information, including especially potential security concerns arising from the identification of the documenter and particularly for individuals featured in videos. One research participant noted that some civil society documenters decline invitations to transmit evidentiary information due to human security threats associated with revealing their cooperation with a transitional justice mechanism. To mitigate this risk, some research participants suggested that technology tools used

by documenters include the capacity to blur identifying features. Others noted that transparent communication regarding the eventual use of data that is transmitted to transitional justice mechanisms could help allay the concerns of civil society documenters in transmitting this information.

For almost all research participants, the **encryption of messaging** was identified as one of the most important considerations for the transmission of information. The ability to encrypt messaging was perceived by research participants as crucial for both chain of custody and security reasons. Research participants opined that secure, encrypted messaging would allow for the tracking of communication as it changes hands as well as confidence that the data itself has not been altered. Encrypted messaging was also viewed by research participants as a feature that would make it harder for hostile actors to gain access to the data during an investigation or trial.

Additional Observations

Beyond the main challenges explored above, several research participants also raised additional observations for the development of human rights documentation technology for use by civil society documenters in the pursuit of transitional justice. These considerations include the scope of such a tool, potential uses of civil society documentation, remote documentation, access to technology, language barriers, and algorithmic bias.

Appropriate Scope of Documentation Technology

Each research participant, in some form or another, discussed the scope of a human rights documentation technology tool. Some felt that a tool should serve all of the stakeholders in the transitional justice process by facilitating the tasks of survivors and witnesses, civil society documenters, and transitional justice mechanisms. Others considered a technology seeking to serve all parties to be too ambitious and unwieldy. These research participants felt that resources and innovation might better be used to bolster one or two particularly weak links in the transitional justice process, such as communication between civil society documenters or data collection processes.

Many research participants spoke of a range of tools currently in use and the fact that technology already exists to facilitate the human rights documentation workflow and communication, referring to both proprietary commercial tools and those specific to the human rights context. There are several e-discovery, legal workflow, and data management tools for the storage and analysis of information that manage similar volumes of data in accordance with evidentiary standards of various jurisdictions. Moreover, there are also several encrypted communication applications for the transmission of sensitive information. While many technologies exist, the enquiry revealed that no single unified tool exists to cater to all of the needs

of human rights documentation actors, and that many of the available tools are not financially accessible to civil society documenters. Some research participants also highlighted that civil society documenters have different needs from actors in other legal contexts who also work with large volumes of data, and hence opined that there is a need for a tool specifically oriented towards human rights documentation, as opposed to a generic tool for data management.

Uses of Civil Society Documentation

Some research participants stressed the range of transitional justice options available to civil society documenters, noting the need to refrain from a myopic focus on international criminal justice institutions. These research participants emphasized that different fora have different evidentiary standards and preferences regarding the form of data received, all of which ought to be reflected within documentation technology. Some research participants further considered that this accounting for different evidentiary standards ought to be built into a documentation tool, with yet other research participants noting that the inadmissibility of civil society documentation before criminal tribunals does not preclude its use in other transitional mechanisms.

Access to Technology

Lack of access to a smartphone and technology was a recurring discussion point in the research enquiry. Research participants frequently noted that many civil society documenters do not have access to smartphones and cameras, and/or do not have the capacity to use this technology. One research participant noted some smartphone models commonly available in conflict zones do not collect metadata of images and videos, reducing the usability of these as evidence. Commonly, as one research participant observed, tools for direct documentation require the survivor or witness to have access to the internet, a capable data plan, and a camera-phone capable of hosting an application. At the moment of the violation, these tools generally require the survivor or witness to have access to lighting, phone battery, and, if applicable, an internet connection. One research participant also highlighted concerns regarding gender-based differences in access to smartphone technology, resulting in an underrepresentation of documentation of sexual and gender-based violence crimes.

Moreover, research participants frequently discussed financial constraints prohibiting access to other relevant technology. Many research participants noted that commercial-grade case management software that could address some of the challenges related to managing large volumes of data was prohibitively expensive for civil society organizations documenting human rights violations, and to some extent, transitional justice mechanisms. One research participant suggested a central licensing agreement for civil society documenters to access this technology in an affordable manner.

Language Capabilities

One of the most emphatic points of agreement across all interviewees was that tools that face civil society documenters, victims, or witnesses should be simple to use. As noted by one research participant, any technology seeking to aid survivors, witnesses, and other civil society documenters across the globe would need to be sensitive to its enormous diversity of languages. The research participant also opined that, to fully standardize any technology that could be used by survivors and witnesses for direct information collection, the user interface would likely either need to accommodate many languages or else be so intuitive that no language was needed.

– CHAPTER 5 –

INSIGHTS FROM TOOL DEVELOPERS

INTRODUCTION

Background and Purpose

A key aim of this project was to understand where civil society documenters of human rights violations might be better served by technology in meeting their goals.

To this end, The Engine Room led research that aimed to:

- Get a clearer understanding of what the landscape of human rights documentation tools currently looks like. What tools are being developed, maintained and used? What do each of these tools offer?
- Gain insight into some of the more “behind the scenes” aspects of tool development in the context of human rights documentation. What are some of the challenges tool developers face in this context? What approaches are working? What lessons have been learned? And how are tool developers thinking about, and strategizing for, the future?

Research Methodology

While there are a range of tools being used by documenters – from commercial tools like Google Docs/Sheets and Microsoft Office/OneDrive to bespoke databases created by organizations in-house – this research focused on tools designed to address the needs and contexts of documenters working in a human rights or social justice context.

Alongside this focus, tools created specifically by or for specific groups or networks (for example, the Anti-Torture Database,⁴ designed to facilitate the documentation work of the International Rehabilitation Council for Torture Victims), or tools created for highly specialized use (for example MediCapt,⁵ designed by Physicians for Human Rights for the documentation of medical evidence related to sexual violence) were excluded.

⁴ International Rehabilitation Council for Torture Victims, *Global Torture Data*, available at <https://irct.org/campaigns/global-torture-data>.

⁵ Physicians for Human Rights, *PHR’s Mobile App MediCapt puts Cutting Edge Technology in the Service of Preventing Sexual Violence*, available at <https://phr.org/issues/sexual-violence/medicapt-innovation-2/>.

The tools focused on for this research were, for the most part:

- **Free and open source**, meaning that anyone can download the code and, with the right technological knowledge, set up their own instance of the tool.
- **Non-exploitative** in that their underlying business models do not make money through collecting data or locking organizations into ongoing, prohibitive charges.
- **Developed and improved with input and feedback from documenters** themselves.
- **Created specifically to help with some aspect of documentation**, including the collection, verification, management, analysis, visualization and sharing of data.

To arrive at a shortlist of tools to look into in more detail, The Engine Room combined existing knowledge with desk research that included sources such as recent, relevant blog posts, articles and online discussions, and tool websites and documentation.

The shortlist included primarily tools that are currently being maintained and developed, and that are being used for human rights documentation. The Engine Room then took a deeper look at these tools, through sources such as GitHub repositories and issues; and also reviewed, where possible, the tools themselves, or demos of the tools.

Alongside this research, remote interviews were conducted with eight tool authors and background notes received from one more. Interviews were aimed at filling in gaps in understanding around some of the tools we were looking at, as well as talking about learnings, challenges, current approaches and visions for the future. Tool authors were asked about development decisions made, challenges faced, and approaches adopted. The Engine Room also looked at some of the ways in which tool authors have approached issues such as security and verifiability.

SUMMARY OF FINDINGS

The Engine Room gathered detailed information on a number of human rights documentation tools, and conducted eight one-on-one interviews with tool authors. Though this research cannot provide a fully comprehensive picture of all tool development in this space, it is offered as a snapshot of a technological environment in flux.

A number of tools currently being developed for human rights documentation are only a few years old. Many of these, however, are iterations, or reworked versions, of previous tools that are no longer being maintained. Some older tools, on the other hand, have either recently been, or are currently in the process of being, sunsetted (i.e. no longer supported or maintained).

Some key findings from the research are summarized below.

Maintaining a tool over the longer term can require significant resources, which can be challenging to come by.

- Maintenance requirements mentioned by tool authors included, among other things, responding to changes in underlying technological dependencies, fixing bugs, providing user support, and adapting the tool to changing user expectations, preferences and needs. As such, keeping a tool secure, well-functioning and relevant to its users could require significant resources, in terms of both human capacity and funding.
- A number of tool authors reported struggling to obtain grant funding for work beyond the initial development of a tool, as well as for things like user testing and support.
- Providing services such as tool customization, setup and user support to higher-resourced organizations for a fee has proved, for many tool authors, to be a somewhat sustainable approach (in some cases, alongside grant funding), allowing them to provide services at no or low cost to organizations with fewer resources.
- Publishing code under an open-source license, as well as using trusted, widely-used open source code to build tools, were mentioned as long-term sustainability strategies, to give a tool a better chance of being maintained by others if the tool author should become unable to do so.

Designing tools for human rights documentation requires certain trade-offs to be made.

- Implementing high-security features like end-to-end encryption can make a documentation tool difficult to use, which can result in unwanted outcomes such as security features being subverted, or the tool not being adopted at all. All the tools we looked at – particularly those designed to manage and analyze data – took this into account, prioritizing usability over responding to the highest possible threat model.
- Where a tool has been designed specifically to provide documenters with certain security features, but where these features come at a cost to ease of use, tool authors said that working directly with organizations has been the best approach to ensure effective adoption (providing support and training to these organizations rather than aiming for uptake by a wider range of users).
- Flexibility vs. built-in structure was also mentioned as an area where tool authors needed to find the right balance between providing pathways and allowing users to easily configure the tool to their own context.

Tools authors are thinking about their tools as part of a broader ecosystem, not as all-inclusive solutions.

- In general, the research shows a growing shift in the human rights documentation tools community away from big “kitchen-sink” style apps and toward, instead, an ecosystem of smaller apps that each aim to respond to a more limited set of needs, but that could potentially be used together.

- Some tool authors have already collaborated with each other to make their tools interoperable; others have put efforts into enabling their tools to connect to a wider array of systems.

Effective documentation systems require more than tools.

- Tool authors noted that effectively setting up a new documentation tool can require significant work on the part of an organization, including developing and/or capturing the organization’s methodology, determining data structures, and cleaning and managing the data itself. One tool author noted a gap in the resources currently available to support this work.
- For documentation efforts to effectively support accountability mechanisms, the tools themselves are only one part of the picture. Tool authors noted that preserving chain of custody, for example, requires clear policies and practices as much as it requires secure documentation tools.

FINDINGS

Tools Overview

A brief look at some tools currently in use

While by no means offered as an exhaustive list, the table below offers a broad introduction to some of the tools considered that fit the criteria mentioned above. More details around these tools can be found on their websites, most of which also offer case studies of how the tools have been used.

Looking at their primary functionalities, each tool considered can broadly be categorized into these two buckets – collection and verification, and data management and analysis – with the important caveat that many tools include functionalities from both categories. Below is an explanation of functionalities that might be included in each bucket, with examples of tools that fall within each.

Collection and verification: Tools that enable documenters to collect photos, images and audio testimonies, to crowdsource data, to create and use standardized forms for data entry, and so on. Verification functionalities add a layer of data that can be used to corroborate the veracity of the documentation, such as metadata and cryptographic signatures.

Examples: Digital Evidence Vault, eyeWitness to Atrocities, KoBoToolbox & KoBoCollect, ProofMode, Save, Tella, Ushahidi

Management, analysis & visualization: Tools that enable documenters to store and manage their collected data in a way that enables them to do things like find what they

need, organize what they've collected, create linkages between pieces of evidence, gain insights into the data through analysis and visualization tools, or export data into reports.

Examples: KoBoToolbox, Ushahidi, Uwazi

Tools at a Glance

<p>eyeWitness to Atrocities Launched in 2015, eyeWitness is a mobile camera app focused on collecting verifiable photo and video documentation of international atrocity crimes. The app forms part of a predetermined workflow in which documenters use the app to capture photos and videos, with added metadata, and send them to the eyeWitness team. eyeWitness – in collaboration with documenters, if contact details have been provided or a partnership agreement entered into – use the footage to compile reports for international investigators. eyewitness.global</p>	
<p>Tool author eyeWitness to Atrocities</p> <p>The tool is backed by the International Bar Association, which is where the eyeWitness project originated.</p> <p>Support & services Through partnership agreements, eyeWitness offers documenters various levels of support, from sharing media back with organizations to manually categorizing and analyzing data or providing support in case-building.</p> <p>License Code is not open source.</p>	<p>Notable features</p> <ul style="list-style-type: none"> > Adds metadata to photos and videos at the moment they are captured. > Photos and videos are stored in a secure gallery separate to the phone's default gallery, which is only accessible via a passcode. > Fast deletion of the app and its contents. > Photos and videos are uploaded in encrypted format to secure servers managed by eyeWitness. Documenters can share copies of footage with others via email or social media, or receive copies of their footage from eyeWitness by way of a partnership agreement. <p>Connectivity requirements</p> <ul style="list-style-type: none"> > Collection can be done offline, but upload requires internet.
<p>KoBoToolbox Launched in 2014, KoBoToolbox is a suite of tools designed to facilitate the collection of data in the field. Users can create custom forms, collect data through the dedicated KoBoCollect app or via web form, store their data, conduct light analysis, and export their data in a range of different formats. The tool is based on the Open Data Kit. kobotoolbox.org</p>	

<p>Tool author KoBoToolbox at the Harvard Humanitarian Initiative</p> <p>Support & services Free, unlimited hosting offered to humanitarian organizations.</p> <p>KoBo hosts a community forum where users can support each other, as well as a help center maintained by volunteer and user contributions.</p> <p>License Code is open source.</p>	<p>Notable features</p> <ul style="list-style-type: none"> > Facilitates the creation of standardized forms for data collection in the field. > Collection can be done via the KoBoCollect app, or via web forms. The KoBo backend also works with mobile collection app Tella. > Users can process collected data via a KoBoToolbox backend. > Secure transfer of data (using SSL) available with the setup of SSL certificates. > Allows for bulk export of data in a variety of formats, including Excel, CSV, KML, ZIP (for media) and SPSS - this allows for data to be analyzed and visualized using other commonly-used tools. > Currently working on speech-to-text functionality.⁶ <p>Connectivity requirements</p> <ul style="list-style-type: none"> > Collection can be done offline, but connection to the KoBoToolbox backend requires an internet connection.
<p>ProofMode (in beta) Launched in 2017, ProofMode is a mobile app that adds verification metadata to photos and videos taken with a phone camera. guardianproject.info/apps/org.witness.proofmode</p>	
<p>Tool author Guardian Project</p> <p>Support & services Users can submit issues to the application’s GitHub repository.</p> <p>License Code is open source.</p>	<p>Notable features</p> <ul style="list-style-type: none"> > Adds metadata to photos taken using the default phone camera (i.e. ProofMode is not a dedicated camera app). > App works in the background and requires little setup. > Photos and metadata can be shared via the Android share functionality or as a CSV export, or backed up via OpenArchive’s Save app. <p>Connectivity requirements</p> <ul style="list-style-type: none"> > No internet required.
<p>Save Created in 2019, Save is a mobile app that facilitates the secure backup of images, videos, audio recordings and other formats (e.g. pdfs and phone notes) to a designated storage location, or allows them to be published via the OpenArchive. open-archive.org/save</p>	

⁶ *TWB and KoBo Inc Develop Speech Recognition Technology to Capture Voices of Speakers of Marginalized Languages*, TWB COMMUNICATIONS (Sept. 1, 2020), available at <https://translatorswithoutborders.org/twb-and-kobo-inc-develop-speech-recognition-technology-to-capture-voices-of-speakers-of-marginalized-languages/>.

<p>Tool author OpenArchive</p> <p>Support & services Website offers an FAQ and an introductory video that takes a user through setup.</p> <p>OpenArchive also offers direct support to groups interested in setting up a self-hosted or cloud-based secure archive, as well as training, and help with technical or user experience issues.</p> <p>License Code is open source.</p>	<p>Notable features</p> <ul style="list-style-type: none"> > Users can capture media in-app or import media from a variety of other apps (such as the phone's built-in camera app), including photos, videos, audio recordings, pdfs and notes. > Secure transfer of data, using TLS on all platforms and, optionally, Orbot (Tor for mobile) on Android. Data can be sent to OpenArchive, Dropbox, or a self-hosted webdav-compatible server (e.g. ownCloud or Nextcloud). > Allows for pseudonymous submission to shared folders. > Allows for organizations to directly receive and organize submissions from unlimited users. > Allows user to add some metadata to media manually. > Android version integrates with Proofmode, which adds verification metadata to photos. <p>Connectivity requirements</p> <ul style="list-style-type: none"> > Internet connection required to upload content to storage location.
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Tella Launched in 2019, Tella is a mobile collection app for Android designed with security features in mind, to protect those collecting data in repressive environments. tella-app.org

<p>Tool author Horizontal</p> <p>Support & services Tella provides general documentation, as well as direct support to partner organizations. Support can include server installation, training, and technical or user experience issues.</p> <p>License Code is open source.</p>	<p>Notable features</p> <ul style="list-style-type: none"> > Includes camera function and stores footage in an encrypted location on the phone, separate to the default camera gallery. > Offers the option to add verification metadata to photos, videos and audio recordings. > Offers ability to collect data via custom forms. > Users can import media, such as photos or audio recordings, from other apps on the phone. > User can disguise the app (change icon and name). > Quick app shutdown or deletion. > Secure transfer of data (using SSL) to a dedicated KoBoToolbox server, for storage and management. <p>Connectivity requirements</p> <ul style="list-style-type: none"> > Media collection can be done offline but upload requires an internet connection.
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Ushahidi Created in 2008, Ushahidi allows people to crowdsource data collection and plot reports on a map in real-time. ushahidi.com

<p>Tool author Ushahidi</p> <p>Support & services Thorough manual available for users and developers. Ushahidi can also provide services such as custom development and support with tool configuration.</p> <p>Ushahidi deployments can be hosted on the Ushahidi platform, or self-hosted.</p> <p>License Code is open source.</p>	<p>Notable features</p> <ul style="list-style-type: none"> > Can collect data from a variety of sources, such as webform, SMS, email and Twitter. > Allows users to map submissions via geolocation. > Has some data review and validation features. > Secure data transfer using SSL/TLS between the browser and the Ushahidi server. <p>Connectivity requirements</p> <ul style="list-style-type: none"> > Mobile version of the tool (web app) supports offline data collection.
<p>Uwazi / Uwazi Reveal Created in 2017, Uwazi is a responsive web app for storing, organizing, analyzing and publishing collections of documents. Uwazi Reveal, launched in 2018, includes all the same features as Uwazi but allows users to keep their collection private (allowing access only to those with an account). uwazi.io</p>	
<p>Tool author HURIDOCS</p> <p>Support & services Thorough user guide available. HURIDOCS also provides direct support to partner organizations, ranging from advice on documentation methodologies, tools and strategies, to customizing software to meet an organization's needs.</p> <p>Uwazi deployments can be hosted by HURIDOCS, or self-hosted.</p> <p>License Code is open source.</p>	<p>Notable features</p> <ul style="list-style-type: none"> > Tagging templates. > Data visualization capabilities. > Entries can be tagged with geolocation via the use of coordinates. > Can be used to help uncover the frequency of references and patterns within content pieces as well as finding the relationships between information in the collection. > Import of various file types, such as PDF, .doc, .txt, .odt, and .jpg, and CSV. > Data export in CSV format. > API available to create custom connections to other platforms. > Digital Evidence Vault plugin allows data to be saved directly from online sources. <p>Connectivity requirements</p> <ul style="list-style-type: none"> > Internet connection required.

Other tools worth noting that came up in the research are listed below. These are not included in the table above as, for various reasons, each fell slightly outside the scope of this research (see the Research Methodology section above for more details on this):

- **Check:** An open source collaborative reporting and verification platform, designed by Meedan to support journalists and academics in collecting, organizing and fact-checking content sent to them via Whatsapp and other sources, and in communicating their findings at scale through means such as automated responses. meedan.com/check
- **CiviCase:** An extension for CiviCRM, an open source, civil-society oriented customer relationship management tool. Used together, CiviCase and CiviCRM allow a user to maintain detailed information about relationships, within a case-management workflow. While neither CiviCRM nor CiviCase were developed specifically within a human rights documentation context, the tool is worth mentioning for its case management functionalities. docs.civicrm.org/user/en/latest/case-management/what-is-civicas
- **Digital Evidence Vault:** A browser plugin designed, in collaboration with Uwazi, to allow users to import digital content with metadata directly from the browser into Uwazi.
- **ownCloud and Nextcloud:** Tools for file storage, sharing and collaboration. Nextcloud (2016) is based on ownCloud (2010). Though German companies ownCloud GmbH and Nextcloud GmbH offer paid-for subscription services aimed at a broad range of clients, both tools are open source and can be self-hosted on a private server for those organizations with the relevant technological skills and capacity. owncloud.com / nextcloud.com
- **The Whistle:** A reporting platform developed at the University of Cambridge that allows organizations to receive reports from a variety of sources, and then work with the data through a dashboard. The tool has been used in some pilot projects and is currently in further development, with potential to be used more widely in future. thewhistle.org

Two HURIDOCS tools considered, Casebox and OpenEvsys – worth noting as they have been fairly widely used – are currently in the process of being sunsetted. Some of these tools’ functionalities will be incorporated into an expanded version of Uwazi.⁷

- **Casebox:** Case management tool, designed for use in a legal context. Originally created by HURIDOCS and Ketse.com in 2011, HURIDOCS has managed its own version of this tool specifically for partner human rights organizations since 2017.

⁷ *Announcing the Sunset of Human Rights Software Casebox and OpenEvsys*, HURIDOCS (Oct. 22, 2020), available at <https://huridocs.org/2020/10/sunset-of-casebox-openevsys-to-expand-uwazi/>.

- **OpenEvsys:** Free and open source database tool launched in 2009 by HURIDOCS, built on an events-based, “who did what to whom?” methodology for recording violations.

The Engine Room also came across **resources designed to support human rights documenters working for truth, justice and accountability**. Of particular note are the following:

- **BIS (Basic Investigative Standards for International Crimes) app:** A mobile app for iOS and Android, developed by international legal partnership Global Rights Compliance, that provides detailed guidance around how to collect information in ways that “preserve its potential to be useful evidence in future national or international trials or accountability mechanisms.” globalrightscpliance.com
- **WITNESS:** A non-profit organization aimed at helping people use video and technology to protect and defend human rights, offers a number of relevant resources for documenters on its website. Its blog also offers up-to-date guidance on topics like Documenting During Internet Shutdowns⁸ and Making Your Metadata Matter.⁹ witness.org

Sustainability

As summarized by one tool author interviewed: “It takes a lot of commitment to support a tool and have a critical mass of users. And then, of course, there’s funding.”

The sustainability of a tool, referring to its ability to be maintained in a way that meets user needs now and in future, depends on an array of factors, including funding, internal tech capacity, user uptake and compatibility with the broader tool environment. In our research, we sought to explore how these factors intersect in ways that lead to either success or struggle, and why.

In speaking with tool authors about what is needed to keep a human rights documentation tool adequately maintained, many factors were noted, including:

- Responding to bugs or other issues in a timely way.
- Responding to changes in tool dependencies and programming languages – in particular, security components and dependencies, which can require significant ongoing resources.
- General backend support, including server maintenance and app security.
- User support, including responding to queries and developing requested features.
- Adapting to changing user norms and expectations around how tools should look, feel, and function.

⁸ Yvonne Ng, *Documenting During Shutdowns*, WITNESS (Jan. 31, 2020), available at <https://blog.witness.org/2020/02/documenting-during-internet-shutdowns/>.

⁹ Wendy Betts and Raquel Vazquez Llorente, *Making Your Metadata Matter*, available at <https://blog.witness.org/2020/03/making-your-metadata-matter/>.

- Doing regular audits or penetration testing to find security vulnerabilities.

Tool authors also mentioned that users have come to expect “intuitive web-based interfaces and easy cross-device access,” as well as intuitive functionalities, increased visualization and analysis capabilities and customer support. Changing expectations around how tools should look also plays a part here, as the visual environment around a tool changes over the years.

Challenges

Even if the tool authors had the internal technical capacity to take on all of these (and more) maintenance requirements, they often struggled with other sustainability challenges, predominantly involving resources.

Difficulties in getting sustainable funding

A number of the tool authors interviewed mentioned that they had experienced difficulty in getting repeat, sustained grant funding for tools, which would allow them to maintain and develop the tools over the longer term as well as to conduct security audits, user testing and training. One tool author said: “There’s only so much capacity to do workshops and outreach. It feels like this is something that needs to be bolstered, but it’s hard to get money for.”

Resources needed for long-term sustainability are often underestimated

Alongside difficulties in getting repeat or sustained funding in the first place, some tool authors also mentioned underestimating just how much funding, and how many resources, would be needed to properly maintain their tools.

Deciding when to call it quits

Some of the tool authors consulted had made the difficult decision to sunset a tool (i.e. to no longer fix bugs or develop, update and provide support for the tool): when a tool started to become too resource-heavy, and less relevant to current user expectations, it sometimes made more sense to retire it than to continue.

Technology is a fast-changing environment, and tools that have been around longer seem to face particular challenges in bridging the gap between the environment in which they were built and the environment in which they are currently operating – both technologically and in terms of user expectations and norms. In some cases, tool authors have found that it makes more sense to just start again with a new tool, or to put more resources in an existing tool in their portfolio that’s more in line with the times.

Sustainability Strategies

Alternative funding models

Though some tools considered in this research were entirely grant-funded, some relied on a mix of grant funding and fees for services, and some did not rely on grant funding at all. Services offered for a fee ranged from setup and hosting to customizing tools to fit specific needs and workflows, trainings and ongoing support, and even data analysis and legal support.

Some tool authors who worked primarily on a fee-for-service model noted that being more demand-driven meant that they might not have as much capacity to work on features that were not specifically asked for; however, they were also able to feed additional features from customized versions back into the core tool. Funding from services also made it possible for them to offer services at a nominal charge for lower-resourced organizations.

Some apps are also able to offer hosted versions of their tools via specially-funded servers: KoBoToolbox, for example, offers free-of-charge, unlimited hosting to humanitarian organizations on a designated server provided by the United Nations Office for the Coordination of Humanitarian Affairs.

Another model floated by one tool author as a future plan was membership-based funding, where membership funds would be used to finance maintenance fees, and anything left over would be used for new features, as decided on by the members themselves.

Open source development

Most of the tools looked at in the human rights documentation space publish their code under open source licenses. One tool author mentioned using and building open source technology as an important part of their sustainability strategy, in case they are unable to maintain the tool themselves in the future: “It’s important to build your tool using trusted, well-maintained, widely-used software so that other developers can make changes and improvements if funding ever runs out. The risk of having only one or two developers that know the code is that it is very difficult to create a community of developers around the tool.”

Security

Security tends to be an important consideration for any tool author working in the human rights documentation space, given the risks that can arise when working in sensitive contexts. There is, however, no one threat model that all human rights documentation tools are designed to respond to.

Instead, the risks faced by documenters are shaped by their context, their positionality, the support they receive (or lack thereof) and many other factors. As a result of this complexity, tool authors approach security in a variety of different ways.

Encryption

One of the key strategies employed by human rights documentation tools to mitigate risks around evidence being accessed, tampered with, stolen or deleted by unauthorized parties, involves the use of encryption. This can be employed in different ways:

- **Encrypting data within the tool.** Collection apps Tella and eyeWitness, for example, enable images and videos to be taken through the app, where they are automatically encrypted. This mitigates the risk of the data being accessed or tampered with if the device is stolen and broken into.
- **Making sure data travels through a secure connection** (e.g. via SSL or TLS). This could look like data traveling from a collection app to a designated secure server, where it can be managed or archived, or data travelling between the browser and a website or web app. This mitigates the risk of data being accessed or tampered with in transit, and is generally standard practice for any tool that takes data protection seriously.
- **End-to-end encryption.** End-to-end encryption goes a step further, security-wise, and encrypts data from one end device or system to another. Though this type of encryption is not used by any of the tools considered here – it can involve substantial usability trade-offs – it has been used by documentation tools in the past (for example, Martus, sunsetted in 2018 after 15 years),¹⁰ and is used currently in a few different secure messaging apps, such as Signal.

Storing Data Securely

Once data leaves a user's collection device, whether it be a smartphone, tablet or computer, it is generally stored in a server. How this is configured can vary. With many of the tools considered, organizations have the option to set up their own server; this, however, requires a certain level of technical knowledge and skill. Many tool authors offer hosted instances of their tool – that is, an organization's data will be hosted on servers maintained by the tool author or a trusted hosting partner.

Tool authors will have varying levels of control and access here, but all the tool authors consulted took security into consideration. Factors mentioned as being important for secure hosting

¹⁰ *Martus Sunset*, BENETECH (May 15, 2018), available at <https://benetech.org/martus-sunsets-human-rights-data-collection/>.

included making regular (secure) backups, and having a systems administrator to maintain and update the servers and dependency software.

Some tool authors offer hosted versions of their tool in different countries, or build in deliberate redundancies in terms of where they host data. Said one tool author: “It’s quite deliberate that it’s not all in the same place.”

Passwords and 2FA (Two-Factor Authentication)

Passwords are an important part of any secure system. Though mobile apps in general tend not to require a user to enter a separate password after they have unlocked the phone, some of the apps considered require this as an extra layer of security.

For web-based databases, an extra layer of protection can be added through 2FA (Two-Factor Authentication), which helps keep data secure in case a documenter’s password is compromised. Data management tool Uwazi, for example, recently added this functionality.¹¹

Security Audits

Allowing others to check the security of their code was one of the reasons mentioned by tool authors for publishing their code under open source licensing. In practice, tool authors tend to need to put resources into regular security audits, whether their code is open source or not.

One tool author noted that they did penetration testing a few times per year, alternating testing companies where possible and re-testing after changes are made: “This is a priority and in the budget.” Another said that due to resource limitations, most audits of their tool had been done not by themselves but by organizations wishing to adopt the tool, using standardized software that produced superficial and sometimes “haphazard” results. The tool author noted that they would love a good guide to security testing for small organizations with little funding, such as their own.

Protecting Data Collectors

For documenters working on the ground, merely being seen to be documenting or looking for evidence of wrongdoing can put them in danger. Many face scenarios where they might be stopped by an authority or perpetrator (these might be the same) and their phone searched. This could lead to the evidence they have collected being accessed, as well as potentially deleted; it could also put their physical safety, as well as the safety of others who appear in the documentation, at risk.

¹¹ *More Security, Collaboration and Efficiency: Uwazi Version 1.6*, HURIDOCs (Apr. 20, 2020), available at <https://huridocs.org/2020/04/more-security-collaboration-and-efficiency-announcing-uwazi-version-1-6/>.

Some of the secure collection apps considered offer functionalities that specifically address this scenario. These include:

- The option to replace the app’s icon and name on their phone with something more innocuous, such as a calculator icon (for example, Tella, eyeWitness)
- One-button instant app shutdown, and automatic removal of the app from the phone’s “recently used apps” list (for example, Tella)
- Easy and quick deletion of the app and media captured, from within the app itself (for example, if a documenter sees they are about to be stopped) (for example, Tella, eyeWitness)

Protecting Documenters’ Identities

Some of the apps considered (for instance, Save) allow users to upload data to a shared folder or server pseudonymously, to protect their identity in case the data is compromised at the management or storage location.

Verification

“Our extensive research has found that metadata and a protected chain of custody are the keys to ensuring verifiable footage.” – eyeWitness to Atrocities¹²

In looking at tools designed for human rights documentation, the issue of verifiability came up as a significant challenge that a number of human rights documentation tools aim to address, particularly when it comes to photo and video, which have become increasingly easy to manipulate.

Metadata

Adding metadata is one strategy for enhancing the verifiability of collected data, especially photos and videos. This strategy involves automatically adding metadata to photos or videos at the time of capture. This metadata can include information about the file (including a cryptographic hash, which can be used to determine if a file has been altered), the device the photo or video was captured on (manufacturer, hardware, device ID, screen size, and so on), and the environment in which it was captured (GPS location, information about nearby cell towers, wifi networks, and bluetooth signals, date, time, and so on).

¹² *Choosing a Secure Camera App to Document and Monitor Human Rights Abuses and Atrocities*, EYEWITNESS TO ATROCITIES, available at <https://www.eyewitness.global/Choosing-a-secure-camera-app>.

Mobile apps Tella, eyeWitness and ProofMode add significant metadata to images and videos automatically at the time they are captured. ProofMode differs from the other two apps in that, rather than being a dedicated camera app, it runs in the background of a user's phone and adds metadata to images taken using the phone's default camera app.

Extra metadata added by a user can also be useful. Save, for example, allows a user to manually add location information and other notes to footage backed up via the app.

Chain of Custody

For evidence to be admissible in a legal context, chain of custody must also be addressed. As noted in the previous chapter, chain of custody is a legal concept that refers to a sequential record of the individuals in custody or possession of the information sought to be admitted as evidence.¹³ This takes the entire data cycle into account, from capture to eventual presentation in court.

Only one tool considered, the eyeWitness app, was designed explicitly as part of a system aimed at preserving chain of custody, as photos and videos captured securely through the eyeWitness app are sent through secure connection to a server that eyeWitness maintains. Here it must be noted that this model involves significant human resources, legal expertise and investment on the part of the eyeWitness team, who also organize and analyze the collected data themselves, regularly compiling reports for external investigators and legal mechanisms.

For documentation organizations, using a service like the one provided by eyeWitness comes with the advantage that their photos and videos are more likely to be useful as evidence in a legal environment. The limitation is that the organization does not keep full control over the media they capture – though eyeWitness will, as part of a partnership agreement, share copies of the images back with the partner organization if desired, and seek consent from the partner organization before information is shared. The app also enables a documenter to share the media they have captured with others, without the added metadata.

Some of the tool authors interviewed noted that chain of custody is as much, if not more, about policies and practices around how data is managed as it is about technology. One tool author pointed out that though technology can support it through security protocols and features such as audit logs (which can keep a running list of when something was accessed or modified and by who), these are not enough on their own: “If someone receives, say, a pen drive – is there a

¹³ See International Criminal Tribunal for the Former Yugoslavia, *ICTY Manual on Developed Practices*, 28 (2009), available at https://www.icty.org/x/file/About/Reports%20and%20Publications/ICTY_Manual_on_Developed_Practices.pdf.

procedure to follow? And if pressed, can the organization reliably demonstrate that the procedure was followed?”

Key Trade-Offs

Security vs. Usability

Security in this context is complex and can be done in different ways, respond to different scenarios and address different types and levels of risk. In consulting with tool developers about how they approach security in their apps, many brought up the inevitable tension between providing – particularly with limited resources – both high security and high usability. Many of the tool authors interviewed said that the particular model they landed up with was arrived at in stages, through learning from past challenges, experimenting with features, and listening carefully to user feedback.

Addressing security in data management, analysis and visualization tools

The security/usability trade-off was noted as a particularly sticky problem in tools that have data management, analysis and visualization as their primary functionality. As a number of tool authors pointed out, some high-security features, such as end-to-end encryption, can make accessing, managing and analyzing data very difficult, and can lead to irrecoverable data loss if encryption keys are lost.

Some noted that tools built with features that respond to highly complex threat models, but that impact negatively on usability, might not just struggle with adoption, but could also result in security being compromised in unintended ways. Said one tool author: “What we’ve seen is that when [security features] make working with the data too hard, people work around it. So you have this beautiful [i.e. extremely secure] system in theory, but people subvert it.”

As a result of this tension, and of learnings gained in the field in recent years, tools in the human rights space that have organization, analysis or visualization as their primary functionality lean toward workability and functionality over trying to respond to highly complex threat models.

One example here is Uwazi, a tool designed for storing, organizing, analyzing and publishing collections of documents. Since Uwazi is primarily designed to help documenters work with the data they have collected, security relies not on end-to-end encryption but rather on passwords, two-factor authentication, an activity log, access permissions, publicly available security audit reports, and SSL protocols that protect the data in transit.

KoBoToolbox offers an explicit example of what a security/ usability tradeoff can look like in practice. KoBo allows users to collect data via forms and then work with this data (unencrypted) in KoBoToolbox. Users can, however – with some additional work and technical know-how – set up the tool so that completed forms are sent to the KoBo backend as encrypted files. KoBo warns that “In this case, KoBoToolbox serves simply as a storage locker for your encrypted files [...] anything that requires access to the data, like the map view or data export, won’t work within KoBoToolbox.”

The challenge of making security-focused tools usable

For some tools, such as the secure camera apps mentioned above, providing documenters with certain security features is part of the tool’s core mandate. Security features still, however, rely on a willingness or capacity to use them, and here decisions must be made. One tool author consulted, for example, noted that arriving at the right balance of features took time and iteration: “We overengineered the first version, it was too ‘James Bondy’ and secretive.”

Dedicated camera and video apps have a special challenge in that they are, in a sense, in competition with the built-in camera apps that people are used to using on a regular basis. As one tool author noted, “Ordinary citizens don’t have an incentive to have [a dedicated camera app] on their phone; but even then, the instinct wouldn’t be there to pull it out.”

A common approach by developers of these types of apps has been to put effort into working directly with specific groups and organizations who are interested in using the tool or who fit the ideal use-case of the tool, rather than aiming for widespread individual uptake. Tool authors noted that this approach has led to more successful uptake and use of these tools.

For camera app CameraV, usability challenges were cited as a primary factor behind the Guardian Project’s decision to retire it in favor of “lighter reboot” ProofMode (mentioned above). As they wrote in 2017, “While we are very proud of the work we did with [CameraV], the end result was a complex application and novel data format that required a great deal of investment by any user or community that wished to adopt it. With ProofMode, we both wanted to simplify the adoption of the tool, and make it nearly invisible to the end-user, while making the adoption of the tool by organizations painless through simple formats like CSV and known formats like PGP signatures.”¹⁴

¹⁴ *Combating “Fake News” with a Smartphone “Proof Mode,”* GUARDIAN PROJECT (Feb. 24, 2017), available at <https://guardianproject.info/2017/02/24/combating-fake-news-with-a-smartphone-proof-mode/>.

Flexibility vs. Structured Workflows

In general, tool authors noted that flexibility within apps was appreciated by users, and tended to also reduce the support burden on the tool author, as organizations could adapt the tool on their side rather than having to ask the tool author for every change.

As one tool user noted, however, too much flexibility and the user has no pathway or guidance through the app. “An ideal future – though not necessarily new – is where you have flexibility, but are presented with sensible defaults. Organizations working within a workflow like it because it moves you through it, and removes some of the complexity.” Defaults could include things like pre-loadable templates and forms (for example, a form that covers the minimum information needed for a certain type of submission to a particular justice mechanism), default categories (for example, countries, types of violations), and data structures (for example, relating different types of data to each other), default interoperability with another app for a different part of the data collection and management workflow, or options for data visualizations. Within a tool that maintains some flexibility, these defaults could then ideally be changed, deleted or added to by the organization setting up the tool to fit their own workflows.

Interoperability: Smaller Tools, Bigger Ecosystem

In general, the research showed a growing shift in the human rights documentation tools community away from big “kitchen-sink” style apps and toward, instead, an ecosystem of smaller apps that each aim to respond to a more limited set of needs, but that could potentially be used together. As one tool author shared: “Something we’re considering is that people can use other apps.”

Martus (mentioned above) came up in interviews as an example of this “does everything” type of tool, including providing end-to-end encryption. A number of pros and cons to this approach came up in the research: While these kinds of big, feature-heavy tools can ensure, for example, a high level of security and/or a range of different functionalities, they can also become difficult to use for individual organizations who might not, for example, need all those features. Importantly, they can also become a huge burden on a tool developers’ capacity to maintain them. As one tool author said: “Combining tools allows a more tactical, agile approach, which more accurately meets the needs of changing contexts. There’s less often a single point of failure that cripples the whole workflow.”

Weighing up the pros and cons of each approach in the development of collection app Tella, tool authors Horizontal wrote in 2019: “While one obvious need was that of a comprehensive, secure data collection system that would accommodate the collection of data for criminal prosecution, Horizontal’s current capacity is too limited to develop such a solution. We’ve

instead decided to focus on a different aspect of the documentation process, one that was within reach for our small team: a mobile client for those individuals doing the documentation work on the ground, often in very difficult environments.”¹⁵

One tool author also talked about the costs and benefits they had encountered in trying to incorporate another tool’s (open source) code into an expanded version of their own tool. Though they were able to customize the code, “Bugs took longer to figure out, and we were also unable to take advantage of improvements made to the original tool.” In the end, the cost/benefit ratio worked out in favor of making the tools interoperable instead of merging the code into a customized tool.

Inter-App Collaboration

A number of organizations in the human rights documentation space have already, in recent years, worked together to connect their tools. Some examples of collaborations include:

- **ProofMode and Save**

Save, launched by OpenArchive in partnership with The Guardian Project in late 2019, facilitates the secure backup of images and other media to an external location (such as ownCloud or Nextcloud, Dropbox, or the OpenArchive itself). Save is also designed to work (on Android phones) with the tool ProofMode, which adds metadata to images and videos taken using a user’s camera. This means that when used together, Save will make sure the added verification data is backed up to the server with the image or video itself.

- **Tella and KoBoToolbox**

Tella is a mobile app that allows users to take images and videos, and build forms for standardized data collection in the field. But it doesn’t have its own backend system (i.e., a location for data to be sent to and managed or stored). Instead, the app integrates with KoBoToolbox – users can either set up an instance themselves, or use one of KoBo’s hosted options. This means that documentation collected by Tella can be sent directly, via a secure connection, to a KoBo database.

- **Uwazi and Digital Evidence Vault**

Digital Evidence Vault allows users to preserve digital content directly from the browser; Uwazi allows users to store and organize data. An integration between the two, announced

¹⁵ *Our Vision for Tella*, HORIZONTAL (Sep. 5, 2019), available at <https://wearehorizontal.org/2019/09/05/our-vision-for-tella/>.

in late 2019 after piloting the integration with documentation organization GLAN Law,¹⁶ means that online content preserved using Digital Evidence Vault can be sent automatically to Uwazi, where a documenter can work with it further (for example, through adding tags and other information about it) and store it in their database.

Expanded Import and Export Capabilities

Many tools are designed to enable users to work with their data in other tools – including commercial proprietary tools that they might already be using. KoBoToolbox, for example, has fairly limited analysis and visualization functionalities, but it allows data to be bulk-exported in a variety of formats, including Excel, CSV, KML, ZIP (for media) and SPSS. This allows users to import their data into spreadsheets and other analysis and visualization tools. It should be noted, however, that importing and exporting data adds an extra manual step to a workflow, which also has its own security implications. Other tools considered, particularly those that facilitate submissions of data from the general public (as opposed to, say, a pre-established network of documenters using a shared, closed system) connect with a variety of input sources: Ushahidi, for example, can process submissions sent via SMS, email and Twitter.

Interdisciplinary Collaboration

Some tool authors also mentioned interest in collaborating not just with other tool authors but also with organizations that have expertise in related areas, such as building legal cases.

User Support

Almost all the tool authors consulted offered some level of user support; in most cases, they also had more established and intensive relationships with particular organizations who were using the tool, working closely with these organizations to offer things such as:

- adapting the tool to their needs
- tool setup and hosting
- technical troubleshooting, and
- in-person and/or remote training

Other, more general avenues of support include:

- online support pages and FAQs, and
- community support forums for users to talk to and help each other.

¹⁶ Laurel L. Finch, *How Global Legal Action Network is Documenting Digital Evidence of Airstrikes against Civilians in Yemen*, HURIDOCs (Nov. 12, 2019), available at <https://huridocs.org/2019/11/glan-documents-airstrikes-in-yemen-with-uwazi-digital-evidence-vault-integration/>.

In talking about supporting their users, tool authors noted that low capacity – whether tech capacity, time, funding resources, or low connectivity – is a persistent challenge when working with organizations that operate in low-resource contexts. These challenges can also impact tool authors’ co-development efforts with documenter communities – as one tool author said, “They just don’t have the time.”

Tool authors also said that organizations tended to underestimate what is needed to set up and work with a tool. This was particularly noted as an issue when it comes to setting up a database to manage collected information. As one tool author explained, work needed can include developing and/or capturing the organization’s methodology, determining their data structure and moving their information into this structure. Then when the system is in place, time is needed to “vet, verify, clean, capture and manage” their information. “People expect databases to do the work themselves, but it requires documentation and intentional focus and work. There’s a gap there; there are not a lot of resources that address that.”

Tool authors also discussed other types of user support. This included offering/conducting trainings and providing support were also cited by a number of tool authors as an important avenue for feedback, flagging problems, and improving the tool to better meet needs. Feedback might also come in on a more ad-hoc basis – users “might just text us from the field” noted one tool author. Many tool authors also make sure to regularly check in with partners. One tool author mentioned that their community support forum, while providing a space for users to talk to each other and help each other, also allows ideas for new features to be discussed publicly long before they get to design and implementation stage.

CONCLUSION

This Report sets out the findings of the needs assessment conducted by PILPG, in partnership with The Engine Room and HURIDOCS, as part of the Project aiming to assist civil society organizations in documenting human rights violations by ensuring they have access to sustainable, tailored, and secure technological solutions. The needs assessment gathers perspectives from civil society organizations conducting human rights documentation, established civil society organizations conducting and supporting human rights documentation, transitional justice experts, and tool developers.

The Report first outlines key findings of the needs assessment. The overarching observations relate to recognizing the diversity of documentation workflows and methodologies that may be effectively employed, promoting further understanding of documentation technology and related legal requirements, and pursuing further opportunities for dialogue on the subject-matter of this report.

The next chapter of the report details findings from consultations with **civil society organizations engaged in human rights documentation**. Consultations, in the form of one-on-one interviews conducted by The Engine Room, revealed a number of key challenges faced by many of these organizations in utilizing technology solutions for conducting human rights documentation – resource constraints problematizing the establishment and maintenance of data management systems, limited technical capacity, including capacity to keep up with the latest technological developments in the field, and concerns with security and accessibility of solutions. Organizations consulted also expressed an interest in capacity-building on meeting legal standards relevant to data collection, enhanced organizational and analytical functionalities in the data management tools they were using, customization of tools to meet their specific needs, and interoperability between all tools employed in a workflow.

The following chapter focuses on **established civil society organizations conducting human rights documentation and intermediaries**. Consultations with these organizations, conducted by HURIDOCS via surveys, one-on-one interviews, and roundtables, sought to gather perspectives from organizations that had more experience with establishing and refining documentation workflows and methodologies than those consulted in the previous chapter. These consultations also gathered perspectives from intermediaries supporting documenters. The findings from these consultations surfaced a number of considerations for technological solutions aimed at facilitating human rights documentation, including the importance of attunement to the operating context, engaging documenters in the design and development of technological solutions, and catering to variable data literacy levels.

Findings from consultations with **transitional justice experts** are presented in the fourth chapter. These consultations, conducted by PILPG through one-on-one interviews and focus groups, aimed to gain insight into the challenges, risks, needs, and observations of transitional justice experts relating to the use of technology by civil society organizations documenting human rights violations. Key challenges that surfaced from these consultations include meeting evidentiary standards throughout the data life cycle, managing large volumes of data, and preserving human and data security. Transitional justice experts consulted suggested ways in which technological solutions may be utilized to meet these challenges, and identified additional considerations for relevant technological solutions, including determinations of appropriate scope of documentation technology, potential uses of human rights documentation, access, language capabilities, algorithmic bias, and remote documentation capabilities.

The last chapter rounds out findings from the needs assessment. For this chapter, The Engine Room conducted one-on-one interviews with **tool developers**, received additional information from tool developers, and conducted independent research on tools selected for analysis in the assessment. The chapter explores a fast-changing technological environment, with tool developers identifying various related challenges, including particularly ensuring the continued relevance of their technology solutions for civil society organizations conducting human rights documentation. The findings also reveal an emerging trend toward developing discrete technology solutions, and facilitating their connection to serve users most efficiently.

The findings set out in this Report will not only inform the next phase of the Project, involving the co-development of a suitable technological solution but also, it is hoped, contribute to the larger conversation on civil society organizations' access to sustainable, tailored, and secure technological solutions for conducting human rights documentation for truth, justice, and accountability.

ADDENDUM: SUMMARIES OF THREE DOCUMENTATION WORKFLOWS

This addendum outlines three example workflows. Each workflow summary includes an anonymized description of the organization using the workflow, an explanation of the workflow, and the pressure points the particular organization experiences in using the workflow. The workflows are examples used by specific organizations, which means that, while they are a helpful resource for understanding the work of human rights documenters, they are not representative of the types of workflows mentioned in the report.

The research conducted in this report has shown that workflows can be mixed and can evolve as the organization evolves. Each organization of human rights documenters is unique and can experience changes to their workflows, needs, and capacities over time. The workflow summaries outlined here can facilitate a better understanding of how tools and practices can be improved to address the needs of documenters, and at the same time serve as resources that will help to inform the next phase of the Project.

CASE STUDY 1 *Organization description*

This case study describes the workflow of a human rights NGO that documents human rights violations with the aim of seeking justice for the victims of these violations in their region. The organization in this example serves as a coordination body for a network of small, local organizations and also acts as an individual and independent entity. This organization's documentation efforts are directed at:

1. gathering testimonies, evidence (when possible) and other relevant information to: support truth and reconciliation efforts and reparation, as well as to build up cases for accountability mechanisms;
2. gathering data that can support local, regional, and international advocacy campaigns; and
3. preserving the memory of victims of human rights violations.

This organization and its partners operate in a high-risk environment with limited resources and staff capacity due to funding shortages. A significant challenge this organization faces that is common to many under-resourced documentation organizations is high staff turnover. Their core team consists of just a few people, including one person who works on information technology. They rely greatly on the small, local, and often volunteer-based documentation organizations who provide the information for their advocacy and accountability work. Due to limited resources and

other challenges facing human rights documenters in the region, the organization often struggles to sustain long term strategies, staff and tools.

Description of Workflow

Collection. The coordinating organization gathers information about various categories of human rights violations, from detention to torture to sexual violence. They work in close partnership with local organizations around the country to collect information from primary sources, such as survivors of human rights violations, families, and eyewitnesses. The information gathered comes in many formats, including hand-written notes, transcripts of interviews/testimonies, and video and audio recordings.

The raw pieces of information are passed to the data officers of the local organizations, who then type them out into word documents, excel spreadsheets, etc. This information is then sent to the coordinating organization's data officer via secure channels like Protonmail and Signal.

Data processing and storage. The coordinating organization's data officer enters the information into their database by filling out forms/templates where they register the details of the event/violation, summary analysis, the dates and locations, as well as information about the victims/ survivors and the perpetrators. There are some basic categories assigned to these records in order to capture demographic insights about the events (e.g. type of violation, type of perpetrator). There is only one copy of the database and the software it lives on, on one staff person's computer. There are no backup copies of the database.

To verify the information they collect, the coordinating organization relies on secondary sources, such as news media reports and reports of NGOs that cover their region.

Analysis. The coordinating organization uses the information in their database to:

- search for specific victims/survivors, witnesses, and perpetrators;
- try to identify contextual patterns and trends of human rights abuses, war crimes, crimes against humanity, and cases of impunity within the military; and
- establish links between the crimes.

In the future, the coordinating organization hopes to be able to collect and preserve information according to international standards more systematically. They would also like to take advantage of innovative technology solutions, such as satellite imagery and apps, to map and verify locations where violations take place.

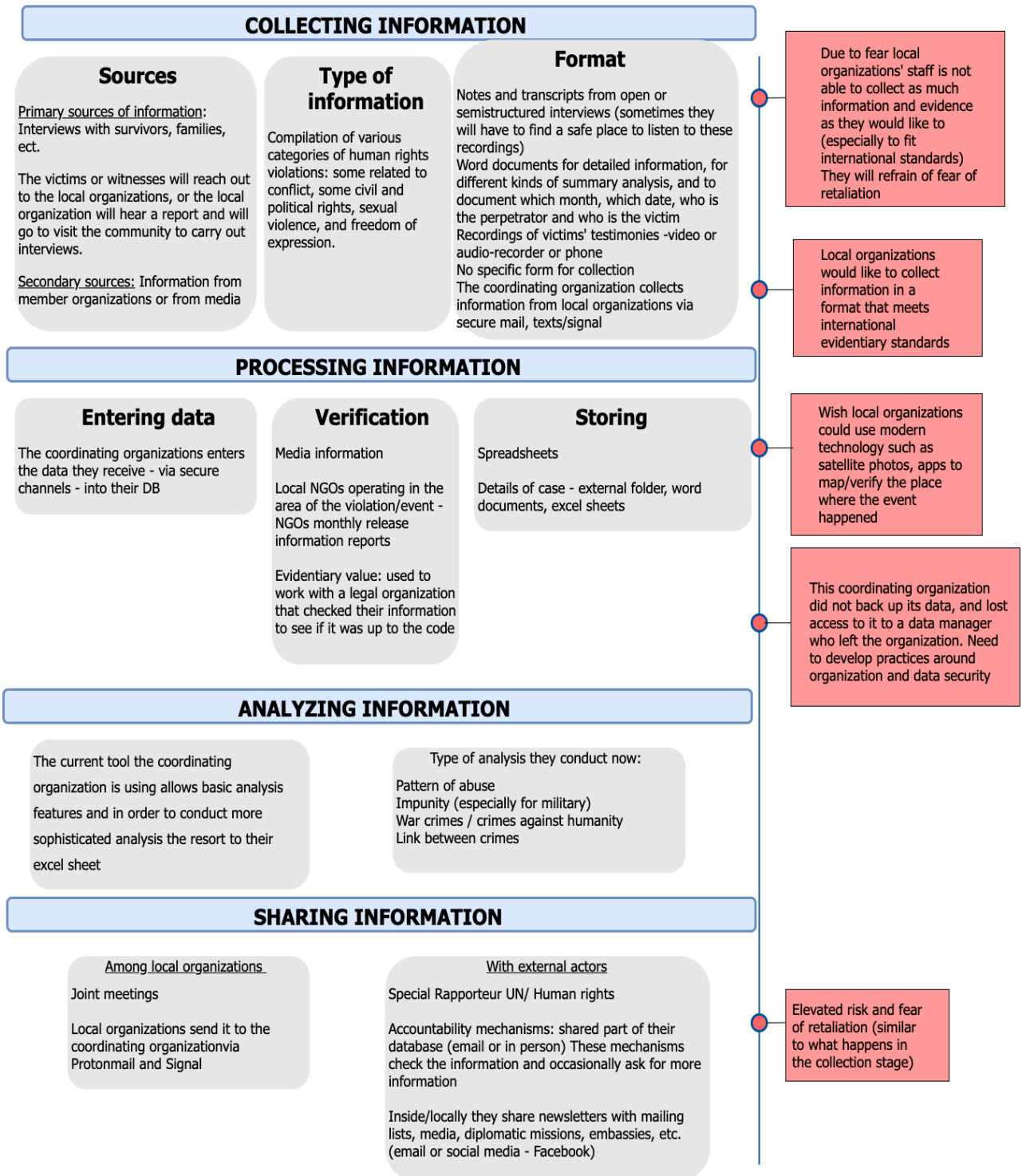
Sharing The local organizations are very aware of the risks that sharing sensitive information entails, and will take precautions accordingly, even if it means refraining from sharing

information. These organizations will share information amongst themselves and also with different actors such as (i) Special Rapporteur UN / Human Rights, (ii) accountability mechanisms (share a subset of their database via email or in person), (iii) locally through methods such as newsletters with mailing lists, media, diplomatic missions, embassies, and (iv) some information via social media (Facebook).

Examples of pressure points in the workflow:

- Local organizations are not able to collect as much information as they would like because of challenges in capturing testimonies in a secure way, and for fear of retaliation.
- The coordinating organization would like to collect information in a way that it meets international evidentiary standards.
- There is a demand from local organizations to use more modern technology (such as satellite photos or apps to map/verify the location where the event happened).

Case Study 1 Workflow Diagram



CASE STUDY 2

Organization description

This case study features an international human rights organization working toward the protection of human rights through monitoring, capacity building and peacebuilding. They support a monitoring consortium focused on specific human rights issues in partnership with local NGOs.

In their documentation efforts, they rely on first-hand sources and secondary information; they gather testimonies, evidence, and other relevant information for accountability mechanisms and to support truth and reconciliation processes. They also collect data to support advocacy campaigns, as well as for preservation and memorialization purposes. They are not currently relying on any database tool to help them in the documentation process.

Description of Workflow

Collection. This organization collects information by speaking directly with the victims of human rights violations using a common form that is aligned with international standards. Often, individuals will reach out to them directly. Secondary sources of information are also used to supplement and verify their findings. They collect information in various formats, such as video and audio, physical and digital documents, submission forms (digital preferred), WhatsApp conversations (and even WhatsApp video chat), recordings, and some hand-written reports.

Often, individuals will reach out to them directly to share information, which can happen over informal means of communication, such as messengers or even private conversations. Secure messenger apps are therefore very important for the data collection process, as the organization tries to avoid gathering information through insecure channels or apps.

Consent of the sources and people interviewed is a very important part of the collection process. The organization always seeks consent—written and verbal—depending on the situation, the languages people speak, and the local culture.

Data processing and storage. The data is stored in the cloud and is customized specifically for the organization. Different staff members have different levels of access to the data. They have a well-developed system to store different data collected and avoid storing the data in the countries where they work.

There is a thorough verification process in place, including several rounds of review by lawyers and other staff. This includes verifying with secondary sources, asking follow-up questions, and consulting local collaborators and experts.

Analysis. They conduct various types of analysis on this information such as legal analysis, analysis of trends, and analysis of evidence durability, among others. The overarching goal of their analysis is to understand and support the ongoing monitoring of human rights situations over time.

Sharing. Confidential information is only shared with the specific human rights bodies and courts, when needed.

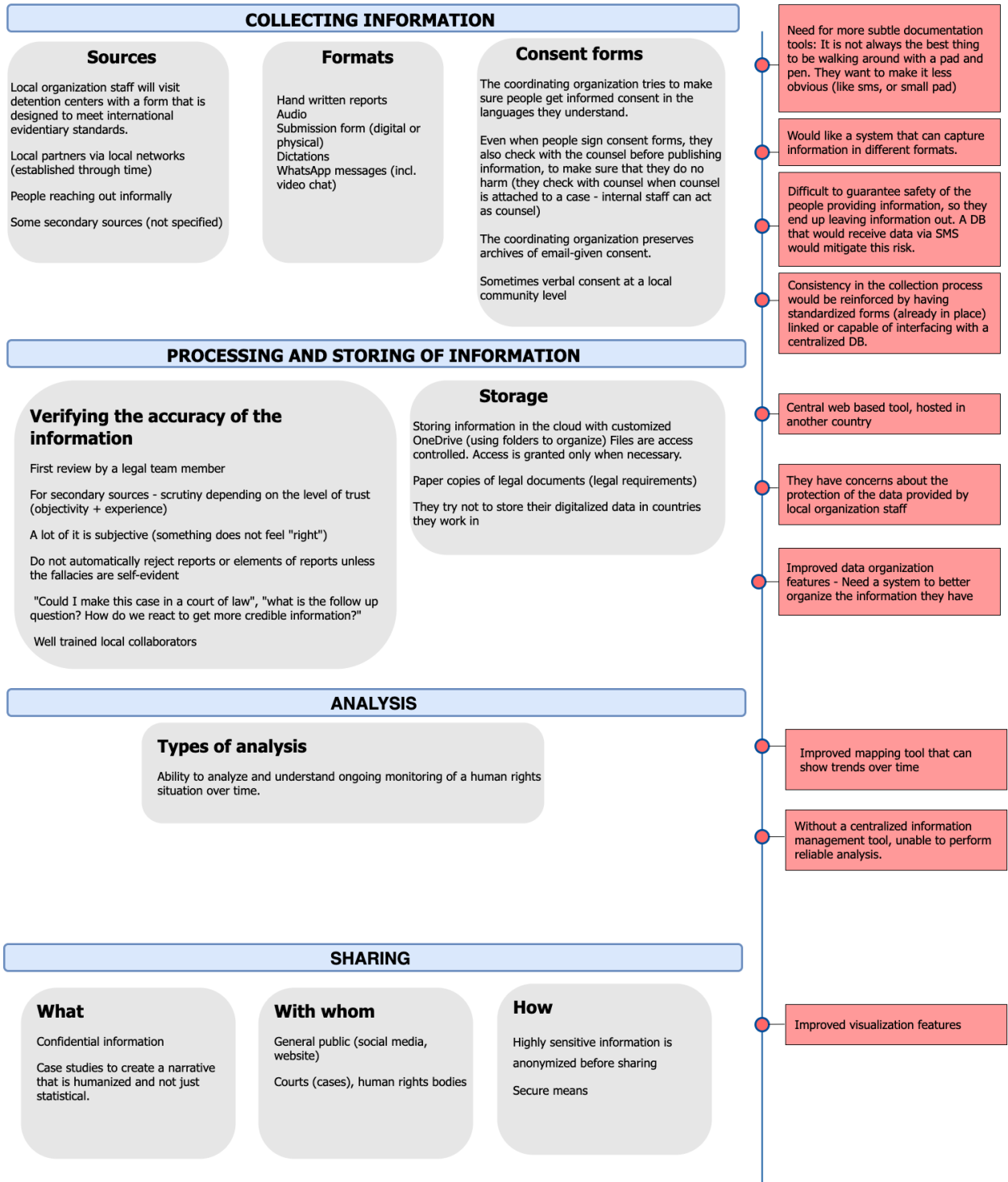
Non-confidential data is shared publicly via social media and web platforms in the form of reports and case studies that show trends and issues, with the aim of creating narratives that humanize the victims, as opposed to purely statistical reporting. When shared publicly, the data is always anonymized as the safety of individuals is the primary priority.

Safety of sources remains a priority for the organization and they always double-check with sources before sharing information with external actors.

Examples of pressure points in the workflow:

- As the organization collects various data formats, they would benefit from a system designed to capture information in different formats.
- It can be difficult to guarantee the safety of the people providing information, so they end up leaving some information out.
- A centralized database would provide a singular tool for data entry, provide better security, and expand possibilities for data analysis.
- They would also benefit from a system that would allow for better organization of information they have.
- They need a tool designed to do more sophisticated types of analysis and data visualization. For example, in order to advocate for reparations, they need a mapping tool that can show long-term trends and register when certain events took place over time.
- Without a centralized information management tool, they are unable to perform reliable analysis.

Case Study 2 Workflow Diagram



CASE STUDY 3

Organization description

This case study features an association of organizations whose focus is to provide survivors of human rights violations with direct physical, medical, psychological, and social support to help them rebuild their lives. Through this work, these organizations also collect details and evidence of human rights violations through direct testimonies of survivors.

There is a Secretariat that oversees the work of the association. The goal of the Secretariat is to support the association in collecting and producing reliable data to advocate for justice and reparations. The association designed a custom-developed offline database software specifically for the purpose of secure documentation and storage of information about human rights violations.

Description of Workflow

Collection. An important dynamic in the data collection process is that the association does not seek the victims; rather, the victims choose to come, share their experience and receive help. The information collected from survivors includes: biographical and socio-economic information, details about the violation, and the impact on the survivor, including any psycho-social challenges. It is important to bear in mind that the collection of the complete information on a patient/survivor can take months and even years of counselling.

The process of data collection varies among different association organizations. The collection might take time and also depends on the size and capacity of the specific local organization. Usually, organizations who join the association are already collecting thorough data and use physical documents to store the information. They then record the information contained in those physical documents into the database.

Data processing and storage. The database runs offline on computers or servers at each local organization; the data does not go online and is not shared online. This is done to ensure that no one except the local organization staff has access to the sensitive information collected.

Analysis. The association tries to do a very thorough analysis on the background and aftermath of the violation. Even though the extent and angle of the analysis might vary among the organizations, there is a common minimum dataset that is collected by every member of the association about all human rights violations and survivors.

The organizations are interested in identifying ways to monitor the progress of their clients using their database, and to understand which interventions work well under which circumstances.

Sharing. When there is a need to conduct joint analysis and research, local organizations can share anonymous data from their offline database with each other to ease the collaboration.

When it comes to sharing with external actors, the coordinating organization only shares anonymized data (such as numbers and statistics) via online platforms or in print, with the media, diplomatic missions, and other decision makers.

Examples of pressure points in the workflow:

- The diversity of skills and backgrounds (analytical, visualizations, communication, and advocacy) on the team of the coordinating organization can be an advantage. However, this also means that people might sometimes have different expectations about the data that others are collecting. There might be different opinions on what constitutes useful evidence that a violation occurred.
- Often there is no clear understanding about the evidentiary standards according to which the data should be collected.
- Personal biases and background of staff might affect the collection of data.
- When a diverse group of people tries to analyze the same data categories, different levels of understanding and personal biases might affect the interpretation and understanding of data.
- Intake biases might make it challenging to speak authoritatively for a region. For example, if an organization gets funding to document a specific type of human rights violations, they will focus on and prioritize that specific theme; hence the data they collect will not reflect the complete reality of the area/country/region in which they work. Similarly, if an organization is located in the capital, it might focus disproportionately on the cases in the capital and not give enough attention to the violations in the broader area.

Case Study 3 Workflow:

