

Technology tools in human rights

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ACKNOWLEDGEMENTS

This report was made possible thanks to many people who contributed their time and energy towards this report. Interviews were carried out by Nisha Thompson and Tom Walker, with assistance from Kara Kaminski-Killany. Zara Rahman wrote the main narrative, and editing support was provided by Alix Dunn. All of this work was financially made possible thanks to the support of the Oak Foundation.

Our thanks also goes to the following people who we interviewed, spoke to, or otherwise drew inspiration from:

Rick Bahague	Beatrice Martini
Wendy Betts	Natasha Msonza
Rory Byrne	Ludmila Polshikova
Indira Cornelio	Chinmayi S K
Alix Dunn	Collin Sullivan
Ishita Dutta	Valeria Umaña
Wael Eskandar	Bert Verstappen
Ahmad Gharbeia	Veronica Vidal
Kody Leonard	Friedhelm Weinberg
Tom Longley	

With support from



This report was commissioned by the Oak Foundation and written by The Engine Room. Responsibility for the information and views expressed in the report lies entirely with The Engine Room (<https://theengineroom.org>).

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First published September 2016

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Introduction

Human rights documentation is a core part of human rights advocacy. And while there is a rich history and community of practice in collecting, storing, organising, analysing, and communicating human rights data, the landscape is quickly changing.

Thanks to digital technologies, there are new tools, new possibilities, new challenges, and new expectations of human rights documentation initiatives. It is increasingly difficult for organisations to know which way to go, what tool to adopt, or what new opportunity to seize. These challenges persist despite an ecosystem of support organisations that work to make this new landscape navigable, and an increasing number of technologists designing with human rights initiatives in mind.

This report is designed as a first attempt to detail available technologies that are designed for human rights documentation, understand the various perspectives on the challenges human rights documentation initiatives face when adopting new tools and practices, and analyse what is working and what is not for human rights documentation initiatives seeking to integrate new tools in their work.

This is offered as a scoping study; we have not set out to make explicit recommendations for specific projects, nor have we exhaustively catalogued all tools that are possible to use in human rights documentation work. That said, we do offer takeaways based on trends we found conducting this study, and some frameworks of thinking about tool functionality that will be helpful for organisations.

The majority of this report's insights come from two series of interviews: sixteen conducted between February and April 2016, funded by the Oak Foundation, and 20 related to our work producing **DatNav** in partnership with Amnesty International and Benetech. These interviews were supplemented by our desk research on tool functionality and other case studies. Our sample size is far too small to make claims about the sector as a whole, but we hope to carry out future research that enables broader conclusions.

Our interviews were conducted with individuals from three main groups (and in the report we include the group that a particular quote comes from):

- **HRDs:**
human rights defenders
- **Intermediaries:**
supporters of HRDs to use technology more effectively, such as digital security trainers
- **Tools developers:**
creators and developers of technology tools for HRDs

In these interviews, we focused on tool functionality in **five main areas**:

1. Data collection
2. Data management
3. Analysis
4. Communication
5. Archiving

We explore human rights defenders' experiences with using and deciding between tools; intermediaries experiences supporting initiatives to adopt and sustain new tools; and tool developers' experiences designing for diverse needs and expectations.

Primary takeaways

Traditional methods still apply

The environment in which HRDs are working has not dramatically inherently changed due to technology and data.

Unreliability and unknown risks provide huge barriers to engagement with technology

In high-pressured situations such as that of HRDs, methodologies used need to be concrete and reliable.

Priorities of HRDs centre around their particular issue

Digital technologies often come as an afterthought, rather than integrated into established strategies for communication or campaigning.

The lifespan of technology tools is a big barrier to longterm use

Sustainability of tools and maintenance is a big barrier to engaging with them and can cause fatigue among users having to change their practices often.

Past failed attempts at using tools makes future attempts more difficult

After having invested time and energy into changing a workflow or process only for it not to work, people are often reluctant to do the same again.

HRDs understand their context best

Tools recommendations coming from external parties sometimes do more harm than good.

There is a lack of technical capacity within HRD initiatives

As a result, when tools are introduced, groups become reliant on external parties for technical troubleshooting and support.

Context

In this report, we primarily consider more high-tech, innovative technology tools, though some low-tech tools are also considered. That said, the environment in which many human rights defenders are working, especially in Global South countries, has not (yet) changed dramatically in terms of their technology usage.

As we discuss later on in the report, there is somewhat of a reluctance to change, and priorities lie in continuing their issue-based documentation, rather than on changing documentation processes. The context for human rights defenders is one of resource limitation and intense pressure; a combination which does not invite experimenting with new technologies.

From our findings, **human rights defenders (HRDs) are using technology tools in a variety of ways:**

1

Communication

to share their findings more broadly, such as through videos, press releases, and to connect online with groups working on similar issues.

2

Analysis

to identify patterns that otherwise would have been less visible without technology tools – such as repeated attacks in certain areas – and presenting this data on maps, charts or interactive online features.

3

Information management

to catalogue, store, and manage information about incidents and events related to human rights cases, as well as sharing it with others working on similar issues.

4

Identifying new incidents

using digital tools and digital data to discover, verify or corroborate violations - for example, by scanning social media or online video networks, or mobile messaging platforms.

5

Historical archiving

to scan paper documents, classify and tag them, make them machine-readable, encrypt them and make backups in case they get lost.

Human rights defenders said that simplicity, familiarity and ease of use were by far the most important criteria when choosing tools. Many used paper forms as their primary form of information capture. Software tools like Word and Excel were mentioned more than any others, while Google Drive and Dropbox were often mentioned as tools for sharing information and managing documents online. Many HRDs knew of the potential security risks associated with using tools like Google Drive (given Google's collaboration with the US government), but chose to use it regardless.

Tools for collaborating on documents and files across borders were particularly mentioned as a gap. Many organisations rely upon Google Drive for ease, needing a way of sharing and collaborating on the same document in close to real time. The ease of setup (signing up for a Google account) and the user friendly nature of the tools and support documentation, along with the reliability of the tools, made it a much more appealing choice for many than a self-hosted alternative.

Most interviewees emphasised that many human rights defenders are working in environments where resources are scarce and where experience with technology is limited. In those contexts, HRDs were unaware of more complex, specialist technology tools, or found them difficult or impossible to use.

While the HRDs we spoke to worked throughout the world (from regions including South and South-east Asia, sub-Saharan Africa and the Middle East), tool developers were generally based in Europe or the US. Many tool developers described putting considerable effort and thought into building tools specifically for HRDs, including user testing and, in some cases, co-creation with partner organisations.

However, the HRDs we spoke to (many of whom fitted the profile of the tools' intended users) found it hard to identify a tool that was right for them, and chose the tools that they did use in a relatively ad-hoc manner.¹ It's worth noting that this tendency is common in many other sectors, as shown by research from The Engine Room and Making All Voices Count.

1 Tool Selection research by The Engine Room:
<https://toolselect.theengineroom.org/>

Considerations

The main considerations mentioned by all three interviewee groups are summarised below. Given the small sample size, these are not comprehensive.

CONTEXTUALISE VS ADAPT

Interviewees generally acknowledged that some tools needed to be specifically designed for a particular situation because human rights defenders are operating in such a wide range of different contexts. However, intermediaries and developers disagreed on whether it was more effective to customise existing tools, or develop new tools for a particular purpose. One HRD we spoke to said that tools which came with lots of “bells and whistles” can inspire organisations with ideas, but practically speaking can also “a challenge” to narrow it down to actual needs.

Another mentioned that a tool they use, CaseBox, is “constantly changing to satisfy requirements of other users” which leaves them with lots of new features they do not need, and consequently “lowers motivation among employees” to learn how to use it. Others mentioned that building custom tools from scratch, suited to particular situations, was perhaps a better route to go down due to the big contextual differences in the field. One HRD we spoke to described her job as “thinking two steps ahead when entering data into the system” - having to think about what people’s needs might be in the future, who might come and need this data, and according to that, adjusting the way in which data is put into a database system. Indeed, a running theme through many of the interviews with HRDs was that database software tools are (with a couple of exceptions) not meeting their needs -

somewhat counter-intuitively, sometimes because it is too complicated, and sometimes because it is lacking features that they need.

Where tools had been built with a general human rights documentation use case in mind, some HRDs we spoke to noted that in the effort to cater to so many different contextual differences, the tool had become too complicated for use, or became difficult to distinguish from other tools available. For example, one interviewee described Martus as being “too big and too complicated” for use, with another interviewee saying that HRDs they work with “are not sure what the differences are between database software” for documentation purposes.

DIGITAL SECURITY CONCERNS

Less than a third of organisations we spoke with were using tools which were managed or produced by for-profit entities, and the majority of those were not specifically aimed at human rights defenders, for example, Google Drive, or Dropbox. Through desk research, though, we came across one technology tool aimed at human rights organisations and non-profit entities which is built by Palantir, a company that has received major funding from the CIA, which offers database analysis and technology services through their “**Philanthropy Engineering**” branch.

For human rights defenders working in politically restrictive or sensitive areas, a decision here must be made on whether it is appropriate to share data with companies that have such tight links to the CIA or the US government,² despite the seemingly attractive

² To learn more about responsible data concerns, please see the Responsible Data Handbook <https://responsibledata.io/resources/handbook/>

(and well-resourced) technology support. If an organisation chooses to work with a company like Palantir, it is reasonable to assume that US Intelligence agencies have access to whatever data is being collected.

In some contexts, using technology to document human rights violations was identified as a potential risk: Wendy Betts, director of eyeWitness to Atrocities, said: "In some places, even owning a smartphone that can film is problematic." Video was identified as especially problematic within Zimbabwe. One Zimbabwean activist said: "Zimbabwe is a country that has a higher level of paranoia and pointing your phone at a group of people like you're taking video can be seen as an aggressive act".

For more on the security practices of human rights defenders, please refer to research conducted by Becky Kazansky for Tactical Technology Collective on digital security in human rights.³

PRIORITIES

Many tools developers we spoke to recognised a lack of uptake in their tools among human rights defenders, with some realising that this was a clash of priorities. For example, though Patrick Ball spent a long time trying to encourage uptake of Martus, he realised that ultimately many of his efforts were unsuccessful because at the time, "people wanted to get their data together, rather than it necessarily being secure."

When it came to using tools, priorities identified by potential users focused around the usability and accessibility of the tool. Having tools in local languages made a big difference to this, and being able to ask for and receive help in languages other than English helped people to feel comfortable with new tools.

FINDING INFORMATION

Knowing where to start when an organisation or an individual has decided they need a technology tool to perform a certain function for them, was raised multiple times as the very first barrier. For those who don't speak English, this becomes even harder, as very little documentation or description is available in, for

example, Arabic. Key issues that were raised along these lines here centred around not knowing who to ask, or what standards are already in place; for example, what categories to use when digitising information, or building a database of violations.

Others mentioned using Google searches to find out what has already been done in the field they were looking into; but in some cases, this has proven to be unreliable, with people often unsure how up to date or reliable the information was. In some cases, documentation stops getting updated but without any visual 'flags' to the untrained eye. Others identified that talking to some technology providers yielded biased information. Mike Romig, who supports human rights organisations working in Egypt, said: "when you speak to one provider, they will generally recommend that you use their solution, and not necessarily what the organisation needs."

CHOOSING A TOOL

Though this isn't specific to human rights defenders, choosing tools seems to happen in a relatively ad hoc way.⁴ Indra Cornelio, from Mexico, said that sometimes a tool will get adopted simply because a director hears about it and pushes for it within the organisation, rather than because it is necessarily the best-suited tool, and others mentioned a tendency within organisations or communities to use the most popular tool rather than the most appropriate one.

For newcomers to the field, there seem to be few visible differences between tools with similar aims; for example, Martus was compared to OpenEvsys and Casebox, with non-expert interviewees unable to distinguish what differentiated the various tools. Some organisations are also looking outside of tools labelled explicitly as being "for" human rights purposes, to find tools that they can repurpose for their needs, such as IMB's I2 or Sentinel Visualizer.

3 <https://tacticaltech.org/projects/security-context>

4 See the Engine Room's Tools Selection research, published in 2016.

YOUR DATA

WHAT KIND OF DATA ARE YOU USING?

Videos? Photos? Audio recordings?
Social media posts? Files (such as PDFs)?
Satellite imagery? Text? SMS messages?
Medical records? GPS coordinates? Paper documents? Something else?

WHO COULD YOUR DATA PUT AT RISK?

Think about the people that create the data, who are described in the data, who provide or deliver the data, who store the data (including your team)!

WHERE WILL YOUR DATA BE STORED?

Even information stored "in the cloud" ultimately exists on a physical server somewhere. Will you use your own server or someone else's? Can you access it safely? Do you trust the owner?

HOW CAN YOU HANDLE YOUR DATA SECURELY?

Look for a tool that offers **Encryption**, as well as **Audited Open Source Code***. **Data should be encrypted wherever it exists:**

- **at rest** (stored on a device or server)
- **in motion** (sent over email, wifi, etc.)

* **Open Source** means the code is available for review. If the code has been audited by people or organizations you trust, and no one has found any flaws, then it may be as secure as possible.



YOUR TOOL

WHAT DO YOU WANT TO DO?

Preserve data? Collect data? Verify data?
Analyse data? Manage data? Some
combination of the above?

WHERE WILL YOU USE THE TOOL?

Will you use it in an area with high mobile
phone usage or in an area with low cellular
network coverage?
Will it ever have to work offline?

WHAT DEVICE WILL YOU USE IT WITH?

Do you need it to work on a mobile device?
iOS, or Android? Or do you need it to work
on a laptop? PC, Linux, Mac?

DOES YOUR TEAM HAVE THE RESOURCES IT NEEDS?

**DOES THE TOOL SUPPORT ALL THE LANGUAGES
AND CHARACTER SETS YOU NEED?**

IS IT EASY TO USE?

- Will it require customization to use?
Do you have the time and staff to
do that?

IS TRAINING AVAILABLE?

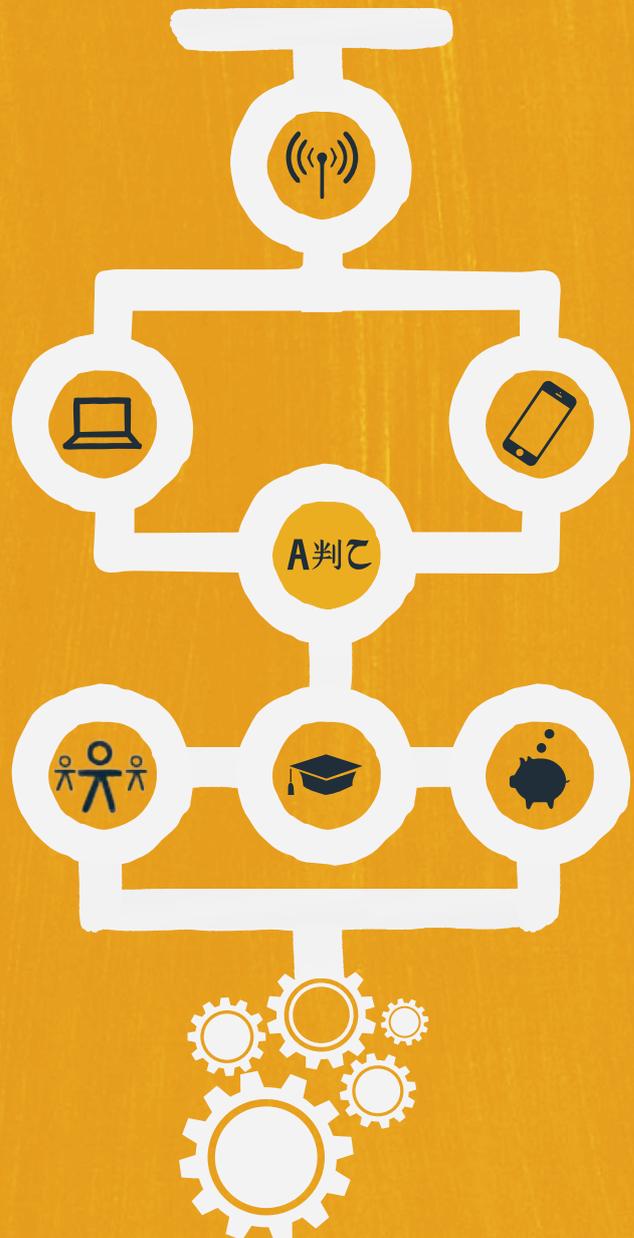
- Does the tool include
documentation or technical
support?
- Does your team have in house tech
support, or people willing to learn?

HOW MUCH WILL THE TOOL COST?

- Is the tool free to use? Does the
license require a fee?



A COMBINATION OF THE ABOVE?



TOOLS AND PLATFORMS

A SUMMARY OF TOOLS BUILT SPECIFICALLY FOR HUMAN RIGHTS DEFENDERS

PROJECT NAME	OPENEVSYS	RIGHTSCASE	MARTUS	CASEBOX	PALANTIR (GOTHAM & METROPOLIS)
PROJECT OWNER	HURIDOCS	E.qualitie	Benetech	HURIDOCS/Ketse	Palantir Technologies
LOCATION	Geneva, Switzerland	Montreal, Los Angeles, Dublin	CA, US	Geneva, Switzerland	CA, US
CREATED	2009	2009	2003	2011	2004
SUPPORT PROVIDED?	Yes	Yes	Yes	Yes	Yes
PRIMARY AIM	Database application	Case management system	Information management + collection	Information management	Information management
CUSTOMISATION?	Yes	Yes	Yes	Yes	Yes, by Palantir
HOSTING?	Through HURIDOCS (for a fee) or self-hosted	Through eQualit.ie (for a fee) or self-hosted	Through Benetech or self-hosted	Through HURIDOCS or self-hosted	Needs to use cloud technology
OPEN SOURCE	Yes: source code	Yes: source code	Yes: source code	Yes: source code	No
LANGUAGES	Arabic, Bahasa Indonesia, Chinese, English, Estonian, French, Georgian, German, Hungarian, Italian, Khmer, Russian, Serbian, Spanish and Turkish		Arabic, English, Chinese, French, Khmer, Burmese, Farsi, Russian, Spanish, Thai, Vietnamese, Nepali, Armenian	Arabic, English, French and Russian	"All languages including Elvish"
TRAINING OPTIONS	Provided by HURIDOCS	Provided by eQualit.ie	Provided by Benetech	Provided by HURIDOCS	No
SECURITY CONSIDERATIONS	Audited code	Audited code	Audited code	Audited code	From CIA-funded start up

APP FUNCTIONALITIES

SOME MOBILE APPLICATIONS DEVELOPED SPECIFICALLY FOR THE PURPOSE OF HELPING HUMAN RIGHTS DEFENDERS

PROJECT NAME	MEDICAPT	EYEWITNESS TO ATROCITIES	CAMERAV	VIDEO VAULT	UMBRELLA
PROJECT OWNER	Physicians for Human Rights	International Bar Association	Guardian Project and WITNESS	RightsLab/Enrique Piraces	Security First
LOCATION	NY, US	London, UK	NY, US	NY, US	UK
CREATED	2014	2015	2015	2015	2015
PRIMARY AIM	Information gathering	Verifiable photo and video capture	Verifiable photo and video capture	Video preservation	Info on security
CAN THE TOOL BE USED OFFLINE?	Yes, but needs internet to submit.	Yes, but needs internet to submit data.	Yes, but needs internet to submit data.	No	Yes
OPEN SOURCE	Unclear	No	Yes: source code	Unsure	open source
LANGUAGES	English only	English, Spanish, French, Arabic, Russian, and Portuguese (Brazilian)	English, Spanish, Portuguese (Brazilian), French, Arabic, Norwegian, Swedish, Portuguese (Portugal), Sinhala, Turkish	English	English
SECURITY CONSIDERATIONS	Data is encrypted	Not open source; has quick dispose function	Data is encrypted	Currently in beta	Optional password
PLATFORM	Unclear	Android	Android	Unclear	Android

Usefulness of tools

Opinions varied as to the usefulness of technology tools in facilitating documentation of human rights violations. Interviewees identified many more problems than success stories. Overall, there was consensus that in theory, technology could facilitate documentation work – especially in situations where paper documentation was simply getting overwhelming in quantity, a problem which will only increase with time.

RECOGNISING PATTERNS

Organisations who invested time and effort into setting up well-structured information management systems noted that the ability to pull up cases quickly and efficiently benefited their work. For example, for the Bangladesh Legal Aid and Services Trust, rather than manually going through 60 case files with lots of documents – which involved requesting copies of case documents from different offices – they anticipate that having the system digitised will make analysing the cases much easier. They hope that being able to see similar cases at a glance will help them to push for law and policy change, supporting their longer-term goal of not just prosecuting individual cases, but identifying and lobbying for a change in laws and policies to address the problem systemically.

PARTNERSHIPS

The most successful examples of technology tool uptake involved **partnerships** between organisations from different sectors, such as **Umbrella**.

The way these collaborations were framed were particular in that they weren't explicitly described as "capacity building" partnerships, but rather just as partnerships to make sure that the tools development was anchored within different organisations' needs, and that tools users had opportunities to help shape the development from the very beginning. Though these partnerships started focused on a technology tool or problem, they made collaborating on other issues easier, too.

Veronica Vidal, who works on women's rights with the Association for Women's Rights in Development (AWID), mentioned that using technology to document violations has really strengthened their work because it has enabled organisations within their network to collaborate and pool their resources in a much easier way than previously.

SHARING INFORMATION

Digitising documents is helping human rights defenders share information with other stakeholders, too. In Bangladesh, engaging with digital case management is a relatively recent decision, and Ishita Dutta from the Bangladesh Legal Aid and Services Trust says this will make sharing data with researchers easier to do, theoretically allowing for more coordinated advocacy efforts among different stakeholders.

In Burma, the data gathered through the National Documentation Network's Martus database is shared with international advocacy groups and individual researchers so that they can help spread word of the human rights situation in Burma. On the other side, though, one intermediary we spoke to mentioned that HRDs he supports often want to share "subsets" of information with others, and find this difficult to do in terms of technical permissions.

MANAGING LARGE AMOUNTS OF DATA

For organisations who had previously been using paper-based documentation or database systems, having well-structured digital databases enabled them to actually use that information in a much more efficient way.

For example, the Alkarama Foundation, based in Geneva, entered data they held about victims and violations in the Arab World into a modified open-source Customer Relationship Management (CRM) system, which allowed them to pull out long lists of violations in a particular country, and enabled them to provide better evidence proving that there were serious, repeated issues, and keep track of how the cases were moving forward.

Barriers to tools use

Despite an initial attraction to technology tools as potential solutions to problems faced by human rights defenders, the outcomes that we heard definitely aren't all rosy: almost of all the intermediaries we spoke to had numerous examples of serious problems that HRDs they worked with had faced due to their choice, or use, of technology tools in their human rights documentation work.

It is also worth noting that the majority of tools mentioned are primarily available in English, with limited functionality in other language scripts, even major world languages like the Arabic script, or Cyrillic. Naturally, this limits their usefulness for those who do not work primarily in the Latin script.

Overall, there seemed to be a growing cynicism around tools, especially by people who had tried using a certain tool and found it to be unsuitable, and by those who were working in very different contexts to the one in which the tool was developed. Reconciling those very different realities will be crucial to providing useful tools in the future. Below is a non-exhaustive selection of the most commonly mentioned problems.

DIGITAL SECURITY

Valeria Umaña, who works with groups in Nicaragua, said that for the people she works with, "the more technology they have, the more danger they can be in". She gave the example of one member of their community wanting to share a video documenting a violation, who had heard that he could send the video through Facebook; but instead of sending it to the intended recipient, he found another page with a similar name, and sent it to them instead by mistake.

We also heard that conflicting or confusing advice between those who are deep into the digital security world, and perhaps removed from the realities of human rights defenders work, has sometimes put people and their information in danger. For instance, one interviewee highlighted a case of an NGO they work with who was encouraged to change to a free software operating system, which then wasn't interoperable with their printer - so in order to print documents they started to put documents on USB sticks and print them out at local internet cafes. Before too long, they realised that the USB sticks had been misplaced, which resulted in a worse security breach than was initially anticipated.

Being realistic about the overall security situation of the people using the tools is key to coming up with an actionable plan for dealing with threats and risk, and this requires a solid knowledge of context in addition to understanding of digital security.

DATA STORAGE

Storing data can be expensive, especially in the case of high-resolution images, or video, as Friedhelm Weinberg of HURIDOCS identified: storing lots of data, cataloguing it and making it searchable over a long (perhaps indefinite) period of time, is an ongoing problem. Though a number of tech tools make it easier for video to be captured or found, a few interviewees identified that the issue of storage was still a growing problem for them, both in terms of prohibitively high costs, but also a technical solution that can be easily accessible by anyone within the organisation - and ideally, with offline access, too.

Ludmila Polshikova of the Russian Justice Initiative also mentioned that many of the photos she receives are large in size: 4 to 9MB per photo. To store and work with them, she or members of her team, have to compress the photos and compile them into one document, which can be a time-consuming process.

Keeping track of where external data storage sources are kept was also mentioned as a problem. Multiple people mentioned that they kept encrypted backups of sensitive data on external hard drives in places outside of their office, for security reasons. Though having multiple copies seems like a good idea, knowing at any one time where all of those copies are is important - in particular as it was mentioned that sometimes those copies can go astray, especially as the number of external data sources increases.

MANAGING EXPECTATIONS

For human rights defenders who are engaging with a new tool, managing their expectations was identified as an area of particular concern. Groups who decide to develop their own tool often underestimate the timescale – for example, Rick Bahague from the Computer Professionals' Union (CPU) based in the Philippines recalled a case when in 2004 CPU was approached by a human rights organisation to help them create a system for their fact sheet. Developing that tool took nearly three years.

Relatedly, knowing what the data that is collected through the tool can (and can't) be used for is important; for example, SafeCity, a crowdsourced data initiative from India, are aware that the data that they collect can't be used in legal cases because of the fact it is crowdsourced. Patrick Ball identified the importance of knowing what your data can be used for in terms of drawing conclusions or statistical analyses, and when that data is unsuitable for the kind of analyses that would be more useful.

INTERNAL RELUCTANCE

Multiple intermediaries and HRDs highlighted the challenges associated with getting a new tool to be used; as Kody Leonard of The ISC Project mentioned, "people like to stick with what they know". Without clear incentives for engaging with a new tool, people identified that it can be difficult to get a new tool to be used.

Mourad Dhina admitted that a "good amount of lobbying had to be done internally" to convince people within the organisation that they needed better tools, and Janvier Hakizimana mentioned that it can often be hard to get buy-in from management to spend time and resources on getting used to a new tool. One strategy for combatting this, cited by Indira Cornelio was focusing reasoning for the new tool to be protecting the safety of the people they are trying to help, rather than defenders' own safety.

COMMUNICATION

When developing and choosing the tool, **effective communication** between those building the tool and those using the tool seems to make a huge difference to its success. When people with very high levels of tech capacity but low understandings of the realities of human rights defenders work are brought in to advise on their tech use, interviewees who worked with HRDs cited occasions of a "culture clash" between people with very high levels of technical literacy, and activists or HRDs with lower levels.

One interviewee who works between technologists and HRDs mentioned that people coming from hackerspaces who are very dedicated to security tools often recommend switching to open source tools which often less user-friendly than proprietary equivalents. This approach can backfire, as outlined below in the Digital Security section.

To help address this issue, both intermediaries and developers we spoke to emphasised the need to prioritise understanding the issues involved on a human level prior to tech development. Understanding the sensitivity of the issue at hand can be seen in everything from the tools implementation, training styles, and the design choices made in the tool itself. For example, Mourad Dhina, Executive Director of Swiss organisation Alkarama, stated that his organisation had changed the language initially used to register a violation in a database from "**create** victim" to the more appropriate "**register** victim".

Interestingly, there was some overlap between information management and communication tools, and some cases where tools were used for purposes other than the one for which they were designed. For example, an activist collective who supports parents whose children are missing in Mexico, used Gmail to archive information by sharing a common Gmail account.

Sustainability

Sustainability and the lifetime of tools was mentioned by all target groups in different contexts, and seems to be a major concern in using and engaging with technologies for many reasons, as outlined below.

TECHNICAL SUPPORT

A problem that a number of interviewees identified was ongoing support for the application or tool that they chose. For example, for one land rights organisation who invested a lot in using a tool to help them document land rights violations, finding out that the tool is now going unsupported due to a lack of funds essentially means that they've wasted time and resources.

Another interviewee told us about a three day training which took place in April 2016, organised by the UN Office of High Commission of Human Rights (OHCHR) in Uganda on the database which was developed for Ugandan Human Rights organisations. During the training, participants realised there were some technical hitches in the database. But instead of addressing these, OHCHR told them that there was no plan for continuity or updating the software as user needs and technologies evolve, thus seriously undermining the long-term usability of the database.

Planning for ongoing support seems to pay off, too: Ludmila Polshikova, who works with the Russian Justice Initiative, mentioned that having an ongoing support contract with HURIDOCS has been very valuable, and means that whenever they have a problem with CaseBox, they can contact HURIDOCS directly for support.

TECHNICAL REALITIES

In Zimbabwe, a lack of regular internet access in remote areas means that using tools like Martus, which would ideally synchronise with a main server, is difficult. After piloting Martus, one organisation ended up reverting back to their usual setup of using Excel and then manipulating the data in other software programs. In this case and others, the need to be conscious of connectivity in areas where the tool will be used was highlighted multiple times. In Nicaragua, Valeria Umaña said: "for people in the countryside, the more apps they have, the more problems they can have because they often don't know how to use them" - so, they try to focus on the minimum technology necessary, rather than training on more complex tools or applications, sometimes relying on non-internet technologies, such as community radio.

Rory Byrne mentioned that the fact that digital technologies might not have worked in the past for human rights organisations can negatively affect their willingness to try a new tool in the future. Strategies like one-off trainings, or tools that are difficult to use, have left people feeling "burned" by the waste of resources and time that was put into them, and Rory identified that among trainers + tools developers he knows, the attitude of one-off trainings was beginning to be challenged in favour of more long-term, sustained support.

HUMAN CAPACITY

Understanding the technical or data skills of the team + members involved can affect how implementation of a tool actually plays out. For example, for the team at the Migrant Forum in Asia, which coordinates an online database that its partners contribute to, their ideal scenario is that eventually their members would enter data directly into their online reporting database themselves; but in reality, not all of them have the time or the necessary technical expertise.

Or, understanding that your community might use new technologies without being wholly aware of the consequences; one interviewee raised the example of people sharing videos on social media in solidarity, without realising that people in the video might not want their image to be so widely shared.

Veronica Vidal highlighted the issue of staff turnover: if a database is built by one person and then they leave without completing good documentation on what they've done, it might then become very difficult to update the structure or add new features without a lot of time investment. Ahmad Gharbeia, who works with the Arab Digital Expression Foundation, mentioned that many of the human rights organisations that he works with "do not have a local ICT champion who can orchestrate their systems and processes and be at the same time well-versed with the field".

ONGOING TRAININGS

Many of the people we spoke to were involved in some way in training human rights defenders to use technology tools. In some of these cases, this training included work-arounds to ensure the safety of people involved: for example, in Nicaragua, they actively train people on taking photos of situations without even including the faces of people involved to avoid any unwanted or accidental information disclosure.

People who had experienced cases of "one-off" trainings unanimously said that they were an unsuccessful way to ensure uptake and use of technology tools, and many had anecdotes of organisations who had received a training on a tool, then realised just after that they still needed assistance, but didn't know where to turn once the trainer had left. Moving away from that strategy, Rick Bahague mentioned that they stay in constant contact with people using the tool after any trainings, and maintained open communication channels in case anything is needed.

Several intermediaries who work with human rights defenders said that from their experience, HRDs were more interested in understanding new methods, such as how to store and manage video, than in what specific tool options were available. Many mentioned a desire for training on documentation methodologies to also include more information digital technology tools within the training- for example, on ways to use a mobile phone for documentation.

UPDATES

Providing updates to technology tools - specifically, mobile applications and software -- can be a double-edged sword. On one side, they're necessary to respond to security changes, and to provide new features as per request. But on the other, pushing out updates to users with low bandwidth can be problematic; so, staggering the updates and/or making them as small in size as possible is preferable.

LONG-TERM CONTROL

Though a tool might initially seem to suit all of the identified needs, it's worth thinking about long-term control over the platform, or the data that is made available through it; especially when it comes to commercial social network platforms. For example, as Natasha Msonza highlighted: using Whatsapp as a communication tool to share incidences of violations works well, but doesn't allow any measure of control. Anybody in the group can see other people's numbers, and can add a user groups without consent - and there's no way to delete messages from someone else's phone. In the case of sensitive information shared in Zimbabwe, this lack of control has had serious consequences for human rights defenders.

Similarly, those who use commercial tools or social media platforms to gather information on violations from their network, like the Bangladesh Centre for Human Rights, are largely reliant on Facebook's Newsfeed algorithms showing them relevant information from their community. Changes in those algorithms could have huge effects on the spread of information around human rights violations, and not only is there basically no way of knowing if and how those changes are happening, but the human rights community has effectively zero control in reversing them.

With this in mind, the many cases that were mentioned of organisations using proprietary tools becomes ever more worrying. Though there may well be usable open source alternatives, the fact remains that many proprietary tools are often more well-known, or have higher levels of usability, and as a result, more and more organisations are becoming reliant upon them.

Conclusion

This study is intended as a **scoping study** rather than to provide concrete recommendations. That said, several common threads came up throughout our interviews and desk research:

FOR TOOLS DEVELOPERS

Communicate clearly about your tool

A range of different database and information management tools are aimed at HRDs. However, few people we spoke to could identify the major differences between them (unless they had explicitly worked on one of the tools themselves).

Work with partner organisations from the beginning

though “co-creation” is becoming somewhat of a buzzword in these spaces, the principle behind it remains. Find and work with groups who are the “target user” for the tool, and value their contribution not just as an opportunity for feedback, but as equal partners and co-designers on the tool.

Reality check your assumptions often

this might be through contributions from others (see ‘work with partner organisations’, above), but could also happen by testing out iterations with target users, or by sending developers working on the tool to see the reality of the tool being used.

Be humble and collaborative

sometimes the tool you work on might not suit the needs of the people you are speaking to. Rather than trying to adapt your tool and convince them that they can use it, be prepared to recommend tools from “competitors” - and try to see it as contributing to the greater field.

FOR HUMAN RIGHTS DEFENDERS:

Stay critical, and be responsible

the opportunities granted by digital technology tools are great, but so are the risks. Try to keep aware of those risks—join communities like the **Responsible Data Forum**⁵ to keep up to date with current responsible data news and trends, and think about the holistic security impact⁶ of using certain tools.

Get second opinions

before committing to a certain tool, or to working with a certain set of developers—try to speak to others with expert knowledge of the field. The investment in time beforehand is worth it, if only to be sure that you’re making the right decision.

Be realistic

no technology tool is going to “solve” social issues or problems, and getting people to change their behaviour is difficult. Be clear on why you’re using a certain tool, and what the incentives are for the people around you.

Think long term

though a certain tool might seem like the easiest option now, what about in 2 years or 5 years time? What will you want to do with the data, and who owns it? Ask up front about the sustainability issues raised above.

⁵ http://lists.theengineroom.org/lists/info/responsible_data

⁶ See Tactical Technology Collective’s work on holistic security: <https://tacticaltech.org/holistic-security>

APPENDIX

Tool Functionality

In addition to our insights on tool usage and adoption, we learned a lot about tool functionalities. We wanted to summarize and share some of that information here, in the following categories:

 DATA COLLECTION

 DATA VERIFICATION

 DATA STORAGE

 DATABASES (FOR EXISTING CONTENT)

DATA COLLECTION

OPENEVSY

[HTTP://OPENEVSY.WPENGINE.COM/](http://openevsys.wpengine.com/)

OpenEvsys is a database tool, created in 2009, primarily used for recording information, browsing, retrieving data points, and analyzing data.

- Can filter data views, has a charts and map function that can be used with filters
- Can be used offline if you host on a standalone computer
- Users can run their own instances
- Open source
- Offered in Arabic, Bahasa Indonesia, Chinese, English, Estonian, French, Georgian, German, Hungarian, Italian, Khmer, Russian, Serbian, Spanish and Turkish
- Huridocs will host the data for NGOs that don't have the technical capability for \$500 USD per year and include default SSL encryption of communications, installation of patches and bug fixes, and daily offline backups of the database.

RIGHTSCASE

[HTTPS://EQUALIT.IE/PORTFOLIO/RIGHTSCASE/](https://equalit.ie/portfolio/rightscase/)

RightsCase, created in 2009, is used for recording, collating, and analyzing information.

- Extensive statistics and analytical tools including tab reporting, mapping, managerial overview, and data viz
- Can be used offline if downloaded
- Users can run their own instances
- Open source
- Data gathered on platform is stored on equalit.ie's server or locally on a user's computer.

MARTUS

[HTTPS://WWW.MARTUS.ORG/](https://www.martus.org/)

Martus, created in 2003, is used for information management.

- Data can be collected on the mobile phone and then uploaded to the server to store and analyzed by another use on their desktop
- Can be used offline, but information cannot be sent to server until you have internet
- Users can run their own instances
- Open source
- Offered in Arabic, English, Chinese, French, Khmer, Burmese, Farsi, Russian, Spanish, Thai, Vietnamese, Nepali, Armenian
- Data gathered on platform is stored on Martus' server

SECUREAPP

[HTTPS://SAG.BENETECH.ORG/](https://sag.benetech.org/)

SecureApp is a data collection tool that was released in 2016 and is currently in beta.

- Provides public system for the creation of secure, multilingual, and open source data collection apps that will improve information management and reduce the risk of exposure for people in the field. Can be used offline, but information cannot be sent to server until you have an internet connection.
- Users can run their own instances
- Open source
- Data gathered using the tool is stored on a server of users choosing

ATLASTI

[HTTP://ATLASTI.COM/](http://atlasti.com/)

Atlasti, was released in 1993, is used for qualitative data analysis.

- Code/mark data sources and assign them to specific categories to be able to analyze how/when/how many times a topic is mentioned,
- Can be used offline
- Users can run their own instances
- Open source
- Offered in Spanish, English, German
- Data is uploaded into the software so it is stored wherever you chose to store it.

PEOPLE'S INTELLIGENCE

[HTTP://PEOPLES-INTELLIGENCE.ORG/](http://peoples-intelligence.org/)

People's Intelligence, released as a demo in 2015, is a crowdsourced data collection and verification tool.

- Automates the collection of relevant humanitarian and human rights information from hard to access areas and verify it using crowd-sourcing and "dumb" mobile phones.
- Can be used offline via mobile phone
- Users can run their own instances
- Data gathered on platform is stored with People's Intelligence

PALANTIR GOTHAM & METROPOLIS

[HTTPS://WWW.PALANTIR.COM/](https://www.palantir.com/)

Palantir's tools are used for information management and statistical analysis.

- **Commercial tools - Palantir has received major funding from the CIA**
- Data can be mapped into a single, coherent model. Once that is set up data flows continuously from their sources into Palantir and is then more easily analyzed and reviewed
- Needs to use cloud technology
- Some functionality available offline, but need to have internet connection for full usage
- Available in "All languages, including Elvish"
- Data gathered using the tool is stored in cloud storage

CDS/ISIS

[HTTP://PORTAL.UNESCO.ORG/CI/EN/EV.PHP-URL_ID=2071&URL_DO=DO_TOPIC&URL_SECTION=201.HTML](http://portal.unesco.org/ci/en/ev.php-url_id=2071&url_do=do_topic&url_section=201.html)

CDS/ISIS is information storage and retrieval software, developed in 1985.

- **Allows for building of non-numerical databases (text). Able to produce HTML web forms for database searching. Has API for developing web based application.**
- **Can be used offline**
- **Users can run their own instances**
- **Open source**
- **Offered in Arabic, Chinese, English, French, German, Portuguese, Russian, Spanish**
- **Data is stored locally on your computer**

MEDICAPT

[HTTP://PHYSICIANSFORHUMANRIGHTS.ORG/MEDICAPT/](http://physiciansforhumanrights.org/medicapt/)

MediCapt is used to collect photographic evidence to preserve forensic medical evidence of sexual violence, currently under development.

- **MediCapt replaces paper documents and will be designed with prompts that help doctors avoid common mistakes, remind them of the necessary information needed for a forensic medical examination, and catch inconsistencies before the form is completed. Can be used offline but needs internet to submit**
- **Can be used offline but needs internet to submit**

DATA VERIFICATION

EYEWITNESS TO ATROCITIES

[HTTP://WWW.EYEWITNESSPROJECT.ORG/](http://www.eyewitnessproject.org/)

eyeWitness was created in 2014 and is used for verification and metadata collection.

- Uploads raw footage of events through the app with crucial metadata. If footage is gathered through the app, it will be known as a verified file.
- Can be used offline, but needs internet to submit
- Available in English, Spanish, French, Arabic, Russian, and Portuguese (Brazilian)
- Data gathered using the tool is stored on the photo within the app. You can then transit the image through the internet or save to an sd card and then transfer the image.

INVID

[HTTP://WWW.INVID-PROJECT.EU/DESCRIPTION/](http://www.invid-project.eu/description/)

InVid is a tool that is used for video verification and permission, currently being developed.

- Ensures video is verified and rights-cleared and that it is readily available for integration into breaking news and development stories. Exact functions are not yet defined as the tool is under development.

THE WHISTLE

[HTTP://THEWHISTLE.ORG/](http://thewhistle.org/)

The Whistle is a verification tool that is currently being developed.

- Web and mobile app that allows end-users who have witnessed human rights violations to report the issue and send their information to the appropriate NGOs, who track and verify such reports
- reporting platform will have a lot of resources and explanations for civilian witnesses

CAMERAV

[HTTPS://GUARDIANPROJECT.INFO/APPS/CAMERAV/](https://guardianproject.info/apps/camerav/)

CameraV is a tool for capturing and sharing verifiable photos and video proof on a smart-phone or tablet, all the while keeping it entirely secure and private.

- Embeds android device's images and videos with geotemporal and other metadata, signs with digital signature unique to device's camera sensor, encrypts
- Can be used offline, but needs internet to submit
- Available in English, Spanish, Portuguese (Brazilian), French, Arabic, Norwegian, Swedish, Portuguese (Portugal), Sinhala, Turkish
- Open source
- Information is meant to be processed on the mobile device and then is sent to another individual who maintains it on their secure server

VERIFIED PIXEL

[HTTP://WWW.VERIFIED-PIXEL.COM/](http://www.verified-pixel.com/)

Verified Pixel, currently in beta, is used for automating image verification.

- When an image is added to their database it checks Google Images and TinEye to see if the image has appeared online before, scans image for EXIF data, and run it through the image forensics tool Izitru to see if the image has been altered. The image is then displayed where the user can review the checks.
- Open source

VIDEO VAULT

[HTTPS://WWW.BRAVENEWTECH.ORG/](https://www.bravenewtech.org/)

Video Vault, currently in beta, is a verification tool.

- Allows user to upload video from other online platforms where they can then download it to other platforms, zoom in and slow down certain sections, authenticate it with a time-stamp and cryptographic hash, view a 'fast frame'
- Data gathered using the tool is stored on the server for the site

DATA STORAGE

CASEBOX

[HTTPS://WWW.CASEBOX.ORG/](https://www.casebox.org/)

CaseBox, released in 2011, is a tool for data management and organization.

- Stores your contacts and files in a more organized fashion than on your desktop. Allows for more details to be stored on each file making them more easy to search for.
- Can be used offline
- Users can run their own instances
- Available in English, French, Russian, and others can be uploaded
- Open source
- Data gathered using this tool is stored in the cloud.
- Source code is audited regularly for security considerations

CORROBORATOR

[HTTPS://EQUALIT.IE/PORTFOLIO/CORROBORATOR/](https://equalit.ie/portfolio/corrobtorator/)

Corroborator, created in 2014, is designed to process massive amounts of metadata related to particular events and people.

- Stored data can be viewed and annotated by researchers and analyst. Users are able to narrow down their search criteria within large scale amounts of data. From this they can build atomic entities into complex incidents which represent a chronology of events and a compilation of media information.
- Open source
- Available in Russian, Arabic, English

USHAHIDI

[HTTPS://WWW.USHAHIDI.COM/](https://www.usahidi.com/)

Ushahidi, created in 2008, is used for data mapping from multiple sources that can be managed with filters and exported.

- Data is collated from a variety of sources and is sorted and mapped. Multiple maps and charts are available, analytics are coming soon.
- Open source
- Provides guide to installing languages
- Data gathered on this platform is stored with the Ushahidi website

DATABASE (EXISTING CONTENT)

ARCADE

[HTTPS://RUDIMENT.INFO/PROJECT/ARCADE/](https://rudiment.info/project/arcade/)

Arcade, currently in prototype stage, is used for analysis of satellite images.

- A prototype MATLAB application that applies computer vision techniques to Google Maps satellite imagery. This version of the software will detect artillery craters, annotate and segment images, extract features, plot crater centroids and trajectories of inbound fire to file.
- Open source
- Data is stored on user's computer

SJAC DATABASE

[HTTPS://SYRIAACCOUNTABILITY.ORG/DATABASE/](https://syriaaccountability.org/database/)

The Syria Justice and Accountability Centre's Database is used for storage purposes.

- Designed to preserve, catalogue, and facilitate the analysis of documentation of human rights, humanitarian, and international criminal violations. It archives videos, pictures, documents, and other files – along with Syria-specific metadata such as the source, location, time, types and methods of violations, and the actors involved.
- Open source
- Available in Arabic, English

YOUTUBE BLUR

[HTTP://YOUTUBECREATOR.BLOGSPOT.COM/2016/02/BLUR-MOVING-OBJECTS-IN-YOUR-VIDEO-WITH.HTML](http://youtubecreator.blogspot.com/2016/02/blur-moving-objects-in-your-video-with.html)

YouTube Blur is a tool for video editing and increased anonymity.

- Simple tool that allows you to draw a box over what you want to be blurred in your video, lock on the item, and have it blurred through the duration of the video.
- Same languages available as YouTube

UWAZI

[HTTP://WWW.UWAZI.IO/](http://www.uwazi.io/)

Uwazi is a web based solution for building and sharing document collections.

- Ability to publish, index, cross-reference and recommend documents. Can set up with custom elements that are important to your work, i.e. themes, institutions, judges, authors etc. Has search, find, and bookmark abilities from computer and mobile device.
- Open source

AEROCMS

[HTTPS://WWW.HURIDOC.S.ORG/AEROCMS/](https://www.huridocs.org/aerocms/)

AeroCMS is a content management platform for HR organizations that have a very large quantity of data that needs to be properly presented on their website.

- The interface can be translated into multiple languages and can have several version of the same document easily added. It is tightly integrated with the Solr search engine which combines powerful full-text search with faceted results. Searching through the database is fast and can handle multiple concurrent users.

THE ENGINE ROOM

The Engine Room is an international organisation that helps activists, advocates and social change initiatives increase their impact by making the most of data and technology.



THE ENGINE ROOM
Accelerating Social Change