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Fostering good practices in the use of information and communications technologies

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Integrating the use of new technologies within an NGO cannot be improvised. This is the key message Maëve de France and Nina-Flore Eissen pass on here. The two authors present strong recommendations for the humanitarian sector based on CartONG's significant experience in the subject.

In our work in this area since 2006, we at CartONG[1] have not only seen the advances that information and communications technologies (ICTs) have generated for the sector. They also witnessed the direct and indirect negative or unwanted impacts of new technologies for humanitarian organisations and for beneficiaries themselves. As an actor using and promoting these tools on a day-to-day basis, fostering best practices to ensure the adequate use of ICTs is to us essential.

Getting it right from the start

A frequent issue that we have encountered in large humanitarian organisations is the tendency to try and find a good use case for the latest technology– the most recent cases being drones and blockchain for instance[2] – instead of testing and selecting a tool after having first explored users' needs. Defining requirements that will suit all relevant contexts can often turn out to be a conundrum and can be akin to opening Pandora's box, requiring organisational policies to be revised to make them compatible with the tool at hand – a step that most organisations hope to avoid. However, it is a necessary starting point for any medium-to-large scale ICT initiative to bring together the relevant staff at the beginning of the project to define the direction it will take. It is also key to consider the sustainability of the project by including it in the organisational strategy rather than it being yet another non-reusable project-specific tool.

A good way to go about it is to adopt agile methodology[3], initially created for software development. It aims to help developers put themselves in the shoes of the end users through the concept of "user stories", which are understood by both parties and built incrementally over time. The approach differentiates itself from the more traditional method of writing an unalterable document at the beginning of the project, compiling requirements that might not even be properly understood by the tool developers. Using agile methodology was key in one of our projects with the Swiss child protection NGO Fondation *Terre des hommes* (TDH), in which the aim was not to develop a tool but to actually find the best existing tool that would fit the very diverse needs of the organisation's social workers wishing to manage the follow-up of services.

[1] CartONG is a French "Humanitarian to Humanitarian" (H2H) NGO created in 2006 that specialises in providing mapping and information management services.

[2] To find out more about the use of UAVs and blockchain in the humanitarian sector, see for example http://drones.fsd.ch and https://techsgood.org/beyond-the-hype-blockchain-for-humanity-4ce56d17de24 Read also, in this issue, Michiel Hofman, "Humanitarian drones: useful tool, toxic image", p. 88 and the section "Innovations", p. 118 (editor's note).

[3] For more information on agile methodology, see the "Manifesto for Agile Software Development": http://agilemanifesto.org/

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Getting nine user representatives from different contexts to determine their requirements together meant that there was a stronger consensus on the conclusions of the study than there would have been with a more traditional approach, as users saw the bigger picture and began to understand the implications of what they were asking for[4].

Beyond the project methodology that is used, an organisation will have more interest – including financial – to develop a tool from scratch rather than to customise an existing one to the extent that user experience (UX) experts involved throughout the process will make sure the tool is as easy to use as possible and relevant to the different contexts the teams want it to be used in (for instance, low bandwidth or low technology literacy).

Making internal capacity-building a real organisational strategy

Although some innovative skill concerning ICTs can be mastered in a few days, like using mobile devices instead of paper data collection for surveys[5], others can be much more complex to learn. For instance, producing a "nice" map means spending proportionally much more time in terms of capacity building to be able to use the mapping software properly. If you have the scope in your projects for in-house cartographers, this will not be a problem as they will come ready-trained. However, training staff who are not cartographers in the use of these tools might be a bit of overkill except if they are very tech-savvy. They very frequently either will not have the time required to produce maps on a regular basis (and maintain their skills), or the organisation will run the risk of losing those skills due to turnover. In the humanitarian field, where this is a very common issue, it can sometimes be more sustainable to either stick to more basic tools – with less advanced and enticing analysis as outputs, however frustrating it might be – in order to make sure there is a common foundation of skills. For organisations with the funding, another approach might be to outsource the development of more advanced products to specialists at headquarters (HQ) when possible, or with relevant partners.

Once an organisation has a clear strategy in place on the ICTs it needs and is capable of maintaining over time, it is easier to set up support at scale, by making the necessary resources and remote support available, producing templates of tools that the field can then adapt, setting up in-country training, planning remote webinars as refreshers[6] and communities of practise or any other action that field teams will benefit from for successful implementation. This needs to be thought out carefully at HQ with a strong involvement from the field, to make sure that what is set up is compatible with both its needs and constraints (logistical issues such as connectivity, lack of time for capacity building or staff turnover).

Data protection versus operational efficiency?

Finding the balance between operational efficiency and protecting the personal data of the vulnerable populations you want to help is very tricky for NGOs, as the two can be seen as contradictory on initial examination, especially in a period of huge technological advances that can offer new ways of being effective. However, there is a stark need for our community to

[4] Terre des hommes, Choosing a digital Case Management tool for Child Protection: Findings from the Terre des hommes study, April 2017: www.tdh.ch/en/media-library/documents/digital-case-management-tool

[5] See for example the related documentation and training material that we have produced to help NGOs acquire these skills more easily: CartONG & Terre des hommes, Mobile Data Collection Toolkit: A guidance for the use of MDC in the humanitarian and development field, https://www.mdc-toolkit.org

[6] CartONG, CartONG is developing new ways of training UNHCR staff in the field through content-driven and exercise-oriented webinars, November 2017, www.cartong.org/news/cartong-developing-new-ways-training-unhcr-staff-field-through-content-driven-and-exercise

deconstruct the myth that because "we are in an emergency", using ICTs does not need to be thought through carefully before implementation. The tools' potential impact should be evaluated, respecting "do no harm" principle. Organisations should strive to build a culture which places the necessary safeguards at the core of their DNA and promotes their implementation everywhere they operate.

On the ethical side, this will of course require extra precautions in terms of procedures such as making sure that only data which is absolutely needed is collected during a project and that the beneficiaries have given their consent to the use of personal data. It is important to make sure that data protection principles are embedded in the tools being developed – that is to say ensuring only the right people have access and with the relevant level of security. To this end, anyone seeking a better understanding of these issues can refer to the great ICRC handbook[7] as well as the Responsible Data website[8]. The prerequisite for this to work is for all staff – and not just those in IT, as is often the case – to be aware of the stakes and have access to resources to help them improve their day-to-day practices[9]. It is also necessary to always consider and assess the impact that a loss or breach of data could entail before launching any data collection project – in particular as there will almost certainly be technological advances in the future that will make the data protection measures currently being established irrelevant.

Beyond the ethical aspects, EU-based NGOs (or NGOs with beneficiaries in the EU) that have never heard the abbreviation "GDPR" should start researching the matter. The EU General Data Protection Regulation, effective since May 25th, 2018, has had a huge impact on the way NGOs – but also generally all companies and organisations – manage personal data (even for those that already have good data protection practices in place). It has implications, amongst other aspects, in human resources – with the need to identify a data protection officer – and for contacts with beneficiaries and donors, who now have much more extensive rights concerning the personal data that organisations possess about them. The newly introduced regulation also has an impact on IT – for instance an obligation to ensure tools are secure, and on skills – specifically on the way personal data is managed. Although this is great progress concerning the rights of vulnerable populations, which ought to have been embedded in NGO practices for many years, it is most certainly having the biggest impact of the decade in terms of data management, and the whole sector will need to muster up its courage and resources to comply.

Improving access to new technologies

Increasing "access" to relevant new technologies in the humanitarian sector whenever possible and ensuring that these technologies have the desired impact can involve multiple components.

The issue of access to data is the key challenge raised by ICTs, for which the added value of the tool depends on the wealth of data it makes accessible. Many initiatives exist, such as UNOCHA's Humanitarian Data Exchange[10] and Relief Web[11] platforms for the sharing of data

[7] Christopher Kuner & Massimo Marelli, Handbook on Data Protection in Humanitarian Action, published by the Brussels Privacy Hub and the Data Protection Office of the International Committee of the Red Cross (ICRC), July 2017: www.icrc.org/en/publication/handbook-data-protection-humanitarian-action

[8] The Responsible Data community develops practical ways to deal with the unintended consequences of using data in social change work, establishes best practices and shares approaches between leading thinkers and doers from different sectors. To know more: https://responsibledata.io

[9] See for example this work done for *Terre des hommes* to help improve their practices on data protection, with a starter kit on data protection, tutorials for field teams and an self-evaluation tool: www.mdc-toolkit.org/data-protection-starter-kit

[10] UNOCHA: Office for the Coordination of Humanitarian Affairs. Humanitarian Data Exchange https://data.humdata.org/

[11] ReliefWeb: http://reliefweb.int

and information, as well as OpenStreetMap[12] (the "Wikipedia of maps"), which has huge added value in the humanitarian sector in particular, as the areas of interventions are often of no great interest to commercial enterprises like Google and therefore not prioritised. These platforms' relevance however depends quite a bit on the willingness of key stakeholders to share the data they produce with the community: everyone agrees in principle, but in practice it is often much more complicated. Data is never perfect and documented enough, and publishing it is far from being the first priority. When the project is not specifically geared towards producing data for the sector, it often comes down to individuals spearheading the campaign to share their organisation's data rather than the organisation having a real policy and procedures set up for this, even though it would be a great way of fostering data sharing and access.

Let us not forget while implementing all these ICTs that we can also unconsciously increase the divide between populations well-drilled in new technologies and those that are less so. The consequences of leapfrogging to smartphones without adopting computers first, in many areas of the world, are a key example: local populations – and staff – are often more versed in using mobile tools such as cash transfer or mobile banking than INGO HQ countries but have more limited skills on desktop applications such as spreadsheets and word processing. In a toolkit we produced last year to facilitate the adoption of ICTs by small non-profit organisations, of the 14 tool-oriented one-page documents produced, only three were for use on a computer[13]. Beyond that, for ICTs which require that beneficiaries take an active part in their use (SMS-based systems, cash transfer, biometrics, etc.), an NGO might unintentionally shut out those who need their help the most (because of ICT literacy level gaps due to age or gender for example) or else those who might have cultural reasons to challenge the technologies used (e.g. taking pictures of beneficiaries not being acceptable in some contexts).

In addition to the question of users' technical access, the choice of a given tool will also need to be aligned with how long it is to be used for: is it just for a temporary need or will it be used regularly? Will the tool be transferred to local authorities and/or communities – therefore creating responsibility in choosing a cost-efficient and user-friendly solution? Is there an open source tool out there that would satisfy the needs? All these questions relate to how accessible the tool needs to be, to make adoption by the right people possible and cost-effective not just for the project but also across the whole sector. For this to be possible, it is important for implementing organisations and donors financing ICTs to try and always see their project through the prism of this access, by favouring relevant tools but also publishing studies, feedback (whether positive or not so positive) and organising conferences on the subject to facilitate the adoption of the tool by the sector at large.

There are many challenges associated with the use of ICTs in the humanitarian and development sector, however none of them is unsurmountable. A big difference can already be made by designing durable and user-friendly tools which satisfy the needs of their users, or by making capacity-building an in-house strategy so organisations can better limit the negative effects of high staff turnover in the sector and can maintain their tools over time. Humanitarian organisations also ought to be exemplary in implementing effective responsible data practises, in particular for work relating to vulnerable populations. Additionally, all humanitarian and development actors should consider improving – in the case of donors that means funding – access to new technologies throughout the sector; including by supporting open-source resources and data sharing initiatives whose impact is obvious although difficult to evaluate in the short

[12] OpenStreetMap: www.openstreetmap.org
[13] CartONG pour l'Agence des Micro Projets (AMP) de La Guilde, Boîte à outils pour utiliser les nouvelles technologies dans le cadre de microprojets, 2017: https://mediatheque.agencemicroprojets.org/boite-outils-ntic-microprojets/

run. The tension between wanting to benefit from the positive impacts of new technologies, while acknowledging the limitations that come with their use is an important and everlasting issue which should keep on being explored, especially as new tools and innovations are introduced and continue to be introduced in the sector.

If you want to learn more about these topics, join CartONG during the 2018 GeOnG Forum (in Chambéry, France, from October 29th to October 31st, 2018) for three days of in-depth discussions on new technologies in the humanitarian and development sector at. This humanitarian data forum is dedicated to examining the use of mapping, mobile technology and information management in the humanitarian and development sector. It is held every two years by CartONG and is structured around a combination of round-tables, workshops and expert talks to share experience, good practices, technical knowledge and innovative solutions with the greater humanitarian community.

Biographies

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