The role of technology in shifting the relationship between companies and communities in conflict settings

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Technology can play a significant role in rethinking relationships between communities in conflict. There is a growing body of work exploring the role of technology in peacebuilding, often referred to as 'peacetech'. Building on this work and Build Up's practical experience in the sector, this briefing paper explores the potential of digital technologies for shifting relationships between companies and communities in conflict settings. We draw from examples of technology's role in reshaping relationships between communities and authorities in conflict. An initial briefing rather than a comprehensive scoping, this paper will serve to provoke discussion on the role of digital technologies in the Human Security Business Partnership (HSBP) framework.

The term peacetech refers to 'an emerging body of peacebuilding practice which includes a technological component that is of strategic importance to its objectives'[1]. Thus, this paper focuses on applications of digital technology that are integral to the objectives of a program. In other words, the use of email, websites and basic communication tools to help manage a peacebuilding program do not qualify as peacetech interventions; the use of those tools to achieve a *strategic peacebuilding purpose* of the program would. Regarding company-community relations in conflict areas, we focus on digital technology tools that have the strategic purpose of enhancing human security and not on tools that enable day-to-day operations.

We conceive of three main functions of technology for peacebuilding, and argue that these functions map directly onto the potential of technology for company-community partnerships.

Function of technology	**Application to peacebuilding**	**Application to HSBP**
Data management	Gather, analyse and visualise data about peace and conflict in new ways, involving new or different actors.	Help companies and communities collaborate to gather, analyse and visualise data about local contexts in new ways, involving new or different actors.
Strategic communications	Engage more or different people in conversations and stories that express opinions about peace, exert influence on	Help companies and communities better communicate, bringing more voices and additional opinions

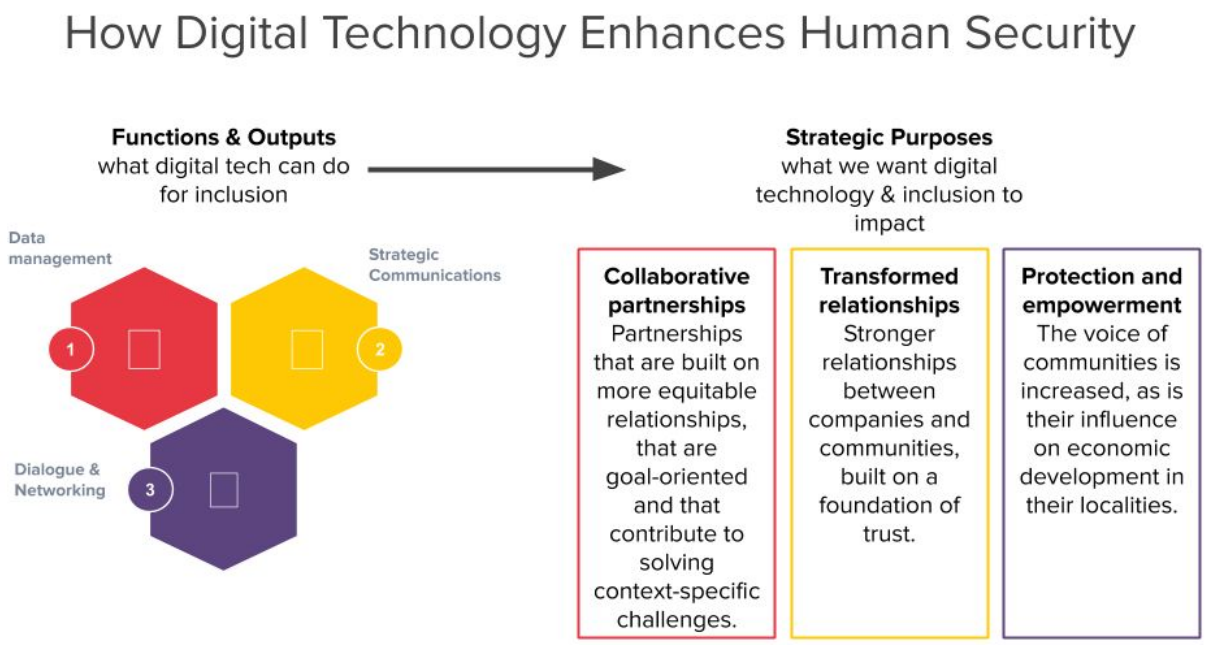
[1] Build Up, 'Innovative Peacebuilding in Syria: A scoping study of the strategic uses of technology to build peace in the Syrian context', 2016

	relevant policies, debunk false information, and create empathy between conflict parties.	into the discussion, debunking false information, and creating empathy between them.
Dialogue and networking	Create new spaces for people to connect and discuss issues of peace by facilitating representation, enhancing deliberation, mobilizing people and resources, and enabling collective action.	Provide new spaces for companies and communities to connect and discuss key issues by facilitating representation and enhancing deliberation.

Across all three functions, we believe a core value of technology is in promoting greater and more meaningful inclusion in peacebuilding. In the field of peacebuilding, such inclusion is important not as an end in itself, but as a contributor to the strategic purposes of legitimacy, empowerment, transformed community relations and risk mitigation[2]. In short, more inclusive peace processes can lead to greater legitimacy, empowered minorities, mitigated risk and transformed community relationship. Naturally inclusion is not a sufficient condition to ensure these strategic purposes are met, but it can play an important role in their fruition.

In the case of company-community relations, technology's role as an enabler of inclusion is equally relevant. Greater inclusion contributes to several strategic purposes that are key to the HSBP framework and to the advancement of human security. These strategic purposes are 1) collaborative partnerships 2) transformed relationships and 3) protection and empowerment. Across all three purposes lies the premise that greater inclusion can support the 'more meaningful and equitable involvement of all stakeholders' in company-community partnerships, that the HSBP framework aspires to. All three purposes can be supported by digital technologies, as outlined below.

[2] See Hirlblinger, forthcoming research on digital inclusion in peacemaking



Despite this potential, technology is not an inherent driver of meaningful inclusion. Its use can serve to divide and exclude, just as much as it can to unite and include; its application has to be carefully designed and calibrated to meet needs.

This paper will first outline the potential of technology to rethink relationships in conflict settings, before going on to consider best practices in ensuring technology leads to these aims and not more divisive ones.

Data management

Digital technology provides valuable opportunities for data management, specifically when it comes to the collection, analysis and visualisation of information. Across all these activities, technology can add value in terms of speed, reach and veracity. In the peacebuilding field, technology has been used to gather more data, to gather different data, to analyse data in new ways and to visualise data differently. Common tools include SMS / app based / online surveys, crowdsourcing, digital mapping, data mining, interactive dashboards and visualisation platforms.

Across this function, technology plays a vital role in breaking down an often opaque process and can serve to overcome a tendency for data work to be extractive. Too often, research gathers information from a community in conflict without feeding information back to them, resulting in a lack of transparency, at times contributing to further community frustration. Whilst technology provides obvious avenues to ease the collection of data, its strategic value in peacebuilding processes lies in its ability to increase the meaningful inclusion of communities throughout the

data management process, thus contributing to the strategic purposes of collaborative partnerships, transformed relationships and empowerment.

Examples from the peacebuilding field

In Burundi, the use of technology within a data management process has served not only to increase the accessibility of information collected at the community level, but to shift the relationship between young people and authorities. Gacukuzi is a data visualisation platform that enables those with no data background to easily analyse large amounts of data through simple filters and visualisation options. CENAP, a Burundian NGO, uses this platform to share the results of its nationwide survey on youth perceptions of the future. They host workshops with young people and government representatives at which the two groups collectively analyse the data, discussing which data is important, the reasons behind the findings and relevant responses for the future. In doing so, they not only share the data widely, but bridge the gap between youth and policymakers *through the process of analysis.* In using technology, these workshops also serve to cut through traditional power imbalances, by empowering the more technologically inclined youth to work collaboratively with the less technology inclined policymakers. The same platform is now being deployed in Guinea Bissau in order to build relationships between communities and justice officials and policymakers.

Relevance to HSBP framework

For companies operating in conflict settings, data management is an important element of their work in analysing the context and will play an important role in the consultation phase of the HSBP framework. Companies are already using technology to gather data from the field through surveys or through online reporting systems for grievances. Some rely on external providers (e.g. Aktek) to supply technology-enabled context analysis. Improved data collection and analysis from the field could play an important role in supporting companies' transition from reactive (i.e. responding to issues after they've arisen) to proactive (i.e. foreseeing issues before they arise and developing appropriate responses to maintain strong community relations), a recommendation laid out in the HSBP framework.

In addition, applications of technology that serve to bring the community into the data analysis process, empowering them to respond to data together with companies, could play a key role in rethinking company-community relationships and moving companies towards a partnership model. Tools such as that used in Burundi can have an equalising effect, mitigating the impact of power imbalances that hinder the meaningful partnership approach outlined in the HSBP framework.

In summary, technologies can help companies and communities come together to gather, analyse and visualise data about local contexts. In doing so, the relationship between companies and communities can shift, laying the foundations for more collaborative partnerships, as well as the empowerment of communities previously unable to speak up.

DATA MANAGEMENT		
Specific function of tech	**Specific output** of tech	**Strategic purposes** of tech
Gather data	Access new information about communities in conflict Accelerate data collection Involve the community in data collection	**Empower and protect:** communities voices are heard through robust data collection that is not extractive **Collaborative partnerships:** companies and communities work together on data – from collection to analysis and dissemination **Transform relationships:** communities are heard and trust the information companies are using
Analyse data	Increase fidelity of data, gaining trust from communities Accelerate data analysis Analyse data collectively	
Visualise data	Share information more widely and in accessible formats	
Tools: SMS / app based / online surveys, crowdsourcing, digital mapping, data mining, interactive dashboards and visualisation platforms		

Strategic communications

Technology plays an important role in the creation and dissemination of stories, narratives and information - all variations of strategic communications. In peacebuilding, we have seen technology be used to create new or different stories about peace, to enable stories and information to reach more and different people and to share alternative narratives about conflict. Technology has been used to democratise the creation of discourse in and around a given conflict and to bring more people into societal conversations about peace. We have seen a variety of technology tools be deployed for strategic communications, including social media platforms, SMS, messaging apps, virtual reality, augmented reality, digital games, film and radio.

Examples from the peacebuilding field

Particularly powerful examples from the peacebuilding field involve technology enabling communities that were previously marginalised or unheard to tell their stories. A participatory video project on the Sudan - South Sudan border brought together a group that was 50%

Sudanese and 50% South Sudanese to make short documentaries about life on the border. The group had no prior experience of making films, but through a process of participatory video, developed the skills to plan and shoot a film independently. The films were later screened along the border, and discussions facilitated by the group with the community. As a result, a group of previously marginalised individuals were able to tell their story in a compelling way, reaching a new audience.

Strategic communications has also been used to shape the narrative around particular issues and in doing so reframing the relationship between communities and authorities. The #BringBackOurGirls social media campaign in Nigeria, formed after the 2014 abduction of 200 girls by Boko Haram, played a unique role in the discourse, arguably forging a new relationship between the community and authorities. Led by women using Twitter and Facebook together with regular offline demonstrations, the campaign succeeded in gaining the attention of both the Nigerian government and the international community. In doing so, it pressured a government that had previously been seen as complacent by the community, to act. The campaign was unique in its ability to sustain pressure on the government over four years, maintaining momentum and keeping the issue at the top of the authorities' agenda. Uniquely, the campaign enabled women who had not previously been involved in government advocacy to take center stage in sharing their stories.

Relevance to HSBP framework

When applied to the relationship between companies and communities, strategic communications can play an important role in rethinking dynamics. In particular, strategic communication initiatives can serve to give minorities a voice in discussions of companies' work - a clear recommendation of the HSBP framework report. In addition, the HSBP report notes a lack of access to knowledge, information and resources on conditions on the ground and on steps needed for collaboration between companies and communities. By sharing more and different voices from local communities, some of those challenges can be addressed. In addition, strategic communications tools can often serve to build trust between parties - by actively seeking and listening to new voices, companies may be able to build trust and shift the balance of power inherent in many traditional communication methods such as community consultations.

Concretely, how could participatory video, for example, be used by communities to get their voices more effectively heard by companies? How could social media campaigns be used by companies to elicit feedback on their projects and respond to comments from communities? How could new forms of communication such as radio tackle the power balance between companies and communities, by providing a more equitable platform for storytelling?

In Myanmar, the Dear Mark campaign, led by a group of civil society organisations in an attempt to highlight the role of Facebook in fuelling intercommunal conflict in the country, went viral, resulting in an unprecedented response from the company. The group published an open letter to Mark Zuckerberg outlining their criticisms of Facebook's response to Myanmar's violence and

its failure to develop a strong system for locally-relevant content moderation. After gaining widespread attention online, the group received a personal response from Mark Zuckerberg, triggering a deeper engagement on the issues of concern to civil society. Whilst not a targeted online campaign, this experience highlighted the value of digital communications as a catalyst for deeper engagement between companies and communities.

Overall, strategic communications technologies can help companies and communities better communicate, bringing more voices and additional stories into the discussion. As a result, the relationship between companies and communities can be transformed and community members empowered to speak up.

<table>
<tr><th colspan="3">STRATEGIC COMMUNICATIONS</th></tr>
<tr><td>Specific function of tech</td><td>Specific output of tech</td><td>Strategic purposes of tech</td></tr>
<tr><td>Amplify more voices</td><td>Communities can express opinions effectively

Companies can reach more people with their messages, providing more access to information for local communities</td><td rowspan="2">Empower and protect: communities voices are heard and they are given a chance to speak up

Transform relationships: the power balance between companies and communities can shift as a result of more community voices being heard. More accurate information is shared.

Collaborative partnerships: based on more open and trusted communication, greater empathy.</td></tr>
<tr><td>Amplify different voices</td><td>Communities previously unheard by companies are able to exert influence

Rumours can be debunked by both companies and communities

Empathy can be created between companies and communities</td></tr>
<tr><td colspan="3">Tools: social media platforms, SMS, messaging apps, virtual reality, augmented reality, digital games, film and radio.</td></tr>
</table>

Dialogue and networking

Technology can help create new spaces for people to connect, providing opportunities for dialogue and networking that are not possible offline. Tools such as video calls, digital games, discussion forums, virtual reality and social media platforms are commonly used for such initiatives, enabling communities to come together to engage in dialogue and debate. In peacebuilding, we have seen such initiatives connect communities at the grassroots, connect citizens with authorities, and support dialogue at scale. Technology has helped overcome physical barriers to connection and provided new avenues to build trust between conversation partners.

Examples from the peacebuilding field

The Connect Program, run by Soliya, provides opportunities for university students across the world to 'engage in facilitated and substantive dialogue and build meaningful relationships across national, cultural, religious and ideological boundaries'. Through a web-conferencing application, students participate in facilitated dialogues to explore key issues and discover new cultures. Other initiatives have used social media campaigns to foster dialogue around particular issues, such as SEED for Myanmar, a youth-led organisation that runs a Facebook campaign in Myanmar designed to provoke conversation between youth and authorities around local issues.

Others have used computer games as a means to connect communities that are not able to physically meet. Games for Peace is an initiative that uses computer games to build trust between youth from Israel, Palestine and the Middle East. Through popular games that encourage collaboration such as Minecraft, the initiative aims to build common ground and counter negative stereotypes.

Still others have used web-based applications to foster dialogue in areas of active conflict, such as the Donbass Dialogue (DD), created in April 2015 in the Eastern Part of Ukraine. The platform seeks to connect members of the so-called government-controlled areas, the non-government controlled areas, and Russian citizens. The initiative uses a combination of online dialogues and offline elements. A facebook group is used to identify dialogue topics through a crowdsourcing process. The top issues are then addressed in greater detail during a week-long offline dialogue marathon, which takes place twice per year. Dialogue participants are recruited through the Facebook group. In addition, participants can join the Dialogue by using an online video conferencing platform that uses peer-to-peer technology (WebRTC), which allows anonymous connection without prior authorization. This creates a 'safe space' for all dialogue participants, wherever they may be physically located.

Relevance to HSBP framework

Nuestro Desarollo, a Colombian initiative created by Policentrico, provides an interesting example of the role of technology in shifting the relationship between citizens and authorities. A

game that enables players to manage the municipal budget and divide funds between local projects of their choice, it serves to start a dialogue around the participatory budgeting process that is built into Colombia's peace agreement. The game serves to increase trust in the participatory budgeting process, as well as to deepen understanding of the issues at stake, creating a dialogue between communities and authorities. The initiative is designed to move beyond the simple step of participatory budgeting towards meaningful engagement in the process. Prior to Policentrico's initiative, the participatory budgeting process was not considered legitimate by many in the community and levels of engagement in the deliberation or voting process were subsequently low. As a result, community participation was not deep and meaningful despite mechanisms for involvement being in place.

Interesting parallels can be drawn from this case study to the potential for technology to alter dynamics between communities and companies. Even where mechanisms for dialogue are in place, such as community consultations or partnership agreements, they often fail to result in broad-based and meaningful participation or to build the trust they are designed to support. In such cases, technology can provide interesting avenues for enriching dialogue, either through hosting dialogue in novel ways, bringing new participants into dialogue or complementing existing dialogue through additional connections. In doing so, it can support the strategic purposes of collaborative partnerships and empowerment.

In the HSBP report, a need to 'encourage partners to articulate common problems, examine shared opportunities, and create spaces for joint learning, problem-solving and experimentation' was highlighted. To achieve this, could online dialogue platforms bring communities and companies together in a way that avoids some of the barriers to physical meetings, or could an online process serve to feed more voices into an offline dialogue process? Could an online game enable communities and companies come together to design solutions to joint challenges?

During the ebola outbreak in Liberia, companies came together with a wide range of stakeholders to engage in technology-enabled dialogue through the Ebola Private Sector Mobilisation Group (EPSMG). The group, established in August 2014, brought together a coalition of over 100 companies, and 50 public bodies and NGOs through tele-conferencing calls. Initially designed to support information sharing in response to the ebola outbreak, the EPSMG evolved to support a wider humanitarian response and to galvanise international support to the outbreak. Although not specifically designed to build relationships between companies and communities, the visible leadership of private sector companies in the ebola response 'helped to strengthen relationships and increased positive perception of [ArcelorMittal, who led the initiative] among stakeholders'[3]. Making this an online process, rather than a face-to-face meeting group, enabled broader participation in the group, supporting its legitimacy.

[3] https://www.bitc.org.uk/resources-training/impact-stories/arcelormittal-ebola-private-sector-mobilisation-group-epsmg

In summary, technology tools can provide new spaces for companies and communities to connect and discuss key issues. In doing so, more collaborative partnerships can be fostered, communities empowered through meaningful dialogue and in some cases relationships transformed.

<table>
<tr><th colspan="3">DIALOGUE AND NETWORKING</th></tr>
<tr><td>Specific function of tech</td><td>Specific output of tech</td><td>Strategic purposes of tech</td></tr>
<tr><td>Connect</td><td>Facilitate representation of community voices

Enable discussion and deliberation over local issues that is more meaningful than traditional consultations</td><td rowspan="2">Empower and protect: communities voices are heard and they are given a chance to speak and connect with companies in new ways

Collaborative partnerships: greater opportunities for collaboration between companies and communities

Transform relationships: through more chances to connect, companies and communities have the opportunity to get to know each other more and establish greater foundations for their relationship</td></tr>
<tr><td>Coordinate and collaborate</td><td>Mobilise people and resources around particular issues that are important to companies and communities

Facilitate collective action, enabling companies and communities to work together</td></tr>
<tr><td colspan="3">Tools: video calls, digital games, discussion forums, virtual reality and social media platforms</td></tr>
</table>

Best practices

The previous sections of this report outline the potential of technology to ensure meaningful inclusion of communities in processes, whether between citizens and authorities or citizens and companies in conflict settings. It is important to also note the risks that accompany such potential. Technology is not an automatic avenue to increase inclusion, build trust and solve long-standing challenges, nor is it necessarily neutral to a context. Many of the challenges we have seen apply to technology for peacebuilding have clear parallels in the role of technology in company-community relationships. All of them stem from challenges inherent in conflict contexts and in peacebuilding which can be exacerbated by the introduction of digital technologies.

Core challenge in peacebuilding	Core challenge for technology and peacebuilding	Application to company-community relationships
Relationships and trust	People are often sceptical of new technologies or fearful of how their data will be used and do not trust new initiatives	In an atmosphere of existing mistrust between companies and communities, technology could exacerbate suspicions
Political space management	Challenge to power from technology. Technology can sometimes threaten authorities and shift power dynamics with communities	Technology could challenge companies' positions, making them feel vulnerable to additional exposure or criticism from communities, or could challenge some community leaders who had previously held a centralised relationship with companies
Participation and ownership	Connectivity, access, literacy. Often access to technology reflects existing access challenges (e.g. gender disparity) meaning that use of technology designed to be inclusive can actually exacerbate existing divisions	Initiatives designed to reach more members of the community may in fact exclude certain members whilst claiming to be universal in their reach - e.g. women may not have access to technology
Unintended consequences	Unintended uses of technology tools - e.g. an application designed for one thing is used for something different and more nebulous	Initiatives designed for e.g. building trust between companies and communities could backfire if unintended consequences are not carefully considered
Safety and security	Online anonymity and surveillance. Online anonymity is very difficult to achieve, and users often lack full awareness of digital risks	In conflict settings, online surveillance is likely to be a factor to consider for both companies and communities
Privacy and consent	Technology can provide a false safety blanket, especially where there is limited awareness of risks online. Unexpected visibility arising from technology's	Community members may feel safe speaking in online forums about issues they would not talk about offline. Those that speak up through new channels may be at risk

	introduction can create risk	of criticism from communities or companies through unexpected exposure
Managing expectations	It can be difficult to make the link from online inclusion to offline action	When introducing a technology tool, community expectations can rise quickly. Companies will have to manage those carefully.

In response to these challenges, Build Up has developed a series of best practices for the introduction of technology into peacebuilding processes. These best practices can be applied to the introduction of technology within the HSBP framework, ensuring that the above challenges are managed.

- **Design with the community, and with all users in mind.** It is important to consider how any technology tool or process fits with the way people currently use technology - for both companies and communities. Ensure that a technology product or process matches a clear need on the ground and that any product or process imported from another context is carefully tailored to local needs and context. Crucially, when working with information, it is important that the community is involved at every step and that any information partnership is reciprocal and not extractive – ie. those providing information also receive some benefit in return. Without reciprocity, initiatives tend to lose traction quickly.

- **Make inclusion and engagement real.** Using technology can result in exclusion, for example due to access to technology, socio-economic constraints or location. As a result, it is important to have a clear understanding of who is included in an initiative and who isn't. Acknowledging that universal reach may be unrealistic in many conflict-affected areas, it is important to be honest about an initiative's reach. In addition, initiatives must recognize the constraints of technology as a standalone tool. In fact, a technology tool or process is unlikely to result in offline action without accompanying efforts on the ground. Companies should avoid seeing technology as a replacement to offline community engagement, and should not pursue innovative approaches at the expense of face-to-face engagement.

- **Watch for unintended uses and consequences of technology.** When more voices and more information are spread, stories can become fragmented or polarised. Issues of import to company- community relationships could become more fraught, or campaigns to improve relations used to further sour them. Technology products or processes can also give some people more visibility than expected, resulting in shifts in community dynamics that could have negative effects. Many technologies are multi-use and are used by actors

in multiple ways – it is important to consider all potential uses whilst designing any initiative.

- **Manage how technology challenges power.** In peacebuilding between communities and authorities, technology can be seen as a threat to those in power, as initiatives may help more people raise their voice and have influence in a process. As a result, surveillance, censorship or infrastructure shut-downs can be used to stymie local voices. In company-community relations, technology initiatives can also shift the balance of power, and may threaten certain constituencies (within both companies and communities eg. Community leaders who may feel threatened by the broadening of dialogue between companies and community members, diluting their influence). In addition, the nexus between state, community and companies is often a complex web in conflict settings, meaning that companies must deal, often directly, with actors in power.

- **Understand risk and seek consent.** Technology products and processes require informed consent from all parties, on the understanding that many people don't understand the operational risks of using technology. It is important for any partnership between companies and communities that utilises technology to discuss issues of risk and consent from the outset. Awareness of risk must be fostered among all stakeholders, whilst acknowledging that in many cases staying 'offline' is no longer an option given increasing connectivity of stakeholders.

- **Consider local capacities in the long term.** New technology products or processes often fail to consider sustainability from the outset. If a company - community partnership is going to deploy a technology tool or process, how will that be run in the long term, and what additional capacities would need to be built to ensure that happens at the local level? In particular, efforts to gather more information will only be successful if efforts to respond to that information are considered from the beginning. Too often, technology initiatives in the peacebuilding space generate high levels of initial enthusiasm that are not reflected in sustained long-term impact.

Conclusion

Digital technologies have the potential to make an important contribution to the implementation of the HSBP framework. The strategic functions of technology outlined in this report provide a wealth of opportunities to shift the relationship between companies and communities in conflict settings. As demonstrated across multiple examples from the peacebuilding sector, the use of digital technologies within this framework can serve as an important avenue for greater inclusion. Greater and more meaningful inclusion can in turn contribute to three strategic purposes that are critical to the human security approach to company-community relations: collaborative partnerships, transformed relationships and the empowerment and protection of communities. Critical to the deployment of digital technologies in support of the HSBP framework will be both

to ensure that any digital technology use case is linked to one of these three strategic purposes and that best practices for deploying digital technologies in conflict contexts are upheld.

This paper has provided an initial framework for considering these strategic purposes and best practices. A next step might be to develop concrete use cases of digital technologies linked to specific scenarios where the HSBP framework might be implemented.