August 2017 – In a world of accelerating change, including rapid urbanization, the way we help and protect those fleeing conflict and persecution has to regularly change and adapt to new circumstances – and technological advances are giving us new ways of helping those in need.

“Standing in UNHCR’s bustling registration centre in Amman in January last year, I was struck by the innovations that had shaped this operation. I met refugees having their irises scanned as part of our biometric registration system, and visited refugees in their homes with colleagues using tablets to upload information on our inter-agency Refugee Assistance Information System —□ a far cry from the notebook and pen of my days in Sudan,” writes Filippo Grandi, High commissioner of UNHCR.

Iris scanning for refugee registration has only been a small part of the inventions that have helped people in recent years. In collaboration with banks in Jordan, refugees have been allowed to use this biometric data to open bank accounts and withdrawing cash without need

for pin codes or even cards.

Similarly, building on the already existing technology used to register people could also help refugees forge a digital identity which could increase their opportunities in a rapidly changing world. This could include something as simple as updating their records , adding education certificates or pursuing education online, to increasing the range of financial or other services they can use.

And this is only the beginning. Current examples include anything from telemedicine in Mongolia to advanced systems of agriculture in the Farming 4.0 revolution, as well as advanced crisis warning systems. Aps are fighting hunger in India, and WFP is preparing for the future of humanitarian aid by testing driverless cars . Innovative use is also helping in multiple ways, from delivering blood to remote areas of Rwanda to mapping the risk of sea level rise in the Maldives. To realistically map 11 islands would normally take almost a year, but with drones it took just one day to map an entire island.

Even food production is improved by technology, as a project in Azraq refugee camp in Jordan is showing. Refugees - and the host communities - are able to grow their own food, sell high-revenue produce on the local market and by running the technology themselves, increase self-reliance.

According to WFP's project manager, Nina Schroeder, "Early results for our tested crops show that they grow twice as fast in the Food Computer compared to the ground. It can recreate any climate in the world with the press of a few buttons, saving water, space and using only minimal natural resources."

However, with great technology comes great responsibility. When developing applications or algorithms that are aimed at helping refugees, it is important to maintain a clear understanding of security and safety, experts agree. Chris Earney, Co-leader of Innovation at the UNHCR, emphasised the importance of privacy when working in the field at a recent panel at the World Summit for the Information Society (WSIS) Forum 2017.

“While data empowers, data is also something that we need to guard and data is something that we need to respect. And when we think about individual identities, when we think about the most vulnerable populations and we think about leaving nobody behind, we must also make sure that we leave nobody exposed.”.

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