

# Innovating mobile solutions for refugees in East Africa

Policy brief

January 2018



Humanitarian  
innovation fund

| **elrha**

**SAMUEL HALL.**



## Executive summary

---

Mobile technology provides solutions that address challenges associated with forced migration and can improve the well-being and socioeconomic status of refugees living in protracted displacement<sup>1</sup>. Access to digital services, especially through smartphones, has become a vital tool for many refugees as they journey from their home and as they begin to settle in host countries<sup>2</sup>.

Based on research conducted by Samuel Hall, this paper highlights the importance of mobile technology to refugees in East Africa and the barriers associated with smartphone access and ownership within refugee communities. The paper also offers policy advice to improve access to support services that can be delivered using mobile technology and the internet in similar refugee settings.

## Introduction

---

There are more refugees and asylum seekers in East Africa than Europe combined, the majority of which are Africans fleeing from conflict to neighbouring countries<sup>3</sup>. For many, mobile phones and the internet are vital tools to communicate with friends and family left behind, and to support the journey to a safer location<sup>4</sup>. Smartphones capable of downloading applications and accessing the internet, provide the widest range of mobile services compared to simpler devices with more limited functionality.

Kenya and Uganda play an important role in hosting forcefully displaced persons from countries across Eastern and the Horn of Africa; most notably refugees and asylum seekers from Somalia and South Sudan. Despite continued refugee flows across the region, research on the use of smartphones and the internet to support those affected by forced migration focuses on migration into Europe, with little research conducted to assess the mobile technology uses and needs of refugees traveling to, from and within East Africa.

Supported by the Humanitarian Innovation Fund (HIF), this report provides the first detailed insights into the technical and socioeconomic barriers and opportunities for using smartphone technology and the internet to support refugees within East Africa. The study took place in Kakuma refugee camp in Northern Kenya and Nakivale refugee settlement in South Western Uganda. Primary data collection included a large-scale quantitative survey, focus group discussions, key informant interviews and case studies. Refugees were purposefully selected based on age, gender and population distribution in each location. The close correlation of findings between both locations suggests that key trends may be applicable to other refugee settings with similar characteristics within the East and Horn of Africa.

## Results

---

Humanitarian organisations and for-profit enterprises alike use mobile devices to deliver services to refugees through a range of channels, including voice, text and the internet. To access the widest range of services, refugees require access to smartphones; they must be able connect to mobile networks, and they must be aware that such services exist and are available for their devices. This study has identified several key factors that influence access to and awareness of smartphones and smartphone-based services that support refugees.

---

<sup>1</sup> PWC (2016). Managing the refugee and migrant crisis: The role of governments, private sector and technology.

<sup>2</sup> Alencar. A (2017). The smartphone as a lifeline: An exploration of refugees' use of digital communication technologies during their flight.

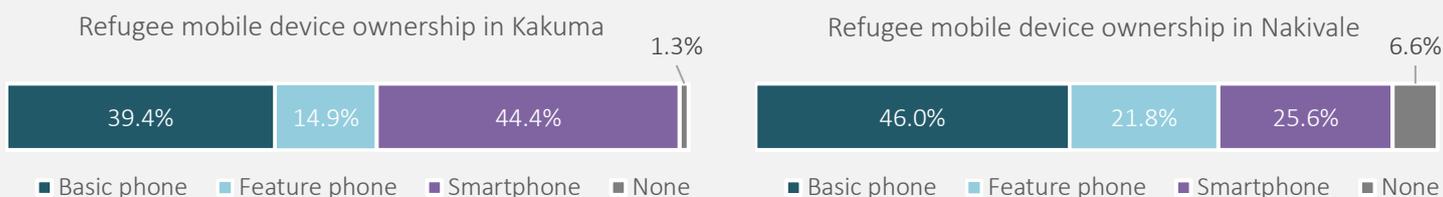
<sup>3</sup> ReDSS/Samuel Hall (2016) A review of durable solutions in the East & Horn of Africa

<sup>4</sup> Gillespie et.al. (2016) Mapping Refugee Media Journeys Smartphones and Social Media Networks

## High smartphone access within refugee communities offers new opportunities for mobile-based services

Smartphone ownership among refugees in Kakuma (44%) and Nakivale (27%) is significantly higher than national averages in Kenya (15%) and Uganda (4%)<sup>5</sup>. This represents opportunities to deliver much needed services via mobile phones to a relatively wide cross-section of refugee communities. Whilst the economic activities of refugees in Kakuma and Nakivale are largely informal, they are “not isolated from external economies”<sup>6</sup>. For example, the socio-economic interdependence that has grown overtime between refugees in Kakuma camp and the neighboring Turkana community has boosted economic activities in Kakuma town<sup>7</sup>. This can, in part, be attributed to the use of financial services delivered over mobile devices<sup>8</sup>.

**Figure 1: Mobile ownership by device type**



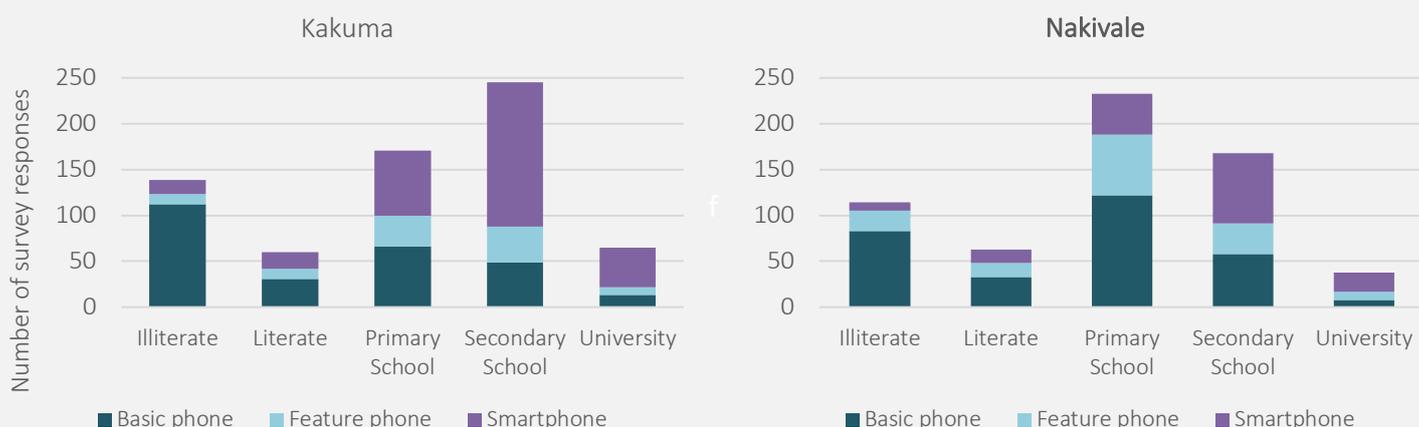
## Younger refugees are more likely to use smartphones than older refugees

The average age of a person owning a smartphone is 28 in Kakuma and 30 in Nakivale. This compares to an average age of 39 for refugees owning a basic phone and corresponds to/aligns with similar findings of global smartphone ownership from PewResearch<sup>9</sup>. There is also relative equality – across both refugee settlement locations – in the average age of men and women with access to mobile devices.

## Refugees with higher levels of education are more likely to own a smartphone than those with lower levels of education

Whilst levels of education and literacy do not directly impact ownership of a mobile device, there is a direct relationship between the level of education and smartphone ownership, with university graduates the most likely to own a smartphone, followed by those who completed secondary education (Figure2).

**Figure 2: Mobile phone ownership by refugee level of education**



<sup>5</sup> Pew Research Centre (2015). Cell phones in Africa: Communication lifeline

<sup>6</sup> RSC (2016). Refugees Economies in Kenya: Preliminary study in Nairobi and Kakuma camp.

<sup>7</sup> ibid

<sup>8</sup> WFP(2015). WFP Introduces Electronic Cash Transfers for Refugees in Kakuma Camp

<sup>9</sup> Pew Research Centre (2016), Smartphone ownership and Internet usage continues to climb in emerging economies

Increasing education levels may have a positive impact on smartphone ownership and access to services these devices offer. However, both Kakuma and Nakivale face many challenges in improving access to education, with only a handful of refugees able to access tertiary education through University sponsorship programmes.

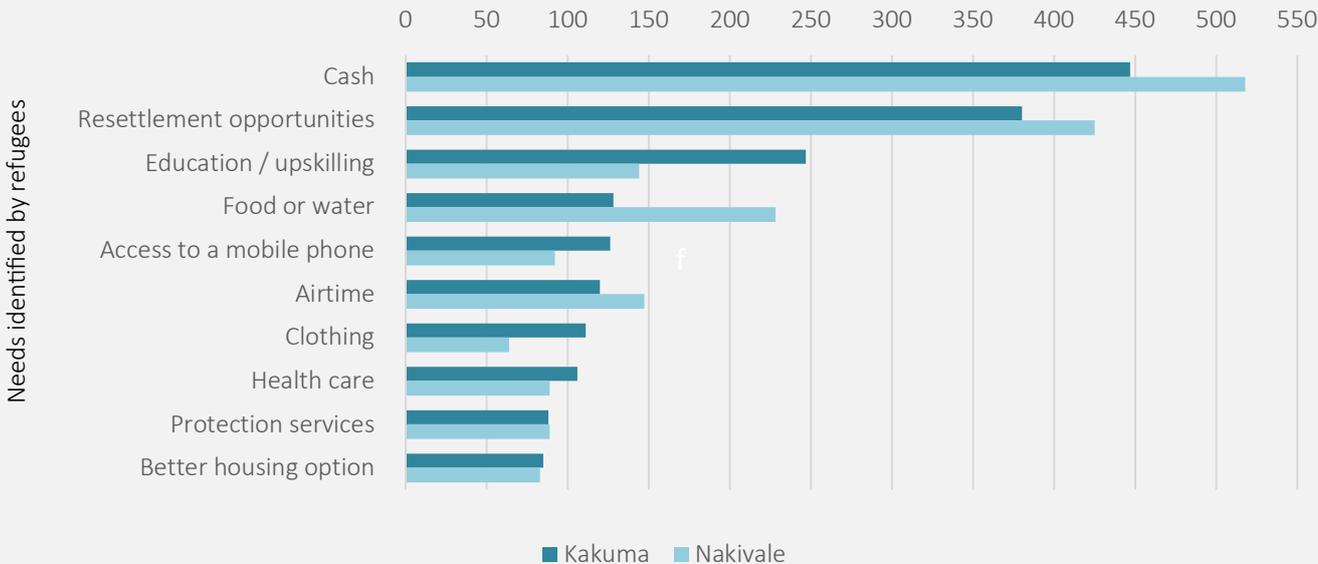
**Refugees face four main barriers to accessing services over the internet**

The study found that the overwhelming majority of refugees access the internet using smartphones, as cyber cafés were deemed too expensive. Access to 3G or 4G data services is therefore a prerequisite to getting online. The cost of data services was the biggest barrier to accessing the internet for refugees in Kakuma and Nakivale. Poor network signal strength within settlements, the unaffordability of smartphones and the cost of charging mobile devices were also cited as major barriers to accessing the internet using mobile technology.

**Mobile devices can support the most pressing needs of refugees**

The study found a direct match between the top four needs prioritised by refugees and the services they wish to see delivered over their mobile phone. These needs were financial support, education and upskilling (especially language learning), information on resettlement status and family tracing /reunification (Figure 3).

Figure 3: Immediate support needs identified by refugees in Kakuma and Nakivale



Refugees in Kakuma and Nakivale highlighted access to a mobile phone and airtime as a more urgent need than healthcare and better housing options. This demonstrates that refugees’ basic social and economic needs are strongly impacted by the challenges faced traveling to a host country and the environmental conditions encountered upon arrival and underlines the importance of mobile technology within refugee communities.

**Community awareness of mobile based applications and services developed for refugees is low**

In part due to the paucity of mobile services targeting refugees in both locations, this study found that general awareness of mobile services amongst the population surveyed is low. Practitioners developing mobile or internet-based solutions for refugees must therefore be cognisant of the information channels (both on and off-line) used in communities to raise awareness of such services. Unlike access to smartphones, age does appear to influence refugees’ awareness of support services delivered over mobile phone in either Kakuma or Nakivale.

## Conclusion

---

Although all types of mobile devices are able to deliver some services to refugees, smartphones offer the most channels to support the priority needs of education, financial support and family tracing identified by refugees in this study.

Age, education and a reliable mobile network connection play an important role in smartphone access and use within refugee settings. Given the high levels of smartphone ownership amongst refugees within the study locations, smartphone and internet technology has the potential to deliver priority services to a notable proportion of the refugee community.

However, ownership of a smartphone is not enough to unlock mobile technology's full potential in refugee settings. "Supply-side" barriers such as poor connectivity, electricity shortages, the high costs of mobile data and device affordability limit refugee access to smartphone-based applications and services. These issues are compounded by "demand-side" barriers such as low levels of education, poor digital literacy and limited awareness on mobile phone-based support services targeting refugees.

Despite these challenges, smartphones can help redress inequalities faced by refugees, such as access to financial services and inadequate learning opportunities. This is especially the case for younger refugees – often most in need of education – who are more likely to own a smartphone and therefore gain to access online education and promote positive attitudes towards learning within their communities<sup>10</sup>.

## Recommendations

---

Based on the findings of this study, there are several opportunities for policy makers & humanitarian practitioners in Kenya, Uganda and more widely in East Africa to improve support for refugees through mobile technology, by:

- **Using and teaching ICT to improve refugee education and vocational development.** Refugees often lack equal opportunities in accessing quality education, which in turn is a key enabler and influencer of smartphone ownership and use of mobile-based applications and services. Having more ICT learning centres within refugee camps is likely to have a positive impact not only on smartphone ownership and access to mobile phone-based services, but also on refugee development and the economic growth of host communities<sup>11</sup>.
- **Incentivising mobile operators to lower the cost of access to mobile connectivity.** Although refugees in Kakuma and Nakivale are more likely to own an internet enabled smartphone than at the national level, the high cost of mobile data keeps many refugees offline. Meeting the growing needs of refugees that already have access to mobile devices requires the creation of new partnerships. Governments should work with humanitarian organisations to incentivise mobile network operators in refugee camps such as Kakuma and Nakivale to subsidise the cost of mobile devices and negotiate low-priced data bundles for refugees.
- **Investing more in enabling infrastructure to support access to mobile services.** The isolation of refugee camps in regions with limited state-built infrastructure deprives many refugees of the socio-economic opportunities mobile technology can offer. Sustainable Development Goal 9 encourages states to "build resilient infrastructure to promote inclusive and sustainable industrialization and foster innovation"<sup>12</sup>. This can be achieved through public private partnerships that build business cases around refugee economies and incentivise the installation of more mobile network towers and access to dependable energy through off grid solar operators such as M-Kopa. This will in turn foster the adoption of mobile phone and internet-based services within refugee camps, acting as a catalyst for service providers to develop mobile-based innovations that serve the needs of refugee communities.

---

<sup>10</sup> Wagner.E. & Save the Children (2016). Refugee Education: Is Technology the Solution?

<sup>11</sup> OECD (2017). Assessing the contribution of refugees to the development of their host countries.

<sup>12</sup> UNDP (2017). Sustainable Development Goal 9 Targets.

# Acknowledgements

---

This study was made possible through the kind support of the Humanitarian Innovation Fund, ELRHA, DFID and Sida.

The research team at Samuel Hall would also like to thank UNICEF and IOM for their unfailing support in helping the team access Kakuma refugee camp and Nakivale settlement, as well as their support in conducting the field study and their hospitality in providing accommodation in both locations.

We would also like to thank the many academics and subject experts who supported the development of the quantitative survey and who donated their valuable time to participate in key informant interviews.

Finally, we would like to recognise the contribution of our team of refugee enumerators in Kakuma and Nakivale, without whom our data collection would not have been possible.



## About Samuel Hall

Samuel Hall is social enterprise dedicated to migration research. We work directly in countries affected by migration.

Our mandate is to produce research that delivers a contribution to knowledge with an impact on policies, programmes and people.

Samuel Hall has offices in Afghanistan and Kenya, and a presence in France, Germany, Tunisia, Turkey and the United Arab Emirates. For more information, please visit [www.samuelhall.org](http://www.samuelhall.org)

This report has been produced by Samuel Hall's Implementation Research Pillar.

