

# A Face In The KENYAN CROWD

Juliana Rotich is a pioneer of technology such as the crowdmapping software Ushahidi, and the BRCK modem designed for places and conditions in Africa where power and Internet are not a given.

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**B**OTTLES OF PERFUME or liquor are standard items in suitcases coming home from a trip to America. But when Juliana Rotich, Co-founder and Executive Director of Ushahidi, heads into customs in Nairobi, immigration officials balk at the circuit boards packed into her bags. Rotich laughs when recalling her explanations to officials about her unusual haul – they help facilitate prototyping new tech solutions in Africa.

Rotich is part of the vanguard of African techies creating ‘by Africans, for Africans’ solutions that respond to the local context and problems that ambitious coders and ordinary cell phone users alike face on the continent. Rather than innovations and technology made ‘for the developing world’, what they are tending toward, says Rotich, is more collaboration.

“Not so much developing for but developing with, which will result in better products that have more impact,” she says.

The 36-year-old Kenyan, who studied and worked in the United States (US), says she feels most at home in the MediaLab at the

Massachusetts Institute of Technology (which she calls ‘nerdvana’) where she is a fellow, and also at the iHub (an innovation hub for the technology community) in Nairobi.

The flow of information and new connections in Africa has been tremendous in the past decade: new flight routes allow us to go from country to country without a time-consuming connection through Europe.

Yet the Internet, the defining medium of our age, remains out of regular reach for many Africans because of infrastructure issues with older technology. In addition are electricity failures and surges that wreak havoc with productivity and damage expensive equipment. Even in cities widely electrified and where offices have some sort of backup plan, efficiency is curtailed when every person has to reboot and reconnect on a regular basis.

“Despite leaps of progress, one of the showstoppers is when the electricity goes out,” says Rotich.

Lack of Internet also drives up related costs by forcing people to resort to costly telephone calls and SMSes, when using Skype or WhatsApp is virtually free with

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**DESPITE LEAPS OF PROGRESS, ONE OF THE SHOWSTOPPERS IS WHEN THE ELECTRICITY GOES OUT.**”



Photos courtesy Ushahidi

online access. Enter BRCK, a high-performance modem with a battery big enough to last a full workday, which can charge multiple devices, and can take power from a wall socket, car battery, or just about any source.

It’s not the sort of solution that’s wanted or needed in cities where continuous electricity and public Wi-Fi are taken for granted.

BRCK is rugged enough to protect its circuits from dust, as well as from ‘dirty’ voltage that can fry computers during a power surge. Multiple SIMs can be used to search for the fastest connection, and aid travelers using various Internet providers in different countries. Financed in part by a Kickstarter campaign, and retailing at \$199, the first batch of BRCKs shipped in May.

a prestigious MacArthur award as a Creative Organization.

Ushahidi was born out of the problematic 2008 elections in Kenya. With traditional media houses shutting down, it was a website initially developed to map reports of post-election violence in Kenya based on eyewitness reports submitted via the web and mobile phones.

More than 45,000 crowdsourced Ushahidi maps have since appeared all over the world, in more than 30 languages, on topics as diverse as human rights abuse, environmental devastation, and where to find the best burger in town.

Ushahidi is registered as a non-profit in the US (with nodes all over, including the key one in Kenya), making it a bit of an odd duck.

nongovernmental organizations that require expertise for implementation. This work makes Ushahidi more sustainable.

“We do get grants, but the percentage of external income is starting to shift,” says Rotich.

It’s hard to get Rotich to talk specifically about her own role at Ushahidi, as she refers to all their successes from a collective point of view. That said, she is the group’s most public face and voice, speaking at TED (a global set of conferences), Design Indaba (held in March in Cape Town), the World Economic Forum, and other groups of movers and shakers. When asked if she envisioned herself in this role, she opens her eyes wide and shakes her head to say no, momentarily speechless, but says it’s an honor to share her organization’s story with

people who haven’t heard of it.

“It’s an opportunity to reach more people with an idea we hope can interest them. We don’t have a media budget; we don’t have ads on TV,” she says.

Last year, both of Rotich’s grandmothers passed away, and when she speaks of the irreplaceable loss, her pain is palpable. But she draws strength in

remembering their lessons that she has integrated into her life and work, lessons such as the importance of fixing things and helping others.

“The act of making is something that is intrinsic to African culture,” she says, adding that it’s important not to look at the act of making as something beneath you. **FW**



The BRCK modem can charge multiple devices

“If it works in Africa, it will work anywhere,” says Rotich.

Besides BRCK, Ushahidi is the other product Rotich is part of. Ushahidi, which means ‘testimony’ in Swahili, is the name of both the open source crowdmapping software as well as the not-for-profit tech company that provides it. Last year, Ushahidi won

“The money is not in the code – it’s in the expertise to use that open source code, to provide that personalized experience,” says Rotich.

So while Ushahidi software is open source, the organization offers consulting services to large organizations, including United Nations agencies and large