



Connect Zaatari: Computers For Refugees



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<https://www.flickr.com/photos/dfid/sets/72157650929473450>

Overview

Death, bloodshed, and persecution has ravaged the land of Syria, destroying hopes of peace and prosperity in the near future due to a conflict that has raged on for almost five years and counting. The Syrian refugee crisis has displaced millions of people, chiefly among them children. **In a world where we teach our children they can be anything they want to be**, this bright future does not shine so brightly for the children affected by this turmoil. For those children, reality is much dimmer: resettlement into a refugee camp, with few families being able to choose a more privileged place to live, and many children dealing with trauma and disabilities. In these camps, which are not receiving full funding or support, the development and lives of these children are not being given the full attention that they deserve.

Every child has a right to education. Regardless of circumstance, a child deserves to gain knowledge about this world, and to learn about a wide variety of topics in order to not only prepare themselves for the future, but also to bring them intellectual fulfillment.

The Za'atari camp in Jordan is one of the largest in the world, and currently houses approximately 79,000 residents, with 57% of them being youth, according to UNHCR fact sheets. 37% of the people there are aged 5 - 17, so **approximately 28,000 children are school-age, yet due to circumstance are unable to seek the highest levels of education** that they would be able to during peacetime in their home country.

Connect Zaatari is an initiative that aims to improve the lives of Syrian refugees within the Zaatari camp, particularly children, many of whom are scarred psychologically or physically. By helping to invest in the futures of tens of thousands of war-affected children, we can improve the quality of life for refugee children as they learn and prepare for a brighter future. These children deserve the same opportunities that they would have outside of war, and they deserve to learn to the fullest of their capacities.

Goals

1. Fund the establishment of a computer lab at each of the UNHCR-run schools in the Za'atari refugee camp in Jordan.
2. Integrate computers into the current educational curriculum, with internet access.
3. Expand the curriculum to include computer science, programming, and internet courses, as well as e-learning opportunities.

Specifications

Operational scale

According to the UNHCR fact sheet for Za'atari from August 2015, there are currently 3 UN-run schools serving 15,500 of the 28,000 school-age children in the camp. At 100 students per computer, this would mean a minimum of 280 computers if all students were enrolled. This would likely mean that each student would use a computer once a week, with 20 students using each computer per day over a 5-day week. More ideally, there is enough time in each day for 5 students to use a computer for about one hour per student, or slightly longer. This means that an ideal target is 1,120 computers, but enrollment is unlikely to reach 100%. Therefore, I propose a target of installing at least 600 computers, depending on the amount of money raised.

Computers to be installed

The primary criteria are minimum performance, power consumption, and total cost effectiveness. A computer should be able to operate at low power if tethered to an electrical outlet, or last at least eight hours off charge in real-world use. Performance should be usable. Smooth operation of a standards-compliant web browser is a priority, as well as any applications. Computers should be durable enough to withstand a minimum term of 2 years, but ideally 4 years or more.

Internet connectivity

The most cost-effective internet may be purchased from Umniah and utilized through USB 3G dongles. Alternatively, corporations and donors can finance a more dedicated internet connection to cover the camp, or at least the schools, with Wi-Fi. This can potentially be done in collaboration with Mark Zuckerberg, who has pledged to provide internet access to UN-run refugee camps.

Infrastructure

Currently, the power grid in Za'atari is largely freely used, with official usage of electricity being meant for running street lights, and unofficial usage being diverted to power tents. Expanding the power grid to support these computers will need to be discussed with electrical providers in Jordan, as well as the UNHCR camp directors and municipal regulators. Electrical power will be used to power and charge computers and the network devices.

Curriculum

Computers installed will be able to access Wikipedia Zero for free on Umniah. eLearning may be integrated as part of an ICT curriculum. Sites such as Codecademy, Udemy, and Coursera may be accessed as part of a class or a special project.

Estimated costs

The cost of each laptop is targeted at \$200 or lower, without compromising experience. Various Chromebooks or low-cost Windows 10 devices can fulfill the performance requirements for connecting to the internet and providing a suitable experience for an educational environment. The most affordable such computer is currently the Haier or Hisense Chromebook 11, retailing at \$150 and having a battery of 39.7 Wh rated at 8.5 hours of usage.

The cost of electricity in Jordan to charge each battery for one month of usage would be approximately \$5. HSPA+ dongles can be purchased from Umniah at \$30 each, and 2GB per month can be purchased for \$7. This means that the cost of each computer is \$180 + \$12/month.

Targeting \$200 per computer and \$5 per month of electric usage (approximately 8 hour real-world battery life), the cost for 2 years for 750 Chromebooks amounts to \$387,000. Additional costs for installation, expansion of the power grid, and maintenance over the term of usage would put a closer estimate somewhere around \$1,000,000 for a 4-year term, with a safety factor. Donations from OEMs or volume discounts may reduce this cost.

Partnerships

From my initial research, there is a wealth of untapped interest in serving the refugee population that has been expressed by various groups, companies, and organizations, but not enough coordination or collaboration. I am therefore suggesting or requesting communication with the following organizations:

- UNICEF, who operate the schools
- UNHCR, who manage refugee resources
- Save The Children, who collaborate with UNICEF and UNHCR
- Save The Children Jordan, who aim to improve the quality of education and nutrition
- Facebook, which has pledged to work with UNHCR to install internet in UN camps
- Google.org, which supports charitable donations

- OEMs that meet specifications
- Umniah Jordan
- Other refugee special interest groups
- Other computer science education movements

Challenges

The greatest challenge in implementing this initiative is in combining the interests of the separate stakeholders and donors that are currently servicing the Za'atari camp. My initiative is in extending communications between interested groups and hopefully spurring meaningful action. Great coordination is needed to implement a program at this scale, with cooperation between the UN, humanitarian groups, and corporate donors.

The greatest challenge for managing this initiative is allocating a donation fund in tandem with stakeholders. Crowdfunding and private pledges currently total \$763 preliminarily, but these donations are currently only pledged and not collected. However, it is still very early in this initiative's lifetime, and the target timeline for the initiative is 2 years.

Expansions

There is a great need for internet cafes in the general Za'atari camp as well, with many residents wishing they could communicate with their families or access services they are used to connecting before the conflict. Furthermore, many Syrian refugees are not legally allowed to work in the Jordanian job environment, but could potentially work remotely if they had access to a computer and an internet connection. Services such as Amazon's Mechanical Turk can provide a source of income for some families, or people could learn to code and become programmers, among other options. Wider internet access would provide opportunities for the greater refugee population, beyond educational aims.

Conclusion

I believe that with a broadly connected coalition of support, a cost of several hundred thousand dollars to a few million dollars is achievable, and is **a small price to pay for offering greater educational opportunities** to the residents of the Za'atari camp. By connecting refugees to the internet, we can give them a source of learning, a richer education, a chance to earn a living, and a portal to the outside world. With cooperation from corporate donors, crowdfunding, and nonprofit organizations, we can offer them computing and internet access. Let's offer them a better life.

Further reading

Students promote learning in Za'atari Camp, Jordan

http://www.unicef.org/infobycountry/jordan_70365.html

"I love education, and I'm aware of the importance of it. People must tell others about good things that they know and not keep them for themselves," says Mozoun. [...]

"Children are the ones who will build the community in Syria," says Abu Omar. "They are the core of civilization. That's why we care about their education." [...]

"When we came to Za'atari, we forgot all about school because of the situation," says Abu Raed, a father of seven. "Our main goal was just to follow up on news and what is happening in Syria at the moment." [...] "First, we keep them off the streets. Second, they go to school, learn and get certificates."

Syrian children with disabilities struggle with life in a refugee camp

http://www.unicef.org/infobycountry/jordan_69380.html

For Syrian children and their families who have fled the conflict in their country, living with physical and mental disabilities poses huge day-to-day challenges, but they still look to a brighter future. [...]

As humanitarian needs rapidly outpace funds, the children of Syria are paying the highest price and risk growing up a lost generation, physically and psychologically scarred for life from the consequences of a prolonged conflict. The most vulnerable among them are children with disabilities, whose right to assistance – ranging from health to education – is often overlooked in humanitarian response. As a result, they are left more vulnerable to a life of poverty and abuse, and denied their rightful place in helping strengthen and rebuild their communities and countries. [...]

Among Syrians who have been displaced or have fled to other countries, the percentage of children with disabilities is disproportionately high, given how many have been injured or profoundly distressed as a result of the conflict.

Logging on in Zaatari <http://www.smex.org/logging-on-in-zaatari-part-i/>

"We're used to the Internet," a vendor from Dara'a told me during my second visit, "why can't the UN provide an Internet café?" I don't think he expected this request to be realized anytime soon, but I also don't think it should be scoffed at. The UNHCR is stretched very thin – to date, only 55% of its requested funding for the Syrian crisis has been met – but there is overwhelming demand for Internet access.

The Syrian Refugee Crisis: Saving the Lost Generation and Communities that Serve Them
<https://ambassadorsperspectives.wordpress.com/2015/10/23/the-syrian-refugee-crisis-saving-the-lost-generation-and-the-communities-that-serve-them/>

Given the circumstances, the international community must face two most important realities. Nearly 3 million Syrian children – refugees and Internally Displaced Persons – are out of school and represent a lost generation who are hopeless, desperate and potential targets for terrorist recruitment. And, unless Lebanon, Jordan, and Turkey receive greater assistance for communities servicing the refugees, these front-line countries risk destabilization, making matters worse for Europe and beyond. [...]

e-learning has been successfully employed in remote areas of Ethiopia and India that are far less propitious for internet connectivity and computer literacy than Lebanon, Jordan, or Turkey. And children are amazing in how rapidly they adapt to new technologies. Most importantly, on-line learning can be deployed quickly, with the Lebanese and Syrian curricula already digitized. [...]

As the refugee crisis in Europe showed, the spillover from Syria will not be contained to Syria's neighbors. Let's at least give the refugee children the educational basis for a productive future and a way to resist the allure of extremist ideologies. And let's give the host communities the chance to reap some benefit from their generosity.

References

UNHCR data on Za'atari:

<http://data.unhcr.org/syrianrefugees/settlement.php?id=176®ion=77&country=107>

November 2015 fact sheet from UNHCR:

<http://data.unhcr.org/syrianrefugees/download.php?id=9887>

Mashable.com: "Facebook will provide free Internet for refugees living in U.N. camps":

<http://mashable.com/2015/09/28/facebook-refugee-camp-internet/#SLFJ4uNjTEqI>

Umniah JO HSPA+ dongle:

<http://www.umniah.com/en/personal/device-details/649/default.aspx>

Umniah JO postpaid rates:

<http://www.umniah.com/en/personal/plan-details/247/default.aspx>