

UC DAVIS

INFORMATION AND EDUCATIONAL TECHNOLOGY



Article 26 Backpack:

Tech as an Educational
Lifeline for Refugees



الحقيبة
أداة عالمية
للتنقل الأكاديمي

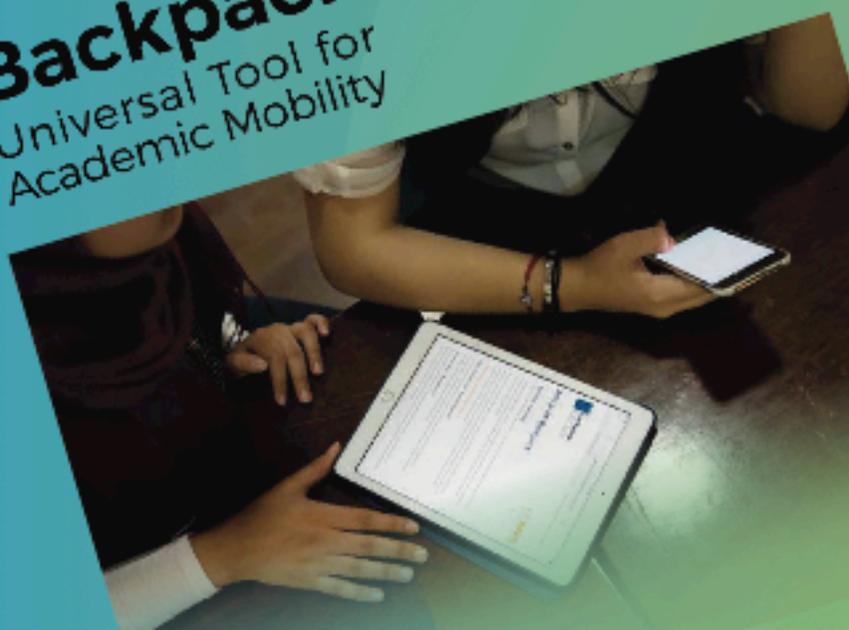


Backpack
Universal Tool for
Academic Mobility



Mochila

Herramienta Universal para
la Movilidad Académica



Article 26 Backpack: Tech as an Educational Lifeline for Refugees

Submitter:

Shawn DeArmond, Web Architect
UC Davis, Information and Educational Technology (IET)
sgdearmond@ucdavis.edu
530-752-1095

Project Leader:

Keith Watenpaugh, Professor and Director of Human Rights Studies

Team:

Mona Finucane, Former Deputy Director, Article 26 Backpack
Quico Gonzalez, Professional Services Manager, UC Davis IET
Ernie Comer, Project Manager, UC Davis IET
Shawn DeArmond, Web Architect, UC Davis IET
Carson Black, Web Developer, UC Davis IET
Mark Miller, Web Developer, UC Davis IET
Anthony Horn, Web Developer, UC Davis IET
Jeroen Post, Web Developer, UC Davis IET

United Nations Universal Declaration of Human Rights, Article 26: Everyone has the right to education.

Over 70 years ago, the UN established the Universal Declaration of Human Rights with 30 articles. One of those articles, Article 26, established the universal human right to education.

A web development team from UC Davis Information and Educational Technology (IET) is behind the very human project to help refugees reclaim their right to education. The team performed the bespoke programming for the “Article 26 Backpack,” a cloud-based platform to help refugees document and share their personal stories and educational credentials to reclaim their right to education.

Background

Keith David Watenpaugh, Professor and Director of the UC Davis Human Rights Studies Program, and director of the Article 26 Backpack project, needed a technological solution to make his concept a reality. The concept grew out of Professor Watenpaugh’s efforts to address the suffering caused by attacks on students and scholars, institutions of higher learning, and academic freedom. Collaboration on this effort included IET, UC Davis Global Affairs, American Association of Collegiate Registrars and Admissions Officers (AACRAO), and the Issam Fares Institute for Public Policy and International Affairs at the American University of Beirut (AUB). The project has been supported by major grants from the Ford Foundation, the Open Society Foundations, and the UC Davis Office of Chancellor and Provost.

Article 26 Backpack project timeline and description of IET Web Development Activities:

December 2017 - Initial engagement with IET Web Development by Keith Watenpaugh.

IET web development has a highly-evolved and well-documented Client Engagement Process that guides how their projects are scoped, estimated, and developed. This effort involved an intense collaboration between stakeholders and developers to refine the scope to be achievable given the short timeframe.

February 2018 - Development began, and consisted of eight 2-week sprints.

The IET web development team uses a modification of the Agile Scrum process known as Consultancy Scrum. This framework emphasizes a high level of interaction between developers and stakeholders throughout the process, which ensures a successful project and a quality product.

June 2018 - The digital tool successfully launched on-time and under-budget. Professor Watenpaugh deployed the tool in Lebanon at several refugee camps and in urban settings, and his team signed up hundreds of refugees who immediately began storing their materials in their Backpacks and sharing them.

September 2018 – The digital tool was enhanced to support Internationalization.

The entire user interface was translated into Arabic to increase accessibility of the Backpack. While some Syrians speak English, most do not, and this effort significantly enhanced the accessibility of the site to this group. Professor Watenpaugh and his team returned to Lebanon and deployed the digital tool with the help of “Backpack Guides” throughout the country. The project and deployment amongst refugee populations in Lebanon received coverage by the UC Davis News Service, University of California news, *The Washington Post*, and other media outlets in the Middle East. Professor Watenpaugh was interviewed on National Public Radio.

October 2018

The Article 26 Backpack was deployed in collaboration with the Sacramento County Food Bank for their refugee, resettlement and undocumented clients demonstrating the need for the digital tool within California.

February 2019 - Spanish Language translation was added to the app to further expand the user base beyond the Middle East, coinciding with Professor Watenpaugh’s team’s efforts to help Spanish-speaking refugees and migrants in the United States. The International Institute of Education, the country’s most important global education organization and a leader in refugee higher education access, recognized the Article 26 Backpack and its value when it awarded Professor Watenpaugh its Centennial Medal.

The Technology behind Article 26 Backpack:

Drupal was selected as the web framework because of its rapid development capabilities, rich entity relationship system, internationalization and multilingual systems, as well as user and role permissions flexibility. In addition, custom data architectures, access controls, and workflows were developed by UC Davis IET programmers to meet the unique needs of the project.

A continuous integration pipeline connects up the code repositories to automated testing frameworks and deployment systems to ensure stability and consistency. It is hosted in a cloud-based provider using a scalable containerized infrastructure.

Results:

Success is measured by signing up refugees as “Backpackers” and the refugees sharing their Backpacks in order to continue their education or progress their career. This was achieved almost immediately, and continues its momentum, with more than 600 refugees creating accounts and about 200 shared Backpacks, to date.

Watenpaugh, the driving force, and director of the project, said this about IET's contribution to the success of the project:

"The Article 26 Backpack, the first digital tool for refugee global academic mobility, is a reality because of IET's firm commitment to interdisciplinary collaboration across campus and across the world. Backpack has several complex moving human and digital pieces and building it required IET to be responsive to diverse needs: making it possible for users to employ the tool in multiple languages, building for low bandwidth environments like refugee camps, and blending the design requirements of human rights and humanitarian policy, best practices in educational credential storage and sharing, and new digital privacy rules. IET's approach allowed a diverse group of professionals from fields like Human Rights Studies, humanitarian relief and development, higher education credentialing and counseling to make something that is making a real difference in the lives of some of the world's most vulnerable."

Next Steps:

Here is what is in the works for the Backpack:

- French is the next language that will be added to the Backpack, with the specific aim to assist the French-speaking population of refugees in West Africa.
- In coordination with the AACRAO, develop a workflow so that artifacts such as transcripts and diplomas are assessed for authenticity so that refugees can positively attest to their educational history.
- Exploratory discussion with United Nations High Commissioner for Refugees (UNHCR) about possible integrations with their data system.

Real World Impact:

Jihad Qasanyeh was a fourth-year student of applied chemistry at the University of Damascus when he was taken prisoner for five years. He wants to complete his studies, "I always aim to learn more and more for when I return to Syria," he shared in a video recorded to include in his Backpack. "I'll use what I learn for rebuilding Syria."

Eslam Abo Alhawa, a Syrian refugee at the American University of Beirut, said that, "During the Syrian War, I was not able to do anything to save people, or even to do something for my country. Education is the key to rebuilding Syria. ... My friend told me about the Article 26 Backpack. I came in as a Backpacker, then I discovered that we can be Guides, so we can help other refugees to get their Backpack. Many Syrians, especially the refugees, have attended trainings, workshops, they are

graduated, they have a Master's Degree, but they are not working. They do not have the opportunity. I discovered how important the Article 26 Backpack is for them."

For the members of the IET web dev team this was a unique opportunity to make a life-changing impact for people across the globe in circumstances they can't even imagine. As web developer Carson Black said, "It's not often, as programmers, that we get a chance to make an impact beyond a surface level. This project was different because we are helping to change people's lives for the better, and that makes us feel really good about the work we do."

ADDITIONAL RESOURCES

- <https://article26backpack.ucdavis.edu>
- <https://www.ucdavis.edu/news/laurels-medal-keith-david-watenpaugh>
- <https://www.ucdavis.edu/news/iet-team-behind-project-help-syrian-refugees-reclaim-right-education>
- <https://www.washingtonpost.com/brand-studio/wp/2018/11/05/feature/refugees-reclaim-a-human-right-with-technology/>
- https://www.washingtonpost.com/video/other/article-26-backpack/2018/10/23/9601c754-d6e0-11e8-8384-bcc5492fef49_video.html