

How Pontificia Universidad Católica del Perú used Ookla for Good™ to Enhance their Data Analytics Diploma Program

Benefits



Provided university students with access to real-world connectivity data to apply data analysis skills



Supported workforce development by offering hands-on experience with data relevant to future careers in data science, telecommunications, and engineering



Increased awareness of the digital divide and the importance of network connectivity in societal development

AI PUCP (Artificial Intelligence Group from Pontificia Universidad Católica del Perú) is dedicated to advancing education and practical skill development in data analysis. As part of their Data Analytics diploma program, the “Programming for Exploratory Data Analysis” course utilizes Ookla for Good’s open datasets to teach students about network performance. By integrating this data into their curriculum, PUCP provides students with invaluable hands-on experience in analyzing mobile network connectivity. This collaboration not only enhances students’ technical skills but also supports efforts to address connectivity challenges, such as the digital divide, in Peru.

Situation

The “Programming for Exploratory Data Analysis” course at Pontificia Universidad Católica del Perú is designed to equip students with the skills to analyze and interpret complex datasets. It starts by learning Python from scratch and then moves on to different types of data, including building Recommendation Systems, analyzing Text data, manipulating Network datasets, solving Optimization Problems and one week is specifically focused on Geographical Data. On that topic, Lecturer Cristhian Castro Chávez wanted to give his students relevant and insightful data they could explore, allowing them to apply the skills they had gained throughout the course.

Given the telecommunications and engineering backgrounds of many of the students, using real-world data is crucial for developing their future skills. Providing students with complex and applicable datasets is essential for their learning experience; however, sourcing and integrating such data into the course curriculum can be challenging. Educational institutions and professors often struggle to find datasets that are both insightful and representative of real-world situations.

Solution

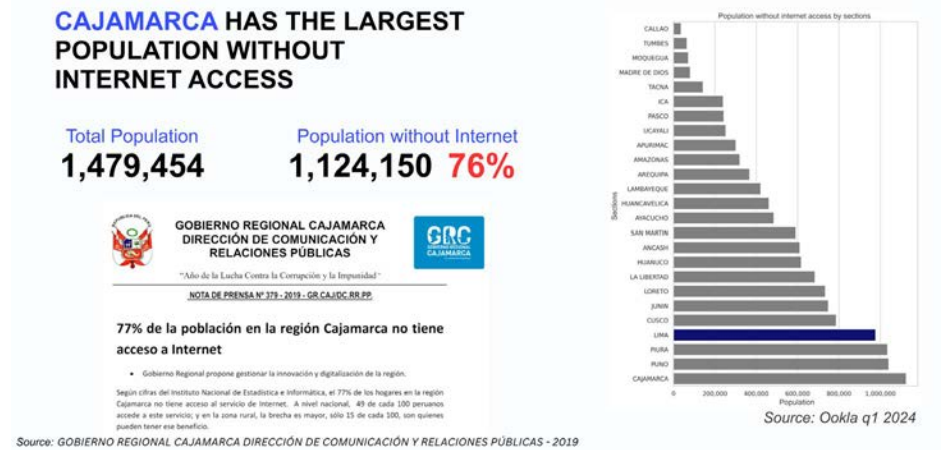
By leveraging Ookla for Good's open datasets, Cristhian designed an assignment for his students to continue their course exploration into geographical data. Students were instructed to analyze information at the tile level and perform aggregations to summarize the experience at a regional level, focusing not only on Lima, the capital of Peru, but also in other areas.

The assignment taught students how to access and analyze Ookla for Good's data to investigate topics such as identifying regions with significantly poor mobile and fixed broadband performance, discovering which areas have no coverage, and choosing zones to prioritize for coverage deployment. Additionally, students explored external factors influencing connectivity, including terrain geography, investments by network providers, and government policies.

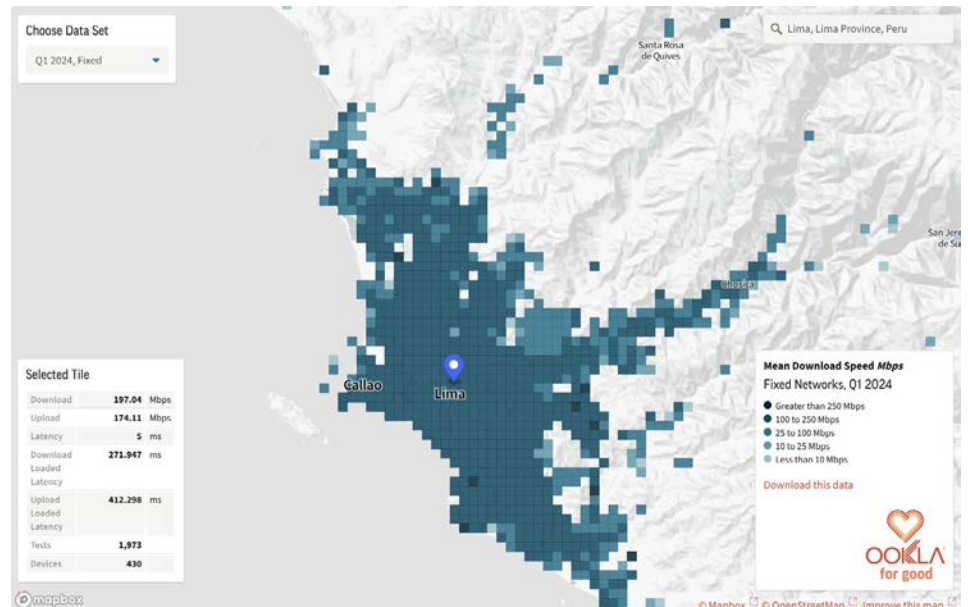
“Incorporating Ookla data into our Data Analytics program has been crucial for teaching our students how to access, manipulate, and analyze geographical data. As a telecommunications engineer and data scientist, I find it incredibly valuable to analyze and draw relevant conclusions about internet access and connectivity in Peru. This is precisely what I strive to instill and demonstrate to our students, providing them with an important real-world application of data analysis by highlighting where the digital divide exists in Peru.”

Cristhian Castro Chávez
Professor of Data Analytics at PUCP

Sample of Student's Assignment Ookla For Good™ | Q1 2024



Mean Download Speed in Lima Ookla For Good™ | Q1 2024



Outcome

Students gained hands-on experience with real-world data, enhancing their analytic skills and preparing them for future careers in data science, telecommunications, and engineering. The assignment was an example of how Ookla for Good provides valuable data resources for educational and social impact. By working with real data, students developed a deeper understanding of the digital divide and the importance of network connectivity in societal development.

This exposure helped them appreciate the challenges and opportunities in improving internet accessibility in underserved areas. The Data Analytics program at the university has decided to continue utilizing Ookla for Good datasets in upcoming courses in an effort to bridge the gap between industries and academia.



About Ookla for Good

Ookla for Good is focused on connecting our people, skills, and data with like-minded organizations, groups, and individuals to improve people's lives through internet accessibility.

The work we do with our academic, humanitarian, and community-focused partners is more significant than just improving internet speeds; we aim to leave a lasting impact on the communities we support worldwide.

Interested in Ookla for Good? See how other organizations have leveraged the data and how to access the data [here](#).