

## NIPO: Reducing School Absenteeism by Capturing & Tracking Data

Digitizing information to inform solutions

### BACKGROUND

The benefits of education extend far beyond the immediate economic opportunities that arise from it. Studies show that for every year that a girl stays in secondary school, her risk of contracting HIV/AIDS is reduced by a third. In Tanzania, school attendance tracking is currently done on paper, if at all. Although inexpensive, manual data collection is difficult to translate into meaningful insights. By digitizing data collection, trends in school attendance - including which factors contribute to absenteeism and how



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attendance relates to challenges such as teenage pregnancy and HIV/AIDS – can begin to be tracked in real-time to provide decision-makers with meaningful data on the factors that most heavily influence attendance and school drop-outs.

### PROBLEM

Schools in Tanzania currently lack the means to aggregate, visualize, and share attendance and truancy data. NIPO enables this data collection and transfer, a crucial step to increasing school attendance, reducing school dropout rates, and ultimately lowering the risk to adolescent girls and young women (AGYW) of contracting HIV/AIDS.

### SOLUTION

With the collaborative support of a class monitor, school administration, and a teacher, NIPO will collect daily school attendance. NIPO means “I’m here” in Swahili and is the common response of most public school students when teachers conduct roll call: “I am here – NIPO.” The NIPO software facilitates school attendance tracking by providing automated data visualization and infographics to stakeholders on absenteeism trends. It also improves parental involvement and accountability by instantaneously alerting parents by SMS of student truancy.

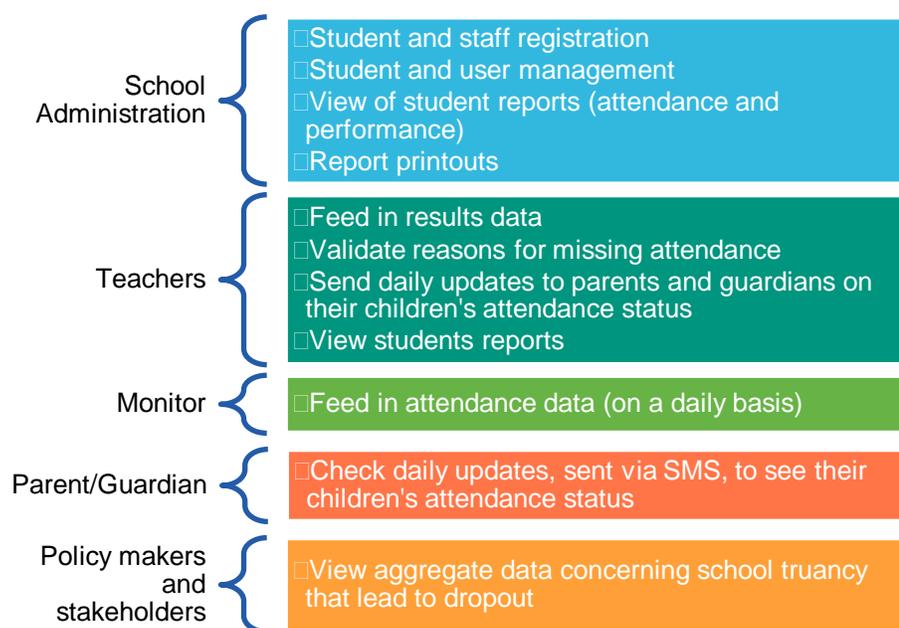
### PROCESS

NIPO automates day-to-day activities in schools, with a primary focus on daily attendance recording. The system utilizes client-server architecture consisting of two major interfaces: a mobile application for recording attendance and a desktop application for data visualization

and higher functionalities. A teacher is primarily responsible for tracking attendance and can feed other data into the system, including grades and a general report on students' behavior. Four schools have agreed to use NIPO in their schools, and Mbezi Beach High School and Hananasif have already installed the system and begun operating at full capacity. During preliminary research, organizations like UNESCO and the National Bureau of Statistics showed interest in using NIPO's data, but to ensure that those data are representative, NIPO will first need to scale up to include other school districts.

### OUTCOMES & IMPACTS

The aim of NIPO is to reduce school dropout rates among AGYW in the districts in which it operates by increasing school performance and by reducing the rates of absenteeism and correlated risks of teenage pregnancy and HIV/AIDS infection. The instant messaging feature that alerts parents to truancy will create an accountability system for absent students and reinforce parental involvement in students' success. Finally, the data that NIPO collects will help inform



the decision-making of other stakeholders in the education sector.

### KEY COLLABORATORS

MariaDorin J. Shayo and her team of five are the brain power behind NIPO. The team has received a \$25,000 grant and mentoring from the Data for Local Impact Innovation Challenge (DLIIC) to drive their project.

DLIIC aims to engage, support, and connect Tanzanian innovators, developers, and solution providers to each other and to opportunities to make a difference in people's lives. To learn more, visit <http://www.dliinnovationchallenge.or.tz>.

