NEES
NÚCLEO DE EXCELÊNCIA EM TECNOLOGIAS SOCIAIS

SPTe

School Trajectory Protection System

A system utilizing **offline technology to help identify students at risk of dropping out or leaving school.**

Administrators and educational teams can take early action, implementing preventive measures to promote student retention.
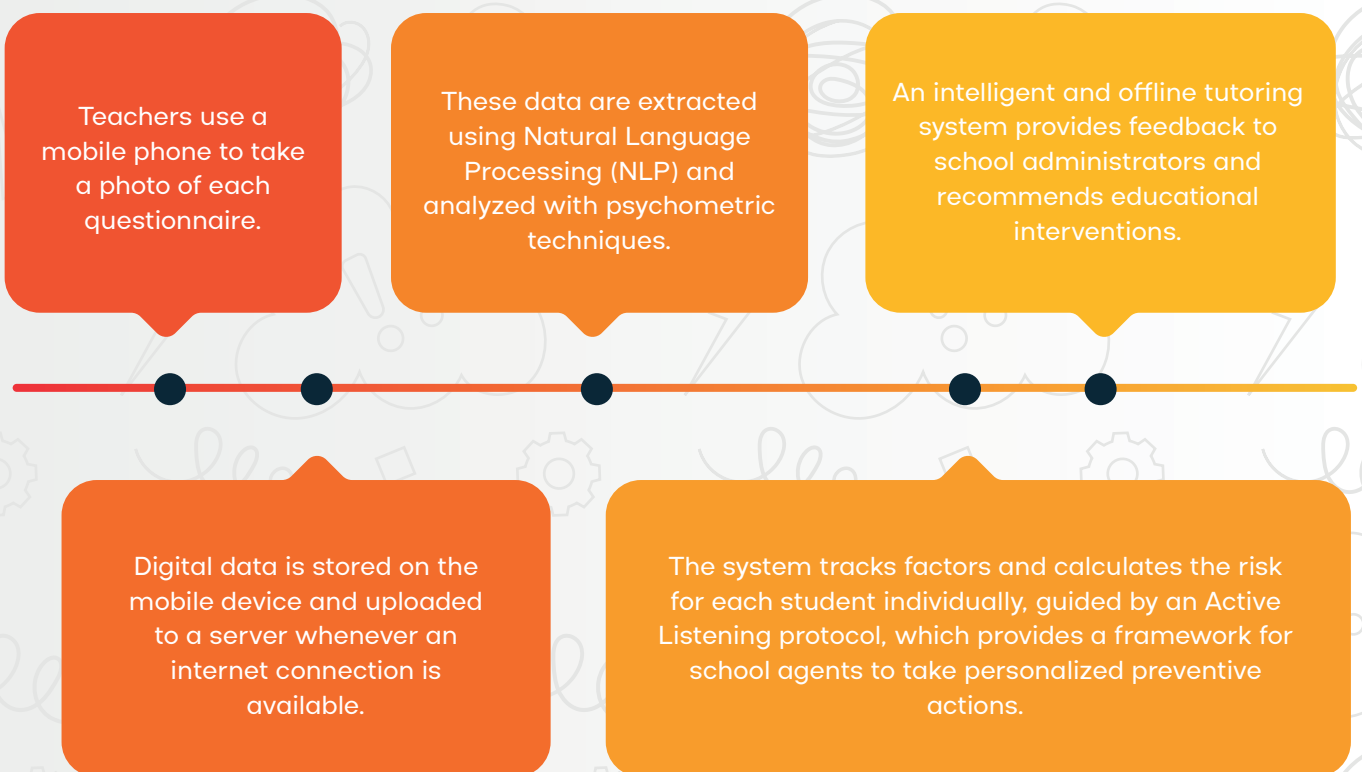
Using factors that address **five dimensions influencing student's** decisions to leave school:

- Student interactions with the school
- Relationships with educational professionals
- Family influence
- Community dynamics
- Emotional and psychological issues

Identifying these dimensions enabled the creation of a collection **questionnaire called the Relational Risk Factors for School Dropout Assessment Instrument (IAFREE)**, with questions that monitor these factors.

Paper questionnaires are **digitized by a mobile application and processed by AI algorithms**. Risk factors are **analyzed using psychometric techniques, and data are synthesized into a web monitoring dashboard**.

HOW IT WORKS

Teachers use a mobile phone to take a photo of each questionnaire.

These data are extracted using Natural Language Processing (NLP) and analyzed with psychometric techniques.

An intelligent and offline tutoring system provides feedback to school administrators and recommends educational interventions.

Digital data is stored on the mobile device and uploaded to a server whenever an internet connection is available.

The system tracks factors and calculates the risk for each student individually, guided by an Active Listening protocol, which provides a framework for school agents to take personalized preventive actions.

HIGHLIGHTS

Scalable and effective in monitoring access to education, especially in underserved and socially vulnerable areas.

Personalization for different realities and the ability to enter data without relying on the internet, ensuring broader solution coverage.

Detailed, evidence-based diagnosis of dropout risks, enabling precise interventions.

Preventive action suggestions to reduce **individual** dropout risks, based on active listening to each student.

SPTe's results demonstrate its effectiveness and positive impact on reducing school dropout rates.

NUMBERS
(pilot project)

16.470
STUDENTS

2.481
SCHOOLS

549
SCHOOL AGENTS

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