



Solution: Leemo

A CEFR Adapter & Schoolbook Accessibility Tool

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2. Luxembourg and Diversity

Luxembourg's population is highly diverse. According to STATEC data (1) from April 2025, **47.3%** of residents are not Luxembourgish nationals. The range of languages spoken here, including Luxembourgish, French, German, and English, can be challenging for foreigners.

Multilingualism is an essential feature of Luxembourg's society and has a distinctly positive impact, enabling different cultures to integrate and collaborate effectively. This diversity represents a core strength of modern Luxembourg. (2)

Many families with non-Luxembourgish backgrounds who settled here years ago have successfully integrated their children into the education system from an early age, leading to positive integration outcomes.

However, one group faces particular challenges: families who arrive in Luxembourg with children already partway through their education. These children need time to acquire the necessary language skills, primarily Luxembourgish, French, and German at the primary school level. While additional language classes are available, students often must dedicate significant amounts of their free time to language learning. This can be particularly demanding, given that parents often do not speak these languages themselves and are therefore unable to provide enough support at home.

3. Current Tools & Systems

A number of educational tools are already in active use throughout the Luxembourgish school system, with nearly universal adoption in secondary schools (from 7th grade onwards).

3.1 IAM Login



Each student in a Luxembourgish public school has an IAM login that serves as a unified credential system. These credentials are used not only for administrative purposes but also for accessing the school cafeteria and any digital applications that require authentication. Any book that requires IAM access can be used and shared within this system, between students and teachers.

3.2 one2one

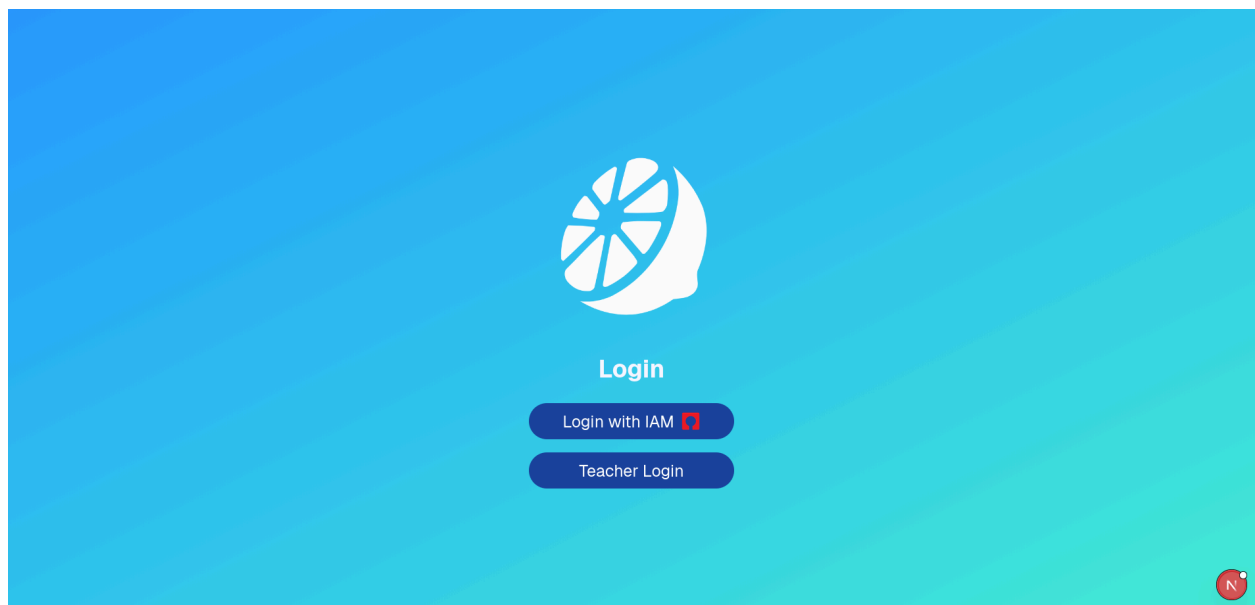
One2one is a system adopted by most secondary schools that integrates iPads into classroom instruction. Both teachers and students use iPads collaboratively, not only during lessons but also for homework assignments.

This system utilizes the IAM login credentials mentioned above, providing access to applications such as Microsoft Word, file-sharing platforms, and various other educational tools.

4. Leemo as a Platform

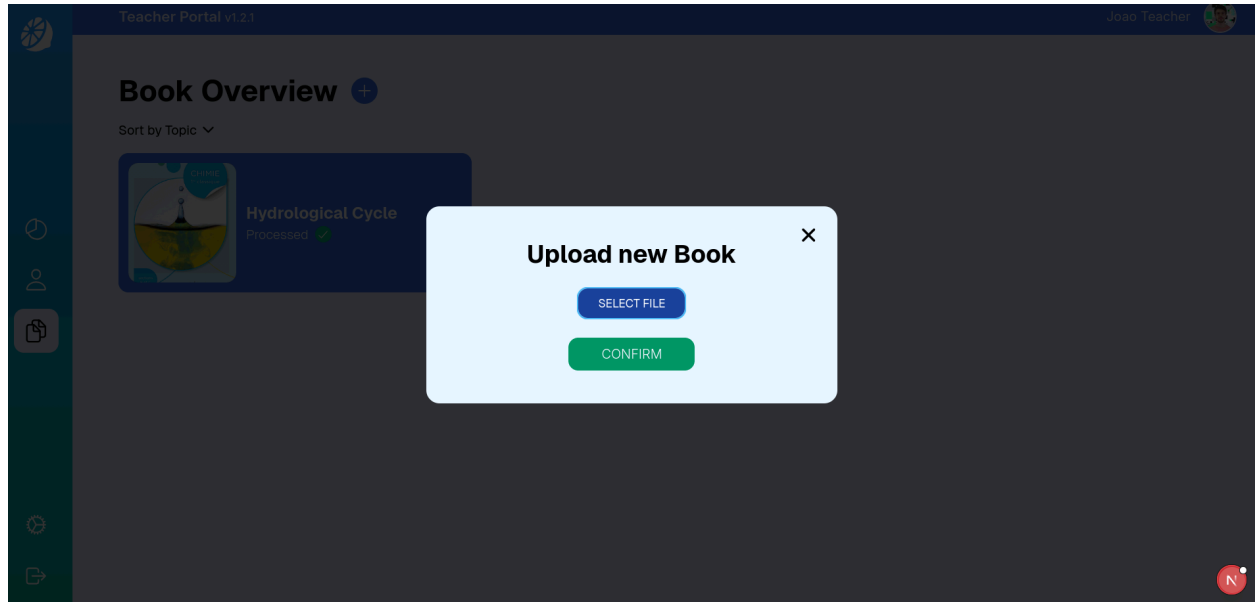
To address the challenges faced by children who arrive in this country mid-academic year, we developed Leemo.

Leemo aims to be an IAM-integrated platform that enables teachers to adapt and deliver educational materials at varying language proficiency levels. While direct translation of textbooks is straightforward, it fails to meet the needs of these students who require progressive language adaptation.



Consider a student in mathematics class who struggles to comprehend the material due to the language complexity of the textbook. Through Leemo, students can dynamically adjust the language proficiency level while reading, enabling them to grasp the mathematical concepts more effectively while simultaneously developing their language skills. Critically, this approach maintains alignment with the school's curriculum,

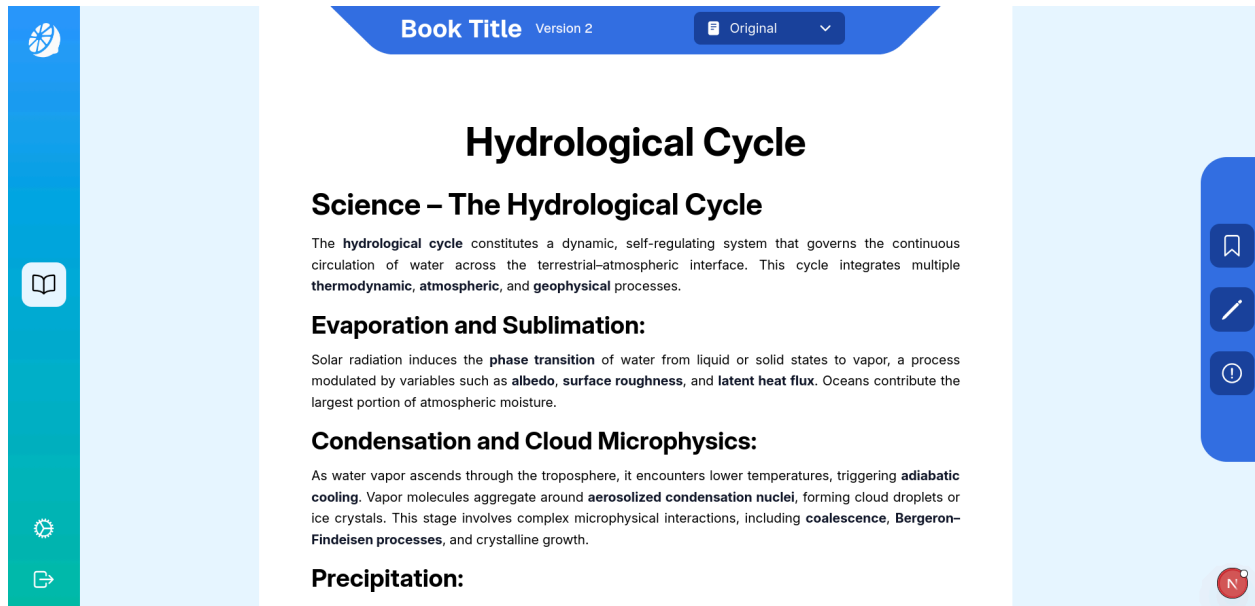
ensuring students progressively adapt to the standard educational materials and expectations.



Leemo integrates with existing educational platforms such as one2one, enabling teachers to upload digital textbooks directly. The platform then automatically generates adapted versions calibrated to specific CEFR proficiency levels (A1-C2), while preserving the original content, structure, and pedagogical flow to ensure curricular consistency.

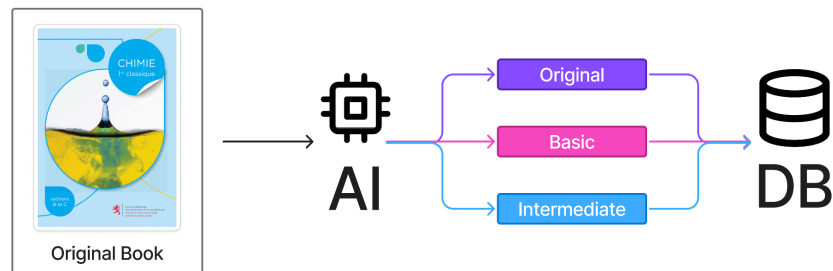
Teachers can review and validate the adapted materials through an intuitive built-in editor, allowing them to make real-time corrections or adjustments as needed.

In addition, Leemo features a lot of accessibility features, like screen reader support. It is crucial to include students that may have a disability that impacts their learning.



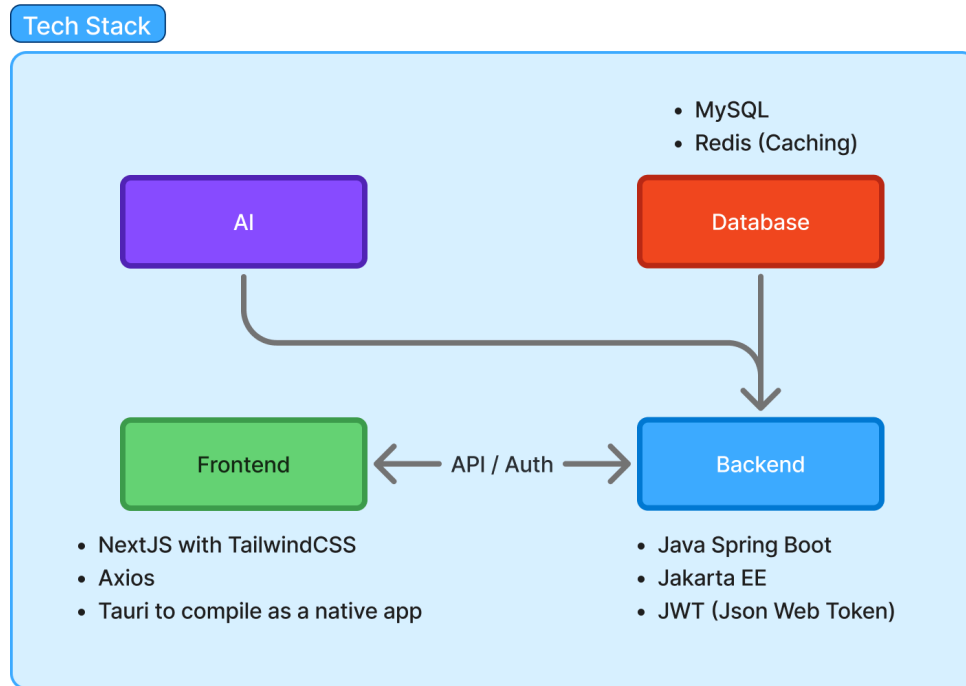
Students access the adapted materials through Leemo's dedicated application, where they can seamlessly toggle between the original text and beginner or intermediate versions based on their current comprehension needs. The platform includes integrated reading tools such as text highlighting, annotations, and instant dictionary lookups that generate definitions for vocabulary, supporting language learning.

5. Technologies



The teacher workflow is simple: Upload → Parse & Transform → Save.

As for the different layers and parts of Leemo, we have a fullstack web-app with a native application on the iPad.



Please note that not every single technology or package is listed. This is just a simplified version to illustrate the concept.

6. Adaptation for other Systems

The Luxembourgish school system is not the only place where Leemo could be implemented. It can also be used independently or by private people, in a homeschooling or self-learning scenario for instance. The solution is scalable and can be adapted for different schools, by either storing data separately or combining some of the data.

Furthermore, Leemo will be available as both an App and a Desktop Application, so that the students can use it wherever they want.

7. Sources

[1]

<https://luxembourg.public.lu/fr/societe-et-culture/population/demographie.html>

[2]

<https://luxembourg.public.lu/fr/societe-et-culture/langues/multilinguisme-opportunit.html>