Made with Moodle: The val.Py Story

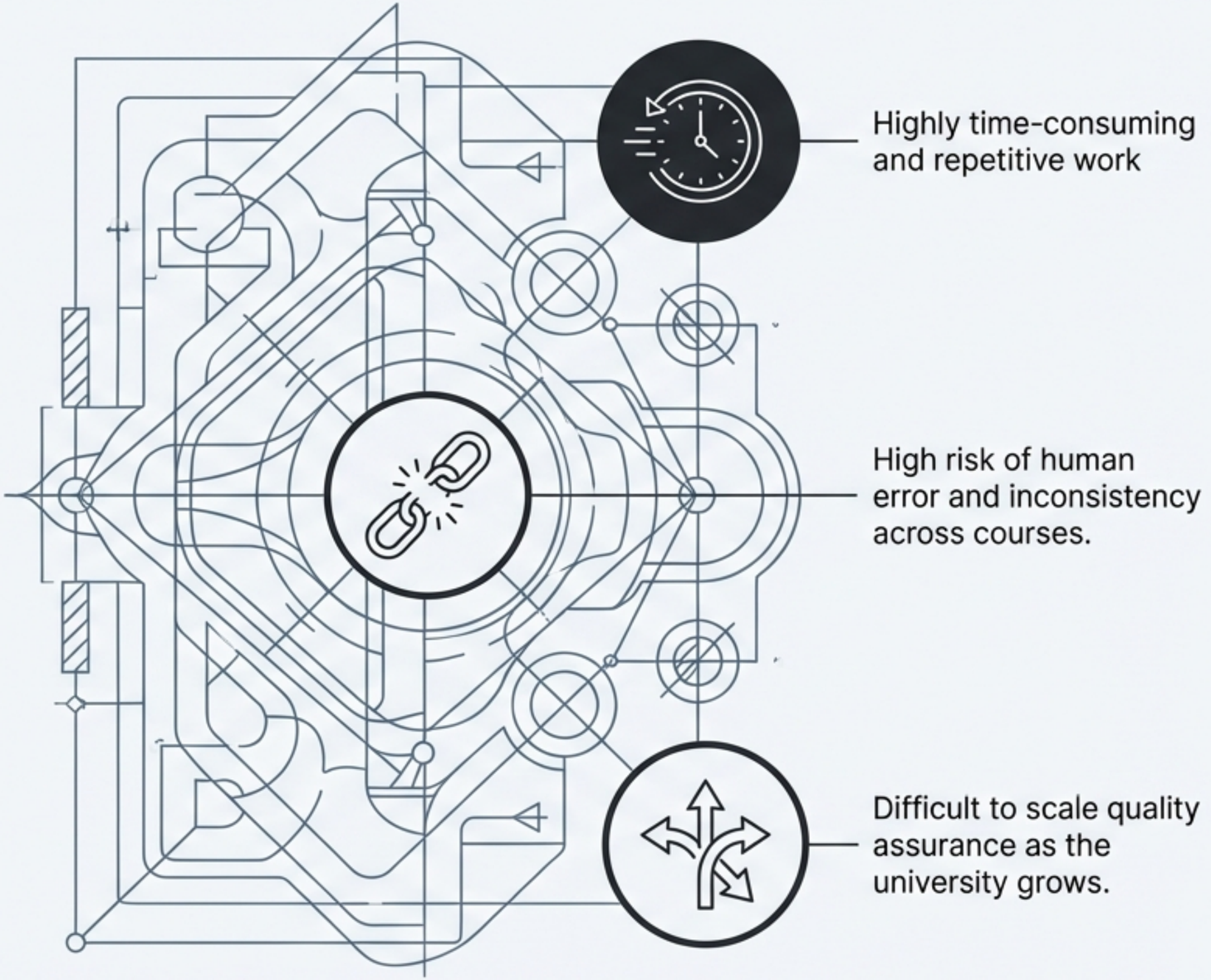
Automating Pedagogical Quality Assurance at Universidade Aberta

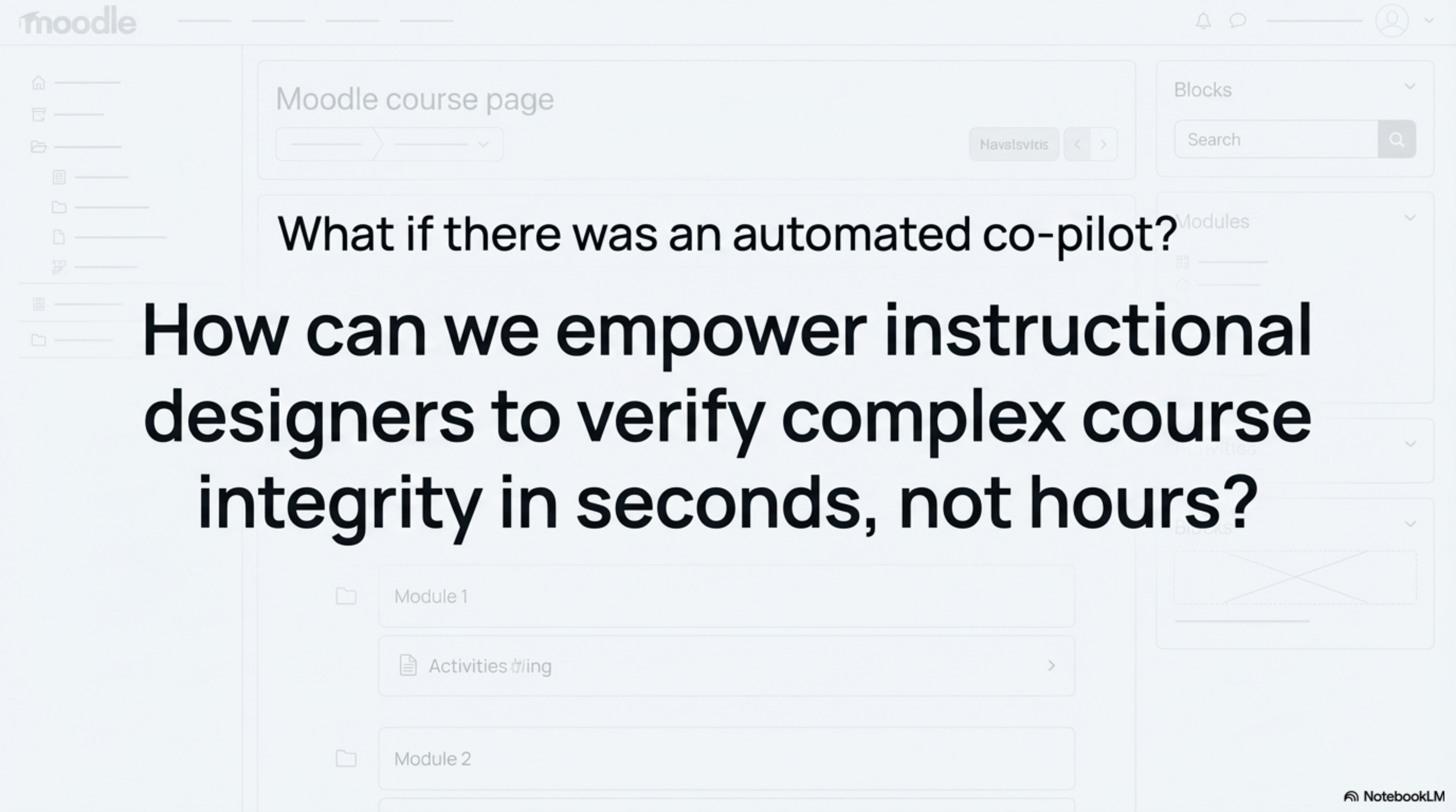
A storytelling series that celebrates the real people using the Moodle platform to make an impact.

The Guardian of a Unique Pedagogical Model

At the heart of this story is Universidade Aberta (UAb), a pioneer in distance education. UAb's effectiveness relies on its "Virtual Pedagogical Model"—a complex set of standards ensuring a consistent, high-quality learning experience across all courses.

The Challenge: Manually ensuring hundreds of courses conform to this intricate model.




moodle
Moodle course page
Navigation
Blocks
Search
Modules
Activities
Blocks
What if there was an automated co-pilot?
How can we empower instructional designers to verify complex course integrity in seconds, not hours?
Module 1
Activities
Module 2
NotebookLM

Introducing val.Py

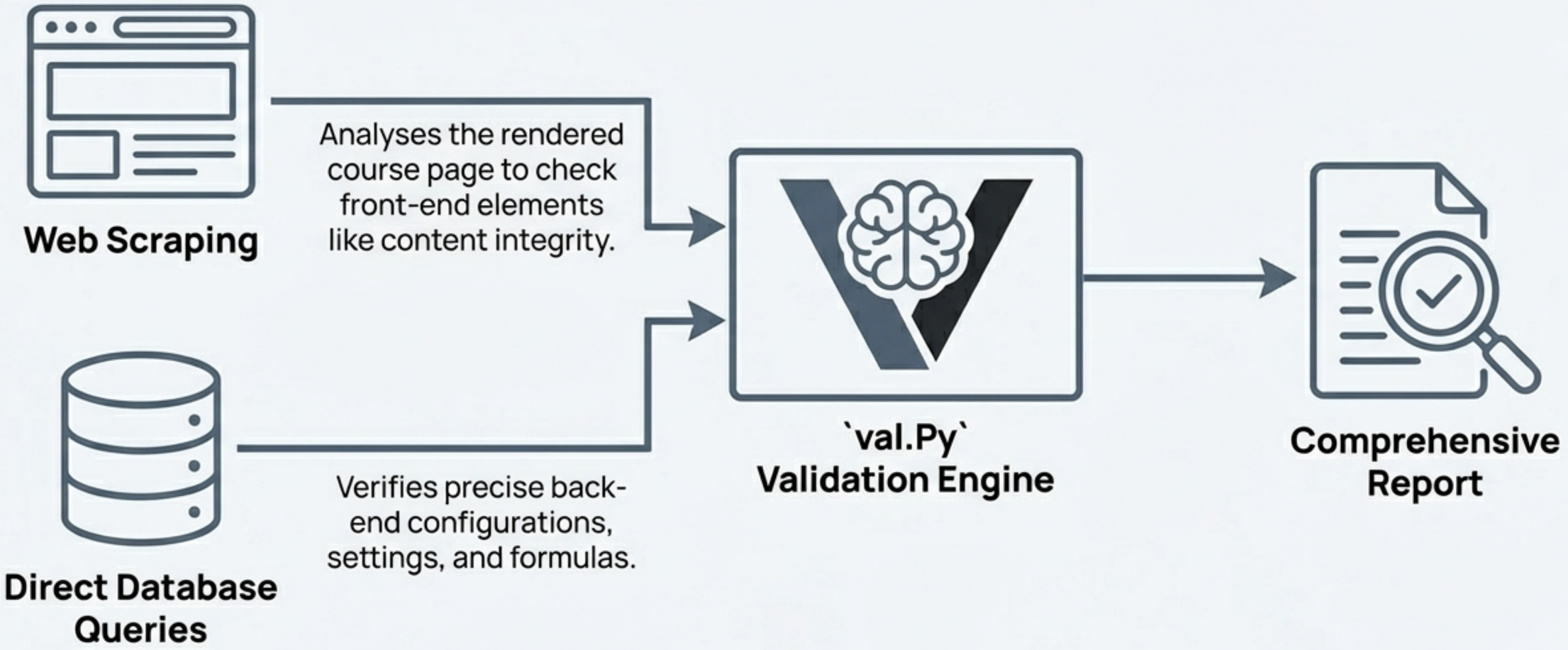
A powerful validation bot designed to ensure Moodle courses adhere to a specific, complex set of pedagogical and structural standards.

Automated: Replaces tedious and error-prone manual checking with a reliable, one-click script.

Comprehensive: Audits dozens of parameters, from course settings and user roles to gradebook formulas and content health.

Integrated: Works seamlessly within the Moodle interface as a simple, intuitive block.

A Hybrid Engine for a Complete Audit



The 360° Quality Assurance Audit

Course & User Setup

Checks `shortname`, visibility, group modes, and teacher/tutor roles.

Key Resources

Validates the presence of standard blocks (e.g., 'Campus Virtual') and forums.

Assessment Integrity

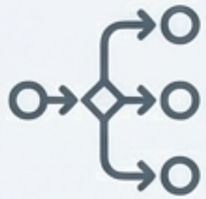
Deep validation of assignments (`e-folio', `p-folio`), checking grading methods, group settings, and Turnitin integration.

Gradebook Logic

Verifies the final grade calculation formula and sum of weights.

Content Health

Scans for broken links, invalid images, and problematic iframes.



Course Typology

Adapts validation logic based on course type (e.g., 1st cycle vs. 2nd/3rd cycle).

Two Parts, One Seamless System

Moodle Course Interface

`block_val_py`

A user-friendly interface to trigger validation and view the summary score.

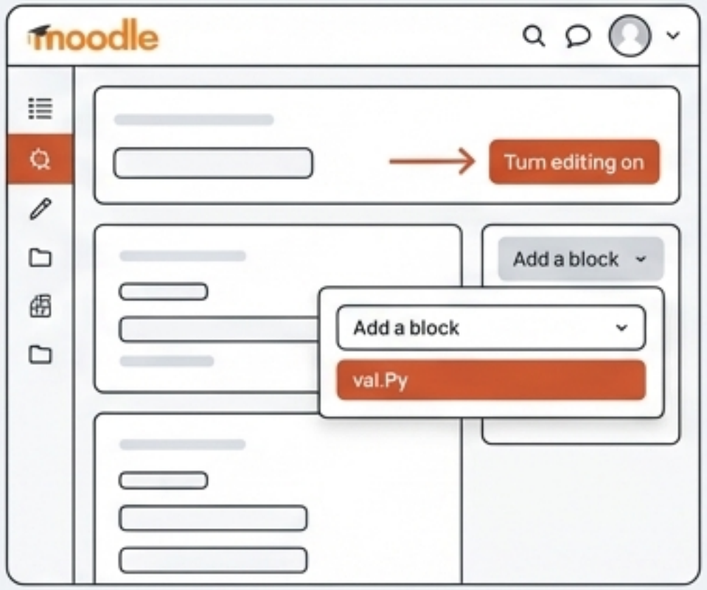
AJAX Call

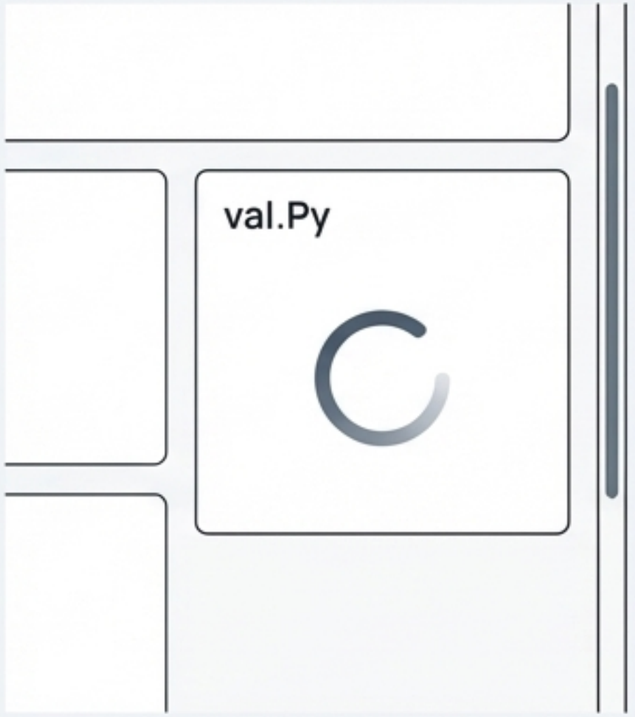
Server-side Engine

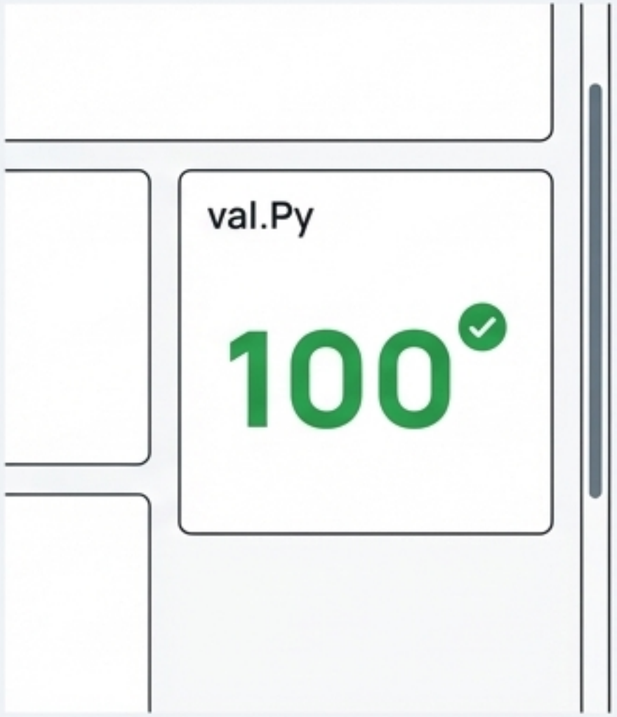
`val.Py (Python Script)`

The core engine containing all validation logic. Connects to the database, scrapes the course, and generates the report.

Validation in Just a Few Clicks







1. Add the block.

Add the `val.Py` block to any course page.

2. Auto-validate.

The block automatically triggers the validation script upon page load.

3. Get the score.

Receive an at-a-glance summary score directly in the course.

The Verdict: At-a-Glance Insight

100% - All checks passed.

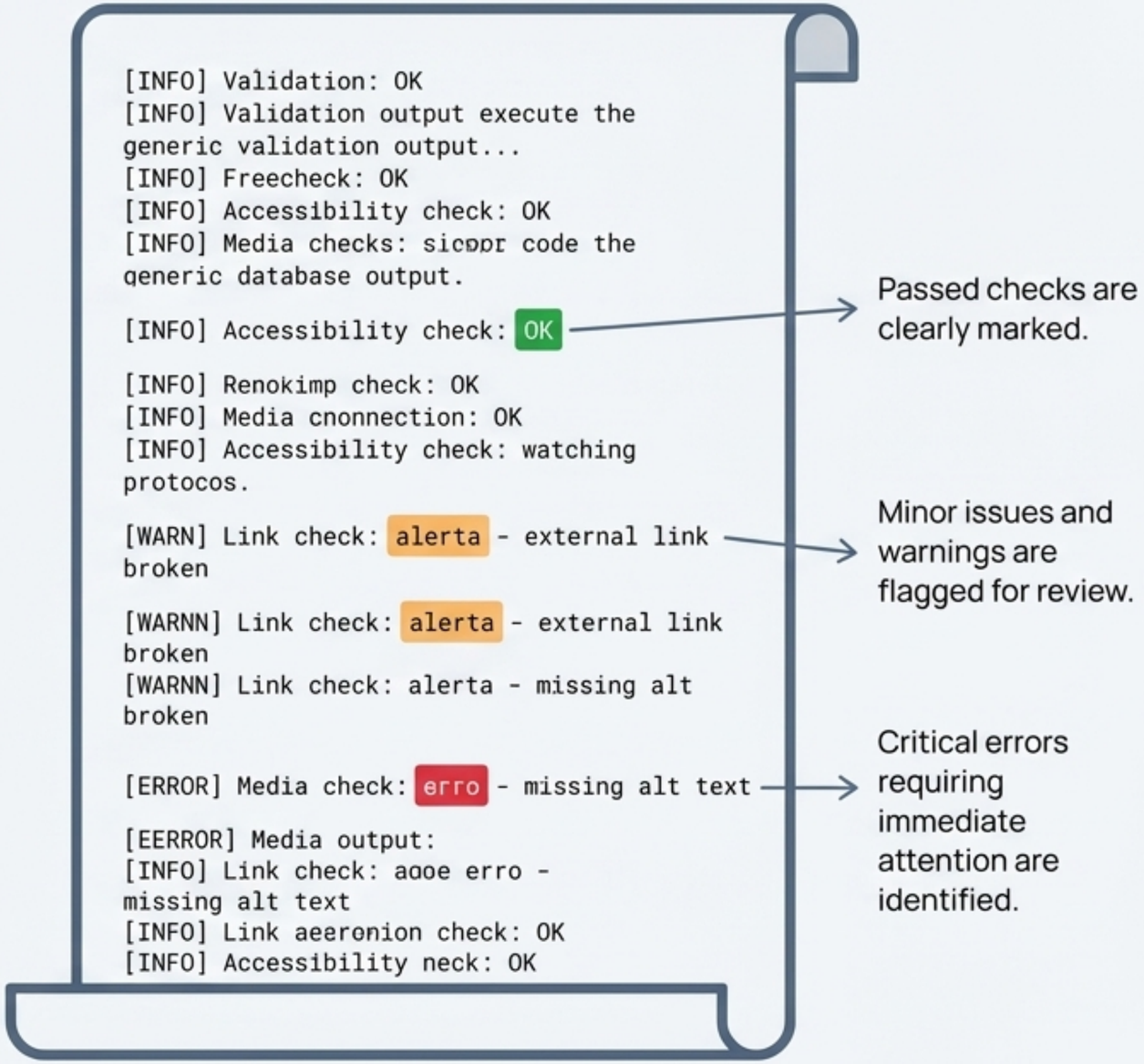
70-99% - Minor alerts or non-critical issues found.

< 70% - Critical errors were detected.

Clicking any score opens the detailed validation report.

The Deep Dive: A Fully Actionable Report

Beyond the summary score, `val.Py` generates a detailed HTML report. The color-coded log allows instructional designers to quickly pinpoint, understand, and resolve every detected issue.



A Robust and Extensible Technical Foundation

Key Python Libraries

BeautifulSoup

requests

mysql.connector

tabulate

Advanced Usage & Aut**omation:** Command Line Interface (CLI)

For batch processing or integration with other scripts, `val.Py` can be executed directly from the command line.

```
$ /usr/local/bin/python3.9 {your/moodle/dirroot}/admin/cli/val.Py <Moodle_courseID>
```

Quality, Assured. Time, Reclaimed.

Enforced Pedagogical Consistency

Ensures every course, old and new, adheres to the UAb Virtual Pedagogical Model, guaranteeing a uniform student experience.

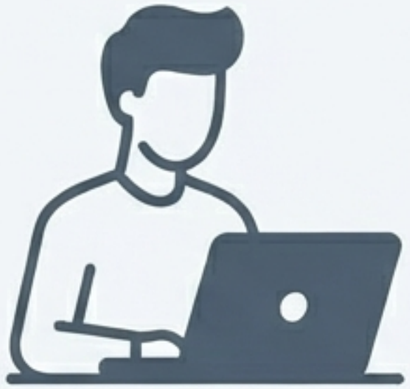
Drastically Reduced Manual Auditing

Frees up instructional designers from hours of repetitive checks, allowing them to focus on high-value pedagogical work and innovation.

Empowered Course Creators

Provides immediate, concrete feedback, allowing designers to self-correct and improve course quality proactively and independently.

Open and Collaborative: Built for the Community



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Made with Moodle

What challenge will you solve with Moodle?

`val.Py` is one story of innovation, born from a specific need at Universidade Aberta. Your story could be next.

Explore, adapt, or contribute to **`val.Py`**.

GitHub on URL to
`https://github.com/brunustavares/val_Py`

Share your own Moodle story with the community.