

The Augmented Teacher

Navigating AI as an **instrument**, not an **oracle**.

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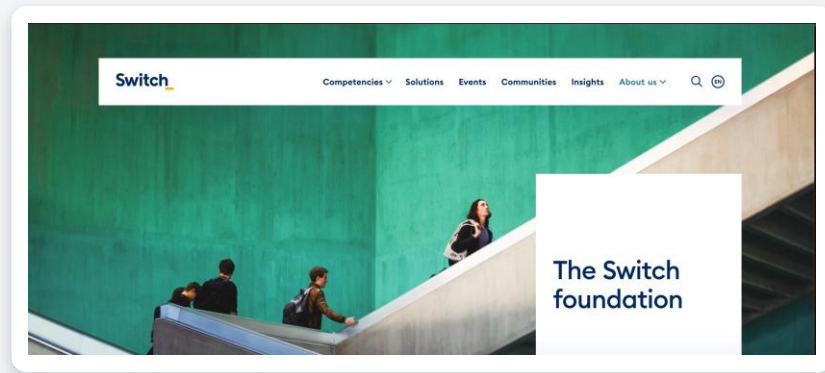


WHO'S SPEAKING — AND FROM WHERE

The Swiss foundation for digital higher education

Switch builds the digital infrastructure and trusted services behind Switzerland's universities and research community.

Eduhub is its community for digital teaching and learning — where I coordinate the scientific work on how higher education teaches with technology.



switch.ch

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TWO YEARS · ONE QUESTION

~~Will AI replace the teacher?~~

A yes-or-no question — built on two reflexes: uncritical enthusiasm, or defensive rejection.

It's the wrong question. **We let it go.**



A THIRD PATH

The augmented teacher

Not AI instead of the teacher. Not the teacher without AI. A **hybrid** — the teacher uses AI as an extension of their expertise, and keeps both hands on the wheel.

curious · critical · in control

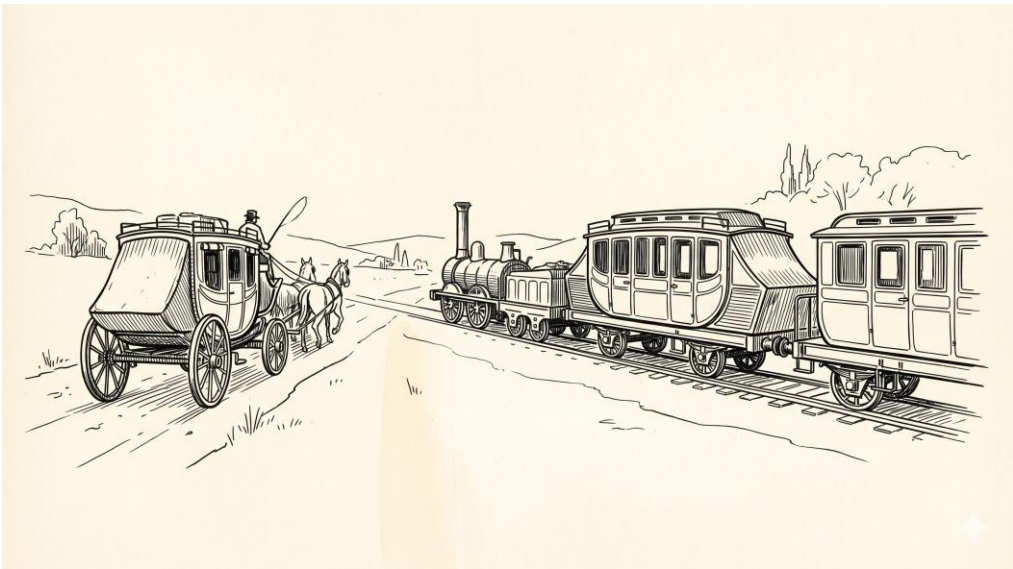


the human steers

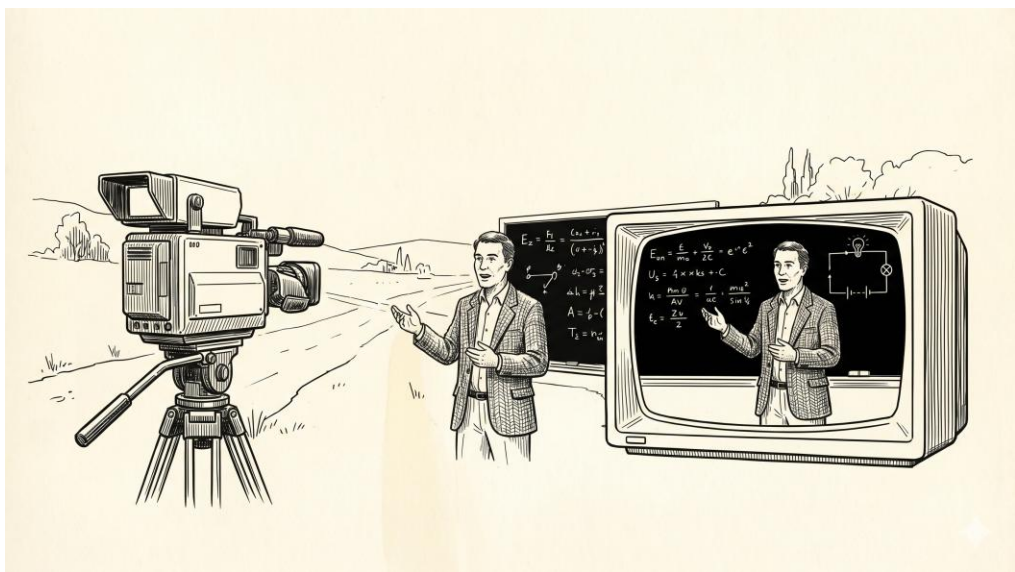
A TRIP BACK IN TIME

We meet new tools by reproducing the old ones

Perriault called it the **stagecoach effect** (l'effet diligence): the first railway carriages were built like stagecoaches. New medium — old form.



The stagecoach, put on rails



The lecture, filmed

THEN CAME VIDEO

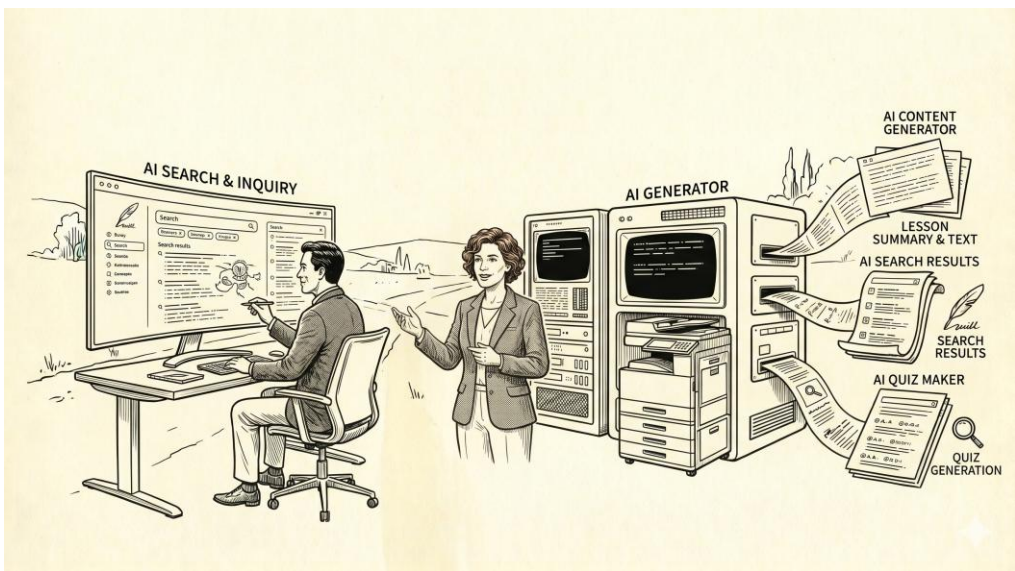
Same reflex, a new medium

When television reached the classroom, we pointed a camera at a teacher at the blackboard. The lecture, filmed. The form outlived the medium.

AND NOW — AI

...and we're doing it again

Content generators, quiz makers, summarisers: the stagecoach, back on rails. The **risk** is a faster version of the same lesson. The **opportunity** is to change what we do — not just how fast.

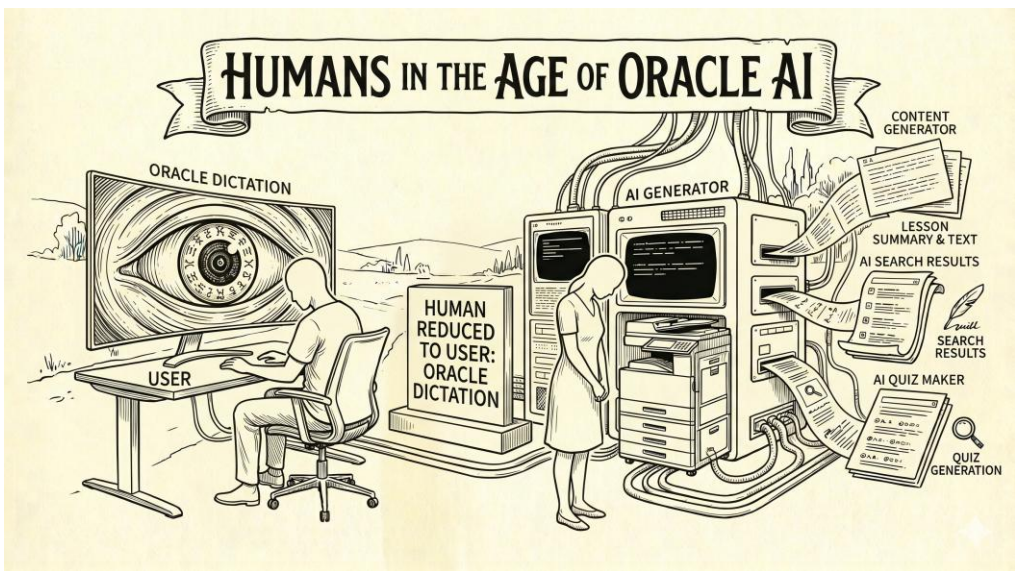


AI generators: same task, automated

WHEN THE TOOL DICTATES

AI as oracle

Used substitutively — to generate, to answer, to decide — AI begins to dictate the practice. The human slips into a single role: user. The oracle speaks; we transcribe.



Humans in the age of oracle AI

Human, reduced to user.

An artifact is not yet an instrument

In 1995, Pierre Rabardel asked a deceptively simple question — **what is an instrument?** His answer reframes the whole debate: a tool becomes an instrument only through the use a human builds for it. And instruments are never neutral.

« Qu'est-ce qu'un instrument ? »

Pierre Rabardel · 1995 · CNDP

*Brought back to my attention by Prof. Claude Savard
— Université Laval, Québec — in this new context.*

THE MODEL

Three poles, one mediation

Subject

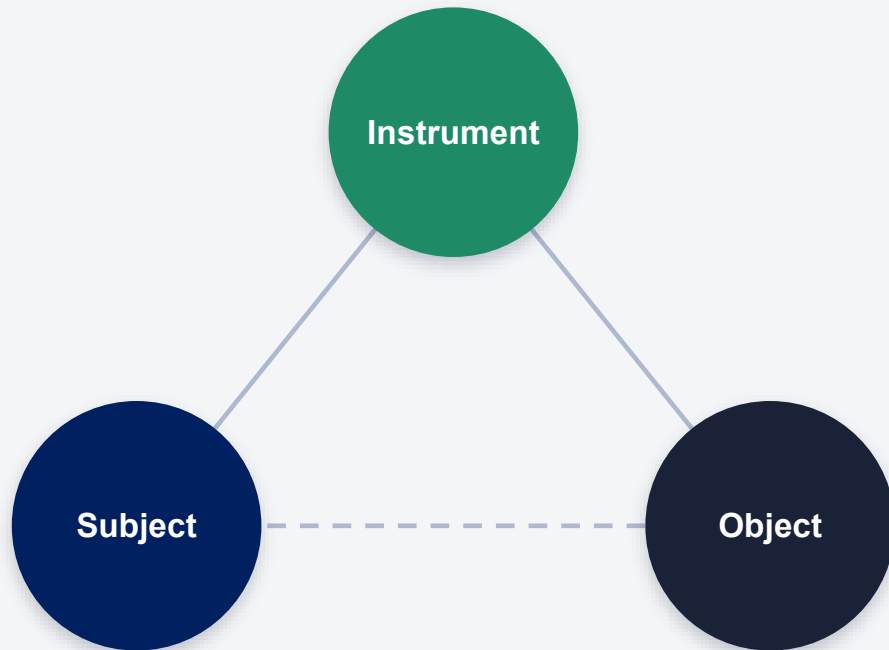
the human acting.

Object

what the action aims at — a concept, a task, learning.

Instrument

artifact + scheme of use.



The instrument mediates the subject's action on the object — and is built through use (instrumental genesis).

TWO CONCRETE EXAMPLES

Same artifact, different instrument

The set square

Student · axial symmetry · a set square

Sliding it to enact perpendicularity makes orthogonality something the student must construct. Swap in a grid and orthogonality comes “for free” — and is never learned.

The instrument shapes the concept.

The chatbot

Teacher · formative feedback · an LLM

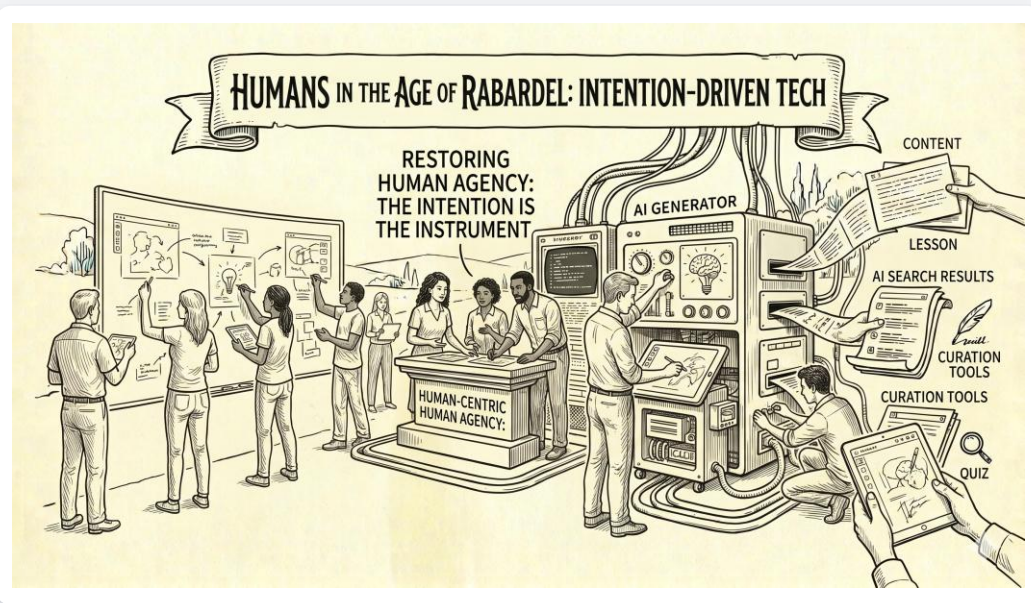
As an oracle, it dictates generic output. Given a pedagogical scheme — the teacher's intent, criteria, iteration — the same model extends the teacher's expertise.

The intention makes the instrument.

HUMAN AGENCY, RESTORED

The intention is the instrument

An artifact becomes an instrument only through the purpose a human gives it. So the lever is not the tool — it's the **intention** behind it. That is exactly what we want: the human at the center of the decision, agency restored.



Restoring human agency: the intention is the instrument



A MAP OF OUR USES

Where does agency begin?

S & A — what the oracle dictates.
Enhancement.

M & R — where human agency kicks in.
Transformation.

S

Substitution

direct substitute — no change

A

Augmentation

substitute + functional gain

M

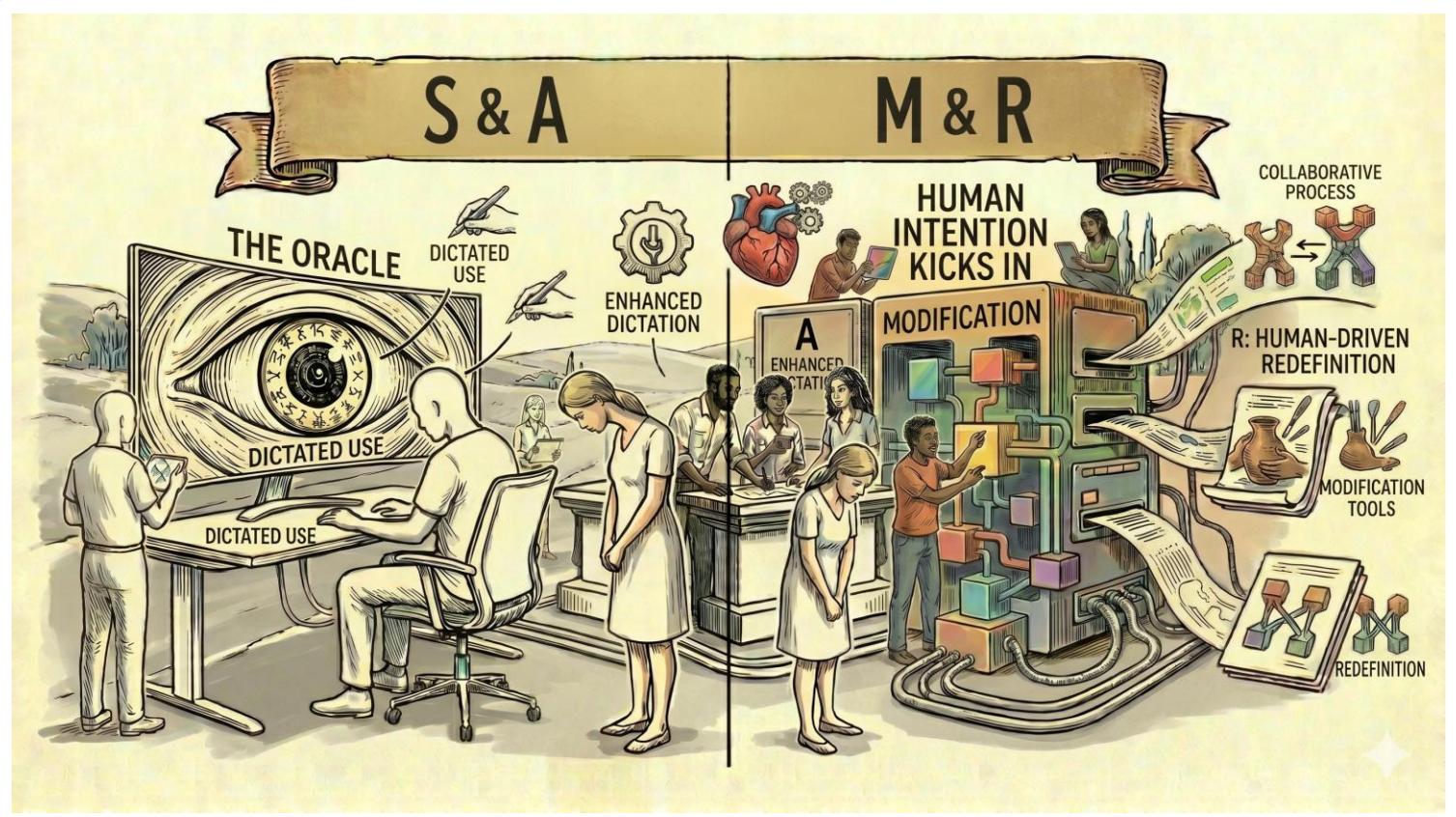
Modification

significant task redesign

R

Redefinition

new, once-impossible tasks



Laurillard's Conversational Framework

1 Acquisition

Receiving information — listening, watching, reading.

2 Inquiry

Researching — formulate a question, find and assess sources.

3 Practice

Acting in a set task — act, process feedback, reflect.

4 Discussion

Exchanging ideas — listen, react, build arguments.

5 Collaboration

Working to a joint result — coordinate and negotiate.

6 Production

Creating something assessed — produce, present, integrate.

THE TEACHER STAYS CENTRAL

Six learning types, six teacher moves

ACQUISITION

Present

e.g. publish a video capsule

INQUIRY

Guide

e.g. design a resource library

PRACTICE

Model

e.g. create an interactive quiz

DISCUSSION

Facilitate

e.g. run a live discussion

COLLABORATION

Orchestrate

e.g. design a wiki

PRODUCTION

Coach

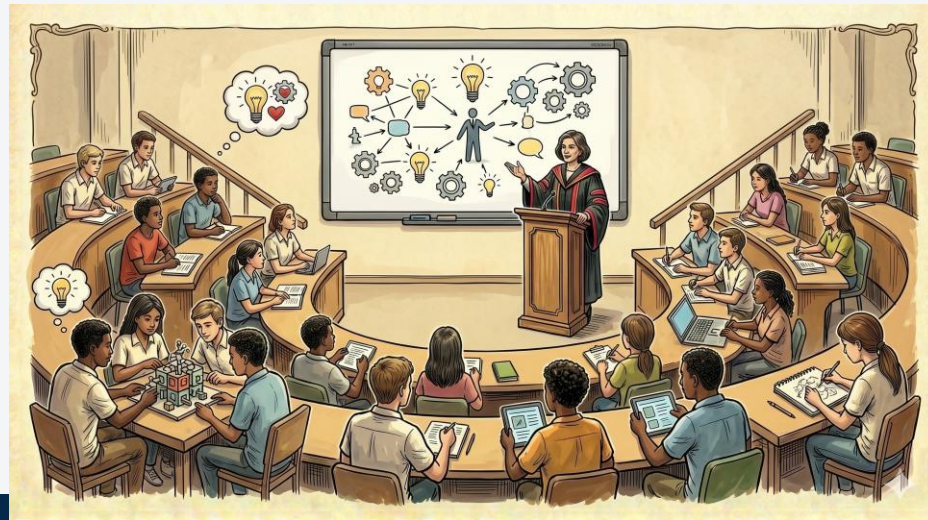
e.g. annotate a portfolio

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ACQUISITION • MOVE 1/6

Present

e.g. publish a video capsule



CERTIFICAT HRSE — GESTIONNAIRE RH

Permis de séjour et de travail

À PROPOS DE CE DOCUMENT

Ce texte est conçu uniquement comme un texte de référence.
Un powerpoint résume le support de cours et est à votre disposition ; nous travaillerons uniquement avec ce document durant le cours.

Janvier 2024

Communication Interne | Certificat HRSE - Gestionnaire RH

Sommaire

- ✓ Accueil
- 01 Définition & objectifs
- 02 Niveaux, formes & supports
- 03 ✓ La correspondance
- 04 Processus & obstacles
- 05 Améliorer sa communication
- 06 Points clés
- 07 Quiz de synthèse
- Bibliographie & fin

décourageante, c'est qu'il s'agit généralement d'une erreur méthodologique commise par l'expéditeur lors de sa rédaction : son plan est construit selon un mode de lettre. Or, les messages électroniques doivent mettre rapidement en valeur, de manière plus directe, les faits essentiels. Après analyse de textes issus de structures très différentes, nous pouvons identifier trois typologies de situation sur messagerie :

a. Exposé ou réponse à un problème

Exposé du problème ou réponse à un problème

Son explication

L'action demandée

Formule de politesse et signature

b. Action demandée

Action demandée

Précédent

La correspondance

Suivant

Bonjour,
Un dysfonctionnement est constaté dans...
Ceci-ci est dû à ...
Pourriez-vous par conséquent faire...
Très cordialement,
XXX

Bonjour,
Afin de réduire le nombre des erreurs

- d'une amélioration de la coopération dans le domaine de la justice,
- d'une politique commune en matière de visas pour les séjours jusqu'à 90 jours au maximum (visa Schengen).

Pour partie de l'Espace Schengen les pays mentionnés sur la carte ci-dessous, l'Union a adopté une politique particulière. En effet, ce pays a décidé de ne pas participer à la coopération dans le domaine des visas (politique uniforme en matière de visa) et a pu supprimer les contrôles de personnes ressortissants d'un État tiers aux frontières. De par le Brexit, la Grande-Bretagne ne participe plus au processus Schengen.

ESPACE SCHENGEN



COGNITIVE



VISUAL



AUDITORY



MOTOR



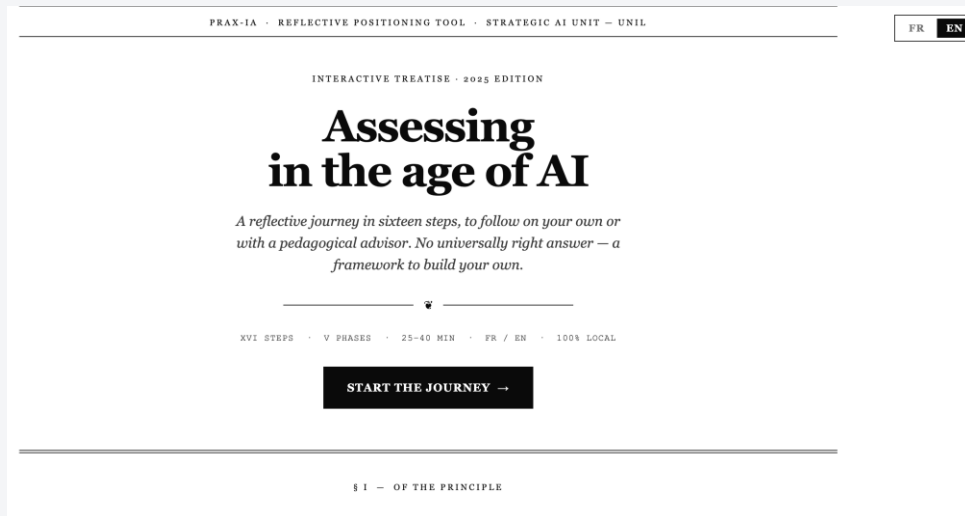
SPEECH

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INQUIRY · MOVE 2/6

Guide

e.g. design a resource library, an interactive interface



Assistant de cadrage IA
From the approach to your course charter

FR EN

1	2	3	4	5	6	7
CONTEXT	OBJECTIVES	TWO LANES	LANE 2 GRID	REFLECTION	WEIGHTING	GENERATE

Course context

This information will appear at the top of the generated document.

Course title	Instructor
Course name	
Role	Term / year
Faculty / institution	

Next →

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PRACTICE · MOVE 3/6

Model

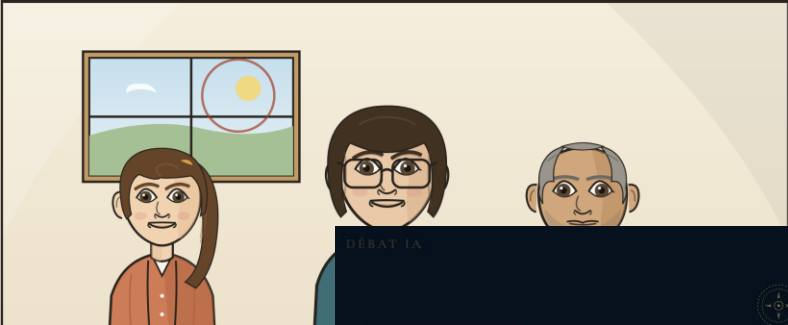
e.g. create an interactive quiz

ÉTUDE DE CAS LONGITUDINALE · CYCLE DE VIE DU COLLABORATEUR

DOSSIER RH

HelvetiCare : deux trajectoires, une fonction RH

Lausanne · ~180 collaborateur·rices · dispositifs médicaux — Sophie Berger, gestionnaire RH, accompagne Léa qui monte et Marco qui décroche. À chaque palier, une décision, un feedback, une leçon.



DÉBAT IA

FR EN

AI DEBATE

DEBATE SIMULATOR — AI PEDAGOGICAL PLATFORM

A pedagogical platform for simulating AI-powered multilateral debates and negotiations, configured by the instructor according to the session context.

GET STARTED →

UNIVERSITÉ DE LAUSANNE — FACULTÉ DES SCIENCES SOCIALES ET POLITIQUES

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DISCUSSION · MOVE 4/6

Facilitate

e.g. run a live discussion

The screenshot displays the Switch AI interface during a live discussion. At the top, the header shows 'Monsieur Climato7' with a dropdown arrow. Below this, a card for 'Monsieur Climato7' is visible, featuring a cube icon and a description: 'Agent de débat incarnant un climato-sceptique sûr de lui, légèrement condescendant, s'appuyant sur un corpus fourni pour défendre des positions anti-alarmistes dans un cadre pédagogique.' Below the card, a button labeled 'Poser une question' is present.

On the right side, another card for 'Conseiller compétences IA enseignement supérieur' is shown, featuring a person icon and a description: 'L'assistant pédagogique IA aide à cadrer le contexte, repérer les compétences IA à partir de plusieurs référentiels, concevoir des activités et aligner l'évaluation. Il propose aussi un socle enseignant. Important : les conversations ne sont ni enregistrées ni utilisées pour entraîner le modèle.' Below this card, a button labeled 'Create agent' is visible.

At the bottom, a search bar labeled 'Agent HQ' is present, followed by a search bar labeled 'Search for agents' and a dropdown menu labeled 'Sort agents by'. Below the search bar, a section titled 'Pinned agents' displays three agent cards: 'Stats_II', 'Stats_III', and 'Tuteur pour la programmation'. Each card includes a description and a set of icons for interaction. Below the 'Pinned agents' section, a section titled 'My agents' displays three agent cards: 'Agent Décoder l'IA', 'Ecrire à l'université', and 'Instructional Design coach'. Each card includes a description and a set of icons for interaction.

On the far right, a chat window is visible with the text: 'Je veux une politique d'usage de l'IA pour mon...'. At the bottom right, a microphone icon is present.

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COLLABORATION · MOVE 5/6

Orchestrate

e.g. design a wiki

Your illustration here

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PRODUCTION · MOVE 6/6

Coach

e.g. annotate a portfolio propose Ai Tutors

Unil.
Cellule stratégique IA

FR EN

AI TutorForge

Forge your pedagogical AI tutor

Configure your digital teaching assistant with 25 dimensions

Idéation : Jean-Pierre Berthet (Sciences Po) et Jean-François Van de Poël
Conception et rédaction : Jean-François Van de Poël - Révision et intégration IA : Dr. Thé Van Luong

PRE-CONFIGURED PROFILES

**Socratic**
Makes students think through questioning rather than giving answers

**Supportive Coach**
Very encouraging, values efforts, provides emotional support

**Structured Expert**
Detailed and methodical explanations, step-by-step guidance

**Critical Facilitator**
Pushes to analyze deeply and consider multiple viewpoints

**Remediation**
Maximum support for struggling students, very patient

**Pedagogical Context (4 dimensions)**

Subject taught *

**Metaprompt length** 9'000 characters
Target character count for the generated metaprompt. Longer means more detailed instructions.

WHAT IT TAKES

Staying at the wheel takes practice

Frameworks and ethics don't make the augmented teacher — the **deliberate, informed choice** does. And that choice has to be built: the schemes of use, the AI competency, the judgement. Professional development isn't optional — it is the steering.

agency · competency · professional development



still at the wheel



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THANK YOU

The human, deliberately, at the core.

Curious, critical, in control. Good luck to us all — for the future ahead.

Jean-François Van de Poël · Eduhub — Switch Foundation

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Illustrations generated with Google Gemini.

Presentation design co-created with Claude AI and a custom skill developed by the author.