

Agents and Automation Workflows

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Learning objective

A large part of a teacher's week is spent on multi-step digital routines: collecting and sorting materials, writing similar messages, adapting worksheets, checking who has submitted what. The aim of this learning content is to introduce AI agents and automation workflows in an educationally meaningful way. After studying this material, teachers will be able to explain how AI agents differ from chatbots and identify tasks involving information organisation, routine communication and teaching resource preparation that can be safely supported or partially automated by AI agents.

Introduction: from answers to actions

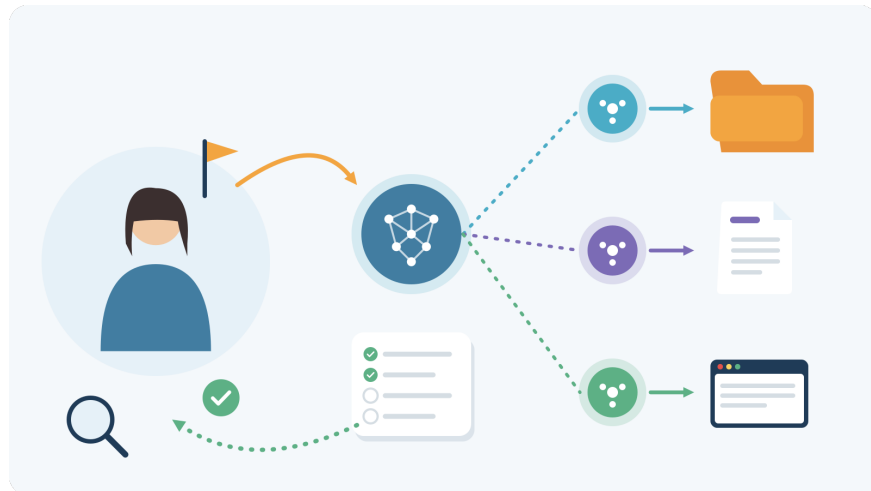
Until recently, using AI meant asking questions and getting answers. chatbot answered, explained, made suggestions, but carrying out the tasks was still left to the user. AI agents go one step further: they act. They can open files, organise folders, fill in forms in a browser, run small programs or prepare messages – in other words, they can carry out almost any task that a person could do while sitting at a computer.

From now on, it is worth thinking like this: the person using the AI is the **boss**. An **agent** – however capable – does not know the goals and priorities of the school, the class or the individual learner. Like a team with talented staff but no clear leader, it works well only if someone knows what to do, delegates clearly, checks the results and corrects course. The quality of the outcome depends on the quality of the boss's thinking.

What is an AI agent?

An **AI agent** is an AI system that not only answers a question, but also independently pursues a goal: it makes decisions, plans steps and **executes** them, using the resources of the computer – files, a web browser, programs and connected services. The decisive difference is the last element: the agent does more than produce text; it actually works on the machine.

Larger tasks are often split up. A main agent acts like a project manager and delegates narrow sub-tasks – for example searching for a document or checking a file – to **subagents**, task specialists that complete their part and report back. This keeps the main agent focused on the overall goal.



The teacher sets the goal; the agent plans and delegates sub-tasks to subagents that work with files, documents and the browser; the results come back to the teacher for checking

Where we meet agents today

Agent mode in chat assistants

In ChatGPT's agent mode, the assistant operates a web browser – it can open a website, log in, click, fill in a form or edit text. For example, it can write a blog post, enter the school's content management system, create the post and save it as a draft.

Browser extensions

The browser extensions for Claude and ChatGPT can see the content of the page that is open and help to interpret, summarise it, fill in forms – or carry out actions on the page.

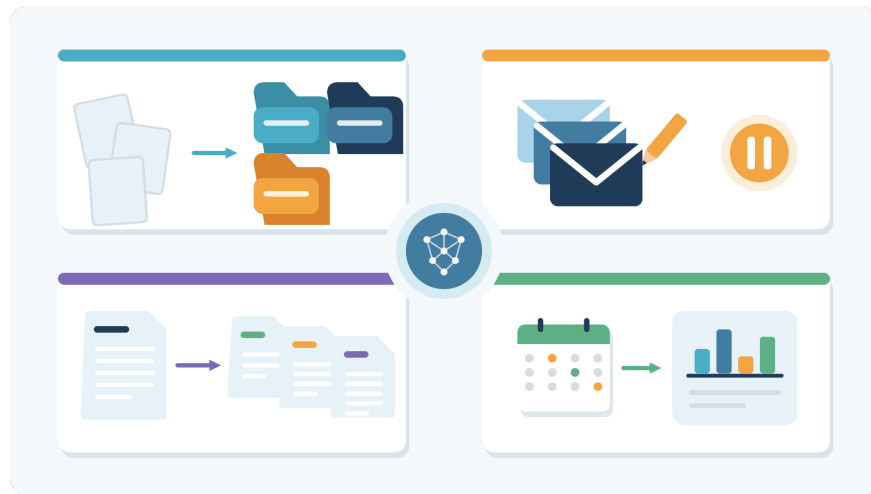
Desktop agent applications:

Downloadable apps (for example the Claude desktop app or OpenAI's Codex) can write and run programs on our own computer, work with local files, use the browser and, in some cases, see the screen and operate the keyboard and mouse. M1-T2-MLC1 introduces Codex and its permission levels in more detail.

Rule-based automation and AI agents

Automation is older than generative AI. **Rule-based workflows** – mail rules, scheduled tasks, or no-code tools such as Microsoft Power Automate, Zapier or Make – follow a fixed recipe: “when a file arrives in this folder, copy it there and send me a notification”. They are predictable and repeatable, but not flexible. **Agents** are flexible: they can interpret a messy folder or an unusual request – but for the same reason they are less predictable. Today the two methods are increasingly combined: many assistants can run a prompt on a schedule, and automation tools can call an AI model at a certain step of the workflow. A good rule: use fixed rules where the task is fully predictable, and an agent where judgement is needed – with a human checking the result.

Where automation can help teachers



Four areas of teachers' work where agents can help: organising information, preparing routine messages, adapting resources and supporting recurring workflows

Information organisation

An agent can collect resources – manufacturers' manuals, safety data sheets, videos, earlier worksheets – into a clear folder structure by topic, rename files consistently and create an index table with a short description of each item. For an electrical training course, for example, a semester's materials can be sorted into "Circuits", "Measurement", "Safety regulations" and "Installation practice".

Routine communication

Many messages follow the same pattern: reminders to apprentices about required protective equipment, information for parents about a workshop visit, or a note to company mentors about a changed assessment date. An agent connected to the mailbox can prepare these as **drafts** from a template. The rule is simple: **prepare drafts, but do not send them**. The teacher reads, personalises and sends each message – a message to a parent or a mentor is part of a professional relationship.

Resource preparation

Agents can produce several versions of a worksheet at different reading levels, convert a Word document into a Moodle quiz or a printable checklist, or create parallel versions of a test for a cookery or hairdressing class. Converting and formatting are typical agent strengths – but the subject-specific content (recipes, temperatures, chemical safety, technical values) must always be checked by the teacher.

Workflow support

Recurring tasks can be supported on a schedule: every Monday morning, a summary of last week's submissions (who submitted, what is missing, common problems), a list of upcoming deadlines for apprentices' portfolios, or a structured summary of the notes of department meeting notes, including the agreed tasks. Such summaries save time, but they are a starting point for the teacher's judgement, not a substitute for it.

Worked example: a weekly submission summary with an agent

“Work only in the folder **Logbooks_week42_COPY**. The files are workshop logbook entries from second-year car mechanic apprentices; names have been replaced by codes (Learner A, Learner B ...).

Step 1 – explore only: list the files and tell me which learner codes have submissions which do not and which files you cannot open. Do not change, move or delete anything.

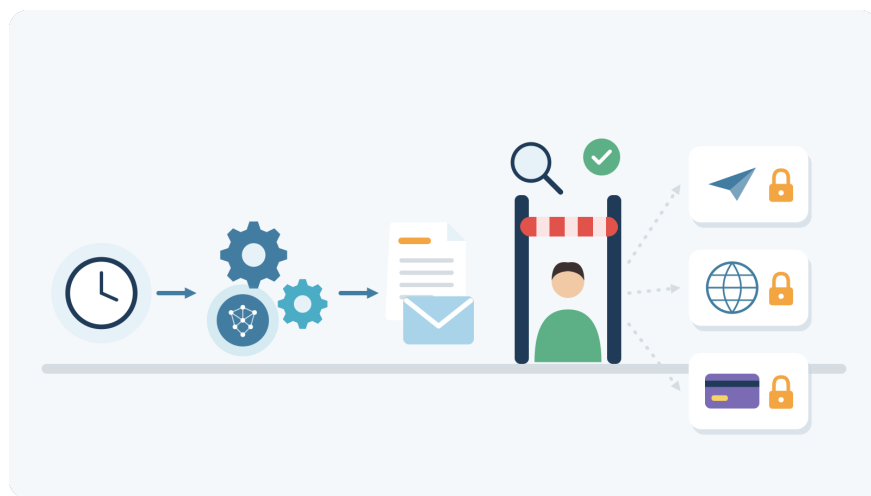
Step 2 – only after my approval: create one new file, **summary_week42.docx**, with a table (code, task, submitted yes/no, completeness note) and the three most common problems you see, each with one short quotation as an example.

Do not grade anything and do not contact anyone. If something is unclear, stop and ask me.”

Checkpoint: before using the summary for feedback, the teacher compares three logbook entries with the table.

Notice what the prompt does: it names the folder and specifies that it is a copy, separates exploration from action, defines a single output, sets explicit limits (no grading, no contact) and builds in an approval step. Clear wording is essential when working with agents: if we only want to explore a question but the agent is allowed to modify files, an imprecise request may lead it to act.

Keeping the human in charge



The agent can work on a schedule and prepare drafts, but sending, publishing content and making payments require a human approval

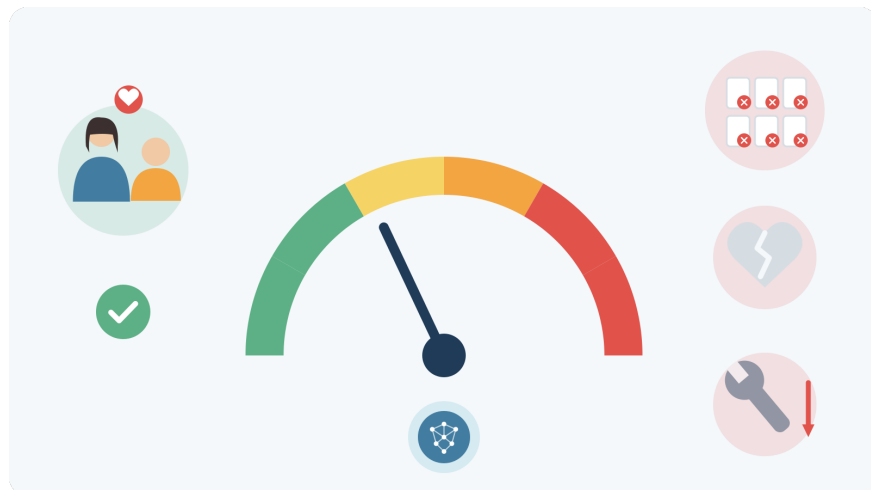
Errors with agents almost always come from two sources: a vague, carelessly written prompt, or a task that we do not understand clearly ourselves. Since the agent really carries out actions, a misunderstanding can lead to modified or overwritten files, deleted work or wasted computer resources (endless loops, unnecessary installations, many paid requests). The following practices keep the teacher in control:

- **Start with narrow permissions!**

Agents typically offer three levels: requiring approval before every sensitive action, allowing work with changes submitted for review, or granting full access. Start narrow, observe how the agent works, and only then loosen the reins (least privilege).

- **Say whether you want exploration or action!**
“Only analyse, do not change anything” must be written explicitly.
- **Work on copies** in a separate folder – never on the only copy of important material.
- **Prepare draft, but do not send!**
Messages are saved as drafts, posts as saved as unpublished drafts, orders are not placed.
- **Approval checkpoints are mandatory** for sensitive data, payments, publishing, ordering and anything that reaches learners, parents or companies.
- **Watch and intervene.**
Agents show their reasoning and steps while they work; if they head in the wrong direction, stop them and correct the instruction.
- **Use only trusted extensions and apps.**
A browser extension can see what is on the page, so think about what is open while it runs.

Risks of over-automation and data protection



Useful support keeps the teacher–learner relationship and professional skills at the centre; over-automation multiplies errors, weakens skills and erodes relationships

Automation is useful up to a point. Beyond that point, the risks grow faster than the time saved:

Errors at scale: a mistake by a person affects one message; a mistake in an automated workflow affects thirty messages or every file in a folder – and may go unnoticed.

Deskilling: if the agent always prepares the materials, teachers may lose the habit of thinking them through, and learners may miss out on the practice they need for their trade. “You can outsource your thinking, but not your understanding.”

Weakened relationships: generic, automated messages and feedback are noticed by learners, parents and mentors. Personal contact is not an administrative task, it is a part of teaching.

Responsibility cannot be delegated: the teacher remains accountable for every message sent, every grade and every teaching resource used.

Manipulated content: web pages or documents may contain hidden instructions that try to redirect an agent (prompt injection) – another reason for limited permissions and human approval.

Data protection

Learners' personal data – names, grades, health information, behaviour notes – must not be entered into consumer AI tools. Use tools approved by the school (with a data processing agreement), pseudonymise data (Learner A, B ...) and follow the GDPR and the school's data protection rules. Do not let an AI browser extension work while the electronic register or other systems with learner data are open. Under the GDPR (Article 22), decisions with a significant effect on people should not be based solely on automated processing; under the **EU AI Act**, AI systems used to evaluate learning outcomes or decide on admission are classified as high-risk. Since February 2025, the AI Act has also required organisations that use AI to ensure an adequate level of AI literacy among their staff.

Should I automate this? 5 important questions:

- Is the task repetitive and rule-based, and do I know exactly what a good result looks like?
- Can I check the result quickly – and is the action reversible?
- Does it involve personal data or reach people outside the classroom?
- Would automation remove human contact that matters to learners, parents or mentors?
- Will I – or my learners – lose a skill that we need?

If the first two answers are “yes” and the last three are “no”, the task is a good candidate. Otherwise, use AI only for drafts and make the final decision yourself.

Takeaways for teachers

AI agents open up new possibilities for teachers by moving beyond answering questions to carrying out practical tasks. They can reduce administrative workloads, streamline routine processes and free up time for teaching and supporting learners. However, using agents effectively requires more than writing good prompts: teachers need to understand what tasks to delegate, how to set clear boundaries and when to retain direct control.

References

- Lengyel, Zs. (2026): Introduction to the concepts of artificial intelligence; Concrete applications for content generation. VITA training presentations.
- UNESCO (2023): Guidance for generative AI in education and research. Paris: UNESCO.
- European Commission (2022): Ethical guidelines on the use of artificial intelligence (AI) and data in teaching and learning for educators. Luxembourg: Publications Office of the European Union.
- Regulation (EU) 2024/1689 (Artificial Intelligence Act), Article 4 and Annex III, point 3; Regulation (EU) 2016/679 (General Data Protection Regulation), Article 22.

Links

- UNESCO guidance for generative AI in education: unesco.org
- Ethical guidelines for educators (European Commission): op.europa.eu
- EU AI Act (official text): eur-lex.europa.eu

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