



Enhance Learner-Instructor Interaction using Intelligent Agents

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Agenda

- What is an Intelligent Agent and how does it work?
- Use Case Scenarios
- How to create an Intelligent Agent
- Running an Intelligent Agent
- Release Conditions and Replacement Strings
- Intelligent Agent Templates
- Effective Practices

Student Engagement



One of the most important types of engagement for learners is that between instructors and learners.



Adding automation through Intelligent Agents (IAs) in D2L is one way to boost individual interaction with your learners.

What is an Intelligent Agent in D2L?

Intelligent Agents can **assist** instructors, administrators, and students by providing an **automated notification** when a **defined activity** occurs (or does not occur) in a course.



Use Case Scenarios for Intelligent Agents

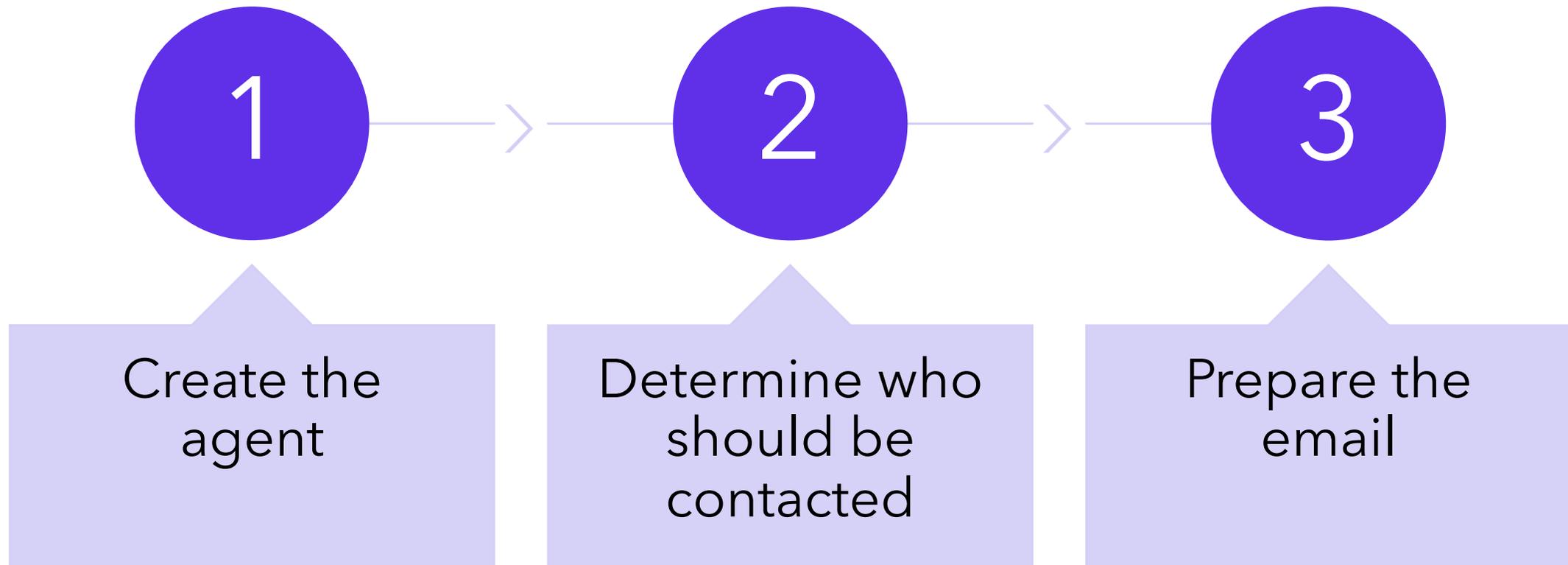
- Send emails to stakeholders **if users have not logged into D2L** for a prescribed period of time.
- Trigger an email to stakeholders if users have **not accessed your course** for a prescribed period of time.

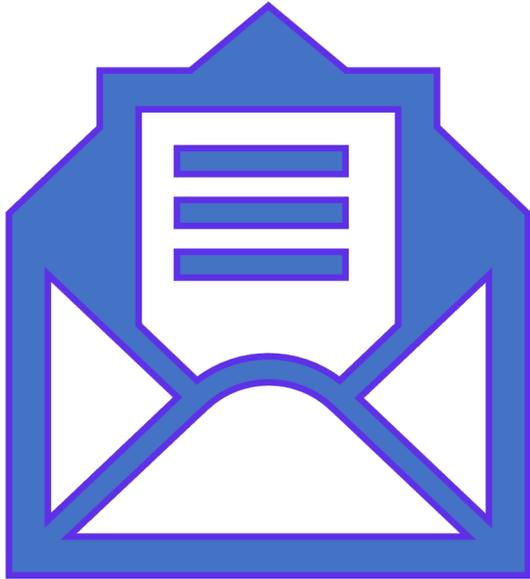
How does an Intelligent Agent work?

Intelligent Agents **automatically scan** the Learning Environment for user-defined criteria.

If the criteria are fulfilled, the intelligent agent can **automatically send** an email to a pre-defined address.

Three steps to creating an Intelligent Agent





Important

- D2L email is self-contained.
-
- Therefore, all email notifications sent through Intelligent agents can only be sent to a D2L email address.
 - Consider this when determining to whom the email notification should be sent.
 - You can choose not to send an email and use the IA for data collection.
 - You may want to use the email forwarding option in your account settings in D2L.

Running an Intelligent Agent

When setting up an intelligent agent, you can choose to run it either manually or automatically on a schedule.

Manually

- To run an agent manually, click **Run Now** from the context menu of the agent you want to run manually.

Automatically

- To run an agent automatically, choose **Use Schedule** when deciding the Agent Action. Agents can run daily, weekly, monthly or annually.

Practice Run

- A Practice Run allows you to test your Intelligent Agent.

Would you like to try a Practice Run of the agent "test manual course activity"?

This option submits a request to have the agent run as soon as possible, without sending any emails. You can see which users meet the agent criteria once it has completed.

Run

Cancel



Course Administration

| Category | Name |
|----------|------|
|----------|------|

Site Setup

- Course Offering Information
- Homepages
- Navigation & Themes
- Widgets

Site Resources

- Book Management
- Calendar
- Content
- Course Builder
- Course Design Accelerator
- External Learning Tools
- Forms
- Frequently Asked Questions
- Glossary
- Import / Export / Copy Components
- Instructional Design Wizard
- Learning Activity Library
- Links
- Manage Files
- Manage Dates

Learner Management

- Attendance
- Class Progress
- Classlist
- Groups
- Locations
- Seating Chart

Assessment

- Awards
- Checklists
- Competencies
- Dropbox
- Grades
- Quick Eval
- Quizzes
- Rubrics
- Self Assessments
- Surveys

Communication

- Chat
- Discussions
- Intelligent Agents**
- News

Administration

- Sharing Groups
- Tools

How to access Intelligent Agents within your course in D2L

Create an IA:
Hasn't accessed
the course in XX
days



Replace Strings

Replace strings call system databases to automatically replace the string with names and terms by using curly brackets { }.

Hi
{InitiatingUserFirstName},
Our records indicate you have not logged in to your **{OrgUnitName}** course in more than 5 days.

Notification - What's included



After an intelligent agent has run, the user who created the intelligent agent will receive a confirmation email with the following information:

- Org Unit Code and Name
- The agent that ran
- Whether the agent took action
- Any error text

Notification - What's not included

- You will **not** be notified as to who triggered the agent.
- To see a list of all initiating users,
 - you could CC yourself on the email or
 - view the history in the Intelligent Agent in your course.



IA History Page

History refers to the the users identified and the action taken during a given run of an Intelligent Agent.

| | | | |
|-----------------------|--------------------|--------------|---------------|
| 1 minute ago | 3 users identified | Practice Run | Julie Lockett |
| yesterday at 10:35 AM | 3 users identified | Manual Run | Julie Lockett |
| yesterday at 10:31 AM | 3 users identified | Manual Run | Julie Lockett |
| yesterday at 10:29 AM | 3 users identified | Practice Run | Julie Lockett |

IA have two unique sets of conditions

- **Login Activity:** The agent will activate if users haven't logged into the system for a prescribed period of time.
- **Course Activity:** The agent will activate if users haven't accessed a course for a prescribed period of time.



Intelligent Agents and Release Conditions

- Alert stakeholders if a user has met the criteria established by a release condition.

Release Conditions

- Intelligent Agents incorporate the same release conditions criteria found throughout the Learning Environment.
- Release conditions are conditional requirements that restrict access or visibility to specific content, resources or areas within D2L.
- Users must satisfy the conditions before the restrictions are removed.



Release Conditions can be associated with:



[Awards](#)



[Checklist](#)



[Classlist](#)



[Content](#)



[Discussions](#)



[Dropbox](#)



[Grades](#)



[Quizzes](#)



[Surveys](#)

Create an
Intelligent
Agent
with release
conditions



The IA Templates

Templates will be provided for the following Intelligent Agents:

- Hasn't accessed course in XX days
- Incomplete tasks on a checklist
- Completed all tasks on a checklist
- Earned 80% or Higher on Quiz
- Failed a Quiz
- Late assignment
- No posts authored in discussion topic
- Received feedback on an assignment
- Indicate halfway or almost finished with the course

Refer to Word document for more information.

Sample Template

| Intelligent Agent | |
|---------------------------------------|---|
| Agent Name | Earned 80% or Higher on Quiz |
| Agent Criteria | Role in Classlist: Users with specific roles → Student Login Activity: None Course Activity: None Release Conditions: Score on a Quiz → Select Quiz → > = 80% All conditions must be met. |
| Agent Action | Action Repetition: Take action every time the agent is <u>evaluated</u> and the agent's criteria are satisfied for a user Send an Email: Send an email when criteria are satisfied |
| To: | <u>{InitiatingUser}</u> |
| Cc: | |
| Bcc: | |
| Subject | Outstanding Quiz Result |
| Contents <i>HTML Editor</i> | Hello <u>{InitiatingUserFirstName}</u> , Everyone should be recognized for their outstanding efforts, and you just knocked that quiz out of the park! Keep up the great work. |
| Scheduling | Scheduling: Do not use schedule |



Effective Practices





Think carefully about whether you want the agent to send an email to the student, or to you, or both.

1

There are various examples of where you might want to NOT automatically send an email to the students.

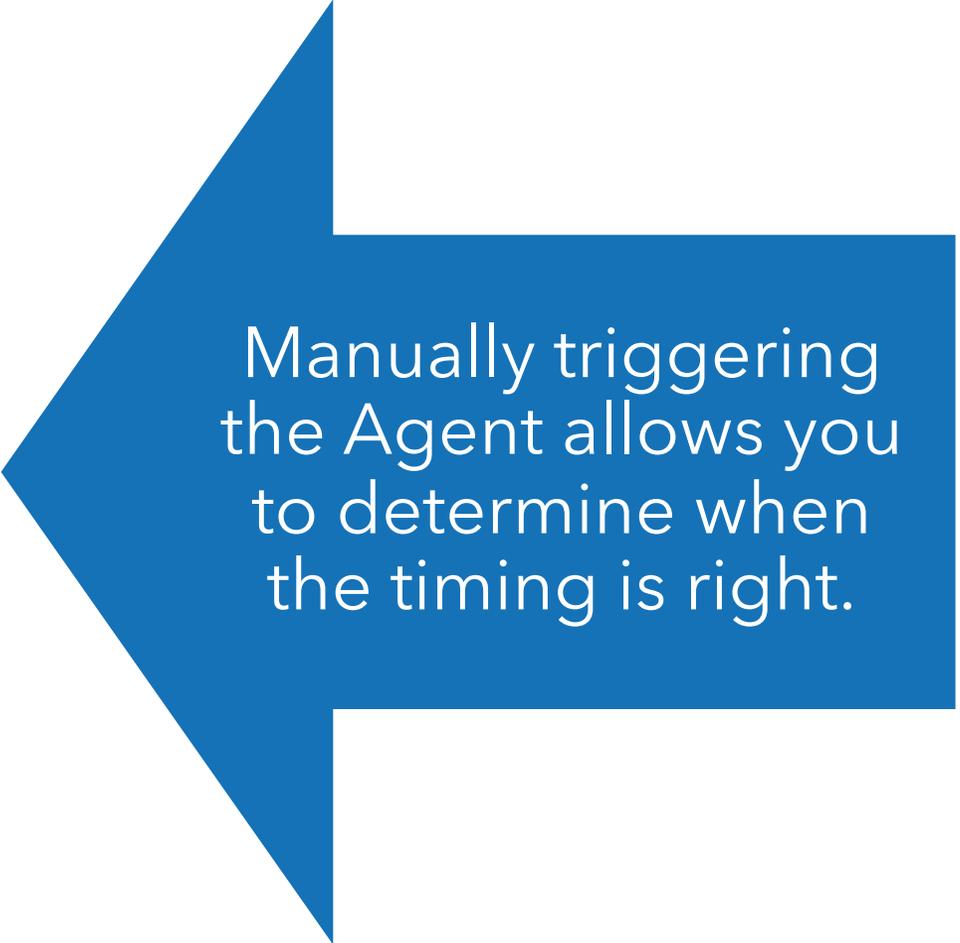
2

Sending to yourself gives you one more chance to decide whether or not to contact the student.

Carefully consider the implications of Manual versus Automatic running of Intelligent Agents.



Automatic Agents
will run once a day, or
less often, as
scheduled.

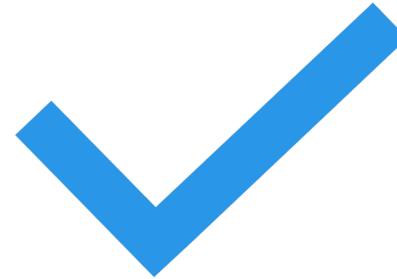


Manually triggering
the Agent allows you
to determine when
the timing is right.

Use Intelligent Agents sparingly



Repetitive emails may lose effectiveness



Reserve use for the most important items

Use the Agent Name and Description fields to your own benefit.

- Describe what the Agent is intended to do and when it will be used.
- Add a reminder to yourself about info that needs to be changed from term to term (due dates, office hours, etc.).

The screenshot shows a form titled "Agent Details". The "Agent Name" field contains "01 Lack of System Login", with a green box around the "01" and a green arrow pointing to the text. The "Description" field contains the following text: "This IA will check to see which students have not logged in to the D2L system during the designated time period." Below this, there are three bullet points: "* Current time period = 7 days" (with a green arrow pointing to "7 days"), "* This IA is run automatically every Monday and Friday, through the final class date." (with "every Monday and Friday," underlined in green), and "* This IA only sends an email to the advisor, for possible further action." (with "sends an email to the advisor," underlined in green).

Intelligent Agents become more valuable as class sizes increase.



- It's a matter of scale.
- Automatic messaging is of less value when interacting with a few students
- and of great value when interacting with large groups of students.

Does using an IA make sense?

- Use Intelligent Agents when there isn't a better way of communicating:
 - Can a News Announcement work better?
 - Can a personally crafted email work better?
 - Would a discussion board post work better?
 - Would release conditions work better?
 - Release conditions restrict access or visibility to content or resources
 - Intelligent agents generate automatic notifications or provide data

When copying course components from one course to another:

| | |
|-----------------|---|
| Copy | Each Intelligent Agent will be copied over, but the settings of each agent will not be copied. |
| Enable Agent | You must enable agents in the new course to make them active. |
| Adjust Settings | You will need to adjust the settings. This is to prevent Agents from running when they shouldn't. |

More Intelligent Agent Examples

- To see which students are not “attending” class. To greet students after their first entry to the class and send additional information.
- To reassure students that they have completed the class expectations for the 1st week of class.
- To notify instructor or student of curious activity such as completing a quiz without visiting the content topic(s) for the quiz.
- To let you know that a student has completed a full checklist, or a particular item on a checklist.

More Intelligent Agent Examples

- To give a student encouragement for improving their grade after a low score including suggestions for how to proceed.
- To congratulate a student on significantly improving quiz scores between two quizzes.
- To notify and congratulate a student about an award earned.
- To thank a student for submitting a survey. (Do not use on anonymous surveys.)

Q & A

What are your questions?



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Support for D2L

- D2L support page: <http://www.eiu.edu/d2lsolutions>
- For technical support,
 - Call 217-581-HELP (4357),
 - email support@eiu.edu, or
 - contact the Instructional Support Specialist (ISS) for your department.