



INNOVATION ABSTRACTS

Embrace the Future of Education With Bots

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The impact of bots on manufacturing and technology is well documented, but much less has been said about the impact of bots on education. Many educational institutions have already automated many of their teaching and learning processes such as test grading, submission notifications, calendar modules, and e-books. Automation is just the beginning of the exciting journey into what robotic automation can do for teachers. RPA (Robotic Process Automation) can enable institutions to automate tasks, streamline processes, increase student and employee productivity, and ultimately deliver more satisfying student experiences.

What Is RPA?

Robotic process automation (RPA) is the use of software with artificial intelligence and machine learning capabilities to handle high-volume, repeatable tasks that were previously performed by humans. These tasks include queries, calculations, feedback, records, and transactions.

RPA technology, sometimes called a software robot or bot, mimics a human worker, logging into applications, entering data, calculating and completing tasks, and logging out. RPA software isn't part of an organization's IT infrastructure. Instead, it sits on top of it, enabling an organization to implement the technology quickly and efficiently without changing the existing infrastructure and systems.

What distinguishes RPA from other automation is its adaptability to changing circumstances, exceptions, and new situations. Once RPA software has been trained to capture and interpret the actions of specific processes in existing software applications, it can then manipulate data, trigger responses, initiate new actions, and communicate with other systems autonomously.

How can Bots Help in the Classroom?

AttendanceBot manages absenteeism, tracks time, and automatically completes attendance verification. It works with your college's attendance system to monitor students' activities and verify their attendance in your course. It ensures that the attendance record is accurate and eliminates the fear of a forgotten, lost, or unsubmitted attendance sheet.

WarningBot alerts students when their homework for the week is incomplete and will alert you when a student hasn't logged into your course website recently or hasn't seen a syllabus change. WarningBot sends out reminders to students regarding homework activities, reviews test results, and delivers personalized messages to students. WarningBot saves students and faculty time by eliminating looking at calendars, syllabi, and due dates.

A few additional examples of bots being integrated into education include:

- Botsify specializes in multiple bot assistants from FAQ bots to tutoring bots.
- Mika is an AI math tutor that is used in higher education.
- Snatchbot is a customizable bot that can be tweaked to fit the needs of your classroom.
- There are even specialized bots like Ozobot that can teach lessons to individuals about coding.

Bots can:

- Answer questions about deadlines, lesson plans, and curricula.
- Issue educator evaluations and streamline the data analysis process.
- Help teachers stay current on new standards and assessment models.
- Help students understand difficult concepts in a way that feels as if they are being taught by another person.
- Assist with the filing of student applications.
- Accept tuition payments.
- Assign course schedules.
- Provide answers to hundreds of frequently asked questions.
- Schedule meetings or phone calls when human intervention is required.

Productivity Bots:

Productivity bots collaborate with students and administration to bridge systems or process siloes. They do work like tabbing, searching, and copying and pasting so administration can focus more on students and have a greater fulfilling work experience. The data below are from the use of bots in the financial industry (based on banking industry studies):

- Reduced error rates from 29.7% to 2.0%
- Cut processing times by 78%
- Doubled the number of accounts processed
- Average Handling Time (AHT) decreased by 28% for policy compliance verification

Give Students and Administration a Robot!

Bots give faculty and students the additional time needed to complete tasks correctly. Because bots do busywork like warnings, reminders, and mini-faculty assistance activities, instructors have more time to focus on and meet the needs of their students.

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