Navigating New Frontiers

Smart Strategies for AI & Automation in Accounting



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What is Robotic Process Automation?

- RPA is an automation technology that allows the elimination of repetitive manual tasks in a digital environment. To do so, it employs bots, software programs that operate at the system and User Interface (UI) level to mimic human employees' actions to perform various assignments.
 - RPA bots can interact with a multitude of systems and technologies and do almost anything if their task is rule based.

Some of their basic skills are as follows:

- Manipulating files and folders
- Launching and terminating apps
- Extracting data from documents via OCR
- Querying databases
- Transferring data between systems
- Making calculations
- Typing and filling in forms
- · Sending emails and SMS
- Enhanced Excel /Google Sheets features
- Interacting with any website and/or cloud based application via the UI
- Interacting with any Windows based application via the UI and at the system level
 Interacting with the AS/400 via IBM Personal
- Interacting with the AS/400 via IBM Personal Communications 5250 emulator
- Interact with VM's (Citrix, VMware, Hyper-V)
- Extended automations via API's, webhooks
- chatbot platform integration and Zapier.
- Advanced automations using JavaScript



What is Artificial Intelligence

Coined in 1955 by John McCarthy a Stanford Math Professor

- Confusing Term What does "Artificial" mean? What is "Intelligence"?
- According to the Oxford Dictionary, Al is the theory and development of computer systems that can perform tasks that normally require human intelligence, such as visual perception, speech recognition, decisionmaking, and translation between languages.
- 3 Types (Narrow AI, AGI, ASI)

Main Domains of Artificial Intelligence

- 1. Machine Learning: Teaches computers to learn and improve from experience without explicit instructions.
- 2. <u>Natural Language Processing (NLP)</u>: Enables computers to understand, interpret, and generate human language. LLMs included here.
- 3. Robotics: Empowers machines to perform tasks, interacting physically with their environment.
- 4. Computer Vision: Allows computers to interpret and understand visual information from the world.
- Expert Systems: Provides specialized decision-making advice based on a vast knowledge base in specific domains.





Move over, human?

Annual Stanford AI Index for 2024 GPT-4 Baseline

Key Takeaways

- 1. Get Ready It's here!
- 2. New Benchmarks Needed
- 3. Problem Solving / Math Gap
- 4. Ethics & Bias Concerns
- 5. Proactive Policy Needed

To Know and Do

- 1. Exponential Speed of Change
- 2. Prepare Your Organization
- 3. Prepare Your Team
- 4. Prepare Yourself
- 5. Embrace Al/Automation and create a supportive culture



Closing the Math & Reasoning Gap - OpenAl o1

Per 🜀 OpenAl :

"A new series of AI models designed to spend more time thinking before they respond. They can reason through complex tasks and solve harder problems than previous models in science, coding, and math.

Performance exceeds human PhD-level accuracy on a benchmark of physics, biology, and chemistry problems (GPQA). While the work needed to make this new model as easy to use as current models is still ongoing, we are releasing an early version of this model, OpenAl o1-preview, for immediate use in ChatGPT."



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Accounting Sample Results - OpenAI o1

ChatGPT o1

At the beginning of the year, Smith Co. reported assets of \$500,000 and liabilities of \$375,000. During the year, they did not pay dividends, they had \$83,000 in sales, and \$65,000 in expenses. Smith Co. had an increase in total assets of \$25,000 and their liabilities decreased by \$3,000. What was the amount of common stock issued during the year?

GPT RESPONSE: \$10,000



"For the first time, I'd say we have an AI operating at staff-level capability on most of the accounting tasks I've thrown at it.

... I see immediate utility as a first-level accounting reviewer. It's calling out technical errors that are put onto seniors' desks every day by staff and junior bookkeepers.

Jason Staats, CPA on OpenAl o1 9/17/2024

... Hard to say today how this impacts workflows, but we're 1, maybe 2 model evolutions (6-9 months) from LLMs taking over the bulk of bookkeeping quality assurance."















F&A Process Automation Entry Points

Below is a list of processes in Finance and Accounting that are highly suited to RPA. While specific finance functions will vary by organization, this list highlights some of the typical use case scenarios by area for F&A automation.

P	Procure o Pay	Order to Cash	General Accounting	Tax, treasury and compliance	Financial planning, analysis and reporting
P V V Ir Ir Ir P N E V A E P	urchase order entry and delivery endor verification and setup endor master-data management endor queries/helpdesk ivoice receipt and classification ivoice data extraction ivoice data extraction ivoice data entry and interface wo and three-way O/invoice/receipt matching lon-PO invoice coding mployee expense statements endor statement reconciliation P accrual journal entry xpense compliance audit ayment processing	Sales order entry Customer data setup Customer data management Billing/invoicing Collection activities (dunning) Cash application Credit risk management Dispute verification and resolution Chargeback management	General ledger and subledger reconciliations Bank reconciliations Inter-company reconciliations Manual journal entries Reclassification journal entries Fixed asset accounting Inter-company settlements Financial close activities Cost Accounting	Data aggregation for tax liability Convert data to tax bias Complete tax return workbooks Prepare tax returns File tax returns and payments Tax accounting entries Public Accounting Targets Client Document Collection/Mgmt Client Deliverable Status Updates Schedule & Assign Client Work Client Communication Mgmt. Onboarding New Client Work Timekeeping Compliance Tax Return Data Entry Connecting Disparate Systems Compliance & Back Office Work	Data aggregation for reports Report preparation and distribution (including below) Trial balance and balance sheet Profit and loss Cashflow Variance analysis Management reports Statutory/regulatory reports Data & Systems Integration Data conversion Data conversion Data migration & entry Data updates Data validation Data cleansing Extracting data from .PDF's Synchronizing systems (ex. ERP and CRM) Updating scorecards



