

TPF TIPS – APRIL, 2025 Word Count: 1,534 Read Time: ~7 minutes

Welcome to TPF TIPS our monthly newsletter where we apply our over 30 years of experience to cut through the noise, select what is relevant, unpack the jargon and offer clear, digestible insights to topics important to our clients.

We know your time is precious and your inbox sacred so, we strive to make these emails an easy read (5-7minutes) and plan to deliver TPF TIPS on or around the 15<sup>th</sup> of each month (subliminal plug for tax preparation).

If, for some reason; you do not wish to receive the monthly newsletter, please do not unsubscribe. Rather, please reply to the email with the word UNSUBSCRIBE in the subject line. We will make sure to remove you from the newsletter list but, keep you subscribed to our other emails regarding important financial deadlines, events and other critical updates you will want to know about.

After all, it's your money and we want you to keep as much of it as possible! It's that time....buckle up and let's get **savvy**!!!

The theme for this month is:

### Unlocking the Mystery of Artificial Intelligence (AI): Empowering Your Understanding

As we roll through the month of April, we know taxes and paying taxes are top of mind, along with procrastinating on Spring cleaning and maybe (for those of you who take our planning advice) anticipating the May flowers April showers will bring in a few weeks.

However, with this month's newsletter we aim to demystify what is headlining in technology news and appearing in uncanny ways into our daily lives – *Artificial Intelligence* or "AI" as the smart kids call it.

Artificial Intelligence (AI) is no longer a concept confined to science fiction; it's a powerful tool reshaping industry, from accounting to healthcare and, manufacturing to retail. We're here to empower your understand of how the technology works, its applications in real world scenarios, and why it's a technology worth embracing—not fearing.

As Marie Curie said: "Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less." So, let's get to understanding!

## What Is Artificial Intelligence (AI)?

At its core, Al refers to computer systems capable of performing tasks that typically require human intelligence. Things such as learning, reasoning, problem-solving, decision-making and understanding natural language, like when you ask Siri or Alexa questions.

It's not about giving computers feeling or consciousness as depicted in movies – at least not yet. But rather, equipping them with the ability to analyze large volumes of information (through sophisticated programming and algorithms) and act on that information in intelligent ways such as: providing an answer, making a recommendation, citing a reference or helping with a diagnosis.

And just when you thought there was one, big, Al "entity" out in the wild, (reference *Mission Impossible – Dead Reckoning, Part 1* – really good movie by the way) there are different types of artificial intelligence being developed and leveraged.

## Technologies like:

- **Machine Learning (ML):** Algorithms (sets of rules or instructions designed to solve a problem or accomplish a task) that learn patterns from data and improve over time.
- **Natural Language Processing (NLP)**: Enables machines to understand and respond to human language applications like Siri, Alexa or Google Assistant.
- **Computer Vision:** Allows systems to "see" and interpret visual information like images or videos. Think of facial recognition on your smart phone or self-driving cars identifying traffic lights or signs.

### **How Does Al Work?**

Al systems analyze vast amounts of data, identify patterns, and generate actionable insights. Results are achieved by following a structured series of steps and tasks.

Below is a simplified outline of how specific goals and outcomes are achieved:

- **Data Collection:** Gathering all the relevant information (for example: financial transactions or invoices).
- **Data Preparation:** Organizing, validating and fixing data then putting that data into formats usable by Al programs or "models".
- **Algorithm Selection:** Choosing the right "recipe" for analyzing the data.
- Training the Model: "Teaching" the system using historical data.
- Testing: Evaluating its accuracy based on results.
- **Deployment:** Applying the Al model in real-world scenarios.
- **Ongoing Learning:** Continuously improving the algorithms and training as new data is introduced.

## **Real World Applications**

Now that we've got some of the basics down, let's take a look at where AI is actually being used in the real world.

Caution: You might be surprised at how much this technology is already integrated into your daily life!

- **Smart Phones:** Virtual assistants like Siri, Google Assistant, or Alexa all use NLP technology to understand your voice commands, set reminders, play music, and answer those burning questions like time zone calculations.
- Streaming Services: Ever wonder how Netflix or Spotify seem to know exactly what you want to watch or listen to next? That's Al at work, analyzing your viewing/listening history and suggesting content you're likely to enjoy. On the one hand, it's a little creepy but on the other, it's like having your own personal recommendation guru at your beck and call.
- **Online Shopping**: Ever receive personalized product recommendations or see an ad that is targeted (seeming) just for you? That is artificial intelligence at work analyzing your browsing

history and purchase patterns to show you things you might be interested in purchasing. Again, it's both a little creepy and yet, like having your very own personal shopper.

- **Navigation:** GPS apps use AI algorithms to find the fastest routes, predict traffic jams and calculate travel times.
- **Transportation:** Artificial intelligence is at the heart of powering self-driving car technology. An interesting "adventure" for short trips but possibly still in the "wait and see" stage for full-blown trips or daily commutes.
- **Healthcare:** All is being used to analyze medical images, assist in diagnoses, develop new pharmaceuticals, and even generating personalized treatment plans. Nothing like having near-instant access to a huge database of medical knowledge.
- **Financial Services:** Yes, these technologies are finding their way into the world of finance. It's being used for fraud detection, risk assessment, algorithmic trading, and even to provide personalized financial advice...although we still think the personal touch *The Pierson Firm* provides is much better and has a certain charm about it.

# Misconceptions and Al

It's worth taking a moment to mention what Al isn't. There are many misconceptions about what artificial is, and here are some common incorrect beliefs:

- **Al is Synonymous with Robots**. Al is not limited to robotics; it's a broader field that includes various technologies like search algorithms and natural language processing.
- Al Can Surpass Human Intelligence Anytime Soon. The idea that Al will soon outsmart its human creators is exaggerated. Artificial General Intelligence (AGI) is still theoretical and far from a realization. Although movies about Al taking over the world are *very* entertaining??
- Al Understands Content Like Humans Do. Al doesn't "understand" text or speech in the human sense; it processes data based on patterns but lacks comprehension.
- **Al is Unbiased**. Contrary to belief, Al *can* inherit biases from its training data or designers, meaning it's not inherently unbiased. We've all seen an example or two of this bias which is why ethics in generative Al is such an important topic in the technology's development.
- Al Can Replace All Human jobs. While Al can automate specific tasks, it cannot replace jobs that require emotional intelligence, creativity, and other human-specific skills.

We get it. The idea of intelligent machines can sound a bit intimidating. However, Al in its current form is a very powerful tool designed to assist humans. Think of the invention of the calculator. It did not eliminate the need for accountants (*thank goodness!*) it made certain tasks faster and more efficient; allowing accountants to focus on more complex issues and provide greater value to their clients. Al is likely to have similar impact to many industries.

## Final Thoughts. . . Embracing the Change

Artificial Intelligence represents an exciting opportunity for businesses to improve efficiency and decision-making while reducing risks associated with human error. Here at *The Pierson Firm*, we are committed to staying current with technology trends so we can offer you the best possible service.

#### Remember:

We are here to help clients make informed decisions, alleviate concerns and prepare for various potential outcomes. If you have questions about how best to navigate these new and dynamic technology changes, please reach out to us.

After all, we want to help you keep as much of your money as possible!

#### **Side Note:**

While we would like to take all the credit for sounding really smart when it comes to digital topics, we actually need a little help. We'd like to acknowledge the following sources as references with this month's topic: DataCamp, TechTarget, LearningTree, Google and more.

# **About The Pierson Firm**

Conroe-based The Pierson Firm offers a comprehensive range of tax-related services to individuals and businesses alike; and have been doing so for over 30 years. From Tax Planning, Preparation & Representation to Business Operations, Advisory and Compliance, the firm provides personalized solutions to those around the block or around the globe. Additional company information can be found by visiting <a href="https://www.thepiersonfirm.com">www.thepiersonfirm.com</a>.



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