Artificial Intelligence:
Increasing Business Profits at the Cost of Consumer Privacy

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Artificial Intelligence may be the most significant technological breakthrough since the development of computers. The promise of greater efficiency and effectiveness is very appealing, especially as that translates into more profitable businesses. The potential applications appear almost endless, crossing every industry and every form of business activity. The potential results cannot even be estimated.

Artificial Intelligence can assist in detecting misinformation, but it can also assist in spreading misinformation when faulty algorithms collect incorrect data. An example of this occurs when customer demographic data mixes information from consumers with the same names. Persons who frequently relocate may also be more likely to have faulty consumer data collected by business research companies. However, in our rush to be the first and the best, we must ask ourselves how much of our privacy we are willing to give up? In this paper, the authors examine this fascinating emerging technology with a preview of the technology's business potential.

Keywords: artificial intelligence, data privacy, "right to be forgotten," data repurposing

INTRODUCTION

Artificial Intelligence (AI) Defined

Intelligence can be described as the ability to discover and perform appropriate methods to solve problems that occur and accomplish goals (Manning, 2020). These goals may be considered fitting to the circumstances of the changing world. Consequently, a fully functional pre-programmed machine may be considered adaptable, consistent, and precise, but may not be as rational as a human (Manning, 2020).

The first example of AI, albeit a primitive form, was developed in 1951 by Christopher Strachey at the University of Manchester, England (*Forbes*, 2022). Strachey did not realize back then that the automated checkers bot would be the beginning of a revolutionary technology that would change the world in some astonishing ways.

Professor Emeritus John McCarthy of Stanford University first used the expression in 1955, describing the term as the "Science and engineering of making intelligent machines." (Manning, 2020). According to McCarthy (cited in Manning, 2020), abundant research influenced humans' programming technologies to perform more capably. An example of this might include a computer playing a game of checkers using

artificial intelligence (Manning, 2020). However, as artificial intelligence (AI) technology emerges, humanity will focus on what machines can learn just as what people may be able to do.

McKinsey & Company provides a more recent (2023) definition of artificial intelligence as "Artificial intelligence is a machine's ability to perform the cognitive functions we usually associate with human minds" (What is AI, 2023). The combination of humans and machines can increase productivity exponentially. And what organization does not want that?

Daniela Rus, the director of computer science for the Massachusetts Institute of Technology provides an even more interesting definition (cited in Hu, 2023). Rus defines AI as "Artificial intelligence is about the science and engineering of making machines with human-like characteristics in how they see the world, move, play games, and even learn. Artificial intelligence comprises many subcomponents, and all kinds of algorithms solve various problems in artificial intelligence." (Hu, 2023). The following are several key terms used to describe significant activities of AI.

Autonomous Approaches could individually plan and determine structures of steps to complete a specified objective without micromanagement (Manning, 2020). A medical clinic robot delivering patient medications must be able to steer through the busy halls to successfully deliver patient medications. Unfortunately, AI does not possess the wisdom of self-reliance in natural science or government (Manning, (2020).

Machine Learning (ML) can be considered the part of AI that investigates how processor managers may enhance their insight, expertise, or thinking based on their understanding of information (Manning, 2020). Subsequently, ML draws information from computers, statistical analysis, behavioral science, business, and neuroscience.

In supervised learning, a computer can acquire social-given descriptions such as a cat based on pictures (Manning, 2020). Not supervised learning does not require labels, which may sometimes forecast assignments such as trying to forecast each sequential word in a sentence (Manning, (2020). Reinforcement learning helps boost its overall incentives, such as successful games, without explicit examples of sound performance, supporting self-sufficiency (Manning, 2020).

Deep Learning can be envisioned by applying substantial multi-layer neural networks that manage with constant algorithms, but often just for a few parts as the hierarchically consolidated neurons in individual intelligence (Manning, 2020). Currently, Deep Learning can be the most successful approach to Machine Learning and is usable for all types of Machine Learning, with better generalization from small data and developed mounting to sizable data and compute budgets.

Narrow AI might be intelligent systems designed for one aspect, such as facial recognition or speech. Narrow AI could seek broadly intellectual context-aware machines (Manning, 2020). Thus, Narrow AI may be necessary for social chatbot effectiveness or interaction involving robots and humans.

Human-Centered Artificial Intelligence refers to Artificial Intelligence that pursues enhancing its abilities, focusing on societal needs, and inspiring human beings (Manning, 2020). Therefore, Human-centered artificial intelligence investigates and fosters effective accompanying person and devices for human beings such as robotic assistants and attendants for the elderly.

Artificial intelligence might be humankind's most intricate and astonishing invention yet (Joshi, 2019). Consequently, the field is unexplored in many ways, and AI concern signifies the very beginning of what researchers seem to find. Joshi (2019) pointed out the difficulty for society to foresee a systematic outlook on the potential and influence of AI on humanity and humankind. The reason could be that it is the preliminary stages of reform.

AI's continuous growth and commanding growth can cause people to fear the unavoidability and vicinity of an AI invasion (Joshi, 2019). Moreover, the conversion that AI can bring in various businesses can make industries and people believe that AI may be at its peak potential (Joshi, 2019). However, society needs to understand the potential forms of Artificial Intelligence and the existing forms that might give a more concise image of its abilities and the massive research trail ahead (Joshi, 2019).

Types of Artificial Intelligence

AI can be classified into one of the four categories listed below in Table 1: reactive machines, limited memory machines, theory of mind, and self-aware AI. Joshi (2019) revealed that reactive machines tend to be the oldest AI systems and have especially limited ability. Joshi explained that these systems simulate the individual mind's capacity to react to different motivations. These AI machines do not have memory-based functionality. Joshi noted that this could mean that these machines may not utilize formerly acquired capabilities to advise their recent activities. Thus, these machines do not possess the aptitude to learn. As a result, these machines might only be used routinely for a limited set or arrangement of inputs. However, they may be unable to be utilized to be dependent on memory to increase their processes. Joshi (2019) indicated that a good example of a reactive AI would be the "IBM DEEP Blue," the AI machine that 1997 defeated Grandmaster chess champion Garry Kasparov.

Limited memory machines possess the ability of reactive machines and can also learn from past information to make decisions (Joshi, 2019). All present purposes which people are aware of exist under this classification of AI. Currently, all AI systems, including the variations that utilize deep learning, can be trained with substantial training information, which is then stored and pulled when needed (Joshi, 2019). For example, image recognition AI can be taught using thousands of images and then can identify those images. Furthermore, according to Joshi (2019) this experience can be based on a "learning experience, and all current-day AI applications can be driven by limited memory AI."

TABLE 1
FOUR DISTINCT TYPES OF ARTIFICIAL INTELLIGENCE

Reactive	Limited Memory
Has no memory, only responds to different stimuli	uses memory to learn and improve its responses
Theory of Mind	**Self-Aware**
Understands the needs of other intelligent entities	Has human-like intelligence and self-awareness

Source: Joshi, 2019

Joshi (2019) further indicated that both reactive machines and limited memory are abundant. However, the next level of AI systems that may attract researchers could be a theory of mind Artificial Intelligence. Theory of mind AI may better comprehend the entities by interacting with and determining their requirements, reactions, attitudes, and thought developments. AI may be a making industry and a deep area of pursuit for various leading AI investigators, to attain Theory of Mind, achievement of AI might lead to further development in other aspects of AI as well. The reason may be because it requires considering and understanding many factors to understand people.

Self-aware AI can be considered the definitive stage of development in Artificial Intelligence (Joshi, 2019). Self-aware AI might be an AI developed to be analogous to the individual mind and establish self-mindfulness. Consequently, to generate this kind of AI, AI may be able to comprehend and suggest sensations in those it collaborates with but also might possess effects, feelings, and hesitant conditions of its own (Joshi (2019).

As a result, many doomsayers may be cautious of this form of Artificial Intelligence. Although self-aware AI development might significantly enhance the advancement of civilization, a disaster could also occur. Unfortunately, once the AI becomes self-aware, it could become capable of possessing ideas as self-protection, which could mean the end of humanity (Joshi (2019). This means that an individual could effortlessly outsmart the intelligence of any person to take over humans.

Joshi (2019) also noted that the classification system more commonly utilized in technology phrasing might be the classifying technology into Artificial Narrow Intelligence (AGI), and Artificial Superintelligence (ASI). ASI could characterize all existing AI, including even the extraordinarily complex

and proficient AI produced to date. ASI may stand for systems that can perform only a restricted task independently using human-like resources. These technologies typically perform no other tasks than their programming calls for, restricting their range of capabilities. According to the categorization system, these systems parallel those with spontaneous and limited memory.

DISCUSSION

Applications of AI

RuBa (2019) pointed out an important example of an AI application: automated customer support. In business, most online stores contain at least one or two types of high-tech consumer support, which may be separate from the traditional care channel that might be reached by email or cell phone. The support channels which tend to be traditional, may cost businesses a lot of money and waste a significant amount of human resources that could then be directed at more sensible and innovative undertakings. RuBa (2019) also noted that AI-enabled customer assistants are also being utilized. These AI customer assistants can answer basic questions, such as informing you regarding the status of your order and can also assist in obtaining a product based upon the description. Fortunately, online shopping experiences can be improved with chatbots, as they may raise user retention by sending reminders and notifications. Table 2 below provides several basic applications of AI in various industry settings.

TABLE 2
ARTIFICIAL INTELLIGENCE BUSINESS APPLICATIONS

Marketing	Automated customer support
Finance	Programmed advisors
Accounting	Reduction in workforce, increased work efficiency
Transportation and logistics	Autonomous vehicles and product delivery
Healthcare	Safeguarding patient information
Smart household technology	Providing safety and most efficient use of utilities
Security and law enforcement	Facial recognition, biometric systems
Military/defense	Autonomous weapons systems

Chatbots offer instant answers much faster than human assistants can provide, thus decreasing customer response time (RuBa, 2019). Chatbots also provide upselling opportunities through a personalized selling approach. RuBa (2019) also implied that the execution of AI might make it probable for the online market to utilize the minor piece of information about every pursued network or wait to identify the experience on the most innate level. This personalization may result in timely alarms, communication, and graphics that can adjust corresponding to the operator's supply and demand. Consequently, online businesses may also routinely modify currencies and user interface, send notifications regarding price reductions on top-selling products, and time restrictions on appropriate notes.

Another example of an AI application is in the healthcare field (Ruba, 2019). AI might become a game changer in healthcare, fundamentally adjusting every segment of the healthcare field. Examples of this can include safeguarding Department of the Veterans Affairs records from cyber criminals to assisting healthcare workers with medical procedures. Furthermore, AI can be employed everywhere. This may help address society's experience of inefficient healthcare procedures and rapidly increased medical costs.

TABLE 3
KEY ADVANTAGES AND DISADVANTAGES OF ARTIFICIAL INTELLIGENCE

Advantages	Disadvantages
• **Fewer errors**: AI can reduce the number of errors that humans make, especially in repetitive tasks	• **Job loss**: AI can automate jobs previously performed by humans, leading to job displacement
• **Improved efficiency**: AI can perform tasks faster than humans, which can lead to increased productivity	• **Lack of creativity**: AI lacks the creativity and intuition that humans possess, which limits its ability to perform certain tasks
• **Cost savings**: AI can automate tasks that would otherwise require human labor, which can lead to cost savings for businesses	• **Privacy concerns**: AI can be used to collect and analyze personal data, which raises privacy concerns
• **Improved accuracy**: AI can analyze substantial amounts of data and identify patterns that humans might miss, leading to more accurate predictions and decisions	• **Bias**: AI algorithms can be biased if they are trained on biased data or if they are designed with biased assumptions
• **Improved safety**: AI can monitor and improve safety in various industries, such as manufacturing and transportation	• **Security risks**: AI systems can be vulnerable to cyber-attacks, which could have grave consequences

AI may also offer healthcare providers a much-needed transformation (RuBa, 2019). AI can provide workflow aids that can help free up physicians' time and minimize cost and time by adjusting activities. Additionally, AI-operated machinery can help bolster pathologists in examining tissue samples. Therefore, pathologists can develop and provide a more accurate post-mortem analysis. Some of the advantages and disadvantages of artificial intelligence are highlighted above in Table 3.

RuBa (2019) cites another example of AI applications for the finance services industry. According to RuBa (2019), the alliance of finance commerce and AI can be considered an ideal pair. The financial segment can significantly rely on actual commentary, precision, and handling of sizable volumes of measurable information to make decisive conclusions. These areas are where AI-empowered systems can shine. The finance segment can swiftly execute machine learning and algorithmic exchange. Modified intellect, chatbots, into a range of developments. Also, programmed advisors driven by AI exist who as well can forecast the greatest folder based on inclinations by searching the market.

Drones and smart cars are two small but significant applications of AI (RuBa, 2019). Among AI applications, conspicuous and better demonstrations of technology of smart cars and drone cars are more developed. Noteworthy businesses such as Amazon and Walmart purchased their drone platforms for delivery, which may become prevalent in the future.

Travel and navigation are other areas in which AI can become one of the primary devices for assisting suppliers and employers (RuBa, 2019). AI helps people and travel companies make effective routes and arrangements. Many people utilize tourism tips, explore area attractions and local dining options, and order vacations on the phone with the assistance of AI travel assistants. Chatbots also appear to be altering traveling efficiently by enabling individual-like connections with people for traveling, better deals, and immediate replies.

RuBa (2019) pointed to social media as another AI application that might be considered heavily utilized. Currently, social media such as *Facebook* and other social media platforms significantly influence human decisions. And social media decisions are influenced by AI.

Consequently, AI studies all humans' previous network explorations, behavioral actions, and activities performed by the person going to the sites and shapes the understanding regarding those conclusions (RuBa (2019). Subsequently, the position of AI can become much more meaningful when the extent of matter grows and can become more challenging to demonstrate workers' precise intelligence while challenging junk e-mail and advancing user experience. In these cases, AI can be a considerable advantage.

Smart Home gadgets could be used, according to RuBa (2019). An extensive amount of smartphone appliances that consumers purchase employ AI to find out humans' behavior over time so settings can be regulated spontaneously to affect the experience with ease. These smartphone gadgets can be done with "smart voice assistants," which can be key models of AI (RuBa, 2019). These skills will be a part of societies' lives which can be thankful to data research and science. Additionally, smart lights exist which can switch concentration and shade which can be based on a timetable. Also, the thermostats may be able to amend the heat based on user inclination.

AI-powered applications can also include creative arts (RuBa, 2019). AI-driven technologies encourage novel songs in modern day society now. Based on contributions compiled from millions of daily headings, dialogues, and speaking can assist musicians in creating melodies. To leverage the strength of AI, artists might better understand their target audience and create music based on their preferences. Another superb illustration can be considered the technology's superpower IBM. The AI-empowered Chef Watson may even function as your "second in command" during meal preparation by providing you with a full selection of recipes and along with advice on what side dishes would go best with your entrée choices. Chef Watson can even recommend a good wine pairing for your meal.

Security and surveillance are important but controversial uses of AI (RuBa, 2019). While people may debate the moral viewpoints on implementing a transparent investigation system, people should not reject the idea that a surveillance system will be applied in society eventually. AI is applying a critical position in this society. Unfortunately, humans cannot watch multiple cameras simultaneously; however, AI makes it happen. Furthermore, technologies such as voice acknowledgment and face recognition are improving every day. Moreover, AI may eventually be monitoring all security camera feeds according to RuBa (2019).

Human Resource Management

The researchers in the article *What can AI do for human resource management?* (2021) noted that AI and human resources (HR) work congruently to assist in lowering expenditures, improving projections and most prominently transforming the company. Over the past decade, several improvements showed in various functions involving AI for HR. The researchers (2021) indicated that AI has helped HR modernize its functions. Therefore, AI can be an essential component of the HR function. AI can enhance the value projections by helping lower prices by performing processes with greater competence and it can convert the way your production operates. Many managers may ask why AI may be important to HR functions (*What can AI do for human resource management*, 2021). It is important to understand the influence of AI and Actionable AI can bolster AI players to leverage the correct devices to enhance careers, lower costs, and perform duties that are not humanly possible. AI strengthens businesses with significant responsibilities, which might contain worker benefits. Also, AI can undertake part of the process so employees can concentrate on the humans, which should be the bottom line. AI might also facilitate minimal member benefits application. The researchers further indicated that the research implied about half of the employees made inadequate decisions regarding their healthcare. AI may possess the ability to resolve HR disputes.

Many researchers ask what the future of AI will mean for HR. *What can AI do for human research management* (2021 AI might relate to HR endeavors. Both firms and employees may depend on AI on various levels and work together on a regular basis. As a result, this may offer a continual likelihood to develop AI. HR leadership may be able to address AI throughout their widespread enterprise as HR managers try to form and position innovative policies.

According to *What AI can do for Human Resource Management* (2021) Alight *Worklife* can be proposed with discerning understanding and utilizes AI in addition to analytics. This technology uses AI expertise and computerized methods and forecasts dangers, musts, and prospects, so HR can better speak with their

workers. Essentially, persistently advancing the AI capabilities and accumulating additional substance to advance the consumer capability and ambition commitment is the highlight of Alight's proposals approach.

Ahmed (2018) indicated that AI may be making many resolutions for employment supervisors including necessary hiring instruments, transitional applications, and progressive AI resolutions independently or together, this equipment might be forecasting a candidate's future success with their future. A significant fact of HR factors may be tailored worker occurrences.

IBM officials in their research noted how AI might successfully be spun within a worker's entering program (Ahmed, 2018). New workers who usually desire to meet others and want information may not know the right source to go. Consequently, IBM will seek to construct a structure that will reply to employees' inquiries to help them with what is going on in the company. An AI could give training suggestions, names, locations, and people, and useful database links for the first-day employees (Ahmed, 2018).

Administrators who naturally might be encouraging their own AI expertise through IBM Watson, also explained different approaches in the agency (Ahmed, 2018). Normally, the HR team members would need to deal with these duties. These duties could include ones such as vacation requests. Workers who apply for vacation days normally will be notified that they will be approved as all others who ordered at the exact same time. Determining mood is another task area. When a worker takes a customer call, the worker may receive feedback. Thus, the worker may be anxious or depressed and may need a short break before the next call.

Ahmed (2018) considers hiring processes as the third task. A hiring supervisor may be presented with data that the business's enlistment methodology might fall short of because the interviews may include applicants with minimum qualifications. Intellectual solutions could help companies tap into various data resources and uncover novel understandings to aid industries in developing contender profiles. AI displayed a chance for HR to computerize modest values and insert tasks. Additionally, to bolster the attention on more planned employment.

Additionally, sharper people and shrewder analytics. Over the past decade, businesses have accumulated data on their consumers to gain intuitions to predict forthcoming activities. HR crews need to catch up on leveraging analytics.

Consequently, deciding what to trace, analyze, and supervise, might enable AI to continue to play a sizable role within HR (Ahmed (2018). Thus, in an intent competition for talent, businesses will continue to develop ways to draw high-aptitude prospective employees. Technologies that augment the applicant's knowledge and meet their numerical prospects will help recognize companies from each other.

Johnson, Goggburn, & Llorens (2022) noted that in the future, HR professionals will be tasked to always ask questions to find the most talented employees, prevent employee turnover, and find the most qualified leadership. However, resources might be limited for many organizations, especially within the public sector. AI use in the public division might follow groups of reform and information and communication technology (ICT) resolutions (Johnson, Goggburn, & Llorens, 2022).

The researchers (Johnson, et al., 2022) further indicated that AI suggests being more accurate and might provide less subjective forecasts. Thus, AI may produce more data faster and more accurately than people. Subsequently, this may be the case in the public sector to reduce demand over an extended period. HR comprises of various operating procedures to obtain, administer, and preserve individual capital.

HR assignments link to the potential benefits of AI-qualified tools (Johnson, et al., 2022). Talent procurement can bolster in expanding the candidate pool and increase administering size, which could result in a more precise assessment of candidates. Also, worker enhancement might be designed to start training that can be transferred in a certain time. Additionally, operation administration includes a complete picture of worker performance evaluated to contrast others based on variable factors.

Employee retention involves automated compensation tracking across many statistical sources (Johnson, et al., 2022). Also, turnover and retention involve the cognition of potential leaving interest and motivations delivered intentionally. Challenges and concerns exist. As public HR faces the most modern trend of technological advances known, more labor may exist for HR professionals which may cause more tension to implement AI mechanics. AI implements novel challenged landscape within the public sector.

Information technology can also affect HR processes (Pathak & Solanki, (2021). AI can play a crucial function in acquiring business understanding from personal knowledge. Implementing improvement and vigorous HR practices to defeat the market opposition might be succeeded by advanced technology such as mechanization.

AI Challenges and the Life Cycle

Research by Tampe, Cappelli, & Yakubovich (2019) uncovered a significant gap involving AI's potential and genuineness in HR leadership. This research notated four questions utilizing information methods for HR assignments. This includes convolution of HR trends, constraints required by modest data collections, and other information. Thus, only 22% of businesses noted that they embraced analytics in HR and how advanced analytics can be in these businesses; however, may not be so transparent (Tampe, et al., 2019).

The most useful function of AI to HR issues may present numerous challenges than other parts. They might stretch from sensible to abstract. To demonstrate these issues, (Tampe, et al., 2019) should ponder on using an algorithm to forecast which employees they should recruit. Therefore, if a company utilizes an algorithm on an empirical measure, such as who robs from the business, it may be too tiny to construct an effective algorithm in most cases. However, with a project such as employment, once prospective employees find out the substance of the employing algorithm, most will answer accordingly, unfortunately.

Various issues in HR may be different from other areas where AI techniques may be affected (Tampe, et al., 2019). First, could be the difficulty of HR conclusions. Many businesses inquire about what it implies to be a decent worker. Many magnitudes exist that that structure and assessing it might be quite a struggle. Consequently, group presentation may be hard to assess against individual presentation.

Thus, problems with reliability and validity can occur especially with bias (Tampe, Cappelli, &Yakubovich, 2019). Unfortunately, various employees may give up completely on it. Numerous research documents according to Tampe, Cappelli, Yakubovich, (2019) a multitude of problem with current performing techniques in addition to a discipline failure to establish a transparent connection between team, individual, and business performance.

Tampe, Cappelli, & Yakubovich, 2019) noted that another issue for data science could be that many vital outcomes in HR, such as firings, usually can be rare, especially in small businesses. Machine learning and other statistical science methods could require higher figures. The next issue might be that results of HR outcomes, such as which employees get employed and dismissed, could have major consequences for people and society as well to ethics. This involves practical and liability as well.

According to Sneiderman (2021) ethical discussions can be considered the crucial foundation, but the building blocks of accountable AI require enterprise conclusions to attendant software business teams, commerce managers, company leaders, and public policy makers. Additionally, various ethical concerns may be recorded at the Berkman Klein Center report, posing ethical principles in several classifications. The Sneiderman classifications consist of the following: "privacy accountability, safety security, transparency, examinability fairness, non-discrimination, human control of technology, professional responsibility, and promotion of human values" (Sneiderman, 2021). These crucial ethical guidelines can be bolstered with tortious design guidelines.

Sneiderman (2021) software engineers may be able to contend with safety of human-centered User Experience Design (UXD) for joining ethics with AI by making a flying data video recorder for every robot for indications and warnings of training. Consequently, combining AI with UXD can enable speedy advancement to attain reliable and honest systems. Additionally, software and engineering workflows could be implemented as well. Applications for distinguishing workflows for machine learning projects require expended requirements with worker requirements.

According to Sneiderman (2021), authentication and certification experimenting might also need to take place. The intermittent performance of machine learning algorithms and several points of reference will also need to be standard. However, since machine learning may be the training data subject, various arrangements need to be gathered for each framework to increase accuracy and decrease prejudices. Bias

testing should also be used. Beyond algorithm accurateness and data attributes, careful testing should boost fairness by shrinking ethnic, sex, ethnic, and other biases that may come up.

Sneiderman (2021) further noted that toolkits for equality testing from investigators and commercial benefactors can contribute to the process, but involvement from the stakeholders can significantly encourage fairmindedness and foster networks that could help when problems develop. Also, explainable interfaces allow more advancement processes. Criticizers believe advancement occurs so rapidly that engineering companies cannot afford the current regime of releasing haphazard software.

Management commitment to safety may also be a key factor. The requirement may be ready and notable by many statements and optimistic attempts in employment by constant confirmations of promise and requalifying (Sneiderman (2021). Additionally, close calls and failures are dealt with as well as assessments of occurrences such as weekly hospital assessments can improve patient welfare.

Sneiderman (2021), also indicated that contracting and education adapted to safety can be crucial too. Safety needs to be incorporated in employment appointing positions. Commitment then will become noticeable to current employees and prospective new employees. Safety traditions might need skilled safety experts from human resources, health, forensics, and other areas. However, teaching exercises may take time but might pay off when failures are averted over time.

Extensive reporting of failures and near misses could be another key area of focus (Sneiderman (2021). Safety-orientated companies normally provide information on their shortcomings. Their shortcomings can also be known as "adverse advents" and near misses (Sneiderman, 2021). However, these minor errors can be avoided and can dodge a serious accident. Places that utilize these reporting systems consist of NASA and the Food and Drug Administration Adverse Events Reporting System.

Sneiderman (2021) further reported that internal examination boards for issues and upcoming proposals could also take place. Commonly organized monthly discussions can demonstrate commitment to a safety issue to consider breakdowns and near failures. Evaluation boards performed by places such as hospitals or clinics may involve staff who extend distinct perceptions on promoting permanent recovery.

Top companies such as Facebook, Google, and other big companies have long shown AI systems for evaluation processes (Sneiderman (2021). Alignment with industry practices may be important too. Contribution to commerce universal groups. Skeptics worry that short term timetables, reasonable pressures may too drive companies, and that these practices may be fleeting.

Bankins & Formose (2023) described the importance of Ai for meaningful and ethical implications for employment. The increasing operation of AI equipment might possess consequences for the capability of meaningful individual employment. Meaningful occupation can mean that AI's insight might be increasing rapidly, but the methods which this will advocate or lessen opportunities for meaningful labor, and ethical inferences may persist to be unfamiliar.

Bankins & Formose (2023) indicated that bolstering the organizational utilization of AI knowledge might persuade how individuals experience employment and whether they feel purpose or meaningless in their jobs. AI consists of the proficiency of computers and other artificial objects to do missions usually categorized as necessary intellect. Examples could involve obstacle reason, disentanglement, and acquiring experience. Consequently, meaningful work involves the observation that an individual's effort posses' impact, merit, or a deeper purpose.

Hermann (2021) noted that AI may reshape activities, interactions, and relationships in companies, especially in marketing. Unfortunately, the downside might be that sizable AI systems will provide in marketing will consist of ethical disputes. However, opportunities can benefit AI in marketing such as automated AI data gathering, "Thinking AI, p. 45, 2021", for market analysis, and "feeling AI p. 45, 2021" for the consumer.

Current AI's set up narrow-minded intelligence and can only operate in restricted territories (Bankins & Formose (2023). Thus, the established utilization of AI allows people to get feasible examples to base the assessment on meaningful work for an individual's purpose. Thus, tools as a plus might upskill workers and develop their independence but can decrease their skills and control them in several ways. However, AI may undertake more cognitive duties than earlier technology but still can take aware of some meaningful work.

The three big concerns are job loss, decreased wages, and data privacy. According to a report by the National Bureau of Economic Research (Kelly, 2021) 50-70% of changes in U.S. wages since 1980 are responsible for wage declines among blue-collar workers. Job losses will mean that an estimated 11.5 million U.S. workers will need retraining for other jobs to remain competitive, including 200,000 employees working in the banking industry (Kelly, 2021).

The Other Big Issue—Data Privacy

Several aspects of data privacy need to be carefully examined. In some instances, data is repurposed and used for purposes other than that for which the data was originally gathered. In other situations, spillover data on people not part of the intended collection is used commercially. A summary of many AI data privacy concerns can be found below in Table 4.

TABLE 4
KEY CONCERNS OF AI DATA PRIVACY

Data persistence: data existing longer than the human subjects who created it
Data repurposing: data being used beyond their originally imagined purpose
Data Spillovers refers to data collected on people who are not the target of data collection
Data breaches refer to data exposed or stolen by unauthorized parties
Reidentification and deanonymization: AI applications can be used to track and identify across different devices in their homes, at work and in public spaces.
Lack of oversight and safeguards: some public-private safeguards for implementing AI have resulted in poor protection of privacy

Source: Pearce, 2021. Beware the Privacy Violations in Artificial Intelligence Applications

The greatest concern among most people is the potential job loss for millions of workers just at the time when we have admitted millions of refugees into the country. Both citizens and immigrants will have difficulty in securing and keeping employment, even at lower wage rates. Data breaches are becoming more common than ever, and information from healthcare providers, banking institutions, and government agencies may be so detailed as to simplify identity theft.

Companies need to provide consumers with the opportunity to refuse consent to collect their data and the ability to withdraw consent at some future time. This issue is often called the "right to erase" or the "right to be forgotten." Consumers need the ability to restrict the use of their data through a list, or menu of ways that companies can and cannot use consumer data.

This is an especially important task to perform and, according to experts, difficult to do as some algorithms, once trained in a certain way, can be exceedingly difficult to untrain. This means that the ability to remove confidential personal data must be built into the system as it might not be able to remove personal data later.

According to a 2019 study conducted by the Pew Research Center (cited in Bogard, et al. 2020), 81% of respondents stated the risks they face when their data is collected by research companies and stored outweighs the benefits. Sixty-six percent of consumers feel the same way regarding data collected by government and most Americans feel that they have little control over how companies and government use that data.

Summary and Conclusion

As with many other technologies, the preliminary stages of AI development offer tremendous opportunity. However, much like so many other scientific developments, technologies often develop much faster than the development of the ethical consideration of the technology. Nuclear power, for example, helped end World War 2 and saved many lives. Nuclear power is also used worldwide as a cleaner alternative to fossil fuels. Many technologies possess both the capability to significantly aid humanity and the potential to be very destructive to humanity.

In the initial stages of technology development, accuracy is a major concern. The consequence of errors can mean a hospital patient receiving the wrong medication or a naval vessel destroying one of our own ships through false identification and resulting in friendly fire. In addition, the privacy and accuracy of personal data is at risk. There have been several instances of false arrests due to inaccurate facial recognition equipment.

Recently reported in *The New York Times* is an example of an African American woman incorrectly identified by facial recognition as a carjacker (2023, August 6). The article suggests that AI facial recognition is not dependable—more so for women and persons with darker skin tones. One study reported a 35% error rate in facial recognition. One AI research company, AKKIO.com advertises 90%+ accuracy rates for their business intelligence software (https://lp.akkio.com/business/intelligence-ai). Would your company be satisfied with a 90% accuracy rate?

In this paper, the authors have briefly discussed and summarized many positive uses of Artificial Intelligence. It is important to develop ethical standards and best practices for the use of this innovative technology alongside the development of the technology itself. This is especially important for defense and law enforcement but also important with autonomous vehicles and regarding employee records.

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