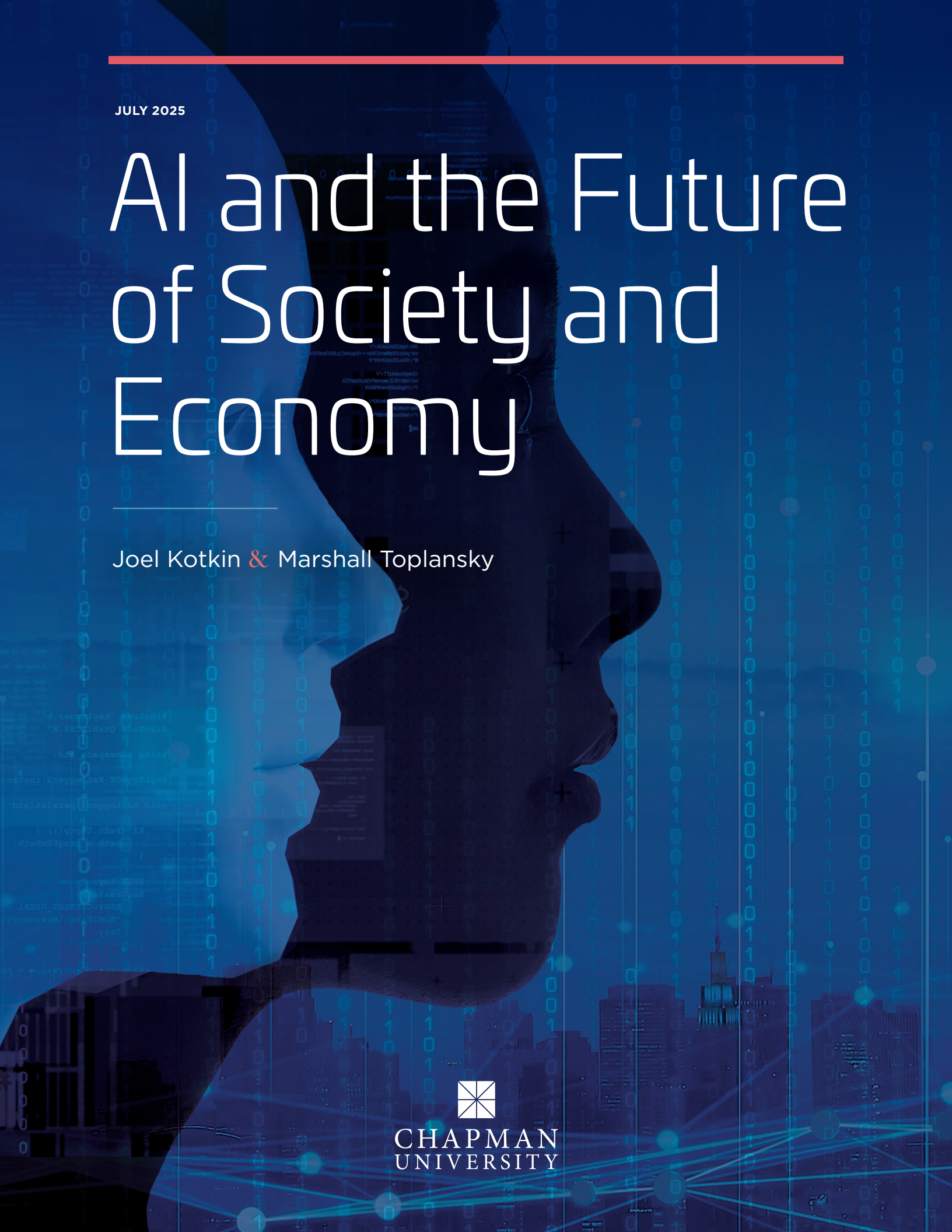

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AI and the Future of Society and Economy

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CHAPMAN UNIVERSITY

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Section One: AI and the Evolution of Business

Artificial Intelligence (AI) is perhaps the most widely discussed new technology in history. Forecasts of its future range from imminent societal collapse to the spawning of a new paradigm for economic organisation. Some two-thirds of Americans fear its rise and roughly three in five, according to a 2023 poll, see it as a direct threat to civilisation (Edwards, 2023[1]; Tong, 2023[2]). World Economic Forum chairman Klaus Schwab warns about humans losing control of the world during the Fourth Industrial Revolution (Newcomb, 2023[3]).

The business appeal of AI is obvious. AI is about improving the accuracy of decision-making by harnessing past experience to predict the future. It is not about creating new sentient, infallible life forms like "Ultron" from Marvel Comics or "Lt. Commander Data" from Star Trek. It is about eliminating mankind's natural stupidity that comes from making the same mistakes over and over again without learning from the past. PricewaterhouseCoopers (PwC) estimated AI technologies would add US$15.7 trillion to the global economy by 2030. McKinsey & Company estimates generative AI alone will add US$4.4 trillion annually to the global economy (Chui et al., 2023[4]; Goldman, 2023[5]; PwC, 2017[6]).

Entrepreneurs and innovators may seek to disrupt existing order, but most businesses are built around optimising existing systems. Build the same thing cheaper so you make more money than your competitors. Define target audiences more precisely so you can reach them more efficiently and effectively. Identify friction points in processes so you can smooth them out and make things happen faster and more easily. This is the ongoing struggle of businesses and markets since the beginning of capitalism.

Historically, humans have performed these analytical tasks manually. They created tools, like spreadsheets and surveys to help them. However, the task of optimising businesses has largely been the province of human analysts. This is where AI steps in. Its focus is on speeding up the time for collecting, analysing and forecasting by orders of magnitude in ways beyond the capability of human analysts in a timely manner. To put the speed gap into perspective, a study conducted by Stanford University compared the performance of AI algorithms against human radiologists in detecting breast cancer from mammograms. The AI algorithm achieved a 94.5% accuracy rate, outperforming the human radiologists who achieved an accuracy rate of 88.1%. Furthermore, the AI algorithm took an average of just 2.5 seconds to analyse each image, while the radiologists took an average of 11.8 seconds, and the AI algorithm can work 24 hours/day, 365 days/year without resting (Bakar, 2024[7]).

AI finds patterns in the flow that accurately predict the observed behaviour of a business or of a consumer or of a market. Those patterns may be very counter-intuitive to the "conventional wisdom" that has been built up over time around an industry. However, they may be far more

accurate in their predictive power. The economic value of being able to predict outcomes accurately outweighs the comfort of understanding the root causes that go into a prediction. Moreover, since the world does not stand still and is in continual motion, being able to accurately automate the prediction process has even greater economic value.

The underlying premise of AI is that machines can learn to detect patterns and changes in those patterns better than human beings can. Typically, the machine learning process starts with humans "teaching" computers what they know. Humans define the rules for the machine. "Here is what winning is", or "Here is what we define as a desired outcome". AI technology has progressed to the point that machines take over the responsibility of learning how to identify patterns accurately on their own. They create their own internal competition to test which patterns are more accurate in predicting things (Rouse, 2023[8]).

At this early stage of AI, computers are prioritising predicting relevance, not factual accuracy. In ChatGPT or Google Gemini (originally known as "Google Bard"), for instance, computers learn by competing with each other to accurately predict what YOU are looking for, based on your prompt. You may ask a question like, "Is global warming happening and why?" The answer you get back reflects what the AI thinks you are asking about and feeds you back what has been published in the world on that topic, organised in a way it thinks you will find useful. It has based its submission to you on what other people have asked about that same topic. You then tell ChatGPT or Google Gemini whether the answer is satisfactory. Or you may then ask the question in another way. The AI learns from how you phrase things to refine the answer in a way that is more satisfying.

At this stage in AI, it is NOT actually concerned with the underlying accuracy of the answer. It is "crowd sourcing" its answers. This "group think" can have its obvious dangers. However, if you believe that people generally act as a herd and follow what most other people do or say, the power of AI to reduce the volatility of humans and their markets may be compelling to businesses that are NOT looking to disrupt existing behaviour patterns.

Ultimately AI works off the surveillance of people and ideas. Its key is mass observation of human and machine behaviour on a continual basis. The notion that we are all being constantly surveilled is understandably repugnant to a large swath of society, which was reared on the notion that their privacy and individuality is sacrosanct. Unfortunately, like it or not, privacy is largely an illusion today. Virtually everything anyone does is tracked and recorded for the computers that then add their behaviour to the vast stew of AI databases. The younger generation's acceptance of and fascination with social media systems, fuelled and funded through mass surveillance, indicate to us that humans seem willing to make the trade-off of their privacy for some economic advantage. Unions are already raising concerns about how AI could help bosses keep close watch on their employees, even outside their jobs (Tracy, 2023[9]).

For better or worse, AI is just in its infancy. There are already experiments to see how it can be enhanced with human brain cells (Blain, 2023[10]). It is also not simply one thing. AI comprises a

wide range of technologies and use cases. From the large language and generative AI models like ChatGPT, Google Gemini and Dall-E, they are the equivalent of the first automobiles: fun to play with, somewhat unreliable and maybe a little dangerous. But over time, the lesson for companies, notes Rich Karlgaard (2023[11], para. 4), will be clear: ***Who Learns Fastest, Wins.***

Section Two: The Digital Legacy

To assess the potential impact of AI, we first need to see this as an extension of current digital technology. Essentially AI amplifies the net; its key ingredient is mass observation of human and machine behaviour on a continual basis. Analysts like The Brookings Institution predict a huge productivity "boom" from AI (Baily, Brynjolfsson, & Korinek, 2023[12]). But over the past 15 years, the Internet, as economist Robert Gordon (2016[13]) has demonstrated, has had little overall effect on productivity, which continues to lag, or on economic growth while increasing inequality (Pan, 2023[14]). On the upside, if you consider this a positive, AI could make military technology even more effective and lethal, as we are seeing in the use of AI drones in the Ukrainian conflict (Kinder, 2023[15]; Robb, 2023[16]).

Tech enthusiasts see the development of AI as the road to a "golden age", and a way to "save the world". But much the same was said at the beginning of the digital revolution (Andreessen, 2023[17]; Henderson, 2023[18]; Pethokoukis, 2023a[19], 2023b[20]). In reality, although a major and potential force, AI simply amplifies digitalisation. It focuses on speeding up data collection, analysis and forecasting by orders of magnitude. Its impact cannot be separated from the already existing patterns tied to digitalisation.

Like earlier digital technology, AI has the potential to provide potential improvements in education, medicine and even helping to maintain infrastructure (Funt, 2023[21]; Kessler, 2023a[22]; Mims, 2023b[23]). Some suggest that, as in previous technological shifts, more jobs ultimately will be created than destroyed (Kessler, 2023b[24]). Profits certainly could be boosted by enabling such things as "Ship-then-Shop", being able to predict what a consumer will want to purchase and proactively ship it to them before they order it, relying on inexpensive reverse logistics to handle any errors. There are also zero-cost, targeted stimuli (creative content) – using AI to create pictures, words, music, videos and other content solely through AI, without humans. In AI even intimacy can be replicated, creating a sense of empathy and understanding of a customer's needs, through intelligent chatbots, that consumers believe are genuine, creating customer loyalty (Clement, 2022[25]).

But along with these promising aspects of digitalisation we also see the impact of social media, and its many effects, often negative. Social media, notes author Cathy O'Neil (2016)[26], epitomises what she labels "Weapons of Math Destruction", algorithms that remain obscure "secret sauce", designed to lure customers, distract them and ultimately alienate them from the very need for genuine human interaction with people from different classes and backgrounds. Social media has also been closely tied to rises in personal anxiety, particularly among young women (Twenge, 2023[27]).

These will simply grow with AI. This includes, among younger people, ever shrinking intention spans and a growing intolerance for free speech and democracy itself (Pethokoukis, 2023b[28]). AI also seems likely to expand the current zaibatu-isation of America's economy, the rise of huge, intrusive and rapacious corporations that resemble the great Japanese conglomerates of the pre-World War II era. Traditionally capitalism has done better when there are many competing players; in the last century, measures were taken to slow and even reverse over-concentration. Even in its early days, the noted French analyst Alain Touraine (1971[29], p. 175) a half century ago, saw the rise of a "post-industrial" society as pushing decision-making either to the state or "massive national and international groups". The digital revolution has revived concentration, as the largest emerging corporate interests – Meta, Google, Apple, Microsoft, Amazon, Tencent, Baidu, Alibaba – and a handful of large financial institutions gained unprecedented control over the economy. By 2020, six tech firms, including Tesla, accounted for half the value of the Nasdaq 100, while the five largest tech companies had total revenue amounting to half of those of all US state governments combined (Levy, 2022[30]; Littlejohn, 2021[31]).

AI fits into this current zaibatsu pattern. They have extended their influence to virtually every key field: operating systems, social media, search, and the cloud. For example, Google and Apple account for nearly 90% of all mobile browsers worldwide, while Microsoft by itself controls 90% of all operating system software. Three tech firms now account for two-thirds of all online advertising revenues, which comprise the vast majority of all ad sales (Adgate, 2021[32]; Schechner & Woo, 2021[33]; Statista, 2023[34]).

Small businesses are now waiting to be gutted. Amazon secretly mined sales data from independent sellers who were using the company's e-commerce platform in order to guide Amazon's development of cheaper knock-off products (Mattioli, 2020[35]). The company also plans with Amazon One to create a biometric password that would essentially control all digital actions from purchases to healthcare (Mims, 2023a[36]; Paul, Maglaras, Ferrag, & Almomani, 2023[37]). Google has been fined billions of dollars for giving preferential treatment to its own shopping service on its search site and has been accused by one of its few competitors, the much smaller DuckDuckGo, of manipulating browser extensions to drive customers from rival products (Fortune, 2023a[38]). Apple continues to place strict limits on who can join its App Store and how developers can receive money from apps (Fortune, 2023b[39]; Leswing, 2021[40]).

AI seems likely to bolster this pattern of consolidation. Amazon, Microsoft and Google already dominate the cloud and are now seeking control of underwater cables; in the past decade the large tech giants have boosted their share of undersea cable traffic from less than 10% to roughly two-thirds (Mims, 2022[41]; Richter, 2023[42]). They are also positioned to dominate AI, with firms like Amazon making mega-investments in AI firms (Dickens, 2023[43]; Dotan & Seetharaman, 2023[44]). In 2022 much of the US$42 billion invested into AI firms came from Apple, Microsoft and Alphabet, the parent of Google, which invested US$2 billion. It is largely a big game with enormous costs that only the best financed firms can play (Grant & Weise, 2023[45]; Hodgson, 2023[46]).

AI provides a means by which the mega-zaibatsu grow ever larger. Google, for example, plans to use AI to expand its medical programme (Kruppa & Subbaraman, 2023[47]). The demand for AI products has led non-tech firms, like KMPG, to seek out multibillion tie-ups with Microsoft (Butler, 2023[48]). The very logic behind AI, its reliance on past records and databases, is not ideal for start-ups; its "primary value", notes venture capitalist Martin Casado (2023[49], para. 2), is "to improve existing operations for incumbents that have the resources to invest at the required levels".

This represents a distinct break from the early phases of Silicon Valley. That phase was shaped in large part by often oddball enthusiasts eager to build new products that challenged the existing corporate hierarchy. In the early days of the tech revolution, some imagined an almost utopian, communitarian society on the horizon. The California author Stewart Brand, writing in *Rolling Stone* in 1972, predicted that when computers became widely available, we would all become "computer bums, all more empowered as individuals and as co-operators". It would be a new era of enhanced "spontaneous creation and of human interaction" (Brand, 1972[50], para. 168). The "early digital idealists", notes technology analyst Jaron Lanier (2013[51], p. xii), envisioned a "sharing" web that functioned "free from the constraints of the commercial order".

Instead, a technocratic economy is engendering a new kind of hierarchy, favouring highly skilled technicians and engineers. Their dominance will grow as technology plays an ever-greater role in the economy, while the value of labour further declines. Americans, long enamoured of the entrepreneurial spirit and technological progress, have been slow to see the tech oligarchy as a threat (Oremus, 2018[52]; Smith, 2018[53]). Leftist historians, alert to the dangers of aristocracy, have tended to focus their ire on financial companies that may be large and powerful but are not nearly as wealthy or as influential in shaping the economy as the tech sector, which seeks to capture virtually every other industry, including finance (Streeck, 2016[54]).

This seems to be the inexorable pattern of the tech industry. The Internet initially spawned companies that competed against the giants; in contrast, the new AI firms seem more likely to become satrapies of the current hierarchy, and like hierarchies in general, they have become oppressive towards competitors and far less creative than they once were. The progress towards AI is largely orchestrated from the top of the corporate food chain (Grant & Weise, 2023[55]).

AI also could expand the power of these firms, as well as government, to expand online surveillance. This includes recent efforts by Zoom to feed discussions on that medium to their own AI system (Field, 2023[56]). Already, like it or not, privacy is largely an illusion today, as suits against Google have demonstrated (Fortis, 2023[57]). Virtually everything anyone does is tracked and recorded for the computers, now providing ever more specific fodder for AI databases. The younger generation's acceptance of and fascination with social media systems, which are fuelled and funded through mass surveillance, indicate to us that humans sadly seem willing to make the trade-off of their privacy for some economic or personal advantage. AI is likely to worsen all these trends (Anderson & Rainie, 2023[58]).

Section Three: The Future of Work

Eighty-two per cent of millennials fear AI will reduce their compensation, and they are right to be worried (Garfinkle, 2023[59]). "We may be at the peak of the need for knowledge workers", Atif Rafiq, a former chief digital officer at McDonald's and Volvo, told *The Wall Street Journal*. "We just need fewer people to do the same thing" (Cutter & Torry, 2023[60], para. 3). Tech firms like Meta and Lyft have announced major cutbacks in their white-collar workforce and have warned that these positions are unlikely ever to return. IBM has put its staff hiring on hold while assessing how many of these mid-level jobs can be replaced by AI (Ford, 2023[61]). Similarly, recent studies show that within months of AI's emergence, freelance work in software declined markedly, along with pay. Researchers showed that within a few months of the launch of ChatGPT, copywriters and graphic designers on major online freelancing platforms saw a significant drop in the number of jobs they got and even steeper declines in earnings. This suggested not only that generative AI was taking their work, but also that it devalues the work they do still carry out (Burn-Murdoch, 2023[62]).

So how will AI affect employment? Who will have jobs? Who will lose them? Big tech and venture capital executives like Reid Hoffman promise that AI will serve to the cause of "elevating humanity", while wiping out potentially hundreds of millions of jobs worldwide. Indeed, according to McKinsey, at least 12 million Americans will be forced to find new work by 2030. Two-thirds of business leaders, in a recent survey, suggest ChatGPT will lead to large layoffs of white-collar workers over the next five years (Cutter & Torry, 2023[63]; Ellingrud et al., 2023[64]; Hatzius, Briggs, Kodnani, & Pierdomenico, 2023[65]; Strauss, 2023[66]).

Yet some enthusiasts suggest that AI, as occurred in the past, will end up creating many more jobs than it sacrifices (Kessler, 2023b[67]). However, the approach that makes the most intuitive sense to us is the one promulgated by Kai-Fu Lee, former Google Asia and Microsoft China head, who runs Sinovation Ventures, one of the world's most prolific AI venture funds. Lee created a two-dimensional view of future jobs in his bestselling book *AI Superpowers: China, Silicon Valley and the New World Order*. His key thesis is that the social nature of a job and the discretionary nature of a job will be the key factors underlying AI's impact. If a job is highly formulaic by nature, where there is little room for discretionary decision-making, AI is likely to displace it (Lee, 2018[68]). Likewise, if a job requires no element of human interaction, AI is also likely to replace the human currently doing it.

Fears of an AI robotic takeover were first advanced in 1921 in R.U.R., a play by Czech playwright Karel Capek that birthed the very word "robot". The notion of a potential robotic takeover, powered by AI, has been a theme in the writing of Isaac Asimov and, of course, the Terminator series (Mookerjee, 2016[69]; Robotnik, 2021[70]). Robots have been replacing industrial workers for

over 70 years and has become imperative in countries like Germany where the workforce is aging rapidly (Martinez, 2023[71]).

But eventually robot workers may be able to do more than weld car parts or drill holes. Tech firms are looking to develop what one developer calls "something like your personal AI" (Tong & Dastin, 2023[72], para. 3); others are developing new robotic nannies (Suskind, 2023[73]). AI eventually could even reduce demand for "the world's oldest profession" by removing the need for human sex workers. Even sex – notably through robots – could be outsourced by perfectly compliant, and enhanced, AI-powered machines. As author Glenn Reynolds (2023a[74], para. 5) suggests:

> Imagine sexbots – both male and female – that are aren't just copies of attractive humans, but much more attractive than natural humans. Machine learning could find just the right physical and behavioral characteristics to appeal to humans, and then tweak them for each individual person. Maybe they even release pheromones. Your personal sexbot would be tailor-made, or self-tailored, to appeal to you. It might even be programmed to fall in love with its human. (Would it be "real" love? How could you tell? How could it tell? If you couldn't tell, would it matter?).

Well before these intimate robots emerge, whole job categories seem likely to decline. Take the mundane job of automobile insurance adjusters. These are very procedural, rules-driven jobs with little discretion. In addition, they require almost no human interaction. Jobs like these are likely the first and easiest to be eliminated by AI. Many in the service sector have been long dominated by women, including executive assistants, cashiers, bank employees and office managers (Birkner, 2023[75]; Chen, 2023[76]; Shine & Whiting, 2023[77]; Tong & Dastin, 2023[78]). Warehouse workers will be among the most prominent losers. This also extends to people taking digital orders; Walmart expects to automate its systems with new software and lay off 2000 workers by 2026 (Cavale, 2023[79]; Nassauer & Cole, 2023[80]).

Overall, AI threatens to undermine much of both middle- and working-class employment in the years ahead, as big firms, allied with the emerging AI sector, begin to implement the technology. In contrast to the past, this will not impact largely blue-collar workers. Some jobs have high levels of interaction with humans but are becoming increasingly procedural and formulaic. Take as an example a radiologist. Finding cancer is becoming a highly automated process. However, telling patients that they have cancer, and helping them, prepare themselves for therapy (or worse) is a highly interactive, human-intensive activity. Jobs like these require what Lee (2018[81], p. 156) calls a "human veneer". AI may replace a large portion of the job, or create new specialties within professions, but will not totally replace them.

Ironically many of the new victims created by AI will be within tech professions themselves. Automation of information could prove lethal to "coders" and "symbolic analysts" while people who do jobs maintaining and operating machinery could have a surprisingly bright future. Already new AI programs are allowing software firms to do without lower-level programmers, particularly new hires (Sherman, 2023[82]; Singh, 2019[83]).

"It's the end of the white-collar knowledge work", inventor and AI entrepreneur Rony Abovitz suggests (R. Abovitz, personal communication, August 2, 2023). One study predicts this may particularly affect positions like office assistants, sales executives, HR managers and accountants. Even many "geeks" who write software code may find out that they too are vulnerable to what economists refer to as "skills-based technological change". On the other hand, those few gifted enough to write AI programmes will be highly compensated, at least until the machines figure out how to replace them (Bote, 2023[84]).

Even many "creative jobs" – actors, writers, journalists – could be threatened. Actors and writers could find their identities and creations copied or simply used in derivative products, particularly as AI relies on past work to develop its products (Dugar & Jaiswal, 2023[85]; Foroohar, 2023[86]; Seetharaman & Hagey, 2023[87]). There have emerged concerns, both in the United States and in the United Kingdom, that AI could undermine creative workers, by essentially taking their output and adjusting it in ways that may be free from copyright infringement (Thomas, 2023[88]; Toonkel & Krouse, 2023[89]).

In Southern California especially, it is not just the accountants and rote factory workers but the actors and writers in Hollywood, who feel they are threatened by AI (Anderson, 2023[90]; Chmielewski & Richwine, 2023[91]; Roberts, 2023[92]). After all, as entertainment becomes more digitalised, being an actual human means less, as is evident by the popularity of video games and movies derived from them. You do not need a Shakespeare to write the next Marvel movie or, for that matter, many news stories (Barrabi, 2023[93]; Roberts, 2023[94]).

During the 2023 Writers Guild of America strike in Hollywood, there was much concern about how AI would turn computers into "plagiarism machines" (Chmielewski & Richwine, 2023[95], para. 21). How long before the AI programme ascends from doing box scores and stock quotes to directing opinion on the issues of the day. As Clayton Christensen noted, innovation often enters a field at the bottom and gradually works its way up (Bower & Christensen, 1995[96]; Larson, 2016[97]; Reynolds, 2023b[98]).

Already there are AI-generated influencers, such as Milla Sofia, who have gained 100,000 followers on Tik-Tok. Doubtless much of "her" audience thinks she is real or does not care if she is not (Mather, 2023[99]). This presents a dark fantasy for budding flesh and blood celebrities. Geoffrey Hinton, one of the early developers of AI and former Google executive, quit in large part because of AI's capacity to create convincing false images and texts, creating a world where people will "not be able to know what is true anymore" (AFP, 2023[100]; Narayan, 2023[101], para. 3).

So, who survives the AI onslaught? Certainly a few elite AI engineers could experience a windfall, at least in the near future (Liu, 2023[102]). But the surprising winners could prove to be skilled blue-collar workers, people who engage in hands-on physical jobs like mechanics or oil riggers (Weber & Ellis, 2023[103]). Even in building the next generation of chip plants, for instance, in Ohio, Intel is experiencing at its giant new semiconductor facility being built, not a shortage of hotshot engineers but a dearth of skilled technicians – pipe fitters, machinists, maintenance workers – needed to keep the factory construction moving (Donnan, 2023[104]).

At the very least, the AI revolution should inspire some new thinking about careers. AI is likely to make life harder for a large portion of the "creative class", as they, like people in more ordinary tech and service jobs, find their skills duplicated by new AI, and stuck with increasingly meaningless academic credentials. Rony Abovitz suggests the big winner in the coming years will be the "sophisticated, technically capable blue-collar worker", particularly those who possess the physical skills robots cannot likely duplicate in the next decade (R. Abovitz, personal communication, August 2, 2023). Young people might do well to forget Joe Biden's famous advice to "learn to code" (Kelley, 2019[105], para. 1). Goodbye to "my son the radiologist" or computer geek, and hello to "my son, the plumber".

Section Four: Democracy, AI and the Global Future

One of the great disappointments of the digital era has been the impact on the political economy in the West. Initially the tech revolution was largely seen as an enhancement of the individual and entrepreneurship, but the trend towards consolidation of power in ever fewer hands has continued unabated. AI could further accelerate this feudalisation of our society as the tech oligarchy moves aggressively to dominate the new technology (Grant & Weise, 2023[106]). The Internet has brought convenience and other blessings, but greater equality or prosperity is not one of them (Tett, 2023[107]).

AI threatens to accentuate these divides. Companies like Google, Meta, Microsoft, Tencent, Baidu and Amazon all seem destined to dominate the emerging industry. Open AI, for example, one of the cutting-edge firms in the field, was largely financed by Microsoft, long the tech oligopoly par excellence (Kahn, 2023[108]). Google and Amazon committed US$7 billion to the start-up Anthropic while Microsoft has invested US$13 billion, for roughly half ownership of Open AI, founded by Sam Altman, the AI world's leading guru (Jin & Hagey, 2023[109]; Jin & Kruppa, 2023[110]).

If AI is to expand the dominion of the major tech platforms, perhaps adding one of two players and perhaps eliminating some others, it will simply accelerate the movement of power away from society, or even the free market, to place more power in the hands of ever fewer people. As AI wipes out many middle- and working-class jobs, the only efficient means to prevent social breakdown may be to expand the welfare state, not only to cover those who have historically dependent upon it, but also the majority of people who may now be utterly dependent on the munificence of the even more powerful situation digital elite.

AI raises the prospects of a new class structure where a large portion of the population has been rendered economically redundant. Yuval Noah Harari (2016) sees instead a future where "a small and privileged elite of upgraded humans" gain control of society and use genetic engineering to cement the superior status of their offspring. Their aim will be not to follow God's laws but to become gods themselves, by a kind of directed and accelerated evolution:

> Bioengineering is not going to wait patiently for natural selection to work its magic. Instead, bioengineers will take the old Sapiens body, and intentionally rewrite its genetic code, rewire its brain circuits, alter its biochemical balance, and even grow entirely new limbs. They will thereby create new godlings, who might be different from us Sapiens as we are different from Homo erectus.
>
> *(Harari, 2016[111], p. 50)*

Gregory Ferenstein (2017[112], para. 4), after interviewing 147 digital company founders, concludes that most believe that an "increasingly greater share of economic wealth will be generated by a smaller slice of very talented or original people. Everyone else will come to subsist on some combination of part-time entrepreneurial 'gig work' and government aid". This is reflected in support for a universal basic income by many tech oligarchs – Mark Zuckerberg, Elon Musk, Travis Kalanick (former head of Uber) and AI guru Sam Altman (CEO of Open AI) (Altman, 2016[113]; Caughill, 2017[114]; Haselton, 2017[115]; Holt, 2016[116]; Weller, 2017[117]). Their vision may still promise "abundance", but little work for most (Higgins, 2023[118]).

Of course, even potted plants, with at least a semblance of self-regard, could demand a better deal. Some envision a future where tech and Wall Street wealth is confiscated to fund "fully automated luxury communism" – a leisure society paid for by Apple and its counterparts (Merchant, 2015[119]). Already, roughly half of all Americans support the idea of a guaranteed basic income of about US$2,000 a month if robots put them out of work (Clifford, 2016[120]). Japanese Marxist philosopher Kohei Saito sees re-distribution as a way to as achieve the green goals of "de-growth" and "net zero" without devastating the masses (Goodfellow, 2023,[121] para. 5; Saito, 2022[122], p. 128).

A universal basic income enjoys strong support in most European countries, particularly among younger people (Fitzgerald, 2017[123]). The universal basic income, suggests Scott Santens, a prominent advocate for the concept, provides a social "vaccine" for the twenty-first century (Santens, 2020[124], 2024[125]).

Ultimately society will have to make a choice. We could follow the Roman model where slavery, rather than robots, replaced plebeian citizens, turning them into servile consumers of "bread and circuses". Or we can honour work first and foremost perhaps by focusing on practical skills, as opposed to often meaningless academic credentials, that could be useful in an AI-dominated era, lowering taxes on those with modest incomes and providing support for working parents in terms of day care (Jacobs, 2023[126]; Milligan & Camera, 2023[127]; Terry, 2023[128]).

Section Five: Confronting the Reality of AI

The warnings about AI from its own creators and promoters certainly give pause to the more exuberant claims of some venture capitalists. The rise of artificial general intelligence, or AGI, poses a direct threat, in large part because it seeks to replace ways of enhancing intelligence within humans for the odd comfort of letting machines – mainly controlled by a handful of companies – to the work instead. Notes author Evgeny Morozov: The real risks of AGI are political and will not be fixed by taming rebellious robots. The safest of AGIs would not deliver the progressive panacea promised by its lobby. And in presenting its emergence as all but inevitable, AGI-ism distracts from finding better ways to augment intelligence (Morozov, 2023[129]).

Under the current conditions, Morozov argues, we do not get a more democratic or liberal society, but one defined increasingly by small numbers of powerful firms. In this sense, AI is not so much about technology, but how our society will be transformed with its inevitable adoption. There is much demand among the political class and their allies to control AI but if these discourage Western developers, the likely impact will be to allow Asian countries, notably China, and autocratic regimes like Saudi Arabia to lead in creating an AI environment that, among other things, will be optimised to control society and thought (Murgia, England, Liu, Olcott, & Al-Atrush, 2023[130]). Chinese dominance of AI, warns a recent Brookings Institution study, would allow it to rule the world by 2100 (Gill, 2020[131]).

Despite this, some AI advocates favour collaborating with China, despite the clear risks (Zheng, 2023[132]). Some westerners feel that China's authoritarian structures will keep their technology behind, although this seems a bit overblown and perhaps a trifle arrogant (Gao, 2023[133]). China's AI firms, with strong backing from the government, are already finding ways around sanctions (Hao & Huang, 2023[134]). The Middle Kingdom is not standing still or waiting for Western Godots. Today China does have a lead in some areas, notably surveillance, and in new media algorithms (Weed, 2022[135]).

Clearly, as AI increases the power of companies, it seems prudent to look for ways to protect the rights and autonomy of individuals. Jaron Lanier (2013[136], p. 20) has suggested that in a "world of digital dignity", people would be able to be "the commercial owner of their own data". According to AI pioneer Fei-Fei Li, it lies in how much large corporations will determine the technology; she favours a bigger role for government, universities and non-profits (Bobrow, 2023[137]). Given the history of governments, including the United States, using technology to control populations, this might not be ultimately beneficial. But she rightly suggests the priority of finding ways to use technology to improve society, not just lift a small portion of the population to unimagined heights.

Yet no matter what governments try to decree, AI, even if free in one country, will shape our future, forcing us, as Tyler Cowen (2023[138], para. 27) suggests, to live in moving history. We have little choice but to look at the best ways to employ this technology:

> What kind of civilization is it that turns away from the challenge of dealing with more intelligence … that has not the self-confidence to confidently confront a big dose of more intelligence? Dare I wonder if such societies might not perish under the current watch, with or without AI.

The time to consider how to adjust to AI is now. Currently it is far from being totally effective, and its lack of original thought and reliance on existing data greatly limits its impact; some accuse it of being fundamentally boring (Beutler, 2023[139]; Franzen, 2023[140]; Goldman, 2023[141]; Harrison, 2023[142]). Yet the dangers of an ever-improving AI are clear enough to force many in Washington, Brussels and elsewhere to look for ways to limit its impact (Bose, 2023[143]; Portman & Mulopulos, 2023[144]). This particularly applies to the notion of the "singularity", which some tech advocates see as a new ideal, blending humans and machines (Isaacson, 2023[145]).

Whatever is done administratively, it seems certain that AI will come to dominate much of our economic and even personal lives. A critical question suggests we already see that there is a discordance between technological and human progress. Notes Sohrab Ahmari (2023[146], para. 22):

> Advancement and decay. AI and the opioid holocaust. Machine learning and crumbling bungalows. The internet of things and terrible infrastructure. Smartphones and the scattershot, permanently distracted mind of the American child.

In the long run it may matter if AI comes from America's Google or if China's Tencent will matter, but perhaps not profoundly. The substitution of machines for people will continue, and spread into ever more fields, no matter what regulations are passed. The question may be how much we wish to rely on human creativity, empathy and personal expression in a machine-driven age. In this sense, it is not AI that is the big threat to the human future, but how we consciously choose to integrate it into our lives.

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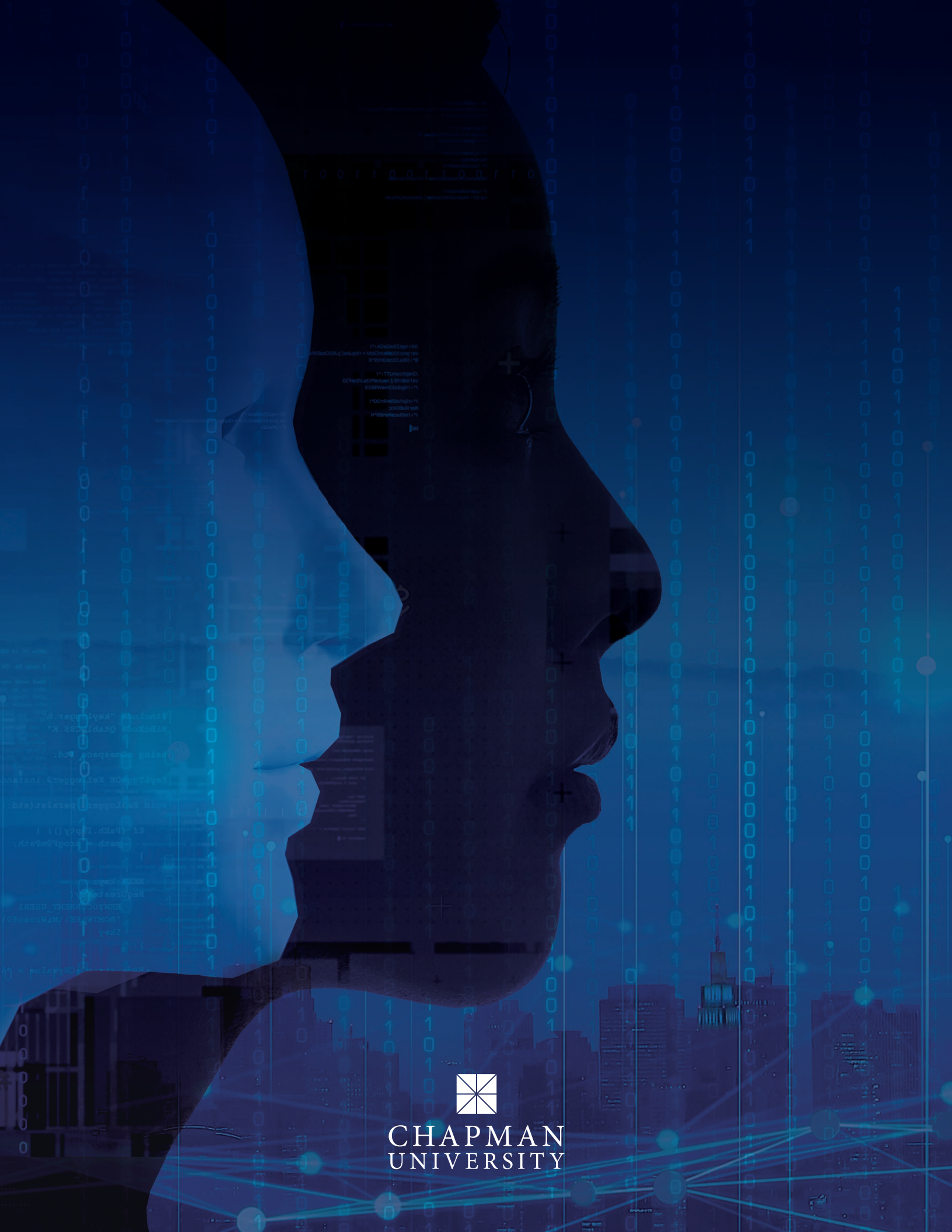
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