

Marketing material

The future's bright, the future's digital

Capital at risk. The value of investments and the income from them can fall as well as rise and are not guaranteed. Investors may not get back the amount originally invested.



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Today's world is shaped by powerful structural shifts – from shifting demographics to the transition to a low-carbon economy.¹ These mega forces create themes that investors can ill afford to ignore. A case in point is our digital future. The progress of digital technology is astounding – with generative AI just the most eye-catching recent example. But many of these technologies are still in their infancy – and new technologies are emerging all the time.

By focusing on the digital future, investors can harness some of the forces that are reshaping both our lives.

So, what are these forces? At iShares by BlackRock, we see seven key themes that are driving our digital future: healthcare, robotics, digitalisation, entertainment, electric vehicles, the 'smart city' and digital security. Here, we'll take a look at two themes, as an example.

Smart cities

Across the world, a vast migration is underway from the countryside to the city. Already, well over half of us live in urban environments. It's estimated that by 2050 more than 8.8 billion people will live in cities. Double of that today at 4.4 billion.²

The largest urban areas are megacities – defined by the UN as areas with populations over 10 million.³ There are already 33 megacities; by mid-century, there will be closer to 50.⁴ The rise of the megacity poses considerable challenges – from congested roads to population density to pollution and waste and will therefore require significant infrastructure, including communication networks (e.g. 5G, fibre), transit and transportation (e.g. metro, bridges), social

infrastructure (e.g. hospitals, schools) and housing.

Enter the smart city. Digital technology offers a whole suite of solutions to the challenges of urbanisation. These cover connectivity, resource efficiency and the wellbeing of citizens. The Internet of Things (IoT) – the interconnection of everyday objects – has a vital part to play in this. Sensors that share real-time data on the location of goods and the volume of vehicles can reduce congestion and the air pollution that arises from it.

Sensor technology can also help to optimise urban energy use. This, along with smart-grid technology, can make cities more habitable, affordable and sustainable. Digital solutions can also help reduce waste, enhance recycling and improve the safety of city streets.

Clearly, city authorities have powerful incentives to employ these technologies – and so the companies that produce them stand to benefit directly from the acceleration in urbanisation.

“Our future is increasingly digital – creating opportunities for investors in areas like smart cities and cybersecurity.”

Digital security

Smart cities show the benefits of our increasingly interconnected environment. But digital solutions also entail vulnerabilities. As our world becomes more closely connected, it also becomes more exposed to cyberattack.

The projected growth in the IoT illustrates this risk. At the end of 2021, 11.3 billion⁵ devices were connected to the IoT. But by 2030, this number is expected to almost triple to 29.4 billion.⁶ That chain of devices can work wonders in improving logistics and quality of life – but each of those devices could be a weak link.

Essentially, the more that our daily life is digitalised, the more we need cybersecurity to keep us safe. Cybersecurity spans the protection of our privacy, our finances and the myriad cloud-based applications on which we increasingly depend. The pervasiveness of social networking

adds to the risks even as it improves our working and social lives. And the rise of working from home during the Covid pandemic is another consideration; to facilitate remote working, employers need secure and reliable systems.

For businesses, institutions and governments, the stakes are high. Data breaches can have far-reaching legal and financial consequences. In 2022, the average cost of a data breach was US\$4.35 million, 12% higher than in 2020.⁷

The sources of cybercrime include not only profit-driven criminals but also thrill-seeking hackers and nihilists who want to cause havoc for havoc's sake. Businesses may face threats from competitors, and terrorists present a more wide-ranging danger. And malign state actors may engage in digital sabotage too.

Regulators and lawmakers are alert to the threat of cybercrime, and regulation and legislation will add further impetus to the investment case in companies that offer cybersecurity systems and solutions.

Investing in our digital future

iShares' Digital Future range of thematic ETFs allows investors to gain exposure to the themes reshaping our world such as companies responsible for shaping sustainable cities of the future, or those across cybersecurity providers, hardware manufacturers, and physical security firms helping to keep our digital data secure.

To find out more about iShares' Digital Future range, visit our website or reach out to your local iShares' representative.

FOOTNOTE

- 1 BlackRock Investment Institute, October 2023
- 2 How has the world's urban population changed? | World Economic Forum [weforum.org]
- 3 World Urbanization Prospects The 2018 Revision [un.org]
- 4 Chart: The World's Next Megacities | Statista
- 5 Global IoT Forecast Report, 2021-2030, 25 July 2022
- 6 Global IoT Forecast Report, 2021-2030, 25 July 2022
- 7 The Latest Cyber Crime Statistics (updated October 2023) | AAG IT Support [aag-it.com]

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