

Overview of the 2016 White Paper on Information and Communications in Japan

Part 1 Special Theme — IoT, Big Data, and AI: New Values Created by Networks and Data

Part 1 looks at the progress of IoT, big data, AI, and other new forms of ICT and provides a perspective on the transformations new forms of ICT will bring to society and the economy.

Chapter 1 ICT-based Innovation and Economic Growth

Chapter 1 sorts out the paths by which the IoT, big data, AI, and other new forms of ICT contribute to our nation's economic growth from both the supply side and the demand side. For each of these paths, the potential effects of ICT on economic growth are verified quantitatively, interspersed with examples and the current state of initiatives by enterprises. The chapter ends with a consideration of the non-monetary values (consumer surplus, etc.) brought about by ICT.

Chapter 2 Analysis of ICT Industrial Trends in the IoT Era

Chapter 2 organizes the overall structure of the ICT industry, which is expected to contribute to economic growth, given IoT progress, and provides quantitative verifications of the size, growth potential, and competitive environment of ICT device and service markets.

Chapter 3 New Products and Services in the IoT Era

Chapter 3 takes up FinTech and the sharing economy, which are now drawing attention as new ICT devices and services in the IoT era, and analyses their current conditions and issues, with reference to an international survey on consumer awareness and intention to use FinTech and sharing economy services. The chapter also introduces cutting-edge examples of ICT applications in medical care, education, and other public sectors and discusses ICT applications used in the Kumamoto earthquakes.

Chapter 4 ICT Progress and Future of Work Styles

Chapter 4 covers artificial intelligence, and its rapid progress, after summarizing the impact ICT progress will have on employment and work styles. The chapter investigates the changes in required skills and approaches needed in education and human resources development for the future, interspersed with the current state of AI and comparisons between surveys of Japanese and U.S. workers.

Part 2 Basic Data and Policy Directions

Chapter 5 Basic Data on the ICT Field

Chapter 5 lists a wide array of up-to-date statistical data on the current state of Japan's ICT, with a focus on results of surveys conducted by MIC.

Chapter 6 ICT Policy Directions

Chapter 6 presents the latest developments in Japan's ICT policy, with a focus on initiatives by MIC.