UNESCO Activities in Japan
Towards Achieving the SDGs

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What is happening now? - Breakthroughs of technologies -

- **IoT** All the information on businesses in the real world is digitalized and could be exchanged through the Internet.
- **Big Data** Large amount of data could be collected, analyzed, and utilized for creation of new value.
- **Artificial Intelligence (AI)** Computer could learn itself and is capable of advanced judgment beyond human beings.
- **Robot** Robotics enables automation of diverse and complex tasks.

→ New society, which is thought not to be realized, could be realized.

Both industrial and employment structures could dramatically change.

Increase of Data volume
The data amount in the world doubles every two years.

Improvement of Processing Performance
Processing performance of hardware improves exponentially.

Disruptive Progress of AI
AI technology disruptively progresses through deep learning and other technologies.
What is “Society 5.0”?

- Realize the advanced fusion of cyberspace and physical space
- To balance economic advancement with the resolution of social problems
- Bring about a human-centric society

Current society

Knowledge and information are not shared and cross-sector value is difficult to create.

IoT will connect all people and things, all sorts of knowledge and information will be shared, and totally new value will be born.

Social issues will be overcome and humans will be liberated from various types of constraints.

Current society

A variety of constraints exist with respect to social problems such as the aging society and regional depopulation, making a sufficient response difficult.

With an overflow of information, the work of finding and analyzing the information desired is difficult and burdensome.

AI will free humans from the burdensome work of analyzing huge amounts of information.

The possibilities open to humans will expand through the use of robots, automatic-driving cars, etc.

Current society

People do a large amount of work, their abilities had limitations, and the behavior of the physically challenged is constrained.
Through the reforms for high school education, university education, and the selection of university entrants undertaken in the reform of the articulation of the high school and university systems, the certain fostering and evaluation of the capabilities necessary for the leaders who will build sustainable societies, and the integrated reforms of these three areas are essential. We are steadily moving forward with efforts for these reforms.
How can I lead a better life and how can I interact with society and the world?

Motivation to learn (including meta-cognitive skills, self-regulation), humanities etc.

What do I know? What can I do?

knowledge and skills

How can I use what I know and can do?

Ability to think, make decisions, express one’s thoughts

Three Pillars of Competencies Required in Each Subject
By fostering the leaders and citizens who will build sustainable societies, ESD contributes to the achievement of all the SDGs.

-Reaffirms education for sustainable development as a vital means of implementation for sustainable development, … and as an integral element of the Sustainable Development Goal on quality education and a key enabler of all the other Sustainable development Goals. (Resolution of UN General Assembly 72/222.)

In Japan, ESD is promoted at every stage of school education, from primary and secondary education to higher education.

The Third Basic Plan for Promotion of Education (Approved by the Cabinet in June 2018)
Part II  Aims of education policies and policy measures for the next five years

Primary and Secondary Education – Japan will enhance the activities of UNESCO Associated Schools, which have been positioned by Japan as the hubs for promoting ESD, and will disseminate successful ESD cases and good practices throughout Japan. The government will promote the practice and diffusion of ESD and exchanges among schools in order to deepen awareness and understanding of ESD. Through these efforts, future leaders who will build a sustainable society will be fostered.

Higher education – The government will promote the implementation of ESD through cooperation among diverse regional stakeholders (schools, boards of education, companies, NPOs, social education facilities, etc.) and deepen awareness of ESD to contribute to the achievement of the SDGs through interdisciplinary efforts. Through these efforts, young people will consider global problems as their own, and by thinking globally and acting locally, they will become leaders who will build a sustainable society.
The UNESCO Associated Schools Project Network (ASPnet) in Japan

ASPnet schools are hubs to promote ESD in Japan.

MEXT and the Japanese National Commission for UNESCO have positioned the UNESCO ASPnet Schools as hubs to promote ESD and are working on increasing the number of member schools. In addition, guidelines for ASPnet Schools have been prepared in order to ensure their quality.

No. of schools

Total number: 1116 ASPnet schools as of August 1st, 2019
Society 5.0 is a grand concept to realize a human-centric society through the utilization of STI, especially AI technology. AI Strategy is being formulated based on “AI social principles”, which shares desired future visions with the society.

**Proposal of Japan’s AI Strategies**

* Takes discussion prior to other issues as it is one of the most important pillars to sustain the society.

**Education and Human Resource Development**

- **Expert**
  - Global opportunities for young researcher
  - AI schools for Project Based Learning

- **Applied foundation**
  - Double Majors (AI X Specialized fields)
  - Solution of actual problem of local area
  - Recurrent Education for workers.

- **Literacy**
  - Official Certification to excellent educational programs
  - Deploy ICT Experts for each High School
  - Provide one PC/Tablet for each Student

<table>
<thead>
<tr>
<th>Level</th>
<th>Target (persons / year)</th>
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<tbody>
<tr>
<td>Top level</td>
<td>100</td>
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<tr>
<td></td>
<td>2,000</td>
</tr>
<tr>
<td>250,000</td>
<td>(University, College 50%)</td>
</tr>
<tr>
<td>500,000</td>
<td>(University, College 100%)</td>
</tr>
<tr>
<td>1,000,000</td>
<td>(High School 100%)</td>
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Deployment to Real-World

◆ Lead the world in the social implementation with human-centric approach

Agriculture

Healthcare

Mobility

Resilience

Regional revitalization (Smart City)
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Research & Development

◆ Establish AI research and development network

Launch of core R&D

- Next-generation AI technologies
- Innovative Hardware for AI
- AI for Inclusion Technologies
- AI for Real-World Industries
# Proposal of Japan’s AI Strategies

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## Digitalization of Government

**Digital-First**
- Electric application system to all administrative procedures.
- Set data requirements instead of format and style requirements.

**Inclusive (Digital Divide)**
- Support to improve digital literacy
- Design human-centered/oriented digital services

**One-stop**
- Promote one-stop services for procedures of “elderly care”, “death and inheritance”, “moving”, and “social insurance and tax”, etc.

**Once-only**
- Realize “Once-only” environment in administrative procedure

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**Principles of Digital Transformation Bill (submitted)**

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Next-Generation Schools with Advanced Technology

- Individually tailored AI drills
- Effective group learning
- Hospitalized children Learning with their classmates
- Mutual learning with children in other communities
- Remote-controlled high school/university articulation
- Efficient school duties
- Teacher training
- Material and instructions tailored to each teacher and child
- Provide high-quality class content
- Increase efficiency of school duties
- Best mix of teachers’ acquired knowledge and scientific perspective
- Use optimal cutting-edge technology to achieve learning that draws out the child’s strengths
- Support effective learning of primary and secondary students
- Effective instruction based on analysis of various collected data
- Security of education data portability
- Efficient school duties
- Next-generation schools

Next-Generation Schools with Advanced Technology

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Your everyday life will make a future.

Thank you