

For significant contribution to the research and development of non-visual user interfaces, and to the realization of information accessibility



Dr. Chieko Asakawa

Positions and Organizations :

IBM Fellow
 Chief Executive Director, The National Museum of Emerging Science and Innovation
 IBM Distinguished Service Professor, Carnegie Mellon University

Degree : Doctor of Engineering
 (The University of Tokyo, 2004)

Date of Birth : 21 November, 1958

Brief Biography :

1982 BA, Department of English Literature, Otomon Gakuin University
 1985 IBM Research - Tokyo, IBM Japan
 2004 PhD, Department of Advanced Interdisciplinary Studies, Graduate School of Engineering, The University of Tokyo
 2009 IBM Fellow
 2014 IBM Distinguished Service Professor, Carnegie Mellon University
 2018 IBM Fellow, T.J. Watson Research Center
 2020 Fellow, Research Center for Advanced Science and Technology (RCAST), The University of Tokyo
 2021 Chief Executive Director, National Museum of Emerging Science and Innovation (Miraikan)

Other distinctions include NAE member, IPSJ Fellow

Main Awards and Honors:

1999 METI Minister's Award
 2003 Women in Technology International Hall of Fame
 2009 Information Processing Society of Japan Kiyasu Special Industrial Achievement Award
 2010 The Society of Women Engineers Achievement Award
 2011 Anita Borg Institute Women of Vision Award
 2011 Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology Japan in the category of development
 2012 Japan Braille Library Honma Kazuo Culture Award
 2013 Medal of Honor with Purple Ribbon
 2015 Umeko Tsuda Award
 2016 Tateishi Prize Special Achievement Award
 2019 U.S. National Inventors Hall of Fame
 2020 AFB Helen Keller Achievement Award
 2022 ITU Association of Japan ITU-AJ Special Achievement Award

Main Achievements :

Dr. Chieko Asakawa lost her sight at the age of 14 due to an accident at a swimming pool, but since then she has led numerous projects as a researcher to support the visually

impaired and in research to realize information accessibility (enabling anyone, not just the disabled and elderly, to access information and communicate) and has also worked to raise awareness in this field.

After graduating from Otomon Gakuin University in 1982, she completed a course in information processing for the visually impaired at Nippon Lighthouse. She joined IBM Japan in 1985 where she was engaged in the research and development of assistive technologies for the visually impaired, developing a Japanese digital Braille system and other assistive technologies.

In 1997, she developed IBM Home Page Reader, the world's first practical voice browser for the visually impaired. This was subsequently commercialized in 11 languages around the world and led to a dramatic improvement in the means of access to information for the visually impaired around the world. In 2004, she developed and released free of charge aDesigner, a tool that supports web page creators through visual impairment simulations and automatic usability checks so that the visually impaired and elderly can easily access and use web pages.

In 2009, Dr. Asakawa was appointed an IBM Fellow, and in 2014 she moved to the United States as a visiting professor at Carnegie Mellon University (CMU). She has led research on applying AI technology to assist the visually impaired and has promoted research and development of technology that supports the improvement of the quality of life of visually impaired people in their everyday lives. She developed Nav Cog (known as "Inclusive Navi" in Japan), a high-precision voice navigation system that provides seamless guidance, whether indoors or outdoors and has worked to improve navigation for the visually impaired and put it to practical use.

More recently, she has promoted the development of an AI suitcase as an integrated solution for mobility and communication support using AI and is conducting trials for its implementation with the aim of realizing an inclusive society in which people with and without disabilities can live together while recognizing each other and their individuality. Furthermore, she has been the Chief Executive Director of the National Museum of Emerging Science and Innovation since 2021 where she is actively engaged in activities to connect society with the science and technology that will create the future.

For these accomplishments, Dr. Asakawa has received numerous national and international awards, including the Medal of Honor with Purple Ribbon in 2013. She was also inducted into the U.S. National Inventors Hall of Fame in 2019.

In recognition of her contributions to the research and development of non-visual user interfaces and the realization of information accessibility, Dr. Chieko Asakawa is hereby awarded the Okawa Prize in honor of her achievements.