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# “Universal Access” for All: Disability Mainstreaming in Web Development



Knowledge-Exchange Video

<https://youtube.com/watch?v=G7dNku7mmw8>

The project entitled ‘ “Universal Access” for All’ is an innovative educational platform developed under the lead of Prof. T.H. Tse, Honorary Professor at HKU’s School of Computing and Data Science This initiative focuses on two crucial principles: Universal Design and Modern Web Design, and demonstrates a significant social impact by promoting inclusion for web developers with profound disabilities.



**[Professor T.H. Tse](#)**

Universal Design emphasises that facilities for both individuals with disabilities and the mainstream population should be synchronously planned, designed, developed, and implemented. This proactive approach ensures that barrier-free access is integral to the development process, creating an inclusive environment where all users can thrive.



**Universal Design**

Modern Web Design highlights essential principles such as minimalism, grid-based layouts, accessibility, and responsive design. These elements come together to produce websites that adapt seamlessly to various devices and screen sizes—from desktops and laptops to tablets and smartphones. By utilising tools like WordPress and AI plugins, even novice developers can implement these features without extensive coding skills, making the platform more accessible to individuals with minimal technical experience.



The screenshot shows a website header with logos for '香港復康聯盟' (Rehabilitation Alliance Hong Kong) and '平等機會委員會' (Equal Opportunities Commission). The main title is '“Universal Access” for All' and the subtitle is 'Web-Based Education and Promotion Platform on Universal Accessibility Environment'. The text discusses the need for accessible environments for an aging population and the importance of universal design. An illustration on the right shows a globe with various accessibility icons like a wheelchair, a person with a white cane, and a person with a hearing aid.

香港復康聯盟  
Rehabilitation Alliance Hong Kong

Funder: 平等機會委員會  
EQUAL OPPORTUNITIES COMMISSION

## “Universal Access” for All

### Web-Based Education and Promotion Platform on Universal Accessibility Environment

The world is experiencing an aging population. Apart from the elderly, there are many other groups that require accessible environments and services, including individuals with long-term or temporary disabilities, pregnant women, and families with young children. The demand for accessibility in society is expected to continue to grow. In addition to promoting “barrier-free” environments, society has further emphasised the application of “universal design” in recent years. This approach highlights the importance of implementing user-centric designs from the initial design stage to make environments and services more accessible, catering to the diverse needs of users across different ages, abilities, and life stages.

However, our advocacy work has revealed that many professionals in the construction industry do not understand the distinction between “barrier-free” and “universal accessibility” . They also lack the understanding of the needs and challenges of different groups of people, including persons with disabilities.

## [The Knowledge-Exchange Website](#)

A key component of the “Universal Access” project is the training of people with profound disabilities in advanced techniques, including web design and metamorphic testing (MT). MT allows developers to identify hidden faults in platforms like WordPress by exploring multiple execution paths. This training not only equips participants with valuable skills but also supports them in securing job opportunities in the tech sector.

With the involvement of key NGOs, including the Rehabilitation Alliance Hong Kong (RAHK), Accessible IT Development Association, and Dreams Come True Foundation, along with funding by the Equal Opportunities Commission, the project is making a profound social impact. By fostering awareness of Universal Design and training individuals with disabilities, ‘ “Universal Access” for All’ serves as an inspiring model, encouraging those facing challenges to maintain a positive outlook and pursue their goals. Through this knowledge exchange, the project is paving the way for a more inclusive landscape.



**Part of the RAHK Team (Photo Taken with Miss Rosanna Law, Secretary for Culture, Sports and Tourism)**