Classification and Terminology of Assistive Products
- Current Topics of ISO 9999

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Assistive Products Seminar
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高齢者のサポートのロボットなど視察　鎌倉でスウェーデン国王夫妻

来日しているスウェーデンのカール十六世グスタフ国王夫妻が二十五日、鎌倉市今泉台町内会館などを訪れ、暮らしに役立つ商品やサービスを、住民と企業、大学、行政などが一緒に生み出す活動「リビングラボ」の取り組みを視察した。

リビングラボは欧州を中心に広がっている。高齢化率が約4.5％と市内でも高い今泉台では、町内会や住民でつくるNPO法人「タウンサポート鎌倉今泉台」、東京大高齢社会総合研究機構などが昨年一月、本格的に始めた。これまでは、タブレットを使った高齢者の見守りサービスのソフトや、健康状態をモニターできる家電の試作などに協力して取り組んでいる。
Assistive products have potential to make dramatic changes on users’ lives.

Life is so complicated !!!
There are many stakeholders related to the assistive product innovation.

Communication with each other is very difficult!

In order to improve assistive product innovation,

- Shared awareness
- Common language

ISO9999: Standard of Classification and terminology
ISO/TC173/SC2

- Secretary: Tsuyoshi Nakayama (Japan)
- Chair: Takenobu Inoue (Japan)
- WG: WG12 [Convener: Mary Petersen (Denmark)]
- Standard: ISO9999:2016 Assistive products for persons with disability – Classification and terminology
- Project: Revision of ISO9999 WD stage

WHO-FIC (Family of International Classification)

- International Classification of Diseases (ICD)
- International Classification of Functioning, Disability and Health (ICF)
- International Classification of Health Interventions (ICHI)

Related classifications are those that partially refer to reference classifications, or are associated with the reference classification at specific levels of structure only.

Derived classifications may be prepared either by adopting the reference classification structure and categories, providing additional detail beyond that provided by the reference classification, or they may be prepared through rearrangement or aggregation of items from one or more reference classifications.

Source: WHO
Classes (ISO9999:2016)

- 04 Assistive products for measuring, supporting, training or replacing body functions
- 05 Assistive products for education and for training in skills
- 06 Assistive products attached to the body for supporting neuromusculoskeletal or movement related functions (orthoses) and replacing anatomical structures (prostheses)
- 09 Assistive products for self-care activities and participation in self-care
- 12 Assistive products for activities and participation relating to personal mobility and transportation
- 15 Assistive products for domestic activities and participation in domestic life
- 18 Furnishings, fixtures and other assistive products for supporting activities in indoor and outdoor human-made environments
- 22 Assistive products for communication and information management
- 24 Assistive products for controlling, carrying, moving and handling objects and devices
- 27 Assistive products for controlling, adapting or measuring elements of physical environments
- 28 Assistive products for work activities and participation in employment
- 30 Assistive products for recreation and leisure

Code (ISO9999:2016)

- The classification consists of three hierarchical levels: classes, subclasses and divisions.
- The code consists on class level of one pair of digits, e.g., 12 Assistive products for activities and participation relating to personal mobility and transportation, on subclass level of two pairs of digits, e.g., 12 22 Manual wheelchairs, and on division level of three pairs of digits, e.g., 12 22 03 Bimanual handrim-propelled wheelchairs.
- ISO9999:2016 has 12 classes, 132 subclasses and 801 divisions
Scope (ISO9999:2016)

This International Standard establishes a classification of assistive products, especially produced or generally available, for persons with disability.

Assistive products used by a person with disability, but which require the assistance of another person for their operation, are included in the classification.

The following items are specifically excluded from this International Standard:

– items used for the installation of assistive products;
– solutions obtained by combinations of assistive products that are individually classified in this International Standard;
– medicines;
– assistive products and instruments used exclusively by healthcare professionals;
– non-technical solutions, such as personal assistance, guide dogs or lip-reading;
– implanted devices;
– financial support.

Definition of Assistive Product (ISO9999:2016)

assistive product

definition (ISO9999:2016)

any product (including devices, equipment, instruments and software), especially produced or generally available, used by or for persons with disability

– for participation;
– to protect, support, train, measure or substitute for body functions/structures and activities; or
– to prevent impairments, activity limitations or participation restrictions
Current topics

1) Definition of assistive products.
2) Harmonization to ICF.
3) Classification of novel assistive products; e.g. APs with robotic technology, cognitive APs and multifunctional APs.
4) Assistive product services.
5) Use of ISO9999 in another classification
ISO9999:2016 Assistive products for persons with disability – Classification and Terminology

“assistive product”
any product (including devices, equipment, instruments and software), especially produced or generally available, used by or for persons with disability
– for participation;
– to protect, support, train, measure or substitute for body functions/structures and activities; or
– to prevent impairments, activity limitations or participation restrictions

Discussion between TC173/SC2 and WHO-GATE

ISO9999:2016 Annex B
any product (including devices, equipment, instruments and software), especially designed and produced or generally available, whose primary purpose is to maintain or improve an individual’s functioning and independence and to facilitate participation.

This definition includes assistive products, which are used to protect, support, train, measure, or substitute for body functions, structures and activities, as well as assistive products to prevent avoidable impairments, activity limitations and participation restrictions.

Current topics

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Robotics and ICT

- Definition of robotics and assistive products?
  - Terminology:
    “Assistive products with robotic technology”?
    Definition: ????
    Classification: Include new products into ISO9999 as much as possible

- Standardization of multi-functional products?
- Specific products or universal design products?
  - Classify based on the current principal

Principle of classification (ISO9999:2016)

The classification is based on the function of the products being classified.

In particular, it should be noted that assistive products, which are used exclusively for training in skills, are included in class 05. Assistive products that have a principal function other than training, but which can also be used for training, are included in the class covering their primary function.

Software is classified at the division level of the class relating to its function.

Multifunctional products are also classified based on the primary function. References may be added related to secondary functions of the item.
Cognitive assistive products

- TC173/WG10 sent their proposal to TC173/SC2/WG12
- TC173/SC2/WG12 and TC173/SC2 discussed it at this meeting in Nairobi.
- A new class for assistive products to support cognitive and understanding skills was proposed.
- TC173/SC2/WG12 and TC173/WG10 will continue to discuss this issue for the next revision.

Current topics

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We welcome collaboration with other SCs or WGs!

Thank you very much for your attention!

Asante sana kwa mawazo yako!