Universal Design

Basic Approach

Approach

The Toppan Group pursues diversity and inclusion (D&I) through three approaches: management, rewarding work, and business. For business, the Group creates universal design (UD) products and services by embracing UD as a viewpoint to practice D&I principles.

Toppan first launched its UD packaging consulting service back in 1999. Two years later, the Group formulated Toppan's Six Principles on Universal Design, a series of principles to guide the development of products and services that value diversity throughout the business fields. Ten years later, in 2010, the Group announced the Toppan Declaration on Universal Design and revised the six principles into Toppan's Seven Principles on Universal Design. A set of Guidelines for Universal Design in communication design and packaging was also formulated under the seven principles. In 2020, Toppan consolidated its UD businesses into "D&I solution," an enterprise that continues to provide a widening scope of services.

TOPPAN Universal Design

Corporate Philosophy → Toppan Declaration on Universal Design → Toppan's Seven Principles on Universal Design → Guidelines for Universal Design

Toppan Declaration on Universal Design

The starting point of our Universal Design is
the provision of dedicated products and services realized through compassionate consideration of users.

By engaging in repeated dialogues with people from all walks of life and consistently incorporating the ideas of each person,
we will create dedicated products that are
comfortable, easier-to-use, and environment- and human-friendly.

As a corporation extensively involved in human life,
we will help realize a society with a high appreciation of diversity through approaches to Universal Design.

Established in April 2010

Toppan's Seven Principles on Universal Design

1. Design products and services that are more responsive to people with different physical abilities and perceptions.
2. Facilitate communication using multiple channels for communication, including visual, aural, and tactile channels.
3. Make products easier to use by making them easier to understand.
4. Make products that are easier to move, easier to approach, and require less strength (remove the physical burdens).
5. Design products that are safe to use procedurally, functionally, structurally, materially, and environmentally.
6. Provide products at a reasonable price and in the amounts required by society.
7. Engage in design that appeals to the senses with consideration for comfort, enjoyment, and beauty.

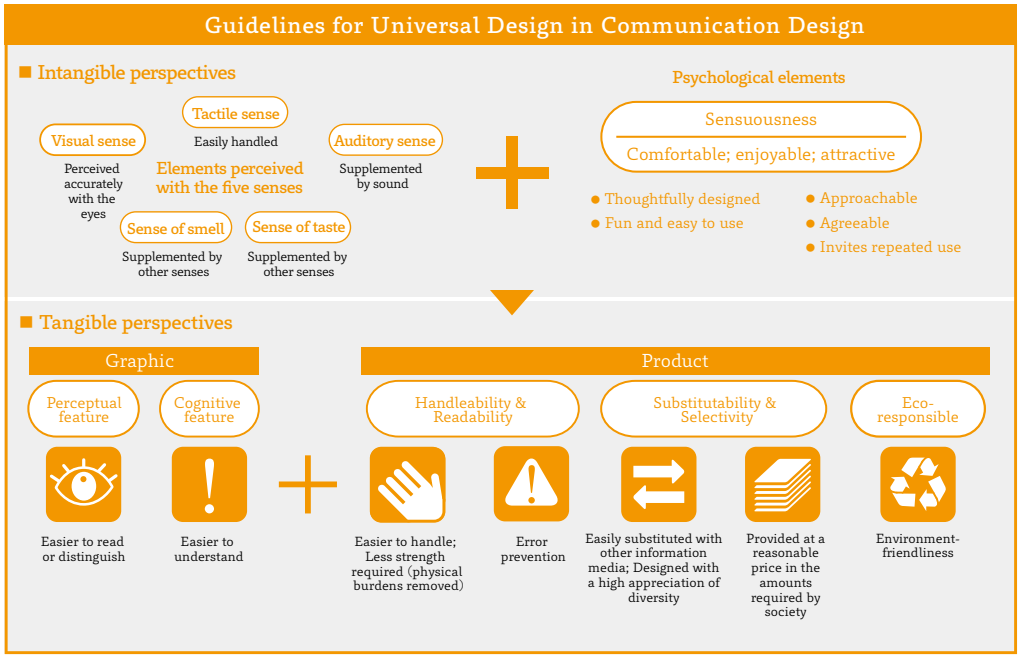
Established in 2001
Revised in April 2010

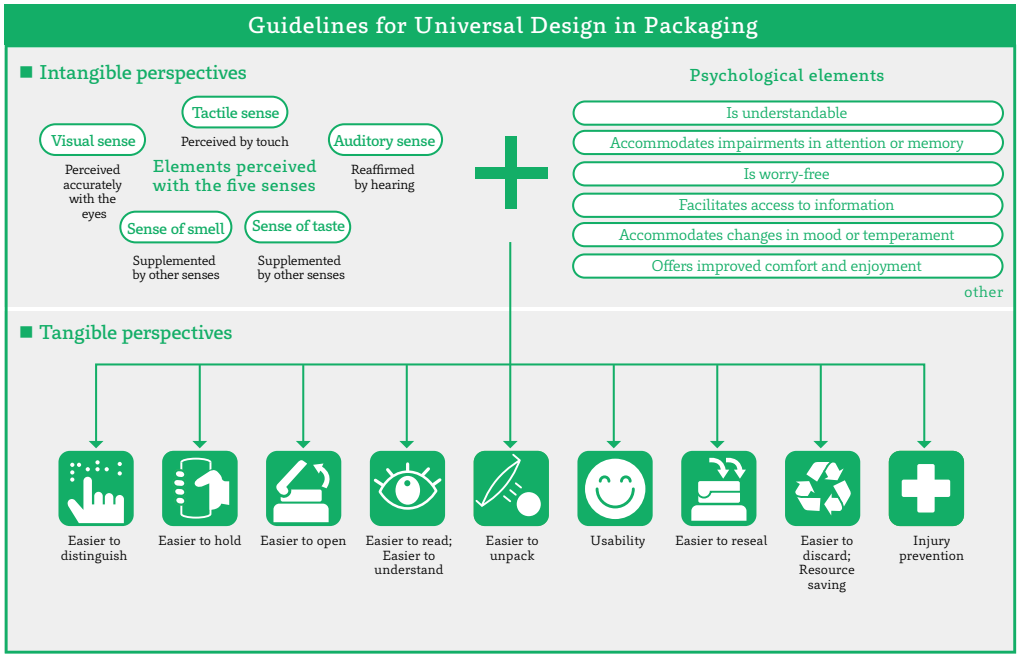
Action Policy

Policy

Toppan's Guidelines for Universal Design

The Toppan Group has been developing products and services based on its Guidelines for Universal Design in communication design and packaging.





Initiatives in Fiscal 2021

Activity results, performance data

Communication Design

Multilingual Digital Assistant BotFriends® Vision

Barrier-free Signage for Interfacing with AI



The BotFriends® Vision signage system is a multilingual, AI-powered digital assistant that provides users with audio, text, and image guidance optimally matched to their queries.

BotFriends Vision serves up both AI-generated wisdom and real-time answers from human service representatives working remotely. Designed in consideration of people in wheelchairs, the BotFriends Vision terminals offer helpful guidance at public and commercial facilities.

Initiatives for Fiscal 2021

Demo BotFriends Vision Terminal Installed at Osaka-umeda Station





BotFriends Vision was selected by Hankyu Railway for a long-running test on customer guidance. A BotFriends Vision terminal installed at Osaka-umeda Station from July 2021 to March 2022 automatically responded to inquiries from passengers. Visitors to the terminal received information on train services, transfers, station facilities, and the complex geography of the Osaka-umeda area. The contactless CleanTouch Display helped ensure safety and offered enhanced convenience and hospitality for rail passengers.

VoiceBiz®

Speech Translation App for Smooth Multilingual Communication



An intuitive, easy-to-use, voice-based translation service supporting 30 languages. Users can register proper names and fixed phrases. The VoiceBiz® application has a reverse translation function to help users check whether the delivered translation expresses what they want to say. Helpful for serving customers at counters and in stores and for providing business support for workers from other countries.

Initiatives for Fiscal 2021

VoiceBiz Customized for Tea Ceremonies

Terminology specific to the tea ceremony and etiquette is registered on VoiceBiz for use in related courses at Vietnam-Japan University in Vietnam.

Toppan and the Japan-Vietnam Tea Ceremony and Cultural Exchange Association have donated bilingual texts to Japan's National Institute of Information and Communications Technology to support its translation database and R&D on AI translation technology. Toppan encourages public and private-sector organizations in Japan and Vietnam to introduce VoiceBiz as a tool for cultural exchange between the countries.



VoiceBiz in use in the tea ceremony course



Customized phrases for the tea ceremony

IoA Virtual Teleportation®

Remote Experiences via Avatars and Robots

Based on the concept of the Internet of Abilities (IoA), the IoA Virtual Teleportation® technology allows people to transcend physical constraints online and enjoy remote experiences through an avatar or robotic twin in distant locations.



Initiatives for Fiscal 2021

IoANeck® Launched for Remote Experiences

An advanced wearable developed by Toppan. Worn around the neck like a necklace, IoANeck® enables the sharing of experiences from remote locations. Toppan has officially launched an IoA remote experience service pack for IoANeck as a tool for easily introducing services designed for IoA Virtual Teleportation, a technology that gives remote users the feeling of being physically present. The service pack has already been applied for business uses such as factory and showroom tours, business meetings, and factory safety inspections.



Remote brewery tour in collaboration with TIS Inc.



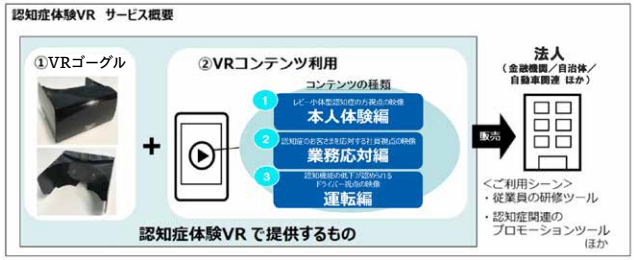


Remote safety inspection and training

VR Experience of Dementia

An Interactive Tool for Understanding Dementia Sufferers

A smartphone and paper-based VR goggles give users a simulated feeling of having dementia or of serving a customer with dementia. This VR simulation explains dementia and presents keys for serving customers affected with the condition. VR experiences facilitate viewer understanding of the behavior of dementia sufferers and help viewers learn how to support them.



Service overview of the VR dementia experience (in Japanese)

Initiatives in Fiscal 2021

Dementia Experience VR for Free in Tokyo

The Tokyo Metropolitan Government's Bureau of Social Welfare and Public Health distributed VR content enabling an experience of dementia to promote awareness (application period ended on November 30, 2021). Leaflets and paper-based VR goggles were sent free of charge to Tokyo residents who wished to learn more about dementia. The simulated experience helped people understand how it felt to suffer from dementia.





DentatsuClinic®

Universal Info Design for Enhanced Communication

DentatsuClinic® is a total solution for enhancing the understandability of corporate messages. The solution covers all aspects of a message, from visual elements such as the font, font size, and color schemes to things like the page structure, the appropriateness of the text expressions and information stated, and the user's affinity with the corporate branding. DentatsuClinic helps both the receivers and senders of information.

Related site (in Japanese)
https://solution.toppan.co.jp/creative/service/dentatsuclinic.html



Initiatives in Fiscal 2021

In response to growing interest in developmental disabilities, the solution has been enhanced by updating expertise in expression in consideration of various cognitive characteristics, along with issues to do with gender and sexual diversity. A workshop on leaflet communication in a diverse society was also held for employees of clients engaged in catalog design and production.

To support the official DentatsuClinic website launched in December 2021, Toppan lectured at an external seminar held in January 2022 on the concept of Editorial Universal Design (E-UD), the basis for the DentatsuClinic solution. The knowledge base on E-UD was expanded to the public through the meaningful exchange of information at the seminar. Toppan will continue to enhance the Group's know-how through exchanges with outside experts and work to improve communication in society at large.

Packaging Design

Easier-to-Use, Paper Container for Oil

People- & Earth-friendly Packaging

A drip-resistant, paper-based cooking-oil container with a double cap to adjust the poured volume to suit the use. The “Hold here!” mark and the grooves embossed on the sides make the container easy to hold.

The empty container can be easily collapsed along the folding lines into a compact form, reducing the waste volume by almost half.

Compared to conventional plastic bottles with the same capacity, this eco-friendly container cuts plastic use by over 60% and associated CO_2 emissions by 26% or more.



Tube-Pouch™

Effortlessly Squeezable Package

A tube-shaped pouch made with a film processed into a cylindrical shape and a molded plastic spout attached to the tip. The uniquely shaped spout and a body film thinner than a conventional laminated tube allow the user to squeeze out the contents of the tube with just a light press. The elderly and children can easily dispense a product until it is completely consumed. The pouch is also eco-friendly, as it contains much less plastic resin.



Reclose Pack

Easy-to-Open/Close, Excellent Preservation

A primary food pack with an adhesive function that enhances re-sealability. After the container has been opened and partially emptied, it can be resealed with a reusable adhesive for secure food storage. This excellent resealing performance eliminates any need for wrapping films or storage bags to preserve product freshness. The contents of the package are fully protected from drying and other forms of quality deterioration, which reduces food loss.

Once opened, a portion of the seal stays in place so that the user can easily see that the pack has been unsealed. This tamper-evident feature better ensures the safety of the food stored inside.



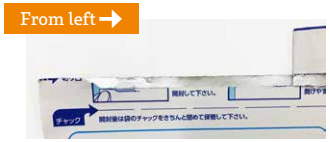
Pouch with a Press-to-Close Zipper

Easy-to-Open from Either Side

This pouch promises persons of any age simple access to the adhesive skin patches inside. Once the package has been torn open from either side, the edge of the seal on one side protrudes slightly so that it can be easily grasped by fingertip to make it easy to zip and unzip the package whenever a new patch is needed.

A tear-guard line, meanwhile, ensures that the pouch tears cleanly open along the scored dots without straying.

From left →



← From right



