

Strategy: Inclusive Design

Fundamentals of the strategy

What is the goal of this strategy?

To think and design **inclusively** so the **widest range** of people can **use** and **benefit** from your software.

When to use it?

During the **early** software **development and design** phases.

What is inclusive design?

“**Design** that considers **the full range of human diversity** with respect to ability, language, culture, gender, age and other forms of human difference”
(Inclusive Design Research Center, n.d.)

What is the aim of inclusive design?

Design **artifacts** that are **able to match the needs** of diverse individuals (beyond “average” users).

The 4 stages procedure (adapted from Clarkson et al., 2007)

Stage 01: Identify capabilities needed to use the software + perform associated task(s)

Task 01.a: Select capabilities from the table below

Perceive	Vision	Detect objects, discriminate surfaces, etc.
	Hearing	Discriminate tones/speech, localize sounds, etc.
	Touch & Haptic	Discriminate pressures, detect temperature, etc.
	Smell	Detect odors, discriminate odors, etc.
	Taste	Detect 5 basic tastes, detect temperature, etc.
Think	Thinking	Process info., attention, memories, select appropriate responses, etc.
	Communication	Understand others, express oneself, etc.
Act	Locomotion	Move around, bend down, climb steps, etc.
	Reach & Stretch	Put arm(s) out in front of body/above head/behind back, etc.
	Dexterity	Fine finger manipulation, pick up, carry/grasp/squeeze objects, etc.

Task 01.b: Report these capabilities in first column of the user table below

Stage 01 Capability	Stage 02 Identified NAU	Stage 04 Solution
Vision		

Stage 02: Identify “Non Average” Users (NAU) based on capabilities

Task: Complete the second column of the user table, “Identified NAU”

Stage 01 Capability	Stage 02 Identified NAU	Stage 04 Solution
Vision	Person with color-blindness	
Dexterity	Person with reduced dexterity	

Stage 03: Expand your analysis: brainstorm any other capabilities, categories of users, non-users, community groups... who may use the artifact

Task: Draw a new user table and report new capabilities/users/non-users/communities

Stage 03 Capability+	Stage 03 Identified NAU+	Stage 04 Solution
Communication	Non-native language speakers	
	Limited digital experience	

Stage 04: See next page

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Stage 04: For each potential user identified, use your skills and creativity to find concrete solutions and design inclusively

Task 04.a: Merge tables into one table

Stage 01 Capability	Stage 02 Identified NAU	Stage 04 Solution
Vision	Person with color blindness	
Dexterity	Person with reduced dexterity	
		+
Stage 03 Capability+	Stage 03 Identified NAU+	
Communication	Non-native language speakers	
	Limited digital experience	

Task 4.b: Report solutions in the last column

Stage 01 Capability	Stage 02 Identified NAU	Stage 04 Solution
Vision	Person with color blindness	Salient contrast + audio guidance
Dexterity	Person with reduced dexterity	Large zones on touch interface
Stage 03 Capability+	Stage 03 Identified NAU+	Stage 04 Solution
Communication	Non-native language speakers	Multi-language support
	Limited digital experience	Fun intro tutorial to onboard users

For more information: Clarkson, J., Coleman, R., Hosking, I., & Waller, S. (2007). Inclusive design toolkit. Engineering Design Centre, University of Cambridge, UK.

www.inclusivedesigntoolkit.com