



OPEN ACCESS CONTENTS ON DESIGN FOR EQUALITY, DIVERSITY AND INCLUSION
FOR HIGHER EDUCATION PROGRAMMES

**D 2.2.1. Digital and traditional teaching and learning
methodologies for Design and Design-related
programmes**

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1. Introduction

The report was developed within the framework of WP2 – “Research and analysis of teaching contents on Design and EDI”. The report presents the results of output A 2.2 – “Research of appropriate digital and traditional teaching and learning methodologies for Design and Design-related programmes”.

In general, WP2 aims to define, in the context of Design studies in the higher education sector, existing practices and tools used to develop content on Design for EDI, as well as investigations on inclusive teaching models and appropriate technologies to create inclusive learning environments.

Activity A 2.2, for which UNIFI is responsible (ASP WP2 Leader), aims to identify teaching methodologies about Design for EDI subjects through mapping actions (benchmarking). This action aims to identify the set of teaching tools and methodologies, both digital and analogue, appropriate for delivering content within the Design and Design-related programmes. Below is an outline of the activities and their implications within the EDIDESK project.

Framework for A.2.2. in the WP2	
Effect	Pros and cons (evaluation matrix) possible implementation scenarios
Quantitative indicators (as per KPI, see D.1.1.2.)	Quantitative indicators: No. 15 teaching methodologies mapped in relation to Design for EDI subjects
Efficacy	The effectiveness of (digital and non-digital) tools used or recommended for inclusive teaching.
Expected Results	Database containing the selection of teaching tools and methodologies suitable for the delivery of inclusive content within Design and related programmes. The map will include both studio and blended teaching sources.
Links with Activities (As of WP2)	<ul style="list-style-type: none"> • The effectiveness of tools (digital and non-digital) used or recommended for inclusive teaching. • Elements for the progression of teaching methodologies and knowledge transfer in the field (inclusive teaching and learning environments).
Impacts	Data developed in A 2.2. will be used to continue the work under A 2.3. and A2.4.

2. Aim of Report

The objective of output A.2.2 was to identify the set of appropriate digital and non-digital/analogic teaching tools and methodologies to deliver content within Design and Design-related programmes. To achieve this objective and set up the intervention methodology, the following macro-objectives were defined:

- To define the scientific and cultural framework of EDI concerning existing and established approaches and methodologies within the field of Design and related (e.g., Human-centred Design, Design Thinking, Inclusive Design, Universal Design, Design for All, etc.);
- Mapping scientific evidence on methodologies and tools developed in the field of EDI;
- Identify digital tools and related methodologies for EDI and how these can be used in the EDI field;

- Define the extent of how methodologies and tools (analogue and digital) are applied during the design process and in the HE sector (design field).
- To understand how and when tools are used in different learning contexts.
- New technologies and their potential in the HE sector (design field) - support for collaborative learning and collaborative design activities;
- Content accessibility issues;
- Limitations and development trajectories of methodologies and tools for content delivery and production - support for inclusive education.

The definition of these macro-objectives made it possible to define the intervention methodology and draw the research's boundaries. Developing WP2 activities will allow the validation and deepening of the results presented in summary form in this report. Finally, some results in this phase/activity will allow the database to be augmented and strengthened throughout the project. The emerging data will be further deepened and elaborated through the publication of scientific papers, the modalities and timing of which will be defined by the project partners.

3. Methodology

The methodology mainly comprised a literature review and analysis of sources (desk-based analysis), and a subsequent qualitative benchmarking of the leading organisations and scientific methodologies in the sector that operate within EDI on Inclusive design (design for all and Universal Design) that have, over the years, developed tools and methodologies for the educational, training, professional, and design research sectors.

The concept of EDI was considered, as well as its role against the theoretical framework of the intervention philosophies of design for all, inclusive design, universal design, design for accessibility, and others (including emerging methodologies).

Given the recent relevance of the EDI concept, data collection was conducted in a hybrid manner: Literature analysis and best practices to identify the theoretical dimension of the methodologies and a subsequent benchmarking analysis to catalogue all relevant tools, with the objectives of WP2.

For the systematization of the collected data, specific indicators were identified. These were defined based on the objectives of the EDIDesK project, the planned activities within WP2, and the activities of WP3 and WP4.

Given the research framework's vastness, the literature analysis methodology was non-systematic. The literature analysis was conducted on the main databases (Scopus and Google Scholar), with a preference for open-access publications. The databases were queried regarding the main areas of research interest (EDI et al. for Design, Framework for Integrating Inclusive Design or EDI into Design Education, Inclusive Design Toolkit, Teaching Inclusive Design, Inclusive Design Education). The objective of the literature analysis was to define a critical framework useful for defining the development phases of the qualitative benchmarking analysis.

4. Benchmarking

Based on the results of the desk-based research of the literature, the main approaches and methodologies of Design for EDI subjects were later identified. An analysis of the leading academic and research organisations dealing with EDI and related fields was also conducted. This made it possible to define the most accredited approaches and methodologies and their operational tools.

The benchmarking analysis focused on comparing instances of similar processes from different organisations. It is a tool that can bring out innovative solutions and outline perspectives consistent with the subsequent activities and objectives of the EDIDESK project.

The benchmarking was carried out by choosing a dashboard of indicators that are objective, comprehensible, and representative of a critical process.

In detail concerning the main methodologies for EDI and related, the following areas were mapped out:

1. Toolkits, methodologies, approaches, and tools for EDI (Analogic and Digital)
2. Tools/teaching methodologies and Guidelines for EDI
3. Digital Environment and Digital Tools

The results were catalogued in three sections: Database 1 - Toolkits, methodologies, approaches and tools for EDI (Analogic and Digital), Database 2 Tools/teaching methodologies and Guidelines for EDI and Database 3 - Digital Environment and Digital Tools. The database (characterised by 3 sections + 1 of useful links and references) was created with the Air Table web platform, and the data in aggregated form was archived on Google Sheets.

4.1 Database 1 - Toolkits, methodologies, approaches, and tools for EDI (Analogic and Digital)

The first database, "Toolkits, methodologies approach and tools for EDI (Analogical and Digital / Hybrid)", features 32 deliverables/cases: 26 related to EDI and related fields and 5 integrative on emerging methodologies and/or potential tools for the project objectives. The indicators of "Database 1" are reported below (see table 1)

Table 1 – The indicators of 'Database 1'

(a) Toolkit	(b) EDI Goals	(c) Scientific sector/approach	(d) Design subjects/sectors	e) Reference target / Target domain
Methodologies Sub-tools Single methods	equality diversity inclusion All (EDI) ----- Accessibility Usability	Ergonomics Human factors Human center Design Design Thinking Interaction design Human Computer Interaction Inclusive Design Design for All Universal design (And others)	Design Field: Product Design, Product-service system, Digital Design, Interior Design, Graphic Design, Communication Design, Healthcare Design, Physical Products, Research & Design, Service Design, UI/UX design, Built environments, Urban design, Web design, Web develop,	HE (Higher Education) P/HE (Potential for Higher Education) PS (Professional Sector) FO (For Organization) PB (Professionals and Business) VT (Vocational Training)

(f) Toolkit/Tool Typologies		(g) Phase of design the process	(h) Scientific Valid. / Peer reviewed	(i) Open access
Analogic Digital Hybrid Potentially digital	Collaborative Individual Both	Evaluation, Ideation, Validation, All	Yes > have been audited No> no scientific evidence has been found Cited by other > publications or institutional pages have been found that cite or have analyzed and applied the toolkit/tool	Primary requirement (all paid or non-open access tools were discarded)
Presence of collaborative virtual environment				
Accessible Tool/s				

The choice to analyze toolkits and methodologies also not overtly related to EDI was dictated both by the results of the literature review (the definition will be developed in WP2 and communicated appropriately), which shows that the concept of EDI is still under-adopted within scientific methodologies for Design.

The concept of EDI was mostly found in the UK within the fields of Social Sciences/Policies and Organisations, Instructional Design, and Inclusion policies at a still macro level (at the university level: student support services and management/communication, breaking down language and gender barriers within, the inclusion of disabled people etc.). For this reason, the research was also extended towards Inclusive Design, Human-centred design, etc. (see column c).

However, the objectives of the toolkits/methodologies (column a) were surveyed concerning the objectives of EDI (column b); the association was made by analysing the presentation sheets and abstracts of the surveyed toolkits, the toolkits declaring the concept of EDI were surveyed with the reference tag "EDI", for the others even if the words "equality", "diversity" and "Inclusion" emerged in the text, the individual tags "equality", "diversity" and "Inclusion" were assigned. Subsequently, the tags "accessibility" usability" was also inserted, as it emerged that the concept of fairness and equality was increasingly included within the methodological background of these areas (equal and equal access to information, equal access to service about gender, etc.). Regarding column (d), the toolkits/tools were selected based on the design subjects/sectors; these designations were defined in the same way as for indicators (a) and (b). The associations currently made can be expanded based on future WP2 activities.

About indicator e), related fields were also analysed in addition to the HE (design field). This choice was made to broaden the research perspectives and identify toolkits potentially useful for the EDIDESK project. Concerning indicator (f), "Types of toolkits and tools", they were categorised by type (analogue, digital and hybrid), and sub-indicators were also defined as Collaborative, Individual, and Both. Finally, the following parameters were identified: A collaborative virtual environment and accessible tools/tools (multimodal use mode/personalised access to content).

Indicator (g) Phase of the design process was included to deepen the application dimension of the tools in the design process. Three phases were defined to facilitate the reading of the database: Idea Evaluation, Idea generation, and Idea Validation (see image 1).

Digital and traditional teaching and learning methodologies for Design and Design-related programmes

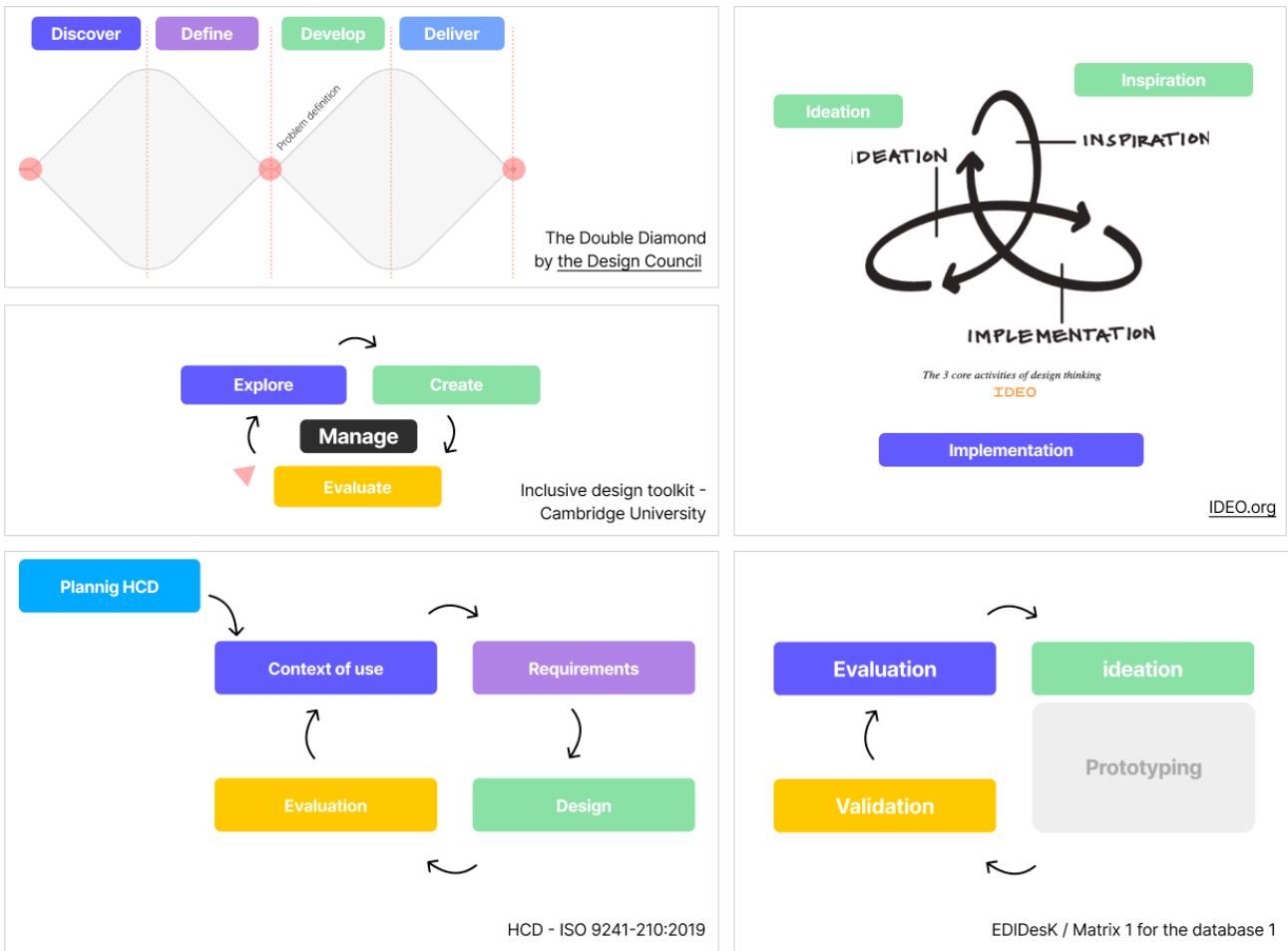


Image 1 – Analysis and development: Indicator (g) Phase of the design process

The last indicators are on the scientific validation of the method (h) and on open access (i). Regarding indicator (h), methods and tools cited by others and/or recognized by the international scientific community have also been included.

Name	date	Author(s)	Country	Keywords	Description	EDI goals and others (v1)
1 Inclusive Design Toolkit (A)	2007	Cambridge University	United Kingdom	Toolkit	Inclusive design, Design process, User Capability, Exclusion calculation	diversity, inclusion, Exclusion, Accessibility
2 (A.1) Inclusive Design Toolkit - Sub tool: d) Exclusion Calculator Lite v2.1	n.a	Cambridge University	United Kingdom	sub-tool	Inclusive design, User Capability, Exclusion calculation, Vision, Thinking, Dexterity	diversity, inclusion, Exclusion, Accessibility
3 (A.2) Inclusive Design Toolkit - Sub tool: Digital personas	2020	Cambridge University	United Kingdom	sub-tool	Inclusive design, Understanding user diversity, Personas Methods, User Research, Empathy, Envisioning tool	diversity, inclusion, Exclusion, equality
4 (A.3) Inclusive Design Toolkit - Sub tool: Family set of personas	2019	Cambridge University	United Kingdom	sub-tool	Inclusive design, Understanding user diversity, Personas Methods, User Research, Empathy, Envisioning tool	diversity, inclusion, Exclusion, Accessibility
5 (A.4) Inclusive Design Toolkit - Sub tool: Design process checklist	2010	Cambridge University	United Kingdom	sub-tool	Managing the process, Design process, Design Process Checklist	diversity, inclusion, Exclusion, Accessibility

Image 2a – EDIDesk Database “AIR TABLE”

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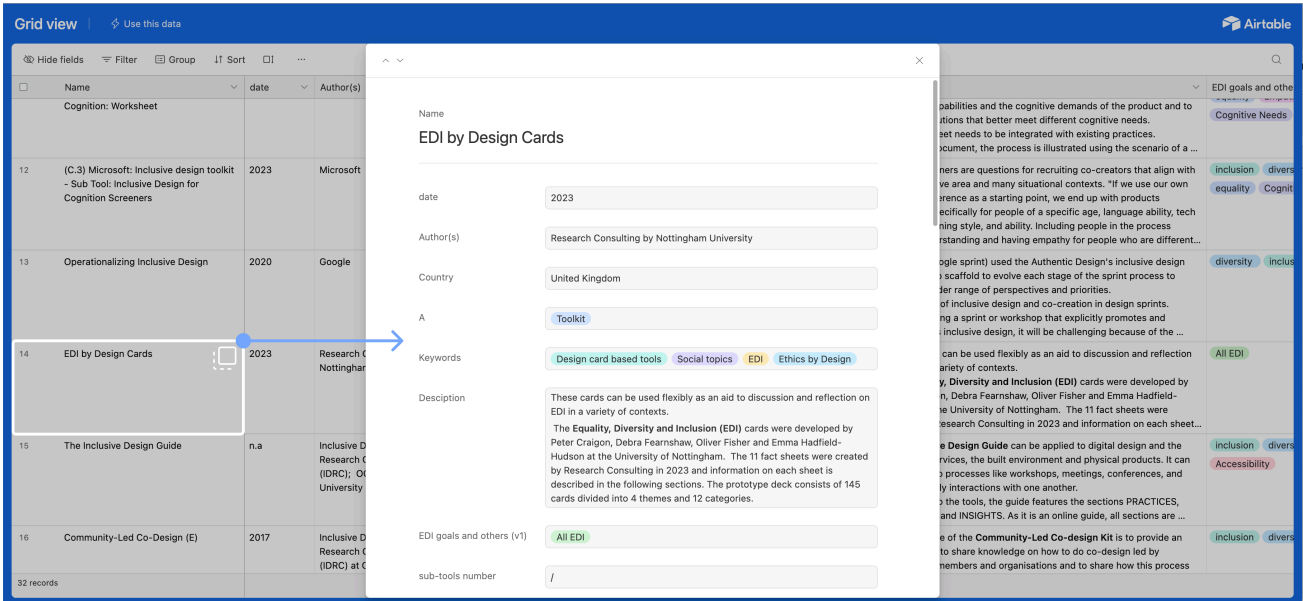


Image 2b – EDIDESK Database “AIR TABLE” (in-depth functionality deliverables/schedules)

The analysis concludes with a section on the pros and cons of the individual products collected. For the definition of these indicators, the specific objectives of WP2 and the other activities carried out by the partners were considered (A 2.1, A 2.3, A 2.4). These indicators are shown below. See Table 2. A section of observations and the scientific references identified during the survey were added (see image 2).

Table 2 – The indicators Pros e Cons of 'Database 1'

Pros	Cons
<ul style="list-style-type: none"> • Complexity: (low/simple) • Complexity: (medium) • Open access • Applied in the education sector/HE • Clear methodology • Digital material • Analogic material • Potentially digital • Web-based application • Collaborative tool(s) • Collab. virtual environment • Supporting material: case studies and/or tutorials • Supporting material: video/podcast • Accessible tool/s (vision-listening) • Scientific evidence (peer review) • Accredited by the academic/scientific community • Developed in the academic field • Potentially suitable for the HE field (design and correlated) • Presence of a research network • Potential for EDI (medium/high) • Explore the dimension of EDI 	<ul style="list-style-type: none"> • Complexity: (high) • Not applied/used in the education sector HE, partially open access • complex methodology • Methodology absent (not clearly and directly explained) • Concise methodology • Non-downloadable tool • Uneditable tool • Absence of digital materials • Absence of collaborative tools • Absence of collaborative virtual environment • Absence of supporting material: case studies and/or exercise/tutorial • Absence of scientific references • User experience (ULX) to be improved, • Complex website navigation • Cited by others • Other (see section note UNIFI)

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- Multidisciplinary
- Accessible website
- Other (see section note UNIFI)

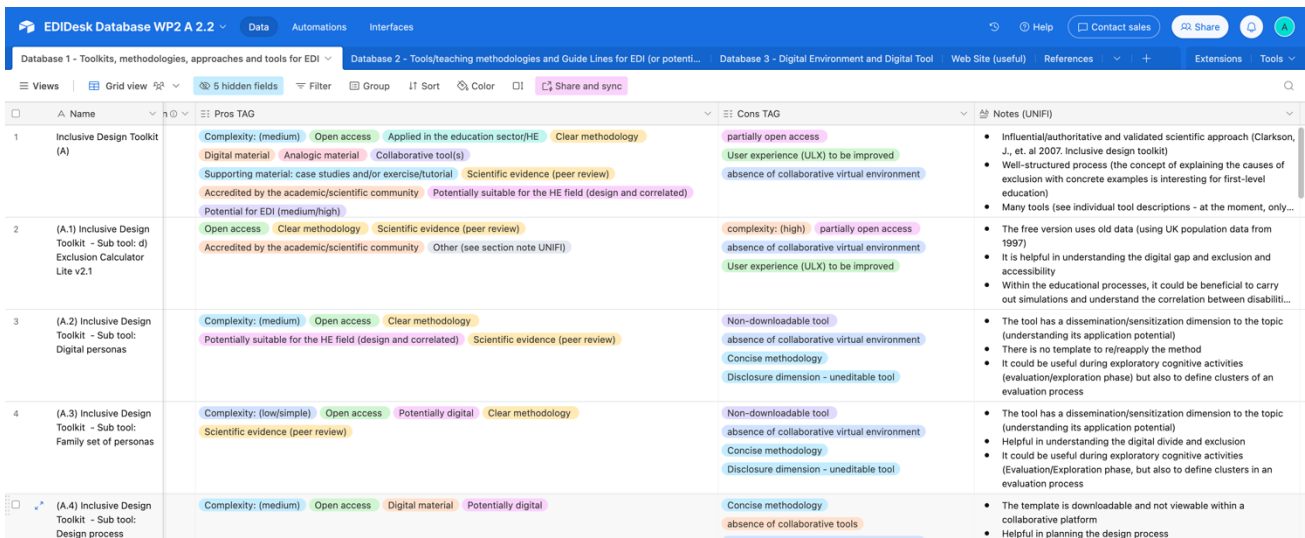


Image 3 – EDIDesk Database 1 “section Pros e Cons”, TAGs Collection

4.2 Database 2 - Tools/teaching methodologies and guidelines for EDI (potential for EDI)

Database 2 collects all the results of the benchmarking analysis on methodologies, guidelines, and related didactic tools for inclusive education. This database was organized in a less structured way than the previous one. The diverse nature of the data required simplifying the database structure. Although many data were collected (about 30), preference was given to approaches and materials more in line with the EDI dimension. Another aspect of the selection focused on application in the higher education sector. In this area, guidelines and related reference materials are most developed in K-12 education and primary and secondary education. This area will be considered for further study during the subsequent phases of the EDIDesK project. Many tools reported in this database have been further explored and reported within database 3 (e.g., CAST - Universal design for Learning tools). The database was structured based on the indicators shown in Table 3.

Table 4 – The indicators of 'Database 2'

(a) Tags	(b) Topics	(c) Typologies	(d) Tools/materials
<ul style="list-style-type: none"> • Inclusive Learning Classroom • Accessible Education Material • Accessibility Toolkit • Learning Design Handbook • Open Educational Resource • Inclusive Learning • Universal Design • Universal Design for Learning • Individual variability • Workshop Resources • Guides for educators 	<ul style="list-style-type: none"> • Understand equality, diversity, and inclusion (EDI) • Accessible Learning, • Learning Environments • Open Educational Resource • Framework for Inclusive Education 	<ul style="list-style-type: none"> • Guide • Guidelines • Toolkit • Workbook • Best Practices • Approaches, perspectives, and techniques for inclusive learning 	<p>Description of tools and identification/cataloguing of material useful for EDIDesK project objectives (in particular open access material)</p>

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<ul style="list-style-type: none"> • Mental health • Tools for action, • STEM subjects • Design Thinking for Educators • Inclusive Learning Classroom, • Accessible Education Material 	<ul style="list-style-type: none"> • Collection of lecture and workshop resources • STEM subjects, Design & Technology • Alternative vs. Accessible formats 		
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Name	Tags	Topics/Notes	Description	Tools/Material	URL
1 EDI Toolkit for Researchers (teachers) by Newcastle University	EDI Toolkit, Equality Act 2010, Lead research teams	Understand equality, diversity and inclusion (EDI)	EDI Toolkit was created for researchers, particularly people who lead research teams, but can be used by anyone who delivers or enables research. The resource is designed to support you to understand EDI issues in and around research. This toolkit is a set of practical resources, designed to help researchers to engage with and understand equality, diversity and inclusion (EDI). It aim...	<ul style="list-style-type: none"> • EDI Toolkit: Accessibility Guide • Allyship Guide • Inclusive Language Guide • Inclusive Behaviours Guide 	https://www.ncl.ac.uk/research/culture/
2 Accessibility Toolkit – 2nd Edition	Accessibility Toolkit, Learning Environment, Universal Design	Accessible Learning, Learning Environments	The Accessibility Toolkit is useful for understanding how to make a learning environment accessible. Format: open access book. Authors: Amanda Coolidge; Sue Doner; Tara Robertson; and Josie Gray. (BCCampus Open Publishing)	<ul style="list-style-type: none"> • Best Practices • Organizing Content • Images • Links • Multimedia • Font Size 	https://opentextbc.ca/accessibilitytoolkit/
3 The FLOE Inclusive Learning Design Handbook (IDCR)	Learning Design Hand..., Open Educational Reso..., Inclusive Learning	Open Educational Resource	The FLOE Inclusive Learning Design Handbook (ILDH) is a free Open Educational Resource (OER) designed to assist in creating adaptable and personalizable educational resources that can accommodate a diversity of learning preferences and individual needs.	<ul style="list-style-type: none"> • Perspectives: Contains articles that discuss the main issues related to education and inclusive learning • Approaches: Provides best practices, guidelines and resources for creating inclusive content and learning experiences... 	https://handbook.floeproject.org/approaches/
4 Universal Design for Learning (UDL) - CAST	Universal Design for Le..., Individual variability	Framework for developing curricula, materials and resources intentionally built to incorporate flexibility, accommodating individual variability	Universal Design for Learning (UDL) is a framework for developing curricula, materials and resources intentionally built to incorporate flexibility, accommodating individual variability. RESOURCES <ul style="list-style-type: none"> • CAST – information about Universal Design for Learning • CAST’s Learning Resources... 	<ul style="list-style-type: none"> • TOOLS > https://www.cast.org/resources/online-tools <p>See Database 3</p> <ul style="list-style-type: none"> • Clusive®: An Accessible, Digital Reading Platform... 	https://www.cast.org/
5 Tools for taking action (Stanford University)	Workshop Resources, Human-centered design, Guides for educators, Mental health, Tools for action	Collection of lecture and workshop resources	Tools for taking action (Stanford University) is an initiative of Stanford University; it is a web portal containing educational and training resources. Interesting topics related to mental health and student wellness.	<ul style="list-style-type: none"> • Integrative Design for Systems Change • Designing for Social Systems • University Innovation • and More 	https://dschool.stanford.edu/resources

Image 4 - Overview AIRTABLE: Database 2

4.3 Database 3 - Digital Environment and Digital Tool

Database 3 collects all the results of the benchmarking analysis on the teaching tools Digital Environment and Digital Tool for Inclusive Education. This database was organized in a less structured way than Database 1. The diverse nature of the data required a simplification of the database structure.

A large amount of data was collected (around 60). However, the focus was on creating inclusive teaching materials, indications for designing inclusive user interfaces, techniques and tools for flexible learning and open education for the HE sectors. Many of the tools mentioned are linked to the methodologies identified and reported in Database 2. In the subsequent phases of the EDIDesk project, this database can be extended and should support future project activities. The database was structured based on the indicators shown in Table 5.

Table 5 – The indicators of 'Database 3'

Tags	Topics	Typologies	Tools / materials
Tools, Guidelines, Database, Open education resources, Guideline and inclusive learning technologies, User Interface Options, Inclusive Classroom, Inclusive education, Accessible Information, Pilot projects and case studies, Practical Teaching tips, Inclusive teaching tactics, open-source software and plugin, collaborative web platform, Realtime Board, Classroom management tools, Co-creation tools.	<ul style="list-style-type: none"> • Create teaching materials. • CSS and JavaScript feature • Flexible Learning for Open Education • Realtime Board • Design of inclusive user interfaces • Web Usability • Inclusively Designed Resources-Multimodal model 	<ul style="list-style-type: none"> • Guideline • Tools: Digital Materials, Open educational resources, open-source software, and plugin • Management tools • Co-creation tools • User Interface Options 	Description of tools (in particular open access tools)

Name	Period	Tags	Topics	Notes	link
Clusive® (UDL - CAST)	2022	Tools	To create teaching materials	Clusive® is a flexible, customizable learning environment that adapts to you. Clusive was developed by the Center on Inclusive Software for Learning. Clusive is an adaptive and accessible web-based reading and learning environment designed to engage students in independent reading. Based on the inclusive principles of Universal Design for Learning (UDL), Clusive scaffolds the development of reading skills for students in grades 5 through 12. Students can use Clusive to read assigned or free-choice books and articles or build their own personal library (including ...	https://www.cast.org/resources/products/clusive/
UDL Studio™ (UDL - CAST)	2012	Tools	To create teaching materials (UDL)	UDL Studio™ Make universally designed educational materials with levels of learning supports, assessments, and interactive element	http://udlstudio.cast.org/?_gl=1*1jo75bz*_*ga*NiWxOTYxMiU2LjE3MDQ4NTc*_*ga_C7LXP5M74W*MTcwODg4NDI1Nv4xcwODg4NTg4NC4wiAuaMA..
UDL Exchange™ (UDL - CAST)	2012	Tools	It is a place to browse and build resources, lessons and collections. You can use and share these materials to support instruction guided by the UDL principles	UDL Exchange™ - Create, remix, and share instructional resources based on UDL and aligned to the Common Core State Standards.	https://udlexchange.cast.org/home/_gl=1*ofx9*NiWxOTYxMiU2LjE3MDQ4NTc*_*ga_C7L74W*MTcwODg4NDI1Nv4xLiUuMTcwODg4NDI1Nv4xLiUuMA
CAST Figuration® (UDL-CAST)	2021	Tools	CSS and JavaScript feature package that can be used as a starting point for building an accessible, interactive, multidevice Web site.	CAST Figuration® is a package of CSS and JavaScript that can be used as a starting point for building an accessible, cross-device, interactive website. It contains styles for text and buttons; interactive elements such as navigation, dropdown menus, and modal dialogues; column and grid layouts that adapt to the screen and device in use; colour schemes that pass WCAG contrast checks; and advanced components such as an HTML5 audio and video player with interactive captions. All components are built to be usable via mouse, keyboard, or touch interaction as well as accessible to screen readers and other assistive technologies. Originally created ...	https://www.cast.org/resources/products/figuration/
(A) The FLOE project "Flexible Learning for Open Education" (by Inclusive Design Research Centre -IDRC)*	2014	Tools Guidelines Database	GL and inclusive learning technologies - Flexible Learning for Open Education	The FLOE project (Flexible Learning for Open Education) engages diverse learners and educators to design more inclusive forms of teaching and learning. Learning happens best when the experience is personalized to individual needs. Open Educational Resources (OER) that are open to use and adapt, provide an opportunity to meet the diverse needs of learners, including those with disabilities. The FLOE Project supports the OER community in providing a sustainable, integrated ...	https://floeproject.org/about/
(A) FLUID Project (by Inclusive Design Research Centre -IDRC)*		Tools Guidelines	Design of inclusive user interfaces; User Experience and inclusiveness of open source software	FLUID is an open, collaborative project to improve the user experience and inclusiveness of open-source software. The Fluid Project is designing the architecture for the GPII and building the core infrastructure. Fluid is involved in a number of projects that will harness the GPII to empower users (see more -	https://fluidproject.org/infusion.html

Image 5 - Overview AIRTABLE: Database 3

5. Results and conclusions

Given the complexity and size of the reference framework, activity A 2.2 was structured concerning two macro areas. The first field concerns the teaching of EDI within the HE sectors. The second field concerns the pedagogical and operational dimensions of inclusive learning and the related tools, strategies, and application areas.

The desk research was conducted across the board and highlighted some important considerations and aspects that will be further mapped and explored within the EDIDESK project.

The first consideration concerns the declination of EDI. It emerged that it still needs to be more widespread within the design sector, both in geographical and operational terms. The EDI approach is widespread in the UK and within the disciplinary sectors of pedagogy/instructional design and social

sciences. The second aspect concerns the pedagogical dimension of inclusive learning, which should be more integrated within Design's educational sector.

Database 1: "Toolkits, methodologies and tools for EDI (Analogue and Digital/Hybrid)" involved collecting a large amount of data (around 80), of which 31 deliverables/cases were selected, 26 of which were related to EDI. The selection was made by analysing in qualitative terms the consistency with the EDI, the scientific relevance and the open-access nature of the content/information (see section Results A).

During the analysis phase, it emerged that only 2 toolkits and 2 sub-tools declared EDI as one of their objectives: IDEA Toolkit - Inclusion, Diversity, Equity, Accessibility and related sub-tools and EDI by Design Cards (see Database 1 columns 6,7,8 and 14). As for the other toolkits, they were selected based on the individual goals: "inclusion, diversity and equality" and other areas concerning "empathy, understanding diversity, cognitive and personal/social needs, preventing exclusion, ensuring usability and equal access to information and participation". These declinations were further scheduled based on the nature of the toolkit (analogic and digital) and its scientific relevance within the Design discipline. At the methodological level, the scientific framework of the toolkits shows a strong presence of Human-centred Design, Design Thinking, Inclusive Design/Universal Design/Design for All, Human Factors, Social inclusion and System Thinking.

Other aspects of interest include how and how many tools are used within the design process, their collaborative ambition, and the development/learning of strategies for Design through innovative teaching materials. Finally, the need to ensure access to these activities by providing tools and effectively inclusive and accessible learning environments emerges. For this reason, accessible tools such as Community-Led Co-Design were also mapped (column 16) and highlighted all these methods that use kits/tools in this regard (web plugins for accessibility) and tools as editable/changeable lend themselves to the assistive technologies of IOS, Microsoft and Android operating systems.

Database 2: "Tools/teaching methodologies and guidelines for EDI (potential for EDI)", involved collecting about 30 deliverables/cases, of which 11 referable to EDI were selected. The selection was made by qualitatively analysing the consistency with EDI, scientific relevance, and open access nature of the content/information (see section Results B). The data were selected for reference to establish a methodological framework on the teacher-side and descendant-side dimensions of best practices and recommendations on EDI in education. The survey found that most tools and guidelines aim to develop curricula, materials and resources intentionally constructed to incorporate flexibility, adapt to individual variability, create equitable learning experiences, create and make available Open Educational Resources and "accessibility vs. alternative format" content format issues.

Database 3: "Digital Environment and Digital Tool" involved collecting a large amount of data (around 60), of which 22 deliverables/cases were selected (see section Results C). The cataloguing involved an in-depth study of some tools relating to the Toolkits analysed and reported within Database 1 and the identification of other areas of intervention such as new technologies and inclusive learning (i.e. Design of inclusive user interfaces, CSS and JavaScript, open source content and related programming tools) and in particular the open-source dimension of new technologies in the educational field (i.e., FLOE project and CAST tool "UDL").

Furthermore, tools and good practices (Guidelines and research networks) relating to collaborative learning and virtual environments (Collaborative web platform, Realtime Board) were selected.

Finally, research projects that produced validated results and could be a resource for the following activities of the EDIDesk project were selected.

All the results have been catalogued through the AIRTABLE platform. They will be made public following a further validation phase, through a specific scientific publication agreed with the project partners.

The prospects of activity A 2.2 will be to implement and increase the impact of knowledge of EDI in higher education and to evaluate possible integrations and implementations of good practices and tools currently used in the reference sector. All this will also be done by matching it with future activities and related results of the EDIDesk project.

RESULT A – Database 1 Overview

Database 1 - Toolkits, methodologies, approaches, and tools for EDI (Analogic and Digital)			
N. Products mapped: 31 • 16 ToolKit • 10 sub-Tool • 5 extra ToolKit	Nome del Toolkit/tool	Author	EDI goals and others (v1)
	Inclusive Design Toolkit (A)	Cambridge University	Diversity, Inclusion, Exclusion, Accessibility
	(A.1) Inclusive Design Toolkit - Sub tool: d) Exclusion Calculator Lite v2.1	Cambridge University	Diversity, Inclusion, Exclusion, Accessibility
	(A.2) Inclusive Design Toolkit - Sub tool: Digital personas	Cambridge University	Diversity, Inclusion, Exclusion, Accessibility
	(A.3) Inclusive Design Toolkit - Sub tool: Family set of personas	Cambridge University	Diversity, Inclusion, Exclusion, Accessibility
	(A.4) Inclusive Design Toolkit - Sub tool: Design process checklist	Cambridge University	Diversity, Inclusion, Exclusion, Accessibility
	IDEA Toolkit - Inclusion, Diversity, Equity, Accessibility (B)	Cambridge University	All EDI
	(B.1) IDEA Toolkit - Sub tool: Design with the Inclusive Design Canvas	Cambridge University	All EDI
	(B.2) IDEA Toolkit - Sub tool: Toolkit - Sub tool: Understand people with the IDEA audit	Cambridge University	All EDI
	Microsoft: Inclusive design toolkit (C)	Microsoft	Diversity, Inclusion, Accessibility
	(C.1) Microsoft: Inclusive design toolkit - Sub Tool: Inclusive activity cards	Microsoft	Inclusion, Diversity, Equality, Accessibility, Empathy, Cognitive Needs, Exclusion
	(C.2) Microsoft: Inclusive design toolkit - Sub Tool: Inclusive Design for Cognition: Worksheet	Microsoft	Inclusion, Diversity, Equality, Empathy, Cognitive Needs
	(C.3) Microsoft: Inclusive design toolkit - Sub Tool: Inclusive Design for Cognition Screeners	Microsoft	Inclusion, Diversity, Equality, Cognitive Needs
	Operationalizing Inclusive Design	Google	Diversity, Inclusion
	EDI by Design Cards	Research Consulting by Nottingham University	All EDI
	The Inclusive Design Guide	Inclusive Design Research Centre (IDRC); OCAD University	Inclusion, Diversity, Accessibility
	Community-Led Co-Design (E)	Inclusive Design Research Centre (IDRC) at OCAD University	Inclusion, Diversity
(E.1) Inclusive Cities Co-design Kit	Inclusive Design Research Centre (IDCR)	Inclusion, Diversity	

Inclusive Co-design Toolkit	Hitomi Yokota - Bridgeable	Inclusion, Diversity
Inclusive Design toolkit (POLIMI)	POLIMI & Tangity - Authors: Grillo, Gupta, Yu	Inclusion, Diversity
Inclusive design toolkit (ONTARIO)	Co-created by Ontario Digital Service and Accessibility Centre of Excellence for the Ontario Public Service	Inclusion, Diversity, Equality
Inclusive Digital Mobility Toolbox	by INDIMO - Horizon 2020 project	Inclusion, Diversity, Equality, Usability, Accessibility
Inclusive Signs	Lincoln University - Author: Rossi E.	Inclusion, Diversity, Equality, Empathy
Cards for Humanity	FROG Design	Inclusion, Diversity, Equality, Empathy
Inclusive Design Works	Google I/O, Grace Hopper, SF Design Week	Inclusion, Diversity, Equality, Accessibility, Empathy
18F Method Cards	GSA's Technology Transformation Services	Usability, Accessibility, Inclusion, Diversity
Digital Ethics Compass Toolkit	Danish Design Centre	Inclusion, Equality, Diversity
Extra		
Liberatory Design Toolkit	by Stanford University's d.school and National Equity Project	Equality, "Equity"
Actionable Futures Toolkit v 1.0	by NOR GKAPP	Equality, Inclusion
UNaLAB Toolkit: Tools for Co-creation	by UNaLAB - Horizon 2020 project	Inclusion, Diversity, Equality
Social Impact Design SID Toolkit	by Kentsel Strateji for the World Bank, in collaboration with the Ministry of Environment and Urbanization	Inclusion, Diversity, Equality
Service Design Tools (Platform)	POLI.design - Authors: Tassi, Maffei & Others	Diversity, Usability

RESULT B – Database 2 Overview

Database 2 - Database 2 - Tools/teaching methodologies and guidelines for EDI (potential for EDI)			
N. Products mapped • 11	name	Tags	Topics
	EDI Toolkit for Researchers (teachers) by Newcastle University	EDI ToolKit, Equality Act 2010, Lead research teams	Understand equality, diversity, and inclusion (EDI)
	EDI Faculty Toolkit (Humber College's)	EDI ToolKit, Identity-Responsive Instruction, Inclusive Instruction	Inclusive and Identity-Responsive Instruction
	Accessibility Toolkit – 2nd Edition	Accessibility Toolkit, Learning Environment, Universal Design	Accessible Learning, Environments
	The FLOE Inclusive Learning Design Handbook (IDCR)	Learning Design Handbook, Open Educational Resource, Inclusive Learning	Open Educational Resource
	Universal Design for Learning (UDL) - CAST	Universal Design for Learning, Individual variability	Framework for developing curricula, materials and resources intentionally built to incorporate flexibility, accommodating individual variability
	Tools for taking action (Stanford University)	Workshop Resources, Human-centered design, Guides for educators, Mental health, Tools for action	Collection of lecture and workshop resources
	Designing Our Tomorrow (DOT) - University of Cambridge	STEM subjects, Inclusive Learning	STEM subjects, Design & Technology
	IDEO - Design Thinking for Educators	Design Thinking for Educators	For the K-12 sector (however interesting for EDIDesK).
	Inclusive Learning Design - Author: Virna Rossi	Inclusive Learning Design, Guides for educators	For HE
	SNOW Inclusive Learning & Education- Inclusive Design Research Centre at OCAD University	Inclusive Learning Classroom, Accessible Education Material	Alternative vs. Accessible formats
	Agency's Voices into Action (VIA) [EUROPEAN AGENCY for Special Needs and Inclusive Education]	Guidelines, Inclusive education	Framework for Meaningful Participation in Inclusive Education

RESULT C – Database 3 Overview

Database 3 - Digital Environment and Digital Tool			
N. Products mapped • 22	name	Tags	Topics
	Clusive® (UDL - CAST)	Tools	To create teaching materials
	UDL Studio™ (UDL - CAST)	Tools	To create teaching materials (UDL)
	UDL Exchange™ (UDL - CAST)	Tools	It is a place to browse and build resources, lessons, and collections. You can use and share these materials to support instruction guided by the UDL principles
	CAST Figuration® (UDL-CAST)	Tools	CSS and JavaScript feature package that can be used as a starting point for building an accessible, interactive, multidevice Web site.
	(A) The FLOE project "Flexible Learning for Open Education" (by Inclusive Design Research Centre - IDRC)*	Tools, Guidelines, database	GL and inclusive learning technologies - Flexible Learning for Open Education
	(A) FLUID Project (by Inclusive Design Research Centre -IDRC)*	Tools, Guidelines, database, open education personalization open education resources	Design of inclusive user interfaces; User Experience and inclusiveness of open-source software
	(A)User Interface Options (UI Options) "FLOE" (by Inclusive Design Research Centre -IDRC)	Tools, Guidelines, User Interface Options	User Interface Options - Web Usability
	(A) Weavly > "FLOE" (by Inclusive Design Research Centre -IDRC)	Tools, coding	Non-HE sectors (however interesting for digital design/interaction design)
	5 Microsoft Education tools for an inclusive classroom	Guidelines, Tools, Inclusive Classroom, Inclusive education	Guide for Microsoft software
	ToFIE - Tools for Inclusive Education [EU project]	Guidelines, Tools, Inclusive Classroom, Inclusive education	Specific learning disorders in Higher education
	Guidelines for Accessible Information (ICT4IAL)	Guidelines, Accessible Information	Guidelines for Accessible Information are an open educational resource to support the creation of accessible information for learning
	(B) Country Resources collected during the ICT4I project [EU project]	database, Guidelines	Examples of innovative ICT for inclusion in practice
	(B)ICT as a tool for promoting equity [EU project]	database, pilot projects, case studies	Key Tool for promoting Equity in Educational

EID Toolkit for Teaching	Toolkit, Practical Teaching tips, Inclusive teaching tactics	Inclusive teaching tactics; Syllabi, assignments, classroom interactions and accessibility;
Inclusively designed PhET (University of Colorado Boulder)	Toolkit, open-source software architecture, open education personalization open education resources, Inclusive education	Inclusively Designed Resources, Multimodal model, open-source software architecture, open-source software architecture
Gamestorming	Database, Design/Toolkit and Template, co-creation tools	Editable Tools - Used in the HE sector/ Process Facilitation and Co-Design
Collaborative environments		
MIRO (EDI and ID template)	web collaborative platform, Realtime Board	Supports and can support tools and method models for Design and related fields (up to 3 projects use of the platform is free - many universities have active licenses)
FIGMA Template (by @microsoft)	web collaborative platform, Realtime Board	Supports and can support tools and method models for Design and related fields (up to 3 projects use of the platform is free - many universities have active licenses)
MURAL (EDI and ID template)	web collaborative platform, Realtime Board	- Supports and can support tools and method templates for Design and related fields
Maker's Empire	web collaborative platform, 3D design tool	Not open access - Interesting for 3d modeling
Minecraft – Education Edition	web collaborative platform, classroom management tools	Also used in educational settings for Special Educational Needs
StoriumEDU	collaborative writing game	Unused in the HE sectors - interesting because of the game dimension (card instrument) - addresses social issues