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Reshaping Design Education: Curriculum Diversification for a Pluriversal Pedagogy

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Abstract. This article explores curricular structures in the world of design, with an emphasis on analyzing inclusion from the ground up. The proposal is to examine how its layout in different locations addresses various realities and how its diverse cultural, social, and economic perspectives influence education and practice. The paper's methodology follows the Emerging Transition Design Framework, and the objective consists of a literature review followed by several analyses of case studies. Based on an initial study of 16 institutions, this research highlights three key criteria: courses focusing on inclusive practices, content within various disciplines and projects, location with a broader coverage of diverse socio-economic and cultural perspectives, and higher education programs such as bachelor's and master's degrees in design. University stakeholders were interviewed, and data was analyzed through a transitional method regarding their understanding of inclusion and where/how they genuinely implement it in their curriculum and teaching. This article argues that inclusion is not unidimensional, but a multifaceted spectrum where economic, social, political, and cultural issues intertwine and profoundly influence its meaning and practice. Although many higher education institutions are beginning to incorporate inclusion into their curricula, the research emphasizes the significant barriers to achieving true inclusion. In this scenario, a need emerges for the educational domain in the design field to stop importing methods and curricula and to value what best represents its history. This shift requires collaborative work to implement meaningful inclusive pedagogies that promote emancipatory and plural design, capable of incorporating many perspectives and cultural experiences.

Keywords: Design pedagogy · Design curriculum and educational policies · Inclusive Design

1 Introduction

The evolution of the inclusion perspective in design education stands out as a crucial area, seeking to ensure accessibility, equity, and belonging for individuals from diverse backgrounds, abilities, and perspectives. This approach questions the concept of 'design' and 'design education' by contemplating the thought of 'who, for whom, and in what way.' This critical analysis aims to uncover the conditioning structures influencing design education's meaning and its future direction.

In the current context, emerging social issues contribute significantly to the discussion about the social role of design, highlighting its relevance in the face of economic, climate, social, and environmental crises. Reflection on the real priorities of design, especially concerning sustainability, is essential, raising a fundamental question: What would be the place and role of the designer in a world in constant transformation and full of persistent challenges?

Notably, in recent years, this questioning has been intensifying in the field of design and evaluating an established phenomenon in academic circles: the effects of heterogenization and imperial worldviews, as well as various forms of colonial knowledge production that continue to shape universities and design practice. Applying a global perspective reveals the “amnesia” regarding universities’ colonial involvements, often associated with structural legacies of an imperial world built on asymmetrical power relations between the “West and the rest.” This paper aims to see how this is analyzed in different parts of the world and how the curricular structure of universities worldwide is being established. In addition, it analyzes the extent to which local socio-cultural-political factors influence the vision of inclusion in design education.

University education prepares professionals to face current and future challenges, especially concerning Sustainable Development and the 2030 Agenda. Goal 4, which proposes access to inclusive, quality education with continuous learning opportunities, emphasizes the importance of inclusion in education and design practice. Considering the economic, social, and environmental pillars, a sustainable approach is fundamental. It is essential to prioritize equality and the relevance of social issues in design practice and education to drive this change toward a more sustainable future.

This transformation is significant in a hegemonically globalized world, where several worlds coexist in one. The pluriverse approach, as defined by Escobar (2018), promotes new perspectives and thinking, challenging the dominant paradigm and emphasizing the need for a more integrative perception of the world. Inclusive education, which values different world perspectives, becomes crucial for a more integrative and critical design, enhancing intercultural exchanges and strengthening ties between diverse knowledge. Understanding this change, both from within the sphere of higher education and from the outside in, is essential to explaining possible internal transformations in education, as evidenced in the Portuguese educational context.

2 Methodology

The paper’s methodology was a literature review followed by various case study analyses. It also adopted the Transition Design Framework Methodology (Irwin 2015) as the scope for the research project, using a qualitative approach to explore and analyze possible changes to a design course curriculum. In this article, we will be primarily conducting an observational examination of the elements that are currently shaping the curricula of different universities across the globe.

To analyze current implementations and the influence of socially responsible design in education, this study follows a three-stage method: selecting case studies, analyzing converging points, and interpreting the results. To this end, a group of 16 institutions (Fig. 1) was selected according to three main criteria:

- The first criterion is to be considered a design higher education institution. Responsible or inclusive design is a unique approach in practice and design education. Therefore, both cycles of education that offer specialization (bachelor's and master's) could be included in this study.
- The second criterion is the area of the program. The name of a program indicates its focus, promotes it to future students, and distinguishes it from others. The programs were selected based on their names and content so that we could assess institutionalized inclusive practices.
- Finally, the third criterion is the geographical location of each institution, since the cultural issue is an essential factor in studying the inclusion of different pedagogical elements in an epistemologically diverse space anchored in traditional local knowledge. Therefore, Universities in North and South America, South Africa, Asia, and Oceania were researched. The goal of the analysis is dual-pronged: to increase the diversity of design education by adopting a pluriversal approach, and to pinpoint educational institutions which have already employed more integrated techniques or processes. In this way, the broad global vision of countries from different continents is critical.

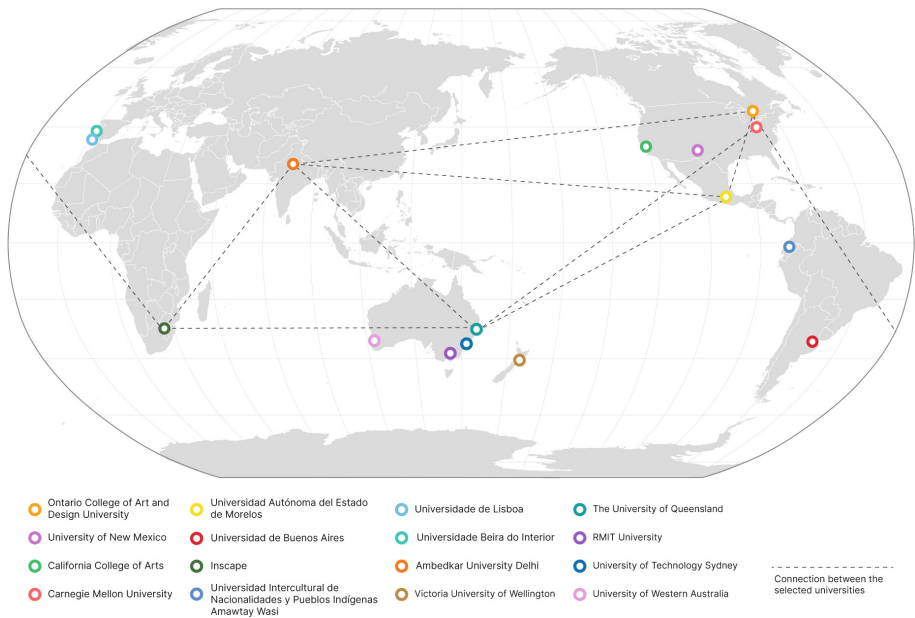


Fig. 1. World map of university positions. *Source* Adaptation of Robinson's Political World Map Centred on Asia-Australia.

In order to analyze the information collected on the universities and their respective courses, the PESTLE Analysis was used in an adapted form. PESTLE is an analysis framework used to examine political (P), economic (E), social (S), technological (T),

environmental (E), and legal (L) factors that can affect the organization, project, or situation (Perera 2020).

This choice stems from the need to understand how to collect and analyze the space for speech and respect for cultural, social, linguistic, economic, and ethnic diversity and to recognize the unique experiences of all students (teachers and other stakeholders in the education system). However, because technological factors are not the focus of this investigation, given the difference in this topic between the countries to be listed, it was not considered.

Among the statements made in the matrix analyzing the sixteen universities, six were selected with the highest scores for a more in-depth comparison of cultural, political, ethical, environmental, social, and economic factors, related to its curricula and education methods. This focus group was limited based on geographical scope, the structure of the institution (master's and bachelor's degrees), and openness to understanding information and access to primary content. Based on this selection, semi-structured interviews were carried out with each institution's teachers, directors, and/or students to obtain rich and meaningful responses from each stakeholder, allowing for a deeper understanding of their experiences, perspectives, and values. It was done to understand how the education and curriculum of each course is or could be more inclusive and fairer to point in the direction of a sustainable transition in design education.

3 Case Studies

The following information is based on the university's websites and how they present themselves and their courses. The subsequent data focuses on six of the sixteen surveyed universities, offering detailed case studies. This analysis explores how these universities present themselves, particularly emphasizing their approaches to sustainability, social design, and inclusion in both curriculum and structure.

3.1 Master in Interaction Design - Carnegie Mellon University

The school's guiding principles

Carnegie Mellon University (CMU) is a private research university in Pittsburgh, Pennsylvania, USA. In 2013, CMU underwent a cultural reconstruction to re-evaluate its curriculum changes, it developed a new theoretical framework to unify courses structure, prioritizing three new areas: Design for Service, Design for Social Innovation, and Transition Design. The proposal was to develop new programs that responded to the demand from other disciplines and professions for students to be 'equipped' with the tools and processes of design. The new curricula introduce students to a holistic/ecological view of the world and provide a basis for the principles of living systems, indigenous and local wisdom, alternative economics and politics, and climate change, to name a few.

Program

From this new paradigm, the Master's program in Interaction Design¹ (MDI) of the School of Design. The main objective of this master's is to prepare professionals to

¹ [<https://design.cmu.edu/content/master-design>].

lead the development of new products, services, and experiences worldwide. The MDI is designed to train professionals who can contribute innovative solutions to complex problems. In this sense, the program focuses on understanding humanity and technology and provides students with the skills and tools to apply design principles to interdisciplinary projects.

As part of the program's curriculum, in addition to traditional design courses, students must take an elective course outside of design to complement their skills and knowledge. CMU recommends courses in politics, business, services or social innovation, interaction design, communication, or professional writing.

Curriculum Innovation

The curriculum adopts Irwin and Kossof's Transition Design Framework (2022) to enable students to analyze the past and present to create more desirable systems for the future. The two-year master's program challenges students to rethink the role of design. Through individual or team projects focused on service design and social innovation, students learn essential design principles and tools, adopting their interests as they chart their path based on their unique design background and voice.

Professor Terry Irwin highlights that this transformation has required a cultural shift, a commitment to a collaborative process, and a willingness to develop slowly, with the need to think long-term. In addition, she emphasizes the importance of moving beyond current paradigms and adopting a new educational paradigm, where educators and students learn together and design for a future beyond the present socio-economic and political context.

3.2 Industrial Design - Ontario College of Art and Design University

The school's guiding principles

Ontario College of Art & Design University (OCAD U) is a public art university in Toronto, Ontario, Canada. The college has undergone structural changes since the arrival of the new Dean, Elizabeth (Dori) Tunstall, who has implemented Culture-Based Innovation Initiatives focused on using ancient forms of knowledge. As an academic management system, respectful design is applied at various institutional points to decolonize design education. Dori intends to open space for rebuilding the faculty as a place of respect as the unifying ethos, a core value in Indigenous perspectives.

Program

The Industrial Design² course proposes an innovative curriculum aligned with the challenges of the 21st century and the need for sustainable growth. The program seeks to break with conventions, promoting an understanding of multiple perspectives and design ethics, considering the future a vital element in creating sustainable products, services, and interactions within social, economic, and planetary limits.

The curriculum covers a wide range of subjects over the four years of the degree, from fundamental aspects of design to specialized knowledge. These compulsory and elective subjects cover different fields: Material World, Products and Manufacturing, Visualization, Interaction Design, Design Research, Design Context, Professional Development, Arts and Sciences, and Industrial Design Pathways. Some of the optional subjects include

² [<https://www.ocadu.ca/academics/undergraduate-studies/industrial-design>].

Indigenous Sculpture Strategies; Turtle Island Visual Culture; Human-Centered Design; History of Political Thought; Queer Theories; Disruptive Futures; Business and Social Innovation; Design for Health; Art and Social Change I & II; Indigenous Views; Feminist Theories; Politics of Painting; Art and Design Activism; Internet, Globalization & Resistance; Social Change and Technology; Residential Design/Inclusion Cultural Agents; Social Space and Diversity; and Designing Across Difference Race, Racism and Media.

Curriculum Innovation

The course seeks to promote inclusive working thinking by addressing historically neglected content. It allows current and marginal social problems to be discussed and centralized in design, contributing to a more diverse and innovative design culture. The aim is to develop students' critical thinking about the role of design in society, encouraging an awareness of sustainability and a look towards a more inclusive and sustainable future.

The content of the subjects offers an inclusive and flexible approach, stimulating Respectful Design and allowing students to choose their directions. There is a commitment to decolonizing the Faculty of Design curriculum, research, and practices. It involves reflection on the role of design in the context of colonialism and the need to reformulate Eurocentric biases to minimize harm and promote more ethical and conscious work.

3.3 Master's in Image, Art, Culture and Society - Universidad Autónoma Del Estado De Morelos

The school's guiding principles

The Universidad Autónoma del Estado De Morelos (UAEM) is a decentralized state public education institution with the motto "For a cultured humanity." Located in Cuernavaca and Morelos, the UAEM was founded in 1953 and is one of Mexico's largest higher education institutions. Its vision is to be a university committed to strengthening higher education to promote the development of the southern region and the state and to contribute to solving social, economic, cultural, and political problems.

Program

The Master's Degree in Image, Art, Culture and Society (IMACS) aims to provide an in-depth understanding of the interrelationships between image, art, culture, and society. It stands out for its transdisciplinary approach, seeking a broad understanding of the image and socio-cultural processes, adopting multiple perspectives and conceptions.

The program is based on a sustainable, inclusive, and intercultural vision, focusing on generating a positive social impact, especially in vulnerable communities. It stands out for its holistic approach that incorporates multiple visions, develops analytical and critical skills to interpret artistic and cultural production, and offers opportunities for students' practical and academic development. Offering a wide range of subjects, IMACS covers areas such as Semiotics, Aesthetics, Image Analysis, History of Visual Arts, Gender Studies, and Visual Culture, among others. The program's differential lies in its emphasis on academic research to analyze the construction of the image concerning socio-cultural processes, proposing solutions to the impacts on art, culture, and society.

The course aims to enable students to analyze and understand the interconnection between society, culture, and ways of generating, using, and disseminating images and art

using technological advances in communication. It also seeks to provide methodological and technological tools for conducting ethical and innovative analyses and research into images, art, culture, and society. The program focuses on training a professional with a scientific-cultural profile capable of developing research, projects, and proposals for intervention in the field to contribute to society's development critically and responsibly.

Curriculum Innovation

The course addresses the social and creative processes inherent in generating, using, and disseminating images related to culture, its preservation, and transformation. It analyses the mutual influence between culture and the construction of images, exploring how technology impacts their generation, use, and dissemination.

Its curricular structure is divided into two strands: Theoretical-Methodological and Research, offering seminars in theory, methodology, and research. The course's flexibility is based on a transdisciplinary approach, promoting reflection and problem analysis in conjunction with Lines of Knowledge Generation and Application (LGAC).

The program seeks to train professionals with a comprehensive, sustainable, inclusive, and intercultural vision to analyze the construction of the image concerning socio-cultural processes, proposing solutions to the impacts on art, culture, and society.

3.4 Arts & Social Sciences - the University of Queensland

The school's guiding principles

The University of Queensland (UQ) is a public university in Brisbane, Australia. Founded in 1909, the institution has provided exceptional study experiences, excellence in research and collaborative partnerships, and offers leadership in knowledge for a better world.

Program

Its dual program offers the opportunity to combine studies in the Bachelor of Social Sciences with a wide range of specializations in the Arts, providing critical and creative transferable skills across sectors. The Bachelor of Arts allows students to explore more than 40 areas, while the Bachelor of Social Sciences focuses on pressing social issues, from inequality to the impacts of climate change.

With a flexible curriculum, students can tailor their studies to suit their goals, combining 64 credits, 32 from each bachelor's degree, offering varied subjects including aboriginal studies, gender, environment and society, globalization and development in post-colonial societies, and working with Indigenous people.

Curriculum Innovation

The course offers students the flexibility to build a personalized knowledge of the application of the arts in society. It addresses the study of Indigenous Australian culture to foster connections with these communities and develop global critical thinking skills. In addition, the curriculum aims to address international, community, and sustainable development issues from an art in the social sciences perspective.

The curriculum structure is complex, allowing students to choose subjects according to their interests to obtain both degrees. The program offers a wide range of subjects in the humanities, social sciences, and languages, allowing students to explore diverse areas of study while developing creative and critical thinking skills.

3.5 Master in Social Design - Ambedkar University Delhi

The school's guiding principles

Ambedkar University Delhi (AUD) is a state university in Delhi, India. The Faculty of Design at AUD is recognized as an institution focused on design practice and research, offering humanities and social sciences programs. The design center stands out for its emphasis on equity and sustainability, using collaborative methods to create more inclusive and sustainable public systems.

Program

The Master in Social Design is a 2-year practice-based program that combines design and social sciences to tackle complex social challenges collaboratively. The focus areas are public services, community networks, livelihoods, digital technologies, and entrepreneurship. The course is divided into four semesters with subjects such as Emerging design theories, Social Entrepreneurship and New Economies, Design Practice and Ethics, Design and Democracy, Ecology, Environment and Development, and Technology and Society.

The master's degree fosters the study and practice of design not only to traditional design attributes but with solid equity and ecology concerns to create more accessible, inclusive, and sustainable public services and systems through participatory and collaborative design methods.

Curriculum Innovation

The college's first design program, starting in July 2013, has completed ten years and, after many reorganizations, has defined its curriculum with an innovative mission in Indian socio-cultural contexts. The master's degree aims to train a new generation of designers who will challenge the relationship between man and the environment, promoting inclusive and egalitarian environments through design. It stands out for providing educational opportunities to students from marginalized castes, breaking with stereotypes and traditional patterns of the Indian design student. This initiative broadens students' skills and empowers them to impact public services and systems, working with communities, digital technologies, and social entrepreneurship.

3.6 Bachelor of Design in Ideation - Inscape

The school's guiding principles

Founded in 1981, Inscape, located in several cities in South Africa, was the first private multidisciplinary design institution. According to its website, Inscape constantly strives to form new relationships with institutes, councils, and organizations representing the various design industry specializations. These affiliations play an important factor in students getting to know all the latest trends and technological advances in the industry.

Program

The Bachelor's Degree in Ideation Design focuses on teaching complex problem-solving methods, using Design Thinking, and encouraging students to address challenges related to the Sustainable Development Goals (SDGs). With a three-year curriculum, the course focuses on developing fundamental skills in the first year, including knowledge of economics and sustainable design. The second year broadens knowledge, exploring disciplines such as human-centered design, social studies, innovation, advanced software

skills, internship cycle, and thesis development. The third year offers specialization in Transformative Design, Design Management, and Entrepreneurship, deepening students' knowledge of industrial psychology, globalization, and social studies to drive design and business initiatives.

Curriculum Innovation

Subjects such as History of Design, Visual Communication, Business Studies, and Communication Studies contextualize the aim of the course to help students make connections between design and future contexts of practice and work. As agents of change, students are encouraged to design sustainable, ethical, and socially responsible solutions and support environmental progress. The aim is to develop communication skills and the ability to articulate and justify their decision-making. This approach supports 'sustainable learning' to ensure that all students are ready to face industry and a variety of contexts.

4 Discussion

4.1 Discourse Analysis and Guiding Principles

After analyzing the universities and their stated objectives, this chapter presents a discussion of the data collected. The information gathered is supplemented with qualitative research, including interviews with teachers, students, and institutional directors. The purpose here is to understand how universities in different locations around the world view the issue of inclusive design education, i.e., to compare critical points of agreement or overlap to report their findings (Bardin 1977, p. 44). The interviewees from each institution were as follows:

- Venugopal Maddipati, coordinator of the Master's program in Social Design - Ambedkar University Delhi;
- Ryan Carney, a second-year student in Industrial Design - Ontario College of Art and Design University;
- Alexander Manu, professor of Strategic Foresight and Innovation in Industrial Design - Ontario College of Art and Design University;
- Marieke Odendaal, a third-year student in Ideation Design - Inscape;
- Rebecca Olson, Director of the Bachelor of Social Sciences Program - University of Queensland;
- Laura Silvia Iñigo Dehud, coordinator of the Master's program in Image, Art, Culture, and Society - Universidad Autónoma del Estado de Morelos; and
- Stacie Rohrbach, Director of the Master's Degree in Design - Carnegie Mellon University.

Drawing from interviews with the teachers and students mentioned earlier; the subsequent section presents four items that consolidate the axes connecting topics, data, and insights gleaned from these discussions.

The thematic analysis of the interviews aims to group, organize, and categorize the reports, looking for relationships between them to justify a particular phenomenon being studied. The structural thinking presented here points to the guiding axes for analyzing the discourses of the qualitative data but also highlights the importance of justifying the

excluded themes. The choice to evaluate only the following main axes represents this study's research and discourse analysis scope.

According to Bogdan and Biklen (2010, p. 134), "an interview is used to collect descriptive data in the subject's language, allowing the researcher to intuitively develop an idea of how subjects interpret aspects of the world." It is a question of defining the researcher's centers of interest, with a direct link to her theoretical assumptions (conceptual approach) and a direction, albeit not declared, for the content that will be obtained in the interviews (Queiroz 1987, p. 39). The following items were constructed based on the research objectives set, the questions posed by the interviewer, and specific clippings from the interviewees' speeches, representing the intersecting themes of the conversations.

Item 1 - Inclusion in education and its barriers

Design has been actively engaged in current social challenges in the academic and professional spheres. This participation is evident in the call for the defense of democracy, driven by prominent figures in the field. This shift reflects an evolution in design, prioritizing social issues from 20th-century manifestos to participatory, humanitarian, and inclusive approaches (Manzini and Margolin 2017).

Inclusion is a central theme in anthropology and design, encompassing different perspectives and interpretations. In education, inclusion is widely discussed, ranging from accessibility for people with disabilities to equal opportunities for all students. This section aims to analyze the data, understand what inclusive design teaching means, and how different sociocultural perspectives interpret this concept. The understanding and application of inclusion at the universities studied and interviewed highlights gender issues, incorporating indigenous knowledge and stakeholders, accepting people with physical and mental disabilities, and class perceptions, among others.

So, while there is a growing demand for inclusion and for addressing marginalized perspectives and references in design education, the simultaneous struggle for inclusion in all its dimensions challenges the notion of a genuinely multicultural university. However, the implementation of inclusion faces significant challenges. Financial, structural, and cultural barriers are pointed out in different parts of the world, hindering the practical application of genuine inclusive education in design. Teachers and experts point to the need to overcome these barriers by adopting strategies that allow inclusion to be effectively incorporated into the curriculum.

The diversity of barriers and challenges highlights the complexity of inclusion in educational design. While some countries are progressing in implementing more comprehensive curricula, limitations persist in the socio-political context. Inclusion in design demands continuously recognizing that the social, political, and cultural context shapes design. An inclusive approach offers diverse perspectives and opportunities and can help sustainably address societies' challenges.

Item 2 - Structure and methodology

In the dynamic field of educational design, structuring courses is crucial to prepare designers to be capable of facing complex challenges. Teaching methods have evolved, but roots like those of the Bauhaus and Ulm still influence university structures worldwide. The need for a relevant education arises, detaching design from its Eurocentric heritage and integrating local issues (Grosfoguel 2013).

Transition Design recognizes the need for social change for a sustainable future. Universities such as CMU are leading significant changes in design discourse and practice, promoting awareness of structural unsustainability. Periodic evaluations and curriculum updates are standard practice in many universities, aimed at the relevance of courses, including indigenous visions and revising curriculum structures.

Cultural inclusion and the decolonization of design are goals for many institutions, requiring changes in the teaching staff and educational structure. However, challenges remain, such as the predominance of Eurocentric knowledge and the need for more comprehensive and accessible educational strategies for a diverse student body.

While universities adapt to pressures to train professionals for a globalized world, bold advances in educational restructuring are emerging. These changes target not only the field of design but academia as a whole, promoting radical and sustainable social change.

Item 3 - Teaching process, curriculum and subjects

Design and its education require a reorientation to integrate critical social theory into their practices. Through this approach, the normative Eurocentric and universalist connotations (Quijano 2018; Noel et al. 2023), even if perceived, remain in the pedagogies of design education. However, even with standard structures, the factors differentiating the universities interviewed are their humanistic methods and local sociocultural approaches.

Universities like Delhi focus on design as a solution to social problems, prioritizing marginalized communities. They seek to innovate services and solutions for critical situations in different contexts. In addition, institutions such as Morellos, Inscape, and Queensland adopt diverse approaches, from design thinking to human-centered design methods.

On the other hand, what is structured in a curriculum also depends on the teaching process and its pedagogy. The participatory approach to design and education reflects the critical thinking of Paulo Freire, where educators learn from students and vice versa. This model values the exchange of knowledge and collective participation, stimulating the construction of a mutual learning environment. OCAD and CMU follow this approach, encouraging classroom debates and seeking solutions and future projections within technological and socio-environmental contexts. The teachers also focus on student development, preparing them for their careers through a human-centered approach. These universities aim to shape students as professionals and humanitarian change agents through transformative education.

The structures that underpin design education and their political and social contexts have yet to be discussed. Instead, courses are presented with a neutral and apolitical vision defined by so-called “objective” norms. Reflecting on design practice and the importance of critical pedagogy helps to understand why and for whom design is made. The role of design is to dialogue with different realities and create possibilities ethically and consciously.

Analyzing the data in a sociocultural context indicates each country’s commitment to inclusive design education and the specific factors accompanying it regarding diversity in education. Although topics such as sustainability and social innovation are rising in design education, these concepts still appear much more as optional subjects than as

compulsory and methodological foundations. Some universities need to reconsider the role of design, seeking to make it more dialogical and oriented towards overcoming oppression, something already visible in some institutions, such as Delhi and Carnegie Mellon.

Item 4 - Course participants and international perspective

University teaching needs to consider the complexity of today's world, emphasizing the importance of sociocultural factors in students' education. Intercultural relationships in the classroom can enrich learning, although challenges such as social inequalities and language barriers affect educational dynamics. Diverse socio-economic, linguistic, and cultural realities mark the university environment in different countries. There are limitations to access to opportunities in some places, while others promote greater inclusion and diversity. However, cultural diversity and social inclusion in design education are fundamental to enriching the educational experience.

There is a question about whether design education effectively promotes sustainable awareness and whether students are genuinely engaged in solving the world's problems. Country-specific and generational characteristics impact the approach to sustainability in education, reflecting a growing concern, although there are issues of apathy in specific contexts.

These aspects, which have been analyzed in-depth, provide valuable insights into the nuances of educational experiences at different universities. They play a crucial role in collating and interpreting the data, contributing to meaningful conclusions about the current state of design education.

5 Limitations

There are also some limitations to this paper. The data is limited to the sources and data available on the institutions' websites and portals. There is an undeniable chance of missing crucial information about the programs mentioned. Thus, the study's results may reflect a partial intent of the study program, although they serve as a basis for choosing which cases will be selected for further study.

Added to this is the uncertain factor that could happen when the teacher may or may not transfer the message of a subject or when what the student learned is not validated. It could instead be a structure and communication problem, even though it contradicts what we discussed in the paper and the "Círculos de Cultura" (CC) approach. CC is an educational methodology that aims to promote critical awareness and active engagement of participants. Unlike traditional teaching methods, where knowledge is often unilaterally transmitted from the educator to the student, the "Círculos de Cultura" emphasizes the collective construction of knowledge.

We understand the importance of addressing various realities and the diverse cultural, economic, and social perspectives that influence design education and practice. However, due to the length of the research and the limited access to information, other parts of the world, such as Southeast Asia, the Middle East, and Central Africa, should be analyzed in the future.

6 Conclusion

Design education continually evolves to ensure accessibility and inclusivity across diverse backgrounds and perspectives. It strives for equity, particularly for those marginalized by socioeconomic factors or oppressive policies. A reimagined social justice paradigm is crucial, fostering innovative pedagogies that empower students while challenging entrenched narratives of inequality. This shift prompts a critical examination of design and its educational frameworks, emphasizing the need for transformative teaching structures. Another crucial aspect of the social justice approach is recognition. As Dombrowski et al. (2016) highlights, recognition involves identifying unjust practices, policies, laws, and other phenomena and recognizing those most adversely affected by them (p. 6).

After an in-depth analysis, it was identified that although there have been theoretical advances in inclusive design education, its practical application is limited. Far from being neutral, design reflects power relations and is inherently political. The challenge is transforming design into a practice that promotes justice, sustainability, and awareness rather than generating consumer products that maintain the status quo.

Although a step forward, decolonial thinking is still influenced by foreign models. The idea of sustainability, for example, reflects a Eurocentric perspective. Institutions must value knowledge produced on the margins for more inclusive education, diversifying perspectives and cultures from the beginning of teaching. Adopting a community and relational approach to education and overcoming disciplinary boundaries is essential. Transdisciplinary is critical to integrating design with other areas of knowledge. Design education must foster plurality, respecting and integrating diverse narratives and epistemologies into its curriculum.

The change in design education involves restructuring the educational model, moving away from the traditional hierarchy between teacher and student towards a collaborative environment. More horizontal pedagogical models, such as the 'Círculo de Cultura,' illustrate a more participatory education. New design practices can unravel the implications of design in the exploitation of land, labor, and bodies, questioning its role in societies free from colonial dependency. The inclusion of intercultural practices enriches design education by fostering a diversity of perspectives in the classroom. Searching for a more inclusive design education involves reconstructing and adapting the concept to a pluriversal and local-global approach (Leitão et al. 2020, p. 154).

The proposal is based on the conviction that this potential is tangible, as indicated by trends observed in the design profession, especially among a small but growing subgroup of designers who are already effectively involved in design projects aimed at more plural and inclusive transitions. A future study will be carried out, explicitly mentioning the concern with the national educational context, the Portuguese educational context.

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References

Ambedkar University Delhi, The Master of Design (Social Design). <https://sod.aud.ac.in/>. Last accessed 15 Feb 2023

- Bardin, L. *Análise de Conteúdo*. Lisboa Edições 70, Lisboa (1977)
- Bogdan, R., Biklen, S.: *Investigação Qualitativa em Educação: Uma Introdução à Teoria e aos Métodos*. Porto Editora, Porto (2010)
- Carnegie Mellon University, Master of Design in Design for Interactions. <https://design.cmu.edu/content/master-design/>. Last accessed 15 Feb 2023
- Dombrowski, L., Harmon, E., Fox, S.: Social justice-oriented interaction design: outlining key design strategies and commitments. In: *Proceedings of the 2016 ACM Conference on Designing Interactive Systems*, pp. 656–671. ACM, New York, NY, USA. <https://doi.org/10.1145/2901790.2901861> (2016)
- Escobar, A.: *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Duke University Press, Durham (2018)
- Grosfoguel, R.: The structure of knowledge in westernized universities: epistemic racism/sexism and the four genocides/epistemicides of the long 16th century. *Hum. Arch. J. Sociol. Self-Know.* (2013)
- Inscope Design Education.: BDes Ideation Design <https://www.inscape.ac/courses/course-type/undergraduate/bachelors/bdes-ideation-design/>. Last accessed 15 Feb 2023 (2020)
- Irwin, T.: *Transition design: a proposal for a new era of design practice, study and research*. Unpublished manuscript, School of Design, Carnegie Mellon University (2015)
- Irwin, T., Tnkinwise, C., Kossoff, G.: *Transition Design: An Educational Framework for Advancing the Study and Design of Sustainable Transitions*. Cuadernos del Centro de Estudios de Diseño y Comunicación. <https://doi.org/10.18682/cdc.vi105.4188> (2022)
- Leitão, R.M., Men, I., Noel, L.A., Lima, J., Meninato, T.: Dismantling/reassembling tools for alternative futures. *Des. Res. Soc.* <https://doi.org/10.21606/pluriversal.2021.0052> (2020)
- Manzini, E., Margolin, V.: Open letter to the design community: stand up for democracy. <https://democracy-design.designpolicy.eu/open-letter-stand-up-democracy/> (2017)
- Noel, L.A., Ruiz, A, van Amstel F.M., Udoewa, V., Verma, N., Botchway, N.K., Lodaya A., Agrawal S.: Pluriversal Futures for Design Education, *She Ji: The Journal of Design, Economics, and Innovation*, **9**(2), 179-196, ISSN 2405-8726, <https://doi.org/10.1016/j.sheji.2023.04.002>(2023)
- OCAD Universit.: Program guide. <https://www.ocadu.ca/services/records-and-registration/program-guides>. Last accessed 15 Feb 2023 (2023)
- Perera, R.: *The PESTLE Analysis*. Nerdynaut, edit 2.0. (2020)
- Queiroz, M.I.P.: Relatos orais: do “indizível ao “dizível”. *Ciência e Cultura*, São Paulo. <https://ria.ufrn.br/jspui/handle/123456789/1798> (1987)
- Quijano, A.: Colonialidade e Modernidade/Racionalidade. *Estudos Culturais* **21**(2–3), 168–178.(2018)
- Tunstall, E.: *Decolonizing Design: A Cultural Justice Guidebook*. The MIT Press, Cambridge, Massachusetts, London, England (2023)