

# *Inclusive Making: Learning to Design With and for Neurodivergence Through Participatory Making*

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## **Abstract**

This paper illustrates an outreach project that explores Inclusive (Participatory) Making between students of Universal Design and young adults with neurodivergence, who are trained in life skills by host organizations. Here, making refers to the exploration of tangible materials, media, and crafting techniques and is used as a methodology for being an intuitive and democratic form of expression known to mankind. Art-craft workshops were co-imagined by the design educator (me), design students and special educators to uncover the creative diversity among these atypical individuals. The workshops led to a first-hand understanding of neurodivergence, helped identify comfort levels with materials or techniques, and gauge their skill sets. The creative outputs were analyzed to create skill maps for every participant. The above study was then used to design an aesthetic vocabulary that celebrates atypical sensibilities, which were used to design products that the skill-training organization could produce and retail to create a viable business. By questioning what constitutes creativity, aesthetics, and authorship, we were able to alter the brand perception of enterprises working with people with disabilities, thereby shifting the gaze from charity-driven to design-driven, making it an inclusive livelihood opportunity for a community that is conventionally unable to be self-reliant. It gave the prospective designers scope to expand their practice to accommodate vulnerabilities and differences and to imagine alternate, unrestrained narratives of aesthetics. This ability to unpack, critically question, and respond to a social phenomenon was scaffolded by an experiential creative pedagogy, developed to be collaborative, compassionate, infusive and inclusive.

Keywords: Inclusive, Making, Participatory Design, Neurodivergence, Design Education, Design Pedagogy, Livelihood Generation

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## Introduction

“It is justice, not charity, that is wanting in the world”, said Mary Wollstonecraft in the context of women and equal opportunities, but it holds as true for persons with disabilities (PWD) and their right to lead a meaningful life of dignity, without being at the societal margins.

As per the Census 2011, 2.21% of the population in India is categorized as disabled, of which close to 9% falls under the category of ‘mental retardation’ and ‘mental illnesses’ with estimated 2 million people listed as neurodivergent as per National Institute of Mental Health and Neurosciences (NIMHANS).

Of all groups of people with disabilities, those with mental retardation have the highest rate of unemployment, at 94%, as per the National Sample Survey Office (NSSO).

Viewed in this perspective, persons with disability represent the single largest combined minority group in India. (Shenoy, 2011). Globally, the figures are equally disheartening; 80% to 90% of PWD of working age being unemployed in developing countries, and between 50% to 70%, in industrialized countries as per the United Nations factsheet on PWD.

The employment playing field is uneven, inaccessible, and inequitable for this community. The social perception surrounding disability as a burden is the first step towards establishing a person’s unequal status. This coupled with economic frameworks that only support high-functioning individuals, inadvertently act as barriers for people with disabilities, thereby reducing their chances of showcasing their economic worth and living a self-sustained life with dignity.

Despite India’s strong legislative frameworks and economic rehabilitation plans, the implementation of these strategies is yet to become a reality. It becomes particularly difficult for the neurodivergent population, where the complexity of the condition is not always as perceivable as physical disabilities.

Some NGOs over the years have contributed to the upliftment of this marginalized population through supported or sheltered forms of employment and economic rehabilitation programs.

A significant part of these programs includes vocational training in areas of hospitality, digital skills, and craft activities that involve paper bag production, paper-mâché crafts, chocolate and candle making alongside sorting, boxing and packaging. However, across these formats, the neurodivergent person is part of an assembly line and paid a wage proportionate to their efforts.

These organizations rely on small-scale fairs and seasonal corporate gifting as revenue streams for their enterprises to stay afloat.

But what these enterprises really rely on is people’s sympathy to make these purchases. A quick look at the webpages for some well-meaning organizations that work with people with disabilities have a pleading tone of voice and the helplessness is palpable.

But what if creative thinking could change the charity-first (and in this case also the disability-first narrative) to a design-first narrative, for a more equitable livelihood landscape?

This would mean that Design or Creative Education should have equipped prospective designers with the necessary capabilities to bring about such shifts.

It is then that one realizes what design education does not teach.

Primarily, most design curriculums exclude or skirt around financial literacy and any economic know-how.

How then does one learn to design for a livelihood or to earn money? And if one doesn't know how to design for livelihoods for oneself, how would one do it for someone else?

But designers are expected to design for someone else all the time and if pursuing a specialized discipline such as Universal Design, we expect them to make life easy for everyone, including and especially for the vulnerable population, such as people with neurodivergence, who live at the fringes of societal existence.

Secondly, design education prepares designers to design 'for' a context or a target audience, but seldom 'with' them in an equitable manner. Link this to the concept of intellectual property or protecting one's creative capital and suddenly, design education presents an interesting conundrum. While it instils a sense of self-preserving, individualistic mindset, it must be in the service of others.

As a response to the above challenges, I developed an outreach course on the Economic Sustainability of People with Neurodivergence, for the students of Universal Design at the National Institute of Design, Bangalore, India. The tenets of Inclusive pedagogy were used to scaffold the course design and the pedagogy, to make the dynamics between the students and the teacher more humane.

As a part of this course, we collaborated with two organizations in the city of Bangalore, across two years, Chiranthana and Diya Foundation respectively, that work with young adults with neurodivergence.

These organizations provide life-skill training to neurodivergent young adults, aiding in employability and involves them as a part of an assembly line to create partially hand-crafted products.

The next section will elaborate on the project in the form of a case-study.

### **Economic Sustainability Through Participatory Making: Course as a Case Study**

This section will outline the details of the methodology, the lens and lines of inquiry that provide the rationale for why the course was imagined the way that it was, the course design itself, the nature of collaboration as well as the impact from such an outreach exercise that blends social realities with creative education.

## ***The Methodology***

The methodology adopted was an amalgamation of methods and devices, such as participatory design and making, bounded by the ideal of inclusion, by honouring differences (and not deficits), to create well-suited livelihood opportunities with the marginalized group, as equal partners in the process.

Hence it would be safe to ascribe the term ‘Participatory Making’ to the methodology; where the act of making becomes an unthreatening, collaborative, and generative instrument to give voice and harness collective creative intelligence, thereby also earning the extended name of ‘Inclusive (Participatory) Making’.

## ***Why Making as a Medium?***

Making in this context refers to everything from mark-making to material and technique manipulations. The act of making has historically been a way for humans to make sense of the tangible, materially mediated world around us, thereby becoming one of the most intuitive and democratic means of expression, discernment, and living.

## ***Why Participatory Making?***

Reflecting on our everyday activities tells us that making brings people together; from quilting to pasta-making, it only works when people collaborate, share resources and experiences, where the resultant artifact becomes a patchwork of knowledge.

Additionally, making can be very centering, where the mind, hands, and the senses mindfully engage with the material one seeks to manipulate.

In the context of neurodivergence especially, it acts as a tool ‘to mitigate the lack of reciprocity in cross-neurotype interactions’ (Davis & Crompton, 2021). In other words, when two different neurotypes interact, there may be difficulty in communication and alignment, and here making becomes a bridge between them.

This undeniably renders making to be one of the most inclusive and non-stigmatizing tools of dialogue.

## ***The Lens & Lines of Inquiry***

This course relies on critically questioning the popular narratives around the conceptual holy trinity of Creativity (and the creative being), Aesthetics (as its associated outcome) and Authorship (as claiming of ownership).

As a cohort we were driven to ask:

- Who is creative and who is not?
- What is beautiful or aesthetic and what is not?
- Who decides the dominant aesthetic narratives of the everyday?
- Who gets to claim intellectual and/or economic authorship, if the seed of an idea comes from one, but another realizes it, making it visible and viable?

Questioning these concepts coupled with unorthodox artful explorations, helped build a case for the creative capabilities of people with neurodivergence, making way for the acceptance of aesthetic plurality and leveraging this sensibility to generate economic value.

As a design educator in the discipline of Universal Design, my inclination towards Inclusive Pedagogy (IP) and Universal Design for Learning (UDL), have been the most congruous pedagogical choices.

Over the years and especially throughout this course, acknowledging & embracing social-cultural-intellectual diversities in my own classroom and creating differentiated opportunities for learning and participation for the different kind of minds has been rewarding.

Some of the measures taken were as follows:

- Differential instruction design that are oral-aural and visual.
- Expanding the notion of the classroom as a learning environment to be more alive or experiential.
- Decentralizing and democratizing the decision-making process for every step, thereby flattening the hierarchy.
- Designing a self-assessment framework that provides autonomy to the learners to reflecting on their practice more critically and therefore become more in control of their learning journey.

### ***The Collaborators***

The key players in this outreach initiative have been the students of Universal Design from NID, batches of 2021 and 2022, the design educator (me), the founders of the two host organizations, Ms. Rachana Prasad from Chiranthana and Ms. Suman John from Diya Foundation-Innovations with their teams, respectively, the core group of the neurodivergent young adults from these organizations and Ms. Devika Krishnan, as an external consultant, for her knowledge of mobilizing craft-based communities towards creating equitable businesses.

At every stage, it was a partnership between two to three of the above-mentioned groups of people, with certain stages where all groups were meant to intersect and contribute as well.

### ***The Course Design***

The course has been designed to be an outreach, collaborative journey with one organization at a time and runs for 3 weeks. The trajectory of how the course unfolds across 9 phases can be seen in Figure 1.

The yellow phases are those that take place in the backend at the level of the classroom, whereas the green phases are the ones that take place in the context of the organizations, making the classroom itself toggle between two very different spaces and states, alongside the changing scale of collaborators in each space.

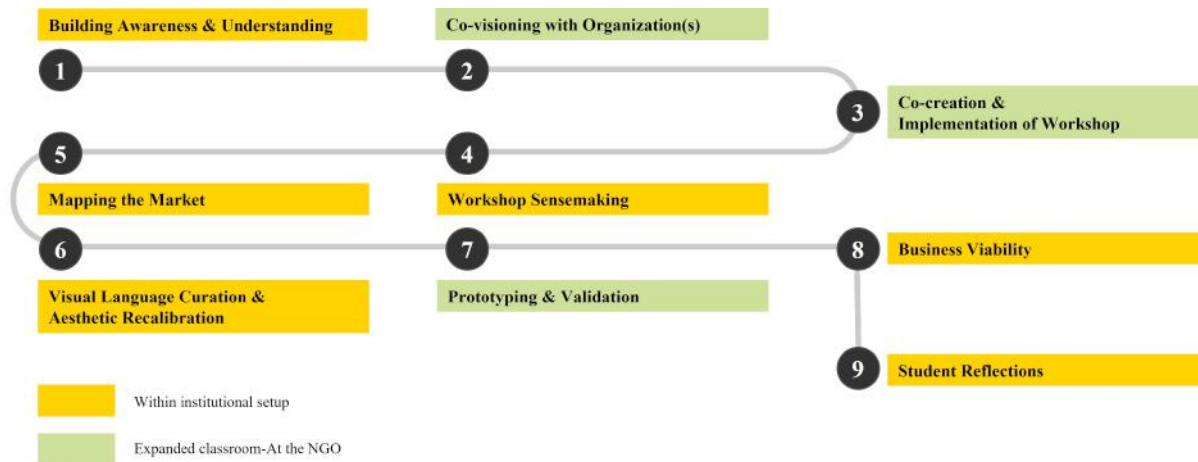


Figure 1: Course Flow

### ***Phase 1: Awareness Building***

This phase includes gaining a theoretical understanding of the following:

- Economic sustainability and neurodivergence across diverse resources
- The link between the two concepts
- Methodology adopted by local-global organizations that work towards fulfilling the vision of livelihood generation cum economic empowerment of people with neurodivergence

### ***Phase 2: Co-visioning***

Co-visioning phase is a meeting of the minds. It takes place between the design educator, the students of design, the external expert and the members of the host Organization, including their accountant and includes the following:

- Understanding the vision, mission, organization structure, and capabilities of the decision-makers
- Auditing the product portfolio, processes, and the participation levels of the core group (neurodivergent young adults)
- Sharing of knowledge cum expectation between key influencers

Plotting and auditing each craft process in detail and the involvement levels of the core group is done to

- a) see the link between their involvement and their corresponding income and
- b) build a case for product portfolio recalibration that meets the market needs but also leverages the capabilities of the participants instead of being a cog in the wheel.

### ***Phase 3: Co-creation & Implementation of Workshop***

This phase requires the design students to co-develop a series of generative workshops in consultation with the founder, resident art therapist or art teacher, a clinical psychologist and the design educator.

The workshops are run across 2–3 days with the core group, depending on their emotional readiness as well as the convenience of the host organization.

The workshop activities are carried out with and without prompts, which may range from words to situations, from artifacts to photographs, to even a piece of music. The design students are encouraged to embrace uncertainty, surprises and happy accidents, to acknowledging the need for departures from their original planning, depending on what the situation demands.

The activities include drawing or mark-making, paper folding-cutting or stencil-making, mosaic making using paper, cloth & found materials, clay-modelling, tie-dye with natural dyes, some frame-loom weaving, braiding, crocheting, embroidery, among others as seen in Figure 2.



Figure 2: Workshop Activities

#### ***Phase 4: Workshop Sense-Making***

Post conducting the workshops comes the sense-making phase.

This is when every core group individual, their abilities, interests and challenges are mapped, alongside a list of pre-determined parameters for every activity conducted. The parameters may vary between the activities, and they range from task comprehension to sense of autonomy, choice of medium, imagery or method, attention to detail, co-working ability, all the way to socio-emotional response to multiple sensory inputs, to name a few.

The observations and findings are collated as descriptive, tabular as well as radar charts, as seen in Figure 3 and are also cross verified for accuracy with the resident therapist. Over time, different ways of representing qualitative data surrounding the skill-sets of the core group have been explored, to do justice to the range of capabilities that any given individual may demonstrate through these creative activities and so that these data points are easy to grasp for the support group at the organization, based on which necessary measures can be taken in an informed manner.

Skill Mapping (Prerequisite)	Skill Mapping (Participant)	Summary
<b>Drawing</b> Sketching / Colouring / Detailing / Style/ Imagination	<b>Drawing</b> Sketching / Colouring / Detailing / Style/ Imagination	<b>Proficiency (Motor Skills)</b> Good Grip Stability & precision, is able to adapt to tools easily
<b>Mosaic</b> Painting / Gluing / Pressing / Composition / Filling-in 2D	<b>Mosaic</b> Painting / Gluing / Pressing / Composition / Filling-in 2D	<b>Task Comprehension</b> He is great with instructions and is able to follow it well
<b>Stencil Making</b> Cutting / Fading / Tracing (across) / Handling Paper	<b>Stencil Making</b> Cutting / Fading / Tracing (across) / Handling Paper	<b>Skills</b> Makes a lot of Dashes, Circles and Sun, signing his name in Tamil, Mixing Colours, Segregating and Clustering, Cleaning brushes, proficient cutting
<b>Stamping</b> Clipping / Pressing / Composition	<b>Stamping</b> Clipping / Pressing / Composition	<b>Endurance</b> Adaptable, Explorative & Fairly consistent
<b>Origami</b> Folding / Pressing / Creating	<b>Origami</b> Folding / Pressing / Creating	<b>Powered Up with</b> Memory & Experiences
		<b>Unique Traits</b> Speedy & Repeated outcomes generation

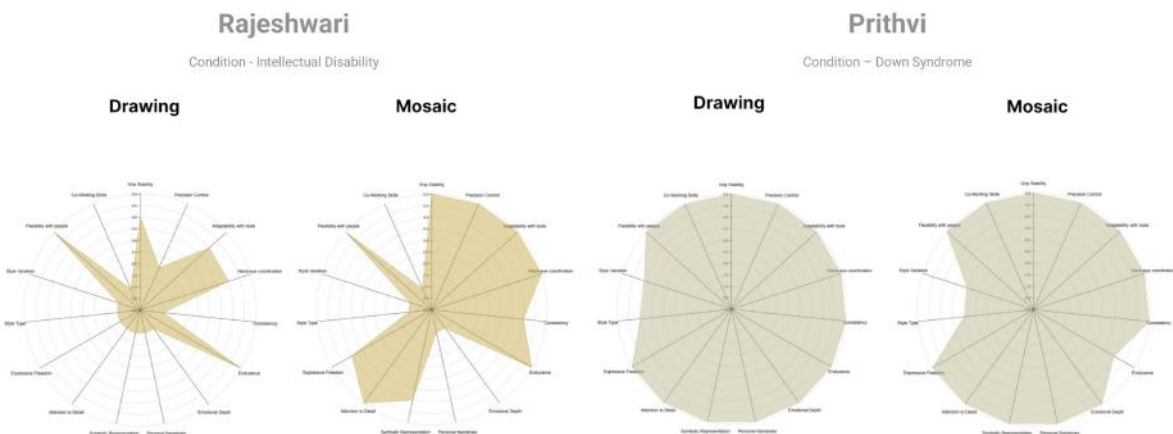


Figure 3: Skill-Mapping for Individuals From Core Group of Participants

Additionally, this phase also includes

- Digitization of the artworks or material manipulations generated from the workshops
- Curation of a phygital library of these visual plus tactile elements after peripheral clean ups, to understand the diversity in visual language and thought processes

While attending to this entire phase, the design students

- begin to understand the role of process vis-à-vis just the output, which makes them more critical of their own creative practice and
- become acutely aware of their position of power, striving to keep biases to the minimum and suspending judgement, when analysing someone else's creative output.

### ***Phase 5: Market Analysis***

This phase requires the design students to understand the lifestyle product market, the prevalent trends, consumption patterns, identify opportunity areas and thereby redefine the target audience that the host organizations would benefit from catering to.

### ***Phase 6: Visual Language Curation & Aesthetic Recalibration***

Having understood the market landscape, we move to the most challenging yet the most creative-generative phase of the course.

This is where the visual language for the overarching brand and the product portfolio within it are imagined as mood-boards, based on the perception one wants the brand to create, which would set it apart from its counterparts.



Equipped with a brand perception vision, a know-how of the capabilities of the core-group, coupled with the infrastructural realities and aspirations of the host organization as the basis, new product lines are explored as low fidelity mock-ups.

This new aesthetic is created by dipping into the phygital library curated in the previous phase and is applied across different product ideas, from the graphical to the tactile.

In some product lines, a digital printing route is taken to do away with the inconsistencies that come with being handmade and to aid reproducibility, while keeping the signature motif of the artist intact.

Some examples of aesthetic anchors and the corresponding new product lines are described below:

- a) The drawings, doodles, and patterns generated are used as the primary motifs for a series of digitally printed cushion covers, a memory game and a board game that takes the player on a journey around the city of Bangalore.
- b) Character doodles are extracted to create a range of cloth dolls and mobiles.
- c) Dyeing techniques like tie-dye with an overlay of digitally printed drawings come together as surfaces that can be used on bags, notebook covers, laptop sleeves etc.
- d) Surface manipulation techniques such as cut-outs are graphically manipulated to be digitally printed as surfaces that can be used as cushion covers, notebook covers, laptop sleeves, or even as patches on apparels.
- e) A phrase repeatedly used by one of the participants, 'I draw...' becomes a prompt to develop an entire range of reusable drawing tiles, that have this phrase on top and the user is encouraged to explore in the space below. Some of these ideas can be seen as a collage in Figure 4.



Figure 4: New Product Ideas

### ***Phase 7: Prototyping & Validation***

Following a few rounds of deliberation and critiquing, the most promising ideas are converted into medium to high-fidelity prototypes, using the available and in some cases prospective resources and facilities. Each product promises to be accompanied by a label that would carry the name of the neurodivergent individual, thereby establishing their identity as artists, who incidentally are atypical.

The core group participants along with the various stakeholders are invited to a viewing and feedback. The reactions and responses from the participants serve as gratification, particularly when the participants recognize their artworks amidst the array of new product explorations and that happens because the essence of the original works are maintained to the maximum extent possible.

A final catalogue with design specification sheets for each new product is compiled, for ease of production and the meeting of quality benchmarks.

### ***Phase 8: Business Viability***

In tandem with the final prototyping phase, the students also attend to the business dimension of the initiative. An elementary-level Business Model Canvas (BMC) is drawn up to unpack the viability of the interventions, as a roadmap to building a sustainable business for the enterprise.

Along with the BMC and the catalogue, rough costing sheet for each product and an indicative vendor list are handed out to the host organization to facilitate their production capability, depending on their size and scale of operation. Additionally, a digital resource library is furnished so that the organization may be able to dip into this pool to be able to generate newer ideas going forward and thereby future proofing their product portfolio.

It is important to note that the idea is not to judge the students for the accuracy of the use of the BMC framework but to acclimatize them with the economic as well as strategic facets of designing for business.

### ***Phase 9: Reflection on Action***

While the collaboration comes to an end with all the materials and deliverables being handed over to the host organizations, our journey as a design-led cohort of students and educator has one more milestone to conquer, the reflective self-assessment.

As a pedagogical tool, I have always shared detailed reflective self-assessment documents with my students, which are tailor-made for each course I teach. These documents are designed to elicit both qualitative and quantitative responses with respect to the teaching-learning journey of the students. Apart from being deeply introspective for the students, they also serve as a feedback mechanism for me as a teacher.

An excerpt from one of the forms reads as follows:

“As design students, we need to step out of our comfort zones and extend our empathy beyond the walls of our studios. Collaborations like these give us a more

grounded and realistic approach to our projects. They challenge our idealism and bring new perspectives that add value not only to our academic work but also to people's lives.

Participating in such projects not only helps us improve our confidence and judgment as designers but also allows us to see how our academic learning can be implemented in real life. It helps us develop new research methodologies and processes, expands our worldview, and makes us better design practitioners.”

### ***The Impact & Findings***

The impact of an initiative like this, which is both participatory and inclusive is difficult to ascertain based on a short-lived series of actions and their efficiency levels.

Instead, they may be better understood through more qualitative indicators of transformation in areas such as power-skill-expectation-ownership distribution over time, along with a deepened sense of collective responsibility and one's ability to critically reflect on what it means to be truly inclusive in one's practice.

Keeping the above as the point of reference, the transformations during and after the project have been illustrated as certain attitudinal as well as operational shifts for each of the key stakeholders who participated, namely the design students or aspiring practitioners, the design educator, the neurodivergent or atypical participants who were the primary beneficiaries and the NGO team who operate as social change-makers.

For the design students or prospective practitioners, the shift was in the following areas:

- Their position of privilege had been exposed and it paved the way for them to engage with authentic allyship with a group of atypical minds, the likes of which they have never encountered.
- Some of the neurodivergent students felt their personal, lived experiences and realities being acknowledged and accommodated through the initiative.
- This was the only occasion in their academic journey, where they were negotiating authentic participatory methods with a gaze of 'difference' and not 'deficit'.
- This also allowed them to operate with an opportunity-centric design process vis-à-vis the conventional problem-centric approach.
- They learnt to be participatory without being patronizing, training themselves to oscillate between providing support & letting go.
- They had cultivated the ability to 'design with' instead of 'designing for' in their practice.
- A deliberate attempt was made to reflect on, question, and reframe creativity by embracing aesthetic plurality, all the while partaking in a form of creative education that is institutional and certifies one as a creative practitioner.
- They were suddenly foregrounding authorship for those who cannot champion for themselves and thereby flipping the Intellectual Property (IP) conversation; from being designers who usually focus on protecting 'personal' IP rights to becoming advocates for 'collective & equitable' IP rights.
- They were now equipped to link creative practice to management practices and eventually business and therefore felt prepared to design for businesses.

For the design educator it was about:

- Changing hats and corresponding roles at regular intervals; from being a teacher one moment to a co-participant in the next, from the design consultant on few occasions to being the negotiator across various phases of the collaboration.
- Negotiating notions of the classroom; from the familiar, controlled and walled to the unfamiliar, uncertain, realistic, and experiential contexts of the host organizations as a porous classroom.
- Experiencing reflexivity with Inclusive Pedagogy; from teaching about inclusivity while employing it as a pedagogy to do so.
- It was an opportunity for me as the educator to acknowledge and embrace social-cultural-intellectual diversities in my own classroom, while equipping the design students to do the same in their context of work and witnessing the dynamics of those interactions.
- Some of my students with clinical neurodiversity (ADHD & autism) were operating from a place of empathy, acting as a bridge between the participant group and their peers.
- From helping the design students to engage in more sensitive ways, flagging potential discomforts, drawing authentic insights from observations to developing frameworks for skill mapping, using authentic markers of evaluation.
- Reading between the lines of the self-reflective framework, where the responses in them served as critical feedback. Sometimes serving as prompts to recalibrate certain decisions, while at other times acting as a source of validation and gratification for the pedagogy, which has been a vehicle to instil values in the aspiring practitioner minds.

For the neurodivergent or atypical young participants, there were visible changes concerning:

- Societal integration: where they were able to forge relationships with the once unfamiliar design students, in an uninhibited and unthreatened manner, mobilized by a common love for making, crafting and just imagining freely.
- Creative autonomy and confidence: they were enjoying the act of creating across various activities, no longer striving to be careful or perfect. Instead, they were being encouraged to just imagine, while gathering appreciation for their visual-tactile vocabulary, which was finding real life applications.

If this sentiment could be summed up in one line, it would read as follows: “I make things the way I see the world, let me show you how I see the world”.

Going forward, one can hope that this would lead to the following:

- An identity shift: from being dependent and feeling sub-ordinate to feeling empowered as creative individuals, who can earn their living with dignity, for precisely who and how they are.
- Equitable authorship through social-professional integration: from their token participation in an assembly-line to becoming an artist-designer with a unique visual language of their own and being treated at par with the ‘trained’ creative practitioners who dovetail their expertise with those of these ‘intuitive’ creative practitioners.

Lastly, for the NGO Team of change-makers, it was about:

- Experiencing the power and reach of design, witnessing the blueprint for how designers think and understanding the many forms of design, from designing of research, processes, products all the way to buying behaviour and business strategies.

But most importantly, what happens when inclusivity as a philosophy meets design-thinking.

- Shifting the gaze inward; from relying on digital reference libraries (Pinterest or Instagram) to leveraging the creative potential of the living libraries they work with on daily basis. That way they could create a unified visual language with aesthetic diversity within it, to make the brand distinctive, refreshing and be relevant over time. Especially with AI taking over the world of image-making, this would be the biggest differentiator for these enterprises.
- Unexplored alliances: where collaborating with educational institutions across disciplines can be a symbiotic model to harness resources (people, knowledge, skills, and time). And for the educational institutions to expose the learners to societal realities, would be a preparation to work towards social change and develop full-citizenship abilities.

The hope is that these attitudinal-behavioural and operational shifts would pave the way for systemic transformations in institutions, social enterprises and commercial entities alike, with economic empowerment of the marginalized groups as one of the most desired ripple effects.

## **Conclusion**

The collaborative outreach project between students of Universal Design and young adults with neurodivergence to create livelihood opportunities, has cemented the role of design as a practice, that can alter prevalent narratives, whether social, ecological, emotional, aesthetic or even economic.

It has demonstrated that if design and foremostly design education were to expand its reaches to include people with vulnerabilities, neurodivergence being one of them, it could alter the charity-narrative usually associated with this (and other such) underserved population, to an empowered design-driven one, by providing creative opportunities for livelihood generation, leading to the economic security, upward-mobility, and quality of life. This social permeability would make design a truly inclusive and accessible practice.

Given the backdrop of vocational skill training employed by most NGOs working to support this population, we were primarily exploring 'Participatory Making', an amalgamation of participatory design and making, to create joyful, well-suited livelihood opportunities with the marginalized group, as equal partners in the process, thereby also gaining the name of 'Inclusive (Participatory) Making'.

Here, the act of making served firstly as an unthreatening tool for dialogue, bridging the gap between different neurotypes and secondly, as a generative instrument to lend a creative voice to a group that is conventionally not reckoned with having an aesthetic vocabulary and thereby harnessing collective creative intelligence, as they explored different materials, media and techniques.

The role of the design students was to dovetail their expertise with those of these 'intuitive' creative practitioners, or in other words to simply polish and make visible the underlying aesthetic. The dynamics of the relationship between these two kinds of creative practitioners (the trained and the intuitive) became equitable as we critically examined the conventional concepts of creativity, aesthetics and authorship of the creative output very early on.

To sum up and provide a generalized way forward, this outreach project was our way to demonstrate that the desired shift in the practice and impact of design geared towards socio-economic transformations can best be brought about foremostly at the level of design education itself and may be done in the following ways:

- a) Ensuring that formal design education recognizes the unpopular and under-represented sections of the society and brings these uncomfortable realities to the classroom or alternatively, takes the classroom to the real world; making a case for experiential and inclusive learning, where diverse environments, circumstances, people and their abilities are acknowledged and embraced as a part of one's academic journey and endures as a disposition thereafter.
- b) Employing a pedagogy that is truly inclusive and compassionate and allowing for reflexivity to guide the teacher.
- c) Using a participatory approach to train the prospective designers in the art of designing 'with' and not just 'for' the realities and those that live them.
- d) Anchoring ones gaze to embrace differences instead of foregrounding perceived deficits, to inform all forms of actions and interventions.
- e) Expanding the notion of design itself, from developing a course, the instructions, and pedagogy as one would design for experiences to generating frameworks to evaluate not just the course output but the teaching-learning experience itself with due attention to qualitative shifts in perception and ensuring that values endure with the learners well after the education is complete.

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