7 Stages of

CO-DESIGN

A Reflective practise to create a more equitable and plural world

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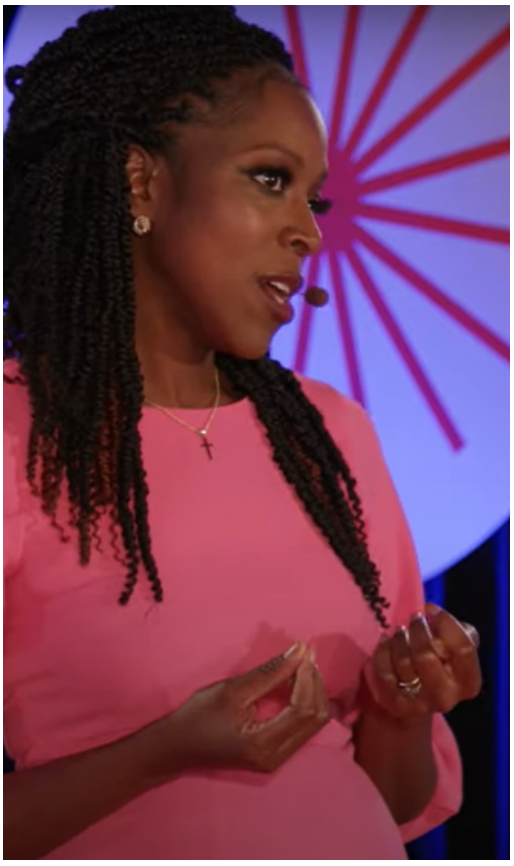
INTRODUCTION



Dream Networks was founded by Marie Williams, and is a not for profit with a focus of making play accessible for all through collaboratively designing sustainable play spaces designed by children.

Marie Williams,
Dream Networks CEO, Design lecturer, PhD Playful Engineer

Co-design is a participatory design approach that should enable people with lived experiences using the products and services we design, to influence the designs and ideally be the designers. Co-design can radically shift power structures and empower individuals and communities to shaper their spaces.

In this guide, I share how we at Dream Networks have enabled children and marginalised groups to design inclusive and engaging spaces. I invite you to take out 7 seven days to go through each one, reflect on the and consider how they can help you to design in a more inclusive and equitable manner.

Buckle in or pick up a notepad as we go on this adventure and respond to these 7 critical points:

1. Authenticity
2. Exploratory
3. Activism
4. Empowerment
5. Participation
6. Choice
7. Equity

1. CO-DESIGN SHOULD HAVE NO ARTIFICIAL INGREDIENTS, IT MUST BE AUTHENTIC.

At the heart of designing with others should be a desire for no artificiality, a pursuit of authenticity. When we are able to be authentic, we make space to express our opinions, leave room for vulnerability and to cultivate ideas freely.

One way I do this is to take time to consider how culture and the environment influences how the people I am designing with express themselves. How does it let them be their natural, authentic selves?

When we co-design with children, we recognise that their language of expression is often playful. This playfulness is often emotive, sometimes unpredictable, frequently active and always diverse.

Over the last year or so we have been discovering more kinesthetic and tactile ways for children to express themselves and design. For example, creating a game of play bingo to encourage children in Kitengela, Kenya, to imagine how they can play when everyday objects are intertwined with empty plots of land. It's definitely been a learning curve (one we are definitely still on). It's often messy, noisy, unpredictable, and after 30 mins or so using their bodies to brainstorm ways to play. The output is more diverse, natural ideas.

So as you think about your own co-design activities perhaps you can reflect on the question below:

How can your design or research methods encourage people to show up authentically?

It's time to go beyond written surveys and interview focus groups :)

Mixed generational co-design workshop during Nairobi design week

2. CO-DESIGN IS SO MUCH MORE THAN IDEAS, IT CULTIVATES CREATIVITY.

Earlier today my 3-year-old son came to tell me had another great idea, which was....hmmm....what it was eludes me...he has many :) Some of them seem pretty feasible, a few are bordering on genius and surprisingly a small amount just wouldn't fly. Why, because even at the age of 3, through this inquisitive and continuous asking the question why (and I mean continuous) he has cultivated a creative, problem-solving mindset. One that builds on the concepts he has learned, seeks to understand them, deconstruct them, and come up with more ideas.

8 year old girl developing design for her school play space

Piaget's theory of childhood development, suggests that children between the age of 2-7 years are in the preoperational stage, where they learn and understand the world through language, images, senses, and actions. At this time, they are highly imaginative, asking questions, exploring their environment, and can be extremely creative.

The co-design process / environment should open up space for questioning and this is precisely why, co-designing when you already have a solution formed in your mind or have mocked up a detailed design, is not co-design. In these situations, we are merely consulting users' opinions and giving them little space to ask why, little space to problem solve, and little space to design.

Years ago I read an article from Lazer et al, that suggested that the goal of 'co-design is to open up participants' creative potentials' (Lazar et al., 2018, p. 1)*. Fast forward 5 years and we have seen time and time again, that both adults' and children's creativity and inquisitive minds open up through a co-design process that lets users become design partners. Like the adventure play movement, where children are free to explore the spaces and materials around them, to create their own play

Development of children's models into play house in Surrey Square playground

space. A place where adults act as facilitators, supporting their creative process as opposed to making on their behalf.

Opening up the creativity fostered through co-design requires time, trust, mess, space, and access to materials.

So the next time you are designing a co-design program, ask yourself, have we provided time and space to tinker, for users to create and engage in the design process?

Ideally from the start, from the why.

3. CO-DESIGN IS A FORM OF ACTIVISM.

This afternoon, I took part in a virtual work experience for the Institution of Mechanical Engineers. I was blessed to talk about my rather diverse career in sustainability and climate change as an engineer. At the end, one of the student asked what is the most important thing the panel believed the engineers could do to address sustainability challenges. The one thing I shared was not being more innovative or improving existing solutions, although this things are important. It was understanding what is stopping the user from adopting the changes need to reduce their carbon footprint.. Understanding what prevents governments from implementing policies that would significantly reduce carbon emissions.

This is why codesign is a form of activism. By working with users and affected stakeholders to address, challenging complex issues , "wicked problems" such as climate change we get to the heart to the root of the problem. We get to understand what behavioural change is needed and co-create solutions that bring about social, environmental, social or even political change. We engage in activism.

At COP 26 I heard from a group of activists combatting rising sea levels in the pacific islands. I heard how their communities were adopting indigenous methods to try to protect their lands. Their userstories became a form of activism that spurred the audience to hopefully start to change our own behaviours, so we could in some way prevent the amount of devastation they experienced in the future.

The sustainable development goals for 2030 are ambitious, the goal to maintain "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels."is extremely challenging.

But I truly believe we can do this as we continue to combine technology, engineering and systems thinking, with empathy and co-design to combat these complex, "wicked problems".

So in your next co-design project, maybe spend 30 minutes researching other community lead projects that proactively activate change.

Don't limit the impact co-design can have, seek ways to make a change

Children creating and presenting flood defence solutions for their local area

1. Empowerment and Knowledge Exchange

When users co-design alongside designers, researchers, and businesses, a significant power shift can occur. To enhance networks developed through co-design, prioritize opportunities for empowerment and knowledge exchange. Encourage all participants to share their experiences, engage in meaningful conversations, and learn from one another. This can foster a more equitable environment, enabling those with influence to better understand challenges and invest in socially equitable change. It can ultimately lead to transformative changes that extend beyond the co-designed product or service.

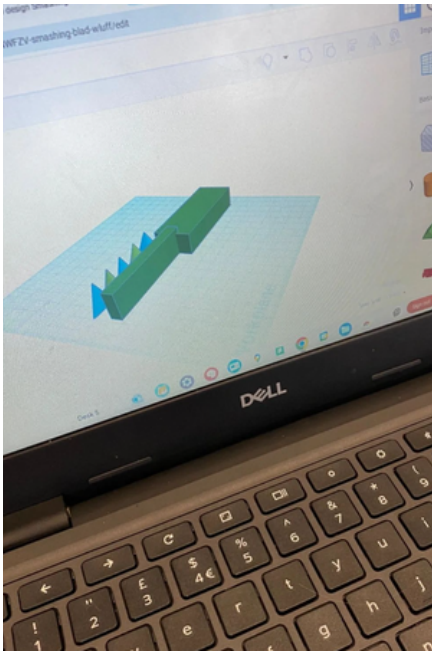
2. Broadening Career Horizons

In our programmes where children interact with industry volunteers, we aim to broaden their horizons by exposing them to diverse career paths. Endeavor to create an inclusive environment where all participants, including facilitators and stakeholders, can connect and expand their networks. By doing so, you open doors to greater aspirations, ensuring that young learners are exposed to opportunities and perspectives that they might not have considered otherwise.

3. Strategic Stakeholder Mapping

To improve co-design projects, consider mapping stakeholders at the project's inception. Pay special attention to building networks, fostering relationships, and addressing power dynamics. Recognise the differences between stakeholders who need to be informed but have low power and those who need to be satisfied but have high power. This strategic approach ensures that the right stakeholders are engaged effectively, enhancing the co-design process and the resulting network.

Children activating empty plot of land through play and using their bodies to generate knowledge on what could be created in space



Children developing their skills in computer-aided design with the support of engineers and designers

Children presenting their final ideas for solar power and play to adult stakeholders

4. CO-DESIGN CAN CULTIVATE TRANSFORMATIVE NETWORKS.

You might think today's co-design reflection is quite biased reflection because as the founder of a social enterprise called Dream Networks C.I.C :) However, in all honesty, very recently I have come to realise the pivotal role networks play in co-design.

Recently, I received an email from a child development charity working in Malawi's Dzaleka refugee camp. They reached out with the 'hope to exchange knowledge, share best practices, and amplify our collective efforts in creating accessible play spaces that are designed in collaboration with the very children they serve.' They want to join a network in order to bring about social change beyond what they could do independently. Their message subtly reminded me of the transformative power of building networks through co-design, so I provided 3 suggestions on how we can endeavor to do so.

Teachers, volunteers and investor providing children feedback at the end of a design review

5. CO-DESIGN IS A HUMAN RIGHT FOR CHILDREN.

Child participation is emphasised within the United Nations Convention on the Rights of the Child. Article 12 stresses the importance of children's voices in all matters affecting them. This often-neglected right has significant implications for design in various fields such as hospitals, schools, and play spaces. Designers, researchers, architects, and policymakers possess a unique opportunity to champion this right by actively involving children in the design process.

Rather than offering guidelines on child participation, let's explore what I think is the primary barrier to realising this right: not taking children's opinions seriously. The United Nations defines children as those under the age of 18. Maybe you can stop for 30 seconds and reflect on your experiences at 17 (if you can remember :)) the challenges you faced at school or work.

Perhaps you were able to suggest solutions or express ideas. Research has repeatedly shown that even children as young as 2, can express themselves and their opinions.

The main challenge arises when adults or peers dismiss their input or opinions as invalid or too difficult to obtain. Overcoming this fear of impracticality can be achieved in many ways, I have suggested 5 different ways Dream Networks C.I.C/I have adopted during the co-deisgn process below:

- Involving children as design partners from the beginning;
- Considering what is age and culturally appropriate for them to engage in;
- Clarifying design constraints before seeking their opinions;
- Adopting more inclusive design methods (please see Day 2);
- Ethically engaging with them in the spaces where they already express themselves, like lunchrooms, playgrounds, youth clubs, or social media platforms.

Roger Hart's 2008 critique of the ladder of participation, initially published in 1992 with UNICEF, really resonated with me today. It underscores that children are "citizens who think of themselves as members of a larger community that includes adults and otherchildren." It serves as a reminder that adults have a role in making this right a reality.

Our role in co-design is to treat children as fellow citizens, giving them not only the opportunity to voice their opinions but also ensuring that their insights shape their daily experiences, the built environment, and our collective future.

6. CO-DESIGN IS A CHOICE.

Creating design content for our current playful engineers for 8-13-year-olds over the last 3 weeks has been a rather all-consuming experience. After the first workshop, 28 out of 29 children gave volunteers an excited thumbs up :) to participating. Their excitement encouraged us but also prompted me to reflect on 5 deliberate, time-consuming choices I make when pursuing co-design programmes.

1

A CHOICE TO RESEARCH

Taking time to review the curriculum to gauge their existing understanding, while crafting age-appropriate methods to introduce scientific, architecture design, and engineering concepts.

2

A CHOICE TO FOCUS ON INCLUSION

This has involved us seeking ways to empathise with the children, repeatedly asking ourselves what words could be confusing. What does sustainability look like to an inner city, BME 9-year-old? and how can use this insight to craft tools that focus on amplifying their perspectives.

3

A CHOICE TO USE DIVERSE LEARNING STYLES

Utilising tools like handouts, body maps, air drying dough, quizzes, CAD, and models to break down complex topics and problem solve, so hopefully, all children could participate.

4

A CHOICE TO INCORPORATE PLAY

We mapped out play taxonomies to consider how through play, we would engage the children effectively, help them to work collaboratively, and ultimately improve their experience as co-designers.

5

A CHOICE TO CARVE OUT TIME FOR REFLECTION

For incorporating feedback, and trial and error. Realising we might not get it right the first time.

All of these choices are ones, I would argue all researchers, designers, and practitioners who decide to embark on the co-design path must make. They essentially boil down to one question,

Do I choose to invest my time and resources to empower others to design?

Often the users, community members, children we hope to participate have similar or even more acute, challenges. They choose to say No to codesign. Maybe, they don't have the time... maybe no remuneration has been provided, maybe they simply don't see the value in it.

By taking the time to create engaging, impactful, meaningful and even playful codesign experiences hopefully, we can provide enough value. So they make the choice to say yes.

Are you ready to invest the time to create a co-design experience worth their time?

Children taking part in a game to help to regulate their energy during a design workshop

7. CO-DESIGN IS NOT A SILVER BULLET, IT HAS A GREATER PURPOSE.

On the final day of my rather protracted co-design reflection that has been prompted by the conversations I had after our design panel on designing with communities Design Council. I want to return to the greatest thing I have learnt and keep reflecting on during my 10+ years in the co-design craft. It is the fact that co-design is not a silver bullet, it alone will not instantly solve long-standing problems such as play inequality or climate change, and was never meant to.

Co-design has been adopted within a wide range of services, products, policies and environments. I truely believe this is a great thing, however, I also recognise that co-design has many flaws. Recently, when faced with the critiques of tokenism, user fatigue, suppression of voices and the need for decolonisation within co-design. I started to go back to its origins and question what we are focusing on when we co-design, have we gone beyond the need for innovation?

Co-designs' supposed origin is in 1960's Scandinavian participatory design practices*, that sought to democratise design. A form of design that called out for progression through meaningful participation. Progression in the way products were produced, how problems were solved, progression that has evolved to be a form of social and environmental justice, where co-design has a greater purpose.

Within our capitalist, neoliberal society, the forces of the powerful minority even trump can even squash all co-design efforts, especially for more marginalised groups. Like democracy, co-design doesn't mean the powerless always win, but what it does do, is provide a mechanism for their voice's to be heard and ENACTED. It provides a method (amongst many others) to emanicaptate the masses from oppressive design forces. It promotes collaboration and care between the powerful and the seemingly powerless. These purposes trumps innovation and reminds us that a silver bullet to solving wicked problems was never the aim of co-design.

As co-design continues to gain more traction, I look forward to a time when equity, love and brotherhood prevails and co-design will cease to exist... instead it will just be called design.

I strongly believe that co-design has been practised without being classified across the world long before this.

CONCLUSION

We have reflected on the essence of co-design, emphasising the importance of authenticity in the process. By introducing co-design to the design process, you are simultaneously bringing cultural and environmental expression to the project. Particularly when designing with children, a whole new level of playfulness and creativity is introduced.

It is so important to cultivate creativity through the co-design process, from each childhood developmental stage. We need to cutivate environments that encourage questioning and problem-solving rather than simply presenting preconceived solutions.

Do you remember a time during your childhood where nobody would take you seriously? Perhaps you had a concern, idea, or opinion that wasn't listened to? Child participation is emphasised within the United Nations Convention on the Rights of the Child. This often-neglected right has significant implications on how we create more equitable spaces design in various fields such as hospitals, schools, and play spaces.

Drawing from my practical and academic experience co-designing play spaces with children working from diverse communities. I have illustrated how situated co-designed solutions can drive social, environmental, and political change. I would encourage you to research community-led projects for inspiration and emphasises the potential impact of co-design in effecting positive change.

This guide emphasises the importance of building networks to amplify collective efforts and effect social change, and provides suggestions for enhancing network development through co-design; empowerment and knowledge exchange, broadening career opportunities, and strategic stakeholder mapping.

Lastly, I want to leave you with five choices I have made over the years to enable me to design with children aged 4-18.

1) Thorough research to understand participants' backgrounds
2) Focus on inclusion and empathy
3) Utilisation of diverse learning and making styles,
4) Incorporation of play
5) Carving out time for reflection and feedback.

Children playing in co-designed play space in Molo Kenya

THE ORIGINS AND PURPOSE OF CO-DESIGN

This guide acknowledges the criticisms and flaws within co-design, such as tokenism and suppression of voices; while revisiting its origins in Scandinavian participatory design practices of the 1960s. Although the term co-design has eurocentric origins, it has been practised by indigenous, afro descented communities across the world for centuries.

Co-design has evolved into a tool for social and environmental justice, with a greater purpose beyond mere innovation. Despite challenges within capitalist and neoliberal societies, co-design serves as a mechanism for amplifying marginalised voices and promoting collaboration.

Co-design offers a route to create more plural and inclusive worlds through how we design. Making space for broader ontologies, ways of making and challenging the social-political role we take as design for a more inclusive, equitable present state and future.

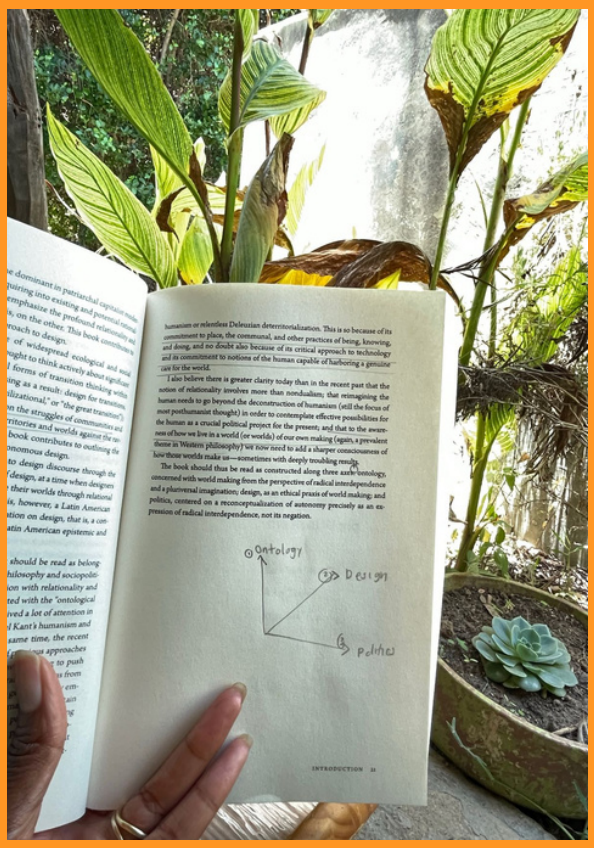


Photo from Designs for the Pluriverse by Arturo Escobar