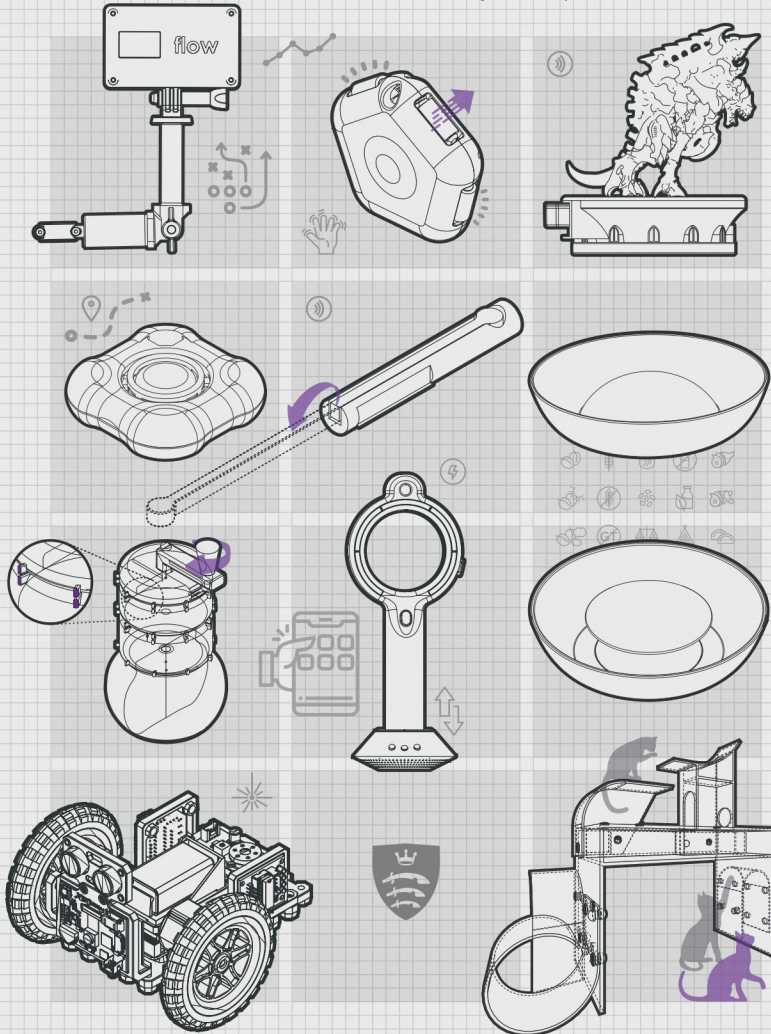
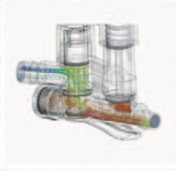


# #MDXPD

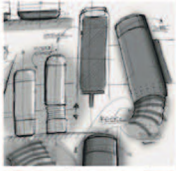
## PRODUCT DESIGN 2024

Middlesex University Faculty of Science and Technology





Physical  
Digital  
Conceptual

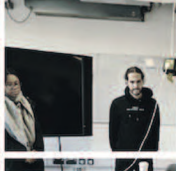
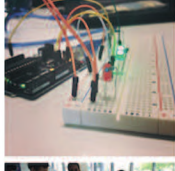
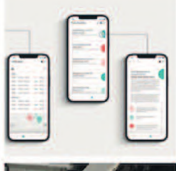
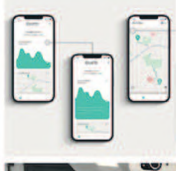


PLAY  
HERE

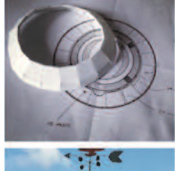


Service  
System  
Experience

Prototype  
Tangible  
Intangible



Practice  
Action  
Knowledge



Collaboration  
Process  
Conversation



Social Change  
Climate Crisis  
Sustainability

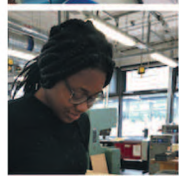
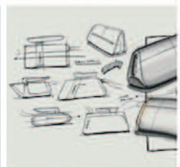




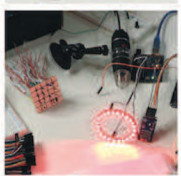


Innovation  
Creativity  
Insight

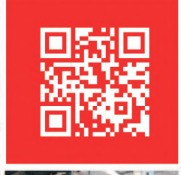
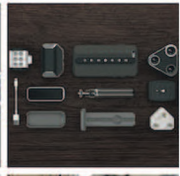
Artefact  
Information  
Environment



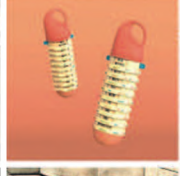
Design  
Engineering  
Technology



PLEASE  
TOUCH



Meaning  
Joy  
Craft



Vision  
Transformation  
Responsibility



People  
Community  
Diversity





# #MDXPD WELCOME

**"...bringing people and technology together (in meaningful ways) to create useful stuff and things."**

The 2023-24 has been an exciting, creative and productive time for the BA and BEng students and staff, but the broader landscape of Higher Education we sit within has become increasingly uncertain.

Big changes and impacts from Brexit, demographic shifts and directions in government policy over the last decade and a half have left many universities struggling, with course closures and staff redundancies. These changes have the potential to cause societal division, embed disadvantage and more broadly negatively impact the UK's standing as one of the world-leading providers of Higher Education. The upcoming academic year will start to reveal the real impacts of the choices now being made. Alongside these societal and institutional level challenges, there has been an ongoing sector specific challenge for Design and Technology education, impacting creative sector Higher Education and industry. The Design Council 'A Blueprint for Renewal Design and Technology Education' Report in June 2024 discusses the background and proposes action to rectify this: "D&T is a subject in critical decline – it is a microcosm of wider tensions within creative, technical, and cross-curricular learning across the UK. Over the last decade, British D&T GCSE entries have fallen by 68%, and the number of D&T teachers has halved. The fall in D&T has destabilised the whole subject area, masking steep declines in all art and design subjects and cutting off a vital pipeline for creative and engineering talent into industry. Without decisive action from government, industry, and education, the subject risks falling into the margins of the curriculum at the very time it is most needed. All young people must be able to access a great design education if they are to develop the creative problem solving, material intelligence, and systems thinking ability they need to thrive...Design and technology (D&T) is one of the few spaces in the school curriculum where science and creativity meet, and students get to solve real-world problems in innovative ways. The UK's design industry itself contributes £97.4bn in GVA and is growing at twice the rate of the economy as a whole - it now needs new and diverse talent to lead us forward."

We celebrate and support the Design Council's recommendations, along with the Campaign for the Arts, and many other initiatives fighting to ensure that creative education is properly valued and accessible to all. MDXPD will continue to do what it can, connecting with schools, teachers and students to create innovative vertically integrated educational experiences and developing practice-based research that support those experiences.

Have a look through this year's magazine to see the brilliant work that Product Design and Engineering students, graduates, staff and collaborative partners produce, and the real-world impacts that work can have in our features and reflections. Good luck to our fantastic graduates for the future!

We hope you enjoy the magazine and best wishes to all readers.

**Wyn Griffiths** - Senior Lecturer BA/BEng Product Design/Engineering



# INTRODUCTION TO #MDXPD

We live in a complex, fluid world, swirling with challenges and opportunities. Design offers a powerful medium through which we can strive to build a 'better' life. We are material creatures, in a material world. The 'things' that surround us, and drive us are increasingly interwoven with the virtual 'stuff' that has come to connect us. This is subject to constant change and evolution. Change is the only constant in life; in society and technology; in design and innovation. The puzzle is how to mediate that change for specific and holistic good. How to explore and navigate pathways towards creating new things that have a positive impact, that 'make the world a better place...'

A Product Designer can be an important part of this exploration. There are many, unresolved, ways to think about 'Product', 'Design' and a 'Product Designer/Engineer', but, regardless of any particular interpretation, we at 'MDXPD' think there are some key skills, experiences and attributes that a Product Designer/Engineer needs. Build skills in Design Thinking, design and technological craft and professional practice. Build experiences through wide-spectrum exploration, focused sectoral exercises & live industry collaborations. Nurture an attitude of imagination, empathy, collaboration, storytelling, curiosity, ingenuity, courage, perseverance and resilience. The watchwords of gumption, humour and grit will go a long way to helping you on your way as a Product Designer/Engineer!

## READ ABOUT OUR COURSES ONLINE:

### BA Product Design:

[www.mdx.ac.uk/courses/undergraduate/product-design-ba/](http://www.mdx.ac.uk/courses/undergraduate/product-design-ba/)

### BEng Design Engineering:

[www.mdx.ac.uk/courses/undergraduate/design-engineering-beng/](http://www.mdx.ac.uk/courses/undergraduate/design-engineering-beng/)

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@middlesexuniversity  
@mdxscienceandtechnology  
#mdxpd

# 10 Years of #MDXPD Magazine

Our **#MDXPD Magazines** are now into their tenth year! We reflect on their manifestation and purpose over that period



#MDXPD: 5 Years On (Class ...  
July 16, 2021



#MDXPD 2021  
July 15, 2021



#MDXPD 2020  
July 1, 2020



#MDXPD 2019  
December 5, 2019

The #MDXPD Magazines were initiated by Wyn Griffiths and Ahmed Patel from the 2014-15 academic year for a dual purpose:

1. To celebrate the work and experiences of the course, the department, its students and staff, its graduates and its external collaborators. The 'usual' mechanism for this at the time was via the 'graduate catalogue' which highlighted the final year projects of the graduating cohort, but didn't frame that work in the broader landscape bringing to life news, case studies and reflections upon the creative life surrounding.
2. To act as a Longitudinal Qualitative Study (LQS), using mixed methods, examining the research question 'What is a product designer? How should higher education curricula be designed to understand, reflect and shape the evolving perception and reality of the product design disciplinary and employment area?'. After ten years of this study, we have recently completed a

quantitative analysis of current employment outcomes for graduates of the course from the last 19 years. This will form the confirmatory reference of the data with a longitudinal (narrative) analysis of the complexities of participant experiences over time, overlapped with annual cross-sectional analysis of the case studies, ethnographies, practice reflections and interviews that form the body of the study.

The study emerged from our practice and practice-based research.

In 2010, Wyn Griffiths, writing with Andy Barill, Sara Jones and Bob Fields, in the paper '*Design Tribes and Information Spaces for Creative Conversations*' discussed both 'what' Product Design was and was becoming, and 'how' design education and practice might be done to best facilitate that evolving practice: "an appropriate approach to preparing students for becoming designers of complex systems and artefacts is

to involve them in group-based studio exercises where effective conversation is essential to the development of understanding. In a learning milieu where students initiate and manage their own projects, and where innovation is valued and rewarded above operational skill, with 'ideas' as the primary currency, such an approach is especially apposite.

"Furthermore, as Product Design wends its way ever further from the exemplification of design craft through 'industrial design' outputs – as discursive design, exploratory design, design as art, interaction design, service design, emotional design, tangible and intangible customer touch-point design, etc. enter the workspace of the product designer - it is difficult to envisage how high quality design, and design education itself, can persist without vibrant and active conversational interplay."

This thinking was and is the basis for our MDXPD formulation of the educational experience of both Product Design and



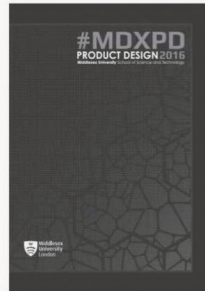
DOWNLOAD all #MDXPD Publications via MDX Repository  
<https://repository.mdx.ac.uk/researcher/8087z/mr-ahmed-patel>



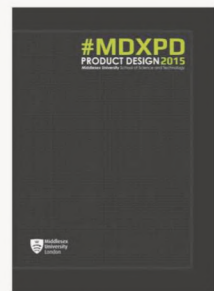
#MDXPD PRODUCT DESIGN ...  
July 4, 2018



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July 3, 2017



#MDXPD 2016  
June 27, 2016



#MDXPD 2015  
June 25, 2015

## Product Design Engineering.

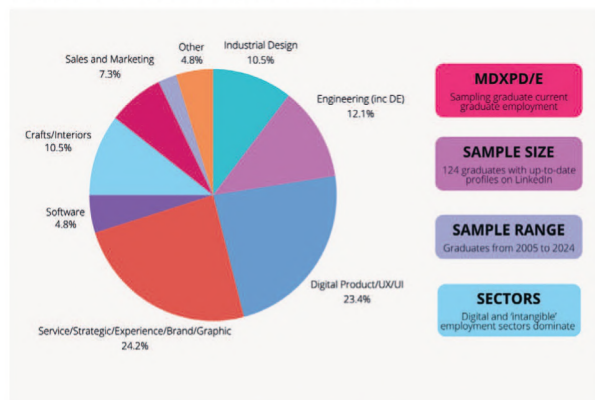
We long ago redesigned our curricula to be fully project-based, framed within a collaborative studio ethos. A focus on prioritising sustainability and social-benefit underpinned our structural transition. From *Audi Designs of Substance* and *British Council funded Madegood and Fuel from Waste*, through collaborations with a wide range of organisations focussing of positive social and ecological change through design and innovation such as *OpenIDEO*, the *Government Digital Service*, the *British Ecological Society*, *SMASHfestUK*, *Salesforce* and many more, we have worked in multi-stakeholder collaborative projects exploring complex 'wicked problems' and developing our practice, our curriculum and our understanding of 'What is a Product Designer?'.

Our analysis of current employment amongst our graduates gives a snapshot of an 'answer' to that question.

The graduate employment outcomes illustrate that many

of the emerging 'Product Design' pathways highlighted in the 'Design Tribes...' paper have consolidated during the intervening period, with some modification of terminology and increasing dominance of 'digital/intangible' employment areas, over 'physical/tangible'.

The main takeaway at this point in the reflection, based on the gathered data, is that Product Design has an exciting openness as a practice and facilitates a wide variety of creative/technical employment opportunities. 'What is a Product Designer?' A *Product Designer* is...



We'll be reporting on and publishing the next stages of the longitudinal qualitative study during the upcoming year and will report more fully over that period and in next year's magazine.

## READ MORE ABOUT OUR PROGRAMME ONLINE:

[www.mdx.ac.uk/courses/undergraduate/product-design-ba/](http://www.mdx.ac.uk/courses/undergraduate/product-design-ba/)

# #mdxpd GLOBAL AWARD

MDX alumnus, **Harry Miller-Adams**, wins best product design award at world's largest showcase of graduating artists and designers, *Arts Thread Global Design Graduate Show 2023* in collaboration with Gucci. Harry beat thousands of graduates with his instant hot water appliance praised for sustainability and innovation.



I learned all the necessary industry-related software, design techniques, prototyping methods, and sketching. Studio practice enabled me to apply my skills, receive constructive feedback, and develop them under the expert guidance of our lecturers and peers.

When MDX Product Design graduate Harry Miller-Adams undertook the challenge of resigning the humble kettle, his focus was prompting people to change their behaviours with the aid of cutting-edge technology.

Shocked by research that suggests 75 per cent of British households overfill their kettles, resulting in the waste of 70 million litres of water daily a loss of £68 million annually, Harry embarked on an ambitious project.

"The goal was to tackle one of the least sustainable domestic appliances due to the over-filling and over-boiling habits of users," Harry said.

He couldn't be more pleased with the results. **Kettle.** is highly efficient and user-friendly, incorporating a 'vacuum flask' body,



Follow Harry Miller-Adams on Instagram @designovated and Connect with Harry on LinkedIn [linkedin.com/in/harry-miller-adams/](https://www.linkedin.com/in/harry-miller-adams/)

optimum water heating for tea and coffee (max 92° C) and featuring a pour-to-boil function powered by two lattice structural heat exchanges that enable rapid temperature increase during pouring.

"A maintenance exchange holds water at a set temperature and the rapid exchange allows the water to flow through it, rapidly increasing the water temperature," Harry added.

"These both are situated within a vacuum flask minimising temperature fall-off and keeping water warm throughout the day, reducing energy, water and time wastage."

Kettle is also designed to be easy to clean and repairable, which guarantees a longer lifespan, reduces material waste and landfill usage.

The design process was meticulous throughout. Harry worked through the MDXPD final year project process, starting by generating a domain and conducting thorough research to gain understanding of the existing issues.

After developing numerous sketches and concepts, data logging to identify inefficiencies and testing, the nine-month design process began.

Harry said: "It is evident that Kettle, stands out from similar products in terms of appearance, performance, functionality, longevity and most importantly, sustainability."

Experts agree. Harry won the Institution of Engineering Designers Annual Prize Award for Best Final Year Project and was shortlisted for Kevin's Green Hero's at *Grand Designs Live*.

He then won the Product Design award for the *Arts Thread Global Design Graduate Show 2023* in collaboration with Gucci.

Judged by 175 highly esteemed judges, the fourth edition of the world's largest showcase of graduating artists and designers saw more than 5,000 students enter their work.

Harry's Kettle, was then showcased in a virtual gallery hosted by Google Arts & Culture.

Harry, who now works full time as an Industrial Design at leading London consultancy LAYER, says he was drawn to MDX due to the passionate staff and students and the exceptional facilities, which includes the workshop and modern design studio.

"During my time at Middlesex I gained extensive knowledge and skills that have equipped

me for success," he said.

"I confidently acquired a thorough understanding of the design process through a range of intriguing projects, which allowed me to master this skill with ease.

"I learned all the necessary industry-related software, design techniques, prototyping methods, and sketching. Studio practice enabled me to apply my skills, receive constructive feedback, and develop them under the expert guidance of our lecturers and peers."

#### FIND OUT MORE ABOUT THE ARTS THREAD GLOBAL DESIGN GRADUATE SHOW:

[www.artstthread.com](http://www.artstthread.com)

#### VIEW HARRY'S WINNING ARTS THREAD SUBMISSION:

[artstthread.com/profile/harry-miller-adams](https://artstthread.com/profile/harry-miller-adams)

Follow the programme IG account @MDXPD #MDXPD

ALESSIA LATTANZIO

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linkedin.com/in/alessia-lattanzio-672798222



# LESS IS MORE

## Tableware Designed to Stimulate Curiosity & Conversation About Eating Behaviours and Disorders.

Eating disorders, often misunderstood as personal choices, are serious illnesses affecting people of all ages, genders, and backgrounds. Orthorexia, an obsession with 'healthy' eating, poses psychological, physical, and social risks.

A **critical design exploration** into **perception and reality**. "Less Is More" a **discursive duo that explores the relationship between portion sizes and Orthorexia**. It involves two deceptive bowls, "Poco" and "Tanto," identical in size but with **hidden capacities**, aiming to **challenge perceptions of portion sizes and promote mindful eating**.

The intentional designs **create cognitive dissonance**, **fostering awareness** about eating disorders while encouraging a healthier approach to food consumption.

These bowls have been thoughtfully designed with the multiple purposes of **raising awareness** about eating disorders while also **providing practical value** to users and encourage **meaningful conversations** around the topic

Furthermore, these bowls are versatile enough to be utilised by anyone, irrespective of their needs or preferences. Whether used to serve meals, or as a conversation piece, these bowls are a valuable addition to any household.



**ALESSIA LATTANZIO**  
PRODUCT DESIGN BA





# RE | NEW

## The Framework and Product Architecture for Building and Sustaining Relationships Between People and Products.

A new framework designed to cultivate sustainable relationships between people and products.

Allowing people to have active engagement and intuitive understanding of the design language of how products - work, go together, come apart, fix, upgrade, clean and extend product life functionally and emotionally.

In addition, this structure will offer customisation options to the consumer, enhancing the overall sustainability of the product and providing the consumers an insight of designing for disassembly and repair from a designers point of view.

Initially providing this framework through a multi purpose kitchen grinder would allow the consumer to:

1. The user wants to buy a new spice/coffee grinding mill.
2. Over time a component on the grinding mill begins to crack and eventually breaks.
3. They don't know whether they should throw it away or try to fix it as they love the grinding mill so much.
4. The user was able to find and fix the problem due to the 'instruction' graphics on the components.
5. The consumer uses the grinding mill over a long period of time.



**AMICHIA AKA**  
PRODUCT DESIGN BA

#MDXPD Graduate

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IG: @leeza\_1620  
linkedin.com/in/lv1852020/



# Solstice

## A Task Light for Shared Space Living.

Modern urban living has returned to increasing requirements for cohabitation and communal living areas. These areas often support parallel working, and varied leisure and relaxation activities within a single space.

**Solstice** is a task light for shared space living, that serves the utilitarian needs for differentiated, adaptable lighting but also manifests aesthetic value within the living space.

Solstice provides a flexible, multi-positional 'task-light' type functional range – different directions, intensities and area coverages of light 'pools', framed within a contemporary 'object of desire' aesthetic. It divides and delineates space and space function through user-controlled liminal spaces and transitional light frames. These support a sense of differentiated

comfort and person and agency for people within these shared spaces, creating liveable, productive and positive environments.



LEEZA VEKARIYA  
PRODUCT DESIGN BA



YI-CHIEH KU (ANNIE)  
 +886 912069045  
 kuannie2020@gmail.com  
 IG: @annie\_ku\_pd



# Catable

## A Desk for Humans and Cats.

Cats love their humans, and humans love their cats, but cats also love sitting on their human's laptops and printouts while they work! How can 11 million domestic British cats and their matched humans come to a compromise that makes them both happy and productive?!

'**Catable**' examines this problem, flips it, and rather than 'protecting' the human working space, it creates a stimulating and creative desk space around and within which the cat can play and be reassured by their human's presence and attention while allowing their human to continue working.

Catable encourages the human to share every area of the desk with cats, through interaction elements affording the cat to jump, climb and burrow through holes, cat nooks and cat shelves. These keep

the cat stimulated and happy, and gives the cat a reassuring place in the direct eyeline of their human when they need attention and rest, whilst also keeping the working space clear for the human. They work together; play together; and build an even stronger relationship.

Combining the habits of humans using desks and the habits of cats, Catable fully integrates the lives of humans and cats. The heat generated by the human-computer can work with the cover to create a warm corner where cats like to stay. High-height drawers allow cats to enter while placing items and utilising space deep in the drawer that may be difficult for humans to use. The decorative curved surface for human viewing also functions as a cat jumping platform, allowing cats to smoothly climb onto the table. The bookshelf provides holes for cats to jump freely through.



YI-CHIEH KU  
 PRODUCT DESIGN BA

# 'LIVE' PROJECTS

Our **Product Design** and **Product Design Engineering** programmes always have 'live' projects interwoven into the curriculum. This article reports on activity during 2023-24: **Climate Crisis: FLOOD!** and **Future Designers**.



Our final year students, a group of recent graduates, SMASH-UK, GLF Schools Foundation, Meridian High School and global technology company Salesforce came together earlier this year for a rich, collaborative creative project that resulted in a brilliantly conceived and designed design process, workshop day and narratives for a Climate Crisis - FLOOD! Immersive experience and for a pilot programme for introducing young people from disadvantaged backgrounds to design and creative industry opportunities.

It was a multi-layered live project creative collaboration, tackling 'wicked problems' via two intertwining, socially transformative projects - the 'Future Designers' pilot programme and the 'Climate Crisis: FLOOD!' immersive experience community

co-design visioning stage - and being part of the transformative potential of design was an inspiring, illuminating and equally transformative experience for our students and graduates.

We continually ask: How do you prepare Product Design and Product Design Engineering final year students for the rich and varied professional pathways following graduation and for the range and depth of challenges that society and the creative industries are wrestling with? This project and the collaboration around it is an exceptional answer to that question and to the embedded questions of moral and ethical responsibility that education must always embrace. The learning and experience for students and graduates in this project was very powerful, encompassing:

- + Working within real world, critical issue, complex problem spaces.
- + Team working cross year, cross profession, cross sector.
- + Design research.
- + Service and Experience Design principles and practice - designing a community co-design process for immersive experiences.
- + Co-design principles & practice.
- + Co-designing an immersive experience foundation scenario.
- + Developing facilitation skills - Facilitating a co-design experience.
- + Developing and employing studio based and asynchronous collaborative design tools.
- + Developing personal profile and folio assets.
- + Developing mentoring skills and profiles.
- + Developing professional network.
- + Developing an ethical framework for what design should be & can do.





The work created the **Future Designers** pilot programme, which will be developed next year and formed the foundation of a co-design and co-production programme lasting two years, funded by the UKRI, and working to create Climate Crisis – FLOOD! local creative programmes, schools programmes, and immersive mixed-reality productions with communities across London and the South East of England.

Partners and participants reflected on the programme:

"Thank you Salesforce, Stephen Wood and Middlesex University for making our visit a memorable and enriching experience. We look forward to future collaborations. The partnership between the GLF Schools' Foundation, Salesforce,

SMASH\_UK (SMASHfestUK) and Middlesex University underscores the importance of fostering creativity, innovation, and hands-on learning. It is a fantastic example of how to raise awareness of different careers, create valuable opportunities for students, and in turn broaden their (school student) aspirations. By exposing them to real-world challenges and providing access to industry experts, students gain understanding and insights into potential careers and discover new areas of interest." GLF Schools

"It was a brilliant day, thank you all for making it happen. The students and staff were absolutely buzzing!" Jak Martin

"Amazing job everyone!" Daniel Tuijt

"MDXPD students' work, and the direction from the Smashers lifted the programme to a completely different level." Stephen Wood

"It's been fantastic working with such a creative and positive group of organisational partners and young people. Collaborative creativity, properly supported and resourced, is transformative for all involved." SMASH-UK CIC

"We got to create our own immersive experience; it was all of our own ideas! We worked with the Middlesex University students and had to present our ideas to everyone, I really enjoyed it!" – Phu

"It was incredible, the company were so nice and welcoming. Everyone was able to get involved in the project no matter who they were. It was really fun" – Amelie



'It was a really interesting day; it has actually made me think about going into design as a job in the future.' – Evan

And our MDXPD students reflected:

"This project has deeply impacted me, marking a significant journey that unfolded from its initiation to its conclusion. It has been a rewarding experience that has expanded my perspectives and enriched my understanding of the creative process... every phase of this endeavour has underscored the importance of teamwork, innovation, and commitment."

"...this was an enlightening experience for me and helped me to force myself to see design in a new light..."

"Looking back on this whole process, I've learned and grown so much. Working with everyone involved has been amazing because we all brought something different to the table."

"...this journey has made me really excited about my future career in design. Seeing how it can make a real impact has been eye-opening. I've loved

being a part of SMASH-UK's project and it's inspired me to keep exploring how design can change things for the better and educate people."

"The project...exemplified the transformative potential of design education in empowering individuals and broadening horizons... we reaffirm our commitment to designing inclusive and impactful educational experiences that empower individuals to thrive in an ever-changing world."

"I'll be...hopefully one of the graduates lucky enough to return next year to help continue the story of Flood and inspire the next group of designers."

"This was a brilliant project packed full of learning from everyone in participation! This for us is a huge success as it shows what we all have done here actually has made a measurable difference."

"... a truly transformative journey, both personally and professionally...It underscored the profound impact that design can have on shaping experiences,

fostering learning, and driving positive change in the world."

"The focus on a critical real-world issue like flooding emphasized the power of design to address challenges impacting our communities... but also to empower others and ensure the design world reflects the diversity of the communities it serves. I want to be more aware now of who I am representing as a designer and understand how can highlight that and make it part of my design identity."

**Thank You** to Salesforce, GLF Schools Foundation, Meridian High School, SMASH\_UK (SMASHfestUK), Stephen Wood, Chris Keene, Daniel Tuit, Jak Martin and Robyn Wallace for an amazing project!

**Middlesex University MDXPD students:** Imogen Sykes, Louis Aka, Irum Farooq, Mark Bustamante, Leeza Vekariya, James Boohan-Makhlouf, Alessia Lattanzio, Annie Yi-Chieh Ku, Charles Martimer, Kye Stopford, Raed Qutqut

**MDXPD Graduates:** Abdulaziz Mohamad, Jesufunke Martins, Jerusa Da Silva, Michelle Agyeong, Navpreet Kaur Singh, Tom Downey, Tom Milward

**MDX Staff:** Ahmed M Patel, Neil Melton & Wyn Griffiths





“

I am endlessly grateful for my time as a member of the Product Design programme at Middlesex University. I felt supported and encouraged at every level of the program and know that the skills and experience I gained there will aid me long into the future... Alongside the technical skills, though perhaps less concrete, learning about the design process and gaining and exercising the

skills of receiving and giving feedback have been incredibly valuable to me since entering into industry. The Product Design programme at MDX has given me the ability to collaborate with confidence in the professional design world, an ability I would not have otherwise.

**Brady Hansen**  
Design & Technology Technician at  
*Latymer Upper School, Hammersmith*

#MDXPD Graduate

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# OBERON.

## Taking The TableTop World Into The Future.

Warhammer 40000 has a steep learning curve, with the complex rules needed to control the playing pieces detailed across multiple pages/rule books. **Oberon** takes Warhammer 40000 and builds a **phygital game aid** experience on the foundations of Bruce Sterling's 'spimes' concept.

Oberon leverages accessible technology - digital databases, passive RFID tags and RFID scanners - to create **contextually** and **operationally 'aware'** playing pieces aligned with **live data visualisations** delivered via a tablet. Each playing piece can display associated rulesets, opposition capabilities and character creation data (the lore, model history, artwork and model statistics) embedded and evolving within its database.

The 'intelligence' embedded within each piece can be accessed in either:

1. Live playing mode - rulesets, evolving contextual play and opposition data OR
2. Character display mode - the player can plug the "data slate" into a portal (stylised model stand) outside of gameplay and a miniature (with RFID tag) can be placed onto it, producing character creation data.

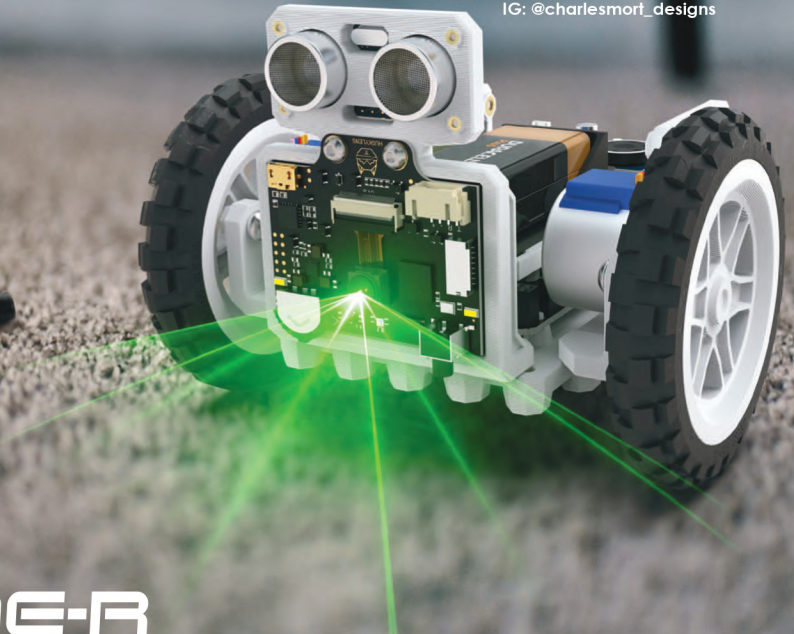
This will help players and hobbyists alike to build connection and appreciation of the richness of their miniatures outside of and between games. This will also encourage users who do not play the game to understand the system and learn more about the playing functions of Oberon, making the gap between playing and collecting shorter and more accessible.



**KYE STOPFORD**  
PRODUCT DESIGN ENGINEERING BEng



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# CODE-R

## The Community Cobot. Bringing Robots Into Your Home.

Mobile home robotics' recent manifestations have been limited to novelty or domestic applications. **CODE-R** brings a new, open-source perspective, enabling, supporting and extending the vibrant 'maker' community. Maker culture focusses on hardware-oriented creativity, encompassing hobbyist activities from engineering in electronics, robotics and 3D printing to arts and crafts. Makers take a constructivist (learning-through-doing) approach to their activity, with a strong social focus on sharing, peer-support and learning and open-source innovation.

CODE-R is a collaborative robotics system that is designed by and with this community of designer-makers with the intent of allowing people to learn-through-doing how robots can help us/them in our/their day-to-day lives, while creating and developing robots to fulfil roles in their own making spaces. The system foundation is a

'kit-of-parts' prototype cobot equipped with an A.I. Vision Sensor module to allow it to detect fallen objects and play a sound when the item is found. The cobot, once downloaded, printed and assembled, provides tangible help in everyday maker tasks, and provides a foundation to develop and share design extensions, refinements and new conceptual pathways.

The product/service/system proposal is centred around a 'Cobot Hub' which incorporates an online repository to share designs and files, a subreddit to post questions to the community and share new designs, and a Discord server to allow for more direct questions to be asked.



**CHARLES MORTIMER**  
PRODUCT DESIGN ENGINEERING BEng



flow

## A Training Tool for Coaches to Enhance A Team's Dynamics Through Live Player Position Tracking & Haptic Feedback

Flow is a new **training device** which aims to transform **football tactics**. By **tracking player positions in real time** using anchors and tags, Flow enables coaches to **visualize formations, spacing, and movement patterns**. Coaches can set maximum gap distances, and if players exceed these limits, Flow provides **haptic** feedback alerts. This innovation enhances training drills, such as **positioning exercises, pressing scenarios, and defensive shape tracking**. Flow opens up new ways to experience and refine **tactical awareness** on the field.

Flow consists of two main components: the anchor and the tag. The anchor remains fixed in a strategic position on the pitch, continuously detecting signals emitted by the tags worn by players. By triangulating these signals,

the anchor precisely locates each player's position. Meanwhile, players wear the tag on their vests during training sessions. The tag transmits real-time data to the anchor, capturing player movements and positioning.



**RAED QUTQUT**  
PRODUCT DESIGN ENGINEERING BEng



# 5+ YEARS ON...

## PP. 20-30 '5+ YEARS ON' SPECIAL FEATURE

A panel discussion with **MDXPD 2016 Graduates** on their journey post-graduation. This article is based on the transcript of a panel conversation, '5+ Years on' (Nov 7), at the weekly Guest Lecture Series at Middlesex University, for the Product Design, Product Design Engineering and Design Engineering programmes (but open to all).



This panel discussion, organised by Wyn Griffiths, Senior Lecturer in Product Design/Engineering and Dr Ahmed M Patel, builds on the '5 Years On' publication that we featured across pages 29-54 of the **#MDXPD 2021** Magazine. We looked at what our graduates from 2016 have been doing and where they got to in five years post-graduation.

On the evening, we were excited to have **Nihal Islam**, **William Bristow**, **Daniel Martinez da Cruz** join us live; **Mike Rikefe Ohowosi** with a pre-recorded video response from Australia; **Tara Fear**, **Sanjali Jain** and **Charlotte Norris** respond to the panel discussion textually before the talk, which were integrated and posted in the chat throughout.

### Introduction to participants – who they are, what they do?

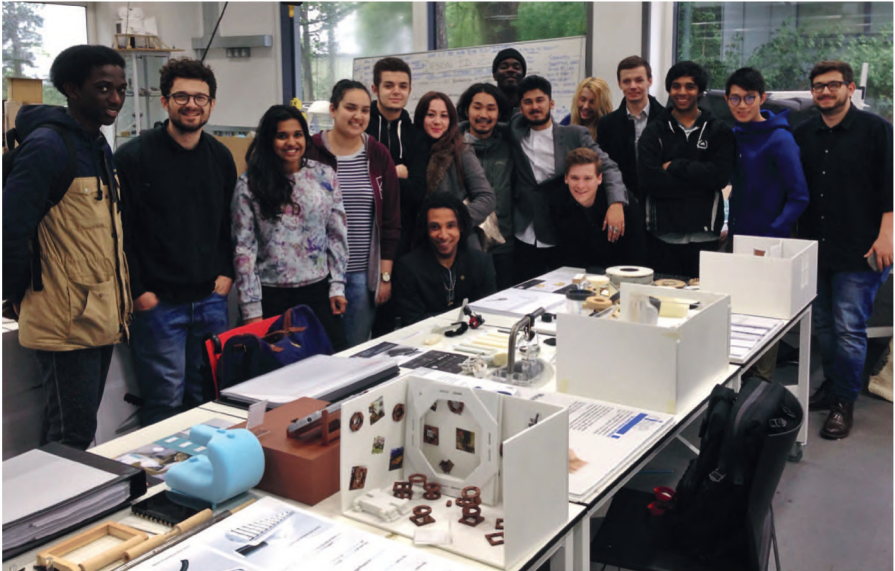
**Tara Fear:** I'm a Senior User Experience Designer at Gov - Office for National Statistics. I have been at the core of national design milestone achievements i.e. the Census, providing a fully accessible service ensuring disabilities or ailments were not discriminated against. This was a proud moment, where thousands of people were independently online, for the first time.

I'm soon to complete my UX Masters, completing my 10th Nielsen Norman Group exam within User Experience. This was encouraged and paid for by my work.

A little bit of background, during university, I completed an internship in engineering and marketing at Siemens, at 'The Crystal' flagship building (London). Roles after uni:

1. Teaching Assistant at the prestigious Harrow School (teaching workshop machinery, CAD & Design Technology)
2. Design Engineer at Dyson
3. Design Engineer at Slush Puppie
4. Now: Lead User Experience Designer at Gov-ONS

**Charlotte Norris:** I am a hybrid creative from Camden Town. My job title is quite broad as I have juggled the roles and responsibilities of Studio Manager, Project Manager,



Creative Director, Brand Specialist, Photographer Video Editor, Graphic Designer, Web Designer and Design Consultant. I have explored so many creative avenues in the last few years.

After completing my degree I decided to scrap the idea of doing a Masters despite being offered an amazing opportunity to attend the *Royal College of Art* to study MA Information Experience Design. This was solely because I have a child and during the undergraduate, I was the only single parent student on my course at uni. I mention this as it may be of motivation and reassurance for other students on the course now. My priority was to be there for my son and therefore, I decided to start-up my own branding studio, *BOP Studio*.

Through doing this, I have had the chance to work with some amazing clients, building and developing both new and existing brands, products and services. After graduation, I also partnered with another

graduate from Goldsmiths, and we worked as a duo to build a network of different creatives from various fields such as film, animation and photography. My creative partner went on to work for an agency doing BIG advertising and branding projects for clients such as Adidas and BBC.

I then continued the studio independently from 2018. I got to work with international clients doing everything from Dominican Rum, Petroleum on the African Coast, Anthony Joshua's team, The Ministry of Defence, Nike, National Lottery and the British Council as well as many more.

In 2021, I put my studio on hold when I was diagnosed with cancer and faced a lot of hurdles with my health. Still, I do not give up my dedication to my career and my creativity. And since getting the all clear (for now) with cancer, I have committed this time of my life to learning, and will do so at home. I am currently learning

coding, for fun...yes its nerdy but i love it. And will hopefully use these skills to further develop my professional career in design and master the skills of a front end developer. I mention this, as it is important for you to know, your learning does not stop on graduation day. We all continue to grow and learn, as we progress through life both professionally and personally.

**Sanjali Jain:** I'm a Digital Designer and Social Media Head at *Photobox (PosterXXL, the German side of the company)*. I am responsible for the execution of the brand guidelines whilst demonstrating industry best practice and delivering against key marketing and commercial targets. I am an integral part of the in-house creative team and work closely with the CRM and Content Managers, enabling all skills from marketing, strategy, creative and analytics to work towards one shared goal.

Recently, I have also started managing the Social Media





channels for our German brand.

After graduation, I worked at *Westminster Kingsway College* as a Learner Consultant and taught students Photoshop. I did that for a year until I found a better suited role for me as an in-house Product Designer for a procurement company. For 2 and half years I was designing graphical and technical digital and print artworks and also took lead on high-margin projects where I was designing for prominent brands like Just Eat, Benefit, Estée Lauder, P&G and many others.

I realised that I had an interest in Digital Marketing and Social Media, and enrolled myself for a Digital Marketing Management course which I topped up with a Scrum Master.

**Mike Rikefe Ohowosi:** Hi guys I am Rikefe Ohowosi, aka Mike, and I'm currently working as an industrial designer based out of Sydney, Australia. My first role in design was a company called

*Mahabis Footwear* and we worked to make this really cool detachable slipper. I moved on from there and went to Australia and then worked in the freelance industry, for the last few years, as a freelancer and really enjoyed it. I've worked across many different types of products from footwear to connected devices, consumer electronics, so I like to say I'm a bit of a multi-disciplinary designer. I love attacking problems that need to be solved.

**Daniel Martinez da Cruz:** I am working full time for a charity called *Tear Fund*. My current title is a Production Coordinator and I previously used to be a Senior Manager, as well as Production Assistant. A lot of what I do at *Tear Fund* is paper based stuff or mailings, in addition to large events we're involved in.

**Nihal Islam:** I'm currently an Industrial Designer & Development Manager at *TCC Global*. We create product ranges that we sell in campaigns lasting

for about three months to a year, allowing shoppers to spend at certain stores.

Short story, after graduating in 2016, I joined a industrial design consultancy called *Curventa*, and designed products from mobile phones to sex toys, helmets all sorts of cool things you want to do as an industrial designer.

I then joined another company where we designed an indoor cycling bike. It was here where I was approached by a company called *Swift* to work at a startup in America. My teammates and I went to *Swift* for about six months, and here I realised that this wasn't 'my thing.' I went from in-house to freelance, and wanted to try out different things, before joining *TCC Global*.

**Ahmed:** Nihal is currently at *TCC Global* where Isabel Parker (MDXPD Graduate, 2020) is also at, showing the power of the MDX alumni and LinkedIn Community. Nihal shared a job

opportunity and Isabel applied, went through the process and she's also working with Nihal, as a colleague.

**William Bristow:** I'm a service designer, currently at a digital transformation agency called *Methods*, doing lots of government and public sector work. One of our main clients is the Department of Education, and Education Skills Funding Agency (ESFA). But we've also got other other things going on, NHS, ONS as well (where Tara is working, currently).

My first role actually came from my industrial placement, which I would encourage everyone to do. I went to *Unilever* and they offered me a job there when I graduated. I was at *Unilever* for a year, doing packaging design and kind of front end innovation for them, thinking about how and what the new innovations are for in packaging, not just in the physical object, but also the services - direct to consumer and stuff like that, which led me to want to move over to *Service Design* - working for *Hackney Council* as they were at the forefront in local government digital, and then to a housing association called *MTVH* and now at *Methods*.

### What do you wish you'd known as you were about to graduate?

**Tara:** I had confusion with my confidence. Remember that everyone has something to offer, I was blind to that - I constantly benchmarked myself and couldn't see the unique qualities I could bring to the table. Alongside this, there is an odd recruitment of women in design - too many have first roles in 'kitchen design' due to societal assumptions. Even at *Dyson* (after five interview stages), I was placed within the hair-care product

team. *Stand your ground. Know your worth as a person - your sex or gender does not define your abilities.*

**Charlotte:** Believe in yourselves. Drink plenty of water. Sleep enough. Find a healthy balance between being ambitious and self care and remember that money isn't everything. Don't damage your health whilst 'chasing the bag'.

Before you go into the creative industries you need to learn to have 'thick skin'. Unless you already have a connection somewhere, a 'foot in the door', or you have previously secured an opportunity for when you leave uni, you will dive head first into an extremely competitive field where a million people are up against you for the same job, and many of them will do the same work, for a fraction of the price. So learn to take knock-backs in your stride and don't take anything personally.

Also, network as much as you can at the degree shows. These shows can open-up so many doors to different things: from winning awards to scholarships, internships and even employment opportunities.

**Sanjali:** Work on your Digital Portfolio, which makes applying a lot more convenient for both yourself and employers alike. Plus, it also allows employers to see your style as a designer.

Practice public speaking - learn to communicate effectively and be confident when talking about your work.

**Will:** When you are graduating, you can feel like *'the decision I've got to make now is the most important decision ever and it's going to dictate the rest of my life, and this is it!'*. It doesn't work that way. Things change all the time -

the context changes, you change. There are always changes and even if you try doing one thing, you may end up somewhere else. The only way you're going to know is through trying, so don't be afraid for trying things, it doesn't have to be 'forever'.

**Nihal:** Core skills... you've got to make sure these are at a good level. You can be really good at something which is good, but that doesn't mean you're going to be doing that all day every day.

My CAD skills unfortunately weren't the best and I really wish I had spent a lot more time on that - you know, doing CAD, spending more time on specific things like surface modelling - make sure everything is up to scratch.

**Daniel:** The key is collaboration! This is something that we did from day one on the *Product Design* programme and collaboration is so important in the workplace.

Time management is also key. That's a big one, learning to manage time and learning to put gaps in free time so you have adequate rest and leisure as well.

**Mike:** I wish I would have known how hard it was to get a job, and being prepared to apply for work. Skills are crucial as well as having a really good portfolio.

And networking, meeting people - sometimes your face 'fits in'. If you can show that you'd be a 'good fit' for the business, as opposed to your hard skills, employers may sometimes be willing to take on someone they like, and help develop them. You've got to be there, at networking events. I was, when I was in my final year.





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The course is great. I learned so much... The course genuinely allows you to take full control and choose what you want to become. It's full of so much culture, people from all around the world and always full of collaboration from staff and colleagues. For me, it was a great course and I would never change it for any other. The staff were always open and

honest, respected you, they treated you like designers (not students) and most importantly they cared and took interest in you and what you wanted to do.

**Nihal Islam**

Industrial Designer & Development Manager  
at *TCC Global*



### How did you find your first job, what was the process?

**Mike:** It was difficult. I had my first kid, just graduated and I was between New York and London. I was really stretched for time and probably didn't spend as much time as I wanted to on my folio but I had enough in there to show my skills... my soft skills and hard skills.

I was searching for a couple of months, and then happened to speak to a good friend of mine who runs a really successful footwear consultancy called *Concept Kicks*. I met up with him and we hit it off, and he was like I really like what you're working on and how you think. I was able to show my portfolio, the way I designed, the way I think and process things. And they (*Concept Kicks*) were keen to get me in, and I think I started a week after meeting him. I worked there for over a year before I moved to Australia.

**Daniel:** I was jobless for a while, and I sort of fell into my role by accident. My dad used to work for *Tear Fund* for 25 years but I didn't think there was an opportunity for me to work there, and I did not want to work in an office. I thought it was boring. However, I found out that *Tear Fund* had an in house studio and they were looking for a studio manager - ideally someone who had experience in the creative space. And I am still there now!

**Will:** I had a very lucky start to my career. I was offered a role after graduating at *Unilever*, where I had undertaken the placement. But that didn't necessarily help me when it came to changing over to *Service Design* and I was unemployed for about nine months after that when trying to figure it out... and I learned quite a lot through that time.

I think I must have sent out about 200 job applications. It was tough and it was sporadic,

not particularly focused, which is a learning in itself. But what ultimately helped was focusing on those transferable skills and regardless of whether you do design or engineering (and actually within the whole industry) the opportunity for transferable skills is enormous.

So, being able to focus on those transferable skills really helped me to stop focusing on the 'thing'. I did that a lot at the beginning when I was talking to people or sharing portfolios and stuff - I really focused on the thing that I had created rather than how I got there. I'm sure that's advice which will come from Ahmed and Wyn and all the tutors. The employers want to know how you got there and they want to have confidence in you. So, you have to ask, what would give them the confidence that you could do the role? And it's all of that stuff, all the thinking work that leads you to the 'thing'. And speak to people - get advice about creating a good portfolio.





**Sanjali:** I found my first job as a Product Designer through a design recruitment agency. I had two rounds of interviews where I had to present my portfolio and my design response to a brief which was given to me. It was pretty straightforward. I must admit, although I am grateful for the opportunity I got with my first role, I am much happier to have found a work environment which promotes good work-life balance, employee satisfaction and promotes progression.

**Charlotte:** I was freelancing whilst at university. I got these jobs through word of mouth. A lot of my initial work was done for peanuts. I found it very difficult to secure jobs through agencies without references. My first job through an agency was for a studio in Shoreditch who were working on the Tomb Raider trilogy. Once I decided to take a leap of faith and start up my own studio I had clients lined up through recommendations.

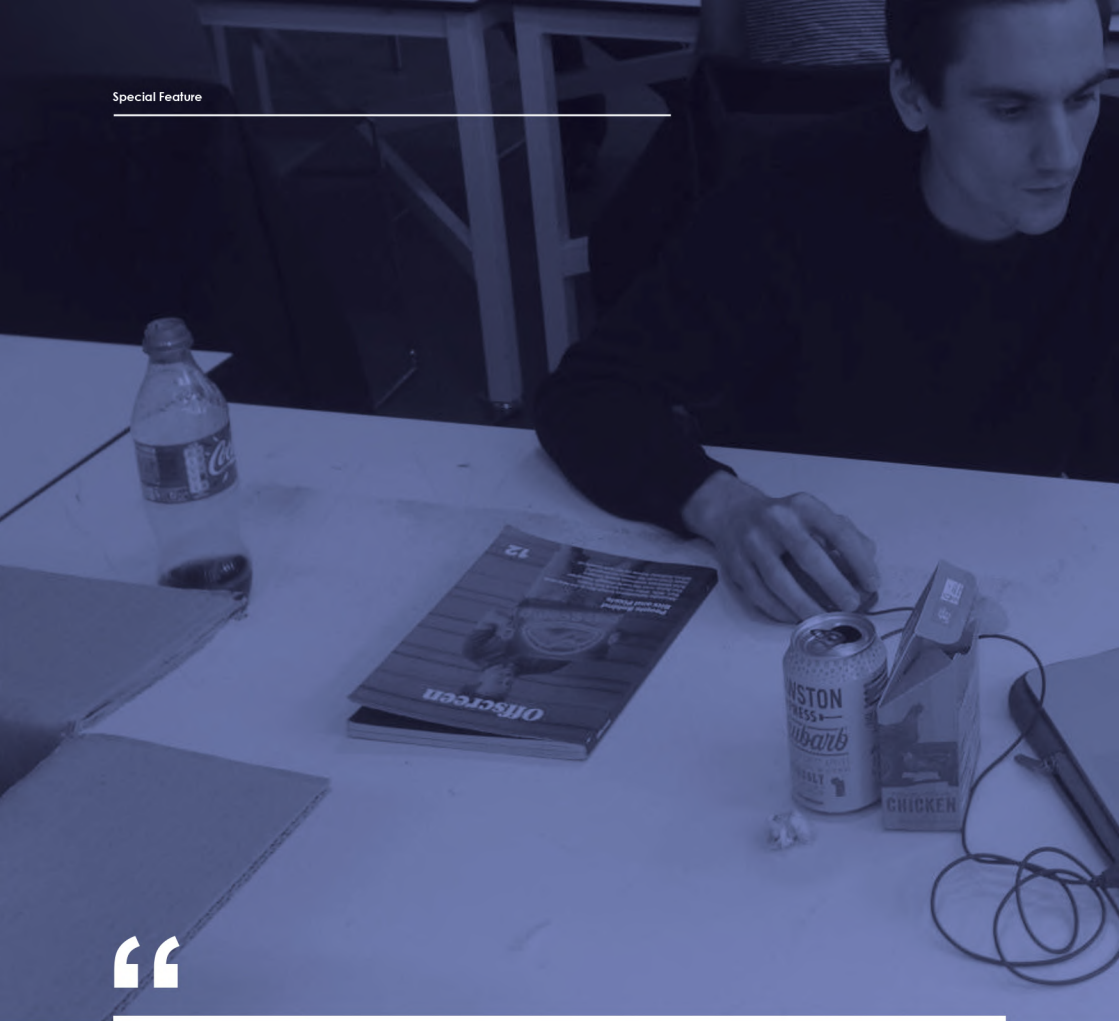
**Tara:** Following discussions with Dyson representatives at New Designers, I followed the online application process. My first role was a Design Engineer, and I loved that the prospect of working for Dyson was one where 'I made it'....right? Nope. I realised that a company doesn't make you. Aiming for the stars is great, but a lot of happiness can be found when grounded too. Dyson are, for sure, amazing employers, but sometimes it's OK to admit a dream doesn't live up to the hype or your over-zealous expectations.

### What did you get/learn from studying at MDXPD?

**Nihal:** The course is great. I learned so much... The course genuinely allows you to take full control and choose what you want to become. It's full of so much culture, people from all around the world and always full of collaboration from staff and colleagues. For me it was a great course and I would

never change it for any other. The staff were always open and honest, respected you, they treated you like designers (not students) and most importantly they cared and took interest in you and what you wanted to do.

**Will:** Middlesex was the best introduction to the world of design that I could have hoped for. The team has a unique ability to bring variety to education. You will experience a broad spectrum of 'design'. This allows a student to carve their own path, and not become a factory, producing cookie-cutter graduates. They understand 'Design' as an industry, and what it means to be a valuable asset to any hiring team. As I'm sure they will say themselves, they give students the foundations to build their skills, in their own way. Teaching you to learn. It's a safe space to explore and get things wrong. You can be a high achiever even with unsuccessful projects, as long as you tried and you learned. You won't have the luxury to be curious again!



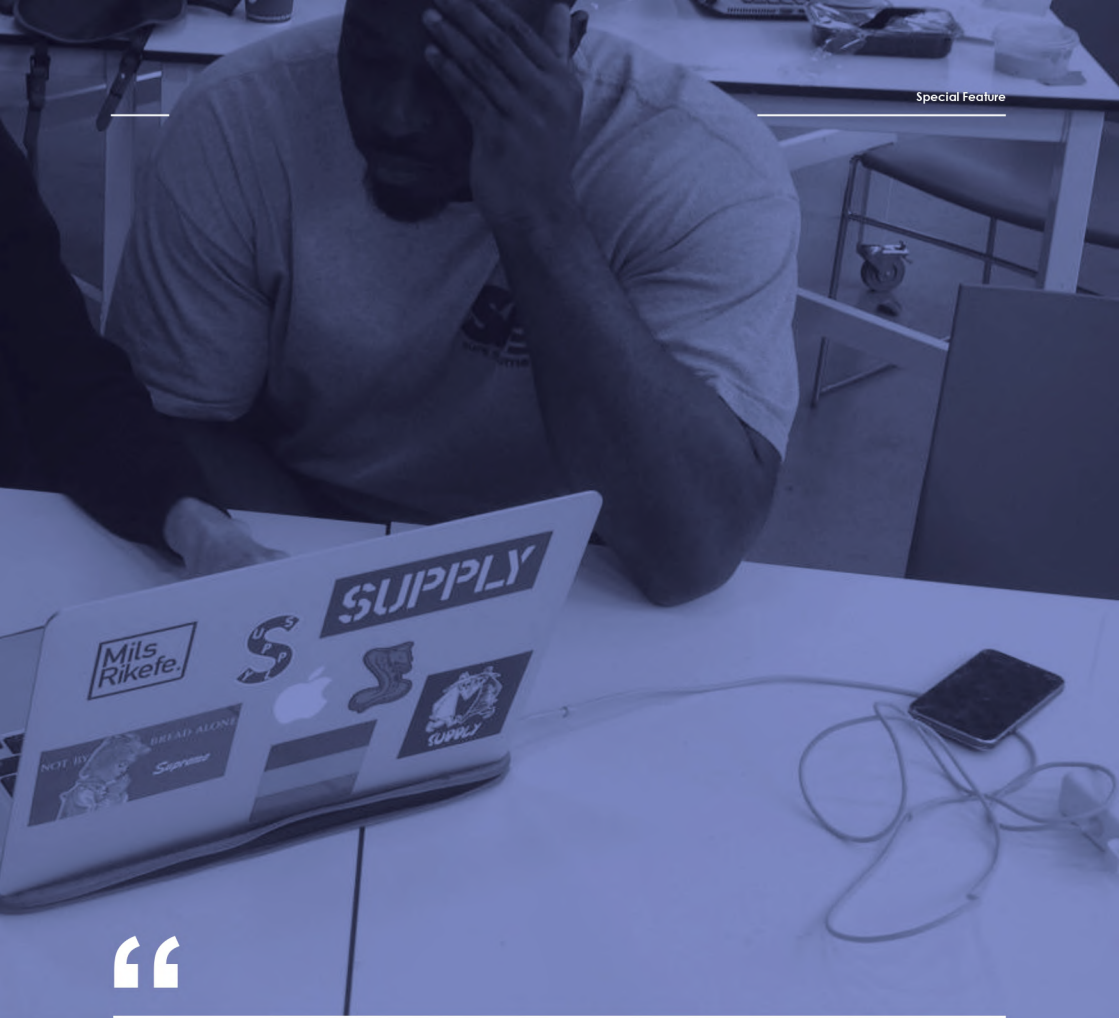
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The Product Design programme at Middlesex University has shaped my life more than I could have imagined beforehand. Back at school I already had a desire for innovation and amazing product experiences. At MDX it was taken to a new level, being exposed to tutors and people that always stressed, “We do *innovation for people here!*”. This sentence is always on my mind when I do things... what I learned at MDX:

experimenting, prototyping and iterating. I remember the tutors helping us make our concepts and products tangible, and the value of communicating clearly. Personally, I am really happy to have left Italy and Germany to study at MDX. I got exposed to a diverse community in London, which now helps me understand and appreciate cultural differences and its benefits.

**Tobias Schreier**  
Founder & Innovation Trainer at Ixed





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For anyone who might be interested in Product Design I can't speak highly enough of the MDXPD course. From day one it will immerse aspiring designers in an engaging studio environment to design, visualise & prototype human-centred solutions to many of the problems we face in an ever-changing world. MDXPD has played a pivotal role in my design journey thus far, and I am sure it will shape many more young

aspiring designers from all over the world, in advancing creative boundaries and setting future design standards.

**Mike Rikefe Ohwosi**  
Industrial Designer

**Mike:** For anyone who might be interested in Product Design, I can't speak highly enough of the MDXPD course. From day one it will immerse aspiring designers in an engaging studio environment to design, visualise and prototype human-centred solutions to many of the problems we face in an everchanging world. MDXPD has played a pivotal role in my design journey thus far, and I am sure it will shape many more young aspiring designers from all over the world, in advancing creative boundaries and setting future design standards.

**Daniel:** The world, the planet is important. I'm sure there's a bigger emphasis now on the course. In my opinion, avoid plastic at all costs, if you can. And get to know things like what is FSC, what is PEFC... How do we design things. Again, this was something during the Product Design course that opened my eyes to the real world. You can design things in the premium materials that might cost more, but you design with the intention of a longer life-span of the product, for it being repairable, things like that.

**Tara:** If you are user-centred, well-researched and have both a holistic and strategic approach then you can succeed (and very much enjoy) any areas in life out of your comfort zone.

**Charlotte:** If you have not already learnt this, then now is the time to not be precious over your ideas. Ideas are there to be developed and two heads are always better than one. Learn to take feedback and criticism because in the real world you might face some challenging scenarios where you will benefit from valuing the opinions of others - especially

paying clients. Good designers develop things. And remember there is no point having a good idea and keeping it to yourself because no one will ever be able to benefit from it.

### Q&A: Summary Highlights – Advices & Reflections from the #MDXPD 2016 graduates

**Charlotte:** Three pieces of advice that I think are the most important,

1. *Balance*, remember your health and don't sacrifice yourself for 'the bag'.
2. *Be resilient*, not only professionally but personally too.
3. *Keep growing*, never stop in your personal and professional development. And three more...
4. *Believe in yourselves*.
5. *Drink plenty of water*.
6. *Sleep enough*. Find a healthy balance between being ambitious and self-care and remember money isn't everything.

**Sanjali:** Even if you don't have the 'skill', or you feel that it is not fully developed - it is okay to go online, on YouTube, find a crash course or even reach out to people on LinkedIn. I ended up mastering most of the softwares whilst regularly working with them. "Practice makes perfect" - as they say.

**Tara:** Don't let a single bad experience dent your commitment to your chosen career (and it's ok if that plan changes!). Although I transitioned to UX (related to Product Design) I very much enjoy my role but I dearly miss the physical product design side (not just digital). If you want to work in physical, digital (or the in between - i.e. the Internet of Things) there is always time to learn and evolve.

**Nihal:** Don't be afraid to make mistakes, you know I made hundreds of mistakes. I've got a whole list of just mistakes, and you know what, you'll learn from them.

It can be quite tough, at times... but you'll get through it. The hard times are there for a reason, to get you ready, to prepare you. I'm a firm believer of that. You go for certain things, it pushes you, you get through and it gets you ready for the things to come. Good things will come, so be ready, and enjoy it.

**Daniel:** Placement is a key one. I really regret not doing one. Go on a placement. A year of placement or doing some stuff. Many people have achieved a lot from doing placements over the Summer. Just do it.

**Mike:** Start networking. Just get stuff out there and meet as many people as possible, in the field that you want to be in. Get out there and network, because nine times out of ten, it's probably down to how they perceive you more than what you can achieve with your work alone. You have to be out there and be seen.

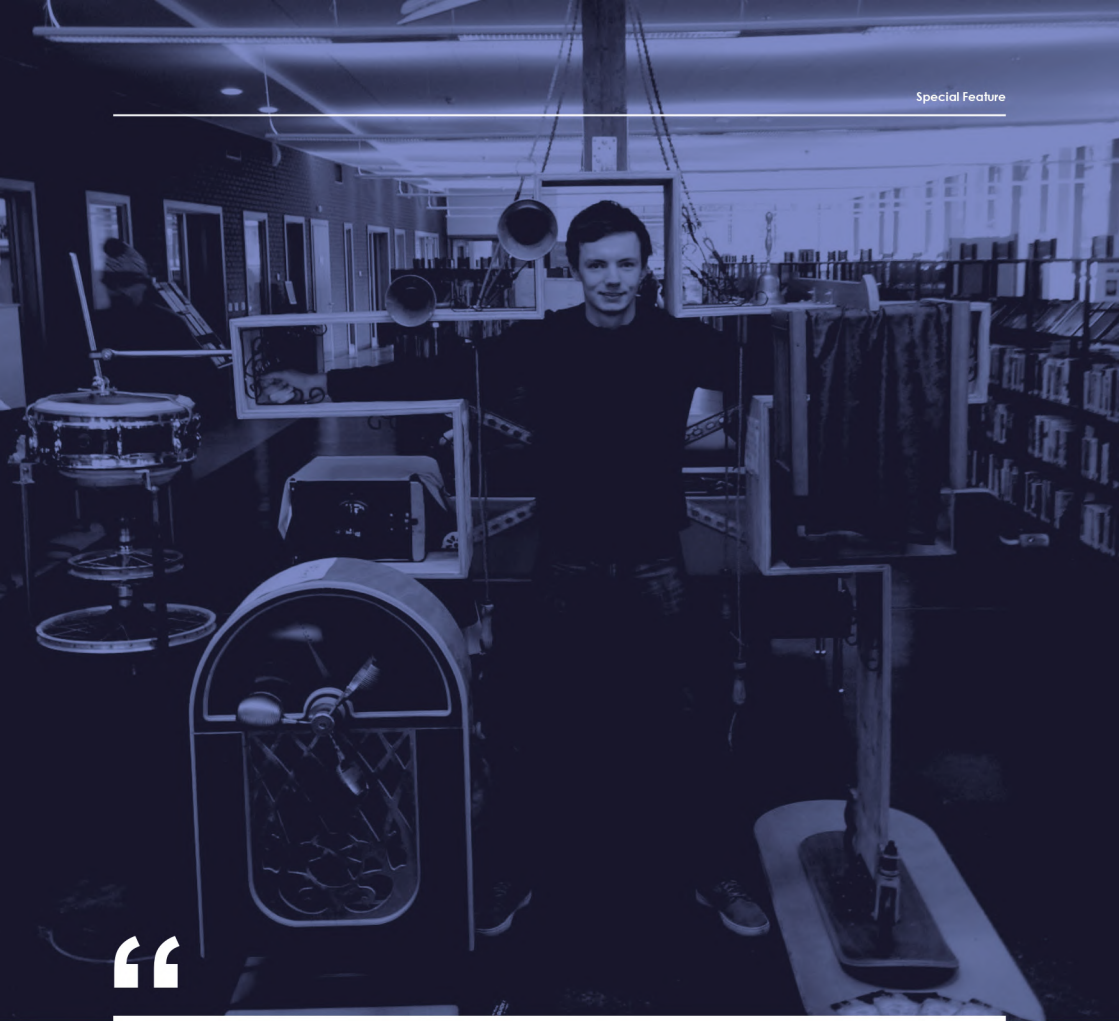
**Will:** Don't be afraid, I guess that is the main one. It can be really scary regardless of whether you are still learning or whether you are going out to work - reach out, talk to people.

If in doubt go back to first principles. I still do it now, just remember, you just have to trust in the process. It works. If you feel like you're going off track, go back to first principles and go back to having a plan.

### WATCH THE FULL PANEL DISCUSSION AT:

<http://y2u.be/JGs3A59dnxA>





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MDX was the best introduction to the world of design that I could have hoped for. The team has a unique ability to bring variety to education. You will experience a broad spectrum of 'design'. This allows a student to carve their own path, and not become a factory, producing cookie-cutter graduates. They understand Design as an industry, and what it means to be a valuable asset to any hiring team. As I'm sure they will

say themselves, they give students the foundations to build their skills, in their own way. Teaching you to learn. It's a safe space to explore and get things wrong. You can be a high achiever even with unsuccessful projects, as long as you tried and you learned. You won't have the luxury to be curious again!

**William Bristow**  
Service Designer at *Methods*



I like to look back on my time at MDX where I was able to meet a lot of great people that I am constantly in contact with and also learned skills that I use in my professional life. The Product Design course gave me the opportunity to figure out what direction I wanted to take my career in.

After studying at MDX, I went on to study Masters degree at the University of Birmingham (UoB), which I

am currently finishing. Whilst my studies at UoB were primarily based around computer science knowledge, I was able to apply my knowledge from studying at MDX. This gave me an advantage on projects that focused on design and I also had the opportunity to apply things that I have learned at MDX.

**Elena Vesela**  
Business Function Designer at Accenture





“Middlesex taught me that the essential part of developing a meaningful object is not about finding pretty solutions but asking the right questions. Countless Universities can teach you the basics of design, an understanding of form and function but only a few are able to educate you in design thinking.

Middlesex does not only have great students but also outstanding

lecturers. Whilst building my prototypes in the workshop there would always be a lecturer around to give me advice. Most of the time they knew exactly how to handle different materials and techniques, and if they didn't, they made all the effort to find a solution as soon as possible.

**Marisa Tschickart**

Strategic Planner at Panama Werbeagentur GmbH, Germany

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# trakR.

## An Interactive Screen-Free Communication Companion for Parents And Their Children.

In today's fast-paced world, staying connected with our loved ones is paramount. As a concerned parent, you understand the importance of ensuring your child's safety and well-being. Enter **trakR**, an innovative safety solution designed to empower families and provide peace of mind. With trakR, parents can effortlessly **track their child's whereabouts**.

Whether it's school, playdates, or extracurricular activities, you'll always know where your little one is. When you are in an emergency, every second counts. trakR swiftly provides your child's location, enabling rapid response - whether it's a medical crisis or a safety concern.

**Fostering open dialogue** within families, trakR encourages discussions about its

purpose with your child. By respecting their boundaries, you maintain a healthy balance of communication and privacy.

Say goodbye to assumptions! trakR eliminates guesswork, **reducing anxiety** caused by a lack of information. Stay connected, stay informed, and prioritise safety with trakR - your interactive connected communication companion.



**MARK BUSTAMANTE**  
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# babL

## Learning Through The Language Lens

### Revolutionising Language Learning for Children.

In a world where education evolves rapidly, babL proudly unveils its latest innovation, a ground-breaking platform designed to revolutionise **language learning for children**.

babL is not just a tool; it's a gateway to a world of **linguistic exploration and discovery**. Seamlessly blending fun and education, this innovative device provides an immersive platform that adapts effortlessly to various contexts and locations, fostering a positive connection with learning.

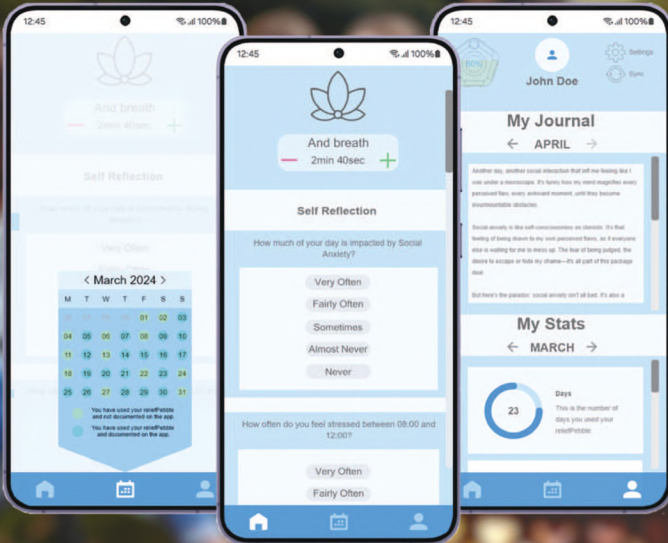
Imagine a magical device that serves as a passport to a universe of languages, all within the grasp of eager young learners. Embark on interactive adventures. Say farewell to mundane textbooks!

Inviting children to embark on captivating journeys filled with engaging storylines, interactive games, and exhilarating challenges. It transforms language learning into an exciting adventure, igniting a passion for exploration and discovery. It's not just another language learning tool; it's a dynamic **ecosystem** crafted to engage young minds in a **holistic learning experience**.



**IRUM FAROOQ**  
 PRODUCT DESIGN BA

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# reliefPebble

An Innovative Device and App Designed to Empower Personal Management and Provide Direction for Those Managing Anxiety-Related Conditions.

**Anxiety** is currently the most commonly diagnosed mental health problem among young adults in the UK (Office for National Statistics UK, 2020). Many products, services and therapeutic techniques exist to support anxiety sufferers, yet there remains a gap in the market for more personalised treatments that consider an individual's specific fears, triggers, and lifestyle.

reliefPebble is a **stimming device** and accompanying app. The textured surfaces and material selections respond to current research in stimming behaviours. An accelerometer and gyro inside the pebble documents time and length of use. This data, when shared with the app, supports the user in **visualising and tracking** their anxiety,

helping with **reflection** and **goal setting** to **manage the condition**.



**JAMES BOOHAN-MAKHOUF**  
PRODUCT DESIGN BA



# REACH

## Extending Reach For Wheelchair Users In A Contactless World.

**Reach: A contactless access device designed for wheelchair users, with wheelchair users.**

Reach is a device designed to **enhance accessibility** for wheelchair users in a contactless world.

With **91.2% of transactions in 2022 being contactless**, it addresses the unique challenges faced by wheelchair users in accessing these touch-points.

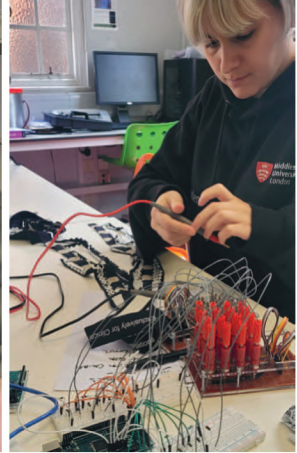
Reach empowers users by extending their reach **up to 300mm** with a simple, one-handed pivoting solution. It packs away compactly and uses passive RFID technology for smooth, power-free access, ensuring inclusivity in a society designed for the able-bodied.



IMOGEN SYKES  
PRODUCT DESIGN BA

# REDLOOP

Middlesex University Design & Innovation Centre / Faculty of Science and Technology



**redLoop** is driven by collaborative innovation. We work with research teams and form project groups both within the university and beyond, to develop and deliver projects that increase the potential and impact of the University's work for internal and external partners, networks and clients. Research is central to our creative process, both research-led innovation and innovation-led research.

+ We provide opportunities for students to gain experience in a unique working environment, with leading edge design and innovation practice, delivered with the insight of educators.

+ We develop professional competence and employability potential through projects, placements and internships.

As a team of designers, we make significant contributions to high profile research within the university through the formulation, creation and visualisation of innovative of concepts, working with industrial partners in leading edge

manufacturing. Our team of junior designers work with us for the whole year, and are critical in supporting this design activity.

Over the past 7 years we have been instrumental in gaining/ delivering on over £8M of research grant funding, in partnership with broad networks of collaborators, and we have enabled our placement students to work on these projects to build their professional competence.

Our work over the last year continues to focus primarily around biomedical research, working alongside biomedical scientists and engineers within Middlesex University, UCL and Cambridge University. As a team of product designers we are well placed to provide the insights into human behaviour, product development and manufacturing that can help bring innovation out of the lab and into clinicians' hands. Our visualisation skills help generate the concepts and supporting visual assets to contribute to

persuasive and clear grant applications.

We were part of the Middlesex Led team that was awarded emergency funding by UK Research and Innovation to develop a low-cost, real-time, non-invasive lung imaging system for COVID-19 patients, both in intensive care and for 'long covid' support. We rapidly developed a new approach to patient wearable electrode arrays using printed electronics, which is now in manufacture and with a patent filed.

We are continuing to develop this system, optimising the electronics, the user-interfaces and the approach to manufacturing the patient wearable. As an ongoing co-creation effort with clinicians, we continue to ensure that we meet clinical use cases as they emerge.

Other projects have included: **Pneumacrit**: This £1.8M EPSRC



Find out more about redLoop at  
<http://redloopdesign.com>

grant builds upon previous work developing real-time lung imaging technology for neonates. The wider project focuses on new approaches to the underlying technology, using leading edge printed and organic electronics, along with new approaches to wireless power and data transfer in an ICU setting. The redLoop team not only contribute to the manufacturing and product development, but are also able (along with the intern team) offer guidance and insights into in-context use.

We have worked on innovative ways to encapsulate the optimised electronics meeting ingress protection and manufacturing requirements, and the clinical use case. This new approach will enable a wireless approach to be adopted, humanizing the technology and enabling more naturalistic forms of clinical care to be undertaken.

We have developed graphical devices applied to the patient wearable to ensure that clinicians are able to easily select, apply and maintain the patient wearable. These devices also provide a positive parent affective response to the technology leading to more ready acceptance of its use. They are a powerful addition and are in the process of design registration.

#### **Oral cancer detection device:**

We are part of a team working across Middlesex University and University College London developing a device to enable dentists to perform early diagnosis of oral cancer. The work is currently under Non-Disclosure

Agreement a patent has been filed for the electrode array, device embodiment and use. We developed the device enclosure, interface and electrode array.

#### **Deep Brain Stimulation for Mitigation of Parkinson's**

**Symptoms:** All currently available systems use a highly invasive implantable in the patients brain. We have been working as part of a multi-university team to develop a non-invasive, wearable device that can be used in community settings.

**Wearable Gait Analysis:** There are a broad range of use cases where a wearable approach to gait analysis could have a significant impact on quality of life, post-surgery rehabilitation and sports performance. We are working with colleagues at UCL, The Motion Learning Lab at Stanmore Hospital and The London Sports Institute at MDX to develop a range of technologies that can perform this demanding function and turn them into useful devices for end users.

**Invisible Risks:** Working as part of a research team led by Psychology, and with colleagues from Computer Science, this research project (funded by the Tech Coalition Safe Online Research Fund) further develops and expands the 'proof of concept' intervention prototype developed during the initial funding round to enhance the wellbeing of content moderators. Content moderation is a growing sector as social media explodes. It is a highly demanding job with considerable psychological impacts that can lead to secondary and vicarious trauma. Our approach to online formulation, psych-ed and

support aims to catch possible trajectories to trauma early, helping content moderators to become more self-aware, reflective and independent in their own wellbeing.

We act as a 'transition space' between the University and the outside world, and as such we can provide students with amazing opportunities to work on real design projects with commercial clients. Each student on placement works with us as a Junior Designer, and plays a key role in bringing our projects to fruition, overseen by the redLoop team.

"redLoop has given me the time and space to really grow as a designer - engaging in design challenges, design problems, and design opportunities that allow me to further develop my skills." Toney Smith

"I've learnt the basics of designing medical devices, working to appropriate standards, how to apply them and how are they verified. I've been involved in building models and proof of concept prototypes. I am so grateful that we've had the chance to work on such high profile projects, be invited into client meetings and be fully integrated into the design team" Irene Gallego Rubio

The **2023-24** placement team:

Athvaihan Sriskandarajah  
 Irene Gallego Rubio  
 Leyla Vedadipour  
 Toney Smith

To find out more about the work of redLoop, contact:  
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# #mdxpd Alumni Reflections

Over the last two years we've developed an innovative new paid graduate training pathway, with MDX partner **SMASH-UK CIC** to develop Product Design/Engineering graduates' practice-based experience. Working on funded projects with a wide range of stakeholders in transdisciplinary creative collaborations, the graduates build community co-design, experience design and participatory action research knowledge and skills. The internship programme is supported with funding from the *British Science Association*, the *Royal Academy of Engineering* and the *UKRI/STFC Legacy Award*. Four SMASH-UK interns reflect on their experiences, so far...



## Abdulaziz Mohamud

I'm a freelance multidisciplinary designer/researcher. I explore a wide range of design, from industrial to experiential. Driven by empathy, my work aims to understand people's needs to produce solutions that not only resonate with them, but also inspires. This approach allows me to develop my breadth of knowledge as I collaborate with people to bring clarity to fuzzy ideas.

During my time at university, I developed a keenness to delve into design challenges that are often overlooked by working directly with the communities they impact. This has been furthered with the work done with SMASHfest post graduation.

Working at SMASHfest as an alumni of the course was very

different from how I approached it at university, where it was just another project that got a bit lost in the hubbub of second and third year. Although I knew the background and purpose of the event, it wasn't until after graduating that I was able to understand the depth of the project's mission, and how the skills that we utilised related to wider design opportunities.

At university my colleagues and I worked collaboratively across year groups on the FLOOD, LIVING IN SPACE, and SPACE PLAGUE projects. At the time, we were focused on developing the activities around the project themes, and how they could fit into a storyline. The outcomes of most of the work we did were just conceptual; these concepts included sketches, 2D/3D

designs, scripts, and proof of concept models - at that stage we didn't have to worry too much about the budgets and the work involved in turning them into full scale usable pieces.

Beyond the design work I was also part of the team that helped deliver the activities for the FLOOD program in Deptford, role-playing as a scientist and local affected by the disaster.

Most recently I've worked on the WILDFIRE project, where I have been able to delve deeper into bringing concepts that we would have worked on as students to life, with the development of digital and physical assets that were used in the immersive experiences. However, the area I spend most of my time on is the





research side of the project, which informs the overarching concepts that students work towards.

As SMASHfest is an interactive process, we use a lot of the findings from previous programs with new research done through co-design within the community and experts, and the evaluations received after each show. I've been able to understand the long term effects that narrative transformation can have in teaching people about STEAM, where people use skills to solve problems, rather than being relayed information about an industry from people that may seem out of reach to them.

The projects have been funded by organisations such as the British Science Association (BSA), UKRI/UKSFN

Making Connections Fund, Royal Academy of Engineering Ingenious Award, and others. The reason it's important to mention these organisations - beyond their prestige on a CV - is because of their missions of breaking the barriers of exclusion to STEAM subject areas, by building connections within underserved communities.

Delivering the experiences alongside the wider initiatives across the country, we have been part of a network that's been able to reach over 3.2 million members of the public (figures from the Royal Academy of Engineering), and according to the research from previous SMASHfest events around 70-75% of the people that attended the event had never been to a similar experience, and from

the 2020 SPACE PLAGUE event, more than 80% of participants agreed with having felt "like real scientists" post-event.

Another benefit of working at SMASHfest is the ongoing development of my research skills. Co-creation is one of the key tenets of SMASHfest, with collaboration from experts from STEAM subject areas, and more importantly, local people, as the festival aims to be designed by the community for the community. This focus has meant that I've been able to work directly with community groups, listening to their thoughts and acting as a facilitator to help them create experiences for their community. Alongside community work, I have also been introduced to concepts like action research, a form of research that is less rigid and is informed by lived experiences.



The lived experience aspect deviates slightly from the message at university of not designing for oneself, which made sense as it's easy to develop projects through our singular lens instead of thinking of the wider context and appeal that the solution may have. However, as an action researcher you are able to offer nuanced thoughts - based on previous experiences - to what you are doing and seeing, then use those thoughts to create changes. This approach sees the value of everyone involved in the process, designers and researchers are no longer third parties looking in, rather they are equal participants alongside each participant in the collective group.

The living experiences that we use are framed through current research methods, making sure that we are focused on the issues of social and racial inequalities in the STEAM field. Alongside our experiences we reflect on the thoughts and views of the other participants,

which we use to further adapt the work that we are doing to ensure that the intended impact of our work is being met.

Ingrained in all of this work has been public engagement. At first, this was in a more contained environment working with other students from different year groups to generate concepts, and also develop relationships beyond the project. As my role on the project has progressed I've been able to not only work with other designers, but, as mentioned previously, it has included community members and experts.

The other group I have also had the chance to interact with are the actual participants of these events. Being able to have direct feedback from the people the event is designed for is a unique opportunity, as you are dealing with the realities of how people react to the experience. In the vacuum of a "design project" it's easy to under-

estimate the skills we gain that aid in our professional development. Things like working with other year groups and experts is certainly a form of networking. Collaborating with other teams helps you understand how to effectively communicate in existing professional workflows (both online and in person), and then there's the financial side of writing invoices and keeping track of your expenses.

The experience of SMASHfest continues to push me out of my comfort zone, working more like a start-up that lacks traditional rigid roles and creating a level of flexibility that allows you to pick up skills across design, research, funding, public outreach, and other things that pop up along the way. This teaches me how to be more adaptable to different roles and not pigeon-hole myself into just doing what I think a "designer" should do.

Importantly It has given me more understanding of what impact these events have on the community, and also the reassurance that even outside of university, in a scenario where we are being funded by large prestigious organisations, things can (and will) break and that projects are always works in progress, rather than a singular final perfect solution.

▶ **Follow Abdulaziz Mohamud on Instagram** @abdulbydesign and **Connect on LinkedIn** [linkedin.com/in/abdulaziz-mohamud/](https://www.linkedin.com/in/abdulaziz-mohamud/)

▶ **Follow Jerusa Da Silva on Instagram** @freisilxdsgn and **Connect on LinkedIn** [linkedin.com/in/jerusa-da-silva/](https://www.linkedin.com/in/jerusa-da-silva/)





## Jerusa Da Silva

My first time with SMASHfest was in my first year of university when we took part in the development of the "Living in Space" experience in Deptford. I wasn't sure what we were doing and how SMASHfest related to design but I remember that I was excited as it would've been my first visit of the year and I was eager to work in design. However, I was confused as I wasn't confident in what was required of me. I also remember being anxious seeing everyone in groups socialising with each other, which was a big thing for me as I consider myself as an introvert.

Throughout the years working on SMASHfest at university, I focused on the impact that the project would have on my grade for the module, which meant that I didn't have the chance to fully take part in or understand the importance of skills, like co-designing with people, action research, public engagement, detailed design, teamwork and so much more.

After graduating, I was offered the opportunity to do some freelance work for SMASHfest as I had time and it would be good to receive experience whilst looking for a full-time job in the design industry.

The experience that I gained at SMASHfest post-graduation and how I perceived and processed it, in comparison to the experience at university was completely different. The first role was at the New Scientist Live event in London where my colleague Navpreet and I trialled the virtual escape room prototype game for the WILDFIRE! immersive experience. As we were playing the game I understood that it would be too complicated for children whom the game aimed at, as it took us close to 1 hour to complete it whereas the goal for the game's completion was between 20-30 minutes. However, I was proven wrong after seeing school children engage with the game and finishing before or within the completion time.

I found the different reactions between children and parents interesting, especially as some were initially worried about their child's capabilities towards the experience as there were some parts that involved maths equations and comprehension skills seemingly complex relative to the child's age. The parents were proven wrong and even potentially feeling a little awkward as the children had positive responses towards the game despite the challenging tasks. Where the parents believed it was going to be difficult for them, on the contrary, it made the game more fun and intriguing and left them curious about STEM and what we do as designers.

The initial planning of the WILDFIRE! experience with the Phoenix Community and Lewisham Youth Theatre (LYT) youth group was not what I expected. As a product designer I thought my role was to analyse the environment and design the experience. I didn't anticipate that I would



spend the majority of the time being a facilitator for the co-design sessions, working directly with the youth group and the group leaders.

Throughout the discussions I had to take into consideration that we were working with two types of clients - the youth group and the leaders. We had to make sure their requests met the requirements of both clients. Whilst developing the ideas we also had to think about possible complications which could potentially cause delays in delivering the onsite show. This meant we had to constantly problem solve to find alternative solutions; whether it was to purchase something similar or use our CAD skills and make products using the workshops.

Towards the end of WILDFIRE! Stage 1, and after observing the interactions between the youth groups and audience, I was extremely delighted and felt a large sense of pride for having been a part of a

project using experience design for social good.

Throughout the 10 months working at the SMASHfest Climate Crisis - WILDFIRE! I was fortunate to see the project from beginning to end and the feeling was exhilarating.

I learnt how to conduct public engagement which was huge for me as I initially didn't have the confidence. Although I feel like I am more introverted, I am still learning to put/get myself out there and learning how to conduct inclusive design, as there are different audiences that require particular needs. I learned to emphasise and comprehend stakeholders and how to engage with them. I have been able to improve my user experience skills and refine and develop my research methods and observational skills to conduct and analyse users behaviours and interactions with the experience.

After seeing the different groups of parents, pre-teens, teens and

young adults interact with the whole immersive experience, I was able to observe and understand the effects of narrative transformation to create activities that provide vital information about what happens and what to do during a climate crisis. The importance of the experience was clear; the participants were taking in the information, and having a fun and unique experience in understanding what it takes to be part of a STEM team alongside other local authorities.

SMASHfest empowers locals to take part in these immersive experiences which lets them understand what we do as designers, allowing them to think critically and creatively.

SMASHfest gives under-privileged communities the opportunity to get to know what is out there, motivating young minds about STEM and the diverse possible pathways and routes for them when they get older.





Co-designing with communities and organisations allows the participating designer to find ways to improve, enhance and develop engagement and experience. SMASHfest creates an immersive experience as a way to educate audiences about STEM and natural crises, inspiring young minds and allowing them to understand that their career path is not limited and there are other options where they can use their creativity.

SMASHfest has helped me immensely, by boosting my confidence and allowing me to figure out what type of designer I strive to be. It's also allowed me to experiment and understand how to co-design with different types of stakeholders as well as professional conduct as a product designer. I have developed my ability to evolve ideas from conversations to practical experiences. For example taking conversations and allowing them to positively filter what would occur in the next stages. Furthermore, after

observing differences between each group, I am able to find effective compromises.

Actively looking for jobs and being unsuccessful can be draining and stressful but in a way I also see it as a blessing. As a freelance Product Designer I have the chance to explore different types of sectors in design and build my portfolio, and SMASHfest has given me the chance to do so.

I am actively gaining experience with SMASHfest where I am able to go to exciting and insightful design events, having the ability to network and actively learn whilst having fun. I also get to see the end product of all the work that Navpreet, Abdul, Tom, myself and others have done, by observing visitors' interaction with the immersive experience, their responses and enjoyment.

I am proud to have been a part of inspiring young minds into STEM as a black female

designer, portraying how inclusive SMASHfest aims to be, and highlighting support and accessibility to those who don't know much about STEM and its limitless opportunities. I never saw black or female designers growing up nor did I know anything about STEM, but what I did know is that I wanted to use my creativity in some shape, way or form.

My first engagement with design was in secondary school where I became interested in furniture design, interior design and product design. Attending University is when I learnt about all the flexibility that product design could offer and I knew my choices weren't limited and I should explore and expand my skills. Within the under-privileged communities, STEM has been most well known for its avenues within the traditional sciences, engineering and mathematics. However, there are many other paths that can be taken, such as Product Design, Graphic Design, Interior Design and other creative routes.

Overall I have seen major changes and improvements within myself and my approach in design. I wish I could go back to the time when I was still at university with the knowledge and confidence that I now have and the skills I have gained through SMASHfest. I have learnt that you don't need to have a 9-5 for you to become a designer. As long as you have the passion and drive, you are a designer as soon as you have graduated. The advice that I would give myself is, as a freelancer you tend to have the opportunity to have fun, gain experience in any sectors you are interested in - design, learn, develop, improve, and go with the flow. Within time everything will fall into place.



## Navpreet Kaur Singh

I'm a British Punjabi Design Engineer, activist and quoted by Andrew O'Neill, the metal comedian, punk rock legend. Working with SMASHfest has been an investment into my development and path as a creative person who is conscious of the injustices we are faced as people living within systems that do not benefit us and especially minority communities in this world.

I have worked with SMASHfest for 6 years, during university, after graduation and into funded development programmes currently by the British Science Association and previously the Royal Academy of Engineering.

In the first year I remember a visit to Deptford Albany where we were given the task to take measurements of the rooms and corridors and its garden as the SMASHfest event was to take place there. We still

hadn't decided what the spaces would look like and my mind struggled to be able to get on with the task without an image of the end goal.

However, I focused on my job to record measurements at the time. This insight is a nice way to remind us that our end goals in life might not be known or fully visualised yet but focusing on tasks that we have to tackle right now, will help us to deliver when the time comes.

And what's my end goal in life you may ask? WORLD DOMINATION! Joke aside, and quite ironic considering SMASHfest is all about codesign... maybe CODESIGNED WORLD DOMINATION! It has a nice ring to it...

Swiftly moving on... my second year working on SMASHfest was on a cross-year project. This was a great way to get more familiar with the students in the years above and below me, and made the whole university experience for the next 2 years much friendlier

and more familiar. The project itself was interesting as always. What I remember is drawing floating objects on printed images inside a tube carriage. We were brainstorming ideas incorporating SMASHfest VR with public spaces, which we continued to work on during my 4th, 5th and 6th year with SMASHfest!

My third year at SMASHfest was the most impactful for me. We took part in a fully immersive experience for Space Plague. During Space Plague, I was able to speak to different professionals and get an insight into their careers, whilst also helping with the installation build and the set-up. I saw how The Arts could really help with SMASHfest's mission and STEAM outreach, not just through illustrations and graphic design but through theater, set design, video editing, etc.

Tom (Millward), Jonathan (Enyim-Otebil) and I played the role of synchrotron engineers, public engagement scientists





and did a lot of running around too. Registration for members of the public included them wearing hazmat suits and taking a photo in front of a green screen. An editing team then incorporated this photo within a celebratory video that was displayed when the public had completed the escape room experience.

It was very fulfilling to see the reactions of surprise and excitement when participants saw themselves being regarded as 'heroes'. Having the participants' photos edited into the video was a great touch to the overall experience, enabling the participants to visualise the completion of their surreal hero journey. SMASHfest Space Plague has become a positive core memory for myself, and I am sure it is also a significant core memory for other participants and stakeholders.

As stated in the paper, 'Actors with Agency: Immersive Science Theatre and Science

Identity' (Keith & Griffiths, 2020): "A student engineer who participated in the co-design process and delivery of the event added 'The importance of role-play struck me... SMASHfest makes STEM exciting, creative and informative which allows children to understand concepts in an engaging manner.'

"Evaluation data has shown that the effects on STEM identity and science (STEM) capital of these immersive experiences may be significant. An individual response by a child to the question 'what did you learn today' concluded, after the Space Plague experience 'That I AM a scientist!' (their capitalisation)."

This demonstrates the lasting positive impacts that Space Plague has on participants and how these experiences can be taken with them into their lives. The child who now believes that they are "a scientist" will

now approach problems and questions with a scientific approach confidently due to the positive realisation of their identity and narrative they feed themselves.

My fourth year at SMASHfest was throughout lockdown, and during COVID. In groups using Zoom, Miro and Whatsapp we designed a gamified online platform which incorporated the SMASHfire escape room game as well as displaying other online streamed events. I thoroughly enjoyed this as I was determined to encourage positive behavior change regarding climate collapse via the gameplay, also something I was focusing on for my Final Major Project on the Product Design Engineering programme. I was able to apply my interests and learnings to the project to help with my personal development and the greater good for humanity. We communicated our idea through a trailer video format and the team received great feedback from our peers and lecturers.



After graduating, I was lucky to be recruited for *The Big Design Challenge* as a design competitor for Sky Arts from September 2021 till November 2021. It was an interesting and amazing experience to see how the production industry works and the teams behind making the magic happen.

During the show I submitted a design for *The People Planet Product Challenge* and became a finalist. This was hosted by the *Washing Machine Project* and *Design Spark*. I had lovely mentors from *Shark Ninja* who guided our design process and gave us an insight into their roles and industry.

This all took place at the start of my fifth year with SMASHfest. Toward the end of the year SMASHfest was present at the *WeBreatheTogether* community event at the Horniman museum where we carried out creative workshops to research ways to trigger an in-depth, emotional understanding of what would happen in an event of a wildfire.

Not only did we participate in an amazing community event, we were also able to attend some talks ourselves. On one of the panels, Ella Kissi-Deborah's mum was a panelist. She has been campaigning for cleaner air for children after her daughter passed away from an asthma attack that was linked to illegal levels of air pollution. I was aware of Ella and she had inspired me to do a workshop based on educating children about air pollution at St. Josephs Primary School with the help and guidance of Enactus Middlesex. So seeing Ella's mum in person was a very humbling and solemn experience.

SMASHfest is always developing based on its co-design sessions with students, creatives, the public, scientists, engineers and public services staff. Being a student and designer involved in the co-design/co-production has given me the experience and knowledge of what it is like to be a participant within the process and has allowed me to apply this knowledge and

practice it in my own endeavors. For example, mapping out what primary school students wanted to do within the first workshop of *stemtoSTEM* and ensuring that it would be of interest.

During my fifth year we also tested the VR game at New Scientist Live with members of the public and school students. We facilitated the filling out of feedback forms by participants after each game in order to gain an understanding of how WILDFIRE! could be improved in the future iterations. New Scientist Live doesn't represent the demographic of people SMASHfest aims its outreach to, however it still had a positive impact by encouraging conversation and educating students and families on the threats of wildfires in urban landscapes.

My sixth year at SMASHfest was spent co-designing the Liive WILDFIRE! escape room experience with Phoenix #BEin and Lewisham Youth Theatre.





I attended weekly Phoenix #BEin codesign sessions to help facilitate and bring their escape room ideas into a reality giving the participants a sense of ownership of the project, allowing them to include their own experiences and ideas throughout the process.

At the beginning of these sessions I would prepare many ideas and content, however these would not always be put to use as our main goal was to focus on the #BEin groups input and thoughts. By attending the sessions each week, I built a good relationship with the young future leaders and got to know more about them. I'm grateful for SMASHfest to be able to meet and build semi-professional relationships with fantastic people.

My communication skills have become stronger, along with my abilities in public speaking. The co-designing skills I have practiced with SMASHfest are transferable and applicable to any design process and job going forward.

Writing this up now has been therapeutic for me, considering this was meant to help whoever reads this. Well, I guess this is another wonderful thing about SMASHfest or anything you do in life for that matter. When you are genuinely doing something for others, there's always an embedded benefit for your own self-development. This also makes me very grateful for the amazing opportunity of being part of the funded development programmes for SMASHfest.

Finishing off with reflections and tips from my experience so far.... Keep active! Get involved in competitions, regardless whether you win or not - you'll make important and exciting connections.

Go to design events like London Design Festival, and Clerkenwell Design Week, network, and socialise. Also keep connecting with people on platforms like LinkedIn! Be open to new experiences and be willing to give back to your community.

Just to be transparent here. I still have a lot of work to do on my portfolio. KEEP DEVELOPING IT DURING UNIVERSITY. Also, have a think about what you'd like to specialise in, and be great at those things, whether it is CAD, coding, crafting, sketching (communicating your ideas visually is so important, especially when trying to earn a seat at the table and to show you know your stuff)!

Follow Navpreet Singh on Instagram @nav.desinghni and Connect on LinkedIn [linkedin.com/in/navpreetsingh/](https://www.linkedin.com/in/navpreetsingh/)



Out of all the universities I had considered enrolling on, to study product design, I chose the programme at Middlesex because it was rich on the 'why' something should exist and had a strong focus on the storytelling of 'why' and 'how'.

### Tom Milward

When I first encountered SMASHfest, I was just a few weeks into the first year of the MDXPD course, and I was immediately curious about its purpose and concept. Out of all the universities I had considered enrolling on, to study product design, I chose the programme at Middlesex because it was rich on the 'why' something should exist and had a strong focus on the storytelling of 'why' and 'how'.

SMASHfest turned my head because in my arrogance I thought product design was very much physical or digital, and having worked alongside SMASHfest on many occasions, I have realised it is both those things...and more!

My first experience (2017 - Living in Space) was quite brief, we only participated on the project for a week, with the final years taking the wheel for the remainder of the project. But in that week, my team and

I gathered many interesting insights. We visited The Albany, in Deptford to understand the space being used for the experience, and began to build the foundations of the experience.

This information was later used to help create our own version of the storyline and what key STEAM activities could be included. By the end of the week, I was still left scratching my head, what kind of design was this? The sheer difference from designing a kettle to designing the Super volcano experience felt very peculiar. But to put it quite simply, I think the reason I felt like this was because to me, it was very new. While I spent the first part of my childhood living in London, I spent the second part living in Stratford Upon Avon; a small town in the Midlands. Stratford's size and lack of diversity meant that not much, like SMASHfest, ever really happened.

Events took place for sure, but I





don't particularly remember them highlighting any strong elements of STEAM. I felt compelled to continue working on SMASHfest the following summer, beginning work on a new Project titled 'Space Plague'. It was an opportunity to familiarise myself more with the SMASHfest ethos and explore experience design. My duties entailed designing backdrops on Photoshop that would be used in the phase 1 run-through in Bradford.

My second encounter with SMASHfest was much more enlightening; a fully immersive run through of the phase 3 project 'Space Plague', with actors, activities and alien diseases! It was a thrilling experience, set in the Deptford Lounge, and alongside my colleagues Navpreet and Johnathan, we had the opportunity to roleplay as synchrotron engineers, dressing up in Hazmat suits and leading groups of visitors through the Space Plague crisis.

It was great to be part of a big Immersive experience design event from start to end. The construction of the event took 3 days to build; putting up scaffolding structures and lining walls with tarpaulin and coloured acetate - even the build-up was immersive. It was great to work with so many different skills and materials.

Once set up, the main event ran for two full days, with each of us switching between spaces and activities to keep things interesting. It was magical to see the excitement and enthusiasm from the children and adults during the experience, and it was great fun to be equally excited for them. It helped me to embed the deep importance and need for projects such as Space Plague. Both the visitors and I also had the opportunity to mingle with scientific professionals, who were also part of the experience. It was great to be able to look into their respective fields of work and learn new things.

As Wyn had reiterated to us in previously, "It's always good to know a little bit of everything to start a conversation with anyone".

It was also a great way to build upon our social skills, both academic and personal. It was really nice to see people so invested in the STEAM activities and get a sense of belonging. Furthermore, the SMASHfest team consisted of people from all over the country, different ages, genders, fields of work. This helped to further develop my social and communication skills, allowing me to work with and collaborate with people outside of my inner circle. SMASHfest's creative narrative was working on me too!

My third encounter was during my final year of the course. We had to work in teams to bring to life our own version of the Phase 3 Space plague experience, which centred around the idea of a digitally interactive game. This was a different and interesting

approach compared to previous instalments of Space Plague, as it brought about elements of UX and UI. The task was to create our own version of the Space Plague story, and we used Miro, a digital collaboration platform, to remotely connect our ideas together within the team.

In one part of the project, we had to create a video prototype, telling our version of the story. In that version, I played the role of an Einstein look-alike scientist, and the criticism of this was that it was too stereotypical. I remember really valuing that feedback. I also reflected further on my Space Plague experience at the Deptford Lounge, and how the purpose of SMASHfest was to abolish stereotypes of what a scientist looks like. A scientist can be anyone, any age, any gender!

Another aspect of our story was allowing the user to have a customisable character, which we envisioned through another video prototype. In the video, I wore a range of clothes, starting with a basic white top and jeans. From this, I then filmed myself wearing a new t-shirt, different shoes, a hat, mashing all these videos together to make it seem like a user was flicking through the customisable options. This element was partially inspired by the Phase 3 Space Plague event, where the visitors and participants at the event wore hazmat suits, adding a sense of belonging and truly being a part of the crisis. In addition, we had designed the customisable feature to be fully inclusive as a big shout out to the under-represented audiences.

My fourth encounter and my future with SMASHfest is looking quite exciting. I attended New

Scientist Live, working on the SMASHfest stand, working with Navpreet and new colleagues, Jerusa and Abdul. Having previously worked on Space Plague, understanding the concept of WILDFIRE! was quite straightforward. However, having been on the side lines for some time, I definitely had some catching up to do!

The stand entailed a fraction of the developing WILDFIRE! experience; inviting visitors into a mini escape room setup, walking them through it to help them complete the experience. Akin to the Space Plague event in the Deptford Lounge, the team and I were involved in the 'situation', loosely hinting at what might be best to help our visitors spur creative thoughts.

Within the stand setup, there was a table showing a map, alongside a range of movable counters consisting of road blocks, fire engines, medical services, etc. This map had been used in previous iterations of WILDFIRE! but was not part of this particular event.

However, it was interesting to see the audiences engage with it. Some mistaking it for another map, one that was an actual clue in experience. Others were seen playing with it, using it as a tool to aid the immersion. I could relate to this behaviour, although as an adult, I am quite young at heart; I often see myself as the Tom Hanks character in the film 'Big', I may be an adult but refuse to let society tell me I can't play!

For anyone reading this, I would highly recommend getting involved in SMASHfest and similar projects. I am part of the 10% of Middlesex graduates that are involved in Industrial (inc Product Design, physical and CAD), and I am

now using my spare time, outside of my full time job, to keep involved with SMASHfest and expand my skills beyond my daily duties as a CAD designer. Smashfest also has some fantastic funders and partners:

- + Royal Academy of Engineering
- + British Science Association
- + Copper Candle
- + LEWISHAM YOUTH THEATRE
- + Phoenix Community Housing
- + Middlesex University

all of which would look brilliant on your CV and make you a desirable candidate for many positions. But aside from your future career, it will also benefit your thinking, both creatively and in the day-to-day reasoning, and help define you a little more as a designer and definitely as a person!





# MDX Student Led Teaching Awards

The Faculty of Science and Technology had excellent representation amongst the winners at the **Middlesex University Student Led Teaching Awards 2024** with awards in 6 categories. ([mdxsu.com/articles/student-led-teaching-awards-2024-the-results](https://mdxsu.com/articles/student-led-teaching-awards-2024-the-results))

## The current collective > 120 people

Lakeisha Lynch-Stevens, Navpreet Singh, Joseph Salem, Jonathan Enyim-Otebil, Abdulaziz Mohamad, Jerusa Da Silva, Blessing Olofinsao, Ibrahim Javid, James Simpon, Andy Voller, Dave Pritchard, Khy Martinez, Sahar Ali, Harry Miller-Adams, Victor Ewa, Dhruv Mohabir, Victoria Shaskan, Helen Stanley, Angus Scott-Miller, Anna Smith, Jackson Barclay, Isobel Brookes, Jim Burke, Ciyara Ferreira-Pollack, Bruno Gomes Dos Santos, Ana Gomes Dos Santos, Esme Green, Isis Johns, Amazing Kouassi, Savannah Mckenzie, Victoria Odofin, Sara-Marie Ssali, Dorothy Warren, Ashleigh Stevens, Cameron Tebira, Chiquita Delisser, Amaarah Roze, Phoebe Fairchild, Jack Hoban, Emanuel Mendes da Silva, Monique Walker, Roddie Keith, Neil Melton (Spike), Alison Megeny, Colin Moss, Yasmin Ali, Stefan Doerr, Lian Lundy, Andy King, Nicholas Sharples, Brendan Masterson, Mehmet Karamanoglu, Jesufunke Martins, Ramsey Haider, Michelle Ageypong, Javier Ortega De Vicente, Faaiza Ali, Jen Camillin, Yvonne Philip, Beth Wilson, Allarna Bishop Owusu, Brandon Treacy, Carlos Robinson, Daniela Gil Bejarano, Deborah Kalogbar, Exauee Mingas, Hector Yu, Hussein Aatweh-Ghader, Justice Ezi, Luke Chadwick, Michael Atta Owusu Frimpong, Nicole Lawrence, Shamoya Myers, Yanic Dennis, Zainab Agboola, Zhane Lunan, Ilana Diago, Rosie Gearty, Eleazor Gore, Maizy Wright, Juslean Crenstil, Kaleem Fortes, Amelie Bunsides, Imogen Sykes, Raed Qutqut, Jesufunke Martins, Maud Annan, Ruyke Smith, Phu Van Nguyen, Kye Stopford, Annie Yi-Chieh Ku, Jenny Legg, Laetitia Coleman-Akoto, Jak Martin, Robyn Wallace, Stephen Wood, Chris Keene, Daniel Tuitt, Scarlett Gibson, Daniel Allen, Khadija Bhouziane, Charles Mortimer, Alessia Lattanzio, Mark Bustamante, Michelle Ageypong, Mikalange Mawu, Madison Rendell, Evan Griffiths, Leeza Vekariya, James Boohan-Makhlouf, Hamida Ali, Kinga Pinkiewicz, James Jackson, Dylan Wiltshire, Louis Aka, Irum Farooq, Tom Downey, Ahmed Patel, Lindsay Keith, Wyn Griffiths

The Faculty of Science and Technology had excellent representation amongst the winners at the **Student-Led Teaching Awards 2024**.

Congratulations to the winners, everyone nominated and commended. The S&T Winners were:

**+ Course of the Year:**

BSc Environmental Health - Alan Page

**+ Student Employability:**

Sandra Appiah

**+ Championing Student Voice:**

Alechia Van Wyck

**+ Academic Staff Member of the Year:**

David Westley

**+ Innovative Learning**

**Opportunities Award:**  
Wyn Griffiths

The awards are nominated by students and peer-assessed by an academic panel.

MDXSU explain: "As we rolled into 2024, we asked Students about the staff at the University that had made their Student Experience at Middlesex - from their employability to their feedback, to the teachers who were innovating, to the professional services staff supporting students. We found the massive impact that staff had on student journeys.

We received an incredible 592 nominations across the University from students telling us about the incredible staff that we are lucky to have at MDX. We had 14 categories that staff was nominated in and a couple of

weeks ago we announced the shortlisted staff for the Student-Led Teaching Awards 2024.

The award ceremony was hosted collaboratively by Middlesex University and the Student's Union, where staff members were recognised for the tremendous hard work they have conducted over the last couple of years."

The Innovative Learning Opportunities Award recognises a member of staff who is known for finding new and innovative ways of teaching and/or supporting students. MDXPD's Wyn Griffiths, reflected on winning the award:

Thank you to my wonderful students! The award was a

lovely surprise and was doubly touching as it was initiated by my students. To know that what we are trying to create for and with them is working so well is heartwarming.

The award itself (and all individual awards) is something to ponder, however. *This was a collaboration - everything is a collaboration.* As a complex creative collaboration focussed on positive ecological and societal transformation, we should reflect on the amazing contribution of the huge number of people and organisations, over the period of two funded projects (See the article 'Climate Crisis FLOOD! And Future Designers' on Pages 13-15 for details on the projects).

The projects only exist because of the collectives and the award can only really make sense from that collective perspective. I was honoured to be a 'node' in an unfolding, interconnected network of events, interpersonal interactions and collective creativity.

So, let's celebrate all of the participants in the creative teams who've done such fantastic things in the current project continuum, starting from Climate Crisis – WILDFIRE!, through Future Designers Pilot and into the ongoing Climate Crisis – FLOOD! Programme.

**Congratulations ALL!  
You are all deserving WINNERS  
of the Innovative Learning  
Opportunities Award!**

# 2023-24 Reflections

**Dr Kate Herd**, Programme Leader for the BA Product Design programme reflects on the 2023-24 academic year



When we work in the field of design, we become people who make a difference. From the outcomes of our creative work, through to our interactions in the world around us, our ability to think critically, creatively and challenge assumptions can bring about change. We hold conversation at the heart of our programme ethos; the necessity to discuss, debate, reflect and bring people together. It's then down to us as an individual to reflect on what we want that change to look like, as we venture into the world as socially responsible product designers.

This is why I love the role of Programme Leader here at Middlesex. Our network of academics, creative professionals, industry contacts and guest speakers

contribute so much to the conversations and work that takes place on the MDXPD programme. Combine this with a student group so full of passion and enthusiasm for the subject they study, and we have an incredible team.

As always, a huge thank you to everyone who comes together with the energy and enthusiasm to make it happen. We look forward to another exciting year ahead in 2024/5.

## READ MORE ABOUT OUR PROGRAMME ONLINE:

[mdx.ac.uk/courses/undergraduate/product-design-ba/](https://mdx.ac.uk/courses/undergraduate/product-design-ba/)

<https://linktr.ee/mdxpd>



## OPEN DAYS

Join us at one of our Open Days

Our open days are a chance to meet us and find out more about our practical resources and great north London campus. Talk with staff and students and find out more about your subject through on site visits, tours, interactive subject taster sessions, and talks with with our friendly academics, students and support teams.

Register your interest so we can keep you up to date with the latest programme.

Visit us online for dates on future open days:  
[www.mdx.ac.uk/study/open-days](http://www.mdx.ac.uk/study/open-days)

**REGISTER YOUR INTEREST**  
[www.mdx.ac.uk/study/open-days/register-your-interest-for-the-next-open-day/](http://www.mdx.ac.uk/study/open-days/register-your-interest-for-the-next-open-day/)

## PRODUCT DESIGN

Have a look at our BA Product Design programme...

[www.mdx.ac.uk/courses/undergraduate/product-design-ba/](http://www.mdx.ac.uk/courses/undergraduate/product-design-ba/)

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