

Mehmet

#MDXPD

PRODUCT DESIGN 2021

Middlesex University Faculty of Science and Technology

Wyn
Ahmed

Final Major Projects 20_21



Patrick
Brendan

Andy

#MDXPD WELCOME

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

Welcome, everyone, to our 7th Annual **#MDXPD Magazine**. Our 2020-21 academic year was dominated by the ongoing COVID pandemic. It has been a time of sadness and of difficulty, but also of innovation and inspiration. The creativity, compassion and resilience of our students and staff through this period shines through in the stories we feature in this issue of the magazine.

We have continued to be lucky, in this period of fear, uncertainty and upheaval, to work and learn within an enlightened institution. The institutional ethos was captured by their statement of principles for staff and students at the beginning of the COVID crisis (see pages 03-04 of #MDXPD 2020 Magazine). This supportive framework continues to enable us to approach design and engineering within our philosophy that leads with insight, understanding and empathy, and values collaborative creativity and human and ecology centred innovation.

Everything continued to change. And our students and staff confronted the changes with energy, dignity and support for one another.

The staff and student co-design of the Product Design and Product Design Engineering structure, content and approach, highlighted in last year's magazine remained a huge positive in developing our teaching and learning in the online space, through to hybrid live/online approaches and back towards fully live, digitally supplemented experiences for the approaching academic year.

The focus on collaborative practice, studio 'environments' and team teaching, rather than traditional lecture-based approaches that was recreated in our 2020-21 'virtual studio' practice, ensured that the hands-on and peer-supported experience was retained and refined in a positive and meaningful way. There were challenges during this period and in the coming return to live activity, but the creative and collaborative mindset of all staff and students surmounted the challenges, and we are optimistic that the new challenges will be equally well resolved.

This year's magazine contains our usual mix of inspirational final year major projects, staff and student stories and projects from across the year, alongside three special features: reflections on **Teaching & Learning throughout COVID** (see pages 3-16); **'5 Years On'** reviews and reflections from our 2016 graduates on life in industry & at MDXPD (see pages 29-54); and a comprehensive collection of insights and advices from industry on **Design Portfolios** (see pages 75-105).

Good luck to all our brilliant graduates for the future. Welcome to all our new students. Take care of yourselves & best wishes to all readers of the magazine.

Wyn Griffiths

Senior Lecturer BA/BSc/BEng/MEng Product Design/Engineering

INTRODUCTION TO #MDXPD

We live in a complex, fluid world, swirling with challenges and opportunities. Design and Engineering offer powerful mediums 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, engineering 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/Engineer can be an important part of this exploration. There are many, unresolved, ways to think about 'Product', 'Design', 'Engineering' and a 'Product Designer/Engineer', but, regardless of any particular interpretation, we at 'MDXPD/E' think there are some key skills, experiences and attributes that a Product Designer/Engineer needs. Build skills in design and engineering thinking, design and technological craft and professional practice. Build experiences through wide-spectrum exploration, focussed 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

BEng/MEng Product Design Engineering:

www.mdx.ac.uk/courses/undergraduate/product-design-engineering

CONTENTS

01/02 • WELCOME & INTRO

03/16 • SPECIAL FEATURE:

TEACHING & LEARNING REFLECTIONS

03/04 • 2020-21 PL REFLECTIONS

05-08 • MDXPD COVID REFLECTIONS

09-11 • MULTI-CAMERA RIG SYSTEM

12 • MATHS IN PD/E

13/14 • 'LIVE' PROJECTS 2020-21

15/16 • CREATIVE TECHNOLOGY

17/18 • COMMENDATIONS 2020

18 • VIRTUAL DESIGN SHOWS '21

19-22 • GRADUATE PROJECTS '21
[TECH & PLAY]

23/24 • 60 SECS W/ NEIL MELTON

25-28 • GRADUATE PROJECTS '21
[MANIFEST/SUSTAIN]

29/30 • SPECIAL FEATURE:

'5 YEARS ON': CLASS OF 2016

29/30 • '5 YEARS ON' OVERVIEW

31/32 • NIHAL ISLAM

33/34 • WILLIAM BRISTOW

35/36 • TARA (FEAR) WILLIAMS

37/38 • YAMAHA TSUNG

39/40 • AJAY PARMAR

41-45 • CHARLOTTE NORRIS

46-48 • RIKEFE (MIKE) OHWOSI

49/50 • TOBIAS SCHREIER

50 • SANJALI JAIN

51/52 • DANIEL MARTINEZ DA CRUZ

53/54 • SAM GRAHAM



CONTENTS

- 55-57 • GRADUATE PROJECTS '21 [MEDICAL]
- 58-60 • GRADUATE PROJECTS '21 [HEALTH & WELLBEING]
- 61/62 • 60 SECS W/ COLIN MOSS
- 63/64 • REDLOOP
- 65-68 • ERASMUS: END OF AN ERA
- 69-72 • GETTING INVOLVED AT MDX
- 73/74 • PROFILE: BRENDAN WALKER
- 75/105 • SPECIAL FEATURE:**
DESIGN PORTFOLIOS
- 75/76 • KELLY DAWSON
INDUSTRIAL PRODUCT DESIGN
- 77/78 • MARIUS KINDLER
- 79-82 • SAM GWILT
- 83/84 • BRADLEY HARPER
- 85/86 • NICK CHUBB
STRATEGIC SERVICE DESIGN
- 87-90 • LAURA LERKKANEN
- 91/92 • WILLIAM BRISTOW
UI/UX DESIGN
- 93/94 • MARIA VAN DOREMALEN
- 95-98 • TARA (FEAR) WILLIAMS
GRAPHIC DESIGN
- 99/100 • TYLER SINNOTT
- 101/102 • GODA GORODNICEVAITE
ARCHITECTURAL INTERIOR DESIGN
- 103/104 • MUHAMMAD AZIZ
- 105 • ANAM AZIZ
- 106/107 • GUEST LECTURE SERIES
THANKS [106] & SUMMARY [107]
- 108-110 • GRADUATE PROJECTS '21 [TECH/SYSTEM/INTERACTION]
- 111/112 • LDTRC: DIGITAL TWINS
- 113-116 • SPACE PLAGUE - PHASE 3
- 117/118 • HEIST AWARDS: GOLD
- 119 • 2020-21 REFLECTIONS W/
PROF. MEHMET (HoD)
- 120 • JOIN US AT MDX:
OPEN DAYS & COURSE LINKS

2020-21 Programme Reflections

Dr Kate Herd, Programme Leader for the **BA Product Design & BEng/MEng Product Design Engineering** programmes, reflects on the 2020_21 academic year alongside an optimistic outlook for the blended approach in the coming 2021-22 academic cycle



Dr Kate Herd

We are hugely proud of the achievements of our graduating cohort who, in the midst of societal chaos, have reached their full potential.

SPECIAL FEATURE

PP. 03-16 TEACHING & LEARNING: TECH, ACTIVITY & REFLECTIONS

BA Product Design

www.mdx.ac.uk/courses/undergraduate/product-design

BEng/MEng Product Design Engineering

www.mdx.ac.uk/courses/undergraduate/product-design-engineering

As we conclude another exceptional year of teaching and learning, I'm proud to say that both students and staff have risen to the challenge and achieved amazing things, despite the challenging circumstances facing us all.

We rapidly embraced technology and new ways of working that allowed us to get as close as we could to the experience and ethos of our teaching on campus. We sent kits of tools and materials to each student at home, to enable project work to be completed. We've seen wonderful examples of students supporting each other across year groups; and of classes still arriving on camera smiling, chatting and embracing the community and approach that is our programmes.

Exceptional work was produced in locations all around the world and shared centrally in a digital space to allow us to work in real time together. It's been an absolute pleasure to have been a part of it. We also recognise the challenges and hardship that this has caused for many. The loss of

family and friends, the effect on mental health, and challenges with home working environments. The university has worked hard to support students, with the no detriment policy, the mental health support, the social outreach etc.

Despite the difficulties, the quality of the graduating student projects on our programmes has continued to improve each year, and we awarded a number of first class degrees this year for exceptional work. The Institute of Engineering Designers (IED) prize for Outstanding Achievement was jointly awarded to Tom Milward and Luigi Palumbo.

As we move forward to 2021-22, we are planning our return to campus with a blended approach – bringing as much as we can safely back in the studio and workshop, whilst retaining flexibility to move content online if we have to respond to changes in government guidance for covid-19. We will take forward many of the positives we have learnt from these new ways of doing things, and see this as a very positive step forward for the programme.

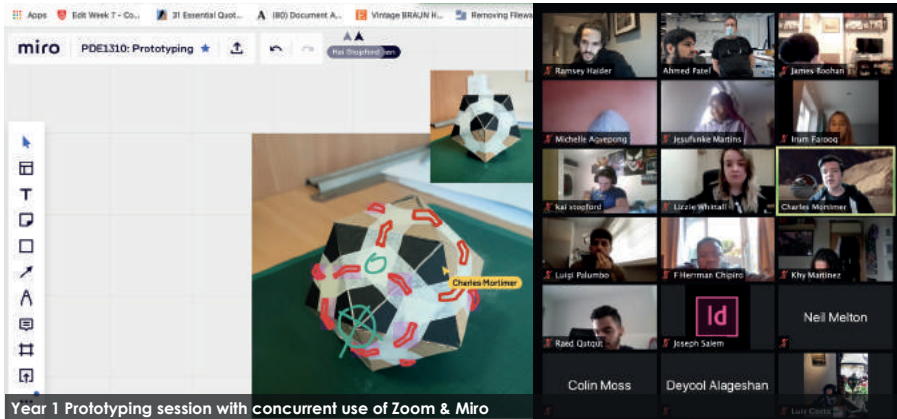
We are hugely proud of the achievements of our graduating cohort who, in the midst of societal chaos, have reached their full potential. We welcome you all to our **MDXPD** alumni family.

Follow Kate Herd on Twitter
[@kateherdkruger](https://twitter.com/kateherdkruger)

Follow the
course IG
account
@MDXPD
#MDXPD

Adapt & Adopt.

Ahmed M Patel, Lecturer in Product Design & Engineering, discusses the implementation of technology, tools and interventions, which enabled the programme to get as close as possible to the hands-on, collaborative experience and ethos of teaching & learning delivered on campus



Year 1 Prototyping session with concurrent use of Zoom & Miro

Although nothing can compare to face-to-face lessons in our discipline, this year, I really felt the effort and support from all the tutors so that there was as little impact as possible on the students. I really believe that we have all learnt a lot from this experience and without a doubt, we will continue to use many of the tools that have been integrated in our study and practice, such as Zoom and Miro.

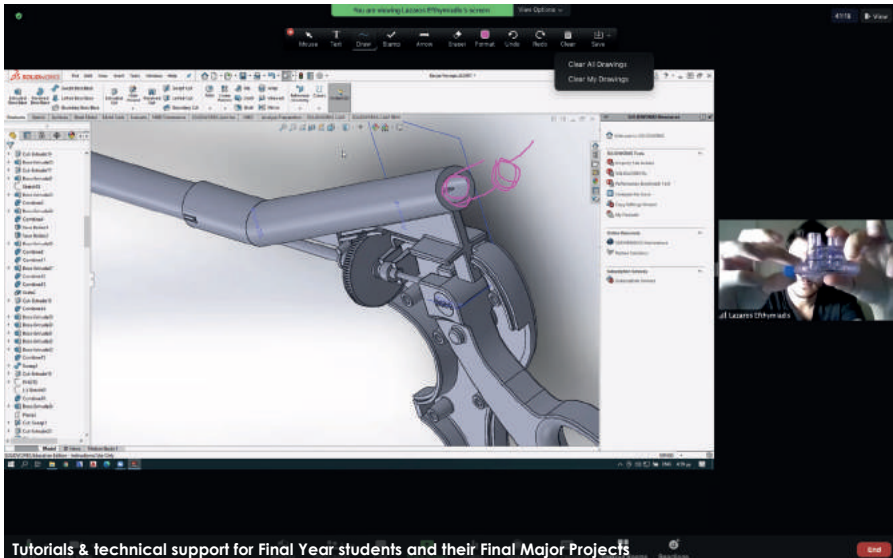
Luis Antonio Girao
BA Product Design, Y2

Whilst we recognise the challenges that Covid-19 presents to both staff and students, it can also stimulate new ways of working and engaging in the design/engineering disciplines, and more broadly. As designers and engineers, challenges can be exciting and lead to interesting and innovative outcomes. The **BA Product Design & BEng/MEng Product Design Engineering** team over the course of summer 2020, experimented with technology, approaches and methods that could contribute to enhancing student engagement and participation whilst teaching/learning from 'home', alongside ensuring that the quality of face-to-face teaching, learning and feedback was replicated in remote sessions.

Programme Leader, Dr Kate Herd, touches on the need of continuing to ask questions regarding practice and responding as designers to unprecedented situations; "As we embrace the broad impact that covid has had on both teaching and learning this year, we do this as designers – continuing to explore, question and refine the 'what, when, how, where and why' of everything we do. As the world changes, we need move with it, reflecting this in not only the way we teach but also the very work that we do as designers."

This academic year, the team have implemented several approaches including preparing and sending out a **box of kit** to students, to ensure the students are equipped

Follow Ahmed on Instagram and Twitter @ahmedmp and connect on LinkedIn: [linkedin.com/in/ahmedmp/](https://www.linkedin.com/in/ahmedmp/)



Tutorials & technical support for Final Year students and their Final Major Projects

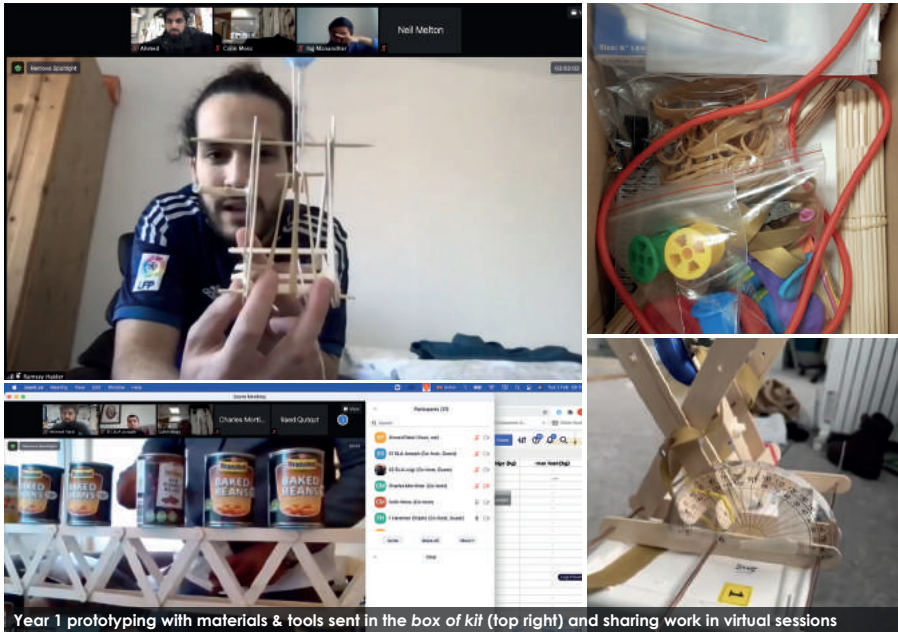
with the tools and resources to complete exercises, projects and assessments that are the same or very similar to what they would have undertaken on campus; thus enabling them to ideate, prototype, build, test and validate from home. Parts were sourced from various companies and suppliers across the country. Packages were prepared for each student, and logistics was organised for delivery of kit to students, who at this point were located all around the world. The **box of kit** was well received and facilitated completion of project work akin to the on-campus experience. Charles Mortimer (Y1) said, "I liked the variety of items in the kit, it allowed me to work and just get things done in a way that wasn't impeding my ability. I was able

to get lost in the work and just keep going from having all of the tool and materials at hand."

Harry Miller-Adams (Y2) also thoroughly enjoyed the year and experience despite initial reservations, "Studying a subject with practical elements and a prototyping module initially had me worried about the quality of the work and skills I would obtain whilst working from home. However, I was pleasantly surprised. We were all, individually, sent boxes with materials and tools, alongside online tutorials allowing us to complete our assignments remotely. I found prototyping at home to be an enjoyable experience, where our problem solving and creativity skills were really put to the test."

Lazaros Efthymiadis, BEng Product Design Engineering graduate, 2021, mentions, "It was amazing to push the boundaries of what can be achieved at home with a well considered kit of materials and resources, and a little bit of imagination. Having a 3D printer also helped!"

Tutors also implemented a **multi-camera rig system** (see pages 09-11) developed by Technical Tutor, Nick Weldin, facilitating HD multi-cam and video-in-video output, to support and enhance live tutorials, classes, feedback and demonstrations; drawing, sketching, prototyping with different materials and hand tools, electronics and programming amongst other applications. These dynamic & interactive classes enhanced



Year 1 prototyping with materials & tools sent in the box of kit (top right) and sharing work in virtual sessions

engagement and encouraged motivation throughout. "The interactive sessions were great and it definitely helped me in doing the work," said Irum Farooq (Y1). Her colleague, Victor Ewa, agreed, "I think the year was as engaging as it could have been considering it was online. I learnt way more than I thought I would!"

Furthermore, we continued to build on prior practice of utilising tech, online platforms and social media to share resources, work and give feedback. Our students continue to use **Pinterest** and **Instagram** to pool and gather inspiration for exercises and project work, alongside uploading and sharing work in progress, and final outcomes, to their peers and wider distributed design and engineering communities. The well-populated hashtag #MDXPD on Instagram evidences rich activity.

Concurrently, the use of **Miro**, an online whiteboard and collaboration space, has been brought into practice, extending the studio experience into the virtual realm and enabling our remote and distributed teams to work effectively together. Discussions and creative conversations have been facilitated through digital Post-Its, mind-maps, and 'lay outs' of work shared prior to and during sessions. These seed conversation and enable tutor and peer-to-peer feedback, both in the session alongside additional supplementary notes given later to prompt further activity and investigation. Progress and feedback can be tracked and visualised, allowing support to be provided where required. When working on projects and multi-stakeholder collaborations with clients, Miro has also allowed our students and external co-investigators

to communicate, comment and enquire. Several tutors also continue to experiment with **Padlet**, an online 'notice board', to anonymously collect responses to questions, alongside share student work.

The hands-on, collaborative approach and studio-culture prompted positive response, engagement and feedback; "Miro was great; it was easy to use, unlimited space, and you can see and track progression of your work," said Michelle Agyepong (Y1). Online collaboration also provided a mechanism of motivation and peer-learning opportunities, "It is really nice to be able to view work collectively and be inspired by your peers," said Kai Stopford (Y1).

We opted to use **Zoom** across the programmes, as the primary video conferencing platform. The taught sessions

featured a mixture of theoretical underpinning and taught content, combined with individual and group activity across **Miro**, **Padlet** or **Zoom** breakout rooms. Our students were often granted access to navigate between breakout rooms in studio and workshop sessions when undertaking ongoing work. This enhanced their social rapport, alongside building on standard face-to-face practice and our notion of the 'virtual studio.' Mark Bustamante (Y1), who has yet to meet his peers, mentioned, *"the year was very enjoyable and I was able to make connections with my peers even without meeting them in real life."* Dhruv Mohabir (Y2) adds, *"Virtual teaching seemed daunting to all of us to begin with; the uncertainty of the covid-19 situation in UK and possible limitations of online platforms. Zoom and Miro played a crucial part in delivering an engaging online experience; recreating the studio experience at home, allowing us to both work and socialise across the world. It worked, and worked really well! The friendships, skills gained and personal growth over the past year would not have been possible without these two platforms."*

Video calls were regularly combined with feedback methods including **digital annotation** over specialist CAD software and on student work, using both 2D visualisation programmes alongside drawing and providing formative feedback via **iPads** (initiative led by Dr Alison Megeney), to enhance understanding, ensure effective communication, and enable progress whilst working remotely.

Remote access to University computers was also rolled out to ensure students had access to all specialist software and labs. The university worked hard to support students with the provision of **loan-laptops** and **internet dongles** if they were financially or technologically disadvantaged. A **Student Support Fund** was also open for applications, for non-repayable grants, subject to eligibility. Technical Manager, Barry Harte, whose team initiated the roll-out of Splashtop Remote Access in Science & Technology specialist labs mentions, *"It has been a challenging time for us all, but I believe that it has brought staff across MDX closer together towards achieving solutions which benefit our excellent students and staff. Our boundaries have expanded and as a result everyone has pulled out all the stops to make sure we can continue to support teaching and research."*

Our annual on-campus **Guest Lecture series** (see page 107), consisting of 18+ weekly hour-long talks, have always been a valuable part of our academic time-tabling. We bring together a vibrant mix of speakers from the full spectrum of design and engineering. A mix of leading practitioners, opinion leaders, radical thinkers and emerging talents to inspire and support professional development in our students and staff. The current pandemic allowed us to broaden perspectives and readily connect with guest speakers from across the globe, better reflecting the world into which our graduates will emerge.

Senior Technical Tutor, Neil (Spike) Melton, flags the importance of responding to

change: *"Adaptability has always been an essential component in a successful Higher Education programme, no more so than over the past 15 months where I had to turn 30 years of teaching practice on its head in a matter of weeks. No one truly knew what online learning would look like, and importantly what it would feel like. It may only be for a few weeks, or so we thought."*

Spike also recalls a moment of motivation after the second session, *"I remember asking a final year student after the second Zoom class, 'How did you find it?' 'Great!' she replied. 'I really like that you can clearly hear what the tutor is saying, and you can see materials and demonstrations close-up and in detail.' That was the positivity that stayed with me throughout the many Zoom calls and lectures when I was wondering, what the hell I was doing!"*

The conventional face-to-face studio practice, rich resources, and inspiring infrastructure that Middlesex University London offers can not be replaced by remote online activity. However, where we face challenges, there are opportunities as designers, and as a design team; working together with the university, within the programme team, and with our students and alumni, to develop an excellent educational experience.

"When patterns are broken, new worlds emerge."

– Tuli Kupferberg.

Multi-Camera Rig System

Technical Tutor, **Nick Weldin**, shares the development of a **multi-camera rig system**, facilitating HD multi-cam and video-in-video output; enhancing the delivery of teaching and live practical demonstrations in remote settings



When it was confirmed during summer last year (2020), that we would be delivering teaching remotely, it was clear that we would require more than just a webcam on our laptops, to be able to demonstrate and share material effectively in sessions. We had already been using *iPevo* visualisers across the department, providing a portable and easy set-up option for showing activity on a desk. However, due to the pandemic these were out of stock; not only on Amazon, but on the manufacturer's site as well, and they were unable to confirm when these would be in stock again. USB webcams were also out of stock on Amazon, and when restocked they would sell out again pretty quickly.

So, I started to think about what we could do, and began to pen a rough list of

the kind of features we would require for a system. The three key points for me were:

+ We would like the option of **multiple cameras** that we could **switch between easily** to focus on different things. A basic setup would include a long shot and close-up; and if demonstrating a piece of equipment on campus, it can potentially include many more.

+ It had to be both **easy to set-up** and **reliable**, as it was going to be sent to staff at home, and any technical support would be carried out remotely.

+ It had to be a **modular system** that was **easy to configure**, as it would enable us to use it in different ways and in different settings with minimal changes.

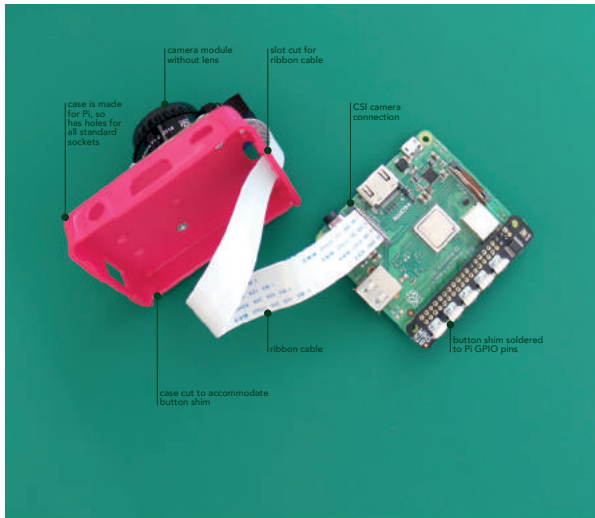
From this early idea and these initial requirements, I started to consider what options we had

in place of USB cameras, which were difficult to get hold of at this point.

In January 2020, the *Raspberry Pi Foundation* had launched a high quality camera unit that could be used with a *Raspberry Pi* (a small, cheap, open-source computer). It came with a lens mount that took standard C or CS lenses, which meant we had lots of options for what they could show. I already had a couple of the units at hand that I could start to experiment with.

The comprehensive technical documentation for the cameras come with lots of example code to get it to work with the *Raspberry Pi*, including demos like photo-booths, time-lapse systems, and wireless streaming cameras of Wi-Fi. So, what was the best way we could use them?

The current 175 lines of code is shared on Nick's [GitHub](https://github.com/mdxtinkernick/camera_py/blob/master/current_code.py), access it via: github.com/mdxtinkernick/camera_py/blob/master/current_code.py



Streaming over Wi-Fi inevitably introduces a lot of latency (delay between when it is seen by the camera and when it arrives at the other end); and it varies depending on how busy the Wi-Fi is. This would make it difficult to use for demonstrating things that you are talking about, and would be a nightmare when supporting people remotely using multiple cameras on the home Wi-Fi system; so that was a non-starter. Zoom is also not available for the *Raspberry Pi* as it uses an ARM chip (like your phone), and even if there was a way (possibly using a web browser login), it would mean each camera joins the Zoom call as a separate user - potentially a fiddly setup and again, not a good solution.

There is a way to make some *Raspberry Pi* models appear as a webcam when plugged into another computer, and that

direction looked promising. Unfortunately, the model that has the capability to do that is very hard to get hold of in large quantities, and with multiple USB cameras we would require use of software such as OBS to switch between them and present a single virtual camera interface to Zoom. Running multiple USB cameras into the computer and using software on the computer to switch between them requires processing lots of video on your computer. As you would also be hosting the Zoom session, and for many sessions using it to demonstrate technical software, the number of windows on the screen could be manifold; and it was not clear if everyone had a computer that was capable of running all of those things simultaneously.

The simplest thing to do with the cameras attached to the

Raspberry Pi, was to get them to just display the image, full screen, on its HDMI output; and look at ways of working with that.

The basic proof of concept code to get that to work was:

```
from picamera import PiCamera
camera = PiCamera()

while True:
    camera.start_preview()
```

Now, we needed a way to get it into the computer that was running Zoom. HDMI switchers (like those used in security systems) are typically cheap, and enables you to switch between HDMI video signals. However, these are usually set-up to cycle through camera feeds rather than selectively move between them.

Luckily, a company that makes broadcast video switchers for large TV studios had recently decided they needed to get into the other end of the market, and had produced a switching unit with 4 HDMI inputs, alongside big friendly buttons that allowed you to allocate and assign which one appeared on the HDMI output. This switcher also featured a USB output that appears on the computer as 'USB Webcam'.

The combination of this *ATEM mini* switcher with the 'homemade' cameras worked well. The switcher had lots of additional features that the more adventurous could explore - and for the less technically interested, it was

'plug & play'; you plug in the power and the unit starts working; you only need to press the four buttons assigned to the cameras. Additionally, as it is a dedicated device for a specific task, it starts up very quickly, and just works!

I now needed to get the basic 'homemade' camera to work in a similar way.

I opted for a smaller, cheaper, 'stripped-down' version of the *Raspberry Pi* that has no ethernet and a single USB socket. After trying many ready-made enclosures and attempting to find a simple solution to fit the camera unit inside, I ended up bolting the camera on the outside of the snuggest box I could find. The unit also needed to be very simple to fabricate as I was working at home, with what I had at hand, and not wanting to take over the entire flat.

The camera unit features a standard threaded camera mount hole on the bottom, so we purchased a range of small adjustable arms with clamps, to enable adjustable rigs to be assembled with cost-effective table mounting poles (used to mount monitors), scaffold clips, and plastic plumbing pipe (much cheaper than systems designed for cameras).

At this point, we had to add some features to the camera as it wasn't always easy to position the camera with the image showing in the correct orientation. Adding a line in the code to rotate the image was easy, but we needed to include the option to select whether the image should be rotated without people having to edit the code. Thus, we needed at least one button. Adding the wiring and

mounting a single button to the outside of the case would increase the complexity of build when working from home. Custom 3D printing was also not practical as we needed to make large numbers (>10) and campus access, at this point, was still very restricted.

I searched many suppliers that sell add-ons for the *Raspberry Pi* and found that *Pimoroni* had a button shim that could be soldered directly onto the *Pi*'s GPIO pins; only slightly protruding from the side of the case if a slot was cut along one side of the case, and cut with snips at either end. The shim has five buttons, so I also included the option to flip the video horizontally or vertically, as that was only one line of code, which provided the basic functionality if required. These settings then needed to be saved into a document and loaded each time the camera is switched on.

I was also aware that I might need to update the software once the units had been sent out to colleagues, so added the ability to check if a USB stick is plugged in, and if it has an update for the software on it, so we could fix things by emailing code to people as and when needed. After adding all these additional features, the code had grown to one hundred and seventy five lines.

After demonstrating the early prototypes over Zoom, the response was pretty positive, so we went into small scale manufacturing for a few weeks. At this point, it paid dividends that I had been careful to make an enclosure that only entailed four holes to be drilled for pillars to mount the camera, a slot for the flat

cable from the camera, and a slot for the button cut-out. A Dremel with a cutting wheel, in a press stand, was used for cutting all slots; replaced by a drill-bit to drill the holes. Guides were printed on address labels and stuck on the enclosure to indicate where to drill the holes; the absolute position wasn't critical, just the distance between them.

To complete the 'homemade', feel and aesthetic, the lids on the enclosure wouldn't stay on due to a press fit missing from the side where a slot was cut out. Various glues were tested, but the box was resistant to them all - so we ended up using high quality 'invisible' Sellotape!

To complete the system, the cameras were powered from a 4 socket USB charger .

The systems were sent out, or collected by a range of staff from across the faculty, as well as being used on site for demonstrating lab work in the natural science labs, practical demonstrations in robotics and mechatronics labs and filming of activities in a number of other areas. For people who were unsure about set-up, a Zoom call was arranged to talk them through what to do, until I was able to see the system working on the call.

We are now producing a second wave of equipment to support teaching over the next year - whether that is face to face, blended or remote. Securing funding isn't easy, and one of the most significant barriers to entry for those wanting to bring a product to market independently.

Follow Nick Weldin on Twitter
@tinkernick

Maths in PD/E

Dr Nick Sharples, Senior Lecturer in Mathematics, shares his experience and reflections from the interactive classes with Year 1 **Product Design/Engineering**



Maths is really useful in Product Design – we need it to accurately describe objects, understand physical constraints and limitations, and model the behaviour of prototypes without having to build them.

The Product Design programme recruits from an amazing variety of academic backgrounds, so we're always looking for innovative ways to teach mathematics. Before the pandemic I was invited to lecture on maths in the Design Studio and the 3D Workshop, which are unusual teaching spaces for me!

Rather than a "typical" maths lecture, I wanted to meet Product Design students where they were more comfortable and encourage a more "studio based" learning style: for me this meant working in flexible groups, tackling themed problems with high-quality reference resources and

expert help at hand. Student feedback shows that these sessions were really well received and that the links to genuine engineering problems were clear. I also had a lot of fun talking about maths with immediately tangible applications!

Extending this approach to remote learning during the pandemic was challenging. Handwritten calculations and quick sketches are really important in maths to get immediate feedback, but these are difficult to communicate remotely.

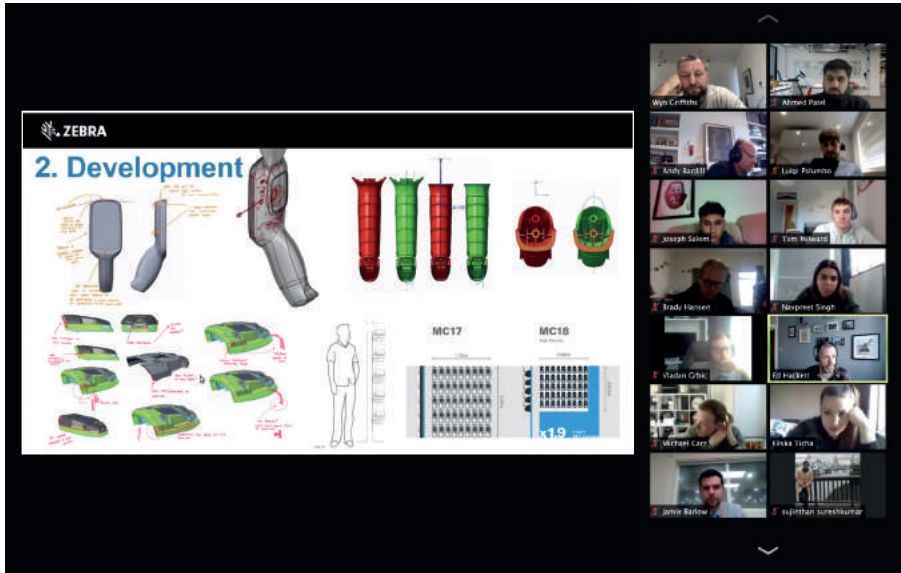
However, by making all the maths materials available in the first session, working in free-flowing groups in breakout rooms, and voting for which topics to discuss, we were able to make progress in a variety of the trickier applications of maths to Product Design problems.

The studio culture of Product Design is something we're taking back into the specialist maths teaching. We now work on collaborative, persistent, on-demand whiteboards where we can tackle complex problems individually and in groups. This virtual studio space is great for establishing links between theories, encourages everyone to contribute at times convenient for them, and lets us solve complicated, real-world problems over a long period.

Find out more about **Maths at MDX**: <https://maths.mdx.ac.uk>

'LIVE' Projects

Our **Product Design & Product Design Engineering** programmes always have 'live' projects interwoven into the curriculum: a snapshot of activity 2020-2021



LIVE PROJECTS, CLIENTS, COLLABORATIONS & COMPETITIONS at MDX Product Design/Engineering 2020-21



Our **Product Design** and **Product Design Engineering** programmes have always had 'live' projects interwoven into the curriculum. They are a valuable component of the curriculum, alongside Guest Lectures, masterclasses, and tutorship by practicing designers, engineers and researchers.

They give our students the opportunity to experience multiple perspectives, from a wide variety of disciplines, practices and sectors, within

the broader Product Design/Engineering landscape.

They also help students to examine their personal practice and ethos. We encourage all students to critically reflect upon each project, talk or experience, deconstructing and critiquing that presented to them. The best projects are dialogic. Projects in which all participants learn from one another, and project partners, as well as students develop their thinking and doing based

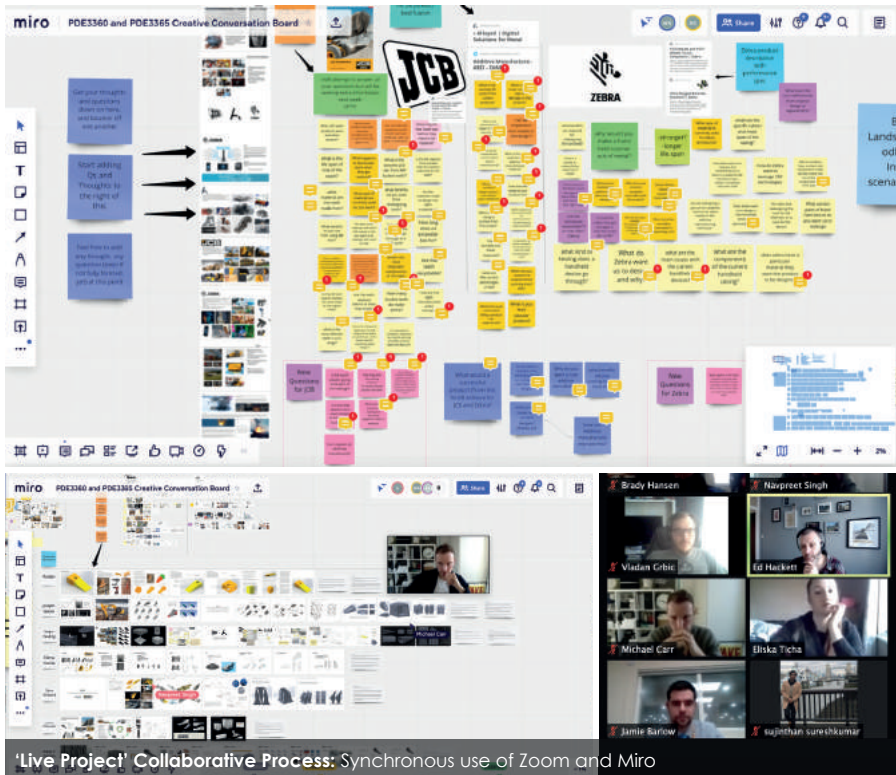
on the diverse experiences, insights and ideas within both their innovation space, and the broader social and environmental landscape which they all occupy.

This academic year, 2020-21, we've been lucky to work with:

- JCB
- Zebra
- Alloyed
- IMechE
- SMASHfestUK
- Prof. Pat Jordan
- The Thrill Engineer

Have a look at our **BA Product Design** course:
www.mdx.ac.uk/courses/undergraduate/product-design

And our **BEng/MEng Product Design Engineering** courses:
www.mdx.ac.uk/courses/undergraduate/product-design-engineering



The COVID pandemic created the opportunity for a first at **Middlesex University Product Design and Product Design Engineering**. Our digital studio approach opened the opportunity for a live project working with multiple companies, cross-sectorally, on one collaborative project. Four companies – Michael Carr Consultants, JCB, Zebra and Allied - two undergraduate degree programme PD and PDE with 30 students in total and four DEM staff came

together to explore possibilities for designing within JCB and Zebra product lines for metal additive manufacturing using Allied technologies.

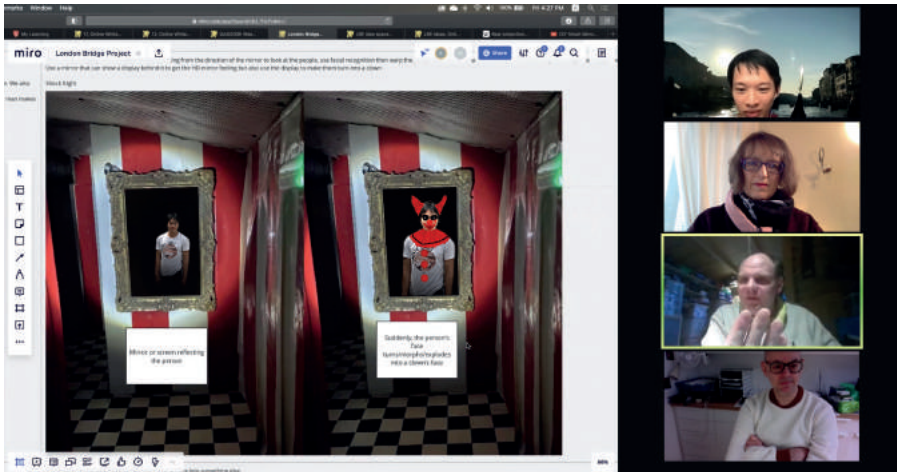
The project team worked synchronously through Zoom and asynchronously using Miro infinite whiteboard. The collaboration process was highly effective and brought together the wide range of perspectives in a stimulating ongoing 'creative conversation' with exciting outcomes.

A huge thanks from Middlesex University Product Design and Product Design Engineering to Michael Carr, Ed Hackett (Zebra), Jamie Barlow (JCB) and Sarat Babu (Allied) for a brilliant, ground breaking project experience.

Follow the
 course IG
 account
 @MDXPD
 #MDXPD

MDX Postgraduate Students Present 'A Massive Fright' Via Live-Project

Creative Technology Master's programme offers students an opportunity to collaborate and develop skills with a 'live' project for multi-award winning scare attraction, the **London Bridge Experience**



We are immensely proud of the students who stepped up to the challenge, learning whilst working on this 'live' brief. The client, James, was delighted with the outcomes, to the extent that we will be running the project again for the 2021-2022 intake.

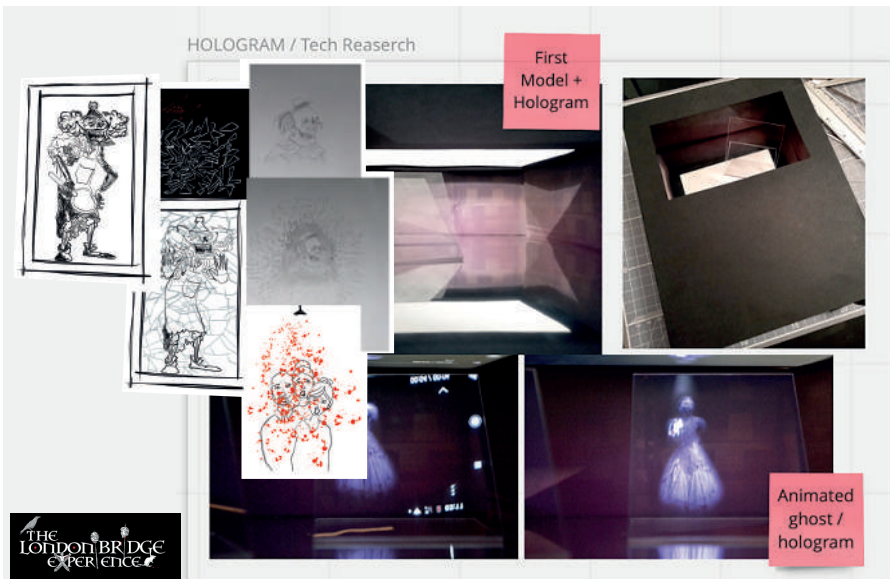
Creative Technology is a unique postgraduate course that gives students a chance to further their studies with creativity, problem solving, coding and other forms of technology such as AR, VR and 360° video. With lockdown being an unavoidable aspect of teaching and learning this year, we had to be creative with how the subject was taught. Using Miro, an online whiteboard platform, we were able to co-ordinate our classes from Lagos, to Moscow, to Lake Como, to London in real time; and converge on this ideas space with the help of Zoom. It was liberating to discover that we could work in this way and we had more students this year than ever before.

We took part in several exciting projects this year, but the

highlight was working with the **London Bridge Experience (LBE)**, London's top scare attraction. Located in vaults below London Bridge, the immersive attraction takes visitors through dramatic and gory highlights of 2000 years of London history and includes a horror experience annex.

Alumnus James Kisingbury, CEO, set a 'cracking' brief for the students, working in groups of twos and threes, to develop concepts for three different areas of the attraction – a historical display, 'Ripper Street' and a 'clown box' scare point – as part of their collaborative projects and creative technical practice module. With invaluable input from 'Thrill Engineer' Professor Brendan Walker, Course Leader Magnus Moar, MDX PhD student Natalie

Have a look at the unique **MA/MSc Creative Technology** programme:
www.mdx.ac.uk/courses/courses/postgraduate/creative-technology



Tomlin (specialising in stage effects), our Graduate Academic Assistant Aleks Stawirej, and Senior Lecturer, Debbie Jedwab who oversaw the project; students were led from ideation, to concept boards and storyboarding the user experience. Students had to design the user experience with consideration of research centred on 'scare and horror'.

Close attention to every second of the experience in each space was challenging for the students. They were taught how to ideate and iterate and develop their concepts from scratch. Their work had to 'sell' the ideas to the client along with providing working proofs of concept, which was no mean feat when students were living so disparately and had to work

together in groups and pairs online. Though not ideal, we were able to develop creative approaches to prototyping at a distance. Finally, a video was produced that documented the students' process and showed a walk-through of the designed experience.

Approaches suggested in the students' presentations included projection mapping with water coming through the walls, using handheld devices with QR codes and tracking to explore environments, augmented reality, and for the scare point a ghostly 'fog screen', a breaking glass effect and things emerging from and popping out of the walls. We are immensely proud of the students who stepped up to the challenge, learning whilst working on this 'live' brief.

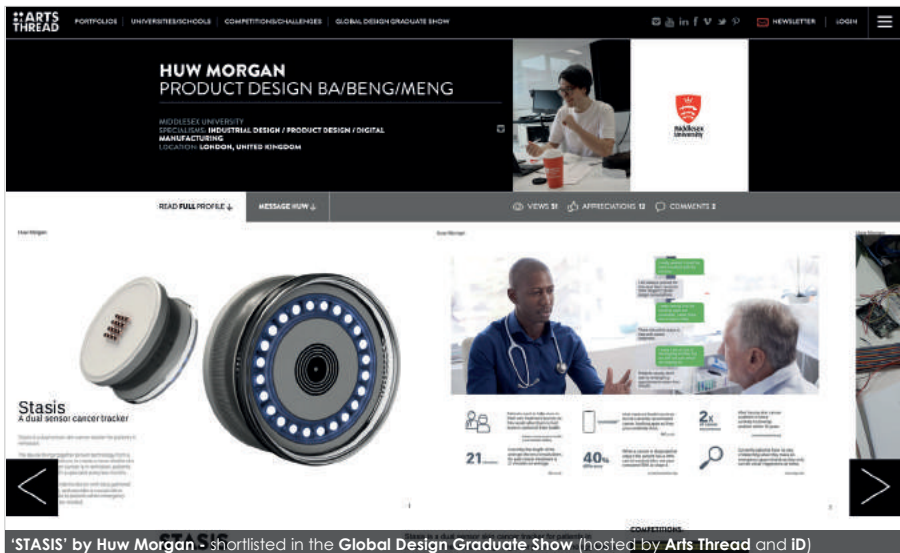
James was delighted with the outcomes, to the extent that we will be running the project again for the 2021-2022 intake. He is also looking at how to incorporate several of the winning concepts once the attraction is up and running smoothly again.

We are looking forward to this but also to extending the work in other areas such as biomimicry, locative media, novel interfaces and mixed reality.

Find out more about the **London Bridge Experience** at thelondonbridgeexperience.com

Commendation & Nomination for #MDXPD2020 Graduates

The 2020 virtual shows saw **Patrea Farquharson's** Final Major Project selected as one of ten most interesting and innovative projects across **Dezeen's** global **Virtual Design Festival** school show. And **Huw Morgan's** project was shortlisted in the **Global Design Graduate Show** hosted by **Arts Thread** and **iD**



'STASIS' by Huw Morgan - shortlisted in the **Global Design Graduate Show** (hosted by **Arts Thread** and **iD**)

Patrea Farquharson's Final Major Project (FMP), 'Play Things' was selected as one of ten most interesting and innovative projects across **Dezeen's** global **Virtual Design Festival** school show, with over 60 participating schools and 570+ students. 'Play Things' is a collection of game controllers enabling children with dyspraxia (a condition that affects physical co-ordination, development of muscle tone and co-ordination needed to be able to write) to target and train a series of muscles in their hands, wrist and forearms,

which are involved in the writing process.

Huw Morgan's FMP, 'Stasis', a dual sensor cancer tracker for patients in remission, which gives patients an idea of when they should make emergency appointments with their doctor, alongside providing the doctor with health data gathered between check-ups, was also shortlisted in the **Global Design Graduate Show** (hosted by **Arts Thread** and **iD**). A fantastic achievement, with 4482 projects uploaded from around the world.

Revisit the 2020 virtual shows at:

Instagram @mdxpd

<https://www.core77.com/student-showcase/2020/middlesex-university/ai-mdxpd>

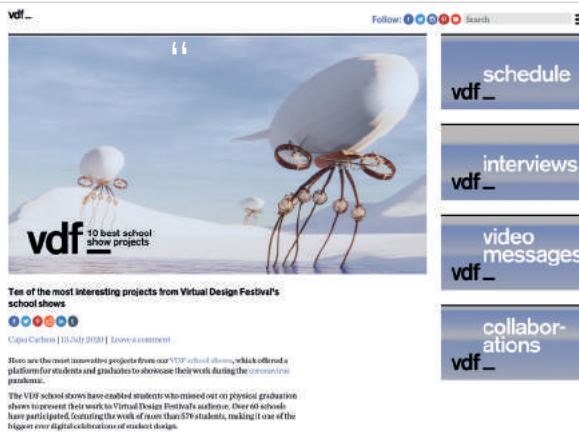
<https://www.dezeen.com/2020/06/22/middlesex-university-product-design-vdf-school-shows/>

<https://creativegraduates.mdx.ac.uk/2020/categories/science-and-technology>

Read more about the **#MDXPD2020** graduate projects in our previous publication **#MDXPD2020: eprints.mdx.ac.uk/31029/**

Have a look at our **BA Product Design** course online:
<https://www.mdx.ac.uk/courses/undergraduate/product-design>

And our **BEng/MEng Product Design Engineering** courses online:
<https://www.mdx.ac.uk/courses/undergraduate/product-design-engineering>



The screenshot shows the Instagram profile for 'vdf_'. The main post features a futuristic, insect-like robot with a large white dome and thin legs, set against a blue sky. The caption reads: 'Ten of the most interesting projects from Virtual Design Festival's school shows.' Below the post are navigation buttons for 'schedule', 'interviews', 'video messages', and 'collaborations', each with the 'vdf_' handle.



Play Things by Patrea Powell-Farquharson Middlesex University

Middlesex University students showed a selection of projects by students from its product design degree, among them Powell-Farquharson's Play Things.

The tools were created for children who from suffer dyspraxia – a condition that affects physical co-ordination – and often struggle to develop muscle tone and the co-ordination needed to be able to write.

"Play Things is a game controller that enables them to target and train a series of muscles in their hands, wrist and forearms, which are involved in the writing process," the designer explained.

Visit the Middlesex University virtual show:

'Play Things' by Patrea Farquharson - featured in Dezeen

READ the full featured article at:
<https://www.dezeen.com/2020/07/13/best-of-vdf-school-shows-projects/>

#MDXPD 2021 Virtual Shows

Welcome to our 2021 Design Shows! BA(Hons) **Product Design** and BEng(Hons) **Product Design Engineering** took part in multiple external design shows, this year, alongside exhibiting our own virtual show on our Instagram feed. Check out the shows here:

Instagram: @mdxpd #mdxpd

MDX Creative Graduates:
<https://creativegraduates.mdx.ac.uk/2021>

Dezeen:
<https://www.dezeen.com/2020/06/22/middlesex-university-product-design-vdf-school-shows/>

New Designers:
<https://www.newdesigners.com/exhibitors/middlesex-university/>

Arts Thread:
<https://www.artsthread.com/schools/middlesex-university-product-design-babengmeng/>

Navpreet Singh (BEng PDE) and Tom Milward (BA PD) have been shortlisted for the Arts Thread Global Design Graduate prize 2021! Check out their projects in the Arts Thread link, and **GOOD LUCK TO BOTH!**

Follow the course IG account
 @MDXPD
 #MDXPD



WAVE

The Next Chapter of Home Listening

Music listening has faded into the background. **WAVE** is a device that brings music back into the foreground, creating a **mindful** and **enhanced listening experience**.

Wave helps users to **induce a flow state**, getting them into a relaxed state of mind so that the music becomes their focus. It will help users to engage and immerse themselves, giving them more control and allowing them to **explore** and **interact** with their music through various parameters. These parameters include **reverb**, **band-pass filter** and **bass/treble**, each controlled through different gestures.

Wave connects to music playing applications on mobile devices via Bluetooth.



TOM MILWARD
PRODUCT DESIGN BA

07523015817
tommilward22@gmail.com

@tm_designs
linkedin.com/in/tommilward
Folio: bit.ly/2TXpEeV



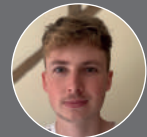
RUSH

Explore Your Data

RUSH uses accelerometer arrays to capture new forms of cycling data **enabling under-represented users to visualise and quantify** their cycling exploits.

RUSH can **measure 'air time'**, can **visualise the aerial ballet** of a skilled BMX rider mashing it on a skate park, the **cornering speed and banking angle** achieved on the hairpin of a crit, and should it all go a bit pear-shaped, can tell the user if they may have suffered a concussion.

This is **technology that works** with the real cycling **RUSH**.

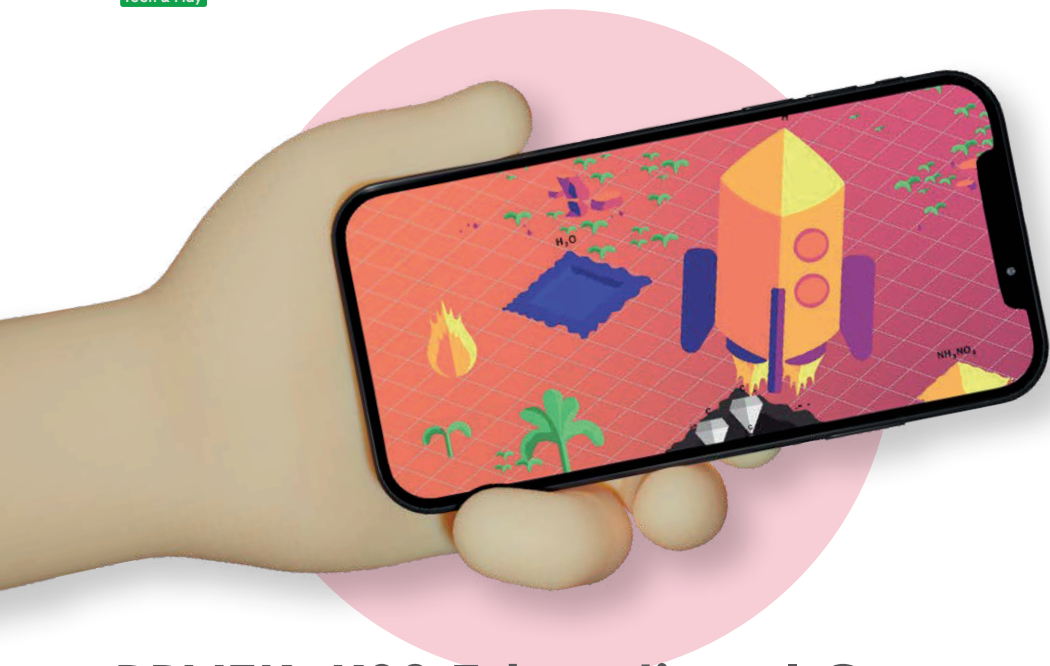


RALPH PAULING
PRODUCT DESIGN ENGINEERING BEng

07872857480
ralphpauling@gmail.com

@ralph_pauling
@ralph_mdx

linkedin.com/in/ralph-pauling



PRVEK: KS3 Educational Game

Chemistry Made Fun

PRVEK, Czech for 'element', is a **sand-box** type game centered on the **KS3 Chemistry Curriculum**. It is playable even with minimal knowledge of Chemistry.

PRVEK is map-based, where the player can **explore** and **interact** with **elements** and **chemical reactions**. The game features a series of **interactions**, which leads the player towards **electrolysis** - and almost all elements in the games are connected.

The player has unlimited resources of elements, which are **randomly located** and situated on the map. Through this, players can **try**, **experiment** and **explore** new interactions as many times as they want. But only after completing the desired interaction correctly, the player can start interacting with new elements. This aims to make the game more interesting as the player is **rewarded** with

new elements via scientifically valid reactions, and **learning** through a process of play.



ELENA VESELA
PRODUCT DESIGN BA

07745086058
elena.vesela@yahoo.com

@vesela_elena
linkedin.com/in/elena-vesela



KRATOS

Enhance. Develop. Share.

KRATOS

Enhance. Develop. Share.

Football is becoming heavily **data driven** - it's all about **stats**, and these can determine a player's success or failure. Pro-level players use this data to **analyse performances**, **reduce injury** and **understand themselves** as a player.

KRATOS makes this technology more **affordable** to lower level and recreational players.

KRATOS is made up of a physical device located on the back. It will utilise **community manufacturing approaches** to the lower the cost, making it more accessible to amateur players. The device will be accompanied by a **social networking app** that will allow players to **share** this data in meaningful ways.



LUIGI PALUMBO
PRODUCT DESIGN BA

07769995310
Luigi98@live.co.uk

[linkedin.com/in/luigi-palumbo](https://www.linkedin.com/in/luigi-palumbo)

#mdxpd 60 seconds

Staff on the Middlesex University Product Design/Engineering Programmes are active professional practitioners/researchers. Here is an interview with **Neil (Spike) Melton**, Senior Technical Tutor at **Middlesex University** and independent Health & Safety consultant, for accreditation to BSI standards



You are?

Spike, Senior Technical Tutor for the Faculty of Science & Technology and one of the longest serving members of staff, I'm in my 34th year! I only planned to stay for 1 year.

Your background?

I left secondary school with the goal of becoming a CDT teacher and studied at what was then Middlesex Polytechnic, in a leafy country estate setting (Trent Park) back in the early 1980s. I did not go into teaching but was 'head hunted' by a collaborative organisation (linked to Middlesex) called the London Innovation Network; a collection of 5 different centres supporting invention, innovation and community projects throughout North London (a bit like Dragons Den). It was funded by the G.L.C. (Greater London Council). I had an empty

warehouse unit in Holloway Road (now houses) and a blank cheque book to fit out a multi-material workshop from scratch. What a dream!

Over the next 4 years I worked on some incredibly diverse projects and met some amazing people and inventors. Some of the products that I had prototyped are in use today and were featured on 'Tomorrows World' a science and technology show on prime time BBC TV; a major deal to get on it in those days.

When the G.L.C. folded, thanks to Margaret Thatcher, so did the funding and the centre closed. I joined the School of Arts at Bounds Green Interior Design department covering a staff vacancy. My plans were uncertain and foreign travel

beckoned, so the plan was, a year tops, to save some cash. I ended up having ten really great years and much more fun than I should have, quickly gaining promotion and learning from some outstanding designers and engineers. I still regularly see the guys from the Mechanical Engineering department.

The campus closed (for more housing) and I moved to the Arts campus at Cat Hill where I stayed for another ten years before it also closed. During that time I gained a degree in Occupational Health & Safety and became an independent consultant for accreditation to BSI standards. Foreign travel and a job in New Zealand was on the table once more; it was only one of my engineering friends and a chance phone call later that I ended up

Images (Left-Right): Spike (age ± 24) on one of the first Transport for London public buses, which he fitted with a wheelchair ramp (and standing on it); Building and testing the Motion Driven eXperience Platform in the university workshop; Install and set-up of the latest protoMAX waterjet, summer 2021

running the workshops for Product Design/Engineering at Trent Park. A true full circle, and it felt like coming home! Trent Park closed in 2012 and we find ourselves in Hendon Campus; I don't think we will move again!

Why Design and Engineering?

My grandfather who lived next door when I was growing up was an instrument and cabinet maker. I would often be found in his shed or garage tinkering with, and taking apart 'STUFF'. I have always been fascinated by how things work, and why!

My father ran the Machine shop at British Aerospace having worked all his life on aircraft manufacture (a very good old-school engineer). My brother moved to the States and is an aircraft system's designer. I stripped my first car engine down when I was 14. I remember my grandfather teaching me how to weld a top plate on a Mk1 Escort after my brother decided get some 'air-fime' over a hump back bridge; I was 12, so I guess you can say it was in my blood.

What's a standard day like for you as a Senior Technical Tutor?

In a word, BUSY! I have many hats on as I teach on the Occupational Safety courses alongside the Design programmes. I also have management responsibilities and 3 homes; in the Ritterman, Grove workshops and my office in the Hatchcroft building. I am Middlesex University's current hide-and-seek champion as no-one can ever find me!

What are your favourite tools/processes?

Without a doubt the waterjet cutter. What a machine, what a process! The ability to cut a square hole in metal was always the Holy-Grail growing up. It is as revolutionary to the metal fabrication industries as laser-cutting was to the plastic world. I genuinely do not know what we would do without it. I design much of my fabrication processes around this particular machine.

What are you great at?

Thinking a problem through and finding a makeable solution.

What do you wish you were great at?

SolidWorks.

What is a Technician/Engineer in the 21st century?

A true hybrid really; technical expertise, academic rigour, CAD proficient, a master fabricator in a variety of mediums, a teacher and communicator. A jack of all trades with a mastery of all; you need a PhD (literally).

What's your advice for future Product Design/Engineering students?

Never be afraid to seek advice from people on the ground floor; the technicians, engineers and fabricators. Ultimately, every thing that you design, every pencil line or vector on a computer screen means an edge, a finish, a material, and a production process. Who better to seek advice from than those who actually make? Of course, listen to the advice!

What are the big looming challenges for Technicians/Engineers...for society?

Keeping up with new and emerging technologies. Being flexible and see the applications there of.

What are your top 3 artefacts/objects/inventions?

+ The MDX Platforms (roller-coasters) are super cool and it is with pride that I can stand and say, 'I made that'. At events, people are always amazed that we produced them in-house.

+ EMAP (European Musical Archeological Project). Producing ancient musical instruments (found at Pompeii) using modern manufacturing processes. Working alongside Dr Holmes and Mr Simms, fantastic engineers! We do not know for certain how Ancient Romans were able to produce such accurate and fine tolerance pieces; we concluded the only possible answer was 'Aliens'.

+ The Lynch electric motor, which I prototyped in the 80's and went on to power many world record beating electric vehicles.

What are the first 5 names on your fantasy exhibition Private View list?

+ My Grandfather - so he can see what we achieved.
 + Chuck Yeager - first man to break the sound barrier. Read his autobiography, *The Right Stuff*.
 + Jeri Ryan - Borg, Seven of Nine
 + Steve McQueen - Super cool guy read his autobiography
 + Elvis - of course!



THE WAY

A Generative Design Philosophy for Today's Activist Generation

Fast furniture is having a caustic and **irreversible impact** on our planet though many consumers have a desire to **consume** furniture **more meaningfully**.

THE WAY provides a **straightforward methodology** using a simple set of tools to instruct people on how to make their own furniture. Alongside highlighting the **positive impacts of making** as a practice, **THE WAY** also gives guidance on how to make in small & shared living spaces, **empowering** any user to **make** rather than just consume.

THE WAY is a **generative design philosophy** designed to **help people to become makers** and add more meaningfulness to their possessions.



BRADY HANSEN
PRODUCT DESIGN BA

+44 (0)7523826198

brady.t.designs@gmail.com

[@brady_t_tweets](https://twitter.com/brady_t_tweets)

[@brady_t_designs](https://twitter.com/brady_t_designs)

[linkedin.com/in/bradythansen](https://www.linkedin.com/in/bradythansen)



PRESCIENT: The Radical Redesign

Revisoning Our Relationship And Use of Consumer Products, One Iron at a Time!

Revisoning our relationship and use of consumer products by **designing for behaviour change**.

PRESCIENT is a **philosophy**, a **manifesto**, a **set of instructions**, and a **lens on sustainable living**, all in one!

PRESCIENT works to create **meaningful, readable consumer products** with **cradle-to-cradle** sustainable thinking embedded in every aspect of design and manufacture, through a visual language that speaks directly of the underlying philosophy.

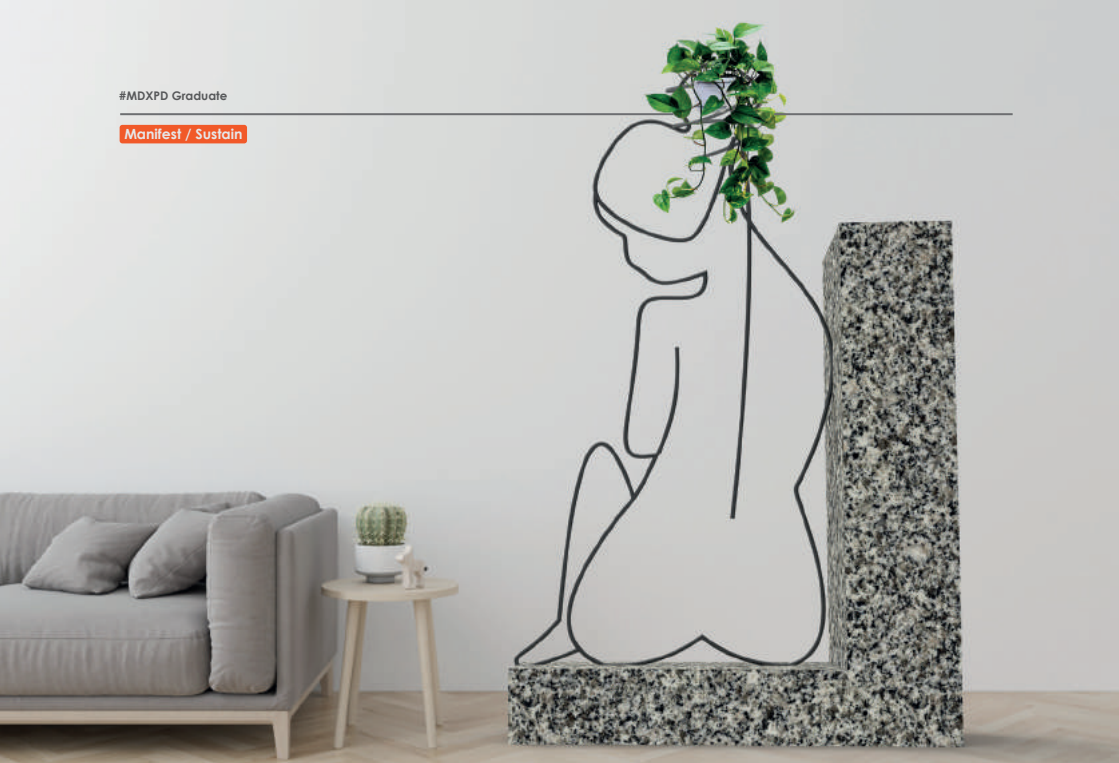
The demonstration product, an iron, illuminates that **functional modularity** of the product and helps users **understand how to repair and replace** any parts that fail over time, **extending the lifecycle** of the whole system.



NAVPREET KAUR SINGH
PRODUCT DESIGN ENGINEERING BEng

07802535348
navpreetkaur@hotmail.com

@nav.desinghni
linkedin.com/in/navpreetksingh



SELF-GROWING ART

A New Way of Planting Indoors

Plants and flowers have a **positive effect** on our **mental health** and help cleanse our internal environments. Their ever-changing growth and beauty is enhanced through their inclusion in self-growing art, where **plant life meets 3D illustration**.

The **system**, designed for **custom installations**, has a secure mounting and watering system as part of the construction. A continuous, fluid line provides the illustration, with growing plants symbiotically enhancing the symbolism.



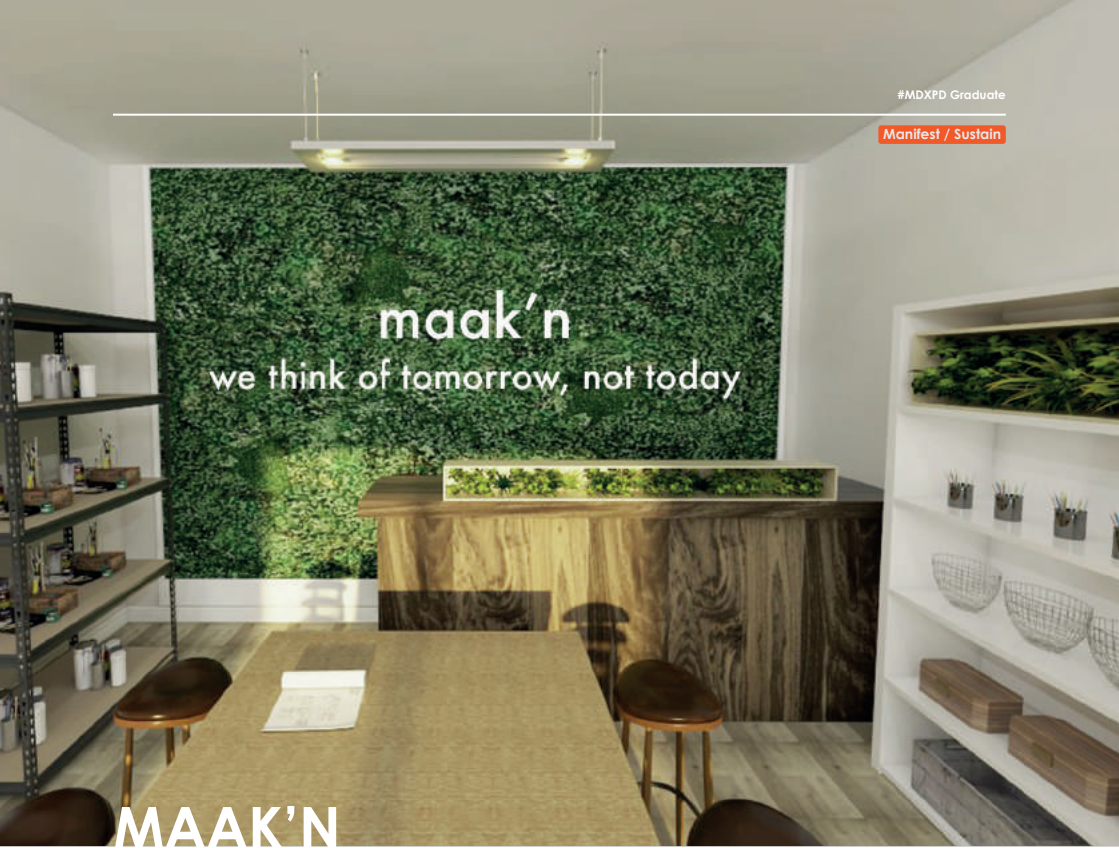
ELISKA TICHA
PRODUCT DESIGN BA

07534932821

eliskaticha@outlook.com

@elis_tdesign_

linkedin.com/in/eliska-ticha-215546174



MAAK'N

We Think of Tomorrow, Not Today

"Bic, the company that has made a fortune out of things to be thrown away, has sold its 100 billionth disposable ballpoint - selling an average of 57 pens every second since it was launched in 1950."

The Guardian 22 Sep 2005 [online]

Maak'n is a **stationery workshop** that promotes and encourages **active participation** in **sustainable, interchangeable, and eco-friendly** stationery.

The workshop will create a **new community** for stationery lovers to **make, customise and learn** how we as consumers can **change our habits** and lifestyles to help improve the Earth through small and big steps.



BASIMA JAAFAR
PRODUCT DESIGN BA

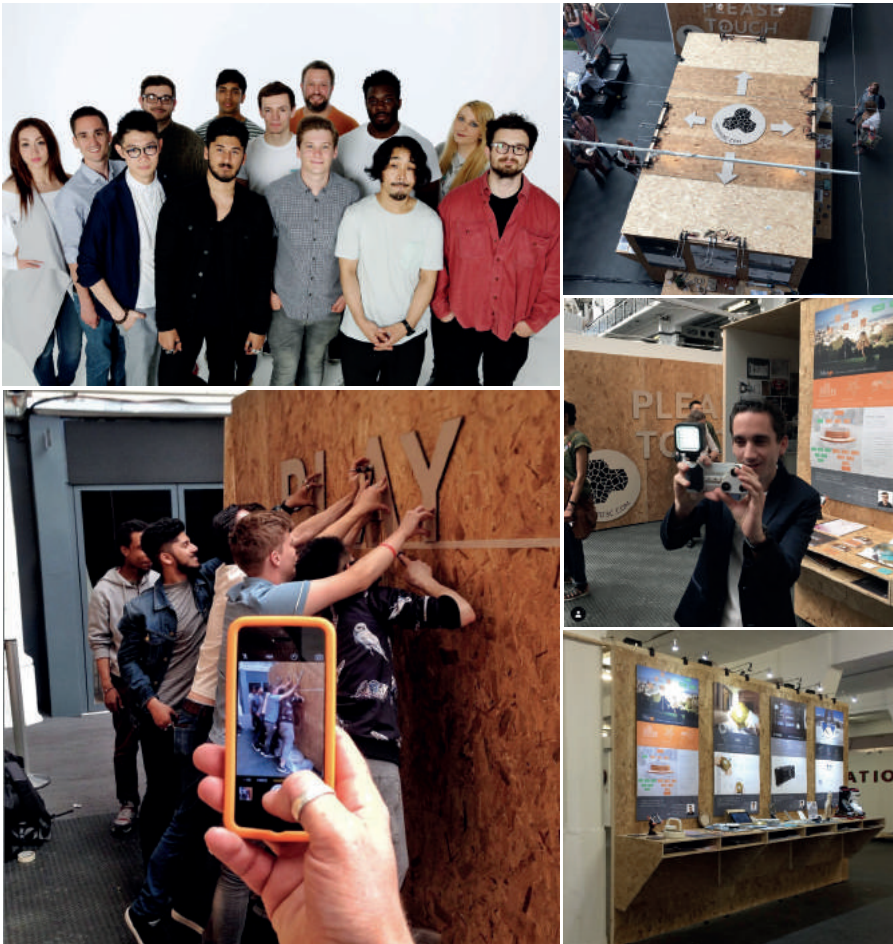
+44(0)7399935995
basima-j1@hotmail.com

@basimajaafar
linkedin.com/in/basimajaafar

SPECIAL FEATURE PP. 29-54

FIVE YEARS ON...

Where Are They Now? **Middlesex University's** Product Design Class of **2016**



MDXPD 2016 - '5 Years On'

In 2018, we did a '10 Years On' feature exploring where the 10 years since graduation had taken our 2008 graduates - see #MDXPD 2018 Magazine for the full story. Their stories and career paths were rich and varied.

This year, we thought we would look at what our graduates from 2016 have been doing, and where they've got to, in their 5 years since graduation. Although a much shorter timescale than the in the previous feature, the outcomes are again exciting and enlightening. The range of

pathways, the range of careers, the range of experiences... they all highlight, again, both the fantastic creativity and capabilities of our graduates and the wide and ever changing future possibilities that Product Design and Product Design Engineering study offer.

Have a read about everyone's journey and current situation across pages 31-54. The '**5 Years On**' stories, as with the '10 Years On' feature in 2018, make for a fascinating and inspiring review of the power of creative education, and the positive impact that talented, driven young people can make on the world.

FEATURED ALUMNI & STORIES FROM CLASS OF 2016:



CHARLOTTE NORRIS

Creative Director
BOP Studio

[linkedin.com/in/charlottenorris/](https://www.linkedin.com/in/charlottenorris/)



NIHAL ISLAM

Industrial Designer /
Campaign & Reward
Development Manager
TCC Global

[linkedin.com/in/nihalislam/](https://www.linkedin.com/in/nihalislam/)



RIKEFE (MIKE) OHWOSI

Industrial Designer
Freelance

[linkedin.com/in/rikefeohwosi/](https://www.linkedin.com/in/rikefeohwosi/)



WILLIAM BRISTOW

Service Designer
Methods

[linkedin.com/in/williambristow/](https://www.linkedin.com/in/williambristow/)



TOBIAS SCHREIER

Founder of Start-Up
mevolute

[linkedin.com/in/tobsch/](https://www.linkedin.com/in/tobsch/)



TARA (FEAR) WILLIAMS

Senior Executive Officer
& Interaction Designer
**Office for National
Statistics**

[linkedin.com/in/tarafear/](https://www.linkedin.com/in/tarafear/)



SANJALI JAIN

Digital Designer
Photobox

[linkedin.com/in/sanjaliijain/](https://www.linkedin.com/in/sanjaliijain/)



YAMAHA TSUNG

Creative Director &
Crowdfunding Specialist
Wise Box Alliance Ltd

[linkedin.com/in/yamaha/](https://www.linkedin.com/in/yamaha/)



DANIEL MARTINEZ DA CRUZ

Production Coordinator
Tearfund

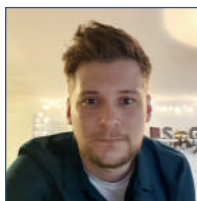
[linkedin.com/in/dacruzdesign/](https://www.linkedin.com/in/dacruzdesign/)



AJAY PARMAR

3D Design Teacher
**Shenzhen International
Foundation College**

[linkedin.com/in/ajayparmardesign/](https://www.linkedin.com/in/ajayparmardesign/)



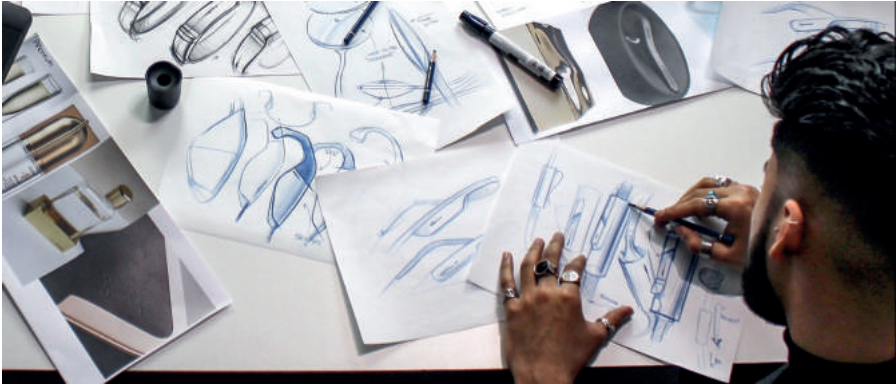
SAM GRAHAM

Account Manager &
Creative Lead
Stone2Stone

[linkedin.com/in/sam-graham-3b760a104](https://www.linkedin.com/in/sam-graham-3b760a104)

NIHAL ISLAM

Industrial Designer / Campaign & Reward Development Manager at **TCC Global**



Make sure to have all your core skills up to scratch before graduating, whether that's Keyshot, sketching, Arduino or whatever it is, just make sure it is at a good level because it will help you out at the start of your career, trust me. Yes, you'll learn on the job but having that advantage in the beginning will help. Which leads me on to placements. Get experience in the real design world before graduating. Not only will it help you gain some experience but it will make you a lot more employable than others without experience.

Since graduating from Middlesex University in 2016, I've had the pleasure of working with a few of London's top Industrial design consultancies for a couple of years such as **Curventa**. I have worked with some of the world's leading brands, helped build start-ups from small ideas into a reality and I then went in-house joining a massively funded start-up known as **Zwiff**. In 2019 COVID hit us all and I made a big decision to go freelance and out of nowhere I became an Industrial Design Manager. Sounds a bit crazy right? Well, that's all part of the journey.

I'm now working as an Industrial Designer and Campaign and Rewards Development Manager for a company called **TCC Global** where I get to lead product ranges (known as rewards) to be sold in a loyalty campaign, helping to bring back loyalty from customer to leading retailers across the world. I'm only 6 years (including

placement year) into my career as an Industrial Designer and I've still got a long way to go! In order to get to where I am today, it took a lot of hard work, perseverance and grit – it wasn't an easy journey at all. However, being at an early stage of my career I saw this as a chance to explore different paths; I have worked in-house, consultancy and freelance to really understand what I enjoy and don't enjoy. I didn't physically tell myself that I would now do this and that, they just came along at certain points of my career and at the time they may have not seemed ideal for me, but I took into account the wise words once given to me by Wyn (Griffiths); to just take that chance and see what doors it opens. Sometimes it's all about taking that leap of faith, which my 21-year-old self didn't really get at the time but now I do!

If I could summarise the **BA/BSc Product Design** course

Check-Out TCC Global: www.tccglobal.com

Connect with Nihal on LinkedIn: [linkedin.com/in/nihalislam/](https://www.linkedin.com/in/nihalislam/)



at MDX in one phrase it would be 'imperfectly perfect'. Yes, the course had the standard deadlines, assignments, projects, grading system etc. like any other University, but never had I felt a sense of over controlling my career path. Everyone had their own style of working, not everyone wanted to become an Industrial Designer like I did and that's what I loved about it. 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. These values from the **MDXP** community was something I

aligned with and is an absolute requirement when it comes to any new role I take.

For students studying at the moment, whether you're starting off your first year, in your final year or somewhere in the middle of it all is to work hard, focus and enjoy it all.

Make sure to have all your core skills up to scratch before graduating, whether that's Keyshot, sketching, Arduino or whatever it is, just make sure it is at a good level because it will help you out at the start of your career, trust me. Yes, you'll learn on the job but having that advantage in the beginning will help. Which leads me on to placements. Get experience in the real design world before graduating. Not only will it help you gain some experience but it will make you a lot more employable than others without experience.

And lastly, take any opportunity

you get; you never know where it could lead, or what doors it could possibly open for you.

Follow
Nihal Islam
on Instagram
[@nihalislam_](https://www.instagram.com/nihalislam_)

WILLIAM BRISTOW

Service Designer at **Methods**



Don't hesitate to ask for help. Not everyone can know everything! There is always something to learn. Using those around you as sounding boards, or a critique will move your thinking on when you get stuck.

“ Hello, I'm Will. I do 'designy' things. Specialising in **Service Design**, I help organisations understand their customer and/or business problems and work with them to make things better. So far, I have worked in both private and public sectors, and I've been employed in-house (within an organisation) and in an agency (as a consultant, external to an organisation).

You could say that I've had fairly linear/obvious progression in my career. Having studied **Product Design** at **MDX**, I see product and services as somewhat the same thing. They just use different mediums to deliver value to someone.

In my experience, there is no one route a person can/should take. Designers, or similar fields, often have varied backgrounds. Specialists, however, usually have had some level of

training that leads to that role and may require a bit more planning and investment to get there. One thing is common amongst all of them... relentless empathy!

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

Check-Out Methods: www.methods.co.uk

Connect with **Will** on LinkedIn: [linkedin.com/in/williambristow/](https://www.linkedin.com/in/williambristow/)

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!

I was fortunate enough to take advantage of the placement year. Without a doubt one of the best things I did with my time. It allowed me to get different perspectives, and start building a network.

There isn't one thing that got me where I am today (and hopefully where I will be in the future). Luck has played its part, for sure. There are, however, some key things that seem simple, but are quite hard to do. These will be a big differentiator when working as a junior, but are necessary throughout your career.

Don't hesitate to ask for help. Not everyone can know everything! There is always something to learn. Using those around you as sounding boards, or a critique will move your thinking on when you get stuck.

Listen carefully. Designers are usually quite good at this as they practice empathy as a core skill. Don't get complacent though, the nuggets are often harder to find. This applies to design work, of course, but also any interaction you have on your journey.

Put yourself forward. Everyone appreciates help, and are often willing to give more than

you might expect. Asking to do more, or showing willingness to expand is often met well by colleagues. It goes without saying, you can't do everything at the same time, so make sure you are able to at least have a go.

Something I picked up early on was that 'design' doesn't live in a bubble. The business element is so important to the work that you do, even in public or charity sectors. Not just financials, but the whole operation of a business. This often means that 'pure' or 'academic' design doesn't fit neatly into business processes. Be ready to compromise on the small things, so you can be clear on the important things. Be mindful of business priorities and challenge where necessary to help the wider goals.

Extra tips for students:

I'm going to make this a list. Who doesn't love bulletpoints!?

+ Get a mentor - a mentor can be informal, but they should be able to guide you through tricky times.

+ Be open - be ready to take on new challenges.

+ Reflection - make time to assess what you have done, what worked, and what can be better. Those around you will also appreciate it.

+ Get help - it is always worth it, don't be embarrassed.

+ Be comfortable making decisions - and own it if they turn out to be wrong.

+ You will need to play the numbers game when finding jobs early on, you may find people start coming to you once you have gained experience.

+ Be nice, always.

Semper Doctrina.



TARA (FEAR) WILLIAMS

Senior Executive Officer & Interaction (UX) Designer at **Office for National Statistics**



A digital reform is quietly happening, unnoticed by most and noticed by few (like the elephant in the room). I really hope we actively notice it, join and make it basic practice in what we do. Whatever you create, make it beautiful - sure... but more than anything, make it thoughtful, make it usable and make your work someone's effortless experience.

After graduating from MDX in 2016, I have continued learning about physical product design, digital product design of services - heck, I even learnt about surviving new motherhood in a pandemic! Yet, through all the formal education, self learning and working hours one thing I have gained the most is empathy. Having the ability to connect and empathise with users as a designer (for physical or digital products) is what will make your career great (and most importantly) rewarding.

Reshaping today's design ideologies! When I was at MDX, I always had a focus on designing for those with disabilities, but looking back I wish I hadn't. Why? Because I should not have had to. We

are unfortunately in a world where we have products that unintentionally discriminate. I wish that instead of focusing on making products to help disabled people, I focused on redesigning products to be inclusive. Too many times I have heard 'normal people won't struggle' using a product. To be clear, we are all normal and we should drop this word as designers if we cannot use it correctly.

Unfortunately, until I entered UX, I didn't realise how much we as designers/creators take the 'easy' or 'pretty' route. We all are guilty (at some point) of dropping our jaw in amazement and applauding a beautiful user interface, commenting on how 'polished' a service is, from a mobile app or even a virtual

Check-Out ONS: <https://www.ons.gov.uk/>

Connect with Tara on LinkedIn: [linkedin.com/in/tarafear/](https://www.linkedin.com/in/tarafear/)

reality world. Truth be told, however polished something may be, often what we make is ugly. Fashionable trends become outdated and the true ugliness is when you test a product on real people (not selected users) and they struggle or fail to use your product.

We all have different abilities and ailments, from temporary issues (i.e. conjunctivitis, or a broken hand), or permanent disabilities such as motor coordination, visual impairment or hard of hearing, and some people have specific learning disorders like dyslexia. Yet, with or without ailments people still need (or want) to go online and carry out tasks, yet the digital world seems to be very neglectful of people's needs, with many barriers, blockers or even cognitive overload.

Thankfully, the digital world seems to be quietly shifting towards inclusiveness with improving accessibility. Since working in Government (ONS), I have learnt about the Digital Accessibility Centre (DAC). DAC provides audits of accessibility with ratings and provides reports suggesting changes to improve accessibility. DAC does not give results from assumptions, all their user testing team have a disability, thus the audits very much highlight real life problems and not perceived issues. If you look at DAC it's clear an amazing transformation is happening -

larger companies are taking serious interest and using DAC and becoming inclusive. For example, some banks (i.e. Lloyds and Halifax), retailers (Tesco and M&S), Universities (Cardiff and Oxford) the public sector and even some Non-Profit organisations (i.e. Money Advice Service) are developing and redesigning their services to provide an experience for all.

If large companies can start the movement of being accessible then it's only a matter of time for others to join, or better yet, it becomes law to pass a certain level of accessibility accreditation to create a digital product. DAC isn't the only way we can improve (but it is a great place to start), some companies such as AirBnB, have a huge focus on usability research, and take enormous steps to continually evolve and improve inclusivity. Yes, AirBnB is a huge company, but regardless of company size, anyone can research open and available guidelines (such as Web content accessibility guidelines (WCAG) version 2.1) and put such guidelines into practice.

Our future as designers.

A career in UX has challenged me at times (it's not a job you can leave at the office). When I browse online or even mobile Apps, I often find myself frustrated from lazy design or ignorance (be it intentional or not). There is

clearly a long way to go to improve most digital products, but as frustrating as it is, I am so thankful I am not blinded by beautiful interfaces anymore. Now, I see someone asking for help (or giving up trying) on their laptop, tablet or mobile - regardless of how spectacular or beautiful an interface is.

So, to whoever reads this, I hope I planted a seed of empathy in your creations, that leads to inclusive design. A digital reform is quietly happening, unnoticed by most and noticed by few (like the elephant in the room). I really hope we actively notice it, join and make it basic practice in what we do. Whatever you create, make it beautiful - sure... but more than anything, make it thoughtful, make it usable and make your work someone's effortless experience.

Follow Tara (Fear) Williams

on Twitter @tazzyfear

on Instagram @taz.fear

YAMAHA TSUNG

Creative Director & Crowdfunding Specialist at **Wise Box Alliance Ltd**



Wise Box Alliance Ltd is a start-up station in Hong Kong that specialises in crowdfunding. We provide any kind of service required for a crowdfunding campaign. Starting with proof of concept, working prototype production, cost estimation, pre-campaign marketing; then all the way up to campaign launching, manufacturing, distributor referral, sales channel establishment and much more. WBA has launched over 20 crowdfunding campaigns, and all projects were successfully funded.

My design career commenced before I graduated. My goal for my final year project was to have it at the pre-production stage with a plan to launch it on Kickstarter after New Designers.

After I graduated, I moved back to Hong Kong and began the search for marketing agencies and manufacturers. Along the journey into my first Kickstarter campaign, I met some of the best marketing agencies in Hong Kong and visited some amazing factories in China. In 2017, I launched my first crowdfunding campaign on Kickstarter, one of the biggest names in crowdfunding platforms. Two months after my campaign ended, one of the companies I met approached me with a start-up idea, which was a company that specialised in crowdfunding campaigns. I could see the need for this type of service, as I was one of their target customers a few months prior when I was hustling for my

campaign. I accepted their offer with almost no hesitation. After 8 months of preparation, **Wise Box Alliance Ltd (WBA)** was formed.

WBA currently has 5 brands. Each brand has its own sector, including board games, sports equipment, outdoor products, consumer electronics and household products. I am now the creative director of WBA. Besides designing products that are suitable for the crowdfunding market, I am also responsible for managing the production and other campaign-related tasks. Although it may seem that I am needed to take a role in each of the crowdfunding stages; holding a crowdfunding campaign is never a one-man

Check-Out Wise Box Alliance LTD: www.wiseboxa.com

Connect with **Yamaha** on LinkedIn: [linkedin.com/in/yamaha/](https://www.linkedin.com/in/yamaha/)

job. I need to cooperate with different people throughout the process. For example, working with engineers in factories to modify the design, advising the production crew when filming the advertising video, monitoring the campaign with the marketing team, and so on. Besides our own campaign, WBA also helps other clients to launch their projects. Most crowdfunding projects, depending on their nature, take around 6 -10 months from proof of concept to the end of the campaign. It then takes around 4-5 months for manufacturing and shipment.

I also give advice to the clients on both design and campaign management. After all, it takes much time and effort to bring a project to life; my experience and professionalism can help to launch a successful project. Our target now is to launch 10 -15 campaigns per year and we are working hard to get there.

Are crowdfunded projects

scams? If you have experience backing a project on Kickstarter, Indiegogo or any other crowdfunding platform, you may know that there is a risk of the project being delayed, or not delivered at all. From my perspective of being both a creator and backer, I have some tips for you to decide if you should back a project or not.

Kickstarter has a very strict policy when submitting a campaign. All projects require development documentation that clearly illustrates the evolution of the idea, such as

pictures of prototypes in different phases. However, sometimes these documents can be 'generated'. So, be cautious. Before backing the project, analyze if the technology is capable or not. Especially projects showing mostly beautiful renders and animations but not having any pre-production samples or even working prototypes. Go for projects which give out samples to reviewers or showing a non-edited product demo video. They may prove the ideas are achievable and production-ready.

However, seeing a convincing production sample is just half of the story. Delivery and logistics are the blind spots for many backers which are also critical to a project's success. Have a look at the creator's information on the campaign page and see if they have any previous projects. If so, you may first see if their previous projects were successful. Then, go to the comments and if there are any 'angry backers'. The comment section is for backers only. If backers have not received their reward after a long period of time, it will be easy to see these backers asking about this in the comments section.

Thirdly, consider the type of product. Projects such as bags and other non-electronic goods are usually easier to fulfil. These products should be less complicated to handle during the delivery process. However, if you are backing a new creator, and you are confident with the product,

you may ask more about their fulfilment plan. A lot of new creators underestimate the logistics and shipping process. Especially the weight of the product. In ordinary cases, goods are sent by sea from the factory to the destination country, then delivered by the local warehouses. However, crowdfunding backers are from all around the world and shipment has to be done by air. Oversized items will greatly increase the shipping costs, and electronics with Bluetooth and batteries are difficult to register for logistics. Wrong costings and logistics failure can be one of the main reasons which delays many successful campaigns or even results in it being a 'fail to fulfil'.

Many people, time, skills and professionalism come together for a successful crowdfunding campaign. Missing out one of them can have critical consequences to the bigger picture.

Our upcoming campaign!

One of our brands, *Sanoearth* will be launching a new Kickstarter campaign soon. *Sanoearth* focuses on a quality lifestyle product which is achieved with a clever solution. This campaign is related to the new emerging trend of shared spaces. Follow *Sanoearth* on Instagram, Facebook and Twitter to see the latest information and updates!

Follow Wise Box Alliance on Twitter @wiseboxa

AJAY PARMAR

3D Design Teacher at **Shenzhen International Foundation College**



Whilst studying I always had a huge passion for design and technology and selected this subject at both my GCSEs and A-Levels. My Dad is keen on DIY and renovating properties, which also got me familiar with processes. In my spare time I would often help him with various DIY type jobs and learnt many useful skills. I was often modifying and tinkering with bikes, DIY and technology in my spare time. I was lucky enough to have a little workshop in my bedroom and my Dad had a full set of tools in his garage. We would often repair things around the house.

Studying at Middlesex University gave me access to some of the best lecturers; as well as modern facilities like carbon fibre 3D printing and CNC machining. The university also has a good social network.

I was fortunate enough to have lots of support from the friendly 3D workshop staff. They helped to push my designs to the next level as I went through several iterations.

As our final year at MDX came to an end we started to prepare for our design show. We all collaborated on a unique design for our stand constructed from recycled materials. We exhibited at both the **Truman Brewery** and **New Designers** show. Our stands attracted a lot of attention; the amazing work which my classmates and I exhibited definitely stood out from the crowd. I was proud to see what we had learnt, achieved and perfected over our years at MDX and be able to compare it with what those from other universities were doing.

Since graduating from my BSc Product Design degree I was offered a position as a **Graduate Academic Assistant (GAA)** at MDX which gave me an excellent opportunity for further education and also time to advance my design skills. During this time MDX also sponsored my MSc by Research degree on Street Lighting.

After 2 years as a GAA at MDX I entered the real world and was offered a CAD Designer role for a bespoke glass company - **IQ Glass**. This was a complete change from working at MDX and I learnt a lot in a short amount of time. I was creating technical drawings for various complex windows systems, sliding doors, structural glass and balustrades etc. Before any design was approved, I would assess the required acoustics, u-values

Check-Out SIFC: <http://en.sifc.net.cn>

Connect with Ajay on LinkedIn: [linkedin.com/in/ajayparmardesign/](https://www.linkedin.com/in/ajayparmardesign/)



and wind loadings of the site. From these results I would recommend the appropriate product and glass specification. Many of these projects have been featured on the popular UK TV show 'Grand Designs'.

I was then offered a more senior position at **Fleetwood Architectural Aluminium** where I was the lead designer of a new build on Gillender Street, London which consists of 4 buildings over 24 floors. We were contracted to design, test and install over 600 side hung casement windows and 300 balcony sliding doors. This project involved considerable testing to ensure the glass and glazing systems met certain acoustic values to eliminate heavy traffic noise from a nearby dual carriageway and other regulatory requirements.

Later, I got an opportunity I had been dreaming about. A job in China. I was offered a position to teach 3D Design at the **Dongguan University of Technology** in Guangdong. Working abroad seemed an exciting challenge which I could not refuse.

Unfortunately, soon after I settled in China, the world changed due the pandemic. I used this to my advantage and finalised my MSc thesis which was approved.

I then moved to my current position in Songgang, Shenzhen, Guangdong, where I have just completed one year of teaching at **Shenzhen International Foundation College** as a 3D Design teacher to middle school and high school students. This was an unbelievable experience

and it was very rewarding to see youngsters be engaged and display enthusiasm for 3D modelling despite the strong language barrier. Living and working in China has been an amazing and rewarding experience, which I will never forget. I have learnt a lot academically and socially. I have also learnt some Mandarin!

I would like to say a big thank you to the countless number of friends, family, colleagues and teachers that have helped me and guided me along the adventurous and educational path that I have experienced. Thank you all!

Follow Ajay Parmar on
Twitter @ajay_parmar_ and
on Instagram @ajay_parmar

CHARLOTTE NORRIS

Creative Director of Branding Consultancy, **BOP Studio**



My name is Charlotte Norris and I graduated in 2016, after studying BA Product Design at Middlesex University London.

I was taught by Wyn, Andy, Helena, Kate, and I was guided by Ahmed. Never forgetting the workshop gang, Spike, Cecil and the rest!

What you are doing now?

BOP Studio, is a London based creative studio. Our mission is to create, develop and enhance brands to enable them to reach their full potential.

I started working whilst I was studying, on a super basic level (getting paid peanuts and just being grateful that anyone wanted to work with me) under the name: *Branding Options*. This gave me a chance to build a portfolio of works for real clients with real briefs! This grew and it was in my final year at university, which was more independent and working on our own Final Major Projects, where I realised how useful



collaborative projects were. So, *Branding Options* evolved into **BOP Studio**, which is a network of creatives from different specialities, such as graphic design, print, advertising and video etc.

Branding is basically a fancy way of telling stories. We understand the client, who they are, what they are doing, how they aim to achieve it etc... and try our best to fully grasp their vision. We then develop this into a visual language also known as identity.

Before learning about what branding was, I had been hired to do small freelance jobs for a poster, or a logo, or a flyer, but never had the opportunity or the know-how to create a complete brand from scratch. My first branding project was in my second year with Wyn.

Background:

I lived in hostels for 7 years and I was a bit of a tear away. I got

fired from jobs and lasted 3 months maximum until I would lose interest and get distracted. Over the years, partners left me, family disowned me and bosses sent me home. The one thing that never left me was my obsession with creative expression: either rapping, drawing, painting, graffiti or photography. I decided to prove the world wrong and pursue my education to become a designer. I sat in my smoke-filled hostel room that smelt like stale beer with a pot noodle next to me, shitty day time TV to drown out the sound of the drunks and the junkies on my floor, armed with a paint brush and a sketchbook. I started to collect any art materials I could get my hands on. Other girls on my wing had clothes and fake designer handbags. I had a bookcase of art and design books, Fabre Castel brush tip pens, pro markers and stacks of acrylic paint. In 2008 I started to create my first portfolio, which got me a place doing BTEC Art

Check-Out BOP Studio: www.BOPStudio.co.uk

Connect with Charlotte on LinkedIn: [linkedin.com/in/charlottevnormis/](https://www.linkedin.com/in/charlottevnormis/)



and Design at Barnet College, where I got a distinction.

My background was in Illustration and Art. When I was younger, I wanted to be a fashion designer, but soon realised I didn't fit in around girly girls, sexy fabrics and sewing machines, but give me a sketch book, measuring tape, a hand saw and a spray can and I was in business. As much as I loved to create imagery and beautiful pretty pictures, after a few years I got bored and saw my work as flat. I wanted them to grow into 3D objects, I wanted to see them move and have a purpose. I was excited by materials, machines and technologies. I started reading books and collecting swatches, random things that I would plan to make 'things' out of one day.

I had an interview with Wyn (Griffiths), Programme Leader at the time, at Trent Park (the old campus). I remember him saying that despite the fact that

my portfolio was a bit 'fine-arty', he would put me on the course and see how I go. Within a few months my attendance was falling, my concentration was fluctuating as was my performance. No one understood why I wasn't meeting deadlines for assessments when they had seen me do the work in class. At the time I was in an abusive relationship and then I found out I was pregnant. I was given the wise advice to defer and come back when I was ready, after I had sorted my life out and knew what I wanted to do and pursue.

I was heartbroken and homeless. It was a difficult time, full of changes... life changes, dress size changes and nappy changes. It was a struggle, I was in a mess of constant challenges, sleepless nights and tears (not just my baby's). My life was a mess and I was thrown in at the deep end of parenthood as a single mother. One year of breastfeeding and watching Peppa Pig at home

later, I decided to return to uni. Not long after, I found myself on the train, first thing in the morning, on my way to my brand-new campus, with a brand-new class, with my brand-new baby in hand. Sometimes it was cold, sometimes it would rain, but we never took a day off. My work ethic was strong and my commitment was clear.

The course content was exciting, and the tutors were engaging. I became confident in my work. Public speaking took me a bit longer (I still haven't mastered that yet). I started looking around with a new perspective and a whole new vision, and a lot of new questions, like, 'how can we make this better?' Without realising, I was becoming a designer.

Skip to my third and final year and the pressure was on. We had lots of research to do, social experiments and questionnaires. I used video to



log my findings around human interactions with installations and design. Along with that we had deadlines, presentations and of course the dreaded dissertation. We then had the big graduate shows to plan for.

Those shows can and will change your life! Ever since I was a small girl I had always dreamt of attending the Royal College of Art. I knew so many young ambitious creatives who had applied but got rejected. Coming from my background of bad choices, bad habits and low self-esteem I would never dare apply out of fear of rejection. I was stunned to have received an email inviting me to an interview (interviews were hard to come by) from a head of programme at RCA telling me he had seen my project at the graduate design show and he wanted me on his course. The overwhelming feeling of even receiving an email from them made me tearful. So, I went to the interview and it felt like a

scene of *My Fair Lady* as I walked through the studios; my eyes lit up in fascination and excitement. They offered me an unconditional offer on the spot and I celebrated as if I had just discovered the cure to cancer. It was then that I had a massive life changing decision on my hands: do I take this opportunity, stay broke for 2 more years, sacrifice quality time with my son due to hours spent in the studio on the other side of London? With no child care, no support and no money... my options were limited. OR do I take a leap of faith and start believing in myself and all of the teachings I had received from the wise men at university (Wyn, Andy, Ahmed and the crew)... start my own business and see what happens? I started my own business. And the rest is history.

Life experiences make a person grow. Expanding your mind. Pushing yourself. Perseverance and fierce

tenacity. University taught me how to be amongst people from all walks of life. It taught me that everyone has their own story, but when we all worked together, with different perspectives, our own insight and our own experiences, anything was possible.

How did your experiences on the course and with the staff and your colleagues affect your journey? My peers on the course gave me a new lease of life and allowed me to make friends whilst learning, which was great. I had felt quite isolated before returning to university and even though my lifestyle was different to my fellow students and I was female on a course that was dominated by young males, we all found our places in our network and, to this day, many of us still keep in touch. We have lots of fond memories to look back on.

At the end of the first year and the final submission, Wyn had a



chat with me at the Claddagh Ring and I remember getting nervous and being ready to get told off as I always felt like I was making mistakes with everything I did with my life. He congratulated me, raised his glass to my hard work and said he was glad I didn't drop out. It gave me reassurance and encouragement that I had never experienced before. The support of the tutors gave me the strength to keep going, through all the night feeds, the awkward moments and the meltdowns. My tutors, my classmates and my deadlines kept me going, along with my beautiful son who I was still breast feeding every few hours. I would have to sneak off between lectures to feed him at the nursery on campus. I was on first name terms with security who would come to the library in the evenings to tell me to go home, after they would catch me breast-feeding my son under the table. It was not easy, but everyone at university offered

me their support in their own ways... even when it didn't feel like support at the time. Like when Andy would see me chain smoking and downing espressos in the smoking area, he would offer me his wise words of wisdom, (even when I didn't ask for them) and motivate me to be the best version of myself. They saw the day-to-day struggles and gave me advice, support and sometimes a telling off if I needed it. It was much appreciated.

The other departments at the university also come in handy when it comes to utilising resources. During my time studying Product Design I reached out to a vast array of students, tutors and technicians from departments such as: Photography, Television and Film, Reprographics, Print, Psychology, Dance, English and more. (See picture above of my Final Major Project based around Virtual Reality and House Music, this photograph

was a few of the crew backstage in the Television Department).

Any tips for those studying at the moment: Due to the way the world has changed over the last couple of years, my studying experience would be quite different to yours. However, I am living proof that no matter how big the challenge in front of you may seem at the time, there is light at the end of the tunnel; so, KEEP GOING!

Enjoy your studies because it will be stressful, but it will be worth it. And one day the late nights working and early morning rises will seem like a distant memory that you will look back on with a smile and a warm fuzzy feeling.

My deadline advice is, start early. As soon as you receive the brief, don't delay. Act fast whilst the information is fresh in your head post-lectures. In your final year, pick a topic



that you are genuinely passionate about. Remember the quote by Marc Anthony, "Do something you love and you'll never work a day in your life". It is work, but it will make it easier to keep going if you are totally obsessed with what you are doing.

Don't panic too much. Take deep breaths and learn to meditate (apparently this helps), or do what I did and go to the gym when you're stressed.

Make friends with people everywhere you can! You never know how handy students from across the board will be when you need to do research and need a diverse perspective, need a special piece of equipment or a poster printed. Have lots of

friends, in lots of places.

Ask for help if you need it. The tutors may come across serious and intimidating at times, but they are super down to earth and make their utmost efforts to ensure the environment is cool, fun and inspiring. Talk to them.

The workshop guys are extremely knowledgeable and will become your family if you let them. Show them respect and treat them well. In your final year they will step in and help build your exhibition and the words 'thank you' won't be enough. Thank them well and often.

Last but not least, make sure you're eating well and not drowning in coffee and wine. You can end up severely dehydrated, with insomnia

and with more issues than Vogue. Don't do it. Choose a salad and a bottle of water. It will increase your productivity and make you an all-round better person.

Good luck to you all.

Follow **Charlotte** on Twitter @C_Norris_Design and on Instagram @charchardesigns

RIKEFE (MIKE) OHWOSI

Freelance Industrial Designer



Firstly I would like to thank Wyn and Ahmed for asking me to write a few words about my time and experience at Middlesex Uniniversity Product Design.

Where do I start?

I come from a, very much, non-traditional design background. In fact, I spent the better part of a decade playing professional rugby for a living.

So how did I become a designer?

I grew up in South-East London, right next to Goldsmith University, which has produced some world-class artists and designers. My first introduction to the arts was through skateboarding. I made a lifelong friendship with a then skater and student of Goldsmith University, Karl Broome, who would often share design books ranging from graphic to furniture design.

For anyone who might be interested in Product Design I can't speak highly enough on 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.

I was hooked. For many years during school I would draw all different types of products and art, especially cars. I eventually found that I had a passion for rugby and this turned into a career for me around the age of 17. I subconsciously suppressed my love for design to focus on a career in sport. But throughout my career in rugby, I always had something in the back of my mind telling me to pursue a career change and move toward becoming a Product Designer.



Eventually, I gave in to the voices in my head and set out on a new journey to become a designer. I first studied a certificate in Communication Design at UAL and was not fulfilled as I was mainly working in the digital and print world and I really wanted to make things.

Although I had retired from full-time professional rugby I still played part-time to fund my studies, I was advised by my team manager to take a look at Middlesex university course offerings as they had a partnership with the club.

I managed to get in touch with Wyn and we had a meeting right in front of Goldsmiths University, where I first found my passion for design. It was almost as my passion had come full circle. I was accepted on the course and finished with First Class honours degree in 2018, which is one of my greatest

achievements to date.

After I finished my degree, I entered the industry working at **Mahabis** as a product designer. Mahabis was a footwear brand that made the world's first detachable slipper, we won a few design awards and I had an amazing time working in a great design team.

I decided that after a year and a half at Mahabis, I wanted to work on a broader range of products so I resigned and began freelancing.

I've learnt over time that to work on truly amazing projects you need an element of luck and being in the right place at the right time, enter Versace.

I was doing some freelance work from time to time with an amazing consultancy called **Concept Kicks**, owned by one of my best friends, and a footwear industry juggernaut,

Dan Bailey. I was a few years out of University and working on projects ranging from furniture to branding and I got a call from Dan about a big job, Versace.

Dan had a friend that he worked with that needed a 3D Designer to help him with a sole design for a top-secret project. Turns out that the project would be the first-ever sneaker Versace would make for a flagship launch, talk about luck.

Over the space of a couple of months, I worked tirelessly to create the desired geometry that the designer 'Salehe Bembery' required. It took a lot of back and forth and almost melting my macbook pro whilst using Keyshot and Rhino simultaneously. But we got to the end of the project and the shoe, named '**Chain Reaction**' went on to be one of Versace's best selling sneakers and an iconic piece



of footwear history.

In 2018, my partner and I decided to make the move back to her native homeland of Sydney, Australia. Since arriving in Australia we have spent some time enjoying and raising our children in leafy western Sydney suburbia. I am enjoying the slower pace of life that Sydney has to offer, it allows me to have more time to work on my freelance business whilst nurturing and developing new business relationships.

In all, I must say that if Wyn had not offered me the chance to study at MDX I am not sure what I would be doing today, 5 years on.

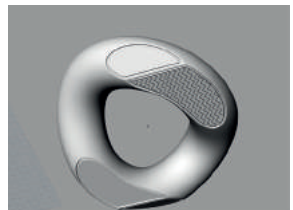
For anyone who might be interested in Product Design I can't speak highly enough on the MDXPD course. From day one it will immerse aspiring designers in an engaging studio environment to design,

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.

Thank you so much MDXPD!

Connect with **Rikefe** on LinkedIn
[linkedin.com/in/rikefehwsos/](https://www.linkedin.com/in/rikefehwsos/)



TOBIAS SCHREIER

Founder of Start-Up **mevolute**



The Product Design course 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. I had the chance to work as an Industrial Designer for various agencies in London and Germany, and eventually progressed into training and coaching on topics such as Design Thinking, Agile and Organisational Development.

This is also where I spend most of my time now, building my own tech startup focused on learning. What I've been trying to do from the ground is also 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. This helps me now to not give up if an idea we've had at mevolute does not work, because we are just missing our user's need or do not know the problem well enough. Doing this at MDX sometimes felt painful, but was worth it. At mevolute, trying to build the wrong product for a long time potentially means wasting money and putting the startup's future at risk.

What I've been trying to do from the ground is also 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.

Check-Out mevolute: <https://mevolute.com/>
Connect with Tobias: [linkedin.com/in/tobsch](https://www.linkedin.com/in/tobsch)



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. In summary, this is exactly the way I want my startup to be and grow into, being experimental, collaborative and diverse. All the different perspectives, an international mindset and openness will help us to be innovative and build learning experiences for people.

Living in Berlin now, there is another thing I miss dearly from my life and the people at MDX: The Claddagh Ring. ;)

mevolute is a combination of "me" and "evolute". Our natural learning approach is ingrained into our identity.

At mevolute we are convinced that all human beings are born with the ability to learn and grow

throughout their entire life. We observe that people do not make use of their natural ability to learn and that they experience a drop in learning at an early stage in life.

Through our modern-day technology, we guide individuals as well as organisations to become these natural learners (again). So learning is seen as a life-sustaining process like breathing.

Why do we highlight a reason to exist?

Not only due to inspiration from Simon Sinek do we know about the importance of a clear purpose. It is for good reason that since the beginning of mankind, philosophers have been asking the "Why?" question. By transparently communicating a reason to exist, we define a common ground as well as shared understandings and values.

SANJALI JAIN

Digital Designer at **Photobox**



I'm **Sanjali** and I graduated as a Product Designer from MDX in 2016. Today I am a Digital Designer at **Photobox**. What I have learned from the course at MDX is that design can be as complex or as easy as you want it to be. You can describe it in 1000 words or you can describe it in an icon. I must say, I wasn't always the 'confident designer' - sometimes I didn't even know if I was doing the right thing but I remember Wyn saying in our first class: "You are already a designer, if you have chosen to be here."

I still have a lot to learn because corporate design is so different - one cannot just simply create exceptional new concepts and expect they all are going to be approved. Sometimes none of them are. However, the challenge is to still create the exceptional with all the restrictions and to the company's standards.

Nevertheless, don't be afraid to justify your design or your thoughts. The right company will appreciate your individuality; and believe it or not - this is exactly how I landed my job at Photobox.

Also, keep evolving, learning new skills and make sure to give full attention to Adobe Creative Suite and Solidworks classes.

DANIEL MARTINEZ DA CRUZ

Production Coordinator at **Tearfund** In-House Design Consultancy



My name is **Daniel Martinez da Cruz** and I work as the Production Coordinator at an international charity called **Tearfund**. I have also been working with young people on a voluntary basis for over 11 years and have taken over the running/management of the youth group for the past 3 years. I am 27 years old, married to beautiful Aelysh and have a daughter, Ivy, who is just over 1 years old.

I initially applied for a Production Assistant/Studio Manager role, as my dad worked for Tearfund for a long time, also part of the reason why I lived in Brazil for 2 years when I was younger. Tearfund deals in international aid and relief, but tries to focus more on education and empowerment so that people can be helped out of poverty. Tearfund wants people to be skilled and to have a functioning infrastructure for them to carry on improving and thriving in life. We like it when people don't say 'thank you', as this means they have come out empowered, full of self-belief and with new skills and methodologies for living and earning long term. This is why I chose to apply for Tearfund.

I work in the in-house design consultancy called **Brand and Communications**, consisting of 6 Designers, 6 Copywriters, 7 people in the Digital Team and 4 of us in Creative Services. I started mainly with studio management, which mainly included scoping out projects with other team leaders and managing the 'Creatives'. Knowledge of the creative process really helped me in this role so I could get involved in conversations around projects and accurately book in time for the team.

My role was later split into two positions. I applied for the Production Coordinator role so that I could concentrate 100% on that side of the job, which I had previously been working on for around 40% of my time. Production at Tearfund can often be very busy as it requires managing the majority of print and mailing jobs globally for the organisation, including overseeing the printed elements of projects from leaflets, posters and some more complex packs to large crowd banners, t-shirts and branded items for events. This also involves sourcing goods from the Far-East, constantly learning about new printing and manufacturing techniques that solves a 'we can't do that' problem, keeping up to date in the paper-printing world as paper mills and industrial printers are opening/closing all the time and making sure everything is delivered to the right place at the right time with the correct splits per address.

Getting to grips with the different types of printing (Litho, Digital, HP

Indigo, Webpress) and all that comes with it; like bindings, paper types, finishing, collation orders etc. is one thing, but mailings was a whole new world to me. Tearfund doesn't produce as many physical items anymore as we try our best to reduce our carbon footprint (as the environment is one of the biggest contributors for people living in poverty); so we mainly produce things digitally or printed goods. As we have a major focus on education we often have to put together mailings to be sent globally to partners, supporters and people working in the field. Posting things in my opinion has a nice constraint to projects, as you're constantly trying to balance budget, dimensions and weight whilst trying to create a mail-pack that sometimes needs to be eye-catching depending on the goals of that mail-pack.

So, **MDX Product Design**... The biggest things I took away from uni was work ethic, collaboration and professionalism. The reality is that collaboration is key. Organisations don't always look for, or hire people that can do everything, so collaboration is very important. You need to work hard, fast and get things done in a professional way, as this is the real world and 'leaving that because it is not that important' could mean (for Tearfund) the difference between millions of pounds of donations or being fined for not following GDPR and Environmental procedures.

I still hear this in my dreams, from Wyn (Griffiths), 'Make sure the project is at a finished stage by

Check-Out tearfund: www.tearfund.org

Connect with **Daniel** on LinkedIn: [linkedin.com/in/dcruzdesign/](https://www.linkedin.com/in/dcruzdesign/)

next week, so we can then refine it further'. It is hard to be told that you have 6 weeks for a project and not fall into the trap of only finishing 50% of the concept/ job by week 3. However, if you can finish 100% of the job by then, you have three weeks of refinement, to explore and make improvements and even work on your portfolio and presentation boards for hand-in etc. Trust me when I say this, as I was not a great finisher of things and liked to explore techniques, materials and generally experiment for hours; and found putting together presentations boards difficult due to poor-time management, at times.

Don't be afraid to look at other people's work (in person or online) as an example. I never had a clue how to make a presentation board, how to begin laying something out etc. It was only in the last year I think I started to get the hang of it a bit more; but it was by looking at other people's portfolios and taking elements like the way they laid out their sketches, how they split their page up, the use of colour and transparency etc. I think I often thought that I had to come up with everything entirely myself, when actually things like this are not my strongest skill but play a major part in first impressions when presenting a concept for example. Don't get me wrong though, there is a line between 5% innovation and copying something; claiming the patterns/materials/form/finish are yours when they have been pulled from another obscure

product. Ahmed and Wyn do a great job of checking these things, so don't be tempted. On the other hand we can use other peoples' work for reference and don't be afraid to do that, but it will often require you to analyse the reasoning behind it, rather than a straight copy. If you are ever unsure, just ask. I didn't ask enough at times in case I came across as naive or incompetent. Wyn and the team wouldn't think that of you, and even if they did, blow them away with your improvement, progress and products - and prove them wrong.

It is a massive learning curve every year, but trust that the pressure being put on you will help you expand your capabilities. The facilities are there to be used so use them as much as possible. The team is there to help, including everyone in the workshop and in different departments of the university. Also, get to know the staff in the material shop/store (near the workshop). They may not be the people in the workshop showing you how to weld or use the machinery, but they have knowledge of the materials you are needing, how you may be able to achieve something with a different material and occasionally did favours for me when they didn't need to, I think because they cared and were shown respect.

Guest lectures was something I didn't look forward to, most of the time, and just wanted to get home on a Thursday evening. However, these were key to

where I am today. I had this constant niggle at the back of my head of not wanting to work in a design studio setting as I felt I would need to travel daily to the far reaches of East London (from Heathrow where I live), signing my social life and general life away and perhaps even never come home again due to working all day and night. The Guest Lecturers however, were extremely insightful into the possibilities of what I could do with my skills and the diverse routes within industry.

Tearfund for me works well, I still use a lot of creativity in problem solving and more generally around material considerations; but the role also has a major corporate association with the emails, meetings, sitting in an office etc. We don't have slides, ping-pong tables and free smoothies, but it works for me. I work 9-5, can work flexibly from home if needed (especially since COVID) and my bosses empower me and encourage me to learn more, explore and upskill. It also means I have the structure in place to carry on my youth work, start a family, and importantly, see my family!

Don't get me wrong, not all studios are like this at all; I have heard some places are highly demanding, but are amazing places to learn and can work for you, so don't write them off. I don't have that experience but definitely encourage you to ask around from people that have worked in those settings.

Follow Daniel on Instagram
@[daniel_martinez_da_cruz](https://www.instagram.com/daniel_martinez_da_cruz)

SAM GRAHAM

Account Manager and Creative Lead at **Stone2Stone**



My product design skills have been of great help for me and my clients, and I have realised that thinking like a creative and understanding the correct process applies to all creative outlooks. Another useful tip; take the time during the course to understand and discuss what process works for you, it's almost never the same for everyone. You are there to discover what you can create for the world individually, so trust in your own ideas and journey.

My name is **Sam Graham** and I am currently an Account Manager and Creative Lead for a B2B Technology Marketing Agency called **Stone2Stone**.

I have always had a creative outlook in life and throughout school and college I knew that I wanted to have a career that allowed me to express myself. My favourite lesson at school was Art; I used to spend hours upon hours with my head in a creative project. Coming out of secondary school, I was unsure of what I wanted to do for a living. Should I go straight into an internship and work my way up to a stable and routine office job? Thankfully for me I decided instead to attend **The University for the Creative Arts**, where I took a foundation course. The objective of this course was to experience 5

different subjects all based around Art and Design in the space of 2 weeks. You would then choose one to study for the rest of the year. I discovered just how much I love Product Design, which further pushed me to attend the Product Design course at Middlesex University.

Coming out of University, I had the opportunity to show my final major project to the world by taking it to market; The **Genus**, an urn that allows people to keep their loved ones' memories alive by growing them into a bonsai tree. This was spotted at New Designers by the owner of a company called **JC Atkinson**, who are the biggest coffin and urn manufacturers in the UK. Working alongside the production team at JC Atkinson overseeing prototyping, manufacturing and marketing,

Check-Out Stone2Stone: www.stone2stone.co.uk

Connect with Sam: [linkedin.com/in/sam-graham-3b760a104/](https://www.linkedin.com/in/sam-graham-3b760a104/)



intention of doing whilst at university, but nevertheless it is something I now love. We work alongside manufacturers, vendors and distributors, creating marketing campaigns to propel lead generation. Our projects could range from Direct Mail, social media campaigns or events. We work with companies such as CDW, Check Point and e92; all huge companies in this sector. It may surprise you just how often my product design skills come in handy in my job; it definitely surprised me. Working here taught me that you can never truly predict how your past experiences will affect your future career and life.

we managed to 'bring my product to life' (pardon the pun). This was truly an amazing experience, one that I couldn't have achieved without the encouragement of my University tutors. The *Genus* now sells in just over 200 funeral parlours across the UK and has been nominated for numerous awards.

My biggest tip for those currently on the course would be to take in everything you can, attend any workshops you find and really enjoy the journey that your tutors take you on. The 3 years I spent at Middlesex were by far some of my happiest memories. I know it sounds cliché, but I truly did make friends for life, and learned skills that still apply to me today even though I am not based in the product design world any more.

Although it may be a goal to work in a product design setting once you graduate, don't panic if you see yourself swaying from it. My product design skills have been of great help for me and my clients, and I have realised that thinking like a creative and understanding the correct process applies to all creative outlooks. Another useful tip; take the time during the course to understand and discuss what process works for you, it's almost never the same for everyone. You are there to discover what you can create for the world individually, so trust in your own ideas and journey.

Currently I have found my way into marketing, working for a technology marketing agency, **Stone2Stone**. It was something that I had no

Last but not least, have fun! If you don't enjoy what you're doing, you're not going to continue to craft your skills and create wonderful new inventions. Don't settle for something that you know isn't what you truly want in life. If I had done that, I could be working as an accountant right now – suffice to say that is furthest from the dream I can get. So good luck with all of your degrees, be unique, have fun and I hope your future careers use all of the incredible talent, I have no doubt, you are all bursting with!

Follow Sam Graham on
Twitter @SamJohnGraham94
and IG @samjohngraham



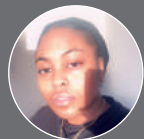
ULTRA-GAIT SPEED

A Home-Based Gait Speed Measurement Device with an Accompanying App Presenting Results

Frailty is a **geriatric condition**. One of the main diagnosis methods is a **Gait Speed Test**; which measures how long it takes a patient to walk a distance of 4 meters.

ULTRA-GAIT SPEED is a home-based **gait speed measurement** device. The device is accompanied by an **app**; the app uses graphics to present the user with their **results**.

The device allows patients to gain an **understanding** of their health and allows frail and pre-frail patients to **monitor** their health, **share** data with medical professionals and make **preventative interventions** to delay the onset of geriatric frailty.



DEMI BANJO
PRODUCT DESIGN ENGINEERING BEng

demibanjo@hotmail.co.uk

[@demi_adebanjo](https://www.instagram.com/demi_adebanjo)

[linkedin.com/in/demi-banjo](https://www.linkedin.com/in/demi-banjo)



VALERIAN PCA PUMP

A Device That Gives Patients The Power to Control Their Own Pain Through The Simple Press of A Button

"1 out of 378 post-surgical patients are harmed or die from errors related to PCA pumps." **Physician-Patient Alliance for Health & Safety** (2003).

VALERIAN is a device that gives patients the power to **control their own pain** through the simple press of a button. The **computerised Patient-Controlled Analgesia pump** contains a syringe of pain medication prescribed by a doctor which is connected directly to a patient's IV line.

Its user interface and quick, simple programming steps significantly **reduce the risks of human errors**, which result in the **overdose** and **underdose** of patients.



VANESSA MUGARI
PRODUCT DESIGN ENGINEERING BEng

07804665676
vanessamugari@yahoo.co.uk

@@v.m_productdesigns
linkedin.com/in/vanessa-mugari



LAPAROSCOPIC TOOL

Laparoscopic Gallstone Removal System: The Solution to Gallstone Perforation

Gallbladder perforation occurs in 36.1% of patients who undergo **laparoscopic elective cholecystectomy**.

Retrieving the lost **gallstones** is a stressful situation for the **surgeons**, significantly **increasing the operation time**.

The **Laparoscopic Gallstone Removal System** gives the doctor the ability to **quickly** gather every stone using one device and **avoid** any potential **blockages**.

The device breaks the big stones into smaller ones, removes them from the cavity using **suction** and **stores** them in a filter, protecting the operation room central suction device.



LAZAROS EFTHYMIADIS
PRODUCT DESIGN ENGINEERING BEng

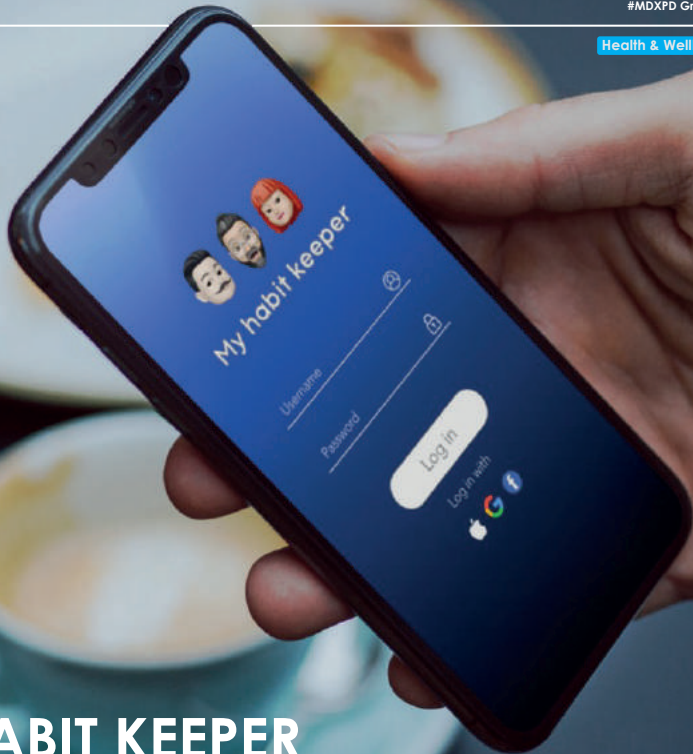
+44 (0)7508065139

l.efthymiadis1@gmail.com

@Lazaros1995

@le__designs

linkedin.com/in/lazaros-efthymiadis



MY HABIT KEEPER

Empowering You to Live A Healthier Lifestyle

Obesity is a growing problem which affects people of all ages and genders. It is used to describe a person who is **overweight**, with a **lot of body fat** (NHS, 2020). Our **diets** are the main cause for this, and can be really difficult to fix.

MY HABIT KEEPER is an app designed to help you create and **maintain healthier habits**, as well as reduce bad habits, with a goal of making **long term positive change** in your life.

Utilising the **science** behind **habit forming** and **accountability**, **MY HABIT KEEPER** helps you keep **track** of your **daily dietary habits** by using digital **avatars** to encourage and motivate you. It is a great way to help push those who are keen on starting a **healthier lifestyle** but are struggling to get started.

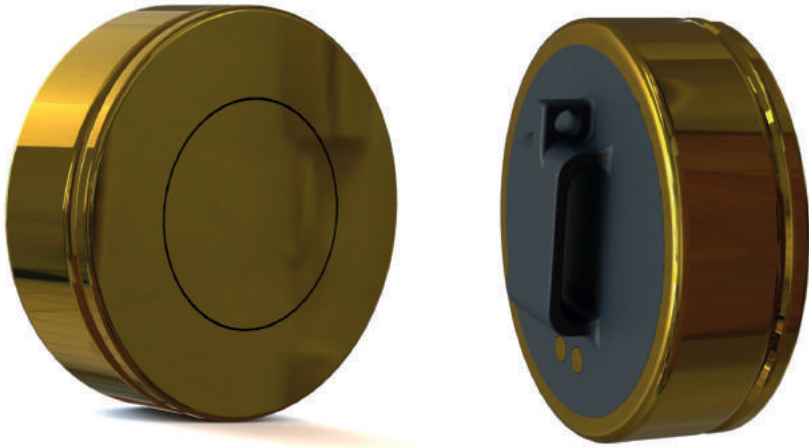
Three **personalised** habit-keepers will accompany you on your journey of starting a healthier lifestyle. They are there to **encourage** and **motivate** you at all times and get you through each day; progress towards your end goal. Using **MY HABIT KEEPER** will get you on the right track to becoming the healthiest version of yourself.



SAMUEL CABRERA
PRODUCT DESIGN ENGINEERING BEng

07400062499
samuel.reggifo@hotmail.co.uk

@sam_designsstuff



DIVERT

Don't Let Pain Control Your Life

DIVERT is a new way for **chronic pain sufferers** to **relieve their pain** through **distraction**, in everyday settings, without drawing attention to the sufferer or distracting others around them.

DIVERT uses **haptic feedback** to create different 'call and response games' between the user and the product to reduce pain. It could be used during a meeting, in educational settings, social gatherings, etc. The user experiences **pain symptoms**, rather than leaving the room or distracting others, they push down on the device and initiate the **subtle distraction** 'games'.

DIVERT is a 'core and shell' system enabling the core to be worn as a bracelet, necklace, or keychain.



ELIZABETH WHITTALL
PRODUCT DESIGN BA

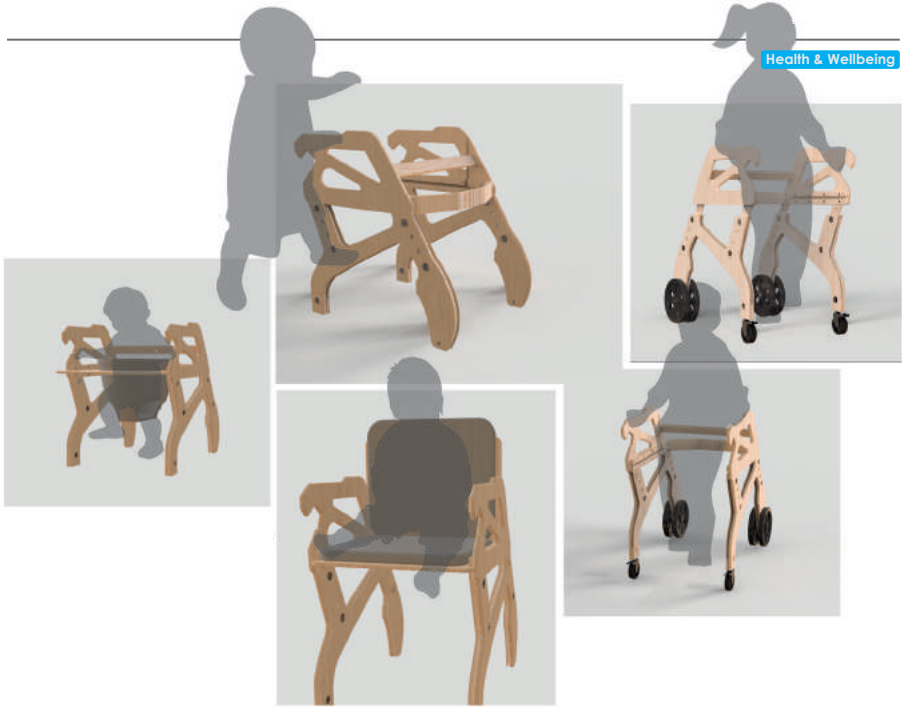
07513822695

Lizziedraw@outlook.com

@lizzie_draw

@lizzie_draw

linkedin.com/in/lizziedraw



GoBaby!

Grow with Skill, Not with Time!

GoBaby! is a **multi-functional** piece of furniture for **children with downs syndrome** and other additional needs.

GoBaby! transforms into 3 products: a **walking frame**, a baby **exersaucer** and a **chair**, giving the child the opportunity to **improve** their **gross-motor skills** in the comfort of their own home and at their own pace.

GoBaby! will accompany your child as they grow, offering **independence**, and supporting them in reaching **key developmental milestones** from 6 months to 5 years of age.



JERUSA DA SILVA
PRODUCT DESIGN BA

07721339029

Jerusadasilva12@outlook.com

@@freisilxdsgn

linkedin.com/in/jerusa-da-silva

#mdxpd 60 seconds

Staff on the Middlesex University Product Design/Engineering Programmes are active professional practitioners/researchers. Here is an interview with **Colin Moss**, Technical Tutor at **Middlesex University** and an 'expert maker', with over 35 years of experience in 'making', crafts and material exploration



Keep up to date, but know about the past; and particularly, practice and don't lose the skills of model making and drawing (with a pencil).

You are?

Colin Moss. Technical Tutor for the Faculty of Science & Technology.

What is your background? Why Design?

I have been involved with 'making things' as a career for over 35 years.

I had always liked art and design but felt I wasn't very creative two dimensionally. Making, restoring or assembling objects

appealed to me more, so studying 3D Design at Hornsey College of Art was the way to go, and landing a job at Middlesex later as a technician seemed ideal, allowing me to continue my passion for making stuff.

I've found in creating something there can be an element of discovery which is often inspiring, as can objects made by others; and the physical process itself, if it goes well, enjoyable.

What's a standard day like for you as a Technician and Technical Tutor?

I guess there isn't really a standard day. Supporting such a wide range of subject programs means it can be varied.

I can be working with groups of students in tutorials or demonstrating techniques one day, or with individuals on their projects another, and working on the many live external projects adds other interesting challenges. Not forgetting the necessary ongoing maintenance, and often repair, of machines and equipment.

What are your favourite tools/processes?

Manually, I would say the lathe. It's very rewarding to shape and respond to a material instantly.

Digitally, the water jet cutter. The amazing ability to cut metal shapes accurately and quickly that would be virtually impossible any other way.

What are you great at?

I would like to think I was good at finishing objects to fine and appropriate detail. It's certainly where I get the most satisfaction.

What do you wish you were great at?

I don't really have a desire to be 'great' at any one thing. I'd rather be 'competent' in a wide range of skills. More interesting and more useful.

What is a Technician/Engineer in the 21st century?

I think being aware and able to embrace new, innovative and past technologies, processes and materials, and knowing how to apply what's appropriate to a particular problem or design solution.

What's your advice for future Product Design/Engineering students?

Keep up to date, but know about the past; and particularly practice and don't lose the skills of model making and drawing (with a pencil).

What are the big looming challenges for Technicians/Engineers...for society?

This, I guess, has to be designing and making objects with an awareness of sustainability. Creating objects which have a longer lifespan and are less disposable. The real challenge is probably changing people's attitude.

What are your top 3 artefacts/objects/inventions?

- + The Steam Engine
- + Computer
- + Internet

What are some of your most memorable and favourite work over your career?

The majority of the objects I have made or worked on over the years have been mostly for other people as part of my job as a technician; many of these are memorable and I am proud of my contribution.

But I guess the items that are my favourites are the ones that gained public recognition, or were realised from speculative or commissioned ideas of my own. These include:

- + A range of ceramics based on existing 'found' objects or imagery, ie 'Superman', Castrol Oil Can, Aerosol Spray Containers.

- + 3D representations of film company trademark logos. 20th Century Fox, RKO Radio, Paramount Pictures, exhibited at the National Film Theater.

- + An 'Artists' Pencil Brush' and Sharpener, requested for an exhibition at the V&A.

- + A 'Swiss Army Artists Tool'. Submitted to the Royal Academy Summer Exhibition.

- + More recently, my contribution to a project designed by Senior Lecturer, Wyn Griffiths: 'Globe of Dislocation' - celebrating the quest for Longitude, sited at the Royal Observatory Greenwich.

What are the first 5 names on your fantasy exhibition Private View list?

- + Denys Short - My Foundation Tutor at Hornsey who introduced me to 3D Design
- + Mike Head - Gave me my first job printing tiles for a M&S store
- + My Father - A mechanical/chemical engineer
- + Any of my current work colleagues who were interested...

REDLOOP

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



Designing cool stuff,
with great people,
in a nice place.

How we work:
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.

2020-21 has been an interesting year for redLoop as we continue to work remotely due to the covid restrictions in place on the university campus. Our virtual studio (on zoom) is open all day, and has functioned much like our physical space to bring together the staff and our fabulous team of interns. We work alongside each other from our remote locations in London, Portugal and Madrid, making creative use of zoom, WhatsApp and OneDrive. Our experiences with teaching online, along with our camera set ups, remote access to software and our digital toolkit have meant that our project work has continued. Our anticipated return to campus in 2021-22 will bring about more exciting changes as we relocate from our Colindale studio to a more central home on campus. More to follow on this soon...

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

Our work this year has continued to focus largely with Biomedical research groups at both Middlesex University, UCL and Cambridge University. As a team of designers we are well placed to provide the insights into human usage and manufacturing that can underpin the work of Biomedical scientists and engineers, and to help to get them work out of the lab and into clinicians hands, as well as providing the communication assets to contribute to a persuasive and clear grant application.

As research calls in response to the covid-19 outbreak continued, we worked with a team led by Middlesex University Professor Richard Bayford, together with academic and industry collaborators, on the development of a number of detection tests for covid-19, focusing on individual use, air travel and data visualization and analytics.

We are 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 in the patent process.

This has been a challenging project, with tight timescales set in a critical care environment with significant compliance issues, but has been unparalleled experience for our intern team.

Other projects have included:

Tibial Nerve Stimulator:

Working with a team of Biomedical Engineers to develop a manufacturable and usable product form, supporting not only the physical embodiment, but the interaction and communication around product use. The project is currently passing a number of 3D printed functional prototypes over to clinicians for the first round of user testing.

Pneumacrit: This £1.8M EPSRC 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 wider manufacturing and product development, but are also able (along with the intern team) offer guidance and insights into in-context use.

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 and a patent is being filed.

We act as a 'transition space' between the University and the outside world, and as such we are able to provide students with amazing opportunities to work on real design projects

with commercial clients. During the 2020-21 academic year the redLoop team have worked alongside 3 placement students from Middlesex University, each of whom have played a key role in bringing our projects to fruition, overseen by the redLoop team.

redLoop has been an incredibly interesting and insightful experience. One of the best decisions I have ever made! I was given the opportunity to join in client meetings and work on real life projects; including developing medical equipment. This placement has given me the chance to develop my skills in researching and presenting work to clients while also improving my teamworking abilities, delegation, and time management skills!

Zoe Needham
 BA Product Design, Y3 (Placement)

The 2020-21 placement student team:

Miguel Sanchez
 Tiago Oliveira
 Zoe Needham

If you're interested in a placement with redLoop please drop us an email.
a.bardill@mdx.ac.uk
k.herd@mdx.ac.uk

Follow redLoop,
 Andy Bardill &
 Kate Herd on Twitter
[@redloopdesign](https://twitter.com/redloopdesign)
[@andybardill](https://twitter.com/andybardill)
[@kateherdkruger](https://twitter.com/kateherdkruger)

ERASMUS: End of An Era

Students on the MDXPD Programme have previously taken up the **ERASMUS Exchange** at partner universities. As ERASMUS ends after Brexit, we catch up with **Diego Martin Vilches** and **Tautvydas Petruškevičius**, who share their ERASMUS experiences at **Metropolia University of Applied Sciences**, Helsinki, Finland



Make the most of your time at Middlesex and take good advantage of the free facilities and the library, those are definitely the first things I missed after leaving university.

My name is **Diego Martin Vilches**. I graduated from Middlesex in 2019 and previously spent two years in Helsinki (Finland) as part of the ERASMUS exchange programme.

Currently I'm moving back to Spain after three years in London, in part to spend more time with my family after the pandemic, but also to have a change of scenery and experience some new challenges.

Although I had heard about the ERASMUS programme before starting university, I was initially undecided about taking part. I decided to apply and go to Finland after hearing about the country from a Finnish friend I met in the first year, and it was an amazing experience!

I originally went for a year, but I liked it so much I decided to take a gap-year so I could stay in Finland for an additional year before returning into the final year of the undergraduate programme at MDX.

In terms of academic studies, Finland was a very positive experience; the Finnish education system is rightfully praised. Even though the classes were in Finnish, I never felt disadvantaged and lecturers were very supportive at all times. But that wasn't the only reason why I went to and stayed in Finland; the student life is infinitely better than in London, Finns are shy but extremely honest and friendly, Helsinki's transport is efficient and nature is never too far, even from the city centre.

Connect with Diego on **LinkedIn**
[linkedin.com/in/dmvilches/](https://www.linkedin.com/in/dmvilches/)



The only downside I can find from going abroad during second year was having to adapt quickly and get up to date when returning to the final year. By no means is that a dealbreaker, as it only took a few weeks to get up to speed, but on the bright side I had also learnt other skills, which came in handy in the studies.

Some of the additional experiences and taught practice in Finland included glass-blowing in a traditional glass-blowing factory in Nuutajärvi, alongside a project working directly with directors from LINAK, Finland.

In general, the ERASMUS exchange, as well as the two years I spend at Middlesex, was a very positive experience. Having studied in different environments with different people has given me a very broad view of the world and taught me how to work with all kinds of people.

Lecturers on the MDXPD programme have always been very supportive and

accommodating to all those of us that went on exchange, which made it feel quite smooth going back into our final year, as it never felt like we were left on our own to transition back on to the course.

One of the things both courses, in London and Helsinki, had in common is how hands-on they are. It would definitely be the highlight of the studies; how easy it was to get to make stuff and how lecturers were constantly encouraging and pushing us to go further.

In conclusion, I'd say to anyone studying at MDXPD right now to have an open mind about their studies and to be open to try any exciting opportunity that comes up.

I'd say it is important as well to keep working hard through the course and don't lose focus of why you are here. Make the most of your time at Middlesex and take good advantage of the free facilities and the library, those are definitely the first things I missed after leaving university.



Hi, my name is **Tautvydas Petruškevičius**, currently at the end of my placement year before returning to Middlesex London for the Final Year in BA Product Design. I did a year-long Erasmus exchange in Helsinki at the Metropolia University of Applied Sciences, 2019-20.

On paper, education in Metropolia appeared to be similar to MDX. I conducted thorough research into all partner university websites, called them, and consulted with students who undertook exchanges prior to returning to their final year at MDX. I was impressed with the Finnish programme and the tutors were happy for me to proceed as students had undertaken an Erasmus at this partner university previously. I was accepted onto the programme, and term started at the end of August, with an induction week. This was a month before the term started at MDX London!

From first impressions, after meeting the Programme



Leader, Merja Kosonen, who gave us a tour of Arabia Campus (The new university campus located in old 5-floor ceramic factory, just a few minutes away from the Fiskars Group - largest design company in Finland HQ), everything seemed nice. It was a beautiful new campus stocked with crazy amounts of resources, digital drawing classes with Wacom tablets, and well configured workshops. Halls and rooms were furnished amazingly.

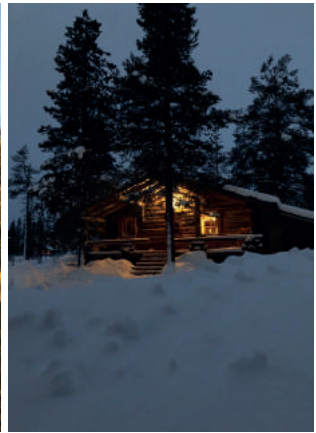
Our campus was located near the seaside, full of parks and geese. Bike routes were everywhere, and almost everyone I met could speak English. We were 4 Erasmus students, from Italy, Slovenia, Germany, and myself from

Lithuania/London. Overall, in the creative student group there were around 20 - 30 students from all around the world.

In Finland, the timetabling concept was to undertake a single subject or module at a time - so, students could fully concentrate on it. Coming from a course where we study multiple modules at the same time, I found this to be an extremely relaxing experience. At times we also had periods of 2 week breaks in between the different modules. However, in some modules there was also no fixed timetable, and this flexibility was unusual and provided some challenges when also undertaking a part time job as a waiter in some of Helsinki's

finest restaurants (including a Michelin star).

The overall experience at Helsinki Metropolia University of Applied Sciences was a little different from expectations, alongside changes to a lot of the curriculum because of covid. In a nutshell, the academic experience was not as envisaged, especially after a really inspiring first year at MDX on the Product Design programme. However, I had a unique opportunity to be in a relaxed environment, building on some skills, alongside taking classes in subjects such as painting, marker rendering and revisiting Illustrator and Photoshop. I also had a lot of time to practice and kick-start hobbies such as longboard dancing.



Reflecting on the experience, I leave with the conclusion that Erasmus is not only about studying, but more about the personal challenges, change of environment, and cultural experiences gained. We had many great adventures like a spontaneous celebration on top of a fountain with Finnish football fans, going to extremely hot saunas, alongside a trip to the ice-covered Arctic Ocean somewhere in Norway. Saying hello to sunrises, and BBQs on the beach, traveling to Lapland where we did everything from cross skiing to husky rides and many more saunas. Imagine living 15 minutes from the seaside, 5 mins from an untouched forest, and a 4 minute ride to the city center. Finns are resilient with a

strong shell, they don't speak too much, they don't stress too much. They live with the mantra, that with a bit of support and time, any issue will be solved, and nobody will be left out. Friendships built throughout the year was the most amazing outcome from the Erasmus year, and I can't wait until the borders reopen so I can embark on my European trip to visit them all!

I have never felt more relaxed about living in another country and I have never felt so safe. Every day I took the longboard to the seaside, explored surroundings, and enjoyed many crazy adventures. Erasmus has made me a better person and I appreciate what we have in MDX even more after this.

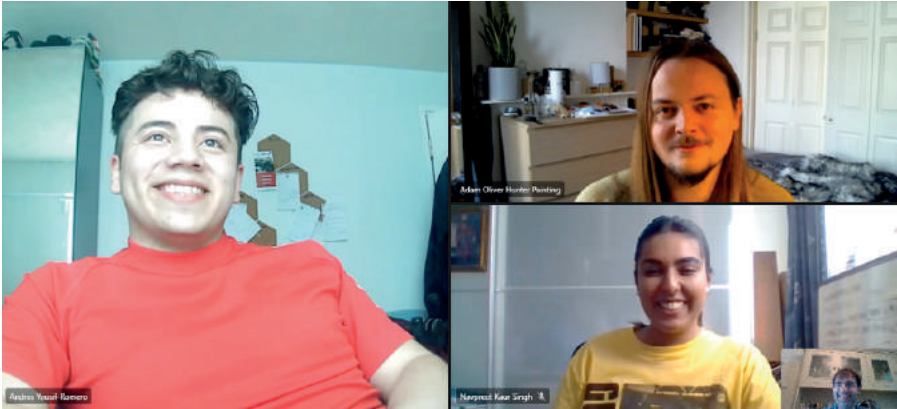
Industrial Design is oriented around the user, and you can't serve or understand the user without cultural experience. I encourage you all to take up the challenge and explore other cultures and communities!

There is a lot in the world to explore and learn from!

Follow Tautvydas on Instagram
@petruskevicius.tautvydas

Getting Involved at MDX

Staff within the Faculty of Science and Technology engage in a range of **outreach & extra-curricular activities**, and we love our students to get involved. **Navpreet Singh** (Year 4), **Adam Painting** & **Andres Yousif-Romero** (Year 2), report on their experiences and activities with the **Enactus Society** alongside other roles and initiatives undertaken throughout the 2020_21 Academic Year



Keep a timetable or something similar to balance your workload and hobbies. It will help keep you organised... However, I am glad to have said yes to many opportunities that had come my way as I have learnt very valuable lessons and have been able to reflect on my own practices, strengths and weaknesses for my personal development. I have also been able to get an idea of the different career paths I could possibly pursue in the near future.

Navpreet Kaur Singh
BEng Product Design Engineering
Graduate, 2021

As we so often tell our students, studying at university is about so much more than leaving with a qualification. Your educational experience is a chance to not only develop subject specific skills and a high-quality portfolio, but is also an opportunity to participate in a breadth of experiences for both personal development and CV enhancement.

We also hugely value the contribution our students can make to our programmes too. The **Student Learning Assistant (SLA)** role offers a paid role (up to 6 hours per week) in which students are assigned to modules to work alongside teaching staff to support student learning in years below them. During 2020/21 we have had 15 Student Learning Assistants who have provided an excellent range of support and encouragement across five year 1 and 2 modules.

Navpreet Kaur Singh, 2021 Alumni, swapped an earlier aspiration to become a chemical engineer for a focus on sustainable development and activism. She is a part time swimming instructor and is a member of *No Sweat* – a non-profit organisation that fights for the wellbeing and protection of sweatshop labourers. Her placement at MDX's design and innovation centre redLoop last academic year "ignited my passion for Product Design" she says. She sees education as crucial in the fight against climate change and social injustice.

Navpreet provides an account of extra-curricular activities over the course of this academic year, alongside sharing awards won. "This year I joined **Enactus**, a non-profit organisation that provides students a platform to pursue Entrepreneurial action

and business innovation that creates social impact.

"Over the year we have started a handful of projects; hosted a 2040 film event and a post zoom discussion about the movie with a lens and focus on sustainability. We also presented suggestions to the Environmental Steering Group and University Executive Team on what Enactus could do to help the university to become more sustainable. I was also the **project leader for STEM to Stem**, which has exposed me to many new and valuable experiences.

"STEM to Stem is a citizen science project that aims to link the indoor and outdoor classroom. We empower the children in our communities to become environmentally conscious individuals whilst learning with technical equipment like air pollution sensors and trail cameras. STEM to Stem aims to promote sustainable and green path career opportunities and encourage more women to take up careers in Science, Technology, Engineering and Maths, to diversify STEM and break down the gender stereotypes of what an engineer or scientist looks like.

"Enactus has provided support with applying and successfully receiving funding, prepared our team for presentations and necessary training to develop our projects further. The Enactus team has also won three awards this year!

+ Community contribution award 2021 - MDXSU

+ Wellbeing and inclusivity award 2021 - MDXSU

+ Overcoming adversity award - Enactus.

"In addition to Enactus, I have been involved with **Hackathons:**

tackling 'wicked issues' in Higher Education through Gamification via OneNote Escape Rooms. This was a great opportunity to see how the university staff find ways to improve our experience at university creatively. Another design hack with Food Wave and ReLondon has given me to opportunity to get involved with an online food waste campaign for university students and work with a real client.

"I submitted STEM to Stem and Prescient (my Final Major Project, see p.26) into the Barnet Enterprise competition and successfully got to stage 2 of the competition where we were given workshops on how to build and develop a meaningful business or social enterprise. It has been great to connect with other talented and passionate people in the London Borough of Barnet!

"When doing extra-curricular activities, you are surrounded by people that will help you and support you as you are in a learning environment, which reduces the fear of making mistakes and encourages you to have fun. My confidence, presentation skills, project management and networking skills have improved with regular practice.

"Keep a timetable or something similar to balance your workload and hobbies. It will help keep you organised... however, I am glad to have said yes to many opportunities that had come my way as I have learnt very valuable lessons and have been able to reflect on my own practices, strengths and weaknesses for my personal development. I have also been able to get an idea of the different career paths I could possibly pursue in the near future."

Adam Hunter Painting (Year 2), a mature student, started out at 18 training as a musical theatre performer, and then went to work in sales, for brands such as Microsoft, Sony and Mercedes Benz, before an offer of a trainee engineering job made him decide to take the plunge and train as an engineer, finally pursuing an interest he'd had since childhood in making things.

"From the beginning of my application, I have always admired the Product Design course here at Middlesex University. Not just for its state of the art technology and well-equipped facilities but more importantly, in my opinion, because the teaching staff are proactive, design-focused people. The staff ensure the course is fluid, adaptive, always considerate of changes to our current world and that it adequately prepares us for employment. The programme creates designers for a plethora of applicable fields. I've often been astounded by the variety of skills and professions graduates who successfully complete this course go on to excel in. I've no doubt that this is, in no small measure, due to the depth of understanding the teaching staff have of the topics we study.

"**Student Voice Leaders (SVLs)** help faculty connect to students and they adapt their courses through working with us. Representatives from each year group join together to form a focus group and quite literally voice their cohorts' opinions. As a first-year student, I took the opportunity to become a SVL. Not only was this an incredibly insightful



position to hold, as it required me to listen to and understand my cohort's perspectives, it also enabled me to bring their views forward to share directly with faculty, assisting the progression of the courses we attend.

"I am very fortunate to have been voted as SVL of the year for the department, an award I will always be proud of. I'm equally proud of being nominated for the same award in my second year.

"I urge prospective and current students to be advocates for change and proactive development. This mindset is what led me to be the **Student Union representative** for my department, voting on important policies for the union to uphold. Furthermore, it led me to join the **Enactus Society** and ultimately to lead the Middlesex Enactus Team. The society is connected to Enactus UK and members of each society connect globally to develop student lead projects centred around Sustainable Development

Goals (SDGs) and work together to tackle current issues through volunteering and entrepreneurialism.

"The professional world is keen to get involved with us. Throughout your studies, there will be a multitude of opportunities to meet and work with industry-leading professionals. Through **live client briefs**, we work with senior leaders from companies who set us projects and engage with our work through informative feedback. **Weekly guest lectures** are arranged during the terms, where a huge variety of industry experts are invited to provide presentations on their field of work.

"I also have the pleasure of supporting the University and to act as an advocate for sustainability, by working with the University Executive Team (UET) as a **student representative** on the **Environmental Steering Group (ESG)**.

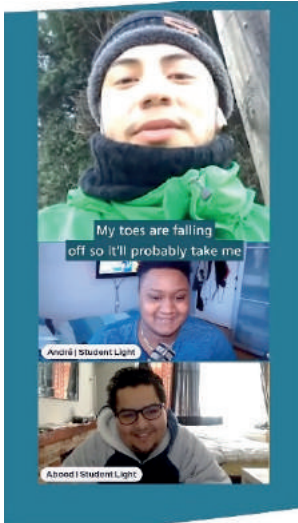
"These are just a few examples of how you can get involved and the possibilities really are

endless. I'm sure that being involved in discussions and networking in the ways described above will prove to be incredibly valuable for your future employment prospects. It can also lead to opportunities should you choose to gain industry experience during a placement year before commencing your final year."

The ambition after this year is for MDX's Enactus tradition to grow and grow – with the ultimate promise of the millions invested in the projects of the Egypt team, winners of the Enactus World Cup in 2019 and 2020. "Even though we're a small team so far, we've done so much," says Adam. "And the Enactus organisers are inspirational".

Read more about the Enactus Society & consider joining the growing team: mdxsu.com/groups/enactusmdx-society

Follow Enactus on Instagram @enactusmdx



Andres Yousif-Romero, a Royal Engineers reservist and BA Product Design student (Year 2), launched **The LADS Project** – an initiative to normalise men talking about their mental health. In five weeks, he built up around 1000 followers on social media. He's partnered with Amnesty UK and MDX's Amnesty Society, appeared on a global mental health and wellbeing webinar and on the MDX-based Student Light podcast, and had further media interest and mental health organisations interested in collaborating with him. Joined by his brother, he walked more than 73km from Croydon to Brighton in a single day to raise money for the project.

As well as with his Enactus teammates, Andres has found a sense of belonging playing rugby, outside lockdown, at **Hendon Rugby Club** and in the **army**, and as captain of the **MDX men's rugby team**. He's put his product design knowledge to use in the army, where he serves in **101 Engineer Regiment** (Explosive Ordnance Disposal and Search) in 8 Engineer Brigade, winning a

silver medal in the Brigade's 2020 Innovation competition.

Andres mentions, "I am currently the Men's rugby Captain for the 2nd year running. Having my captaincy debut during covid was a challenge; general admin, recruitment, and training comes with additional challenges from covid restrictions etc. After losing our coach, the committee and I have had to plan and run sessions ourselves pushing us out of our comfort zone and making us stronger leaders in the process.

"Alongside having the privilege of leading the lads on to the pitch, being able to manage the team is great experience in terms of project management - liaising with the sports department, players and other agencies when it comes to organising events outside of playing (we love a good social), all of which looks great on your CV.

"As a captain you are also entitled to courses such as coaching in your sport - helps with future opportunities, current sessions and bulking the CV. You

have a captains weekend for training to help get you ready for the role and meet the other captains, first aid training provided which of course isn't just beneficial for game days/training days but in everyday life. And just when you thought it couldn't get any better you also receive a free gym membership as well as sports ball ticket; this saves you around £300, so if you have the chance to interview for this role I definitely recommend it!

"Getting involved in extra-curricular activities and in sports is a great way to enjoy the University experience (I would of course recommend rugby).

"If you want to join a sports team or try something new, then get down to the sports office and check out the training timetable to get started on your journey, or you can also check out the sports on the website."

Read more about Sport at MDX:
<https://junihub.mdx.ac.uk/student-life/sport>

#mdxpd Prof. Brendan Walker

Staff on the Product Design/Engineering Programmes are active professional practitioners and researchers. Here, **Prof. Brendan Walker**, Professor of Creative Industries at **Middlesex University** and the world's only **Thrill Engineer** shares updates on recent work, events and his musings - **The Other Me: Working Behind The Curtain**



Prof. Brendan Walker

As designers, this is what we do - we solve problems, many of which come up during development and production...

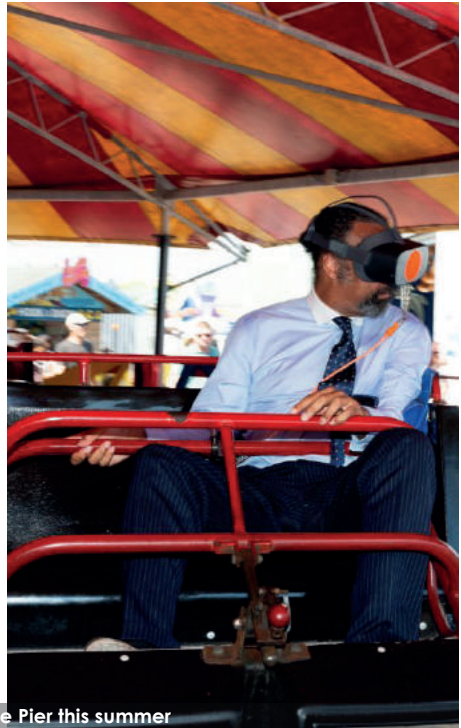
Sometimes I wish there were two of me - not because I think the world could do with more, but because I'd delegate all the planning, development and production work to the 'other me', so I could enjoy the glamorous life as a thrill engineer. But maybe that would be a mistake...

Over the past two years I've been developing a new business venture "Ride with VR" which opens on Brighton Palace Pier from this summer onwards. I'm adding a new virtual reality experience to the classic Twister fairground ride, that'll make you feel like you're flying through the air.

This comes after several years developing VR rides and simulators, which includes the team effort of staff and students at Middlesex University to design, build, and operate the Motion Driven eXperience coaster simulator.

Designing modifications to a ride for public operation at a fairground is complex at the best of times. I've become quite familiar with Health and Safety Executive (HSE) design guidelines for fairgrounds and amusement parks along with British and International Standards (I've got plans to export to other regions

See more Work on **StudioGOGO**
<https://studiogogo.ltd/>



'Ride with VR' which launched on Brighton Palace Pier this summer

outside the UK). But beginning such a project at the start of a pandemic - proposing that people should share VR headsets?? This posed a design challenge for which even HSE Inspectors said there were no guidelines, and that they'd be scrutinising my proposed solution. So, while I was performing engineering calculations, examining rider behaviour, and throwing a crash test dummy around to highlight and mitigate the risks of introducing a potentially lethal projectile onto a ride, I was also phoning around labs trying to book efficacy testing for the

cleaning and contamination procedures I had designed (with the help of NHS consultants and University colleagues) for the different plastics found in VR headsets.

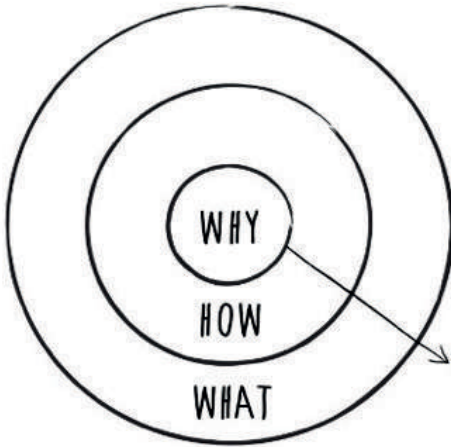
As designers, this is what we do - we solve problems, many of which come up during development and production. I'm now finally enjoying producing those crazy VR rides I'd imagined (currently employing a recent Middlesex graduate). But you know what, I'm equally excited to have achieved all the hidden work to allow such a project to happen. The 'other me' is out of a job.

Follow Brendan on Twitter
 @ThrillEngineer and on
Instagram @profbwalker

Connect with Prof. Brendan Walker on LinkedIn
[linkedin.com/in/profbwalker](https://www.linkedin.com/in/profbwalker)

WHAT'S THE STORY?

By **Kelly Dawson**, Head of Insight & Innovation at **Kinneir Dufort**



THE GOLDEN CIRCLE, SIMON SINEK

References

Start With Why:
How Great Leaders Inspire
Everyone To Take Action,
Simon Sinek, 2011

Kelly Dawson

All views are my own

All designers have been there, the dreaded creation of a portfolio. Hours turn into days, days turn into weeks, and weeks can even turn into months. It's not easy, and often leaves you feeling either proud or defeated. I've been approached by dozens of people for advice or feedback on their portfolio over the years. Having sat on both sides of a small design agency and a large corporation, what strikes me is a large proportion of portfolios lack story. Or at least those intended to be presented face to face.

Don't get me wrong, a glossy portfolio can be a great hook to get someone's attention. It's a chance to showcase your skills and talent, whether it's perfecting that render or even getting a product or service out there in the real world. But that's just it, it's a hook. Demonstrating how you work and think will tell

someone much more about your ability rather than the shiny render at the end.

I often relay a story of my first interview when advising people either 'dusting down' their portfolio or even creating their first. I remember it well. Fresh out of university thirteen years ago I was asked to present the method and approach used on a project. To a degree I was relieved as I obsessively used 'design research' to identify problems and opportunities (probably as I was less interested in the execution). I knew if I had an insight I had an avenue in which to explore that real need. In the nineties and early noughties no-one talked about Design Thinking, Design Methods or the Double Diamond. Digital cameras barely even existed to capture my view on the world, so I painstakingly scanned in photographs of my observations, documenting the

SPECIAL FEATURE

PP. 75-105 DESIGN PORTFOLIOS

insights. I managed to create a compelling and coherent story about why there was a need, how I got there and what the product idea was to answer the need. I managed to sell the product to Lowe Alpine and launched globally. But just because it was commercially sought after that wasn't a golden ticket for interview success. I responded to what I had been asked to present, which has always stuck with me. People are often more interested in understanding how you've approached something, not necessarily what the final result was.

Creating a portfolio can be a labour of love for designers. But frustrations can set in and confused messages can occur. My advice is to consider a two-tiered approach.

Firstly, create a 'snapshot' portfolio to get yourself noticed and shortlisted. This should be a carefully considered selection of your best and most appropriate work tailored for the role you are applying for. This is the hook I mentioned earlier. A top level overview that will impress the person recruiting for the role to build confidence that you're a potential match. I often ask people to consider being on the other side assessing the applicants. 'Imagine you've just received thirty portfolios and your schedule is jam packed with phone calls, meetings and emails - how are you going to make an impression in a matter of seconds?' Not with a 32MB pdf, 196 pages long I hope. Designers are good at demonstrating empathy, but when under pressure it's easy to forget.

So the second part of the approach. Now that you've been shortlisted and you've got the opportunity to meet face to face, consider your story. I often notice the change in expression when I advise this to people. Having worked tirelessly crafting a portfolio it can be a tough piece of advice to follow. People often propose to simply talk through what they've already submitted. But think about it, you have less than one hour to make the pitch. Do you want to share everything at a thin level (of which they have already seen)? Or do you want to consider a few examples at a detailed level? The Story! The 'Why, How, What' almost appears to be part of a unique vocabulary (if you've not heard it before). Simon Sinek coined the model known as the Golden Circle and published 'Start with the Why'. He uses this model for people and companies to discover their purpose or belief. Understandably, it can sound incredibly abstract and can often lead to misinterpretation. However this structure in approach is completely transferable for you to create your story.

Consider the following approach to build a compelling case study and story; **Why** was there a need? Outline the problem or ambition identified.

How did you approach the investigation or project? Lots of people have adopted the **Design Council's Double Diamond model** - Discover, Define, Develop, Deliver. I'm a big fan of it and it's a

successfully tried and tested approach across the world. This for me is the fascinating aspect of all presentations and interviews. A demonstration of your journey through this and the learnings that surfaced to generate ideas (not just the idea itself).

What was the result or impact of your work? This should circle back to 'why' there was a need and demonstrate that you have answered this. I've consistently followed and shared the Why, How, What approach over the years. However, I'd not considered a two tiered approach until several years into my career. I immediately noticed the impact, it worked. I wish someone shared that with me sooner. What amazes me is how many professionals often fall into the trap and 'how' they've approached a challenge almost gets glossed over. It unveils so much more about you than any perfect render or sales figure can.

SUMMARY OF A TWO-TIERED APPROACH:

- Think about your hook - consider how you want to get noticed. What are your best projects that will best reflect your work and what the recruiter is looking for?
- What's your story (*why, how, what*) when you get the opportunity to meet face to face?

Connect with **Kelly** on LinkedIn
www.linkedin.com/in/k-dawson/

INDUSTRIAL DESIGN PORTFOLIO

By **Marius Kindler**, Industrial Designer & Content Creator



Of course the portfolio is very important, but it is not everything. For me, good connections are equally important while searching for a job. If you know a person working at the company you are applying for you can get valuable information, feedback on your work and maybe even a recommendation for the job.

Marius Kindler is a German Industrial Designer with a strong passion for design sketching. After working several years in a design consultancy in Germany he went back to university and is currently doing his Masters in Advanced Product Design at Umeå Institute of Design in Sweden. Alongside his professional career he is also very active on Instagram, sharing his sketches, promoting Industrial Design and exploring the power of design sketching.

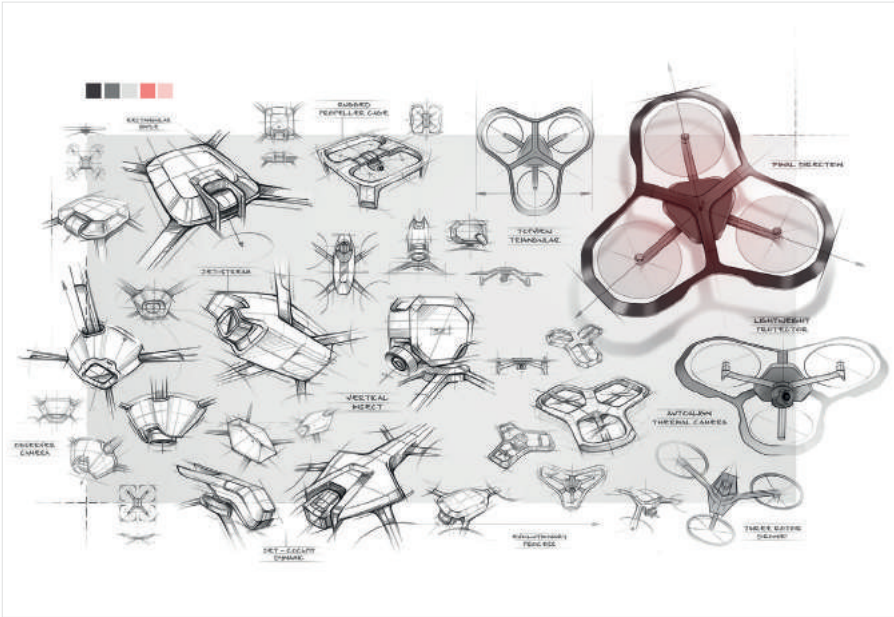
I always believed that as a designer you have to swim against the stream a little bit to create your own perspective on things. When it comes to portfolios, searching for a way to stand out is even more important as you compete with many

other people for the same job. In the following text I would like to present three tips that helped me to stand out from the crowd whilst applying for jobs.

SHOW SOMETHING REAL!

To me the 'easiest' way to stand out and the most valuable skill to show beyond what's expected and delivered by students nowadays is to show a lot of real design process in your portfolio. Show the users you talked to, the prototypes you built and just demonstrating proof that you as a designer are capable and willing to leave the comfort zone of your desk to go out in the real world is refreshing to see - as more and more students are focusing purely on showing their rendering and visualization skills.

Connect with **Marius** on Instagram:
 @marius.kindler & **Check-Out** work:
www.behance.net/mariuskindler



GO THE EXTRA MILE!

If you really care for the job you are applying for, you should go the extra mile. Do some research about the hiring company and the team you would be working with. Who are these people screening all the portfolios and what could be the best way to get their attention? Find out which clients they work for, which projects they work on and how they present their work on their website & their socials. If you know your audience, you know the skills they are looking for and you can adapt your portfolio accordingly to be the perfect fit for the job.

PUT YOURSELF OUT THERE!

Of course the portfolio is very important - but it is not everything. For me, good

connections are equally important while searching for a job. If you know a person working at the company you are applying for you can get valuable information, feedback on your work and maybe even a recommendation for the job. Nowadays reaching out to these designers is easier than ever, as more and more creatives have gone online and formed communities on Instagram, Behance or Discord. I can only recommend putting yourself and your work out there to join the discussions and to learn from collective knowledge the design scene has to offer.

These three tips helped me build my own portfolio and my network as a designer but there is of course more to discover.

Two additional resources I highly recommend for students to check out are **@boosffolio** on Instagram and the book **'Breaking In'** by **Amina Horozic** as they both offer a great collection of tips and tricks on building portfolios, interviews and the application process in general.

PORTFOLIO VIDEOS:

- + **My First Industrial Design Portfolio**
<https://youtu.be/frodWRPCKqkw>
- + **Job-winning Industrial Design Folio**
<https://youtu.be/fj4GAFx09Nel>

Check-Out **Marius'** work & site:
<http://mariuskindler.com/>

INDUSTRIAL DESIGN PORTFOLIO PROWESS

Summary of Guest Lecture by **Sam Gwilt**, Industrial Designer at **LAYER** and content creator across Instagram & YouTube **@sam_does_design**



So a portfolio is an advertisement for your skills as a designer and I like to reference magazines, articles and editorials in really nice glossy print magazines. Think about how magazines sell to you. It is not just a picture and title of the module. Magazines, articles, and editorials draw you in and communicate information in a really impactful way.

Sam Gwilt used to be the the go to person at *Precipice Design*. "I would see all the portfolios before sending off the selected ones to the Head Designer for selection, so I was kind of like the buffer or the filter. I saw a lot of portfolios and started to see some similar mistakes that I try and help out with..."

The suggestions, advice & tips in this article have been extracted from Sam's Guest Lecture this year, '*Industrial Design Portfolio Prowess*'.

WHAT IS A CV & PORTFOLIO?

I feel like we have to understand what the CV and Portfolio are before we can design it.

A CV is... a long-form A4 business card, with your details and what you do. It gets printed, passed around, and used as a top-level stats sheet.

A portfolio is... proof that you have the skills that your CV says you have. A visual journey of your design process.

They both... act as a key to get you into the door. They show your skills and get you into the room for an interview. Your CV and portfolio is about your experience and skill. The interview is about your presentation skills and personality.

It's a first impression. It's a first 'Hello'. I may not know anything about you; I don't know what grades you got in your design module. I don't know what charity work you did last summer, I don't know about your dog called Gary. A CV and Portfolio introduces you to me.

It's a showcase of your best work. Advertise your skills as a

designer in a clear and concise way. It needs to 'wow' me.

It's a product. A product is now anything that you can interact with. You need to plan, consider, and design your portfolio just the same as you would with the projects within it.

- + Who is it for?
- + Where are they looking at it?
- + What are they feeling as they are using it?
- + What are you communicating with it?

So a portfolio is an advertisement for your skills as a designer and I like to reference magazines, articles and editorials in really nice glossy print magazines. Think about how magazines sell to you. It is not just a picture and title of the module. Magazines, articles, and editorials draw you in and communicate information in a really impactful way.

HOW DO MAGAZINES CAPTURE ATTENTION?

1. They tell stories. They have a narrative. First and foremost it's a storytelling exercise. Your portfolio needs to tell the story of your journey as a designer through not only the individual projects, but your career to date as well.

2. You need to show the process within that. It is important to see the entire process, instead of just the final shiny images and renders, or here is a rough sketch and that's the end of the project. **You need to show the journey from start to finish.** Your obstacles, decisions made, and thought process all need to be communicated. That is really the bit that we will be judging on, the process.

3. They are beautiful. If a portfolio is also a product that you design, it needs to be as beautiful and legible as possible. It needs to be nice to

look at it, it needs to be nice to use and really intuitive for the person perusing through it.

When I was looking at portfolios before sending them off to the Creative Director, I'd typically go through 20 or 30 portfolios in a session; in half an hour or even 15-20 minutes. I have so much to get through, and I have to just skim through it. I can usually tell which are the good portfolios based on how they look. It's not just a thing to consider at the end. A well designed and considered portfolio shows that you care, conveys your skills and shows that you have the attention to detail that the company will be looking for.

FORMULA FOR A STORY

So if we are talking about a portfolio being a story like a magazine, what is the formula for a story?

Front Cover

So firstly, I always recommend you open and start a project with a really nice, high quality, contextual image that acts as the front cover of that project. So if you imagine looking through a magazine and you are going through, and you get to the next article, it is going to have some text but usually has a huge image, maybe even a full page image that really just grabs your attention and says you want to read the rest of this article otherwise you're missing out. It brings you into that world, aligns you with what to expect. So, it is really important to have that front cover.

Journey

The next part is the journey. And with the design journey (referencing Damien Newman's Design Squiggle); we know that at the start of the project nobody really knows what's going on, everybody is trying everything out and we are continuously exploring. And

then, as you move through the project it starts to become clearer and more concise, and then, finally, you have a nice progressive line to the goal at the end. So that is the journey we need to see.

Finale

And then finally, you finish with a *finale*. You show contextual images that release the product out into the world and gives a sense of what this might look like in the real world. Even if it's not actually made; I know that as students graduating from university, these outcomes and things aren't necessarily being mass produced at the end. But show a sense of what it might be like in the world, whether that's through photographing a model or rendering an in-context shot; that's really important.

And then just rinse and **repeat that process**. It is as simple as that - just use that same formula for every single project.

The order in which you reveal information is a key skill to master. It is so important, it really is. When you are trying to communicate a really complex issue and you just dump everything on the page, I don't know where to look as someone who's never thought about that issue before. And when everything is just on the page all together, it really does put me off. So you need to know which bit/s are important, which bit/s needs to be said, and when!

Brevity is a courtesy to the reader. If you put a brain dump onto the screen or page, and you put every possible thing down then I'm not going to read that. But if you can condense and summarise it, and if you can tell me the key point, the single sentence that makes this page important,

then I'm going to connect with that in a more impressive way rather than needing to go through entire paragraphs and theses and all sorts of stuff in portfolios, which we sometimes see. "If I had more time, I would have written a shorter letter."

HOW TO LEARN GRAPHIC DESIGN?

If you're trying to communicate a story, a big part of this is graphic design. And as designers and engineers that work on the physical side; designing for manufacture, designing physical products etc. graphic design is not always our strongest skill. I will hold my hand up and I will say I'm not a great graphic designer because that's not my thing. But you really do need to pay attention to these sorts of things. And to do that, I would recommend reading 'Know Your Onions' by Drew de Soto. It's all about graphic design, including the principles of hierarchy, fonts, grids... all the way through to print design. It is not dry or boring, and is written in a witty way.

We know that we can fool humans brains into looking at the exact piece of information that we want them to look at first. By using hierarchy we can guide people through the document, through our portfolios and make sure they are seeing information in the right order and in the right level of importance as well.

You need to know:

+ Hierarchy is king.

+ Reading from top to bottom, left to right (in Western countries).

So you need to bear in mind where the most important pieces of information will be - it is going to go in the top left hand corner and then everything else is just sort of going to follow it around.

+ Cleanliness on the page.

Don't overcrowd things and add way too much information because I'm not going to read it

+ Terminology: leading, tracking, widows, orphans. Learn these and apply it. For someone who knows vague amounts of graphic design, they can pick out a widow or an orphan in a paragraph - they really stick out to someone who knows a bit about graphic design and you need to be on top of that, because adding in those little details such as making sure the sentences flow nicely - again it just really shows that you've paid attention to the details.

QUICK-FIRE QUESTIONS ABOUT

PORTFOLIOS: (because these are some questions that I get asked lot)

Q. How many projects?

A. Three to four in depth projects; more is not necessary. You should be able to show all of your skills in those three to four projects.

Q. How many pages?

A. As many as it takes. I always get asked that question. But bear in mind, I need to go through these portfolios and I need to flick through 30 or 40 portfolios at a time. If your portfolio is too long, I'm just going to give up and not get to the end. So, you need to know it's always a balancing act. And don't forget, you can send in a shortened, condensed portfolio to the company and then when you get offered an interview, you can take the majority of your work, and that is when you can have those discussions. The initial portfolio is just to get you in the door.

Q. What format should it be?

A. Whatever is requested. If a company specifically asks for a PDF portfolio and you submit a website, or a behance page, or

a physical portfolio because you want to stand out and you want to send in a physical book because it's nicer to hold... if they have requested a PDF, there will be a reason for that. And it's probably because they want to archive it on their system, they want to be able to search terms on their system. Maybe you don't quite fit a project right now, but in a few weeks or months, a project that's going to suit you comes up, they can go back and look at it.

And sending in a physical portfolio to stand out is not necessarily going above and beyond. Sometimes it just shows that you can't follow instructions. So, if a company specifically asked for a certain type of portfolio, I would always recommend going with that.

Q. What resolution should it be?

A. It should be widescreen. And then you need to make sure you know the type of person looking at it; will they be looking at it on their phone or on the laptop? I would usually recommend widescreen.

Q. How many megabytes?

A. Always stay below 10mb. Stay around 5mb if you can.

Q. Do you need a website?

A. Only after your PDF portfolio is done; even in this day and age in 2021 I wouldn't recommend building a website first. I would recommend getting the PDF in the bag. Once that's done, you then have that content to build your website, if you have time after that.

Q. What to include?

A. You have your projects, what you have done; and then maybe the company that you want to apply for is slightly different. But there's some overlap and you want to apply to this company, you should include the overlap section,

and you should include whatever is in the middle. If you start to include weird and wacky projects that don't necessarily relate to their business, it is not going to be any help to them whatsoever.

And I know that in an ideal world someone can look at your skills and say okay it's not quite this exact product/s that we design, but there are parallels and we can see that they have skills and can pivot to do our thing. But if they have any other portfolio that shows them that someone else can do the exact work that they need, they are going to go with that person. You need to prove to a company that you are already doing the work that they need help with.

Each portfolio needs to be tailored to the job you're applying for. So every single portfolio needs to include the projects that pinpoint that company and pinpoint the help that they need, which is a lot of work - you'll know if you apply, and *'nobody said applying for a job isn't hard work.'*

Q. How do I present my portfolio?

A. This is a big question as well, because I know that sometimes it feels like going out into a big theatre stage and being really nervous with a lot riding on it when you do head into an interview. And I want to point out that an interview is only ever people having a conversation. It's only ever two people sat in a room, maybe a group of people, having a chat about design. And we all love talking about design. So I just want to say, like the pressure is off in an interview. And nowadays it's not even like going into a theatre to present, it is more like a virtual call; nobody knows how to share screen, nobody knows how to exit the interview, you all say

'bye!' and then it's another 30 seconds of finding the exit button. My point is to say, that everybody is human and when you present your portfolio don't sweat it, just don't worry about it!

Some tips for the interview:

- + Design the best way to present your portfolio into the document itself.
- + Know the order of your projects
- + Know what page is coming up next
- + Be confident! Practice with friends first.

At the end of the interview, somebody interviewing you might say, *'oh, can we go back to this project, I have a question.'* And if you start faffing around and not knowing where your project is, then you know it's just these little micro moments of confidence that you need, but like I said practice makes perfect. I applied to so many jobs, sent out so many portfolios, and it just comes with practice.

TOP 8 TIPS FOR A KILLER PORTFOLIO:

1. Tell the story of the project.
2. Show off your skills naturally, as the project calls for it.
3. Show your decision making.
4. Keep a clean layout with minimal text. I will not read any text. :)
5. Visually stunning, a piece of design.
6. Only show your best work. (No page fillers whatsoever)
7. Include your contact details
8. Decide how the reader will use it.

WHAT NOT TO DO:

1. Don't segregate skills into pages (narrate and weave the skills into the story and process of the project)
2. Don't use a star rating to measure your skill level.

3. Don't have typos.
4. Don't change the type of portfolio requested by the company
5. Do not have a pdf larger than 10mb.

CHEAT SHEET & USEFUL LINKS:

For Inspiration:

Behance, Pintrest, The Dots

For Layout Inspiration:

Kinfolk, Hole & Corner, Wired, Wallpaper magazines

For Graphic Design Knowledge:

Know Your Onions Book

Portfolio Reviews:

@Sam_Does_Design YouTube channel :)

PORTFOLIO VIDEOS/REVIEWS:

+ Industrial Design Folio Reviews at Middlesex University

<https://youtu.be/fjip00hwDzDM>

+ ID Portfolio Q&A at Middlesex Uni

<https://youtu.be/7BW1Rxncyyk>

+ Industrial Design Folio Reviews

<https://youtu.be/8wvf0WMS5cg>

+ The Industrial Design Folio That Landed My Dream Job

<https://youtu.be/2R3VCGHk4G4>

+ Portfolio Review S1 Playlist:

<https://bit.ly/3zmFdeL>

Check-Out Sam's work & site:

<https://www.samdoes.design/> and [behance.net/samgwilt](https://www.behance.net/samgwilt)

Follow Sam on **Instagram** & **Twitter** via @sam_does_design

Subscribe to Sam's YT channel [youtube.com/c/samdoesdesign](https://www.youtube.com/c/samdoesdesign)

Watch
Full Guest Lecture:
[youtu.be/
qE_HCYmvfTQ](https://youtu.be/qE_HCYmvfTQ)

THE PORTFOLIO CHAT

Summary of Guest Lecture by **Bradley Harper**, Senior Recruitment Consultant at **RHL Recruitment** and Co-Founder of **Design Truth**.

Project by Project. Tailored to the

PDF. 5MB.
(yes, some of us are still stuck in 2007.)

Hero shot.

Research. Concept Generation.
Ideation. CAD. DFM. Prototyping.
Hand Sketching. Renders. Testing.

The brief.

13

'The Portfolio Chat' Guest Lecture. Watch the full Guest Lecture at <https://youtu.be/xIPUh8KRH6g>

THE PURPOSE OF PUTTING A PORTFOLIO TOGETHER:

1. To get you an interview, not a job.

A really important distinction to make, and I hope that actually gives you a bit more hope, because I think people put a lot of pressure on this document; that this is the thing that's going to unlock the door and get you a job. All it really does is just open the door. It doesn't actually land you the job, there are a lot more steps to come.

2. To showcase your skills -

demonstrate what you can bring to the table.

3. To provide insight into you as a person.

You are actually employing a person, you are not employing a designer. But too often, what I kind of get a little bit annoyed about is that people don't really talk about them as a person, what they do outside of work... I'm sure you've got a life outside of

design. And if you don't I'd be quite concerned. So, make sure that you're talking a bit about you, your personality, what makes you tick and that's one of the things, I think, that is lost in all of this.

YOU START WITH THE PROBLEM, NOT THE PRODUCT.

Tell the story. Design is all about storytelling. So start with a problem don't start with the product. Get me hooked on why you are actually doing this thing in the first place. That gets my attention, that's what gets the Design Director's attention. And we are in the attention economy, and if you ever watch that documentary on Netflix: *The Social Dilemma*, then you can get a feel for attention and how imperative it is.

TREAT YOUR PORTFOLIO LIKE A PROPER DESIGN OUTPUT

Treat it like you would do if you are working for a proper design company and you are pitching

for work. This is probably one of the most important PDFs you are ever going to package together, and it gets even more important every time you do it. So, treat it like a proper piece of work. Put your life and soul into this thing.

And when you look at your portfolio, or you share it with a friend, I really want you to look and go 'Why did I do that?', 'Why did I put that in there?' 'That is awful you know'; because sometimes you've got to actually kind of be a little bit savage and just go, 'why would someone employ me based on that?!'

LEARN FROM THOSE WHO ARE WHERE YOU WANT TO BE

Think about 'where do I want to work?' - the dream job situation. And who do you want to work for - is it Tesla, Apple, some start-up... it is subjective. What I want you to do is go on to LinkedIn to find

Connect with **Design Truth** on
Instagram: @wespeakdesigntruth &
Check-Out www.designtruth.co.uk

the designers that work in these companies, and I want you to Google their portfolios. So, first name, surname and 'portfolio'. I can guarantee you that you will find some copy of their work somewhere; whether it's their university work on their website, behance, Corafloot, Instagram, maybe an article they did where they show their idea. You can find anyone's work, the Internet is the most beautiful thing.

For example if you think 'Okay, I want to work at LAYER', go and track down the designers at LAYER and just have a look at their work from years before. Get an understanding of how they actually peaked the interests of those employers. Honestly it's the best learning you can ever have, an understanding of what makes a potential hiring manager 'fick'. You just need to be a little bit creative with your googling to track down the work.

SHOW THE PROCESS

How did we get to the hero shot? **Show the failure, creativity, collaboration, iteration, rejection.** Someone might hate your final design, it is quite subjective, but they may appreciate how you got there and that may actually land you the interview.

STRUCTURE

Put the portfolio together on a **project by project** basis. It is far more easy to digest from a readers perspective, but also far easier to tweak depending on where you are applying to. I appreciate it's time consuming but you should be tweaking it for every single job.

In terms of **numbers of projects**, there is no magic number. It depends on how many projects you need to demonstrate all those different skills; three or four, maybe. It gets a little bit easier as your career develops, but it also becomes more challenging because as your career develops, you are going to get hit by NDAs. So, not everyone can necessarily show their best work. So this frustration is going to follow you as your career develops. Two ways that I always suggest to designers when they get to that point is

1. do personal projects and
2. redo university work.

So commence with the brief, the problem and how you solve the problem. Hit us with that attention grabbing hero shot; that product in action and in context. Then you kind of dig deep into the process; so the research, the concept generation, ideation, CAD, Design for Manufacture, prototyping, hand sketching, renders, testing, validation, CMF.

PDF / WEBSITE

Put the portfolio together in a PDF. Now, it is a contentious one because I see more and more websites, and you know you've got your own little personal brand or whatever. But here's the thing, your job is to design products not websites. So the minute you put that barrier up, 'here's my website', you're judged upon that. So, if that website is not optimized, if that website doesn't look good on mobile, if you have used WIX or whatever and it just doesn't really look that great, then it

hasn't done you any favours in the grand scheme of things. So avoid it because you just end up being judged on something that isn't actually your job and you don't need to necessarily do it.

I think it's best to have both. From an application standpoint I'd have a PDF, but I'd have a website running in the background, and maybe parallel with your social media and stuff. But don't necessarily apply through the website, unless you perhaps have content that is password protected.

Make sure you have the PDF at 5mb - there's a great *samdaesdesign* tutorial. So if you could, in future, keep them at 5mb, my laptop would greatly appreciate that and I'm sure many other laptops around the world would say the same thing.

ADVICE FOR STUDENTS

1. Learn business & how stuff is made
2. Talk to people (alumni included)
3. Plastic is okay
4. Be okay with rejection
5. Get to grips with digital, and quick.

The final message I want to share and what I'm sharing with students across the country is to avoid giving up hope. The minute you avoid giving up hope of that job, that's when it is going to start moving. Just keep yourself active.

Connect with **Bradley** on LinkedIn
[linkedin.com/in/bharperdesignrec/](https://www.linkedin.com/in/bharperdesignrec/)

BUILDING AN EFFECTIVE DESIGN PORTFOLIO

Tips from Guest Lecture (2020) by **Nick Chubb**, Lead Industrial Designer at **IDC**



The advices & tips collated in this article summarises and presents the take-aways from Nick Chubb's well-received Guest Lecture at Middlesex University, January 2020; where Nick touched on his work, experiences and delivered a masterclass on 'Building an Effective Design Portfolio' for the design and engineering disciplines.

PDF / INDESIGN / 5MB / ALL IN ONE. With a portfolio you might be tempted to think I need a website. My advice for the first portfolio is go down the PDF route. With a PDF you are in control with where the reader is, the reader is channelled into a journey; you decide where I go and how I read it. It forces you to be very very thorough and concise and impactful in what goes in and what doesn't go in.

Use InDesign to create it. Aim for 5MB and don't go over 10MB. Design your CV & Portfolio in one document.

PROCESS (SHOW IT)

Your portfolio should not look like a catalogue. You are trying to sell you, show the process and how you reached the end outcome. Show your thought process and how you got to the end solution.

SELL YOU. NOT YOUR PRODUCTS.

If you only show images of the final product, then that is the only thing you can be judged on. With no evidence of initial ideas and how you approached different aspects of the project, you make it impossible for a reader to assess the thinking behind your approach. If you don't show the development journey then you don't create the opportunity for this appreciation.

IF I CAN'T SEE IT, YOU CAN'T DO IT.

If you don't show evidence, how would the employer know that you can do it? List out all of your skills and evidence these through projects in the folio.

SHOW YOUR BEST WORK (NO POINTS FOR QUANTITY)

Be selective in what you show. Focus on quality of the work. There is no reason why anything should be of a poor standard. You have the time to go back and retrospectively improve prior work and bring it to the standard it should be.

GOAL = INTERVIEW. NOT A JOB OFFER.

Once you realise this, a lot of stuff can come out of the folio. You don't need to tell the full story here. You need to make a visual impact, create an intrigue. Tell the story visually. Design your portfolio for headline readers. They might read the heading and subheading and looking more at images...

"ERM. YEAH, THAT ONE WAS FROM FIRST YEAR."

Take out what you don't want to show, or retrospectively go back and improve on it.

Connect with **Nick Chubb** on
Instagram: @nick_chubb &
Check-Out nickchubbdesign.com



CLARIFY THE PREMISE

Clarify the premise at the project right at the beginning. Sometimes you are 4 or 5 pages into the project and you still don't know what it is about. Clarify the premise with a short punchy message or question. When you then clarify the problem and show your ideation and concepts I can connect with it in a deeper way, as I am looking at your response and linking it with the premise that has been set out at the start.

DO NOT INCLUDE GRAPHIC

DESIGN. What are your core skills for the application? Do not include pages at the end of your personal photography or graphics. Respond to the job application. If the job is for a Mechanical Engineer then show that you are a great Mechanical Engineer through the portfolio. You might show your side skills in the interview, but don't clog up the portfolio with side projects.

SILENT VALIDATION

Stick to the point, and be factual in what you say. Do not say you are creative, prove it... prove and validate what you are saying in a visual way.

GLOBAL STAGE. THINK BIG

Because it's a global stage, never get complacent and think you are doing great competing in a small pond within your own university. When you are applying for placements you might have competition with graduates who haven't yet landed a job.

GO BEYOND SATISFYING ACADEMIC CRITERIA

You might have been set a particular brief at university and you responded to that brief. Anticipate the fact that the employer may not know what the brief fully was. So clarify what you set out to do, and anticipate that they may ask you about aspects that may not have been within the scope of

the project. A project doesn't have to sit still in time or end after the academic submission. Continue to develop, test, prototype, ask users. If you are asked 'what would you do differently?' you can then say what you continued to do.

DOCUMENT YOUR JOURNEY:

There is a great community on Instagram. Document your journey, build an audience, learn from others... Get involved in that community!

BE RESOURCEFUL/ DETERMINED.

You might not land the dream role or placement at the start. Keep going! Aspire and do the best wherever you are. Be resilient. When rejected, keep going. It's just a matter of time and persistence. The portfolio is something you will continue to build and improve over the next couple of decades.

RECOMMENDED READING

'Breaking In' by Amina Horozic

PRESENTING THE WORK OF A STRATEGIC AND SERVICE DESIGNER

Co-Creating Meaningful Future Takes Form Through Trusted Design Partnership, by **Laura Lerkkanen**, Senior Service Designer at **Hellon**



Hellon is a Finnish, Helsinki based service design agency founded in 2009. With over 40 employees Hellon has two offices, in Helsinki and London and works globally with multiple industries. I myself have worked at Hellon for 5-years now, currently as a lead designer, with a background in industrial, service and strategic design expertise.

Even though Hellon is often referred to as a 'service design agency', from my perspective moreover a strategic design partner could be a more suited definition of what I do in my work. The company mission is to 'co-create a future that matters', in other words to create a positive change together with the companies through customer centric ways of working. Hellon's offering and my previous design projects focus in three key areas illustrated below.

Focus and Future Direction

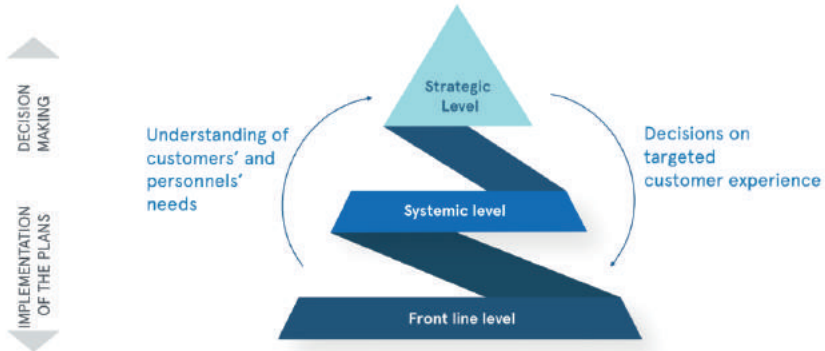
When building a customer-centric culture or change process in organisations, it often faces a challenge of lacking the top-management

commitment. Recent studies have shown that companies that identify customer experience as a top priority outperform their competitors in most financial metrics. Hellon helps top-management in linking customer-centricity to business leadership, through customer experience (CX) vision and strategy co-creation.

In my experiences 'designerly' skills of being able to think creatively to imagine the unexpected and the skills of making the abstract seem more concrete are more relevant than ever. However, designers need understanding of the organisational context to present their ideas in relevant ways.

Connect with **Laura** on LinkedIn:
[linkedin.com/in/laura-lerkkanen-839529a8/](https://www.linkedin.com/in/laura-lerkkanen-839529a8/)

In order to gain a true impact, the work has to be done in the different levels of the organization



Case example:

I have collaborated with multiple organisations in successful CX vision creation projects. Some of the key aspects to consider when designing a CX vision is to make sure 1) the input of the vision covers both aspects ("inside-out" aka. what the company thinks as a whole what is their future direction and "outside-in" aka. what customers and the market indicate the direction should be), 2) the vision itself is clear, memorable and understandable for the whole organisation from the grass-root to top-management and 3) what is the output of the vision (what does it feed into, that helps leading the organisation to the right direction).

Innovation and Experience

In the fierce competition of today, organisations are in a need of continuous customer

understanding as drivers of innovation and design projects, considering both the private or public sector. Hellon works together with the organisations to conduct user and future studies and running design projects for service development and innovations to increase customer lifetime value, build growth from new business and strengthen brand value.

Case example:

I was a part of a design team collaborating with a car manufacturing industry brand, conducting a massive user study in three megacities about the future of mobility in selected target customer segments. This study functioned as a key communication and design tool when developing future service and product offering for autonomous mobility solutions.

People and Transformation

To truly transform an organisational culture towards customer-centricity, the employees who form the organisation must be engaged in the process. Therefore, Hellon works closely with people throughout the organisation by creating positive and empowering development programmes.

Case example:

Hellon has developed a productized transformation programme, referred as Ambassador Programme, to support organisational change towards customer-centricity. The aim of the programme is to train CX ambassadors who will gain competences and understanding of design skills and customer centric ways of working. Throughout the programme the ambassadors

OUR OFFERING

Hellon's holistic offering supports a successful business transformation



will join training days, run their own service design projects and receive mentoring from experienced lead designers. In addition, top management is engaged to follow the programmes' outcomes.

As Hellon's offering presents, our aim is to form a partnership with our client organisations. This enables the companies to succeed in the competition and simultaneously provides novel opportunities for designers to put their expertise to practice in strategic ways. From my perspective 'designerly' capabilities create a foundation for our 'ways of working' that are crucial for elaborating successful collaboration. Four of my top 'designerly' ways of working' are described below.

Establishing trust creates long-term partnership

By bridging business thinking

and design thinking closer to each other, we can form a trusted relationship between designers and companies (especially top management). Elaborating trust is a key fundament of all design projects and the collaboration to succeed.

Through co-creation we build bridges instead of silos

For making a meaningful impact (eg. creating a positive change) we must involve everybody. Designers are particularly good at facilitating collaboration and bringing people around a common design challenge.

Imagination helps to challenge conventions

In my experiences 'designerly' skills of being able to think creatively to imagine the unexpected and the skills of making the abstract seem more concrete are more

relevant than ever. However, designers need understanding of the organisational context to present their ideas in relevant ways.

Joy and happiness make the tough more fun

According to recent studies Finland is the happiest country on the planet. Sparking joy and making the work fun creates a positive emotional engagement of people to the collaboration that sticks through the more challenging times.

Here are also few tips for building own service design portfolio:

Illustrate the created impact

Service design cases often result to fairly abstract outcomes that are difficult to visualize (compared to eg. Product design). Therefore, aim for presenting the created



impact of the design work to point the value of the work. As an example, this could be amount of saved resources, created turnover, faster service process or number of saved workplaces.

Make it memorable

If your potential employer receives tens or hundreds of design portfolios, why would they remember yours? If someone has 3 seconds time to look over your portfolio, what do you wish they remember and what for? Before you start the process of creating a portfolio, think what story you wish to tell through it and how do you differentiate from others. Then think how you could create texts, visuals, layout etc. to support your message.

Highlight your design superpowers

Consider what are your

strengths as a designer and aim for illustrating them throughout the portfolio.

Often potential employees might be interested in your skills and interests that you bring to the team. If you are visually skilled, make your portfolio your visual masterpiece to prove it. If your passion is sustainable design, select projects and highlight your skills in that area.

Check-Out
Hellon:
www.hellon.com

Laura Lerkkanen is a Senior Service Designer and Strategic Designer at Finnish based service design agency, Hellon.

Laura's background is in industrial design and she has a Master's Degree from Aalto University's International Design Management (IDBM) programme. Laura is highly experienced in working with both public and private sector organisations by bringing the human-centred approach to the center of everything they do. Her main interest is to link service design with business strategies in order to enable a higher impact on design work. Laura's work and projects have been awarded several times both in Finland and internationally; her projects have won the Service Design Network's main award several years in a row.

Connect with **Laura** on LinkedIn:
[linkedin.com/in/laura-lerkkanen-839529a8/](https://www.linkedin.com/in/laura-lerkkanen-839529a8/)

SERVICE DESIGN PORTFOLIO

By **Will Bristow**, Service Designer at **Methods**



Portfolios. For some, a chance to take pride and showcase some great work. For others, a necessary evil that has to happen to get a job. Whatever your point of view, there are a few things I have learned to make a half-decent design portfolio. I'll share some **general tips** that apply to any design portfolio, and some more specific to **Service Design**.

Working on commercial projects, it is often all about outcomes and impact, but one trap I still fall into when creating a portfolio or case study is only talking about the outcomes. Whilst they are important to the work, hiring companies rarely care about the outcomes of your work, especially if it's not directly related to their business. But they very much care about how you got to your result, as that shows you understand the principles and more importantly, can repeat your success for them. Think of it like a maths exam

question. The correct answer is important, but you must show your workings out!

Related to the above, you need to structure a clear and coherent story. Have you ever read something and had to start over because you got lost? That's likely due to bad structure. Don't make your audience work to find what they are looking for in your portfolio. There are different ways of doing this, but if you struggle there are frameworks to help. **S.T.A.R.** is a common one to follow. **SITUATION:** explain the context of your challenge. **TASK:** clearly state what you set out to do. **ACTION:** tell the audience what you did, and why you did it. **RESULT:** wrap up the story with the conclusion you came to. Keeping to a structure is important. Another thing I have to stop myself doing is cramming too much in. Sometimes you can tell a better story by leaving things out. This is a bit trial-and-error, and you may need

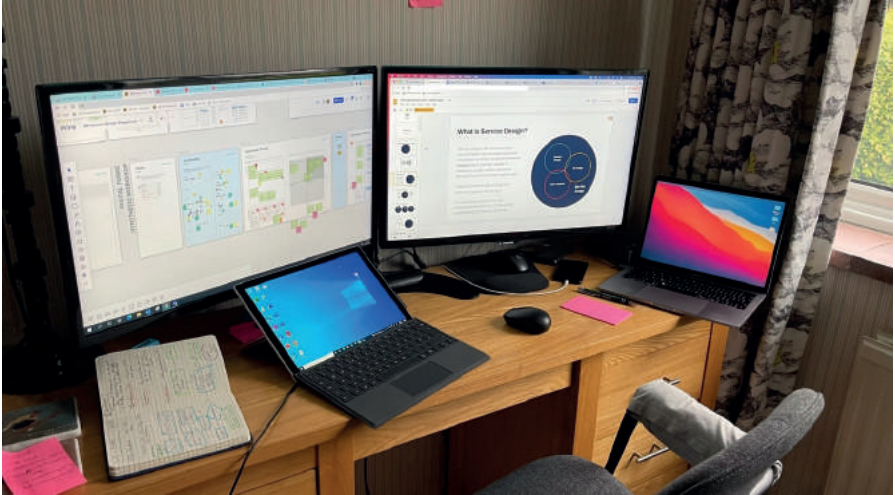
someone to proofread or test your content to make sure the key points have landed.

Keep things visual. As a designer, this will sound obvious but pictures really do speak a thousand words. Take advantage of your skills! On top of this, make sure your words match your visuals when presenting case studies directly to an audience.

A pitfall I have fallen into in the past is trying to share as many case studies as possible. This feels like a way to show how much great work has been done. Often, more content can work against you. It takes time and effort to create more stuff, causing quality to slip in some areas. In my case, I tried to show how broad my work has been, but I often muddled what I was good at. When I applied for my current role I only shared one case study, but it was a strong and compelling story with

Check-Out Methods:
www.methods.co.uk

Connect with Will on LinkedIn:
linkedin.com/in/williambristow/



focused points I wanted to get across. I'd typically recommend two or three case studies with clear messages for each.

SERVICE DESIGN PORTFOLIOS

Particularly for Service Design or Digital Design roles, many feel it's important to have a website. Yes, a website may be more accessible and easy to share, but consider whether a PDF or PowerPoint might do a better job. Of course, if you are going for roles with a strong digital aspect, a website may fit your story better, but, don't get hung up on getting one.. Choose what suits your message best.

Service Design is still in its infancy (compared to other design roles). Some roles may look similar, but may have different focuses or priorities. Try to be targeted in your searches, if you can, and make sure your portfolio highlights the priorities of the hiring company. For example, if you are looking at

Government Digital Service (GDS or DDAT) type roles you may need to demonstrate some public sector knowledge or digital accessibility skill, as they have a strong mission in these areas. If you are looking at consulting roles, you may need to show how you can cope with difficult clients. Make sure you have done your research.

Everyone loves to see that you are a 'doer'. If you have some extracurricular work that is relevant, now is the time to shout about it. Even if it's a side project, follow your structure and talk about it. These can be the cherry on the cake that puts you ahead of another candidate.

I hope these tips are helpful to new graduates and experienced professionals alike. I wish I knew them when I started. If you need help, ask for it. I'm happy to do some reviews if you get stuck and I know the tutors at MDX are always happy to lend a hand.

Don't forget to learn from others. A huge amount of portfolios are only a Google away. Analyse what you think works well and try it out for yourself.

Best of luck!

RECOMMENDATIONS:

Service Design Portfolios

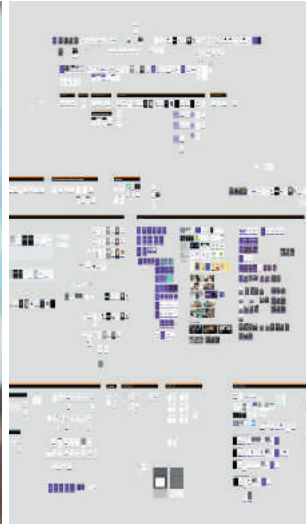
- + <https://www.libbylandenberg.com>
- + <http://www.hasbeck.com/index.html>
- + <https://www.harrytrimble.co.uk>

Case Study Examples

- + <https://www.ideo.com/case-study/building-a-new-venture-to-restore-trust-in-chinas-food-system>
- + <https://www.thealloy.com/product-design-consultancy/projects/journey-in-clusive-headset>
- + <https://kinneirdufort.com/work/medical/eakin-healthcare-pelican-modavi/>

UX/UI PORTFOLIOS

By **Maria Van Doremalen**, Product Designer at **Salary Finance**



ABOUT ME

I graduated from Middlesex University in 2017 with a bachelor's degree in Product Design, having moved around in the industry I have found my path as a UX/UI Product Designer working in fintech looking to improve financial health.

HOW DID I GET HERE?

After graduating I had the opportunity to work in a giftware company where I designed for production, by doing this I was exposed to the full process of creating a product to manufacture, all the way to the sale and delivery. The high level visibility of the full process allowed me to understand where I enjoy working the most, which was ideation and problem solving. Who is this product for, why do they need it how and when will they use it, which led me to UX design.

MY PORTFOLIO ADVICE

Portfolios can have many uses apart from finding a new job, they can be a good way to share some of your experience and expand your network as well as a way for you to recall old projects. The advice I'm about to give you is purely based on my personal experience and focused on portfolios to get you that first interview.

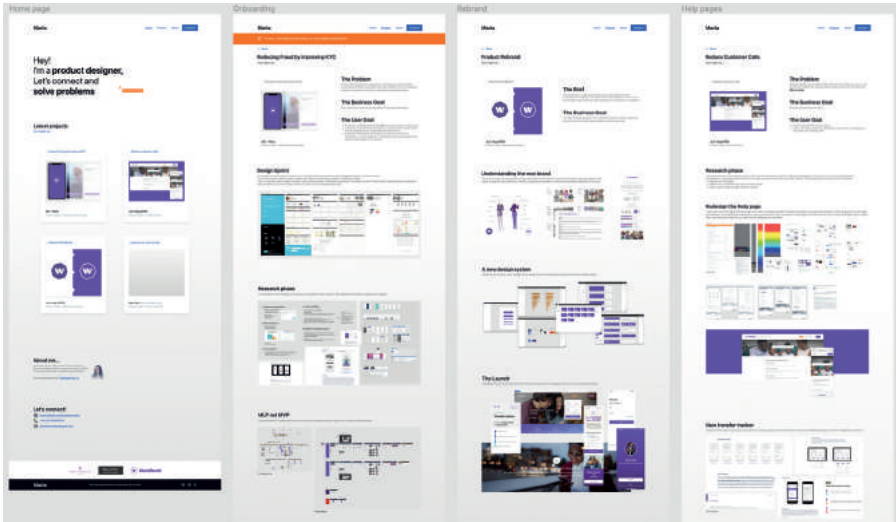
If you are starting out in UX/UI I would advise you to reach out to someone already in the industry for **mentoring and advice**. The mentors I have had helped me not just understand what is expected from me but most importantly getting rid of the impostor syndrome! Well... you never fully get rid of it but that's how you know you're in the right place, to ensure growth we need to put ourselves in less comfortable positions. I understand that It

can be hard to find a good mentor but there are platforms out there that can help such as <https://www.adplist.org/>. You can also join meetup discussions for UX/UI and even clubhouse! Make it fun, be curious and get involved.

TOP 5 TIPS FOR A GOOD UX/UI PORTFOLIO

- 1. First impressions** do matter, put yourself in the recruiter's shoes, looking through portfolios can be pretty boring, so maybe add some personality to it, think who am I as a colleague (fun, talkative, mysterious?) and try to reflect that.
- 2. Less is more, pick only the most important projects** specific to the role you're applying for and don't reinvent the wheel. Make sure you spend most of your time thinking about the content rather than on the UI of the portfolio (unless of course you are looking for a UI focused

Connect with Maria on **LinkedIn**
www.linkedin.com/in/mdoremalen
 and on **IG** @mariavandoremalen



opportunity) there are plenty of templates you can borrow, think 'what is the best user experience' for the reader of this portfolio.

3. Show them how your mind works, the messy process, all the way to the final product.

The employer wants to see you understand all the steps of UCD (User Centric Design). Try sharing some user flows, wireframing, design sprints and any research you have done such as usability testing, competitor analysis and surveys. Another piece of advice is consider what type of designer you are, or want to become, more UX, more UI, more into research or data? And try showing this with your work, that's probably the position you will take on your new team so take the chance if you're trying to shift areas.

4. Add some case studies and talk numbers! If you are looking for a non entry level position, it's

important to show the impact your designs had (eg. increased signups by 10% resulting in monthly revenue rise of £1000) if you have the metrics turn them into numbers for a more credible impactful reaction. If the project was a collective effort, try explaining how you contributed.

5. Spellcheck... and clean it up you're still a designer. By doing so you show how serious you are about the opportunity.

CONCLUSION

Why do I love what I do? As a wise mentor once told me, *"The world is full of useless stuff, it's our responsibility as designers to solve real problems"* - Wyn Griffiths. Digital or material we have the unique opportunity to understand how things work and make a difference, improve people's lives and feel like a superhero. Overall if you are looking to get started in UX/UI I recommend you to be curious, get involved and have some fun.

MY TOP 3 RECOMMENDATIONS:

3 PAGES TO FOLLOW:

- + Femke (Designer at Uber)
- + Pablo Stanley (For UI fun)
- + Medium (For the best UX articles)

3 BOOKS TO READ:

- + Design of everyday things by Don Norman
- + Well designed by Jon Kolko
- + Don't make me think by Steve Krug

3 TOOLS I USE WEEKLY:

- + Figma (my main tool)
- + Miro
- + Usertesting.com

View Maria's Portfolio at
<https://bit.ly/3klpRSg>

UX FOR BEGINNERS

Tara (Fear) Williams talks UX, with advice for students and graduates aiming to transition or step into the ever-growing discipline



BEGINNERS GUIDE TO UX CAREER

You are thinking that a career in UX might be for you? Stop. Before you go into wonderland about UX there are some things you need to know to make this a reality.

Advice #1: Do not quit your job to pursue UX - not until you have a job lined up.

Advice #2: Do not take the first job that comes because its a UX title - make sure the company is right for you!

Advice #3: Do take your time, UX isn't going away anytime soon.

UX is a great place to kick-start or refresh your career. But behind the 'fun' usability testing is some serious grafting, analysis and research. If this isn't for you, then a UX career will not be a good move for you.

So let's start...

You're in work or out of work or maybe studying, but UX is your dream. Excellent starting point - let's build on that.

Firstly, although I despair at paying for products, I highly recommend LinkedIn Premium, simply for *LinkedIn Learning* (or *lynda.com*), which has some great resources for UX design; for beginners to advanced.

Let's assume you're a beginner and have little knowledge of UX. I would recommend the following **videos** to watch: 'What is UX, what is UI', 'UX foundations, Research', 'What

So, you have graduated (or maybe you will soon). And you've seen Product Design roles that have nothing to do with your design skills. Well firstly, that's a myth. You may not have a UX portfolio - BUT - you have got the makings to be a UX Product Designer!

Connect with Tara (Fear) Williams, SEO Interaction Designer & Middlesex Product Design Alumna [linkedin.com/in/tarafear/](https://www.linkedin.com/in/tarafear/)

is UX and where do you start'. After these videos, you'll have a clearer understanding of what a UX professional is and how to go about tackling research.

Once you have established the foundations of UX you can move onto some bigger issues facing you. I think the biggest fear of mine before starting my UX career was learning the softwares. Don't be scared! It's easier than you think, I'm still on that learning journey and absolutely loving it.

My first recommendation to you is to look at job posts you are interested in - see what skills they are asking for, i.e. *Sketch*, *Axure*, *Moqups* etc. Find a pattern with the roles you're interested in and focus on nailing those softwares. Again, LinkedIn Learning is a great place to get tutorials for beginners on any software, it's where I learnt the basics and more.

So, let's talk about **books**. I have been blessed that my boss has provided me with some awesome books to get my teeth into. The top 3 must be 'About Face', 'Rocket Surgery Made Easy - Steve Krug' and 'Just Enough Research - Erika Hall'. These have been invaluable to my learning. 'About Face' has chapters which you can just open up and get stuck into, i.e. I recently learnt a load about personas from it. 'Rocket Surgery Made Easy', is a small book that you could easily read in a few days and has some great usability testing advice, and 'Just Enough Research', is perfect for finding your own research path and

different ways of collecting really useful data and how to analyse that.

Recruiters - you've now been told about e-learning videos and books. Now let's talk about your portfolio. I found that contacting recruiters was a great way to perfect my portfolio. Recruiters can be a great source of help, they want you to do well as you may be their next client, if not now, then some time down the line. They see hundreds of portfolios and have so much exposure to the good and the bad.

Mentor - Another step to take is finding yourself a UX mentor, there are so many lovely UXers out there willing to help, don't be scared to ping them a quick message saying why you admire them as a designer and want their help - a little flattery goes a long way.

Connect - Expand your LinkedIn network with UXers, they post awesome videos and blogs for you to dive into and it's a great way to expand your knowledge.

YOUR FIRST UX PORTFOLIO: THE INS & OUTS

I have recently started to mentor a handful of people but I feel they and others might want more expansion on how to create that first portfolio.

Be done with the sexy portfolios with the tiny writing and big images and get stuck into the research. That's what a true UX portfolio is all about. If you can make it look good too then extra bonus points. But the main spine of your portfolio is hard core research and context. I would advise you to show a

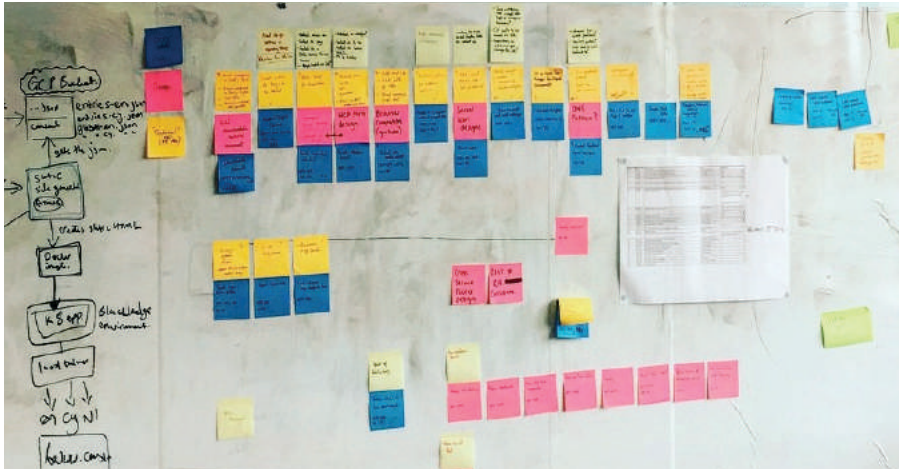
few examples of research (*at least 5 of these*) within your portfolio:

- Literature Review
- Ethnographic Research: (i.e. interviews)
- Personas (a real must have)
- Evidence of 'Card Sorting'
- A task flow diagram
- Fishbone diagram
- Focus group studies
- Empathy Map
- A/B testing
- Quantitative Research: (i.e. surveys)
- A Value Proposition
- Evidence of user testing
- Context Scenarios
- Future Scenarios
- User Stories
- Mental Map
- Experience Map

My personal preference would be in this order: literature review; ethnographic research, personas, empathy map, experience map, context and future scenarios, user stories, card sorting and then usability testing.

I know it sounds like a lot, but you can condense this down and squeeze the good bits of information out to present in your portfolio. Remember to take photos of your processes, especially for card sorting and experience map (where you'll start off with lots of sticky notes and a big piece of paper). Find something you hate doing online, on mobile and desktop and find a solution for it. It's important you include both Mobile and Desktop products in your portfolio to show diversity.

So, now you've done your research you should know your users pain points and the type



... of language they use. So get a pen and paper and start sketching out your product, remember it's never right the first time, so don't waste your time going straight to the computer and designing your product. Get people to use your paper prototype, and take photos of them using it (document everything) - you even use an app called 'Pop'. 'Pop' is an app that allows you to make super quick prototypes by simply snapping photos of your paper and linking the pages - so it performs like a real app.

Once you get feedback from your paper prototype wireframes start again, and test it again. When you're happy with the results, we can move onto basic wire-framing on the computer. Again, we are leaving fancy design behind. I find 'Moqups' is a great tool to use for grey-scale wire-frames but you can use any tool affordable to you. I find 'inVision' is a great tool to quickly link up your product's pages. The joy of using 'inVision' is that you can share your prototype with other people, so you can do in person or remote user testing. Out of preference

as a beginner I would stick to moderated testing (being with the user remotely through video camera or in person). Simply because you can help solve any questions that come up about your product, or probe for more answers during the testing stage. Remember though, do not influence the user on how to use your product - the best results come from natural behaviours.

So, you've done your testing - you've made some tweaks or maybe you haven't. Now it's time to make your product come to beautiful life. Remember consistency is key, make sure everything is spaced out equally and when you go page to page the items within your app are not jumping around on the screen. It's nit-picky work but it pays off.

You might have created two or three visuals of your product, if you have and can't decide which theme is best, carry out some A/B testing to find out what users prefer and why. This is really helpful to 'nail' the look of your product.

Now you have the fun job of putting your portfolio together, collecting the relevant data

and making it into a usable easy to read format. Remember small text is a no-no (as is BIG text) try to make sure your portfolio is easy to read for the user, be UX focused on this. Include your pictures, of interviews, your experience mapping (the sticky notes on paper) and the rough sketches of your wireframes. Add in your well thought personas - be proud of how they resonate with the people you interviewed. Take some pride in your work, you've done an excellent job getting this far. Add in your final sexy product screen shots and feel free to give your portfolio some personality. And one last thing - don't forget to do a page about you - who you are and your ambitions.

PRODUCT DESIGN: PHYSICAL VS DIGITAL

When I graduated and typed in the words 'Product Design Roles' it quickly came apparent that there are two meanings to the word. Universities focus on 'Product Design' as a physical tangible thing, whereas the job world perceives it as a Digital thing. I thought I needed to go into designing 'physical' products



when this wasn't the case. (However, I was fortunate enough to land a job with Dyson as a Design Engineer)

I wasn't qualified to do any of the jobs that had the title 'Product Designer/UX Designer'. By no means is this the University's fault, in fact my teachers were phenomenal at teaching me, but I believe all Uni's in the UK are slightly guilty of neglecting UX and not giving it the attention it deserves. Especially when there are UX courses like the General Assembly that cost 10k for a few weeks - a bit mad if you ask me.

So, you have graduated (or maybe you will soon). And you've seen Product Design roles that have nothing to do with your design skills. Well firstly, that's a myth. You may not have a UX portfolio - BUT - you have got the makings to be a UX Product Designer! In university they teach you how to problem solve, how to cater absolutely everything to the user. Now it's the same principle for UX, apart from the fact that you're working in a digital environment and not a hands-on physical one.

The main things you'll find,

Digital vs Physical - Your workshops and my workshops are very different. The workshops I was familiar with were full of machinery (still fun), whereas, the workshops I use now are a sticky note user entered heaven!

Testing products low to high fidelity - you might be used to creating and breaking devices and hacking them for your project. Well, in the digital world it's not much different. You can create low-fidelity prototypes on a screen for users to interactive, you can chop and change bits here and there and iterate as you go along. The difference, it is less messy and won't require work goggles.

Collaboration: Yes, it's a big thing in UX. You may not be working with machinery technicians/engineers but you will be working with researchers/developers and other digital designers.

The similarities and differences are apparent. However, if you want a job in UX, unfortunately your Product Design portfolio won't help you, unless its structured around research

and digital work. However, if you give yourself 3 weeks (I have seen it done several times with the people I mentor) you can make a strong solid UX portfolio online and absolutely smash it!

Remember **consistency** is key, make sure everything is spaced out equally and when you go page to page the items within your app are not jumping around on the screen. It's nit-picky work but it pays off.

Connect
with Tara Fear
on [LinkedIn](#) and
read her other
articles & posts
[www.linkedin.com/
in/tarafear/](http://www.linkedin.com/in/tarafear/)

PORTFOLIO FOR HIRE

By **Tyler Sinnott** (www.tylersinnott.com) | Senior Visual Designer at **Disney+**



Portfolios are the key to any designer's success. A well designed portfolio is an asset in today's job market, and a lazy portfolio is easy to spot.

Depending on the job you could be competing against anywhere from 50 to over 500 other designers, and a complicated or confusing portfolio site could be the deal breaker for you moving onto the next round.

Over the years I've worked with brands like Disney, ESPN, Hasbro, Sesame Street, Fox Sports, Major League Soccer, LA Galaxy (MLS), New York Mets (MLB) and New England Patriots (NFL). While I think strong work helped me land gigs with these brands, Having a clean, easy to navigate portfolio was crucial in showcasing my work and getting the conversation started at each crossroad. The advice below may not directly apply to every type of design, but take the pieces that work best for you and apply them where possible.

PHYSICAL vs DIGITAL PORTFOLIO

I went to the School of Visual Arts in New York City. Each year we were required to have a physical portfolio printed and we were required to hand that in for our final grades. At the time I loathed this process, but little did I know this would be so key early in my career. When I showed up to interviews in person, I'd break out my finely printed book and present it to the hiring managers and watch their eyes light up as they flipped through the pages looking at my work. The great thing about this was that I could have conversations in person about my work and see their reactions to different pieces. In real time I could see what people liked and skipped through.

Over the years I relied less on a physical portfolio once my resume started to gain some traction and could stand on its own. Recently I've found bringing leave-behinds to be as successful as bringing a physical portfolio. During my most recent interview with Disney, I brought sticker packs containing stickers I designed. This served as a mini portfolio and people could view pieces of my work after I had left. While I think people prefer the hand crafted printed portfolios, having some type of tablet presentation for in person interviews would really help you stand out in the process. At the end of the day I think having a Digital portfolio is a necessity in today's times, but having a physical portfolio is an added benefit.

PERSONAL BRANDING

When I said 'a lazy portfolio is easy to spot' in my opening

paragraph, There's a couple things that come to mind.

First is overused free mockups; if you downloaded it for free, safe to assume over 100k people did too, so that won't stand out. I usually pay for mockups because it really makes someone question whether or not I actually had that item made just for my website. I know paying for nice mockups adds up, but some websites I use offer a monthly subscription so I can download a bunch at once and save some money. Now I don't think using free mockups is actually that lazy, but if you want to stand out, paying a little extra for quality mockups will make you stand out against others.

Next is your domain, using a demo domain like *tylersinnott.portfoliosite.com* or *sampleurl.imadetheseup.com* really comes off as unprofessional. A domain on average costs £9 a year and really helps make your portfolio feel more refined and professional, you can even step that up with a custom email address. £9 is about two/three trips to the coffee shop, so that one is a no-brainer for me personally. Showing investment in yourself goes a long way showing a hiring manager you take this seriously and you'll do the same thing at their company on the job.

Lastly is the highlight of this section, Personal branding. I gave a talk here at Middlesex University a couple months ago breaking down personal branding and how key it is. Not everyone is a master of branding, but almost anything is

better than a plain typeface on an online portfolio. Any time I see this on any design portfolio website, I think the person took an easy route and skimmed on one of the most creative parts of their portfolio.

WHAT TYPE OF WORK IS WORTH SHOWING?

Considering that this article is in your school (university) magazine, feature your school work! You put however many years into all of this hard work, show it off in your portfolio. Don't stop there though, when I graduated my portfolio had maybe a 50/50 mix of school work, and passion projects or miscellaneous projects I worked on for clients or at internships. School work is so crucial to a good portfolio, but people love seeing passion projects. For example, I love designing for sports teams, so I rebranded a women's basketball team here in the United States. I showcased a stadium takeover with graphics, my new logos mocked up on the jerseys (which are mock ups I paid for so they stood out), mocked up the logo on a basketball, etc. The cool thing about this project was I could showcase what I could do if you gave me no direction, this was just my creative thinking without a teacher or supervisor at work giving me guidance. To this day I showcase passion projects on my website, as of recently I set up a shop on my portfolio, which is really just an extension of my portfolio because it shows custom illustrations I can do, that don't really apply to single projects.

THINK OF THE USER

This is the last, and probably most important part of my portfolio breakdown. I can't tell you over the years how many portfolios I've seen from recently graduated students who have confusing and hard to navigate portfolios. A lot of

times it comes down to the portfolio site or template they picked, so don't settle for the first one you choose.

Some common issues I see on these sites I mentioned above, but the main issue is just how quickly you can see the person's work. Sometimes I'll see websites which have landing pages that say 'Welcome to my portfolio, with a button that makes you click to see the work. I never recommend this, because that's just one unnecessary step or roadblock that's keeping people from seeing your work. Going back to that '50 -500 people' that may have applied for the same job as you, that probably gives the person looking at your website under a minute to view your site. The last thing you'd want to do is make it complicated for them to see the work.

I think for student portfolios, especially students looking for full time jobs after school, show plenty of nice photos of your work on your home page, with easy ways to click and view the projects, and maybe a nice photo/about page of yourself so people can associate the work with a human being and feel connected.

Personally, I have the logos of my featured clients right when you land on my website, so you can easily click and view the work you want to see. Simplicity is key, you may think "This is boring", you can keep it simple but make it look professional.

People love an easy to use website because they see what they want to see, then move on to the next site. Making the work on that site memorable is the most important part, but you need to make sure they can easily access that work in a short amount of time.

SELF AUDITS

At the end of the day if you're not getting any bites on job applications you send out, it could be your portfolio or your resume layout. Which is always something you can always change so don't worry.

My website used to have a very sports heavy feeling to it, which I recently refreshed so I could stand a chance when I applied for non-sports jobs.

Never be afraid to ask friends to review your portfolio and give you their thoughts on how easy it was to navigate, and you can always reach out to fellow designers and ask them to review your work on your portfolio. Doing a self audit of your own work and improving on what's there will be a key to your long term success. Never settle with what you have and say 'I went to school for X years, this should get me a job', instead push yourself and say 'what if I added a passion project to showcase my love for vinyl records' or 'I wonder if people are having a tough time finding my work quickly on my website'. The harder you push yourself and showcase that on your portfolio, the more opportunities you'll find along the path of your career.

PORTFOLIOS WORTH CHECKING

OUT! Here's my shortlist of Portfolios I like:

- + Tylersinnott.com
(My own website)
- + Louie.world
- + LincolnDesignCo.com
- + Pentagram.com
- + Oriincultureshop.com

Connect with Tyler on **LinkedIn** www.linkedin.com/in/tylernu/ and on **IG** @tylersinnottdesign

A QUICK GUIDE TO YOUR (GRADUATE) PORTFOLIO

By **Goda Gorodnicevaite**, Graphic Design Graduate, UoH



YOUR GOLDEN TICKET

The portfolio is this weird thing that always follows you, no matter what. In the creative industries, it is your main attribute, your 'golden ticket' to your next (hopefully) great chapter. I don't know about you, but for me, it always seemed like an impossible task to solve. Luckily, I'm finally finished with that (for now) and somehow even got a chance to write about it.

Obviously, your work is the focus here and a portfolio only provides a structure to showcase it. However, the way you choose to present it can make all the difference. There is so much information on how you can create a great portfolio; go to *It's Nice That*¹ or *AIGA Eye on Design*² and you'll find everything you need. Sometimes those bits of advice contradict each other, yet the overall rules are quite universal.

My portfolio is focused on the fields of Branding and Digital design; therefore, this piece might be most relevant to designers of such kind.

However, most of the tips are quite loose and will be easily adaptable to different pathways. The advice that will follow is mainly a mix of my personal insights and brilliant suggestions of professionals, that I was lucky enough to be surrounded by. Accept them openly, yet never forget to take it with a grain of salt (as with most of the things in life)!

FIRST THINGS FIRST

The graduate package includes several important things – before you start looking for a placement or a job, you'll need the full set: pdf folio/³ website³, your Curriculum Vitae (which is problematic, when your "experience" section is quite empty) and some social media platforms. Generally, all

of these can be put in your portfolio, so that it contains everything an employer would need to know about you and your work.

THE PLACE YOU APPLY TO

Firstly, you need to figure out the area of design you are planning to work in. Whether you are interested in packaging design or motion graphics, your portfolio will need to be focused on that accordingly. Naturally, as a graduate, you might still be looking at a few design areas, so my biggest advice would be to have a few different versions of your folio. Each studio will be different, will work with different clients and create specific work, individual only to them. Therefore, your portfolio needs to showcase why you would be the best fit for their team. In other words - don't send a packaging design focused folio to a digital agency.

Check-Out Goda's Work &
Website: www.godagoro.com

THE TECHNICAL BITS & BOBS

So much detailed information and advice are written on the net, that it would be inefficient to rewrite it, yet I will try to tell you some of the tricks that helped me refine my personal portfolio.

Layout. Make sure to use a grid-led structure (such a designer thing to say, but I promise, it works) to frame your work. The key to a great folio is consistency, and a strong grid is what always allows for a clean and balanced composition.

Minimal personal branding.

Okay, this might be controversial in the context of "make yourself distinctive and memorable", but with very flashy branding you are taking away the attention from your work and this is not what we are trying to do here. Obviously, if you feel like a clean sans serif will not represent you as a creator, don't try to fit in it, but be careful with extremely expressive visuals that might end up looking unprofessional.

Text. I'm sure you have the reasoning behind your design decisions and that is exactly what the industry wants to see (or I should say read). Yet beware, that in most cases the creatives will not have the time to read through everything, so approach this part with caution – I suggest putting all your explanations at the beginning of each project with as few words as possible. And of course, no spelling mistakes, please. In this digital age, it's very easy to double-check it, Grammarly (not sponsored, unfortunately) is my best

companion, and I mention this little secret with no shame at all.

Mockups. Okay, this might be one of the most important parts of your folio, which the majority of students overlook. We've all been there - getting some student-friendly (free of charge), good quality mockups is extremely hard. In most cases you need to invest a lot of time in this specific research, however, it makes a huge, HUGE difference. Having new and never seen mockups elevates your portfolio to a very high standard, so please, no more poster mockups with those three blue chairs. My personal tip: follow the industry. For example, currently (in 2021), the best studios tend to use flat (2D) vector graphics to showcase their designs⁴ – it allows for a continuous overall look at the case study. Also, it is always a great option to make your own mockups by DIY'ing a little photo studio in your room, or just using some stock imagery, that can later be easily adapted to act as a mockup.

CRITS, FEEDBACK & WORKSHOPS (AKA AN INTROVERT'S NIGHTMARE)

I know what you might be thinking. Socialising is already hard sometimes, imagine someone discussing your work openly, right? (Un)fortunately, this part is very important. I give a lot of credit to my tutors, mentors and other great designers⁵, that dedicated some time to provide feedback on my work. Even if that's your coursemate, ask for some insights. We tend to get narrow-sighted when working alone and a fresh pair of eyes

(especially experienced ones) will make all the difference. I strongly suggest participating in any kind of portfolio related events (and this comes from an introvert), there's quite a lot of agencies and initiatives doing great workshops. Be assured, that most of the creatives are extremely friendly and human, they all have been through this stage, so they know exactly what you might be feeling.

TRUST THE PROCESS

Creating a decent portfolio is hard work. Especially knowing the fact, that it needs constant care since you will be updating it until the end of your career. However, I am confident, that anyone who puts in the work can do this. It is all about refinement, so just start with what you have and you'll get there eventually. Trust the process, the finish line is rewarding!

P.S If this reminded you of something, then you're right. Shoutout to the best of the best: Craig Oldham. If you haven't read 'Oh Sh*t... What Now?'⁶ you are missing out.

FOOTNOTES

- www.itsnicethat.com/
- <https://eyeondesign.aiga.org/>
- In the field of graphics, a pdf portfolio is essential, while the website is an additional asset
- Compared to the real-life scene gadget mockups
- Shoutout to my university tutors, Nick Lovegrove, Rich Mitchell and Seb Chaloner, as well as my mentors Charlotte Francis and Jamie Cornell!
- <http://www.craigoldham.co.uk/>
www.laurenceking.com/product/oh-sh-what-now/

STEP-UP YOUR PORTFOLIO GAME

By **Muhammad Aziz**, Architectural + Landscape Designer | Urbanist



Aerial Perspective of a Civic Hub

While having a print portfolio is essential for a few purposes including employment, a digital portfolio is the way to go in a fast-paced world of design because of their accessibility and variety, although some professionals choose to invest in both a print portfolio and an online version so they get the best of both worlds.

The COVID-19 pandemic has derailed the AEC industry and forced us as designers to rethink alternative modes of work and design communication. However, this has also been the time young designers, particularly architects and interior designers, thought creatively and took their portfolios to the next level. While there is no doubt that architecture and interiors are static, the representation methods used to communicate the design process still have the potential to be interactive and dynamic.

With the rise of technological advancements in design, more design practices and universities going paperless; more architects are employing BIM, VR and animations to communicate their ideas and effectively collaborate with other design professionals. Using these technologies in your digital portfolios as students and graduates can leave a

striking impression on the audience, be it a prospective employer looking for the ideal designer for their firm, an emerging architect about to start their own practice, or a caffeinated student going through a creative block and looking for inspiration.

It is imperative to have a strong digital portfolio that not only showcases your diverse range of skill sets but also can be easily accessed. Portfolios can now be created using website building platforms such as Behance and Wix, without the necessity of learning how to code and eventually pulling your hair out!

Switching to an online portfolio may seem daunting at first, but in the process you will realise that the elements of the portfolio design and the way you curate your work are closely similar to how you would normally create a PDF for design submissions and job

Connect with Muhammad Aziz

[linkedin.com/in/muhammad-aziz-784403165/](https://www.linkedin.com/in/muhammad-aziz-784403165/)



Section of a Community Design

applications. Some of these similarities include layout, text, visual and graphic consistency, and being able to transfer these skills online could even possibly open avenues to related design fields to explore; particularly UX/UI design. The major difference, however, is the ability to use a wider range of digital media which is one of the best perks of having an online portfolio, not to mention the ability to establish and grow your reputation in the creative industry.

Digital media has opened avenues for new and creative representation techniques - particularly animations, GIFs and VR/AR - to effectively communicate design decisions and projects.

GIFs - one of social media's visual best friends have the ability to provide the same level of information as plans, sections, composite drawings or even simple process diagrams,

but in a more succinct and chronological manner. They make your designs more dynamic and help add some life to a tedious design meeting or a presentation.

The increasing use of CAD has enabled students and professionals to develop their design proposals using 3D-modelling tools, and this digital revolution has been further accelerated by the pandemic where more designers are now turning to VR/AR to represent their 3D models, offering the audience different kinds of virtual and spatial experiences. This is a perfect opportunity to work further on your models (if they still lack concreteness), embed them in your online portfolio using 3D viewing sites such as *modelo.io*, and create powerful renders and walkthroughs!

In a nutshell, while having a print portfolio is essential for a

few purposes including employment, a digital portfolio is the way to go in a fast-paced world of design because of their accessibility and variety, although some professionals choose to invest in both a print portfolio and an online version so they get the best of both worlds.

A word of caution, though: curating for clarity is more important than designing 'cool' layouts, as showing off skills with just the layout by overusing elements without any visual hierarchy would indicate lack of professionalism. It is more important to have a good portfolio layout set to showcase your design skills.

WE ARE STORYTELLERS

By **Anam Aziz**, Architectural Designer



"You're not a great designer unless you're also a great storyteller." - Neil Turner

It is undoubtedly true that pitching yourself and your ideas as a designer is just like marketing and selling your idea, design, and product.

Creating a portfolio is just like designing a space; it requires careful consideration of what content needs to be included and how that is to be presented, not to mention the importance of having a well-crafted narrative which is extremely crucial when applying for a work experience or aiming to bag a project.

A portfolio to a designer is a living and breathing asset that evolves over time. Think of your portfolio as a given space that you have to plan and design in a way that is able to narrate and sell the story on its own.

STORYTELLING LEADS TO STORY-SELLING

A designer may be able to talk through their project in a meeting or a design crit and convince their client, but how can they let their project do the talking?

The foundation of a strong narrative is including sketches and diagrams not only as a skill but also as a part of the design process. It adds a personal touch and authenticity to your work. You do not have to be an artist to be great at sketching and diagramming, but what is rather important is how you communicate your ideas with clarity to the audience.

Another key element in your portfolio is focusing more on quality over quantity. It may be tempting to throw in all projects to your portfolio, but weaker work can have a

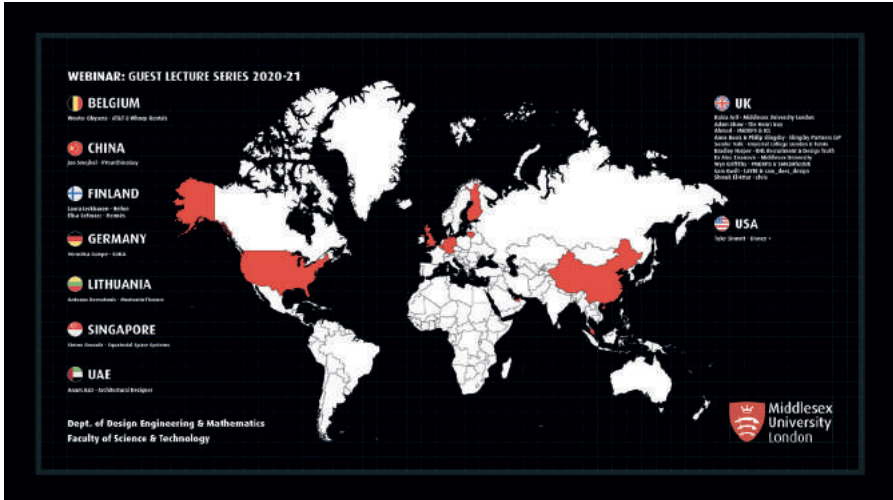
detrimental impact on your possibility of getting a job at a firm or bagging an architecture project.

Visual hierarchy definitely plays a huge role in the presentation and conveying the narrative. As creative professionals, we more or less know the key features of crafting a strong portfolio. While we are living in a highly digital era particularly in the realms of design and engineering, it can be argued that having a physical portfolio with tangible 3D effects creates a strong impact as well.

Anam is born and raised in the United Arab Emirates and has a Bachelors degree in Architecture from Heriot-Watt University Dubai.

Connect with Anam on **LinkedIn**
www.linkedin.com/in/anam-aziz-07311a1b3/

A TOKEN OF THANKS TO OUR 2020-21 GUEST LECTURERS



This past year has been unprecedented, different, sometimes difficult for many. However, without a doubt the global community has been able to connect in way unlike before. *'Nothing develops intelligence and experience like travel.'* We have been able to connect with fascinating people across the world, across continents and time zones. This year whilst we were working from home or wherever we were situated... our guests joined us from UK, across Europe, the Far East, Middle East and USA.

We hosted guests including global Project Managers and Telecommunication Engineers; to Assistant Designers at Globally Renowned Luxury Fashion brands; from CEOs, founders and self taught engineers of rocket and launcher start-ups; to highly qualified electronic engineers

who have worked across the medical, IoT, robotics, and FemTech industry. From those who run internationally popular podcasts available across Apple, Spotify and other podcast channels, providing a service to communities in design and networking; to senior award winning service designers, with offices based across Europe and UK. From Patent Attorneys, helping others protect designs and Intellectual Property Rights, to an NHS nurse and businessman, helping business owners position themselves to attract funding and protect their mental health and wellbeing.

Anna Bools, Part-Qualified Patent Attorney at Slingsby Partners, following their guest lecture, said: "We really enjoyed giving a virtual lecture to students of the Design and Design Engineering departments at Middlesex

University. The lecture series was very well organised and the staff and students made us feel instantly welcome as we gave the talk. We were particularly impressed with the engagement of the students during the Q&A session... Overall, we were glad to be able to impart some knowledge which could become useful to the students in their upcoming careers and look forward to the next opportunity to collaborate with Middlesex University's Design departments."

From all of us at Middlesex University, Product Design, Product Design Engineering and Design Engineering, thanks to you all, and we look forward to staying in touch, working with and hosting you again in the near future.

[Read](#) an overview of the 2020_21 Guest Lecture Series overleaf



<https://bit.ly/21719r3>

View the **2020_21 Guest Lecture Series**.
Listen to Podcasts & replay Webinars.

GUEST LECTURE SERIES

We run an **annual Guest Lecture Series** of **weekly hour-long talks** for **Product Design, Product Design Engineering and Design Engineering**, but open to all at **Middlesex University**. We bring together a vibrant mix of speakers from the full spectrum of **design and engineering**. A mix of leading practitioners, opinion leaders, radical thinkers and emerging talents to inspire and support professional development in our students and staff. We go on to work with many of the speakers through collaborative projects and internships!

We've been lucky to been visited by so many amazing people over the last few years, as recorded in our past #MDXPD magazines, with more to come next year and beyond!

The **2020_21** Guest Lecture series included **19** inspiring and informative talks:

Rabia Arif MDX Works • **Wouter Ghysens** Global Project Manager at AT&T • **Adam Shaw** CEO at The Heart Guy • **Simon Gwozdz** CEO & Founder at Equatorial Space Systems • **Ahmed** Lecturer at MDX and Researcher at ICL • **Antanas Bernatonis** Head of Business Development at Montonio Finance • **Laura Jerkkänen** Senior Service Designer at Hellon • **Tyler Sinnott** Senior Visual Designer at Disney+ • **Jan Smejkal** Founder at YCG & Co • **Elisa Defossez** Assistant Designer at Hermès • **Anna Bools & Philip Slingsby** Part-Qualified Patent Attorney & Managing Partner at Slingsby Partners LLP • **Sander Valk** Product Designer & Design Researcher at ICL • **Bradley Harper** Senior Recruitment Consultant at RHL Recruitment & Co-Founder at Design Truth • **Veronika Zumpfe** Mechanical Developer & PhD Candidate at KUKA Deutschland GmbH • **Anam Aziz** Independent Architectural Designer • **Dr Alex Zivanovic** Technical Tutor at MDX • **Wyn Griffiths** Senior Lecturer & Principal Investigator 'Space Plague' • **Sam Gwillt** Industrial Designer at LAYER and Content Creator at Sam Does Design • **Shrouk El-Aitar** Electronic Design Engineer at elvie



#MDXPD @MDXPD

Contact **Ahmed Patel** - a.m.patel@mdx.ac.uk if you are interested in sharing your experiences in our **Guest Lecture Series**.



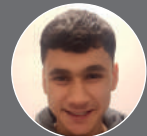
zeNd

Bringing A Mindful Experience Through Arduino and Magnetism

Is **play** just for children? Once we reach adulthood should we stop and get serious? Not if we want all the important benefits that come with play.

ZeNd is a **construction kit** for **adults** that provides a **mindful experience** using **Arduino** and **magnetism**, thereby improving the overall **well-being** of the user.

The toy creates **visuals** on **iron filings**, a metal powder, that reacts to magnetic fields. The toy will bring a **mindful experience** by immersing the user in the process of **building** the device and **enabling** them to feel '**in the present moment**' as they watch the patterns unfold, like a magical harmonograph with no visible stylus. **Stress relief**, improved **concentration**, and **relaxation**; serious play!



JOSEPH SALEM
PRODUCT DESIGN ENGINEERING BEng

0752677295
Josephsalem321@gmail.com

@J.design99
linkedin.com/in/josephsalem



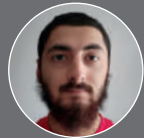
P.A.I.

Bringing The Future of The Talking Car to Life...

P.A.I. your **car assistant** from the future. A **talking** and **living AI** that **communicates** with the driver through **audible suggestions** and a visual light display.

P.A.I. gives you updates on your **car's current performance**, makes you **aware of hazards** around you, and gives you **personalised updates** on places to visit whilst on your journey.

P.A.I. provides **comfort** and **companionship** for those driving alone, and **enhances your driving experience**.

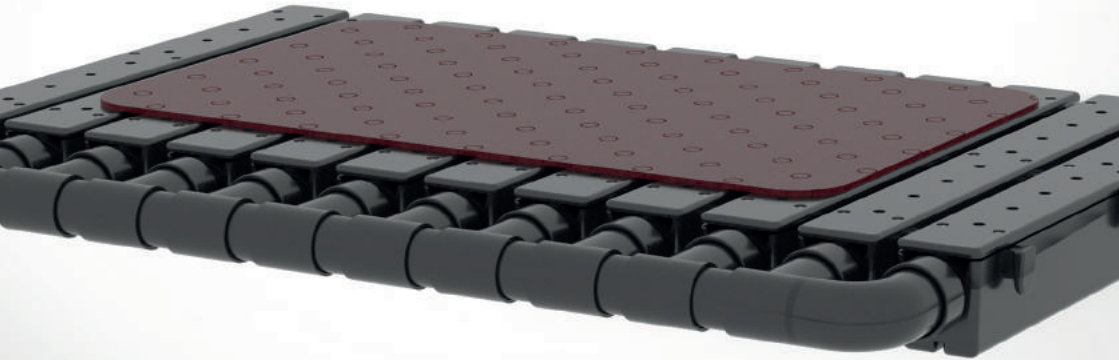


IBRAHIM JAVED
PRODUCT DESIGN ENGINEERING BEng

07847478479

ijavid123@outlook.com

@ijavid123 @tubesketches
linkedin.com/in/ibrahim-javid



SMART BED FOR LASER CUTTER

Vacuum Bed with Feedback Valve System to Provide A Smart, Efficient And Cost-Effective Way to Hold Materials

Laser cutters have become the go to machine for cutting a wide range of materials with **speed** and **repeatable accuracy**.

Holding very thin materials can be difficult and normally involves expensive and inefficient **vacuum beds**. This new bed provides a '**smart**', **efficient** and **cost-effective** way to hold thin sheet materials on small laser cutters using an **innovative air-flow** and **valve matrix**.



SUJINTHAN SURESHKUMAR
PRODUCT DESIGN ENGINEERING BEng

07565943212

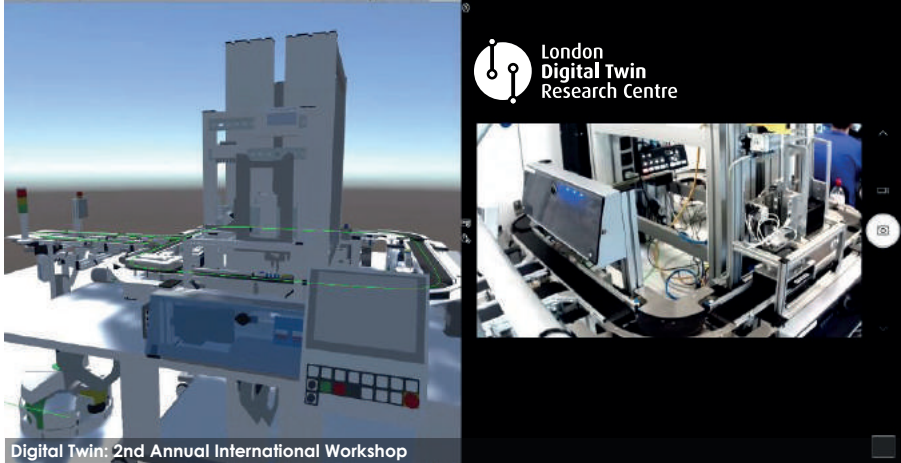
impo.sujinthan@gmail.com

@sujj_in_solo

linkedin.com/in/sujinthan-sureshkumar

LDTRC: Transforming Industry and Society with Digital Twins

Prof. Huan Nguyen, Director of London Digital Twin Research Centre Shares Updates & Work



Digital Twin: 2nd Annual International Workshop

The **London Digital Twin Research Centre (LDTRC)**, launched in March 2020, and based at Middlesex University, London, focuses on the development of state-of-the-art technology in digital realization of the physical world. The developments in this centre focus on the digital transformation of physical environments, whether it is industry, infrastructure, healthcare or transportation using concepts and technologies from the notion of a 'digital twin'.

Digital Twin (DT) has been identified as a top ten Gartner Trend in 2019 and its position at the convergence of economic drivers and underpinning technology maturation supports its use in a wide variety of domains. While DT technology originates from

the manufacturing domain it now represents great potential to reshape the future across other diverse domains where there is need to examine virtual interactions with the physical environment. Popularly, the Digital Twin concept goes beyond the traditional computer-based simulations and analysis and it represents a two-way communication bridge between the physical world and the digital world. The physical object exists in symbiotic relationship with its digital counterpart, being connected through real-time data communications and information transfer. The existence of Digital Twins is enabled by parallel advances in range of technologies including: Internet of Things (IoT), Artificial Intelligence (AI), Augmented Reality (AR), Virtual Reality (VR), 5G/6G, 3D Data Visualisation and Big

Data Analytics. Different configurations of technology provide new opportunities for use but new domains of use also require new advances in supporting technology. The current work in the LDTRC focuses on following core aspects: Industry 4.0 (I4.0) and Smart Manufacturing, Infrastructure (including Structure Health Monitoring (SHM) and Smart Building/Campus), Heritage Restoration, Connected Curriculum and Enterprise Management.

Some example projects in the LDTRC include:

- + Using DT technology to support **early detection of infrastructure damage** with Uni. of Transport and Communications in Hanoi (Vietnam), the project focuses on development of DTs for SHM & prediction

systems to enable continuous monitoring of bridges and other vital infrastructures. It also aims to develop translational techniques to implement the technology for various infrastructure elements.

+ DT modelling for automation, monitoring and maintenance in Industry 4.0 smart factory concepts, and is in collaboration with the Indian Institute of Information Technology, Sricity (India). The aim of this work is to develop more sophisticated tools to enable high productivity, lower running costs, product quality improvement, minimized maintenance and shutdown to keep up with rapid advancements in manufacturing technologies and industry transformation in the 4th Industrial Revolution.

+ In collaboration with TCS Research Labs, India and Aston University, UK, a third project is researching the development of agent-based modelling languages and environments as the basis of foundational DT technology.

More recently, the Centre has recently secured another Newton Fund project in Digital Twin research for Heritage Restoration with the target world heritages from partner country of Egypt. The Centre also oversees research collaborations in a multi-disciplinary context and is also conducting research for Predictive Campus Twin at Middlesex University and is participating in knowledge transfer of DT research capability through the Connected Curriculum project in partnership with Siemens. Since the launch, the Centre has become an active

member, participating in the national Digital Twin programme in the UK and become an academic member of the Digital Twin Consortium based in North America.

To showcase our research activities on 'Transforming Industry and Society with Digital Twins', on the 4th of June 2021, the Centre organised the 2nd annual international workshop to bring together experts from industry and academia to share their valuable insights and give updates on research into Digital Twin. Talks included LDTRC and partners' research on infrastructure: including the use of DT modelling to help Vietnam repair Thang Long bridge, saving two months in repair time and millions of pounds in cost, according to Vietnam's Ministry of Transport.

There were presentations on how DT research is helping transformation for industry 4.0 and smart manufacturing, and by speakers from industrial firms Buro Happold and Siemens.

Workshop attendee and speaker Dr Souvik Barat of Tata Consultancy Service Research, who focuses on the development and application of DT technology to large and complex systems, including non-pharmaceutical interventions to control the Covid-19 pandemic, found the workshop "extremely insightful". "Further collaboration with London Digital Twin Research Centre will help in advancing the state-of-the-art digital twin technologies and disseminating it to wider spectrum globally," Souvik added.

In the panel chaired by Prof Mehmet Karamanoglu, exciting updates from different teams showed a path how to solve tough real problems using DT technology, while a presentation by MDX Dean of Science and Technology Professor Balbir Barn on the gap between social and technical feasibility opened up several research questions that we all need to focus and explore in the future. Professor Balbir Barn said: "The LDTRC is an important shop window for our faculty to exhibit its national leadership in the area of Digital Twins. We see it as a core enabler for multi-disciplinary work across the faculty and beyond. Many complex problems can be represented by computational models and this year's annual workshop has demonstrated the range of opportunities presented by DT technology research".

To conclude, Director of LDTRC, Professor Huan Nguyen says: "Since its launch last year, the Centre has expanded research on DT in multiple directions, from advanced manufacturing, to robotics to built environment, structure and heritage. We are proud to have already made a substantial contribution to efforts to repair the Thang Long Bridge in Vietnam using our developed structural DT model. Our other ongoing projects are very promising and will continue to have impact on other partner countries like India and Egypt in the years to come".

Find out more about LDTRC
at <https://dt.mdx.ac.uk/>

SMASH-UK: MDX Lecturer Helps Create Virtual Exhibition for Edinburgh Science Festival

Future Green Spaces imagines sustainable and resilient environmental design for the Scottish capital, building bridges with those who feel excluded from consultations



This has been an exciting extension of our co-design practice - connecting places, diverse professional groups and communities through the SMASH principle of 'In the community, with the community, by the community' and exploring how these collaborations can manifest in digital as well as physical spaces.

Senior Lecturer in Product Design and Engineering at MDX, Wyn Griffiths, is a key player behind a virtual exhibition imagining the future of green spaces in Edinburgh.

The Future Green Spaces event, part of this year's Edinburgh Science Festival, is a virtual gallery created by local artists and ecologists, presented by Wyn's Community Interest Company SMASH-UK in collaboration with the British Ecological Society (BES).

The free event takes visitors to virtual 3D gallery overlooking Arthur's Seat. Artworks include a tree-filled, environmentally resilient Nicolson Street - currently the city's most polluted thoroughfare - and Leith-on-Sea, defending against sea level rises by embracing nature.

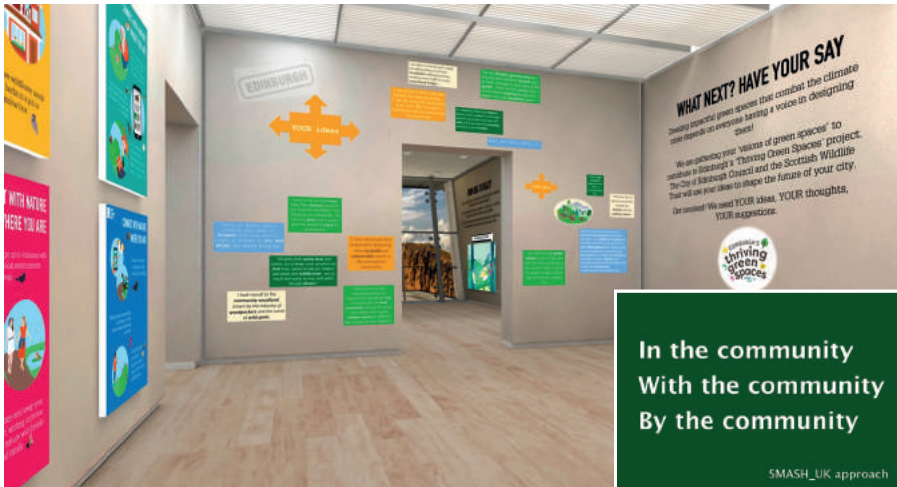
Edinburgh artists have worked with ecologists from Scottish Wildlife Trust, City of Edinburgh

council, Nature Scot, Forest Research, Architecture & Design Scotland and Bangor University, in a co-design process that Wyn, along with Dr Lindsay Keith of the University of Greenwich, have developed through their SMASHFest-UK and Space Plague immersive STEAM experiences for young people and their families.

Visitors to the exhibition have shared their own ideas for future green spaces in Edinburgh. Both the exhibition designs and the public's submissions will input into Edinburgh council's 'Thriving Green Spaces' project for the city.

Senior Education and Engagement Officer at the British Ecological Society, Chris Jeffs, says that "working with Wyn especially has taken the BES's public engagement work to the next level. He is enthusiastic, teaches by

Visit **SMASHfestUK**
www.smash-uk.org.uk



example and you absorb so much from him. He brings such joy to any project you work on.

"We're working with our own community and with communities more widely in a much deeper way. Collaborative workshops have meant everyone has contributed their vision - it's got rid of those power imbalances of someone telling you what the result should be". "A sustainable and green future will only be successful if it takes in the voices of everyone it affects".

Wyn says that the exhibition team will be continuing the project through to, and during, the COP26 UN Climate Change Conference in Glasgow in November; and are developing the approach taken as a new mechanism for doing inclusive public consultation. When local authorities consult on new developments and initiatives,

there are 'huge invisible barriers' holding back parts of the public from participating; he says: "society has made them feel this is not for them. The mechanisms are really exclusionary for those without experience".

"Edinburgh Council has been visionary - they were already moving in a similarish direction". Meanwhile the BES was one of a series of partners on the Space Plague project which Wyn and colleagues have been working on over the past two years.

"One of the most important things for me about Future Green Spaces is the reinforcement of the research we've been doing about the power of interdisciplinary and cross-sectoral collaboration," Wyn adds. "This has been an exciting extension of our co-design practice - connecting places, diverse professional groups and

communities through the SMASH principle of 'In the community, with the community, by the community' and exploring how these collaborations can manifest in digital as well as physical spaces". An article about the research will appear in the September issue of the open access Research for All journal.

After a live-action pilot at the Albany, Deptford, in February 2020, Space Plague has been reconfigured as an entirely online, fully immersive experience. Work to develop and improve it will continue over the next year.

Follow
 #smashfestUK
 on Twitter and
 Instagram

SPACE PLAGUE: PHASE 3

The collaborative action research project **Space Plague**, led by **Middlesex University**, the **University of Greenwich** and **SMASH_UK CIC (SMASHfestUK)**, entered its final phase (3) during 2021, with its live immersive storyline being translated into a Virtual Reality adventure. Principal Investigator **Wyn Griffiths** reflects on the work to this point and upcoming plans.

SMASH_UK CIC (SMASHfestUK)

is the community-based focal point of a collaborative eco-system researching and developing new approaches in co-design and public engagement with communities under-served by STEM and Arts informal education and under-represented in STEM and Arts education and careers.

SPACE PLAGUE:

Our immersive, collaborative and scaleable experience providing deep engagement with the physical sciences for young people and family has completed its design, development and production phases, with Phase 3 creating the immersive adventure in a VR format. We were lucky to work with the brilliant Sigtrap; sigtrapgames.com, Ben Smedstad and Nathan Newman to bring Space Plague to VR life in a 20 minute segment of the full live experience, based in one of the project partners – the Rutherford Appleton Laboratories – Diamond Light Source particle accelerator building. The race to get the particle accelerator working and back online, and to help develop a vaccine to the Space Plague is the focus of the game segment.

The VR prototype game was launched in early 2021 and public user testing and co-creation is ongoing. Follow up research on the effects of both the live and VR immersive experiences is

continuing and further results and articles will be published during 2022.

The first full academic article reflecting on the development and efficacy of the Space Plague immersive project was published in JCOM, The Journal of Science Communication and highlights some exciting effects and possibilities for application of the overall approach and of 'narrative transportation' in informal and formal education. Evaluation data from the Space Plague experience confirmed the effectiveness of the fully immersive theatrical approach in positively affecting audiences attitudes to Science, technology, Engineering, Mathematics and Medicine (STEM). 87% of participants completed an 'in-world' evaluation process which took place in the storyline as 'briefing' and 'debriefing' of the audience, as members of the Space Plague 'Emergency Task Force'. 98% of the respondents were positive about the experience, with 73.5% rating it 'Brilliant!'. Given the equality, diversity and inclusion mission of SMASH_UK, there was one particularly striking dataset in the evaluation: In answer to the question: 'How often do you and your family group seek out science events/ activities per year?' - 26.25% of adult visitors, answered 'NEVER'. This group was 38% Black (British, African, Caribbean or Other), 24% Mixed or Other (including Vietnamese and Indian) and 38% White (British or European). The response rate within this

subgroup was 100% positive, with 81% rating Space Plague as 'BRILLIANT!'.

The first cycle of evaluation has shown that Space Plague worked, demonstrably attracting and engaging new audiences, audiences often marginalised by other informal STEM events and activities.

READ the FULL PAPER here - 'Space Plague': An investigation Into Immersive Theatre and Narrative Transportation Effects In Informal Pandemic Science Education.'

https://jcom.sissa.it/archive/19/07/JCOM_1907_2020_N01

GET INVOLVED with DEVELOPING Space Plague VR:

<https://www.smashfestuk.com>

You can **DOWNLOAD** our fully working VR Space Plague prototype for FREE at the above link and join our Co-Design and testing team.

We'll be reporting on further 2021-22 developments and research on Space Plague in the MDXPD 2022 Magazine, and you can read about the earlier Phases of the project in the MDXPD Magazine 2020 and 2019 issues.

Space Plague was funded by: The Science and Technology Facilities Council, the Royal Academy of Engineering, The Arts Council, The British Science Association.



SMASH_UK 2021 ©



Best Community Engagement Initiative: Covid-19 Response

Middlesex University wins **Gold award** for the **Heist 2021 Best Community Engagement Campaign**. Utilising staff expertise and cutting-edge facilities, #TeamMDX found creative and impactful ways to collaboratively respond and support local efforts against COVID-19 plus wider communities' emerging needs



“This highly topical submission from Middlesex University was truly symbolic for the sector. Quickly recognising their talent, the team at Middlesex demonstrated just how much impact Universities can have on their local communities with this entry. This was fantastic work that demonstrated commitment, innovation & agility as the team embraced the various challenges thrown at them. Well done Middlesex!”

The Judges Comments

From the outset of the pandemic, Middlesex University harnessed their staff's expertise and cutting-edge facilities to support local efforts against COVID-19. Joining forces with their local council, community groups and other local partners, they found creative and impactful ways to collaboratively respond to their immediate and wider communities' emerging needs.

Aim of MDX Campaign:

The wellbeing of our students, staff and local community has been and continues to be at

the heart of all our actions and decisions. From the outset of the pandemic, we used our expertise and cutting-edge facilities to support the NHS and look after the local community. We are extremely proud of the range and depth of Middlesex staff and students' contributions – from giving a safe space to local people facing domestic abuse, to producing Personal Protective Equipment (PPE) on campus.

Smart Objectives:

+ Support the NHS by responding to PPE shortages by

Watch the ITV interview at <https://bit.ly/32UqyJC>

Read about #TeamMDX response to PPE Shortage on p.5-6 of #MDXPD 2020 <https://eprints.mdx.ac.uk/31029/>

producing at least 1,000 visors a day over April 2020

- + Facilitate Nursing and Midwifery staff and students' deployment to the front line in April 2020
- + Communicate regularly with the local council, charities, community groups and residents, responding to their concerns and requests for assistance, and updating them on our projects
- + Launch a webpage in the first week of April 2020 with information on our equipment and facilities available, our coronavirus response, expertise, and contact details for collaboration enquiries.

Details of Our Plan:

In April 2020, NHS staff were facing a dangerous shortage of PPE. We responded by volunteering to make thousands of visors, scrubs and face-coverings. Staff worked on campus and at home. We responded to the urgent need for more NHS staff on the frontline, particularly in North London, where we're based. As well as organising the deployment of Middlesex staff and students, our Nursing academics developed an online course so nurses returning to practice could quickly and efficiently update their skills. We also contributed to a wellbeing and mental health project supporting the local health and social care workforce working under pressure. To help with travel restrictions, we offered our car park to NHS staff and volunteers to use for free.

Our regular communication with Barnet Council alerted us to the fact that lockdown had put some local residents in immediate danger from domestic abuse. We responded by making some unused rooms of university accommodation available to those most in need of somewhere safe to stay. We also provided campus space to the local food bank and a charity.

We supported Test and Trace locally by hosting a Mobile Testing Unit for the public. We also played a key role in the vaccination rollout, training healthcare professionals and new vaccinators to administer vaccines. Aware that there may be anxiety about students returning to campus in September, we contacted community groups and councillors to highlight our positive work and explain the safety measures in place. To help build a sense of pride and hope locally, we secured inspiring press coverage for our work.

In our unique position as the local university, we worked to identify the opportunities where we could most effectively use our connections, space, equipment and resources to help our community where others couldn't. We supported our staff, where possible, to work flexibly so they could contribute to the efforts.

Our agile approach was vital, with senior staff making themselves available to

quickly approve plans, and work closely with our local authority, while we stayed ahead of changes in government guidance, best practice and experiences across the higher education sector.

Outcome ROI:

Shaping a better world is at the heart of everything we do at Middlesex. The initiative was driven by our institutional values, vision and mission – not by profit.

We repurposed and put our staff's expertise and pre-existing cutting-edge facilities to good use and, among other contributions, our team of resourceful volunteer staff worked nine-hour shifts, seven days a week on rotation and used our six laser cutters to make over 2,000 visors a day - we produced more than 67,200 visors in just over six weeks – double the initially predicted number. We achieved positive press coverage that instilled pride and hope in the work happening in the borough. For comparison, a 30-second advert on ITV London during Early Evening News would have cost us around £9k.

Prof. Mehmet Karamanoglu, Head of Department, Design Engineering and Mathematics, concludes, "I am very pleased that we have won the Gold award for the Heist 2021 Best Community Engagement Campaign. One of the best examples of the collaboration between SAT & ACI faculties."

2020-21 Reflections

Musings from **Prof. Mehmet Karamanoglu**, Head of Department, *Design Engineering and Mathematics*



Prof. Mehmet Karamanoglu



Connected Curriculum

Yet again, we leave another year behind with extraordinary memories. Whilst we were hugely challenged with the pandemic at the end of the last academic year, I am very pleased that we were much better prepared and organised to face the 2020-21 academic year. Although the entire year was delivered online, we managed to provide a well-rounded learning experience to our students using available technology as well as creating our own solutions. I am immensely proud of our amazing staff who have pulled all the stops to make this happen for our students and still managed to provide amazing learning experiences. This not only allowed us to give remote access to specialist equipment in our labs, but we also managed to provide innovative solutions in delivering our curriculum, in addition to running a bureau service for some of our workshop related activities such as laser-cutting and 3D printing.

While we are now busily planning to return to an on campus in-person teaching, we

are also looking to retain some of these solutions to enrich our educational offering.

Our usual **degree show** once again remained online but has grown to be bigger and better, displaying some amazing work of our students, view online at: creativegraduates.mdx.ac.uk

Work with our industrial partners also continued to develop. For example, the **Connected Curriculum** project in partnership with Siemens and Festo is now fully developed and will go from pilot stage to full implementation, ensuring our programmes benefit from the developments Industry 4.0 technologies provide. More at: <https://new.siemens.com/uk/en/company/education/connected-curriculum.html>

The department also made further advances and expanded its activities in **digital twin research** - the London Digital Twin Research Centre (www.dt.mdx.ac.uk) organised its second annual international research workshop with a theme on Global Digital Transformation where speakers

from around the world took part.

Similarly, departmental staff took part in many other high profile research projects running within the faculty, contributing to ongoing research in Covid-19 related areas such as the **CoRLEIT** project, extending the work done on lung function monitoring of premature babies (CRADL project) to low cost bedside imaging system to detect changes in covid patients' lung ventilation.

None of this has been easy to achieve but at the same time it also prepares us to meet the challenges of our times. We all rise to these challenges with no expectation for a reward but it is always nice to see our work being valued and appreciated. Be it our latest nomination and success for a **HEIST award** in the category of Best Community Engagement, or our student's work being selected as one of the 10 best projects across the student showcases around the world (see page 17), it makes all of this a very worthwhile effort.

OPEN DAYS

Join us at one of our Virtual Open Days

Our online events are a chance to meet us online 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 interactive livestreams and via live chat rooms open throughout the event.

Book your place so we can keep you up to date with the latest programme.

A VIRTUAL TOUR OF MDX

www.mdx.ac.uk/get-in-touch/virtual-tour

Visit us online for dates on future open days:
mdx.ac.uk/get-in-touch/meet-us/ug-open-days

BOOK FOR OPEN EVENT

<https://bit.ly/3AuNrST>

PRODUCT DESIGN

Have a look at our **Product Design BA & Product Design Engineering BEng/MEng** courses...

<https://www.mdx.ac.uk/courses/undergraduate/product-design>
<https://www.mdx.ac.uk/courses/undergraduate/product-design-engineering>

DESIGN ENGINEERING

Have a look at our **Design & Engineering** courses...

<https://www.mdx.ac.uk/courses/undergraduate/design-engineering>



@mdxpd
@middlesexuni
#mdxpd



@middlesexuni
@MDXApply
@MDXsat
@MDXDEM
@redloopdesign
#mdxpd



MiddlesexUniversity



MiddlesexUniVideo



Middlesex University

CLASS OF 2021:
#MDXPDunmuted 

Middlesex University

Hendon Campus
The Burroughs
London
NW4 4BT

+44 [0]20 8411 5555

www.mdx.ac.uk

Middlesex University Faculty of Science and Technology
mdx.ac.uk/about-us/what-we-do/faculty-of-science-and-technology

Ahmed M >

Ahmed O >

Amandeep >

Blessing >

Constanca >

Dominik >

Harai >

Jonathan >

Mohammed >

Mithokozisi >

Omer >

Serif >

Tyanna >

Vladan >