

Visualising Research Competition 2026: Entries





From Constraints to Decisions: Learning Through the Game at Wrexham AFC

This image is based on my recent published research exploring game-based learning within a professional football academy in collaboration with Wrexham AFC. The study examines how coaches design training environments that replicate the complexity of real match situations, enabling players to develop decision-making skills through experience rather than repetition.

The player stands at a crossroads, representing the continuous decisions required in football, where multiple options emerge in response to changing game conditions. The illuminated pathways reflect the dynamic and unpredictable nature of play, while the visualisation of the mind highlights the perceptual and cognitive processes involved in recognising and acting upon opportunities.

The research draws on ecological dynamics and the constraints-led approach, emphasising how learning emerges through interaction with the environment. This image captures the central idea of the paper: that effective coaching is not about prescribing actions, but about designing game-like situations that support players to think, adapt, and make decisions under pressure.



AI for Sound Connections

A territorial robin sings in an urban back garden, tawny owls duet in a moonlit woodland, peacocks announce their intention to roost, lemur alarm calls echo across city zoos, cicadas buzz in a Mediterranean summer, and howler monkeys wake Peruvian rainforests with their eerie roars. Throughout the day and around the world, sounds place us and connect us.

This title is a spin on the controversial term 'AI for Good'. The collaborative research it represents is a response to the twin challenges of widespread human-induced biodiversity loss and how to process, and generate insights from, the sheer volume of acoustic data conservationists collect each day around the globe, from Peruvian rainforests to UK zoos. But can we really assume to help conservation efforts with AI models that increasingly cost the Earth to train and run? This research uses a new, lightweight approach, inspired by the way humans process and recognise sounds. The models are known as BRaiNNs (Bioacoustic Recognition AI Neural Networks). The photograph shown here was taken, up close and personal, in a black-and-white ruffed lemur enclosure at Dudley Zoo where sound is being used to monitor enrichment. The BRaiNN logo was created using Python and PowerPoint.



Cultivating Food Literacy: An Assessment of Food Education Initiatives in Welsh Secondary Schools

My image represents the central journey explored within my research: the transition from food education in Welsh secondary schools to careers within the food and drink industry. The composition deliberately contrasts the familiar school food classroom on the left with a professional commercial kitchen on the right, connected by a central pathway symbolising progression. The student walking between these two environments reflects both the educational and personal journey that many young people navigate when considering careers in food.

Images in the foreground represent the knowledge, skills, and identities developed through food education. It also reflects my own experiences, positioning myself as both researcher and participant within the study. Using Reflexive Thematic Analysis, I critically examine how my personal experiences intersect with those of participants to generate deeper insights into educational progression.

The research is conceptually framed through Bourdieu's theories of habitus and cultural capital, exploring how students' backgrounds, experiences, and access to valued knowledge shape aspirations and opportunities within the food and drink sector. Ultimately, the image visualises how school food education can act as both a gateway and a barrier to progression, highlighting the social and educational factors that influence young people's pathways into the industry.



What Did You See First?

What did you see first? An ordinary evening scene, a quiet road, a pickup truck, the TOYOTA sign or even a summer sunset? When did you notice the cow standing behind the mesh?

This image invites you to reflect on what you noticed first, and what you may have overlooked.

Using discourse from social media platforms, my research examines how speciesist beliefs are maintained through discourse: the everyday language, categories and justifications that frame some animals as companions, pests, wildlife or food.

These linguistic frames do not simply describe animals; they help organise attention, empathy and moral concern. In this sense, attention itself is socially conditioned and ethically organised. The cow is physically present in the image, yet can become visually and morally backgrounded within an otherwise ordinary scene.



The Ghost of Icelandic Glaciers

This photograph is authentic, not artificially created; it was taken during a visit to Iceland's Sólheimajökull glacier. Volcanic ash settled on the glacier's surface, forming unusual and whimsical patterns. Processes of melting and freezing shaped the ice into a unique silhouette resembling a ghost.

The image is captivating, with outlines that bear a striking resemblance to recognizable forms; looking at it, one realizes it is not a human creation, but the work of nature itself. Drawing a parallel with my own research, one might anticipate specific outcomes, yet sometimes one discovers something unexpected and unforeseen—something so astonishing that it is hard to believe it is real. It is in moments like these that a sense of epiphany arises—that very "Eureka!" Moment.

Climate Change

June 2026

37.7°C

(99.9°F)

Heatwave



The 2026 Heatwave

In today's world, Climate Change research is of critical importance, helping humanity adapt to new realities. According to Metoffice.gov.uk, climate change caused maximum temperatures in June 2026 to rise by 3–4°C. In the East of England, temperatures exceeded 37.7°C, breaking previous summer records.

An estimated 2,700 people in England and Wales died from heat-related causes during the heatwaves of May and June—a period marked by dangerous, climate-driven heat that claimed lives, disrupted schools and hospitals, and caused failures in transport and infrastructure.

Given this prevailing situation, it is vital to unite the efforts of researchers and engage experts from the humanities, natural sciences and medicine to protect people and nature from the challenges ahead.



Rethinking Inclusion: Beyond a Seat at the Table

In June and July 2026, I co-produced and facilitated creative workshops with disabled people and their carers in Wrexham. These workshops are part of my ongoing research into disability and the arts. The workshops included forum theatre at Tŷ Pawb with Emerge Community Arts, and fine art at the Wrexham Miner's Project. The workshops' design was informed by the outcomes of the 2025 public forums we conducted on the topic of arts and accessibility in the local area.

This image is from the forum theatre workshop at Tŷ Pawb, where participants could act out new futures and empowering possibilities for themselves when accessing creative opportunities. The scenarios presented to the group (in this instance, the challenges when attending a music event with a disability) were based on the lived experiences of individuals within North Wales.

The photo shows the positive impact of offering disabled people more than just a 'seat at the table' or presenting low -level consultation as collaborative co-production. It demonstrates the impact of meaningful, long-term engagement with communities and the need to prioritise the 'unmet needs' they identify. One piece of feedback stated – "Please do more of these workshops. All disabled people should have access to this".



Through Young Researchers' Eyes: Co-Creating the Case Study of Fferm Y Fferi

This collage celebrates a truly collaborative research project, co-designed and undertaken by a multidisciplinary team of researchers from Wrexham University alongside Year 5 and 6 pupils from a local Primary School. The project aimed to co-create a case study of Fferm Y Fferi, the school's farm, capturing its development and exploring impact on the wellbeing, behaviour, learning and engagement of pupils, staff, families, and the wider community. From the outset, the project aligned to and was guided by the farm school's values of collaboration, inclusion and shared ownership; with pupils engaged as co-researchers throughout.

The children helped design creative and participatory methods through a mosaic approach, including photography and multimedia mapping. The pupils captured and documented places, animals and experiences which mattered most to them. Images displayed where they spend their time, how the farm makes them feel, and what they want others to know about this unique and holistic environment. Bringing these images together as a collage reflects the collective nature of the project and illustrates how creative, co-designed approaches can empower children to shape research, share experiences, and tell stories in their own way.



The Letting Go Table

In April I attended the five-day 'Midlife Reimagined' retreat at The Sharpham Trust in rural Devon, facilitated by Karin Diamond and Alison O'Connor from Re-Live. The retreat utilised the process of Life Story Theatre to explore experiences of midlife through themes of change, growth, identity and what matters most to us, using Life Story Theatre as its primary methodology. Alongside its personal significance, it provided an opportunity to revisit and observe facilitation approaches that I am hoping to use in my own work with Re-Live and Betsi Cadwaladr University Health Board staff. The retreat enabled me to deepen my relationships with Re-Live practitioners, whilst experiencing the work from the perspective of both participant and facilitator.

The programme was gently structured within the Re-Live format, with a series of creative exercises, reflective practices and shared experiences that built progressively throughout the week. The process culminated in an act of witnessing that invited participants to creatively demonstrate 'letting go', transformation and personal growth. The work was gentle, yet profoundly transformative, demonstrating how carefully held and trauma-informed creative process and interventions can support meaningful reflection and change.

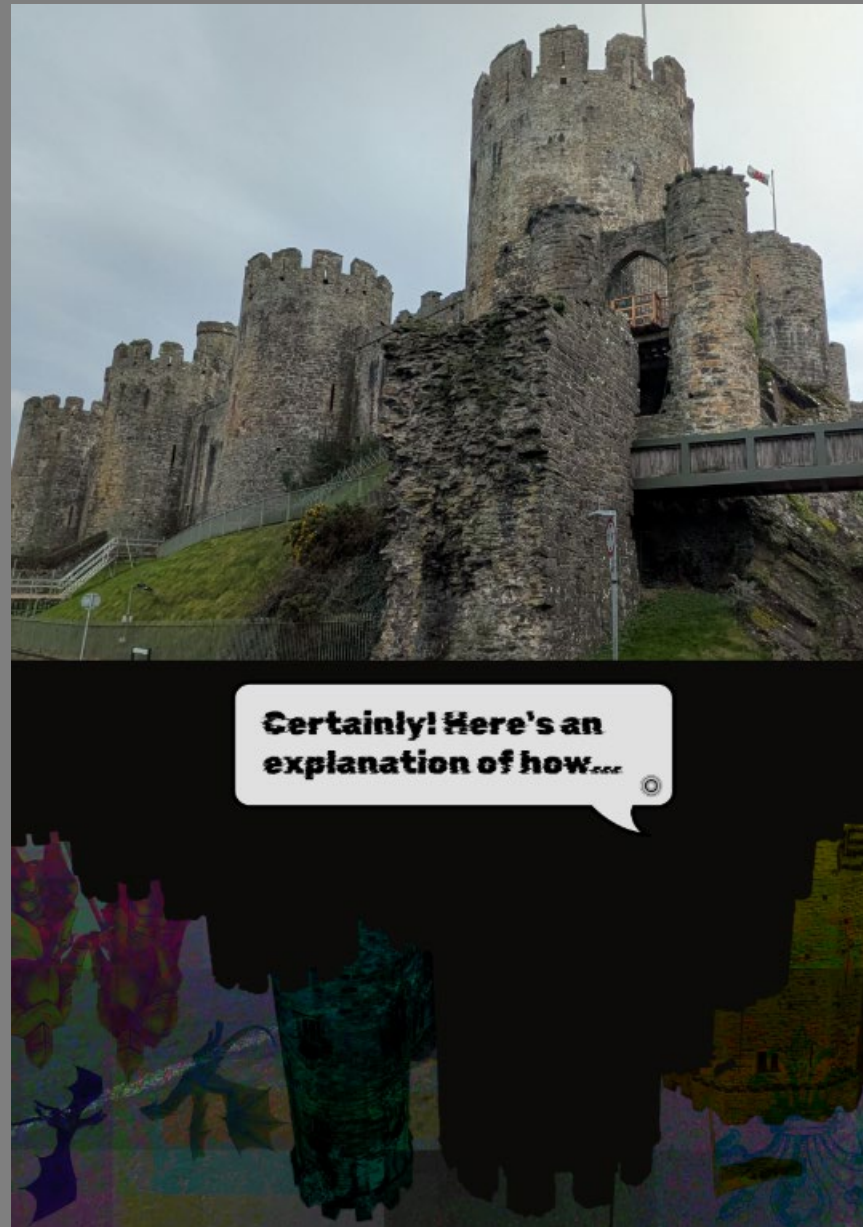


The Audience Compass

One important part of successfully communicating your research is sharing it beyond your immediate academic community. There are many opportunities to talk about your work, present your findings, exchange ideas, showcase your expertise, and highlight the wider impact of your study.

However, there are also many different audiences, each with their own background knowledge, interests, and understanding of the topic. As a result, researchers often find themselves explaining the same research in very different ways. You might deliver a 20 minute conference presentation to fellow researchers, exploring theoretical frameworks and research design in depth. You might give a 5 minute talk in a pub, without slides, explaining to a general audience why the topic matters. You could spend an hour meeting with industry professionals to discuss current practice and potential improvements, or present your work in a concise 10 minute, three slide pitch focused on collaboration and research excellence.

This illustration features a jacket that I designed and created for a conference. It includes a handmade chainmail shoulder piece and handcrafted fabric patches inspired by my research topic. This creative approach demonstrated how visual design can help make research more accessible, encouraging conversations and connections across different professional communities.



Predicting the Past Rather Than Remembering It

Large Language Models (LLMs) are among the most popular Artificial Intelligence tools available today. They are promoted as everyday assistants that can help with a wide range of tasks. But are they always helpful and reliable? Imagine you are visiting a heritage site. The historical information and interpretation provided there have been researched and prepared by historians and heritage professionals. This information is based on evidence and scholarly understanding of past events.

Large Language Models such as ChatGPT work differently. Rather than recalling historical facts in the way people often imagine, they generate responses by identifying patterns in the vast amounts of text on which they were trained. In simple terms, information from many different sources is blended together, and the model predicts the most likely next word in a sentence. Because of this approach, AI-generated answers may sometimes contain inaccuracies, oversimplifications, or bias. In my previous experiment, ChatGPT occasionally produced biased interpretations of historical events.

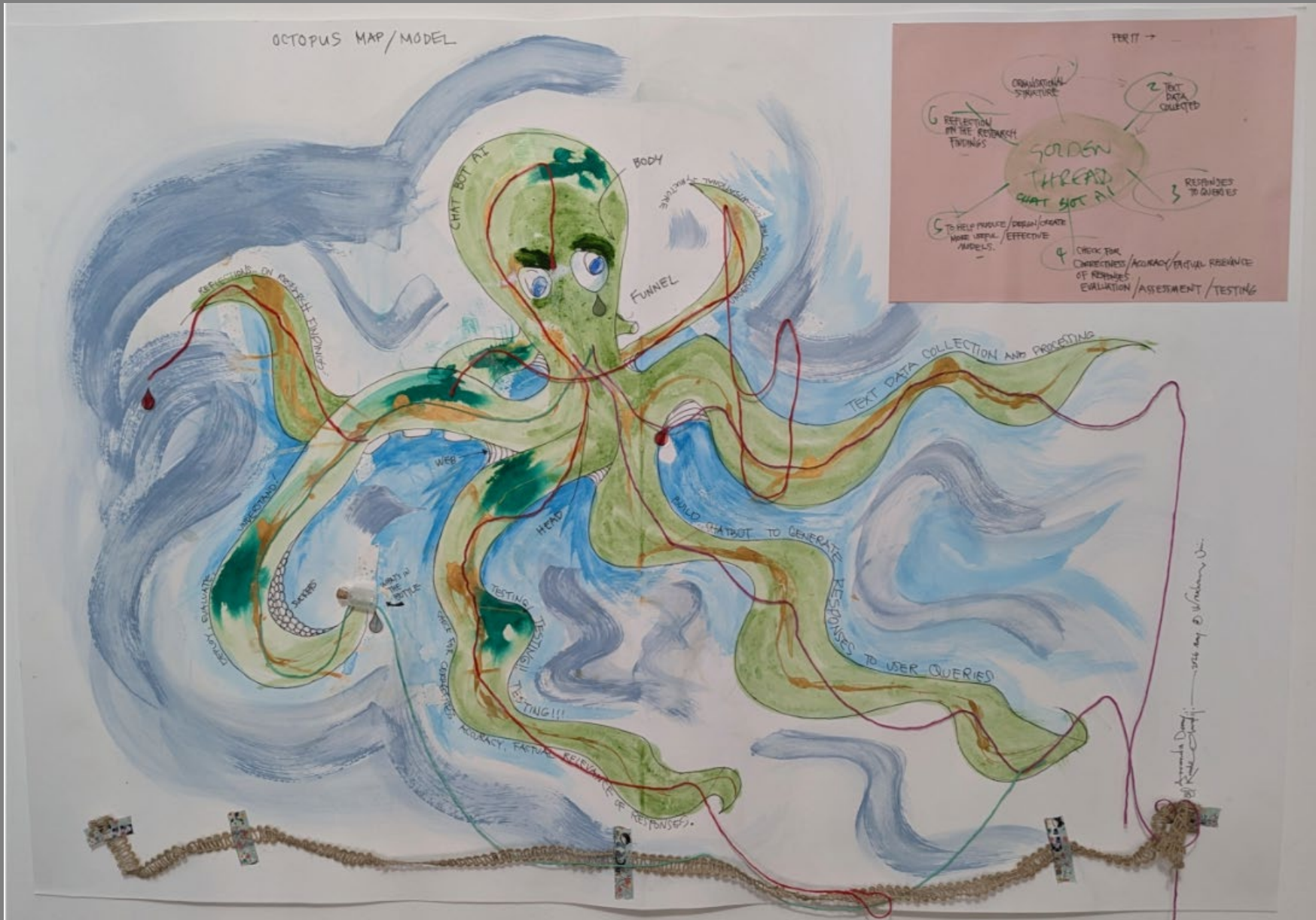


Finding our way; exploring the influence of personality type on sense of direction

My research explores whether differences exist in perceived sense of direction between personality (psychological) types within the UK. When exploring the world individuals rely on using their sense of direction and landmark information. Sense of direction refers to an individual's capacity to locate and orient themselves within an environmental space, which can be assessed with experimental tasks or self-reported perceptions of sense of direction; this research focuses on the latter.

The photograph, taken from the top of Welsh headland, portrays key elements that contribute to sense of direction such as navigational abilities, preferences, and experiences. These pivotal aspects depicted include judging distances via telescopes or binoculars, using mental and physical maps, giving directions, and using cardinal directions on a compass.

The research is focused on four dominant personality types that are concerned with different ways of taking in information from our world and influence how individuals make decisions or judgments (Briggs Myers and Myers, 1995; Francis, 2005). The rationale for combining four photographs within this image is to represent the core concept of the four dominant personality types and that although individuals' able to navigate the world, their perception of their sense of direction may differ based on their personality.



Ollie the AI Chatbot

Inspired to enter the competition following the Art of Research 2026 workshop at the Art School on Regent Street. Working alongside Amanda Derry who is currently studying for her master's degree in art, our collaboration conceptualised my research topic as being representable by a mythical six-legged octopus whose head signifies the core of my project idea of building an LLM* powered AI** chatbot that helps navigate and improve service delivery within a complex organisational structure while providing reliable user query responses.

Its tentacles representing the methodological approaches involved in my research. Visualisation was produced using multimedia art materials including pencil, graphics pen, acrylic paints, fabrics and even a bottle! In our opinion, the content of the bottle represents the hidden messages gathered during data collection process waiting to be discovered. Enjoy meeting “Ollie the chatbot” as Amanda likes to call him. Thank you.

LLM* - Large Language Model AI** - Artificial Intelligence



Violent songs → Aggressive thoughts →
Hostile feelings → Aggression

Lyrics and Dehumanizing Hate in Lyrics

Dehumanising hate speeches (DHS) on social media are highly concerning because, firstly, they can quickly translate into real-life violence, and secondly, social media content distribution is rapid and global. Music contents are on top of the list of content popularly shared on social media, including the Welsh Society's internet space.

More worrisome is the fact that dehumanising hate speeches appear to be entrenched in today's lyrics. In the interest of promoting societal sanity and safety, in Wales and the globe at large, there is a need to responsibly gatekeep music content. However, gatekeeping music content to be consumed must not appear as a brute application of force that tends to dictate how societal members live their lives, particularly in a world where discussions about freedoms and liberty are often the central talking points.

Thus, there is a need to mobilise computational linguistics intelligence to address the trend of dehumanising toxicity in music, technically and responsibly. This research is focused on understanding the linguistic importance of dehumanising hate and toxicity in Welsh musicians' lyrics, to provide a computational solution capable of understanding the language's nuances and contexts to mitigate the risk of such trends if they exist.

Thank You

