

Statement :

This group project helped me develop a more structured and networked understanding of climate change. In the past, I often viewed individuals and institutions (such as companies or universities) as equal entities. In my understanding, institutions were simply "larger individuals" that used more resources. I also used to believe that environmental protection was primarily a personal responsibility, a problem that could be controlled and resolved through individual choices.

However, through this project, I began to understand society as a hierarchical structure: individuals constitute collectives, and collectives constitute larger social systems. In such a structure, as individuals, our agency is not entirely in our own hands. This structural problem became even clearer when our group focused our research on commuting carbon emissions. We realized that individuals, institutions, and society as a whole are all interconnected and mutually constraining.

While our project primarily addresses the inconveniences and unavoidable responsibilities faced by UAL students during their daily commutes, we also found that a significant portion of traffic emissions comes from air travel. This issue involves individual decision-making, institutional strategies, and broader societal structures. Therefore, initiative is allocated and constrained at every level, from the individual to society.

As a designer, my focus shifted from simply visualizing numbers to attempting to express these complex network relationships visually. I no longer merely present carbon emission figures, but aim to reveal the relationships and power structures behind them. By transforming numbers into visible connections for everyone, I hope to make myself and many others aware that we inevitably exist within and constitute this network.

Written response :

In *The Order of Things*, Foucault (1989) shifted his focus from the surface content of knowledge to the "epistemological structure" and its categorical order that constitute the possibility of knowledge. This prompted us to move beyond simply visualizing numbers and instead explore the meaning behind them, examining how these numbers were produced. Based on this idea, we analyzed each set of numbers on the emissions inventory, moving from content analysis to structural analysis—for example, identifying which institutions and individuals were involved and what caused the rise and fall of the numbers. Simultaneously, the "order of things" led to the idea of redesigning the carbon emissions calculation formula. Through this structural reconstruction, we arrived at "carbon emissions = individual x institution x social structure," transforming carbon emissions from a numerical calculation into a structural model. This led to our experiment—connecting these three layers.

In *Adversarial Design*, DiSalvo(2012) argues that design is not only a tool for problem-solving but also a form of political inquiry. In his view, adversarial design does not seek revolutionary destruction but rather makes the structures hidden within institutions visible.

This theoretical framework provided crucial support for our project. Initially, when faced with the UAL emissions data pack, our work focused on data analysis and visualization. However, leveraging DiSalvo's understanding of design as political inquiry, we realized how the rise and fall of numbers appear as a form of responsibility within structural narratives.

This understanding was manifested in our video presentation of how student commuting emissions are statistically attributed to individual behavior. This statistical approach assigns responsibility to individuals without considering factors such as campus layout, curriculum scheduling, student enrollment expansion, and rent. Based on this understanding, we decomposed the emissions issue into three levels: individual, institutional, and urban structure, transforming numbers into a power structure, allowing us to dissect the complex network of dependencies behind the emissions figures.

In *Speculative Everything*, Dunne and Raby(2013) argue that design should not merely serve real-world functional optimization or market demands, but rather become a tool for building possible worlds. This theory provided a crucial shift for our project. Even after reconstructing carbon emission data into a structured model, I continued to design by identifying and solving problems. I attempted to optimize UAL's existing emission reduction plans through campaign branding and community branding. However, Dunne and Raby(2013) reminded us that true design critique should not merely focus on internal system optimization, but rather on questioning the system itself.

In UAL's Scope 3 emissions, student commuting was categorized as individual travel, but students' travel distances and methods were influenced by multiple factors, including campus distribution and the city's transportation network. Dunne and Raby's(2013) theory helped us shift from designing to solving problems to designing to raise questions, leading us to envision, "What if everyone at CSM started cycling tomorrow?" Based on this starting point, we discovered the gap between UAL's proposed plans and their practical implementation. By collecting these questions and identifying these gaps, we developed the script for our video shoot.

In *Beyond the ABC: Climate Change Policy and Theories of Social Change*, Shove(2010) critiques a core assumption of mainstream climate policy. She points out that most climate policies are built on the so-called "ABC model"—Attitudes, Behavior, and Choice. This theoretical framework directly prompted us to re-examine student commuting emissions in UAL Scope 3. We began to realize that students' travel distances and modes are not entirely free decisions. Therefore, we propose the model "Carbon Emissions = Individual × Institution × Social Structure," which is a response to the ABC logic.

We also decided to focus our video audience on UAL students because, in practice, the infrastructure, time structures, and institutional arrangements we, as students, encounter when choosing lower-emission modes of transportation such as cycling and walking directly reflect and practice Shove's(2010) critique of mainstream climate policy.

In *Data Love Letter to the Subway* (Giorgia Lupi, 2025), subway lines are depicted as rhythmic trajectories, carrying the movement, separation, and convergence of people. As the starting point and visual reference for our experiment, we extended Giorgia's (2025) humanized and relational expression of subway lines to a human-centered approach, transforming abstract structures and numbers into perceptible situations and behaviors. This involved extending carbon emission figures to commuting times and frequencies, then to school curriculum arrangements and campus distribution, and finally to the analysis of urban structure. By incorporating the human stories, relationships, and traces behind the subway into the visual narrative, Giorgia (2025) allows viewers to connect with the subway's operation through their own experiences. This prompted us to explore the feasibility of ual's advocacy for student travel methods from the perspective of an ual student, thus creating a relatable connection between the video and the audience.

WIRED's 2010 video *Look Around You: Sends Up Science*, is an introductory and commentary piece about the British television program *Look Around You* (2002) , a comedy created by Peter Serafinowicz and Robert Popper whose core strategy is to closely replicate the visual style and narrative structure of early science education programs. This video prompted us to parody and satirize Ual by personifying it. Simultaneously, *Look Around You: Sends Up Science* (2010) 's approach of presenting completely absurd or fictional concepts with an extremely serious tone bears a striking resemblance to our vision of Ual achieving zero student emissions within a single day. *Look Around You: Sends Up Science* (2010) reveals how the "form of knowledge" shapes "knowledge credibility." We, on the other hand, attempt to reveal how the "computational structure" shapes "awareness of responsibility."

Meanwhile, *Look Around You(2002) Sends Up Science* gave us a lot of visual inspiration, including camera shots, video filters and tones, and soundtracks. We were trying to recreate the video quality of the 1970s and 80s, and we tried to reveal and challenge the existing power structure by adding humor and entertainment.

Bibliography

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