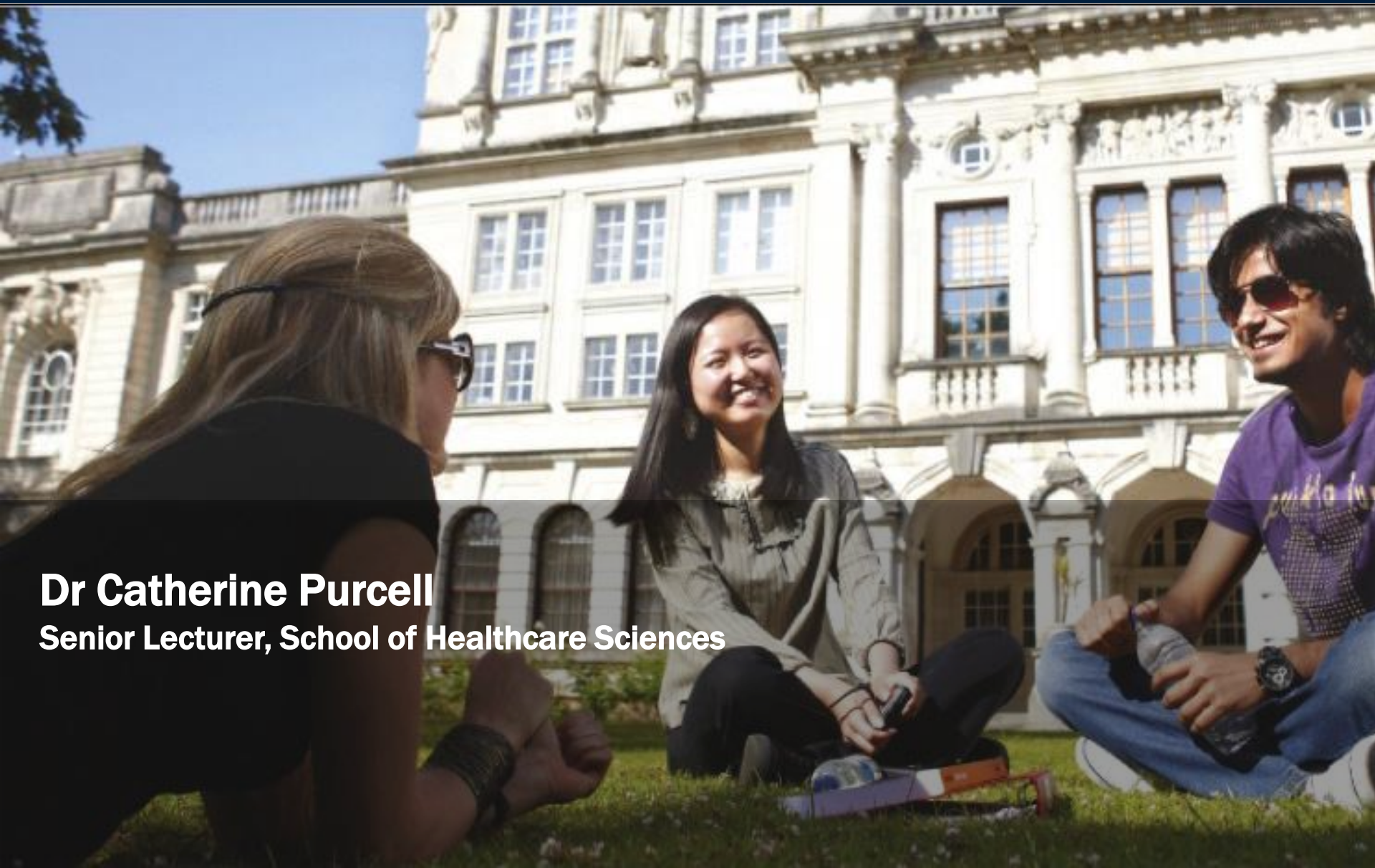
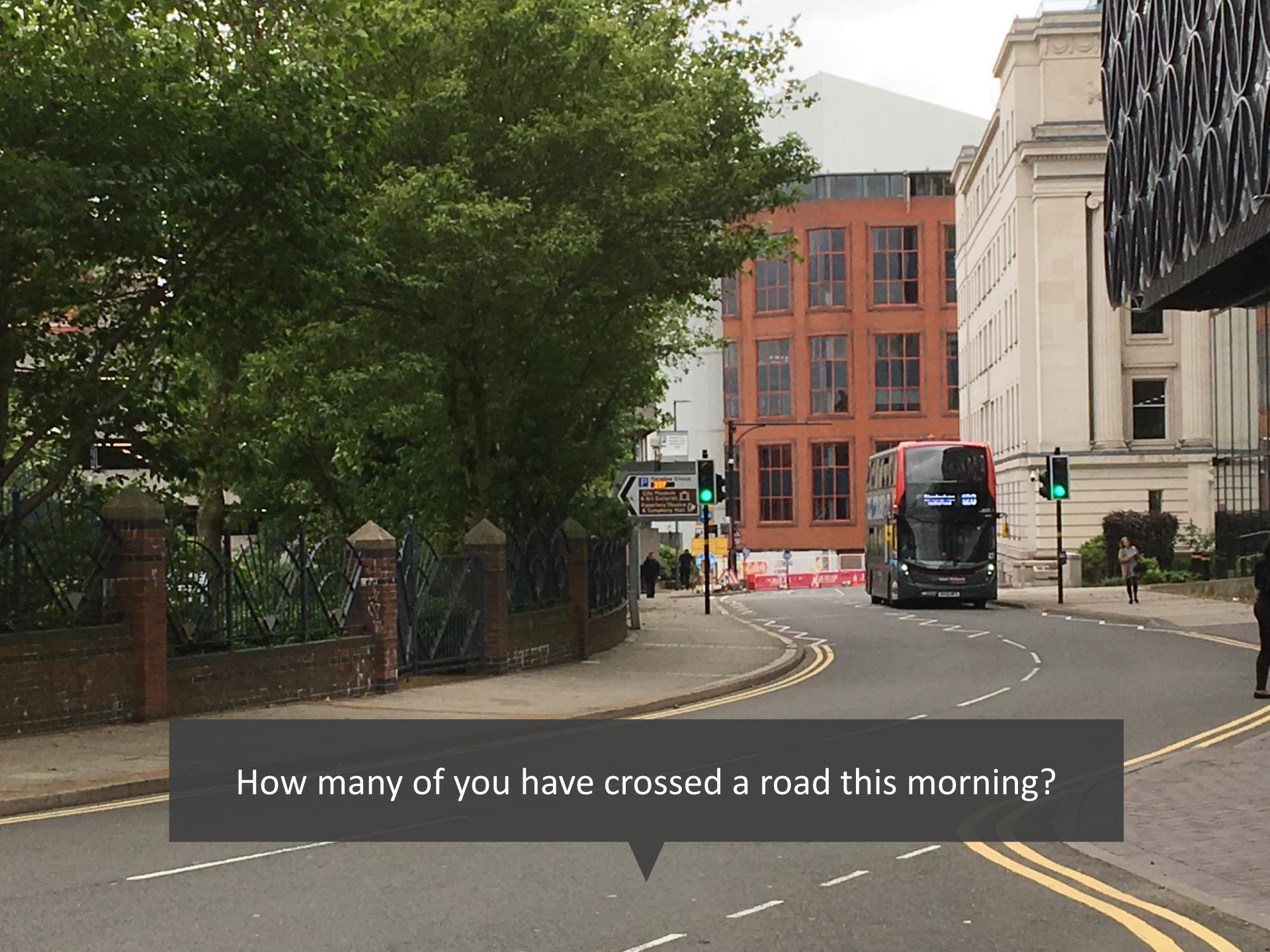


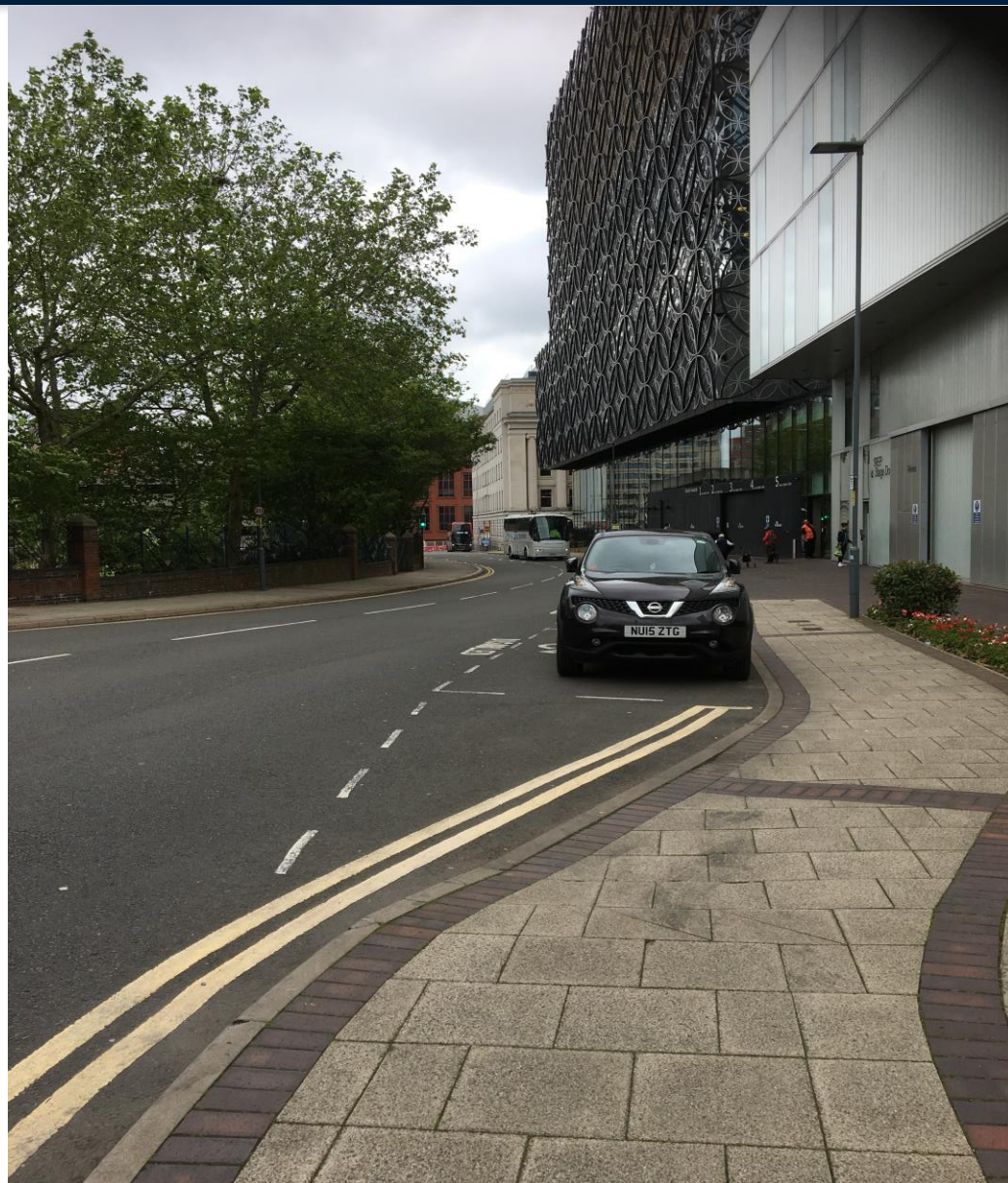
Dr Catherine Purcell

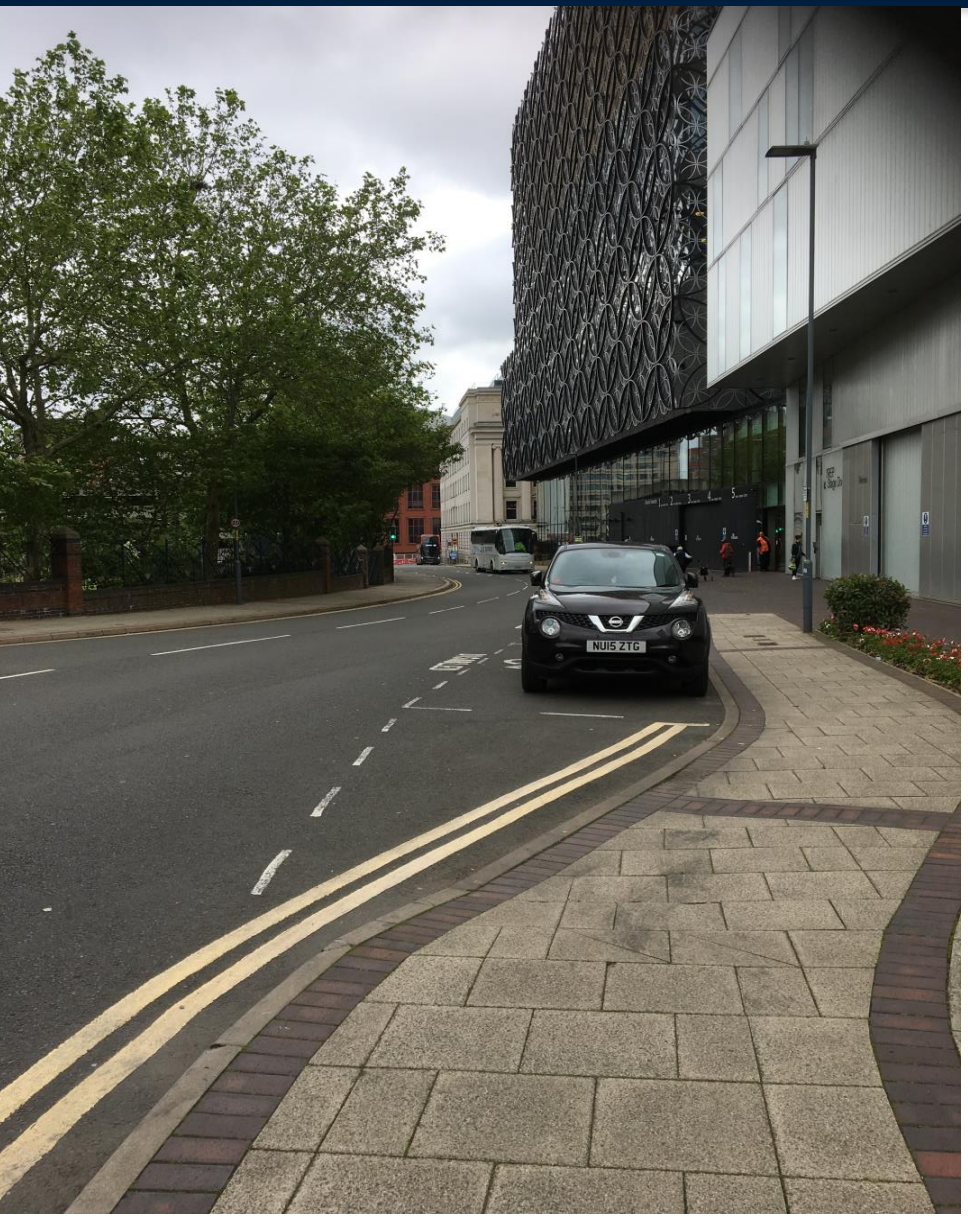
Senior Lecturer, School of Healthcare Sciences


How many of you have crossed a road this morning?

Detect the presence of traffic: we might scan the visual scene; we need to avoid distractions

Visual timing judgements: this requires us to determine the direction that a vehicle is travelling in and its speed (or optical looming) and distance (optical size), this enables us to decide whether we have the time available to cross



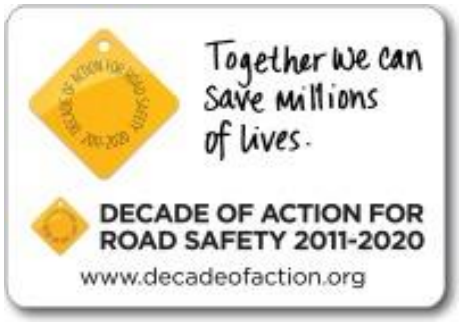


Coordinate information from different directions: pedestrians rarely only have to look right or left

Coordinate our perception and action: which involves our ability to relate the time available to cross with the time that it's going to take us to cross

Background

- More than 270,000 pedestrians lose their lives on the world's roads each year accounting for 22% of the total 1.25 million road traffic deaths (WHO, 2013).
- Approximately 43% of these are under 15 years of age (Department for Transport, 2018).
- As well as the tragic and preventable human cost, the economic cost is immense and has been estimated at 3% of the worldwide Gross National Product (Toroyan & Peden, 2007)
- No one should die or be seriously injured while they walk in their communities or play.



Are some people more vulnerable at the roadside?

- Children and older adult pedestrians are among the most vulnerable of road users (WHO, 2018)
- Each year 43% of pedestrians killed on the roads of Great Britain are under 15 years of age (25%) or over 60 years of age (18%) (Department for Transport, 2018)
- Children with Developmental Coordination Disorder (DCD) may fail to detect vehicles as approaching at speeds in excess of 14 mph (Purcell, Wann, Wilmut & Poulter, 2012)
- Children with (DCD) show an increased deficit in making relative approach rate judgments (Purcell, Wann, Wilmut & Poulter, 2011)
- Children with DCD may accept insufficient temporal gaps on roads with speed limits of 30 mph (Purcell, Wilmut & Wann, 2017)
- Despite these findings, a change in legislation has not yet occurred and as such it is widely accepted that we need to educate children in the road crossing task (Connelly et al., 1998)

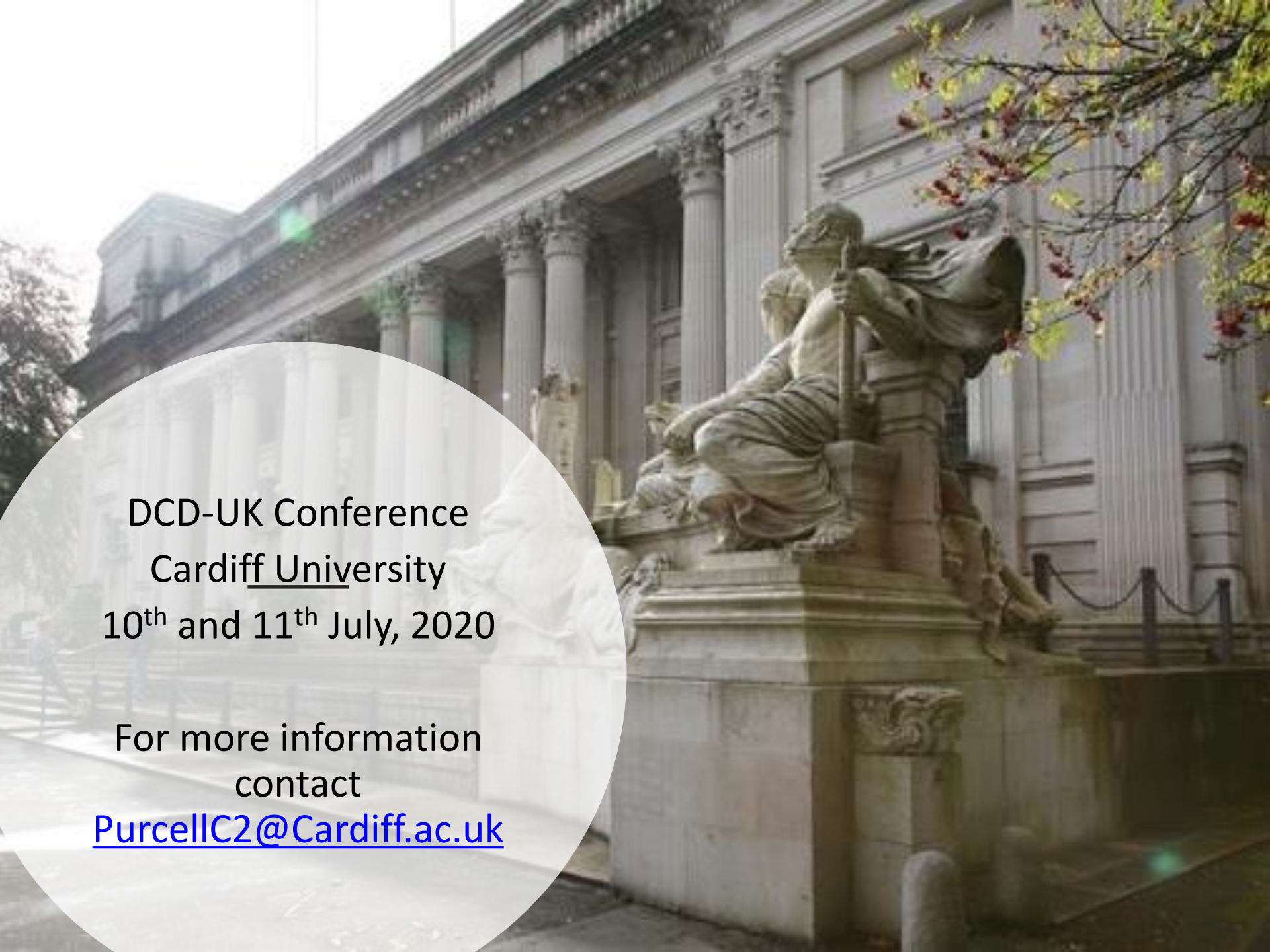
The importance of road safety

- In DCD children's participation was restricted due to parents fear of road crossing
- This impacts on their development of independent skills
- Occupational therapists have a potential role to play in ensuring all aspects of safe mobility, including road crossing to foster age appropriate participation
- Virtual Road World was co-designed with 100 primary school aged children (which we have tai chi in the park!)
- Currently evaluating the game with children with DCD
- The aim of this session is to explore the utility of this game with other service user groups

1. To discuss whether this is an occupation that you would focus on in your settings?

2. Could this be used as an intervention tool as part of road safety interventions?

3. What changes (if any) would need to be made to the game to make it suitable for your service user group?



DCD-UK Conference

Cardiff University

10th and 11th July, 2020

For more information contact

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