## A Personal Security System for Night-Time Economy

It is no secret that in the UK the night life and the night-time economy are heavily fuelled by alcohol. Violent crime that results has been under scrutiny for a number of years, and, in particular, is being studied by Cardiff Crime and Security Research Institute (from the point of view of victims, offenders, the police, city planning and licensing authorities etc.)

With this in mind, a personal security system is proposed to partially alleviate the problem – by making travel at night safer. (Of course it is easy to see how it will generalise to other scenarios.)

The operation of the proposed system is envisaged as follows. Users install an app, and give permissions to track their GPS coordinates. The app, when the user so wishes, is made to transmit the current coordinates to the central server. In the basic mode, the user sets the "start" and "end" positions of the intended route, and the system monitors their progress. If the user does not arrive at the destination at the expected time, or substantially diverges, the police are alerted. Further, phone's accelerometers can be used to detect anomalies – e.g. fights, rape etc. Travellers with similar intended routes could be automatically grouped by the system.

There is substantial scope in further improvements to the way the system handles sensitive data, possibly integrates with e.g. payment system to detect anomalous behaviour.

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