Research Plan

Internet of Bikes and People (IOBAP)

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1 Research plan summary

2 Introduction and background

, cycling does not take place in isolation. It happens in all weather, in and around multiple infrastruc- tures, in complex choreography with other multi-modal road users. It is interwoven with the urban fabric, every- day practice and the lives of others.

- Bicycling has started to be recognised as a

- cycling is not only solitary, but can be a very social activity

- bike is one of the most simple transportation devices, hasnt changed much in recent years; don't put too much technology in, don't change the being of the bike

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3 Research focus

- How can Internet-of-Things technologies support cycling as a social activity?
- How can we make use of the phenomenon 'temporary cyclist formation' in urban traffic (maybe using IoT technologies)
- How can the cycling experience be properly conveyed/represented? maybe focusing on 'temp cyc form' as well?

Objectives:

1. To describe the phenomenon tempCycForm and its characteristics
2. Explore social interaction patterns within that phenomenon
3. Explore design openings that make use of it
4. Design for better/nicer commutes with respect fo tempCycForm

4 Literature overview and related work

- Actor-network theory: Bruno Latour et al ▸ group forming
- place, space, non-space, urban spaces, place-specific computing
- Design Noir
- IoT

Rachel Aldred Kat Jungnickel on how to work with video, and stuff Paul McIlvenny's notion of a 'with' Jensen (2010) proposes that we study what he calls the "mobile with." Jensen argues that "in the mundane and ordinary everyday life we make multiple 'temporary congregations' as we are slipping in and out of different 'mobile withs' . . . 'Mobile withs' might be exemplified by groups of recreational runners or cyclists [italics added]" (p. 341).

In regard to interactional formations, Kendon (1990b, p. 209) describes how "people often group themselves into clusters, lines, or circles, or into various other kinds of patterns. These patterns may be highly fluid or they may be relatively sustained. When such a pattern is sustained it will be referred to as a formation." Hoffman, Hayes, and Napolitano (2014)

Once moving together, co-riders need to sustain a shared pace, otherwise co-presence cannot be maintained, the mobile formation dissolves, and talk or interaction is no longer possible. As we shall see later, formations can be stretched without breaking, and thus interactions have an elasticity that requires co-riders to attend to their mobility as and with their talk-in-motion.

5 Methodology

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- Workshops
- Bodystorming - group storming
- Game prototyping

Observation: go and observe bycicle-heavy roads; or go full ethnographic, and go into traffic, maybe following others

Role play: prototype bike traffic with multiple people by means of role play. Not even in real traffic. Just 'play'.

6 Collaboration

- Sigma Connectivity
- IOTAP - ECOS - Jonas Lowgren
- Andere Personen:
- Francesco
- Roberto

7 Expected results

- How to prototype IoT stuff in a velomobile environment
- tempCycForm

8 Activity plan, schedule

Milestones:

9 Pilot experiment

The aim of this experiment was to find out how temporary bike-a-licious sociality during a bike ride --- the feeling of being 'with' --- could be visually represented. It is based on work by Kat Jungnickel, who describes how she uses time-lapse video techniques to capture 'the view from the saddle', and extended by a time-warping/distorting component.

9.1 How?

- Ride a tour around the city
- record, by time and gps, the route as video as well as with how many people i am
- the latter has to be wizard-of-oz'ed

9.2 Setup

- GoPro camera mounted (on a helm? on the handlebars!)
- Set to time-lapse, which means capturing pictures in certain intervals. every 200ms? 500ms?
- Phone with an audio recording app, in my pocket
- headset in phone and near my neck, so I can speak into it (and record that)

9.3 Execution

- Start gopro and audio recording at exact same time
- go on ride
- try to ride at a more or less constant pace, not too fast
- whenever the number of people around me changes, i say the number so it's recorded

9.4 Post-production

- Create video from images n = number of people in group, me including m = max people i have ever been with during ride (including me) fps = (m+1-n)/5
- how else? blur the outside when i am alone...

9.5 Result

- Dynamic-speed time-lapse video of a cycling experience. Sense of being-there, seeing-there, feeling-there.

10 Potential risks

- People do not like to be in a formation with strangers
- they do not like to interact with strangers
- tempCycForm is not a thing, or is hard to design for
- might have to shift focus to intentional cycling formations, then more referring to Paul McIlvenny
- might have to shift focus to other encounters, such as 'meeting' or 'passing', more looking into Esbjörnsson et al.

References

Hoffman, Michael F., Hayes, Sharon, and Napolitano, Melissa A. (2014). 'Urban Youths' Experiences and Perceptions of a Community Cycling Initiative'. In: *Urban Studies* 51.2, pp. 300–318. ISSN: 0042-0980, 1360-063X. DOI: 10.1177/0042098013489741. URL: http://usj.sagepub.com.proxy.mah.se/content/51/2/300 (visited on 03/04/2015).