# NaviRadar A Tactile Information Display for Pedestrian Navigation

## PROBLEM: NAVIGATION REQUIRES TOO MUCH ATTENTION

Visual guidance (reading a map)
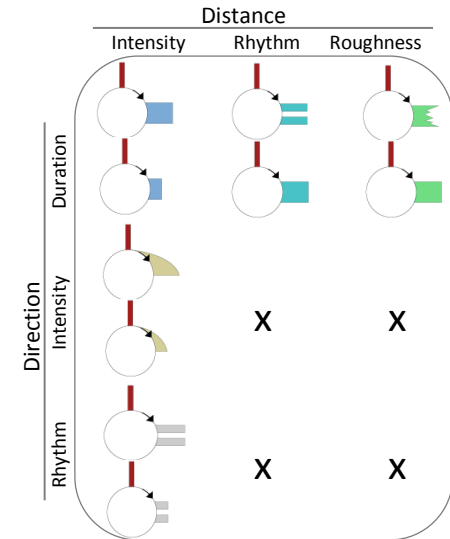→ does not let you observe surrounding traffic

Audio commands via speakers
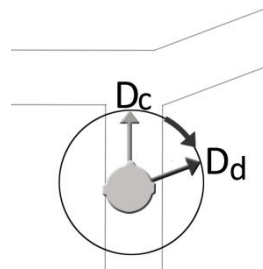→ can be embarrassing, unusable in a noisy environment

Audio commands via headphones
→ cuts you off from your environment, inhibits conversations

## IDEA: RADAR METAPHOR AND TACTILE FEEDBACK
**communicated via a standard mobile phone**

*„Imagine there is a radar – constantly rotating around you. It vibrates once when scanning the front of you ($D_c$)... and differently when it scans the direction you're supposed to walk to ($D_d$)"*

## Step I: FIND APPROPRIATE TACTONS
**to distinguish direction and distances**

| | Distance | | |
|---|---|---|---|
| | Intensity | Rhythm | Roughness |
| Duration | | | |
| Direction — Intensity | | X | X |
| Rhythm | | X | X |

## Step II: TEST IN REALISTIC SETTING
**and compare to other unobtrusive systems**

➤ Radar metaphor can be used in an outdoor environment

➤ Performance is not worse than using audio instructions

➤ But provides certain advantages (see „Problem")

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