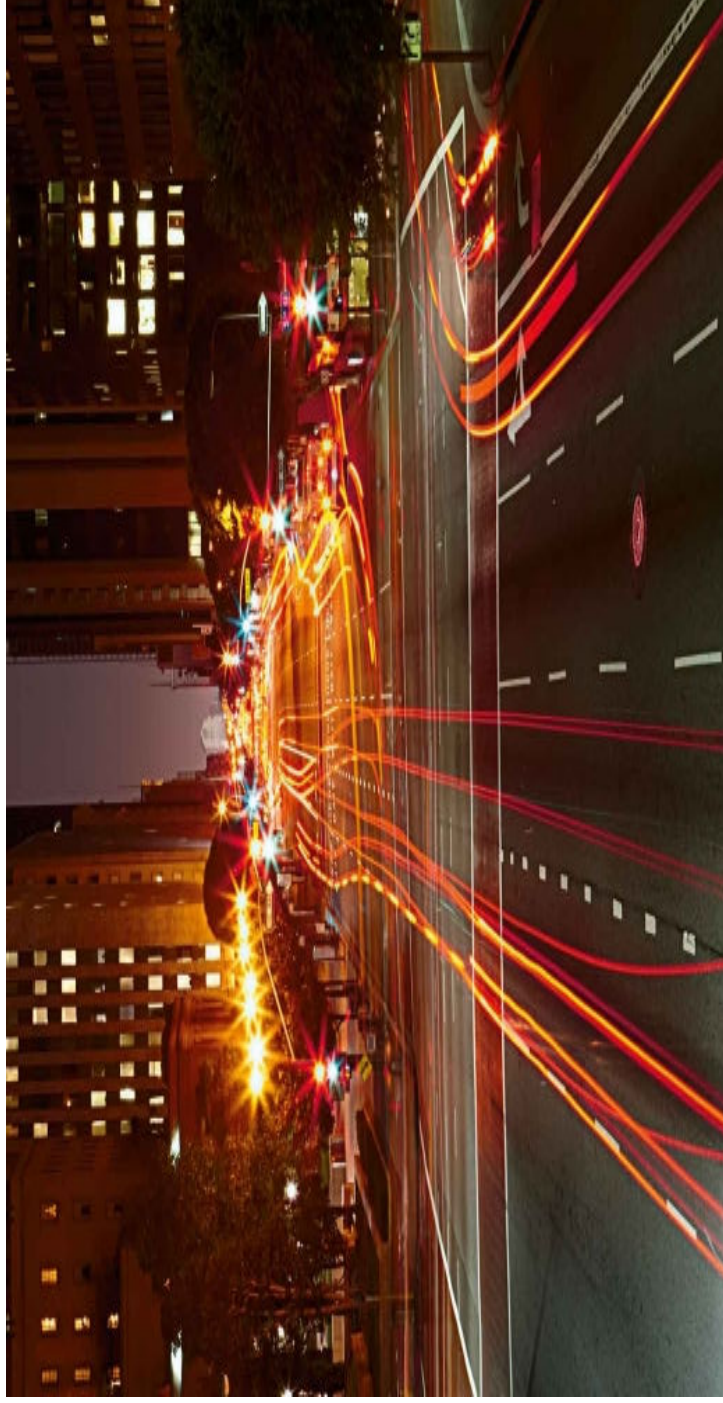


Future Internet depends on the location



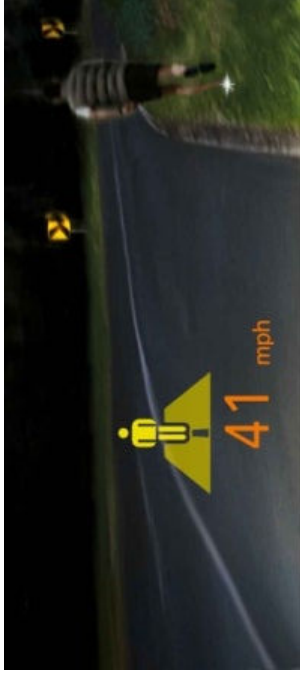
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Today. Information is used within devices and servers.

- Fixed locations
 - Home electronic
 - Personal data
 - Public area electronic
 - Fixed position
- Public Transport
 - Surveillance Cam, Sensors
 - Position / way
- Car
 - Cams, Radar, Sensor, etc.
 - Position, way, map
 - Personal data
- Pedestrians
 - Smartphone
 - Personal data
 - Position, way



Future. Information of devices is shared on locations.

- Cams in cars/fixed cams see other cars, pedestrians etc.
- Pedestrian smartphones know where they are and go
- Everybody could benefit from other's information (sensor sharing): See through walls, around the corner, find somebody...
- Communities are built by being arround
- Share my Facebook/Xing with people around on single / business meeting
- Build short term communities on intersections / parking areas
- Share my position – only with my friends or with near cars
- In emergency case: call for help – in the proximity
- Receive personal messages only if present at certain location

Future Internet. Why not today?

**Why don't these parties share their
information today?**

- 1. Lack of mobile broadband internet access**
- 2. Sharing everything with everybody would overload
networks and servers**
- 3. Privacy concerns!**

Technical Challenges.

Large scale, private geocasting.

- ⇒ Create a local ad-hoc community for information sharing
- ⇒ Use sensor and other data provided by others in the area
- ⇒ Keep the shared data from travelling outside the sharing area

What technical challenges have to be solved?

- Support very large number of mobile nodes
- Offer geocast-like forwarding with privacy restrictions
- realize in a distributed, scalable way (virtual routers?)
- Use both infrastructure and peer-to-peer services

Future Internet. Conclusion.

- What you (could) see / sense is what you share
- Sharing could be enabled by entering transparent (public) areas and ends in private areas
- being around builds safe communication domains
- Electronic devices „help each other“ (can you tell me the time/temperature/distance of my vehicle to the front car...)
- Transport domain benefits, but also other domains

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