

# Social Sensing and CPS

Spring 2015 CSE 40437/60437

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Summary

**Social  
Sensing  
and CPS**

**Function**

- Component interaction
- Error propagation

**Time**

- Real-time Scheduling
- Resource Management

**Data**

- Data Reliability & Info Overload
- Social Media Sensing
- Hadoop and MapReduce

**Mobility**

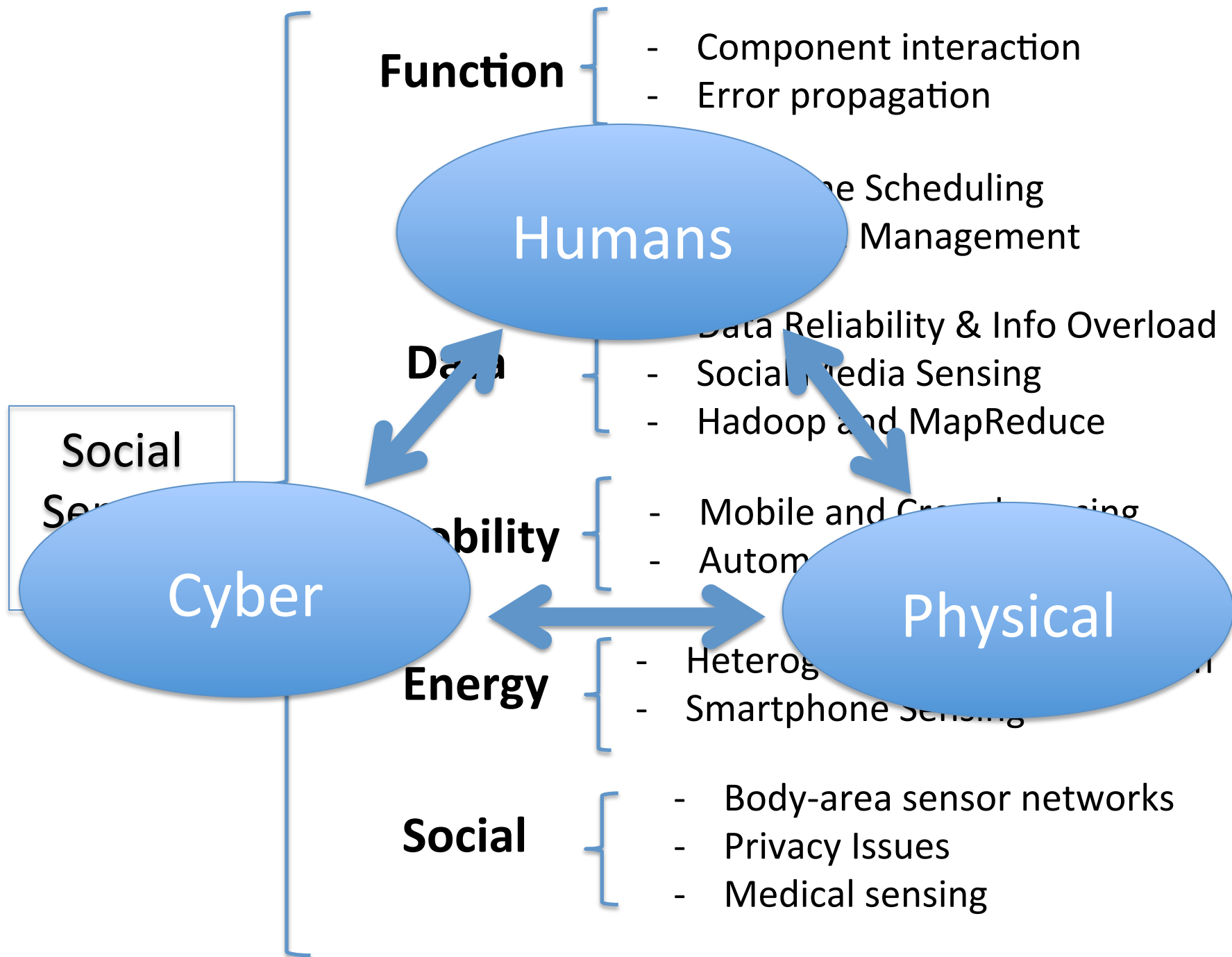
- Mobile and Crowd-sensing
- Automobile Sensing

**Energy**

- Heterogeneous Sensor Platform
- Smartphone Sensing

**Social**

- Body-area sensor networks
- Privacy Issues
- Medical sensing



## Function

- Component interaction
- Error propagation

**Reliability is a critical challenge in CPS!**

## Data

- Data Reliability & Info Overload
- Social Media Sensing

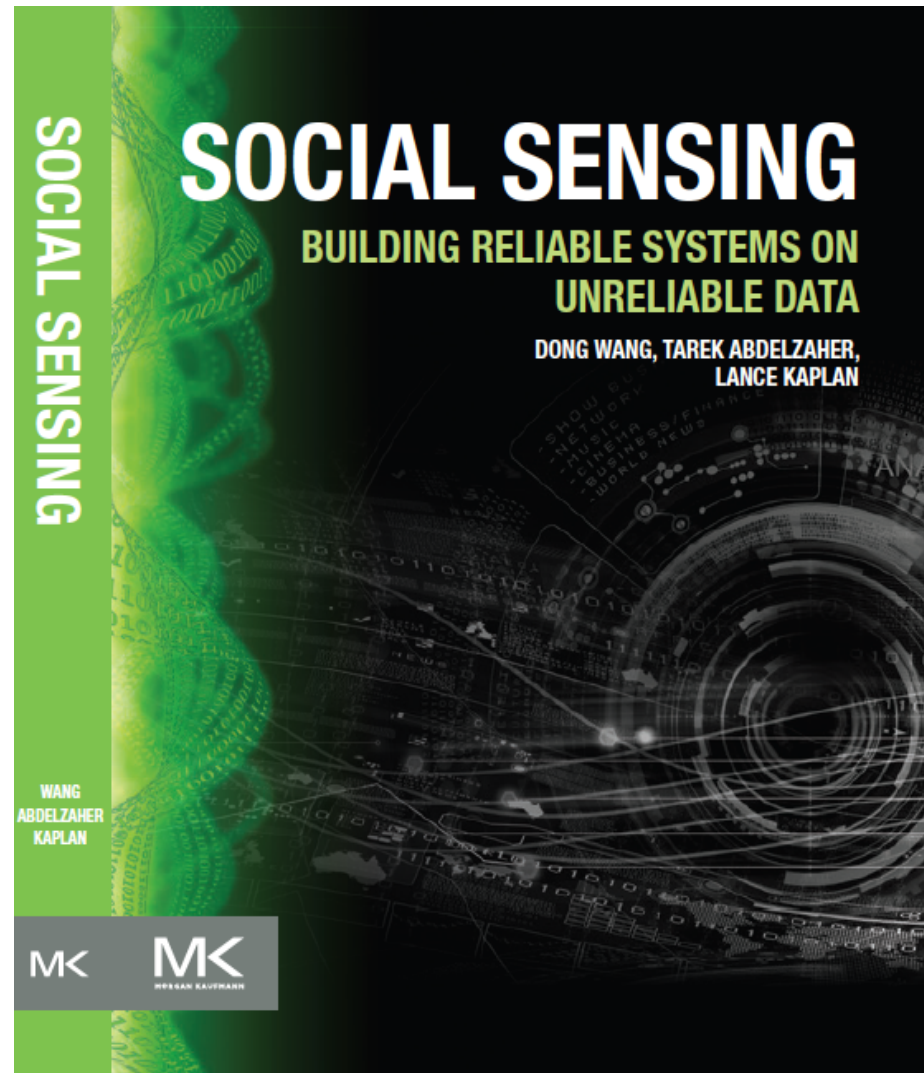
**Increasing amount of data are generated by unreliable sources.**

**How to build reliable systems using unreliable data?**

## Social

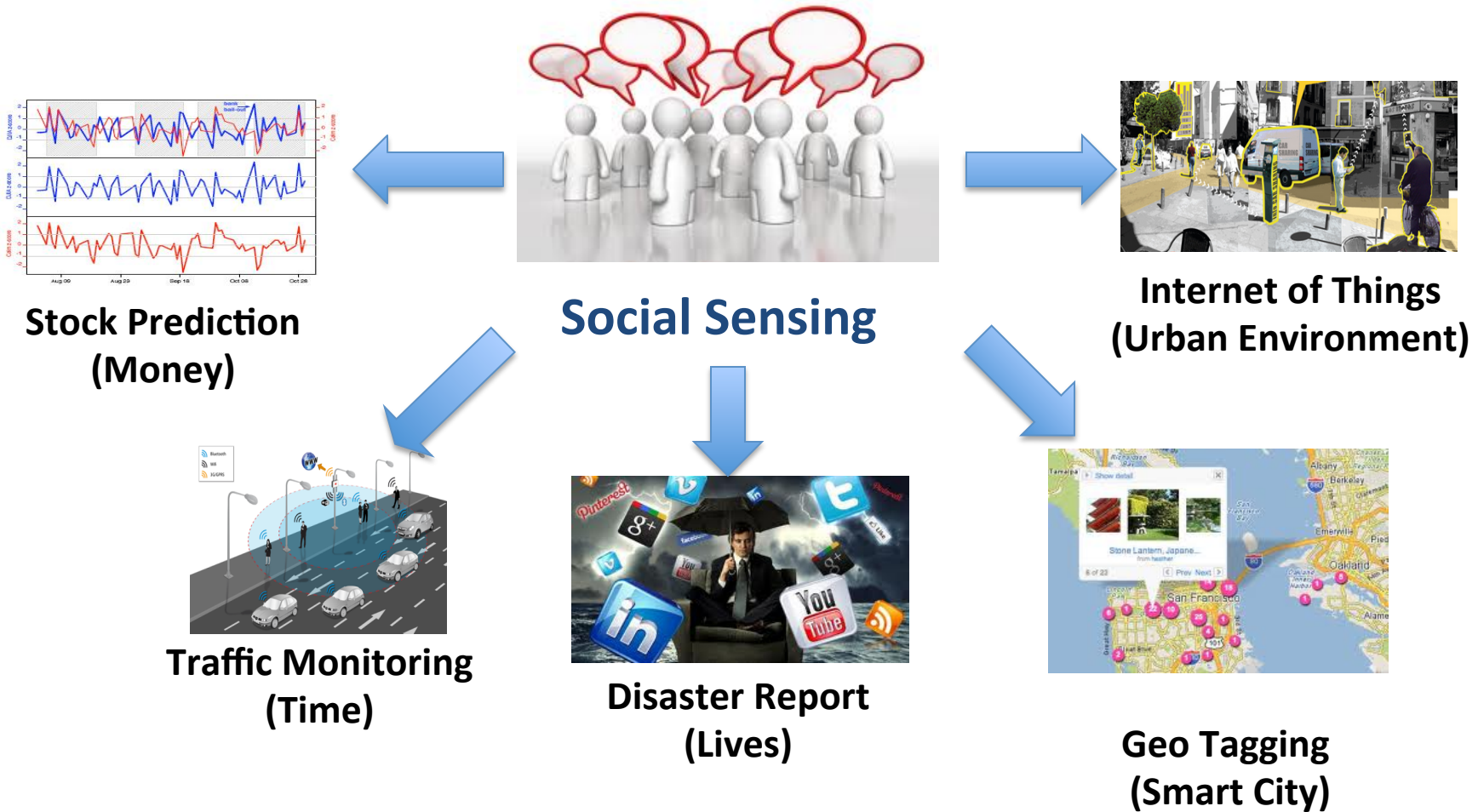
- Privacy issues
- Medical sensing

# 1<sup>ST</sup> Book on Social Sensing



**New Book - Social Sensing: Building Reliable Systems on Unreliable Data:  
Dong Wang, Tarek Abdelzaher, Lance Kaplan, Elsevier, 2015**

# Social Sensing and CPS Makes a Smarter Planet



# Social Sensing and CPS Makes a Smarter Planet



**Social Sensing**



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