



Quality of Experience

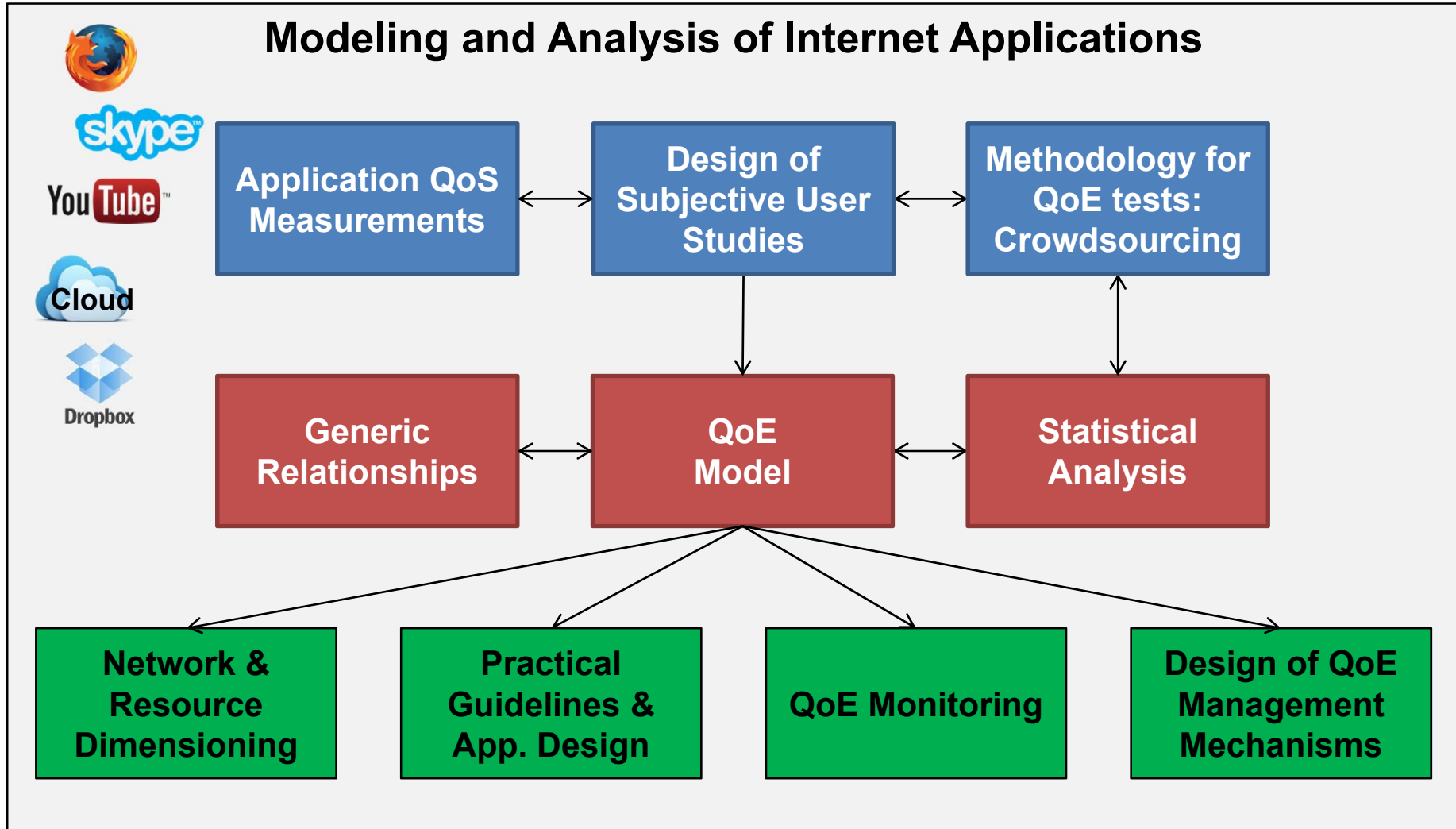
Are we measuring the right things?

Tobias Hoßfeld

www3.informatik.uni-wuerzburg.de

www.t-hossfeld.de

Background: Performance Evaluation of Communication Networks





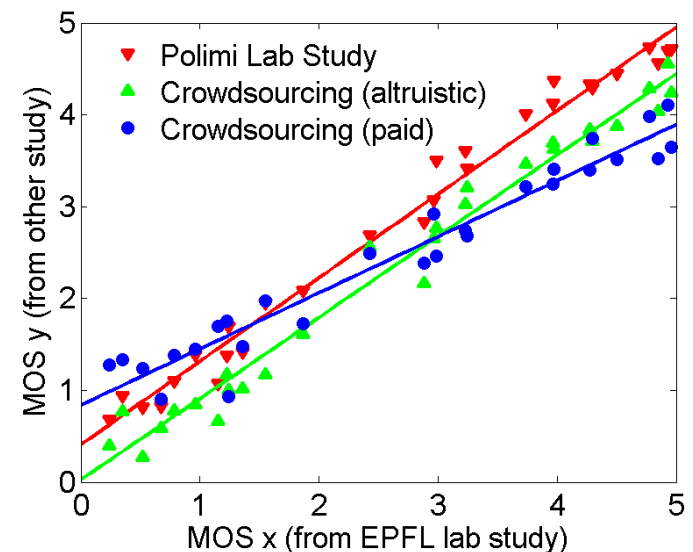
Quality of Experience

Are we measuring the right things?

No!

“We measure what we want to measure!”

- ▶ Current situation in **standardization**
 - **Too old:** not considering technological changes, e.g. web apps
 - **Too slow:** Many many Internet apps pop up quickly
→ too much time required to draft a version
 - Researchers „**misuse**“ standards to „validate“ their tests, but often „**misinterpret**“ standards or do not consider requirements
- ▶ **QoE User Tests:** Measuring the delight of a user?
 - User surveys in labs measure non-real life, **unrealistic** situations
 - **Context** like expectations, user task, environment, etc. not measured
 - User **diversity** not reflected
→ new methodologies required: crowdsourcing
- ▶ **QoS is just renamed: QoE**



What is required?

- ▶ **Updated test methodologies and best practices**
 - Guidelines for subjective tests: design, execution, analysis
 - Crowdsourcing as new methodology
 - Reproducible research
- ▶ **Going beyond pure perceptual quality metrics**
 - Known gap between user perception and user reaction!
 - User feedback, reaction, behaviour as key measurement (instead of/in addition to QoE)
 - ➔ Measure user behaviour
 - ➔ Integrate user feedback into service delivery
- ▶ **Holistic models for user's delight or annoyance**
 - Identification of influence factors on all levels: content, user, system, context level
 - Fundamental relationships: user behavior, QoE, acceptance, QoS

