Quality of Experience

Are we measuring the right things?

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Modeling and Analysis of Internet Applications

- Application QoS Measurements
- Design of Subjective User Studies
- Methodology for QoE tests: Crowdsourcing
- Generic Relationships
- QoE Model
- Statistical Analysis

- Network & Resource Dimensioning
- Practical Guidelines & App. Design
- QoE Monitoring
- Design of QoE Management Mechanisms
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 „misinterprete“ 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