Empirically Researching Development of International Software

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Software localization is an important process for international acceptance of software products. This empirical software engineering research examines the interplay of software development and software localization by gathering and analyzing qualitative and quantitative data from professionals to characterize issues and inform practice.

**Software Localization**

<table>
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<tr>
<th>COST</th>
<th>TIME</th>
<th>QUALITY</th>
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**Localisation Issues**

**Aims:** Characterize issues get insight into software localization as interdisciplinary process.

**Framework Analysis:**

- Themes:
  - Automation vs. manual
  - Professionals vs. amateur
  - Responsibility shift
  - Localization forced into development framework
  - Considering localization in purely technical terms
  - Missing knowledge
  - Communication breakdowns

- Concepts:
  - Integrated vs. afterthought
  - Competence mismatch

**Impact:**

- Understanding of the process of software localization and interdisciplinary development of international software.
- Information for practice about involved roles, eg. developers, project managers and translators to facilitate development of international software and mitigate localization issues.

**The employed mixed-methods approach.**

**Qualitative data:**

- Interviews Type A, unstructured (exploratory)
  - Based on literature review
  - Ca. 30-45 minutes (sometimes ~90 minutes)
  - n = 15
- Interviews Type B, semi-structured
  - Based on interviews Type A survey
  - Ca. 30-60 minutes
  - n = 20+

**Quantitative data:**

- Online survey
  - Ca. 15 - 20 minutes
  - Piloted (n = 10), target n = 120 – 200+
- 36 questions, 74 items
- Five sections
  - 5 items, biographical data
  - 29 items, Attitude towards localization, self-efficacy in localization [2]
  - 20 items, Cultural Intelligence Survey (CQS) [3]
  - 13 items, about last international software project
  - 6 items, additional biographical data

**Preliminary results from framework analysis, technological frames analysis, and an example of interdisciplinary communication breakdown.**

References: