Towards a Culturally Inclusive Software Quality

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Traditional Testing

- Standards Driven (e.g. ISO 12207)
- Validation and Verification
- User Acceptance Testing
Trends in Testing and QA

- Agile and DevOps (continuous deployment)
- Test Automation / Test Driven Development
- Artificial Intelligence for Testing
Anaximander Approximation

(610–546 BC)
Mercator projection
Mollweide projection
South Up Map
Chair
Chair Diagram
We “see” the world through language

- Language and Culture are inexorably linked
- We form communities of meaning
Chain of Meanings

Quality
  
  Modern

  New

  Design

  Usability

  Friendly

  Functional

  Business Needs

  Fit for Use

  Compliant

Standards

Laws

State of the Art

Development Language
Tree

Rhizome

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Professions as Communities
Communities of Meaning

- Profession
- National Origin
- Civic organizations
- Parent
- Online platforms
- Etc.
Communities of Meaning: Accessibility

- WCAG AA standards
- Color, contrast, font size
- Responsive design
Communities of Meaning: Accessibility

- WCAG AA standards
- Color, contrast, font size
- Responsive design
- Language?
- Cultural Appropriateness?
COVID-19 RESPONSE
The official response effort from the Oregon Office of Emergency Management, addressing the spread of COVID-19 in Oregon.
The Oregon Health Authority is working with Governor Brown and local public health officials to monitor and suppress COVID-19 infections and hospitalizations and reduce the health and economic impacts and disparities that have stemmed from the COVID-19 pandemic in Oregon.

For general information on COVID-19 in Oregon, call 211 or visit 211.info.
You can also dial 1-866-686-6155 or text your zip code to 89211.

You can help stop COVID-19 from spreading. Wash your hands and cover your cough. Stay home if you are sick and avoid contact with people who are sick. If you are having a medical emergency, call 911.

 Masks Required Statewide
Masks, face coverings or face shields are currently required statewide for offices and indoor public spaces and in outdoor public spaces when physical distancing of at least 6 feet is not possible. Children age 5 and up are required to wear a face covering. People with a disability or medical condition may request accommodation from the business if they cannot wear one.

Wildfire Evacuations and COVID-19
The first priority in wildfire situations is responding to the evacuation and safety instructions of local and state fire officials. Regardless of disease status, if you are asked or ordered to evacuate, you should do so. If you or a household member are quarantining or isolating to prevent the spread of COVID-19 and you need to evacuate, please follow the precautions below.

Towards a Culturally Inclusive Software Quality
Standards

• ISO/IEC 12207 Standard for Software Life Cycle Processes
• ISO/IEC 90003 Guidelines for the Application of ISO9001 to computer software
• IEEE 1012 IEEE Standard for Software Verification and Validation Plans
• CMMI
• NIST
Software Development Lifecycles

Waterfall Methodology

Agile Methodology

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Agile prerequisites and benefits

- developers are not more driven by the profit motive than quality;
- business users embrace change and are empowered to represent the business in bringing about change;
- stakeholders value the benefit of transformative change over potential loss of influence and power after such change.
Problems with Agile

Organizations or cultures with high power distance between knowledge workers and their management may self-censor ideas. In Chinese and East Asian cultures, it may be unreasonable to expect knowledge workers to openly question their management in public forums, especially in front of contractors.
Problems with Agile

Loyalty to the team or the collective and associated “group think” may drown out individual insight. In Chinese and East Asian cultures, knowledge workers may also be expected to make personal sacrifices to meet team objectives such as deadlines, potentially making it difficult for knowledge workers to question unrealistic timelines set by coworkers’ consensus.
Problems with Agile

Managers may exploit power distance and team loyalty to take advantage of knowledge workers by adding new scope without increasing development hours. This effectively imposes longer work hours for the same number of workdays.