GAME LOCALIZATION: QUALITY ASSURANCE AND TECHNOLOGICAL DEVELOPMENTS

ATA 61 ANNUAL CONFERENCE

Carme Mangiron
Universitat Autònoma de Barcelona

Outline

Quality assessment process
Technological developments
Concluding thoughts
Quality Assurance (QA)

- Essential to guarantee the quality of the video game
- First time translation seen in context
- Also known as "testing", "debugging", "quality control"
- In-house vs. outsourcing

Main Types of LQA

- FUNCTIONALITY TESTING
- LINGUISTIC TESTING
- COMPLIANCE TESTING
- REGRESSION TESTING
Functionality Testing

Broken functionality  Implementation issues

Linguistic Testing

Linguistic quality  Localized audio quality  Cosmetic issues  Accuracy, mistranslations  Culturally inappropriate content  Date, time, currency and numerical values format
Compliance Testing

- Manufacturer’s terminology
- Product naming conventions
- Button/controller representations
- Platform-specific features

Regression Testing

- Track reported bugs.
- Check for new issues.
LQA Stages

PLAY THE GAME
VERIFY FOUND ISSUE
REPORT ISSUE
FIX ISSUE / ASSIGN TO RESPONSIBLE
CHECK IN NEXT BUILD

https://www.localizedirect.com/posts/lqa-what-is-game-localization-testing
## Tools

- Excel, Word
- Proprietary databases
- Bugzilla
- BugTracker.net

## Bug Reports

<table>
<thead>
<tr>
<th>[Bug ID]</th>
<th>[Date]</th>
<th>[Found by]</th>
<th>[Build number]</th>
<th>[Status]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Assigned to]</td>
<td>[Languages affected]</td>
<td>[Category]</td>
<td>[Priority/Severity]</td>
<td>[Area/Level]</td>
</tr>
<tr>
<td>[Title]</td>
<td>[Description]</td>
<td>[Steps to Reproduce]</td>
<td>[Actual Behavior]</td>
<td>[Expected Result]</td>
</tr>
</tbody>
</table>
ARC: El crepúsculo de las almas (2016)
Fuente: https://daffi2.wordpress.com/2014/01/16/errores-de-traduccion-en-videojuegos/

Source: https://i.imgur.com/AeAjceF.jpg
Artificial Intelligence for Dubbing

Tools for modifying animations depending on target text.

Software manipulates graphics so that facial muscles move in synch with phonetic content.

Ciberpunk 2077 (CD Projekt, 2020)

JALI Research

Facial animations that match spoken dubs in 10 languages

https://youtu.be/uFlxiz0jwRE (from 15:36)
Virtual Reality

- Expensive technology, few games
- Not many games get localized
- Less text, emphasis on audio and body language
- Where to place the in-game text and the subtitles?

Virtual Reality

- Accessibility issues
- How to translate body language and gestures?
- Possibility to have localized descriptions via audio or subtitles on demand
Text to Speech

• Ubisoft: Use of text to speech technology for reviewing texts

Machine Translation (MT)

Increasing use of neural MT  Increase speed of delivery  Reduce costs
MT Challenges

- Terminology
- Variables and tags
- Creativity

MT at Electronic Arts

- Research for several years
- Implementation in April 2019
- What text types were suitable?
- Level of quality to be expected?
Types of Content

<table>
<thead>
<tr>
<th>Area/Content type</th>
<th>Service</th>
<th>Comments</th>
<th>Utility</th>
<th>Speed</th>
<th>Sentiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player feedback</td>
<td>Instant MT</td>
<td>e.g. player feedback collected from social media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer support articles</td>
<td>MTPE</td>
<td>Legacy article with little impact could be considered for raw MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Back translations</td>
<td>Instant MT</td>
<td>To understand the meaning of translations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Game content</td>
<td>MTPE</td>
<td>*Titles with low ROI for specific languages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*For a first translation into English for titles developed in other countries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Cinematics (lip syncing) scripts that are edited heavily</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Websites</td>
<td>MTPE</td>
<td>*Low impact locales with low ROI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Testing engagements in specific locales and considering full localization service afterwards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tutorials/User guides</td>
<td>MTPE</td>
<td>Generally speaking when you only need to get the meaning of content</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live chat</td>
<td>Instant MT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Translation for information</td>
<td>Instant MT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Categorization of types of text at Electronic Arts. Source: Multilingual

MT at Electronic Arts: Issues found

- Mistranslation
- Grammar issues
- Terminology
- Style
- Tags and variables
- Glossary violations
- Spacing issues
MT

- Suitable for certain contents
- Choose the right engine
- Need to train the engine
- Franchise/game customized engines?
- Best used in combination with TMs
- Quality issues
- Postediting required

CAT Tools with MT

MEMOQ: 13 ENGINES    WORDBEE: 7 ENGINES
Machine Translation

Card Wars: Adventure Time (2012)

Source: https://www.hobbyconsolas.com/reportajes/club-chistendo-lost-transleision-69828
Pokémon Go Game

• Berlin’s Schinestraße becomes...

Source: https://www.applanga.com/blog/why-is-the-world-crazy-about-pokemon

Source: https://legendsoflocalization.com/funky-fantasy-iv/
Concluding Thoughts

- Quality is paramount to the success of game localization.
- Importance of QA processes due to Agile localization processes.
- Emerging technologies can facilitate or pose challenges to the localization process.
- Increasing role of MT and postediting.
- Quality fit to purpose.

Source: https://www.nimdzi.com
Concluding Thoughts

STREAMLINE PROCESSES AND BE MORE PRODUCTIVE

IMPLICATIONS FOR RESEARCH AND TRAINING

References


References

• https://magazine.multilingual.com/issue/mar-apr-2020sp/the-future-is-here/
• https://www.keywordsstudios.com/services/localization-qa/
• https://www.nimdzi.com/machine-translation-for-reach-human-translation-for-revenue/
• https://www.wordbee.com/computer-assisted-translation/mt-post-editing/
• https://www.awn.com/forum/thread/1016274
• https://screenrant.com/cyberpunk-2077-animations-languages-ai-lip-sync/

https://www.ata-divisions.org/AVD/