How does the engineering workflow of a video game differ from that of other software when trying to meet a particular Internationalisation standard?

COMP160 - Software Engineering Essay

1606119

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Localisation of software has the capacity to pose many a challenge to developers, as there are so many factors and small details that come into play, with a large portions of the software needing to be completely overhauled depending on the locale, a set of "Internationalisation Standards"[1] have to be followed by the developer if they want their software to be understandable and usable in the local they are adapting it for, this is applicable to both video games and other types of software and so my essay will compare and contrast the different steps that the developers of these types of software have to take.

1 Introduction

As technology's accessibility and uptake across the globe is forever increasing, many new emerging markets opportunities are opening up for software developers and having localised versions of their software allows for "Local users better understand and use it, attract more users, and increase software sales"[2]. As previously mentioned, developers have to work to a set of standards to make sure that their software is understandable to a variety of markets, and through my research I have found that, due to the differences in the engineering workflow of video games and other types of software, that different organisations and groups have created several different sets of standards for different types of software, and as games require a lot more context and speech to relay the story to the player, the workflow is a lot larger, however there are some points where they overlap and flow in a similar way.

2 Integral Differences in Internationalisation Standards

As I have found through my research, compared to other types of software, video games have both a much higher amount of content, and require much more work to localise than other types of software e.g. Business, as "The linguistic port is more than simple translation; it involves use of vernacular and dialect as well as culturally appropriate interpretation of the game context" [3], meaning the translation and it's implementation will need to use local language and the correct use of this to be fully understood; an increasing step that developers are taking is to "Cultralize" their software[4], which goes further into the games content and removes anything that may be seen as offensive or not well received in a particular location, this has become a standard of games internationalisation, as without the correct content

being removed or replaced, it will not pass certification in that region, which extends the development time and wastes money and resources, while business software won't have any of these issues it doesn't need to be certification. Which when focusing on the modularity (Engineering Principle) of their software, game developers will need to focus on making sure that "Resource files should store all text used in the game" and that they "do not hard code text strings in the source code."[4] as having things such as the subtitle text and the dialogue files hard coded makes it very hard to change them for localisation or certification work, which could cause issues with the code as it's deviating from it's original form; as this is noted good practice, many game developers utilise this, such as Bioware, who's alien languages are simply a couple of sound bytes repeated for every locale [3], the only need being to translate the subtitles, which significantly cuts the workload, at this point the similarities of the workflow for both types of software really shows, but in the next section, the paper will cover the smaller the defining features of both, in particular when the translation process is undertaken.

3 The Translation Process

Due to the differences between the two types software discussed in the last section, and through the sources that were found, translation of the software's text and the changes that need to be made to said text to meet the Internationalisation standards/best practices that I covered seems to be the biggest part of the process, along with the "Cultralization" of said text, so I will now cover that in greater detail. As discussed in the previous section, as games become much larger and rely more heavily on fictional story elements to drive the narrative, these features can't simply be translated. Where as there are sources to suggest that the use of translation software to localise software

that features "highly repetitive texts " [5, pg.1] a trait that buisness software seems to have

4 Conclusion

Write your conclusion here. The conclusion should do more than summarise the essay, making clear the contribution of the work and highlighting key points, limitations, and outstanding questions. It should not introduce any new content or information.

References

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