Coding Guidelines for Human value Violations Dataset Annotation

This document provides the coding guidelines for annotating end-user feedback in two phases.
1st Phase: Annotation of end-user feedback into two categories "Have Human Value Violations", "Have no Human Value Violations", called binary classification.
2nd Phase: Annotation of end-user feedback "Have Human Value Violations" into ten distinct categories of human values (Schwartz theory of basic human values): **Self-direction, Stimulation, Hedonism, Achievement, Power, Security, Conformity, Tradition, Benevolence, and Universalism.** Each category is explained with definitions and examples picked up from the dataset to make sure the consistency and accurate annotation.

1st Phase: "Have no Human Value Violations"

End-user reviews that demonstrate no violations of human values often highlight positive user experiences, functionality, and ease of use. Users commend features that respect their privacy, ensure accessibility, and foster inclusivity, making the app suitable for diverse audiences. Additionally, users appreciate when apps promote well-being, enhance productivity, or create opportunities for connection without overstepping boundaries or causing harm. Such feedback reinforces trust in the app and its creators, underscoring a commitment to upholding fundamental human values.

Example from the Dataset:

1. "This app needs all five stars! It is perfect for youtube videos! The creator needs to get praised!!! This is amazing!!! (My youtube channel is Cloudy Recharge)".
2. "This app is cool. I play with it and build things I like. It has groups of things like bathroom kichien doors electricity and anything you can amagen".
3. "I love this app. I have it on my iPhone as well!If I want to know if I'm missing any sports I can go to the "Scores" screen and select "Live Events" -- I'll be told what, if anything, I might be missing and what station I can watch it on! If I can't watch an event, I can follow the Tswitter feed for event on this app! I can also watch a live feed play by play!!Adrianne".
4. "I enjoy being able to watch free highlights of the Olympics! Quick commercials and great HD quality".

2nd Phase: "Have Human Value Violations"

User reviews that highlight violations of human values often point to issues such as poor data privacy practices, discriminatory algorithms, or exploitative monetization strategies. Users might express concerns about the app collecting excessive personal information without consent or using data in ways that undermine their privacy. Reviews may also address how the app's content or design excludes certain groups, such as inaccessible features for individuals with disabilities or biased recommendations that perpetuate harmful stereotypes. Other complaints could centre around manipulative practices, such as excessive notifications or predatory in-app purchases, which exploit users' vulnerabilities. These reviews serve as important reminders for developers to prioritize the values of human standards and human-cantered design to avoid causing harm.

Example from the dataset:

1. "Freezes up when trying to stream Oculus. not worth a very good app."
2. "Extremely laggy. Frame rate was horrendous!"
3. "Doesnt work. It freezes up within the first minute of screening."
4. "App sucks very disappointed with fire stick don't waste your money buying a firestick"

➤ Coding guideline and definition for the **Ten Distinct Human Values** with examples from the dataset.

1> Self-direction:

Definition:

The code 'Self-direction' is assigned to user feedback in the Amazon software store when users express opinions that reflect their desire for independence, autonomy, and control over their interactions with the software. This value is central to users' expectations of navigating and utilizing an application according to their personal preferences and needs. Those comments in which user reveal their struggles with basic functionalities, indicating that the apps need to be more intuitive and user-friendly to allow them to achieve their intended tasks. This inability to perform simple actions or to understand how to operate the application limits users' ability to exercise self-direction, leaving them feeling restrictive. Such experiences directly hinder their sense of autonomy and control, critical components of this human value. In software development, these insights are invaluable for enhancing the user experience. Developers can significantly empower users by improving usability, simplifying interfaces, and providing clear instructions or tutorials. Addressing these usability issues is essential for retaining users who value self-direction and independence in their digital interactions. By consistently resolving such concerns, developers can foster a loyal user base that feels respected and understood, ultimately contributing to the software's success.

Example from Dataset:

1. "I was unable to figure out how to use, I think I will not use this app" .
2. "Useless. I was unable to make the simplest edit to my PDF. Wish I could get my money   back but Amazon makes it impossible".
3. "This is the weakest of the pdf apps I've tried, and most expensive. I expected for the money to get more functionality. Instead, it has less. You can't even resize text annotations-how stupid. Don't waste your money".
4. "it doesn't work on toshiba thrive, slow at start, some pdfs won't openyou can't beat MuPDFthis might useful to edit, but it won't open some of my docs. i removed it".

2> Stimulation:

Definition:

The human value "Stimulation" is attributed to user feedback in the Amazon software store when it reflects a lack of excitement, creativity, or enjoyment in their app or game experience. This value underscores software's need to provide engaging or challenging experiences that sustain user engagement and motivation. End User's comments illustrates the user's frustration with what they perceive as unfairly high difficulty, which diminishes the thrill and novelty typically desired in gaming experiences. These reviews underscore a deficiency in maintaining an optimal level of challenge and reward, where the excessive complexity and inadequate rewards fail to stimulate the user adequately, thereby reducing their overall satisfaction and likelihood to continue engaging with the app. By analyzing feedback categorized under "stimulation," developers have the opportunity to identify specific areas where their applications may fall short in delivering engaging and rewarding experiences. Implementing these changes enhances the stimulation aspect of apps and ensures that users remain engaged and motivated throughout their interaction with the software.

Example From Dataset:

1. "The challenges were too slow and did not yield the promised rewards."
2. "Obtaining collection pieces is absurdly difficult... Been trying to get this one piece for weeks... I understand challenge...but this is crazy."
3. "Rip off rip off rip off, even though it's free, try to do the offers no reward just a waste of time. Plus it's full of glitches and slows down my os. DO NOT DOWNLOAD Virus haven".
4. "Kids donÕt like it but they get boring to fast...also dont have to many tools for home Works".

3> Hedonism

Definition:

The code "Hedonism" is assigned to the user's review comments extracted from the Amazon software store when they express violations of hedonistic values, specifically frustrations due to the software's inability to provide pleasure or satisfaction. The manual analysis helps identify how certain features or failures directly impact user enjoyment and satisfaction, which are central to hedonistic values. These key points collectively indicate how the frustrations and dissatisfaction expressed in user reviews can be interpreted as violations of hedonism, where the lack of pleasure or satisfaction impacts negatively the overall user experience.

Example from the Dataset:
1. "I didn't like the fact that the picture was not clear and that it kept freezing".
2. "The game has frozen and made itself impossible to keep up with all the progress".
3. "Wish that there were many more ways to use or gain gems to play".
4. "Wish that there was more assistance for finishing levels.

4> Achievement

Definition:

The human value "Achievement" is assigned to user comments in the Amazon software store when feedback indicates frustration or disappointment due to unmet goals or expectations. This value reflects the user's need for efficiency, success, and personal progress through the software. When the user felt hindered in their pursuit of effectively utilizing the app for its intended purpose this underscores a clear violation of the achievement value. To address such issues, developers should prioritize both the functional and aesthetic aspects of software applications, ensuring that they not only appeal visually but also perform effectively without unnecessary limitations. Enhancing user experience in this manner can significantly boost their sense of accomplishment and satisfaction with the software, ultimately leading to higher user engagement and better reviews.

Example from the Dataset:
1. "Poorly designed, clunky app, looks beautiful from outside but had many restrictions on watching any of the Olympic live".
2. "Couldn't get it to work on my tablet. Had to erase it!!".
3. "I got pulled in by the graphics. But if you don't like to play the same screen indefinitely, then stay away from this game. The meta-game is disfunctional. I hit the pay wall on all the fixers needed to complete collections. Without collections I can't defeat the curse block, which locks out my advancement of the game. Furthermore, after many hours of play I only have 4 locations to play 3 have maxed out until experience level is achieved. In one case I will have to play through three more exp levels before moving up to new screens, which means many more hours on the same screens. The ramping calcs are bad. BUYER BEWARE".
4. "Didn't work too well. Couldn't exit very easily".

5> Power

Definition:
The human value "Power" is attributed to user feedback in the Amazon software store that highlights issues related to control, stability, reliability, and efficiency of software. This value category reflects users' expectations for a sense of mastery and influence over the technology they use. In other words, reviews which highlights deficiencies that impair user experience and detract from their sense of control and influence over the software. By addressing these violations, developers can significantly enhance the application's stability, performance, and user-friendliness. Improving these aspects of the application not only bolsters the users' perception of power but also enhances their overall satisfaction and likelihood to continue using the software. Strengthening user control and ensuring reliable performance are essential strategies for increasing user retention and building a loyal user base.

Example from the Dataset:
1. "It was my favorite game. However, this game locks up and I have had to restart 3x from the beginning and lose my status".
2. "First, the game was difficult to control, second, the text was offensively written".
3. "It shows up everywhere. No control over limits".
4. "When a game is this jerky, you are powerless to do anything. Btw. The advertisements annoy me".

6> Security

Definition:
The human value "Security" code is assigned to user comments in the Amazon software store when they express concerns related to privacy and data protection. This coding captures instances where users feel the software applications might compromise or misuse their personal information. Those reviews which highlights a violation of the fundamental human value of security, are directly relates to concerns over privacy and protecting personal information. To address such issues, developers must provide clear and understandable explanations for the necessity of any data access. Moreover, maintaining transparency and limiting permissions to what is necessary are essential steps to uphold user trust and ensure the security of user data. By addressing these concerns proactively, developers can not only prevent potential privacy violations but also enhance user satisfaction by demonstrating a commitment to protecting user information. This approach is critical in building and maintaining trust, especially in today's digital age, where data privacy is paramount.

Example from the Dataset:
1. "I like this app's features. Pretty handy to have for modifying PDF files. But I don't understand why the latest update requires reading users' identities? Until I understand the purpose of the requirement or they take it away, sorry".
2. "It says it has saved but then I go back in and my highlights and underlines are gone. It asked if I wanted to "back up" I said yes and it doesn't appear to have done anything. A few seconds later the app "encountered a problem" and forced close on me".
3. "My login doesn't work and it's irritating me since I put money into this app".
4. "Privacy issues with account access.. Unnecessary app. With required privacy access to your amazon account information. Check for yourself".

7> Conformity

Definition:
The code "Conformity" is assigned to users' review comments in the Amazon software store when their feedback highlights a discrepancy between expected and actual user experience, indicating a violation of the human value of conformity. This value pertains to user expectations of reliability and consistency from software applications. User's feedback which illustrates violations of conformity value in software applications can lead to user dissatisfaction. By expecting unmet standards and experiences, users experience disappointment, directly reflected in their reviews. Such feedback is crucial for developers aiming to improve software quality and ensure user expectations are met, enhancing overall user satisfaction and trust in the product.

Example from the Dataset:
1. "Tried to watch Olympic gymnastics, used my frontier subscription to activate with no problem but then saw two commercials before I got a message that it was unable to deliver the content. Completely useless."
2. "It seems strange, not what I expected".
3. "It would be a very fun game if I didn't have trouble with clicking on things. The game would freeze whenever I tried to click on something, then it would unfreeze and it was not my computer it was the game. So I ended up uninstalling it".
4. "I was very disappointed in this game. All the exciting challenges you see on the advertisings must be far into the game, because at the beginning levels there's nothing different from other "Match 3" games. You also can't play very long without needing to spend real money for more lives, or whatever they call it in this game. I deleted the game and won't get sucked in again".

8> Tradition

Definition:
The code "Tradition" is assigned to end-user comments in the Amazon software store when their feedback reflects a clash between established methods and modern expectations. In Schwartz's Theory of Basic Human Values, tradition involves maintaining and respecting established beliefs, rituals, or customs, often linked to historical or conventional practices. The end user's reviews that pinpoints a fundamental conflict between traditional and modern technological practices, underscoring a broader cultural shift towards more flexible and internet-based media consumption. The reliance on outdated technology is an unnecessary constraint limiting the application's appeal and functionality in today's digital landscape. Addressing such feedbacks by aligning the app's functionalities with current technological trends and user preferences can greatly enhance user satisfaction. Developers should consider integrating more contemporary technology standards and reducing dependence on outdated systems to meet the modern user's needs better, thus respecting tradition's evolving nature in a digital era.

Example from the Dataset:
1. "In order to use this app you basically need cable. We have high speed Internet, Netflix, and a Fire Stick but we don't have traditional cable. We were unable to watch the events we wanted. Total waste".
2. "Don't buy this game; it has a lot of problems. My iTunes account has duplicated and overcharged me, and the products in my pack don't contain what they claim to. The very following day, I bought a pack that was outdated and contained lower tier height troops. Not worthwhile".
3. "It's been well over a year since I've been able to send photos via Skype on the kindle fire. Both of my nieces have kindle fires and they have the same issue. I can send them photos from other devices (traditional computers, iPad, iPhone, and my Microsoft Surface) and they can receive those photos. But one cannot send jpegs via Skype for Kindle. This update did not address that issue".
4. "I expect to be able to watch content for events not available through traditional means. as of Jan 2020, the content was the same as the CBS Sports Channel on Hulu".

9> Benevolence

Definition:
The code "Benevolence" is assigned to user comments in the Amazon software store when they
express concerns or report issues that conflict with their expectation of benevolence in the software application. Benevolence in this context refers to the expectation that the software should support and facilitate a positive user experience by being helpful and user-friendly. Those user's reviews which illustrates a significant aspect of user experience where the absence of proactive support and guidance can lead to feelings of neglect and frustration. Such experiences hinder user satisfaction and diminish trust in the application's commitment to user welfare, which is central to the human value of benevolence. Software developers need to incorporate features that prevent issues and effectively assist users in resolving them when they arise, aligning with the principles of benevolence and enhancing the overall user experience.

Examples from the Dataset:
1. "I finished the first round, and when I got to the second round, it would not proceed. There were no instructions to show me how to fix this problem".
2. "Disappointing; the game was not as advertised."
3. "Need to explain in better detail on how to use the coins that are collected".
4. "Game instructions are flawed and not easy to understand, to exit the game I have to close down my tablet unable to find the exit game button. Please add clearer game instructions".

10> Universalism

Definition:
The code "Universalism" is assigned to end-user comments in the Amazon software store when
their feedback reflects concerns about equality, justice, and fairness in the use of the software. According to Schwartz's Theory of Basic Human Values, universalism involves recognizing and respecting the welfare of all individuals and the world at large, advocating for equal rights and fairness. App reviews that indicate a broader concern over moral equity, where users expect to be treated with respect and justice, especially in digital interactions where trust is paramount. Such issues not only compromise the app's usability but also challenge the ethical obligations of developers to maintain equity and fairness in their applications. Addressing these concerns by ensuring more stable software performance, active support channels, and transparent communication can significantly ameliorate perceptions of injustice and enhance user satisfaction. By responding to feedback that highlights universalism violations, developers can better align their practices with the values of social justice and fairness, thereby not only improving the application's functionality but also fostering a more equitable and just user environment.

Example from the Dataset:
1. "I am using Amazon HE 8 Tablet 32GB. The application crashes every time I try to open a pdf file. I have never got to read one single file. The links to Twitter and Facebook provided by the developer of the app are 'fake'. It is like there is no one supporting this app. It is really unfair!!".
2. "Nothing can be done because this is so terrible. AMAZON, GIVE US THE REAL SNAPCHAT This is unfair because SnapChat is available on other devices; you are unfair".
3. "I got this app because I wanted to watch quality sports all the time. However, the highly conservative nature of their sports reporting is offensive to me - if I wanted to hear stuff like this, I'd watch "Rush Limbaugh's Sideline Roundup".
4. "Poor picture quality. I subscribed to Fubo hoping to see an archived Pac 12 game. Was not able to do this so decided to watch a movie. The stream didn't lock up but many times the picture was very blurry. This was maybe due to our lame internet so I may be unfair in my rating".

➢ Here's a set of clear suggestions for coders on how to annotate comments in the dataset, ensuring consistency and accuracy during the annotation process:

Suggestions for Coders

• **Familiarize with Categories**: Before starting, thoroughly understand the definitions and nuances of the ten categories: Self-direction, Stimulation, Hedonism, Achievement, Power, Security, Conformity, Tradition, Benevolence, and Universalism. Use the provided definitions and examples to guide classification.

• **Identify the Main Theme**: Carefully read each review to determine its dominant theme. If the review mentions multiple value violations, prioritize the most prominent or repeated human value. For example, if a user mentions both restrictive behaviour and dishonest behaviour, choose the category that appears to carry more weight in their complaint.

• **Refer to Examples**: Use category-specific examples for comparison when annotating. Match comments to the closest example to ensure accurate categorization. For example, if a user mention disappointment, annotate it under "Conformity" If they discuss privacy concerns, annotate it under "Security."

• **Handle Overlapping Themes**: When reviews involve multiple categories (e.g., a restrictive feature and dishonest behaviour violations), prioritize the most emphasized aspect of the feedback. Annotate based on the actionable or dominant value expressed.

• **Ensure Consistency**: Apply the same logic across similar reviews to maintain consistency in annotation throughout the dataset.

• **Periodic Review**: Reassess previous annotations regularly to confirm alignment with your evolving understanding of the categories, making adjustments for consistent classification.