Towards Enhancing NPCs' Morality:
The Case of The Elder Scrolls IV: Oblivion

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Abstract. Morality systems are one of the key features that most computer role-playing games (CRPGs) include as a way of allowing players to build their own characters, as well as capturing how the virtual world reacts to their choices. In some of those games, non-playable characters (NPCs) follow their own virtual lives and schedules beyond the players' actions, which contributes to simulating a more believable virtual world. However, the moral dimension of those NPCs is often very limited, and their morally-relevant deeds usually depend on scripted narratives; this prevents NPCs from showing believable moral autonomy in their actions, beyond what they have been hard-wired to do. In this paper, we analyze the case of *The Elder Scrolls IV: Oblivion* as a particularly detailed case in terms of its NPCs' moral profiles, and we argue how, by reusing mechanics that already exist in the game, NPCs could be furnished with a much deeper moral profile and autonomy.

1 INTRODUCTION

Video games allow players to take active part in a story and, sometimes, to make all sort of choices on how to enact it. Some of those choices, specially in computer role-playing games (CRPG), have a clear moral dimension that, in turn, reflect on the way the player character (PC) is seen by the non-player characters (NPCs) inhabiting the game's world. Even though there are studies on the relationship between video games and morality, most of these works focus on understanding how the human player behind the player character engages in the moral dimension of such choices, or even on whether video games are, after all, suitable platforms for players to engage in genuine moral reflection.

On that regard, works such as [9], [10] or [12] argue that video games allow for genuine moral reflection, while others, such as [6] or [11], challenge that claim. Authors like [5] argue that explicit morality systems are not suitable for that purpose, and defend that only implicit moral choices require the player to actually reflect on their actions. Other works explore the social dimension that the virtual worlds from these video games depict, and focus on topics such as law and power through moral choices, as in [1].

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Beyond the effects that moral gameplay may or may not have on players, video games can also be looked at as complex virtual worlds able to account for the moral persona that the player builds through in-game actions, and which affect the way the video game world and its inhabitants react to the player character. [2] argue for the integration of multi-agent systems, artificial societies and complex CRPGs as simulations of virtual worlds as a cross-disciplinary study of morality systems. [8], for instance, focuses on the creation of the player's social persona in the virtual world of Fable, and [6] examines some of the techniques used in video games' morality systems, although the paper still ends up focusing on the players' experience behind those. With respect to building up on tools to design video games' morality systems, works such as [4] focus on how NPCs could be furnished with a more life-like moral dimension; in particular, the aforementioned paper provides references to alternative ways of encoding moral values and modeling characters accordingly. Those alternative ways, nevertheless, do not belong to existing morality systems in the video games' industry, and they would need to be adapted and integrated at early design stages of a game.

Instead of focusing on models that could potentially be used in games, in our work we choose to focus on the study of how an existing CRPG already allows to account for NPCs with a certain degree of moral autonomy: *The Elder Scrolls IV: Oblivion*. Furthermore, we argue how the mechanisms already included in the game could be rearranged and adapted to model NPCs with much more detailed moral profiles.

2 MORALITY SYSTEM IN OBLIVION

The Elder Scrolls IV: Oblivion (called just *Oblivion* henceforth) is a computer RPG that takes place within a richly simulated social and cultural world [3]. Its social world simulation combined with frequent references to moral aspects of actions presents one of the more complex existing cases of a game morality system with a strong role for virtual agents in forming and enacting moral judgments. Figure 1 summarizes key elements of the game's morality system, which we've produced as part of a larger research project analyzing how different RPGs implement morality systems.[6]

Even though the game is still mainly focused on the players' experience, and so the PC takes a more relevant role in the model, we can see how the NPCs are still related through all other agents via a *Disposition* attribute that accounts for how their relationship is. This disposition, in case of the relationship between the PC and the NPCs, is affected by the overall measurement of the PC's "good" and "bad"

[6] We've gathered some details of how Oblivion is implemented from the UESP wiki [7].
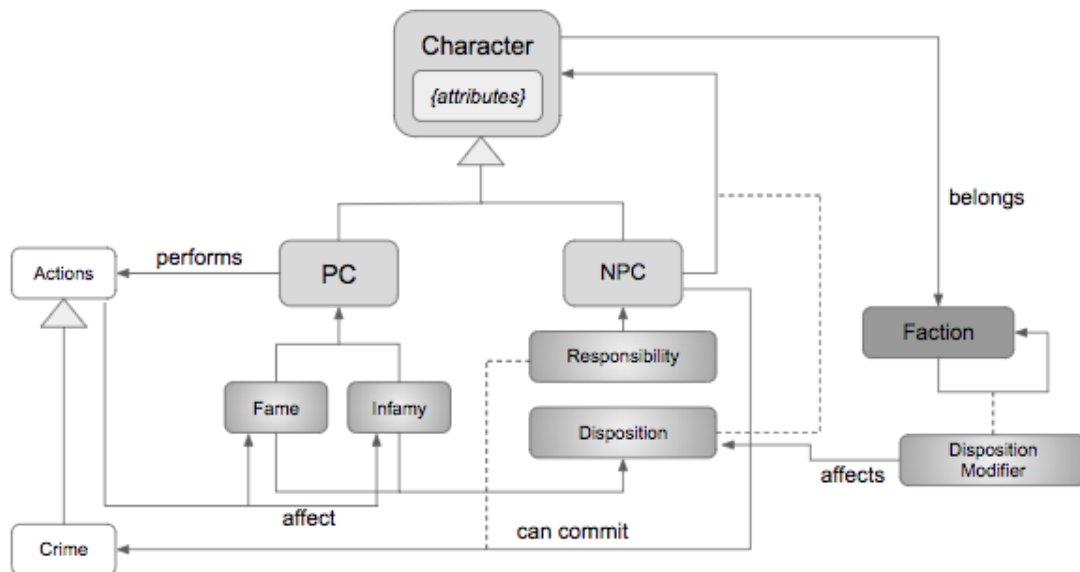
Figure 1. Diagram summarizing the operation of the morality systems in *The Elder Scrolls IV: Oblivion*, viewed from an agent-centric perspective.

deeds, which are represented through the *Fame* and *Infamy* properties. Aside from those, both the NPCs and the PC have different attributes detailing not only their physical and psychical strengths and weaknesses, but also detailing a set of skills in which they are proficient. This, in turn, determines what kind of activities each NPC can carry out in the game, and which it cannot. Furthermore, we can also see in the model how allegiance to certain factions or social groups is also taken into account when determining the affinity between agents.

One of the more unique features of the way Oblivion models NPCs, and which is particularly relevant when considering morality systems, is the attribute of *Responsibility*. In short, this attribute represents how the NPC feels towards the existing law in the virtual world. Unlike many other RPG games with complex NPCs, Oblivion[7] goes one step beyond and allows NPCs with low responsibility to (non-scriptedly) choose goal achievement over lawfulness. For example, if an NPC has a low responsibility score, needs food, and currently lacks anything to eat, it may steal it from a market stall. This differs from many games, in which only the player and specifically scripted "evil" characters have the possibility to violate norms in a way that the in-game morality system would judge as a violation, which it a step closer towards a furnishing NPCs with a certain degree of moral autonomy.

In fact, not only will NPCs in Oblivion make such decisions regardless of whether the player could notice the behavior or not, but if they do commit such acts, they risk facing the same consequences as the PC would, if they are caught while committing a crime by a guard or by another NPC. In particular, if the NPC is caught while committing a crime, the guards will give it a chance to pay a bounty; if the NPC cannot afford it (which it normally will not be able to), then the guards will execute the NPC. The NPC's responsibility is also taken into account when determining whether, when witnessing an illegal activity, one NPC will care enough to report the other one

to the guards; NPCs with low responsibility, for instance, will not be bothered when witnessing a crime, while NPCs with high responsibility will immediately call the guards, or even confront the criminal.

Nevertheless, and despite this layer of added detail, the game is player-centered: therefore, most NPCs' properties are only dynamic in terms of their relationship towards the player. In other words, although each NPC has a disposition value towards each other, or a responsibility value on their own, those properties do not change over time: the disposition of an NPC only varies in its relationship towards the PC, and the NPC's responsibility is set right from the beginning, meaning that the moral behavior of the NPC is constant throughout the game, without the possibility of changing. Similarly, and even though the PC accounts for the *Fame* and *Infamy* derived from performing morally good or morally bad deeds, NPCs do not have such scales.

However, and as we argue in the next section, the model could be easily adapted to account for that in the same way it already does for the PC's case. In particular, the amount of detail that Oblivion's model has with respect to the moral dimension of the game and the NPCs opens up to the possibility of having NPCs that exhibit a higher degree of moral autonomy than that modeled in many CRPGs.

3   ENHANCING NPCS' MORAL PROFILE

However detailed NPCs can be in Oblivion, they still have a main shortcoming, with respect to their moral persona and in comparison to the player character: namely, the NPCs moral profile, as well as their relationships, are static. The moral profile of Oblivion's NPCs is currently determined only by their responsibility: this attribute mimics, in some way, the autonomous choices that a player character would make, in terms of their proneness to engage in unlawful activities[8]. However, NPCs' moral profiles still lack two very important

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[7] Although *The Elder Scrolls V: Skyrim*, published also by Bethesda Softworks in 2011, follows Oblivion in many way, it does not implement the *Responsibility* mechanism for NPCs.

[8] Although morality and law are not necessarily the same thing, unlawful actions are the ones that are most clearly reflected by the game's morality system. Therefore, and for the sake of sticking to the existing game's mechanics, we restrict ourselves to those existing actions.
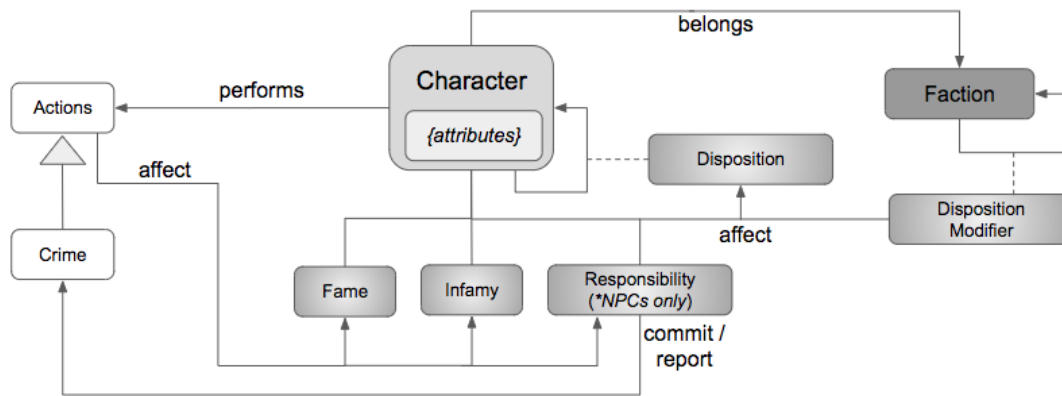
Figure 2. Adapting *The Elder Scrolls IV: Oblivion*'s model to enhance the moral profile of NPCs.

things.

On the one hand, their responsibility does not change; namely, if they are caught committing a crime, and thus punished in any way, they cannot "learn" from this action. Their responsibility does not change in any way, neither through reward, nor through punishment, thus resulting in having NPCs whose moral values are set right from the beginning, and left static throughout the course of the game. Just as a human player may decide to stop stealing horses once they get caught by a passing guard, so should NPCs get the same chance to revising their moral responsibility.

On the other hand, NPCs lack a "record" of moral actions. Unlike the PC, who has two separate values of fame and infamy to keep track of their doings, NPCs' morally-relevant actions are not recorded anywhere. Just as it makes sense for the player to build their moral persona and have the world react accordingly, so it should be for the NPCs. When moral deeds are instantly forgotten, their relevance in future interactions cannot be reflected; namely, as nobody can "remember" whether someone acts, say, as a kind and law-abiding citizen, or as a ruthless robber, there is no way the world can react accordingly to one's doings. This takes us to the next shortcoming that NPCs have with respect to the PC: their relationships.

As it can be seen in Figure 1, relationships between the game's characters is accounted by the disposition attribute, which determines how willing or reluctant a character will be to interact with another one, as well as determining the nature of such interaction –friendly, neutral or hostile. Although NPCs do already have a disposition attribute towards each other, this disposition does not change, and only does so with respect to the PC. The rigidness of such relationships is also an obstacle to what would be desirable, in terms of social interactions reflecting moral judgment of NPCs' actions. Even though disposition may be affected by different factors, such as belonging to certain factions, we can see how, with respect to the PC, fame and infamy play a very important role in the way relationships evolve. Therefore, and related to what has just been said in a previous paragraph, depriving NPCs of fame and infamy also prevents their relationships from evolve as a result of their moral or immoral doings.

In order to furnish Oblivion's NPCs with a higher degree of moral autonomy, we propose the following adaptations on the current Oblivion model:

1. *Dynamic moral values*: NPCs should not be permanently stuck in an initial set of moral values, represented in the game by their responsibility. Just as a human player could, NPCs' responsibility should be allowed to evolve throughout the game. In order to achieve this, actions carried out by NPCs (be them morally positive or morally negative) could potentially modify their responsibility attribute. Following a reward and punishment schema, a pretty straightforward way to achieve this effect would be to increase an NPC's responsibility whenever it carries out an action increasing its fame, while decreasing its responsibility in the opposite case.

2. *Moral record*: NPCs should have their own fame and infamy scores in order to build a record of their moral doings. As a result of this, their fame and infamy should be reflected on their interactions with other characters in the world in the same way they already do with respect to the PC.

3. *Dynamic relationships*: Disposition between NPCs should change accordingly to their moral doings. In particular, fame and infamy should have an effect on the way NPCs relate to each other. In this case, responsibility should not directly modify the disposition value, as responsibility is meant to account for the "private" moral values that the NPC holds, and thus should not be accessible by other NPCs; nevertheless, if an NPC's responsibility is low enough, the way infamy would affect its disposition should be lower than it would be, if it had a higher responsibility value.

A preliminary adaptation of Oblivion's model, according to the previous guidelines, is shown in Figure 2. Note that, even though the diagram no longer draws a distinction between the PC and the NPCs (precisely in order to pull NPCs towards the same status as the PC), the PC would not need to have a responsibility value, as the human player behind it would already account for that.

4 CONCLUSIONS

The Elder Scrolls IV: Oblivion provides a detailed morality system with NPCs that show an interesting degree of moral autonomy. Through our analysis we see how, despite its strong points, the model cannot yet furnish NPCs with the desired degree of moral autonomy, as NPCs' moral profile is still shallow and static, and the strong points of the game's morality system are reserved only for the PC. We identify what a desired model of NPCs' moral profiles lacks and, furthermore, we point out how those features can already be obtained by rearranging mechanics existing in Oblivion's morality system. We

argue how the game's model could be modified to connect existing elements that would lead to NPCs showing a much deeper and dynamic moral profile. This could not only lead to more engaging and interesting NPCs in Oblivion itself, but it would open up to achieving morally complex NPCs in CRPGs using similar mechanics.

As future work, the changes identified in Oblivion's model could be implemented as a mod for the game to provide an initial prototype. Additionally, the relevant mechanisms of this model could be taken as a guidelines to design more engaging NPCs with a higher degree of moral autonomy in other CRPGs.

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REFERENCES

[1] M. Barnett and C. Sharp, 'The moral choice of infamous: law and morality in video games', *Griffith Law Review*, **24**(3), 482–499, (2015).

[2] J. Casas-Roma, M. J. Nelson, J. Arnedo-Moreno, S. E. Gaudl, and R. Saunders, 'Towards simulated morality systems: Role-playing games as artificial societies.', in *Proceedings of the 11th International Conference on Agents and Artificial Intelligence*, volume 1 of *AIIDE '12*, pp. 244–251, (2019).

[3] Erik Champion, 'Roles and worlds in the hybrid rpg game of oblivion', *International Journal of Role-Playing*, **1**, 37–52, (2009).

[4] R. Fitzpatrick, M. Walsh, and M. Nitsche, 'Character data sets and parameterized morality', in *Aesthetics of Play: Bergen (Norway), 14-15 October 2005*, (2005).

[5] M. Hayse, 'Ultima iv : Simulating the religious quest', *Video Games with God*, 34–46, (2010).

[6] M. Heron and P. Belford, "Its only a game' ethics, empathy and identification in game morality systems', *The Computer Games Journal*, **3**(1), 34–53, (2014).

[7] Multiple Authors. The unofficial Elder Scrolls pages (UESP): Oblivion. https://en.uesp.net/wiki/Oblivion:Oblivion, 2008. Accessed: 2018-11-15.

[8] Adam Russell, 'Opinion systems', in *AI Game Programming Wisdom 3*, Charles River Media, (2006).

[9] M. Schulzke, 'Moral decision making in fallout', *Game Studies: The International Journal of Computer Game Research*, **9**(2), (2009).

[10] M. Sicart, 'Moral dilemmas in computer games', *Design Issues*, **29**(3), 28–37, (2013).

[11] J. Švelch, 'The good, the bad, and the player: The challenges to moral engagement in single-player avatar-based video games', in *Ethics and Game Design: Teaching Values through Play*, eds., K. Schrier and D. Gibson, 52–68, IGI Global, (2010).

[12] José Zagal, 'Ethically notable videogames: Moral dilemmas and gameplay.', in *Proceedings of the 2009 DiGRA Conference*, (2009).