Dicey Rules. System Design and Automation in the *Baldur's Gate* Series

Mateusz Felczak
SWPS University
Warsaw, Poland
mfelczak@swps.edu.pl

ABSTRACT

This paper analyzes the system design in the three major installments of the *Baldur's Gate* IP in the context of automation. Its aim is to map selected strands concerning the evolution of afforded gameplay scenarios associated with the adaptation of *Dungeons & Dragons* tabletop rules for digital role-playing games. Engaging in a systemic analysis of one of the most popular high-fantasy gaming series, this work assesses the rules of play that were implemented in the influential *D&D*-based digital games between 1998 and 2023. It argues that the changing features of system design in the *Baldur's Gate* games reflect a shift from the automation of combat rules to the automation of narrative choices. These claims serve to highlight both the strengths and limitations of digital applications of the *D&D* system design, given its current hegemonic status in the RPG market.

Keywords

Baldur's Gate, RPG, system design, automation, rules, Dungeons&Dragons

INTRODUCTION

Let us start with the obvious: it is not necessary for *Baldur's Gate 3* (Larian Studios 2023) to have a graphic representation of a polyhedral dice. Yet, it does appear each time an ability check is performed, and players are encouraged to interact with it and watch the unfolding animation of rolling one or two 20-sided dice. Digital games based on subsequent editions of *Dungeons & Dragons* have harnessed the promise of automating such actions by hiding numerical computations behind the graphical interface and thus alleviating the cumbersome prospect of performing mathematical calculations during a game session. As has been astutely observed by Steven Dashiell, in the tabletop *Dungeons & Dragons* "monitoring, updating, and adjusting ability and skill modifiers can become both unwieldy and pointless–you are playing the role of a computer while simultaneously playing your character" (Dashiell 2018). All three installments of the *Baldur's Gate* franchise discussed in this paper are based on the PnP (pen-and-paper) *Dungeons & Dragons* rules: the first two games adapted the 2nd edition of the *Advanced Dungeons & Dragons* ruleset, and the newest installment of the series uses a heavily modified 5ed *D&D* system. Mapping the evolving systemic underpinnings that reflect the changing philosophies of gameplay design in this highly influential video game series provides not only an understanding of the history of

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digital adaptations of *D&D*, but also offers insights into broader trends in the high-budget, modern-day computer role-playing game segment.

The original Baldur's Gate (BioWare 1998), the first game based on the Infinity Engine, successfully implemented the basic premises of automation, combining traditional, party-oriented role-playing conventions with interface and combat solutions inspired by then-popular real-time strategy games such as *Command & Conquer* (Westwood Studios 1995) and *Command & Conquer: Red Alert* (Westwood Studios 1996). The technological shift from the quasi-isometric, 2D presentation of the first two *BG* games to the motion capture-based 3D modelling in *BG3* did not change the core design idea of the series, which, unlike the subsequent *Neverwinter Nights* games (BioWare, Obsidian Entertainment, 2002-2006), has always concentrated on delivering/providing a narrative-driven, predominantly single-player focused experience.

It is important to note that digital adventures in the *Baldur's Gate* series differ from a conventional tabletop *D&D* session in one crucial feature: the player character (abbreviated as 'PC', 'CHARNAME' or simply 'Tav', a term adopted by the community after the default character name in the *BG3* beta) remains the undisputed heroine (or hero) of the story. Every other party member except PC/Tav has their own narrative agency, which results in a very different party dynamic to that of a pen-and-paper game, where each player controls their own character by default and must constantly negotiate their involvement in the events unfolding throughout the game session. The third installment of the *BG* series expands this single-player-centered formula and allows for choosing one of six non-player characters to take Tav's place. However, this feature arguably just replaces one of the two default backstories of the main protagonist – *tabula rasa*, the choose-your-own-adventure version and the lore-themed Dark Urge origin story – with the backstory of a given recruitable companion.

It is not the goal of this paper to provide an exhaustive enumeration of changes and creative adaptations that occurred in translating the tabletop *D&D* rules to the digital medium, although some key differences will be interpreted to highlight the changing practices of play and the cultural context of engaging with digital role-playing games – especially given the recent resurgence of interest in the franchise (Sidhu and Carter 2020). However, even a cursory critical assessment of the 50-year history of *D&D* editions and their rulesets, along with changing discourses on topics such as worldbuilding or races (species) and alignment affordances (see e.g. Stang & Trammell, 2019; Warnes, 2005) would require a separate study and remains beyond the scope of this paper. A possible area to explore in this line of research would include the question of how "[PnP] *D&D* has altered its rulesets and content to cater to its transforming player base" (Sidhu & Carter 2021, 1049). Instead, this study focuses on selected strands of system design, understood as "the creation of rules and underlying mathematical patterns in a game" (Weines & Borit 2022, 265), as an important factor actively shaping, stimulating and, in some instances, mitigating possible gameplay scenarios. This paper assesses how particular features of the system design are linked with other components of the *Baldur's Gate* games, especially BioWare's signature party companion interactions in the first two games (Bednorz & Kucharska 2016) and Larian's take on narrative and combat agency in the third installment of the series. At a macro level, the overarching aim of the paper and its prospective contribution to the field, delivered through an analysis of the rules and system design, is the assessment of the changing modes of engagement with

computer RPGs and the possible futures of games based on one of the most popular fantasy franchises of all time.

THEORETICAL FOUNDATIONS

This study is a systemic analysis of fantasy-themed computer role-playing games employing the *Forgotten Realms* campaign setting for the *Dungeons & Dragons* system, which provides the mechanical scaffolding for their gameplay The term 'gameplay' will subsequently be used in the spirit of cybersemiotics, "as the relation of the player's competence with the particular way in which rules are given to the player's experience" (Vargas-Iglesias & Navarrete-Cardero 2020, 593). In chronological order of release, the first game discussed in this work is *Baldur's Gate* (including the *Tales of the Sword Coast* expansion, BioWare 1998-1999), the second is *Baldur's Gate: Shadows of Amn* (BioWare 2000) together with the *Throne of Bhaal* expansion (BioWare 2001), and the third installment refers to *Baldur's Gate 3* by Larian Studios (2023). The *Enhanced Editions* of the first two titles, developed by Overhaul Games and published by Beamdog (2012-2013), retroactively introduced many of the graphical and system design properties of *Shadows of Amn* into the *Enhanced Edition* of the first part of the series, but otherwise did not substantially alter the core design of the games and thus provide only a contextual reference for this analysis.

The rationale presented in this research builds on existing studies of rules and challenge types in games. This paper follows a broader understanding of system design that does not limit its impact to adjusting the level of combat challenge. I would agree with the statement that "mechanical difficulty becomes less a form of interference or obstruction of desired transparency than a facilitator for understanding player publics" (Jagoda 2018, 211). An analysis of combat and narrative encounter design is conducted to identify particular types of challenges in the *BG* games and the extent to which they synergize with gameplay scenarios – especially those that lead to successful story development. This approach shares some similarities with Miguel Sicart's take on rules aesthetics, which is described with reference to a valuable "effect on the individual and collective agency that structures the game as played, while relating those agencies to both the material conditions of the game, and the metagame around the interpretation of the very boundaries of what a rule encompasses" (Sicart 2023, 903). Accordingly, this inquiry focuses on system design properties that directly influence the gameplay affordances: what can or cannot be done in a game and at what cost. In particular, Veli-Matti Karhulahti's take on the types of challenges in games (Karhulahti 2013) will provide a platform for understanding the degree of afforded players' agency in tackling the various types of objectives posed to players in the titles discussed in this paper.

This study focuses on a 'weak' concept of automation, that is the automatic execution of in-game procedures whose conditions are predefined by human agents (i.e. players). In contrast, what I will call 'strong' automation refers to an understanding of "gameplay automation as referring to autonomous agents and autonomous behaviors of the game itself" (Fizek 2022, 54), which is to some extent present in the *Baldur's Gate* series and other digital *D&D* adaptations, but addresses a different set of issues and would require a separate study. Some of the earlier works on automation in games did not make this distinction, considering AI-driven behavior and so-called macros to be part of the same process that empowered the algorithm at the expense of de-skilling human players (De Paoli 2013). While such a perspective has its merits

in broadening – or even shifting – the established perspectives on discussing agency in games, in this study, the focus remains predominantly on "forms of automation… [that] come from the design choices of game companies" (De Paoli 2013). Thus, the systemic rationale and encounter design analyzed in this work are limited to the un-modded versions of the games, although some auxiliary data related to the most popular fan modifications is provided to offer more insight into possible ways of expanding or building upon already implemented rules.

Discussing combat and narrative encounters in the *BG* series requires a more structured approach to the definition of a role-playing game, which, as already noted in the game studies literature, is not a self-explanatory term (see Zagal & Deterding, 2018). This paper follows a slightly revised version of the modular definition of role-playing games presented by Michael Hitchens and Anders Drachen, in which several key features are enumerated as cornerstones of RPGs: 1) a specific and defined game world available for exploration 2) players who control distinct in-game characters 3) presence of the Game Master (either a person or an algorithm) who oversees the rules of the game world 4) various, often flexible available modes of interacting with and influencing the game world 5) presence of sequential events with narrative consequences (Hitchens & Drachen 2008). All of these features can be linked to various modes of automation and system design properties discussed in this study. The analysis starts with the design of companions, then moves on to the spatiality of the game world, as well as the design of combat encounters, concluding with itemization paired with subsidiary mechanics such as buffing.

COMPANIONS

The multiple strategic affordances in *BG3* are structured in a way that makes role-playing, understood as making choices according to a predefined narrative frame, a necessity rather than a potentially cumbersome factor in combat encounters. In Karhulahti's terms, dialogue choices in *BG3* would be more akin to puzzles, which are based on "static systems" with determinate outcomes (Karhulahti 2013, 2). Once a player discovers a dialogue tree sequence that opens up a particularly desirable possibility, such as an item or quest reward, such a sequence presents itself as 'solved' – although the "winning" condition still remains gated behind an aleatoric component of a dice roll. The 'strategic' part of narrative encounters involves a measure of risk-reward assessment and a decision whether a failed dice roll would lead to negative, possibly irreversible consequences for the player. To alleviate the arguably uninteresting prospect of repeating the non-emergent puzzle components of dialogues, *BG3* forces a significant degree of automation on players. Framing important dialogues as encounters is perhaps best illustrated in romance dialogues, where the ability to successfully 'pass' a chosen option and have it accepted by the other character is key to success. Given the considerable popularity of romancing and befriending companions among the player base of the *Baldur's Gate* games, this is an important issue[1]. Such crucial narrative decisions are automated and delegated to the system that, while taking into account the player's strategic choices in the form of previously chosen options (such as investing points in charisma or consuming items providing timed dialogue bonuses), remains largely aleatoric. It can be argued that Larian introduced a system-design solution to make narrative encounters more unpredictable (and thus more thrilling), which is very similar to a dice-based solution to make combat encounters more enticing. An example of such an automated, aleatoric dialogue-as-combat instance is presented in Figure 1, where the success of

a particular narrative choice is determined by the roll of a dice, modified by both favorable and unfavorable factors.

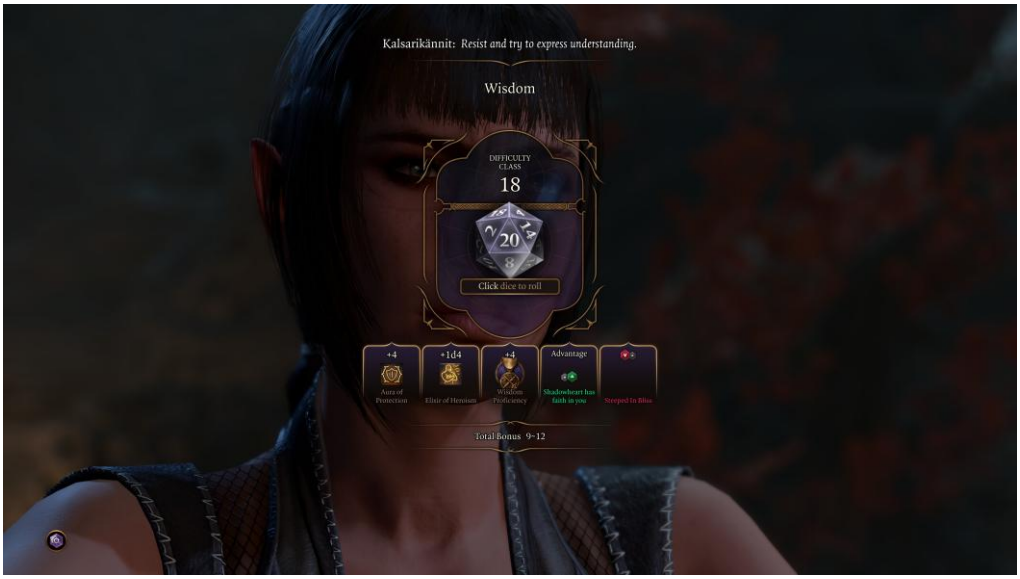


Figure 1: Example of an automated, aleatoric dialogue-as-combat featuring Shadowheart NPC.

In *BG3*, the availability and success rate of individual dialogue choices are largely chance-based, whereas in *BG1* & *2* they are narrative or class-based. Notable exceptions are race (species) features in *BG3*, which sometimes open up additional non-combat solutions to given encounters. In this respect, paradoxically, the most reactive game of all the Infinity Engine titles would be the combat-heavy *Icewind Dale II* (Black Isle Studios 2002), which has a significant number of checks for class, skills, and character alignment running behind the UI to determine the shape and outcome of dialogue trees.

Baldur's Gate is a game series that not only ended up being one of the most commercially successful single-player games in recent times, but also revived interest in computer games based on the *Dungeons & Dragons* system at the turn of the millennium. Therefore, it is reasonable to raise questions about the broader implications for the research presented in this paper. In addition to factoring in the evolution of subsequent editions of PnP *D&D* and the changes introduced to the ideological and mathematical underpinnings of the system, which warrants a separate study, it is important to note the possible shift from world-centered toward character-centered design. The automation of combat rules in the first two *BG* games underscored the heroic narrative of a chosen player character who will prevail despite being thrown into an extremely hostile environment. The third game in the series does not shy away from introducing characters that easily rival the PC for pure power potential and who have their own extremely high stakes at play. A key example could be Gale, a mage of direct interest to Elminster, one of the most prominent wizards in the *Forgotten Realms*, and Mystra, the goddess of magic. In this respect, some parallels can be drawn between Larian's take on the *BG* series and BioWare's other notable RPGs, such as *Mass Effect 2* (BioWare 2010) or *Dragon Age: Origins* (BioWare 2009): as has been argued by Kristine Jørgensen, in these titles "the player character is important, but not the focal point of the progression of events in the game" (Jørgensen 2010). What also sets *BG3* apart from earlier installments of the saga is

that its world is not hostile in itself – corruption comes from the outside, as metaphorically and illustrated by the presence of tadpoles, parasites in the service of devious forces. Achieving balance in this fantasy realm inevitably shifts towards crafting relationships, and a strong element of a dice-based system design has been introduced to supplement the traditional dialogue tree structure to make it more engaging for the players.

As far as character development is concerned, it is interesting to observe the limits of automation in terms of character progression. None of the *BG* games offer automation of level-ups and character development in the player's party. The tools that allow players to interact with the world (be it available dialogue options or combat abilities) are to be an integral part of the narrative choices afforded by the game. Unlike in some *D&D*-based but more systemically demanding digital games – most notably the *Pathfinder* series (Owlcat Games 2018-2021) – the degree of automation available for character development is limited. *BG3* mostly offset the lack of automated means to deal with character development by the almost unrestricted freedom to combine available classes, species and abilities, including the option to re-specify (in gaming lingo, oftentimes called 'respeccing') these features for all recruitable companions. The ability to 'respec' any playable character with the aid of one of the crucial narrative characters in the game allows a great deal of flexibility in building the desired party composition.

SPATIALITY

The rising importance of dialogue and narrative choices to the system design in the *BG* series is perhaps best illustrated by the degree to which leveling up is possible without engaging in combat. As *BG2* begins with characters already possessing almost 90,000 experience points each, it would be most informative to juxtapose the first and the latest installments in the series, both heavily rewarding exploration. *BG1* does this indirectly through its open-ended map design and side quests, whereas *BG3* simply awards experience points for discovering new areas in the game. In the case of the latter, it is possible to gain about four character levels just by passing dialogue checks and using non-combat abilities. The first game in the series is not quite as generous, but obtaining the initial key levels in character progression can also be facilitated by resolving non-combat quests – this time involving only the occasional 'background' checks (i.e. not visible to players on the visual interface level) to meet certain numerical statistics criteria, such as having a high enough charisma score. It can be argued that automating the procedure of assigning experience points to players for exploring the gameworld and making appropriate dialogue choices goes against the long-established *D&D* tradition that numerical values of such rewards remain at the discretion of the Dungeon Master, who should pay more attention to assigning systemically accurate rewards for combat encounters. Yet, this remains a crucial systemic pillar in *BG3*, where the fantasy of crafting one's own peaceful and wholesome adventure must be balanced against the game's inflexible and agonistic systemic underpinnings. This is also the reason why many of the in-game spaces in *BG3* are not definitively marked as friendly or hostile. For example, the balance of rewards for peaceful (diplomatic) and violent quest resolutions allows places like the Goblin Camp to be either a long exercise in tactical combat or a series of narrative mini-games resolved mainly through dialogue. Before the automation of non-combat rewards took precedence over the automation of in-combat actions, the *BG* series introduced yet another piece of the narrative/combat puzzle: a diverse range of recruitable NPCs.

Shadows of Amn represented a breakthrough in terms of the design of companions in computer role-playing games and their role in the narrative. BioWare introduced extensive (for the time) voice acting and inter-party relations, which resulted in the opportunity to befriend and even conditionally romance characters who joined the PC party. As Magdalena Bednorz noted in her study on courtly love tropes in BioWare's fantasy-themed RPGs, these relationships were mechanically linked to exploration and employed spatiality, "understood both in terms of the game world and spatial structures" (Bednorz 2021, 195). Bednorz argues that "the spatial journey through the game landscape becomes equated with the characters' emotional journey of getting to know each other" (Bednorz 2021, 196). It is important to note that spatiality also plays a crucial role in determining the difficulty (or lack thereof) of bonding with a given companion on a narrative level. There is a noticeable continuity of spatial design regarding NPCs in *BG1* and *BG3*: in both games, physical access to many recruitable companions is granted relatively late in the story progression. In some cases, this is even delayed up until the player finally enters the city walls of Baldur's Gate, which poses a challenge in terms of fitting the newly acquired confidantes into what, at this stage of the game, should already be a strategically balanced party of adventurers with a synergistic combination of combat prowess. In their research on single-player cRPG games, Daniel Vella and Krista Bonello Rutter Giappone enumerated "centring, the demarcation of inside and outside, movement and encounter" as spatial functions that are "crucial in the shaping of the player's experience", noting that in-game cities "exhibit concentrations of these spatial functions within their respective gameworlds, revealing, on some level, a more sustained association between these spatial functions and the idea of the city – as such, they may also more clearly illustrate certain aspects of our practices of engagement with a gameworld" (Vella & Bonello Rutter Giappone 2018, 5-6). Applying these spatial functions to the systemic affordances of key cities[2] in all three games reveals which elements of combat and narrative encounters are and which are not to some extent scripted or automated. 'Centring' manifests through the accumulation of crucial combat and narrative encounters within the city walls. It is through the cities in all three games that players gain access to the final areas where the chief antagonists are confronted. Even though the largest city hub in *BG2* serves as the actual starting location after the tutorial dungeon, *Shadows of Amn* still reaches its tactical and narrative peak in the elven city of Suldanessellar. Particular areas of the city contain scripted 'triggers' that cause the party to be ambushed by adversaries. Most notably, for plot reasons, the cities in the series gradually (or instantly, like Suldanessellar) become extremely hostile environments, in which 'the demarcation of inside and outside' in terms of the foe-friend distinction is radically shifted against the players' odds, freedom of 'movement' is severely restricted, and 'encounters' are turned into combat scenarios.

Traversing the game world and moving through areas in the *Baldur's Gate* games also involves other kinds of challenges. Computer role-playing games, apart from their more action-oriented subgenre, usually do not require "nontrivial effort [that] is at least partly psychomotor" (Karhulahti 2013, 9), which defines the kinesthetic type of challenge. Such challenges must be conducted in an "empirically-bound environment" (Karhulahti 2013, 9) and this is why the environmental and level design is crucial to understanding the differences between the subsequent installments of the *BG* series. In the first two *BG* games (and, arguably, in other Infinity Engine games) these two components complement other layers of strategic challenges, whereas in *BG3* they largely replace those combat systems that were supplemented with automation tools in the first two games. Therefore, the change of "Shove" from action to bonus action and different rules applied to jumping in the Larian title are among the major

deviations from the tabletop *D&D* 5ed rules, as they allow players to use various effective tactics to take advantage of the spatial level design in both combat and non-combat scenarios.

Aside from a few speedrun-specific strategies, the *BG* series provides very few kinesthetic challenges, albeit the lack of active pause in *BG3* and the need to negotiate the field of view through camera control requires considerable spatial awareness and attention to the character's movement abilities to avoid the potentially fatal consequences of misclicks. Karhulahti uses the example of the first *BG* game and its real-time with pause system to illustrate the difference between strategic and kinesthetic challenges, the latter being mitigated by the ability to pause the game at any time (Karhulahti 2013, 10). However, it is important to note that the supposed real-time execution of commands follows a strict numerical scheme constantly running in the background. Combat is based on rounds and turns: one round lasts six real-time seconds, and one turn equals 10 rounds. The mathematical underpinnings of the RTwP (real-time with pause) system are highly consequential not only to combat design, but also to exploration. The first *BG* game did not offer much in terms of narrative non-linearity, especially not in the modern sense of the term, which implies multiple available paths and solutions to a given quest or challenge. However, the vast wilderness areas in the 1998 title afforded a very open-ended playstyle in terms of finding one's own paths to points of interest. The scarcity of environmental clues in the overworld areas contrasted with the very intricate and spatially confined dungeons, where navigating the party through traps and monsters was perhaps an unintentional kinesthetic challenge of its own kind.

COMBAT

In terms of the story, a distinction must be made between the dialogue-based narrative choices in the first two installments of the series and the aleatoric, dice-based narrative choices in the third installment of the series. When it comes to combat, the first installment of the franchise (somewhat paradoxically) detracts considerably from its PnP *D&D* roots, offering RTS-style strategies such as kiting, unit blocking or taking advantage of the spatial, environmental design and heavily formulaic enemy AI scripts instead of strategic turn-based combat. Due to the increasing complexity of high-level combat in 2ed *AD&D*, the turn-based system returned to some extent in the second game, albeit still under the guise of a real-time-with-pause system. In *BG2*, and especially in the *Throne of Bhaal* expansion, each strategically demanding combat encounter forces careful planning in terms of rounds and turns, rather than relying on a real-time approach. It is even possible to set the game to pause automatically when a certain condition is met, such as when one of our party members finishes casting designated spells or simply at the end of a round. This menu option effectively transforms RTwP into a quasi-turn-based experience, which at higher character levels aids built-in macro automation to make long battles more manageable for strategically minded players.

An obvious but easily overlooked difference between a tabletop *D&D* session and completing a chapter in any of the *BG* games is the density and design of combat encounters. Generally, the experience point rewards of digital *D&D* games do not take into account that it is more difficult to fight many enemies at once, rather than one at a time. For example, the reward for killing 10 sword spiders ambushing the adventuring party brings exactly the same amount of experience as killing the same number of them individually over a longer period of gameplay. This systemic feature

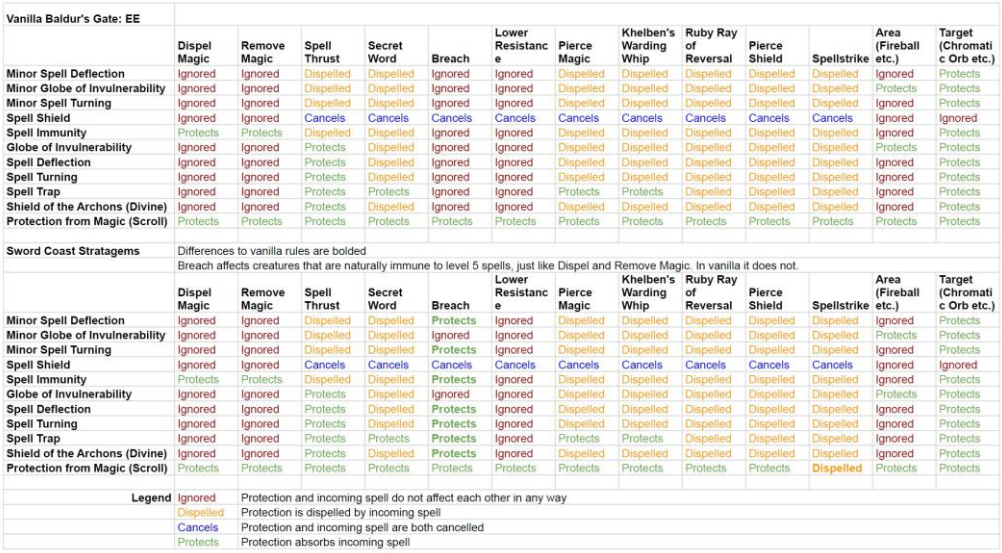
can be mitigated to some extent by bonuses that are linked to the story beats (Mochocki & Koskimaa 2021), in which successful completion of multi-enemy fights is tied to the achievement of some significant narrative goal, and is thus rewarded with additional experience points or useful loot. Due to the so-called action economy of turn-based games, which includes factors such as the order of actions and the number of actions available to perform in a given combat turn, *BG3* actively uses fights with multiple enemies to manage difficulty levels in certain areas of the game. However, the limited ways in which potentially tedious aspects of turn-based gameplay can be automated, such as waiting for multiple AI-driven enemies to complete their turns before players regain agency over the battlefield, could be considered an additional incentive to introduce narrative ways of resolving such challenges. In Larian's game, there are many instances where major battles can be avoided altogether by choosing (and, crucially, succeeding at dice rolls) the right dialogue options. The previous game in the series offered very few non-combat solutions, but provided players with the means to automate the potentially most onerous elements of combat itself.

Encounters in the latest installment of the *BG* series require strategic planning mainly where bypassing given mechanics is preferable to engaging in them and risking random, dice-based failure. Keeping a hefty supply of explosive barrels to quickly get rid of a boss, or abusing AI limitations to act as a stealthy character that hardly ever triggers turn-based combat mode, are key examples of the most effective approaches to strategic in-game challenges. In an interview about *BG3*, Sven Vincke, lead developer at Larian Studios, noted that the game affords a certain "level of systemic freedom" that accompanies the narrative features and that "we [the developers] put things there for you [the players] to abuse them"[3]. The latest *BG* game embraces a metagaming approach that takes into account both the open-ended nature of PnP *D&D* and the closed, algorithmic affordances of the digital game medium. Here, the difference between rules ("voluntary constraints and social contracts") and mechanics ("ontological operations") is incorporated into the system design, allowing players to perform actions that would most likely be frowned upon in a tabletop session as excessively metagaming and immersion-breaking (see Boluk & LeMieux 2017, 8). In the aforementioned understanding of the rules and mechanics, there is a significant degree of synergy between them in the first two *BG* games, where it is assumed that someone playing the wizard class will not naturally be interested in wielding heavy melee weapons, and the intelligence ability score for the warrior is only useful to sustain a few extra stat-draining attacks from very specific enemies from time to time. The more free-form role-playing in *BG1* and *2* may oftentimes require sacrifice in terms of combat efficiency, whereas *BG3* is not as strict with allowed species and class combinations. This difference could be further unpacked in prospective studies involving an in-depth assessment of selective choices regarding the implementation of the PnP *AD&D* 2nd edition and *D&D* 5th edition rules in subsequent *BG* games, but it is crucial to note that the shift towards treating narrative encounters as combat encounters in Larian Studios's title is rooted in the edition-agnostic foundations of its system design. Since the tangible, systemic rewards in the first two *BG* games were awarded primarily for activities involving direct combat or riddle solving, automating the ways in which players engage with these elements opened up pathways for metagaming and testing the boundaries of the system without breaking the core gameplay loop. In *BG3*, the level of players' agency subtracted from the narrative choices, which are ultimately guided by the roll of the dice, is compensated for in turn-based combat encounters that open up the same, if not greater, opportunities for meta-gaming than their real-time-with-pause counterparts in *BG1* and *BG2*.

ITEMIZATION AND SUBSIDIARY MECHANICS

In *BG3*, perhaps the most influential strategic decision at the player's disposal is the order in which crucial, often build-defining items are obtained. Because the game does away with the 5ed *D&D* racial ability score bonuses, the choice of Tav's race (species) comes down to inherent proficiencies, spells and special abilities – unlike the first two games in the series, where the implementation of 2ed AD&D imposed rather significant ability score bonuses and penalties related to choices made during character creation. It can be argued that in *BG1* and *BG2* "character creators insert friction between the ostensible meritocracy of player-led character customization and the hierarchies imposed by fantastical races—which are, in turn, hegemonic entanglements of race, socioeconomic class, and gender" (Iantorno & Consalvo 2023, 999). *BG3* partially resolved this issue, but replaced the gender/class determinism with item-based gameplay. In the case of the latest installment of the Baldur's Gate saga, the synergies between the character's class and their equipment support the preferred gameplay style to the extent that they predefine optimal exploration paths and narrative choices. Items such as the Titanstring bow, The Deathstalker Mantle, the Band of the Mystic Scoundrel ring or different versions of Potions of Strength allow to build characters with a seemingly suboptimal ability score distribution that are able to trivialize combat encounters on even the hardest difficulty settings. The fact that the acquisition of material goods is becoming the crux of strategic planning could be linked to the intensification of the commodification of the *D&D* franchise in recent years. Examples include various business initiatives intensely marketing gaming paraphernalia during streamed "actual play" shows such as *Critical Role* (see Švelch 2022, 1670-1671) and the Wizards of the Coast company expanding its *D&D*-related product range to include digital and non-digital props, figurines and item replicas. It is perhaps worth mentioning that the setting of *Baldur's Gate 2: Shadows of Amn*, with the title city nicknamed in-game as the "City of Coin" and depicted in the *Forgotten Realms* lore as a Merchant's Domain, with a capitalist ideology permeating all levels of social strata[4], relies on an item-based system design much less than its successor in the series.

Complementing the character development system and itemization, another important element of the system design, is so-called buffing (applying beneficial status effects to the party), which in the *BG* series boils down to casting protection spells and effects in a specific order. The second game in the *Baldur's Gate* series begins with all playable characters having 89,000 experience points, which translates to the seventh or eighth character level, depending on class. After installing the *Throne of Bhaal* expansion – or simply playing the Enhanced Edition of the game, which includes the add-ons and later changes to the vanilla experience – the level cap reaches 8 million experience points. These are demigod levels by 2ed *AD&D* standards, which corresponds well with the game's narrative arch, but also means that players venture into territory rarely explored in pen-and-paper adventures, with a complex system of high-level abilities and magic at the disposal of both party members and their adversaries. The list of spells selected to be included in *Baldur's Gate 2* and *Baldur's Gate 3* offers a telling insight into the design rationale balancing the story and combat components of these titles. High-level encounters in *BG2* rely on slowly chipping away at each layer of enemy defense. There are 11 spells that target specific protections and resistances provided by 10 different defense spells, and the spreadsheet of available combinations becomes even more complicated when the popular Sword Coast Stratagems mod is installed to enhance difficulty and AI (see Figure 2).



Vanilla Baldur's Gate: EE													
	Dispel Magic	Remove Magic	Spell Thrust	Secret Word	Breach	Lower Resistance	Pierce Magic	Khelben's Warding Whip	Ruby Ray of Reversal	Pierce Shield	Spellstrike	Area (Fireball etc.)	Target (Chromatic Orb etc.)
Minor Spell Deflection	Ignored	Ignored	Dispelled	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Minor Globe of Invulnerability	Ignored	Ignored	Dispelled	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Protects	Protects
Minor Spell Turning	Ignored	Ignored	Dispelled	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Spell Shield	Ignored	Ignored	Cancels	Cancels	Cancels	Cancels	Cancels	Cancels	Cancels	Cancels	Cancels	Ignored	Ignored
Spell Immunity	Protects	Protects	Dispelled	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Globe of Invulnerability	Ignored	Ignored	Protects	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Protects	Protects
Spell Deflection	Ignored	Ignored	Protects	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Spell Turning	Ignored	Ignored	Protects	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Spell Trap	Ignored	Ignored	Protects	Protects	Ignored	Ignored	Protects	Protects	Dispelled	Dispelled	Dispelled	Ignored	Protects
Shield of the Archons (Divine)	Ignored	Ignored	Protects	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Protection from Magic (Scroll)	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects
Sword Coast Stratagems	Differences to vanilla rules are bolded												
	Breach affects creatures that are naturally immune to level 5 spells, just like Dispel and Remove Magic. In vanilla it does not.												
	Dispel Magic	**Remove Magic**	**Spell Thrust**	**Secret Word**	**Breach**	**Lower Resistance**	**Pierce Magic**	**Khelben's Warding Whip**	**Ruby Ray of Reversal**	**Pierce Shield**	**Spellstrike**	**Area (Fireball etc.)**	**Target (Chromatic Orb etc.)**
Minor Spell Deflection	Ignored	Ignored	Dispelled	Dispelled	**Protects**	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Minor Globe of Invulnerability	Ignored	Ignored	Dispelled	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Protects	Protects
Minor Spell Turning	Ignored	Ignored	Dispelled	Dispelled	**Protects**	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Spell Shield	Ignored	Ignored	Cancels	Cancels	Cancels	Cancels	Cancels	Cancels	Cancels	Cancels	Cancels	Ignored	Ignored
Spell Immunity	Protects	Protects	Dispelled	Dispelled	**Protects**	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Globe of Invulnerability	Ignored	Ignored	Protects	Dispelled	Ignored	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Protects	Protects
Spell Deflection	Ignored	Ignored	Protects	Dispelled	**Protects**	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Spell Turning	Ignored	Ignored	Protects	Dispelled	**Protects**	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Spell Trap	Ignored	Ignored	Protects	Protects	**Protects**	Ignored	Protects	Protects	Dispelled	Dispelled	Dispelled	Ignored	Protects
Shield of the Archons (Divine)	Ignored	Ignored	Protects	Dispelled	**Protects**	Ignored	Dispelled	Dispelled	Dispelled	Dispelled	Dispelled	Ignored	Protects
Protection from Magic (Scroll)	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects	Protects	**Dispelled**	Protects	Protects
Legend	Ignored	Protection and incoming spell do not affect each other in any way											
	Dispelled	Protection is dispelled by incoming spell											
	Cancels	Protection and incoming spell are both cancelled											
	Protects	Protection absorbs incoming spell											

Figure 2: Spreadsheet with spells and their counter spells in modded and un-modded *Baldur's Gate 2*.

In order to navigate this entanglement of spells and special abilities (especially the high-level ones, which function similarly to magic regardless of character class), a significant level of automation has been implemented. Pre-buffing before any major fight quickly becomes a necessity that can turn into a major chore. The game inherits a built-in system of automation from its pen-and-paper source in the form of spell sequencers and spell triggers, which allow to unleash a series of offensive or defensive effects in quick succession by selecting just one action. While the spell sequencers and built-in AI scripts in the first two *BG* games serve to mitigate what Patrick Jagoda calls 'mechanical difficulty', the evolution from providing combat-oriented means of automation to providing exploration- and narrative-oriented means of automation also affects the 'affective' difficulty, that is, both the emotional and relational (Jagoda 2018) aspects of gameplay.

The first two *BG* games have very few toggle (modal) buffs, that is beneficial effects that, once acquired, can be turned on and off as needed. Consequently, the difficulty of encounters was mainly moderated by the option to apply timed pre-buffs to the party. Some gameplay situations, such as those involving ambushes or Dead Magic zones, were made exponentially more difficult by denying the players the possibility to cast spells and chug elixirs in a timeframe suitable to provide a tactical advantage in a given encounter. An interesting addition to *BG3* were one-day buffs, that is effects that could be applied until the party had rested in a camp, which narratively equated to spending the night in a safe place. These buffs are predominantly spells (such as Aid, which provides additional hit points, or Longstrider, which affects in-combat movement speed), and, by design, can be cast by a non-permanent party member, such as specialized hirelings invited to join a four-person party only for the time necessary to apply the desired effects. Such a party member can then be dismissed, making room for 'real' characters who are better embedded in the game's main story. This systemic solution alleviates the pressure to develop the core characters' combat skills in a specific, optimized way – affective difficulty is instead relegated to the narrative department, with crucial dialogue choices determining the outcome of emotionally rich relations with other characters.

CONCLUSION

In the *Preface* to the 5th edition *D&D Player's Handbook* the game is described as one that "teaches you to… push yourself to imagine what could be, rather than simply accept what is" (Mearls 2018). The 5ed-based *Baldur's Gate 3*, however, seems to encourage a different approach: accepting the fate written by unlucky dice rolls and proceed without re-loading to see their eventual narrative outcomes. Dice fate was equally capricious in the first *Baldur's Gate* game, where a series of successful enemy hits or failed saves against spells could very well undermine any player's tactical plan, mainly due to the unforgiving design of low-level 2ed *AD&D* character progression and combat systems. The difference between the first and last installments in the series is that the dice-based failures in *BG1* only reinforced the message of a hostile and unforgiving game world, whereas similar mishaps in *BG3* are either crafted to offer the much-desired emergent variety, or (in rare cases such as Honour Mode playthroughs) reinforce the need to take every possible precaution against aleatoric combat design. The stark contrast between the three titles in terms of the availability of tools at the players' disposal resulted in differences in the degree of automation available: from the 'manual', hands-on approach in *BG1*, to the automation of combat in *BG2*, to the automation of narrative choices and their outcomes in *BG3*.

Concluding the analysis of selected elements of system design in the *BG* series, it is worth noting possible implications concerning the changing notions of challenge and difficulty in these games, as they offer an insight into the evolving design philosophies of modern-day computer role-playing games. Given the distinction between games of progression and games of emergence, optimized gameplay in the case of *BG3* would require walkthroughs, "lists of actions to perform", while older entries in the *BG* catalogue would be best tackled with the aid of "strategy guides: rules of thumb, general tricks" (Juul 2002, 328). It can be argued that several other elements of Larian's game, such as cinematic cutscenes and the emotive, visually rich presentation of dialogues, also favor scripted solutions to challenges rather than truly emergent interactions. It is simply not possible (and economically feasible) to produce a game with visually stimulating, scripted outcomes, taking into account all possible encounter resolutions. While *BG3* is probably one of the more complex and responsive computer role-playing games in terms of possible player interactions, strategically it remains fairly closed to innovative tactics due to the strong presence of aleatoric components in both combat and narrative encounters. As such, the first two installments in the series could, paradoxically, be considered more emergent than the most recent entry, which in turn may fit more into the category of 'open' games, in the sense that it offers "a wide probability space in regard to possible outcomes of a game state" (Soler-Adillon 2019). How this observation might yield possible insights into the system and gameplay design of upcoming high-budget cRPGs remains to be assessed in a separate study.

At the highest difficulty level available for Larian's game in the series, risk-reward formulas could determine which narrative and combat encounters are worth engaging in, as even the most optimal strategies cannot mitigate unlucky rolls with negative consequences, greatly exacerbated by the turn-based system. The first *BG* game, being a low-level adventure, mainly used behind-the-interface automation of systemic mathematics, which included to-hit rolls and 'background' ability checks. *Shadows of Amn* started relying on automation of the combat itself, while taking advantage of the built-in rules of high-level PnP 2ed *AD&D* combat. Larian Studios' *Baldur's Gate 3* offered narrative tools rather than combat solutions, but dice-bound

automation prevailed, now resurfacing at the interface level and providing an additional degree of aleatoric thrill.

In closing, it is perhaps worth returning to the initial remark about the visibility of dice rolls at the visual interface level. It can be argued that it serves an important role in communicating to players that dialogue choices are in fact a form of combat, or at least that they are part of the gameplay based on the same systemic underpinnings as other elements of the game, especially those that have historically been key to highly agonistic play in early editions of *D&D*. In a sense, this design decision extends and develops the tried-and-tested formula of dungeon crawling, supplementing the dice roll that determines whether an axe will meet an enemy's skull with a dice roll that determines whether our companion survives or dies at our hands as a result of a dialogue choice.

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ENDNOTES

1 Even a cursory examination of the topics that are represented in the discussions occurring in community hubs such as r/BaldursGate3 on Reddit indicates the popularity of in-game relationships and romance options.

2 In the case of the first and third installments of the series, this is the titular Baldur's Gate, while in *BG2*, Athkatla, the capital of Amn, serves as the key urban hub.

3 See https://www.youtube.com/watch?v=Mz72rGRQOds&t , timestamp 27:30.

4 See https://forgottenrealms.fandom.com/wiki/Amn.