GRIPNR INTRODUCES
THE GLIMMERING:

The World’s only 5e On-chain,
Play-to-progress TTRPG Played
with Collectible NFT Characters

LINKTR.EE/GRIPNR
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Abstract

GRIPNR is a play-to-progress tabletop roleplaying game (TTRPG) platform powered by the Polygon blockchain. Users can play a traditional TTRPG – such as 5e – while recording their progress to the blockchain and earning currency, items, and experience points (XP). Users buy player characters (PCs) with unique skills, attributes, classes, and ancestries. Game Masters (GMs) control the gaming sessions and guide the users through the world of The Glimmering.

Genesis Player Characters are non-fungible (NFT-based), transferrable, scarce digital assets stored in a Polygon smart contract. They can be acquired by spending either OPAL or MATIC. OPAL can also be used to make in-world purchases of digital goods and services such as items and adventures.

TTRPGs are in the midst of a renaissance, showing rapid growth in user adoption globally. Commonly known as “Organized Play”, the GRIPNR protocol provides a platform for TTRPGs to certify gameplay across players and GMs that are all playing in the same world. With GRIPNR, all game session outcomes are minted to the chain, providing clear and transparent proof of gameplay. Additionally, at the end of a session, all the rewards are minted and distributed on-chain. Experience Points are earned and allocated to PCs. OPAL (i.e. in-game currency like gold) is distributed to players and the GM. Items discovered in the session are also allotted to the PCs.

Finally, the GRIPNR protocol provides tangible value ($) back to all the creators in the TTRPG ecosystem: especially GMs, artists and game designers.

- Game Masters, take part in the fair share of the currency rewards (OPAL) of the game outcomes.
- Creators (Designers & Artists) will receive royalties when either a PC, Adventure (game module), or item NFTs is minted or sold.

The Problem

In its current state, the classic TTRPG model is not designed to fairly reward contributors for their passion, work, and fun. GRIPNR is looking to solve this fundamental opportunity. Furthermore, in
The GRIPNR project began with the release of Loot (for Adventurers) on August 27, 2021 by Dom Hoffman, the founder of Vine with a simple tweet:

The instant genius of this NFT drop was the fact that there was no art, and it was text-only. Each Loot bag is a collection of items that had no discernable value out of the gate, and that was intentional.

Traditional organized play, such as the Adventurers League or onsite gameplay at a conference, attempts to provide a framework for certifying gameplay and providing a path for players across the world to play together. However, these methods tend to be pen and paper at best with no method to compare player progress or GM skill.

So, the opportunity is to put gameplay on-chain such that GMs and players can prove the success of their sessions and receive just rewards. Additionally, the value created by game sessions can create a royalty base for creators to receive a fair return for their work. All of this is possible because the blockchain is transparent and available to all participants. Enter GRIPNR.

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The project had instant buzziness and builders started immediately working to expand the universe. It was evident that Loot (for Adventurers) was an homage to TTRPGs and, in particular, Dungeons and Dragons. A first pass at a GRIPNR contribution for Loot was to try to derive playable Quests that were randomly generated and interesting.

An example:

<table>
<thead>
<tr>
<th>Find</th>
<th>the Armoured Misanthrope</th>
</tr>
</thead>
<tbody>
<tr>
<td>and Follow</td>
<td>the Secret Frozen Wolf</td>
</tr>
<tr>
<td>To</td>
<td>LATHNEL the Haunted Grove</td>
</tr>
<tr>
<td>of Light</td>
<td></td>
</tr>
<tr>
<td>Defended</td>
<td>by Aging Mages surrounded by their companions</td>
</tr>
<tr>
<td>Trapped</td>
<td>by Acidic Spikes triggered by a Gnomish Chest</td>
</tr>
<tr>
<td>and Defeat</td>
<td>MUZIKAN the Kin, a Two-headed Spider that has a scorpion's tail and steals famous artwork</td>
</tr>
</tbody>
</table>

More and more Loot-derivative projects referenced TTRPG with dice rolls, character stats, and even simple character stats all being released. The elephant in the room was that most builders were referencing 5e without directly looking to build upon that system. Most builders, however, were looking to develop their own video games that you play with more traditional RPG elements.

However, it became clear that the game already existed, as millions of people play TTRPGs each month. All the TTRPG community needed was a method to record the outcomes of gameplay back on-chain such as organized play. Essentially, GRIPNR is looking to onboard the TTRPG community to the blockchain.
ART AND THE DESIGN OF PLAYER CHARACTERS

The Art Team

To bring GRIPNR’s vision to life, the project required a uniquely talented group of creatives. The creative team required a blend of industry knowledge, raw talent, and most importantly, a passion for TTRPGs.

Creative Director, Kyle Mortensen, leads GRIPNR’s art team for The Glimmering. He brings a wealth of experience as a marketing & advertising executive whose agency, NEWSCIENCE, specializes in producing original content, branding, and design. Their clients include Live Nation Entertainment, Ubisoft, Daversa Partners, Lucid, Universal Music Group, 21st Century Fox, Oakland Arena, Square Enix, and BOLD Capital Partners.

The art team’s experience is important because GRIPNR’s NFTs have a lot of complexity. It’s not a single character that gets a variety of color and style combinations. Instead, the collection consists of player characters that are all different based on ancestry and class. This demands a lot of artwork and requires a substantial art team.

In 2016, Mortensen collaborated with Director/Musician Rob Zombie and The Walking Dead Co-Creator Tony Moore on an animated short film for the AAA video game franchise Assassin’s Creed. Two key members of that creative team were Justin Kamerer, who goes by Angryblue, and colorist, John Rauch. Because they had worked so well together on that project, Mortensen said they were the first two names that came to mind when tasked with finding a creative team.

Angryblue is GRIPNR’s lead illustrator. He has created iconic concert posters for some of the most famous rock bands globally, and his artwork is on display in the Rock N’ Roll Hall of Fame. John Rauch is the company’s lead colorist and is known for his contributions to DC, Marvel, Dark Horse, and Image Comics. Dan Lerner (aka Omnigraphicon), is a self-taught artist specializing in illustration, package design, and 3D modeling. Justin recruited him to round out the art team.
The Art Challenge

GRIPNR is taking an approach that strays from the norm. TTRPGs have been around for decades, and with that rich history comes a treasure trove of fantasy artwork that the community knows and loves. These games are all about action. It's critical that the NFT artwork reflects this and sets itself apart. For example, Fighters need to be ready for battle. Wizards are conjuring magic and spells. Orcs will take your head off, and Dragonborn will send a shiver down your spine. This inspired us to gravitate towards a world with an attitude that felt more punk rock than traditional orchestral fantasy.

However, the realities of creating generative NFT art across eight different ancestries and 12 classes, each with its own set of weapons, backgrounds, and characteristics, produced a laundry list of complexities and limitations. That ultimately shaped the final product that will be ready for mint. Each ancestry and class presents a different set of puzzles that need to be solved, and the team found a nice balance that will delight collectors and 5e enthusiasts.

The art team began with rough sketches that showed how to approach this, focusing on the character's pose and camera placement. To swap assets such as heads, armor, and weapons, across multiple ancestries and classes, the camera has to obscure the body as much as possible. For example, if a Fighter is in a defensive stance with weapons in hand, moving the camera to different vantage points would evoke a completely different emotional response. Pulling the camera away could feel more passive. Bringing the camera in tighter, it feels like the viewer was part of the action and not a spectator.
Ultimately, the team decided to reduce some of the complexity. Otherwise, the artists would have to spend a significant amount of time drawing every body type across each ancestry and class. With these technical decisions made, GRIPNR has maintained a sophisticated approach while gaining momentum on the project and outputting a vast amount of artwork.

One of the traits the team is most proud of is their ability to be flexible and scale up as needed. As each class presents its own set of puzzles to resolve, the team requires additional hands on deck that are ready to work on any given hour, day, or week — this includes everything from 3D modeling and rough sketches to finishing work and color separations, and the team refines the process each step of the way.

In the end, the approach presents an amalgamation of art layers and assets across classes and ancestries that produce a large amount of variety and rarity.

WORLDBUILDING

The Design Team

Building a GRIPNR design team that has a deep understanding and appreciation of TTRPGs was vital. The team embodies GRIPNR's mission to preserve the magic of classic TTRPGs while expanding players' capabilities beyond the traditional gaming world.

Thus, the worldbuilding for The Glimmering is being led by veteran game designer Stephen Radney-MacFarland. Stephen has been working on TTRPGs full-time for over two decades. He started at Wizards of the Coast in 2000 with the launch of 3rd Edition Dungeons & Dragons (D&D) and the Open Game License (OGL). Over the next decade, Stephen worked as a Program and Content Manager for D&D and Star Wars organized play, and then a Developer for the D&D and Star Wars roleplaying games. He spent the next decade at Paizo, the publishers of the Pathfinder and Starfinder roleplaying games. He ended his tenure there as Senior Designer with the publication of the Pathfinder second edition roleplaying game. Throughout his career, he has contributed as a freelance designer to many other companies' TTRPG lines, taught numerous college courses on all aspects of game design and game business, led the team that won the 2011 D&D Championship, served as a consultant for many other games, both video, and tabletop, created paint masters for pre-painted D&D, Star War, and Pathfinder miniature lines, all while working on his own TTRPG called Delve.

Stephen is currently joined by two other game designers working on the project.
The first is Robert Schwalb, a long-time industry veteran with a massive collection of work. Robert started working as a freelance game designer around the same time that Stephen started working at Wizards of the Coast. Over the years, he has worked for countless companies on several games, but chief offerings during his career are the Warhammer Roleplaying second edition, A Song of Ice and Fire, and Dungeons & Dragons fifth edition. His most notable achievement is the brilliant Shadow of the Demon Lord roleplaying game.

The second game designer is George “Loki” E. Williams, IV. Loki is another 20+ year veteran of the industry, a profound storyteller, and expert designer who has contributed to numerous works, including a host of OGL offerings, Dungeon Crawl Classics, Savage Worlds, and Pathfinder.

With the combined artistry of GRIPNR’s design team, The Glimmering encompasses the elements of traditional TTRPGs that are so important to players, game masters, and creators.

The World

GRIPNR’s debut game, The Glimmering, required two key factors to be successful. First, it needed a fun, compelling world for its heroes to navigate, explore, and eventually own — not only ownership of the story and the world that develops. The blockchain also grants ownership to various sections of the world, either to players who want bragging rights or roleplaying game designers and GMs who want a piece of the world as their own. Because of this, the world must be enormous but still have frontiers to explore. Parts of it must serve as anchors to build the story and narrative but still have enough scope to expand and allow others to shape the unknown. It is similar to old-time maps of unexplored lands with the warning, “Here there be dragons,” but in this world, you can slay the dragon and make those places your own.

Enter the world of Asuwa. A large part of this world is dominated by the Moonstone Empire — a nearly millennia-old convergence of rivals that came together to create a state for the benefit of all its peoples. The Moonstone Empire is a land of high ideals, sometimes tainted by ambition, corruption, and the plotting of its enemies. Most of the Empire’s people were once the thralls of an ancient, sinister draconic empire, called the Zuurak, and the dragons who survived that land’s fall now hide and scheme for the downfall of the people most of them still arrogantly consider nothing but chattel. But there are other dangers and mysteries in the world, from the strange undead both cursed and somewhat contained behind the Moldering Wall to the upstart city-states of the Lawless Coast. But for our first offering in this world, we will focus on one of the strangest threats to the Empire: the Glimmering.

Few in the Empire recognize the Glimmering as a threat. Instead, it is a strange occurrence in a remote mountainous borderland where a new, alchemically powerful mineral was discovered. This
unusual vibrating jumpstone, once properly prepared, acts as an alchemical accelerator, empowering alchemical engines and devices due to its reactive properties. Adventurers, investors, and opportunists flood the wild mountain pass where most of this mineral is found. They tend to avoid the Glimmering as something strange and unknowable. Still, the more they delve for jumpstone, the more the Glimmering spreads and evolves. The players in the Glimmering will be the ones that discover the true source and face the threat of the Glimmering.

The world design for this project is twofold. It introduces players to exciting adventure content on an ongoing and ever-expanding basis while leaving great swaths of it, inside and outside the Moonstone Empire, for ownership and design by other roleplaying game creators and enthusiasts.

**The Game**

The overlaying game engine for all of this is an already existing game and is available through an open license. In 2000, Wizards of the Coast released the third edition of Dungeons & Dragons, and with it, both the Open Game License (OGL) and a Standard Reference Document (SRD) for that game. The SRD provided most of the rules for that game, and the OGL granted anyone the right to use it if they followed the rules outlined in that license. And it is a free license that anyone can use. Over the years, numerous TTRPG companies have utilized the OGL and SRDs to produce products compatible with Dungeons & Dragons, many of them improving the game’s design.

The current version of the game, fifth edition D&D (5e), also features the OGL and its own SRD, which will bring The Glimmering to life. This comes with great opportunities and some challenges.

The opportunities are that millions of enthusiasts exist worldwide who already know how to play the game and who are always eager for new challenges, networks of play, collections, and content. This game has one of the most robust fan bases on the planet, many of whom are eager to engage with a massively multiplayer game experience. NFT and the blockchain allows us to provide a new and dynamic way of playing and sharing a classic game.

The primary challenge is that the current SRD is not a complete game. While most of the game is contained within that document, Wizards of the Coast has left out strategic parts. But even here, GRIPNER is turning that challenge into an opportunity. The game design team is already hard at work filling in those gaps and doing it in such a way that will create excitement and possibility. It also allows the team to innovate and give players options they have been clamoring for, but Wizards of the Coast has been slow to provide.

GRIPNER’s team will provide better options for 5e play.
Technology

GRIPNR'S technical team is led by Luke Ledet, along with a team of engineers, designers and project managers from Revelry Labs, whose StartUp studio helped spin out the project.

Luke has been working in the software development industry for 18 years. He has led development on a wide range of projects across several industries, including blockchain tech for legal services, logistics platforms, health services, and media companies. He leads teams to produce incredible software that is well architected.

Approaching the project, the technology team decided to put all of the NFT player character dates on-chain. It was known that GRIPNR would be introducing on-chain gameplay soon after launching the genesis NFT collection. On-chain data is the only way to prove how a character progresses over time through their adventures and upgrade them with new abilities, skills and loot as they level up. Because of this approach, the smart contracts are set up in a way that allows them to be upgraded and add functionality that uses existing data. This provides the flexibility the team needs to grow the project beyond NFTs and into a full range of offerings– all of which can support the original NFTs.

Some of the larger puzzles and constraints in this architectural approach were related to contract size limits, gas usage and extensibility. To solve this and to make contracts extensible and upgradeable, the team chose to use the EIP-2535 diamond standard.

GRIPNR’s algorithms ensure that all characters have usable abilities, and even the ones with fewer ability points will have a higher rarity, potentially increasing their demand on the secondary markets. There is such a wide range of variability that the chance of two characters being the same is astronomically small.

After much consideration and research GRIPNR made the decision to build on the Polygon blockchain. There were a couple of factors that informed this decision.

First, GRIPNR wants to prove fair mint and transparency. The goal is to limit bots' abilities to snipe for rarity while also proving that no one, not even the team developing the project, would have an unfair advantage in securing NFTs with the most rare traits. To enable this, the team decided to work with Chainlink to use their Verifiable Randomness Function and ensure a fair and security-minded approach.

Second, GRIPNR is not a "mint once" project. All adventure quests and gameplay outcomes put data back on to PC NFT, and that costs gas. Doing this on ETH would prevent people from actually
playing the game. Imagine players having to pay $100–300 just to log PC outcomes or collect the loot earned after slaying a dragon — that wouldn’t be fair and most players would not do that.

Lastly, Polygon has very low carbon emissions compared to other blockchains. In fact Polygon consumes just .000876 terawatt hours of energy per year. That is equal to the energy consumption of 72 homes and a fraction of 1% of the energy consumed by Facebook.

GRIPNR contracts are owned by a multisig (multi-signature) wallet to lower risk of compromised keys. This keeps the code as simple and readable as possible for easy audits, as there are many people reviewing the code for vulnerabilities. Overall, the technical aim is to keep everything as simple and straightforward as possible while providing the flexibility to grow and scale the technology.

Further Quest

This is GRIPNR’s V1 whitepaper. Everything detailed thus far captures the objectives of the Phase 1 roadmap. However, it’s a living document that will continue to expand in the coming weeks and months.

As insinuated throughout, minting a genesis collection of 10,000 NFT player characters is not the end goal. It’s just the start of what’s an ever-expanding world and gameplay.

The team is actively designing play-on-chain concepts and the user interface and experience for the platform. Parallel to that effort, GRIPNR is architcting the token economics of the currency that will be used to access play-on-chain, provide rewards for active gameplay, and be the native currency of the GRIPNR protocol.

In the coming weeks and months, the team will make an expanding set of announcements that outline the specifics of the Phase 2 roadmap and elaborate on each of those elements in this whitepaper. So please, stay tuned.

GRIPNR is a community of NFT collectors and tabletop roleplaying game enthusiasts. Everything we are building is in service to this and we deeply value your feedback and involvement. Let’s have fun building the community together.