

Product Requirements for AI-Generated Stock News Articles Plugin

Overview

The primary goal of this plugin is to automate the creation of unique, original content for 10,000+ stock boards and offer AI-generated business news. By leveraging the ChatGPT API and the AlphaVantage News Article API, the plugin aims to generate and publish 100 articles daily on the Shareholderr.com site.

This plugin will significantly enhance the content strategy for Shareholderr.com by automating the creation and distribution of high-quality, unique articles. By leveraging AI and integrating with existing APIs, we can efficiently populate our stock boards with valuable content, driving user engagement and providing timely business news.

This document outlines the requirements and functionalities needed to achieve this goal.

Objectives

1. Automate Content Creation: Generate 100% unique AI-generated blog posts from news articles.
2. Enhance User Engagement: Populate stock boards with relevant and engaging content.
3. Optimize Content Distribution: Ensure articles are correctly categorized, tagged, and posted to the appropriate stock boards.

APIs and Resources

- Existing WordPress Plugin: Use an existing plugin that fetches news from AlphaVantage and Shareholderr RSS feed to speed up development.
- ChatGPT API: For generating unique content. [ChatGPT API Documentation](#)
- AlphaVantage News Article API: For sourcing news articles. [AlphaVantage API Documentation](#)
- WordPress REST API: For publishing articles. [WordPress REST API Documentation](#)
- BuddyBoss API: For posting articles to stock boards as group activities. [BuddyBoss API](#)

Documentation

Key Features

Automated Article Generation

- Source News Articles: Pull news articles from AlphaVantage API or a better alternative.
- Article Synthesis: Use ChatGPT to rewrite articles, ensuring 100% uniqueness.
- Title Creation: Generate concise titles (no more than 10 words).
- Heading Creation: Create a one-sentence summary (h2) written in active voice, 20 words or less.
- Content Structure: Write engaging content with transitions, short sentences, and a fun tone.
- Tagging and Categorization: Extract topics and stock symbols as tags, select appropriate categories (News, Stocks, Markets).
- Human-like Completion: Fill in the article as if done by a human, completing all required sections.

Link to relevant third-party URLs and internal articles, tags, etc.

- Grouping Similar Articles: Group similar articles by title/URL and use content from multiple sources to generate a single unique article.

Article Publishing

- Complete Post Details: Include title, heading, categories, tags, excerpt, and a featured image.
- SEO Optimization: Generate keywords for the Yoast SEO plugin.
- Publishing Workflow: If an article is fully complete, publish it; if not, send it for review.
- Cron Jobs: Schedule article generation every 1 minute.

Content Distribution to Stock Boards

- BuddyBoss Integration: Post article title and URL to relevant stock boards based on stock tickers.
- Cron Jobs: Schedule posting to stock boards every 5 minutes.

Detailed Requirements

1. Automated Article Generation

Fetch News Articles

- API: AlphaVantage News Article API

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Endpoint:

https://www.alphavantage.co/query?function=NEWS_SENTIMENT&limit=1000&apikey=MY-API-KEY-HERE

Y-HERE

- Parameters: Ticker symbols, date range, language, etc.

Rewrite Articles

- Use ChatGPT API to rewrite articles ensuring they are 100% unique.
- Generate titles (max 10 words), headings (one sentence, 20 words or less).
- Ensure content is engaging, fun to read, and written in active voice.
- Link to relevant third-party URLs and internal articles, tags, etc.

Group Similar Articles

- Identify and group similar articles by title/URL.
- Use content from multiple sources to generate a single comprehensive and unique article.

Example XML Snippet Processing

{

"title": "A Bull Market Is Here: 2 Brilliant Stocks Down 41% and 51% to Buy Right Now",

"url": "https://www.fool.com/investing/2024/07/03/a-bull-market-is-here-2-stocks-to-buy/",

"time_published": "20240703T224800",

"authors": ["Keith Noonan and Jennifer Saibil"],

"summary": "Looking for value plays in today's red-hot stock market? These industry-leading companies look like winners.",

"banner_image": "https://g.foolcdn.com/editorial/images/782180/gettyimages-1352607170.jpg",

```
"source": "Motley Fool",
"category_within_source": "n/a",
"source_domain": "www.fool.com",
"topics": [
{"topic": "Retail & Wholesale", "relevance_score": "0.333333"},
{"topic": "Financial Markets", "relevance_score": "0.999701"},
{"topic": "Manufacturing", "relevance_score": "0.333333"},
{"topic": "Earnings", "relevance_score": "0.999966"},
{"topic": "Technology", "relevance_score": "0.333333"}
],
"overall_sentiment_score": 0.349827,
"overall_sentiment_label": "Somewhat-Bullish",
"ticker_sentiment": [
{"ticker": "NVDA", "relevance_score": "0.044304", "ticker_sentiment_score": "0.263828",
"ticker_sentiment_label": "Somewhat-Bullish"},
{"ticker": "AAPL", "relevance_score": "0.044304", "ticker_sentiment_score": "0.263828",
"ticker_sentiment_label": "Somewhat-Bullish"},
{"ticker": "MO", "relevance_score": "0.302642", "ticker_sentiment_score": "0.392932",
"ticker_sentiment_label": "Bullish"},
{"ticker": "AMZN", "relevance_score": "0.044304", "ticker_sentiment_score": "0.263828",
"ticker_sentiment_label": "Somewhat-Bullish"}
]
}
```

Data Extraction

- Parse relevant data from XML: title, URL, summary, banner image, topics, and ticker sentiment.
- Visit the URL to extract and synthesize content.

2. Article Publishing

Content Structuring

- Title: Max 10 words.
- Heading: One-sentence summary (h2), written in active voice.
- Content: Fun, engaging, short sentences (20 words or less).
- Categories: Select 'News', and either 'Stocks' or 'Markets'.
- Tags: Extract from topics and ticker symbols.
- Excerpt: Use one-sentence summary.
- Featured Image: Add a relevant, copyright-free image.
- Yoast SEO: Generate keywords and meta descriptions.

Publishing Process

- If all data is complete, publish the article using the WordPress REST API.
- If data is incomplete, send the article for manual review.

3. Content Distribution to Stock Boards

BuddyBoss Integration: Use BuddyBoss API to post the article title and URL to relevant stock boards.

- Use JWT Token plugin to authenticate BuddyBoss API.
- Match stock tickers in the article with stock boards.
- Schedule posting every 5 minutes using cron jobs.

Posting Process

- Fetch Articles: Parse the [Shareholderr.com/feed](https://shareholderr.com/feed) for new articles.
- Identify Stock Tickers: Extract stock tickers from article categories/tags.
- Post to Relevant Groups: Use the BuddyBoss API to create a new activity in the relevant group based on stock ticker symbols.
- Activity Details: Include the article title and URL in the activity post.

Cron Job Scheduling

- Article Generation: Run every 1 minute to generate and publish articles.
- Stock Board Posting: Run every 5 minutes to post articles to stock boards.

Additional Considerations

- Error Handling: Implement robust error handling to manage API failures, incomplete data, and other exceptions.
- Performance Optimization: Ensure the plugin runs efficiently without overloading the server.
- Security: Secure API keys and sensitive data. Follow best practices for WordPress plugin security.