

Veritarte: Your Etsy Digital Art Verification and Filtering Tool

1. Summary

Veritarte is an AI-Generated Content Labeling and Filtering tool that aims to address the growing need for transparency in Etsy's digital art marketplaces. It automatically detects, labels, and filters AI-generated artwork. Veritarte seeks to enhance user trust, improve buyer experience, and support human artists.

Veritarte aims to revolutionize the experience of digital art enthusiasts by ensuring transparency in the purchasing experience. This means that AI-generated digital art, is automatically labelled as such, enabling the buyer to make more informed decisions when choosing which art to purchase.

2. Problem Statement

Most digital art shoppers on Etsy find it difficult to distinguish between AI-generated artwork and human-created artwork. This makes the experience of shoppers that value human-created digital art frustrating as they have committed their money and time to the process. This undermines trust in Etsy's marketplace and hinders informed purchasing decisions.

Although some users do not mind AI-generated artwork, most users would like to still make informed decisions and consciously choose AI-generated digital art, if they are to make that decision. Most users who prefer human-created digital art are willing to pay a premium for that category, revealing an opportunity area for sellers that specialize in human-created digital art.

By implementing an AI-driven solution for content labeling and filtering, Etsy can enhance transparency, empower buyers to make informed choices, and support sellers in accurately showcasing their creations.

Problem statement: How might we enable clear labeling and filtering of AI-generated content so that buyers can easily distinguish between AI-generated and human-created art and make informed purchasing decisions?

3. Scope

Goals

- Development of AI models to detect AI-generated artwork.
- Implementation of labeling for AI-generated content.
- Introduction of filtering options for buyers to choose between AI-generated and human-created art.
- Enhance transparency in the digital art marketplace.
- Build trust with buyers by providing clear labeling of AI-generated art.

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- Support human artists by allowing buyers to easily filter and find human-created artwork.

Non-Goals

- Verification of physical products.
- Monitoring non-digital art categories.

4. User Stories and Use Cases

User Story 1: Emily – The Art Enthusiast

As Emily, an art enthusiast, I want to be able to see clear labels on AI-generated art so that I can support human artists and make informed purchasing decisions.

Use Case 1: AI-Generated Content Labeling

Develop an AI model that detects AI-generated artwork and applies clear labels.

User Story 2: Lisa – The Casual Buyer

As Lisa, a casual buyer, I want to filter my search results to show only human-created art so that I can find affordable and authentic digital artwork.

Use Case 2: AI-Powered Search Filtering

Introduce a filtering system that allows users to choose between AI-generated and human-created art.

User Story 3: Sellers on Etsy

As a digital art seller on Etsy, I want my human-created art to be verified and labeled as authentic so that buyers can trust my work.

Use Case 3: AI Verification Badge for Human Artists

Enable an “Authenticity Verified” badge for human artists using AI-based verification methods.

5. Functional Requirements

No.	Requirement	Priority
1	Detect AI-generated artwork with an accuracy rate of at least 90%.	P0
2	Apply clear and consistent labels to AI-generated content.	P0

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3	Provide filtering options in the search interface to distinguish between AI-generated and human-created art	P0
4	Enable an “Authenticity Verified” badge for human-created artwork.	P0
5	Provide real-time updates to labels and filtering options as new digital artwork is added to the platform	P1
6	Integrate seamlessly with Etsy’s existing search algorithm to ensure a smooth user experience	P1
7	Allow users to customize their search preferences to show or hide Ai-generated artwork	P2
8	Provide visual indicators on search results and product pages to clearly distinguish AI-generated art from human created art	P1
9	Include an option for sellers to manually verify and label their artwork as human-created, subject to <i>Veritarte</i> verification	P3
10	Support multiple languages to cater to Etsy’s diverse global user base	P3
11	Allow buyers and sellers to leave feedback on the accuracy of the AI-generated content labels, which can be used to improve the model over time	P1

6. Non-Functional Requirements

- The system should process labeling and filtering within 1-2 seconds to ensure a seamless user experience.
- The system should be scalable to handle the growing volume of digital artwork on Etsy’s platform.
- The system should ensure data privacy and security, complying with relevant regulations and standards.

7. Customers and Buyers impact

Customers Impact

Veritarte will increase trust with buyers of digital art on Etsy. They will trust in the authenticity of the artwork they purchase, knowing Veritarte will help them to easily distinguish between AI-generated and human-created art. Transparency in labeling will reduce buyers feeling deceived, leading to higher satisfaction. The user interface enhancements, such as visual indicators and customizable search preferences, will create a more intuitive and enjoyable shopping experience.

Buyers Impact

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For Etsy, Veritarte will have the following impact:

- Increased customer loyalty and retention: by fostering trust and transparency, Etsy will likely see an increase in customer loyalty and retention rates
- Market differentiation: Etsy can differentiate itself from other digital art marketplaces by offering a unique and transparent shopping experience
- Higher sales and revenue: with improved user experience and transparency, buyers are more likely to make purchases, leading to increased sales and revenue
- Enhanced brand reputation: Etsy's commitment to transparency and supporting human artists will enhance its brand reputation as an ethical and customer-centric marketplace

8. Alternative Solutions

Manual Verification and Labeling:

This solution involves a team of human reviewers manually verifying and labeling each piece of artwork on Etsy's platform. Reviewers would examine the artwork to determine whether it is AI-generated or human-created and then apply the appropriate labels.

Why it's not optimal:

- Scalability: As the volume of digital artwork grows, it would become increasingly challenging to manually verify and label each piece, leading to inefficiencies and potential bottlenecks.
- Consistency: Human reviewers might have different interpretations of what constitutes AI-generated art, resulting in inconsistent labeling and user confusion.
- Cost: The labor-intensive nature of this solution would incur significant operational costs, making it less economically viable compared to an automated solution.

Seller Self-Reporting:

In this approach, sellers would be responsible for self-reporting whether their artwork is AI-generated or human-created. Sellers would complete a declaration during the product listing process, indicating the nature of their artwork.

Why it's not optimal:

- Accuracy: Self-reporting relies on the honesty and accuracy of sellers, which could lead to mislabeling or dishonest practices, undermining user trust.
- Lack of Verification: Without a verification mechanism, buyers may still question the authenticity of the artwork, resulting in persistent transparency issues.
- Complexity: This approach places an additional burden on sellers, potentially deterring some from listing their artwork on Etsy or leading to incomplete or inaccurate declarations.

9. Success Metrics

#	Outcome	Measure	Current Target	Priority
1	Increased user trust	Customer feedback and satisfaction scores	Current: N/A Target: 90%	P0
2	Accurate identification of AI art	90% accuracy of reporting on AI-generated artwork	Current: N/A Target: 90%	P0
3	Enhanced user engagement	Increase in user interactions with digital art	Current: 60% Target: 80%	P1
4	Reduced customer complaints	Number of complaints related to undisclosed AI art	Current: 60% Target 90%	P1
5	Higher sales of human-created art	Increase in sales metrics for human-created art	Current: 40% Target 70%	P1
6	User satisfaction with filtering	User satisfaction survey results	Current: 55% Target 85%	P1
7	Operational efficiency	Reduction in time to label/filter artwork	Current: N/A Target: 1 min	P2

10. Timeline and Milestones

Item	Timeline	Exit criteria
Research and development	3 months	Research completed, Development plan finalized, required resources allocated
AI Model Training and Testing	2 months	AI model trained with a minimum 90% accuracy rate, Successful internal testing and validation
Implementation and Integration	2 months	AI model integrated with Etsy’s platform, Seamless integration with existing search algorithm
User testing and feedback	1 month	User testing conducted, Feedback collected and analyzed, Necessary adjustments made based on feedback
Launch monitoring	1 month	Successful deployment, Monitoring mechanisms in place, Initial performance metrics reviewed and analyzed.

11. FAQ’s

Frequently Asked Questions (FAQ)

1. What is the purpose of the AI-Generated Content Labeling and Filtering solution? The purpose of this solution is to enhance transparency in Etsy’s digital art marketplace by using AI to detect, label, and filter AI-generated artwork. This allows buyers to make informed purchasing decisions and supports human artists by clearly distinguishing their work.

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2. How will the AI technology be integrated into Etsy's platform? The AI technology will be integrated seamlessly into Etsy's existing infrastructure, including its search algorithm. Users will be able to see clear labels on AI-generated artwork and use filtering options to distinguish between AI-generated and human-created art.

3. What are the benefits of this solution for buyers? Buyers will benefit from increased trust and confidence in the authenticity of the artwork they purchase. The solution provides clear labels and filtering options, enabling buyers to support human artists and make well-informed purchasing decisions.

4. How will this solution support human artists? Human artists will benefit from an "Authenticity Verified" badge, which distinguishes their work from AI-generated art. This helps human artists stand out in a competitive market and attract buyers who value genuine, handmade artwork.

5. What measures are in place to ensure the accuracy of AI-generated content labeling? The AI model will be trained using a comprehensive dataset of AI-generated and human-created artwork to achieve a high accuracy rate of at least 90%. Regular updates and training will be conducted to maintain and improve accuracy over time.

6. How will user feedback be incorporated into the system? Buyers will have the option to leave feedback on the accuracy of the AI-generated content labels. This feedback will be used to continuously refine and improve the AI model, ensuring it meets user expectations.

7. What impact will this solution have on Etsy's business? The solution is expected to increase customer loyalty and retention, differentiate Etsy from other marketplaces, and enhance brand reputation. It will also drive higher sales and revenue by improving user experience and transparency.

8. Are there any non-AI alternatives considered for this solution? Yes, non-AI alternatives such as manual verification and labeling, and seller self-reporting were considered. However, these alternatives present challenges in scalability, consistency, and accuracy, making them less effective compared to an AI-driven solution.

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9. How will the system handle a large volume of digital artwork? The system will be designed to handle a large volume of digital artwork without significant performance degradation. It will be scalable to accommodate the growing number of artworks on Etsy's platform.

10. What are the success metrics for this solution? Success metrics include increased user trust and satisfaction, accurate identification of AI-generated art, improved purchase decisions, reduced customer complaints, higher sales of human-created art, and enhanced operational efficiency.