

# Product Business Requirements

## 1. Business Requirements

| Ecosystem Participants | Role/Interest                                    | Requirements  |
|------------------------|--|---|
| Clients                | Journalists, governments, social media platforms | <ul style="list-style-type: none"><li>- Real-time detection for time-sensitive workflows.</li><li>- API integration for automated content moderation.</li></ul> |
| Suppliers              | Cloud providers                                  | <ul style="list-style-type: none"><li>- Scalable infrastructure for AI processing.</li><li>- Cost-effective data storage.</li></ul>                             |
| Partners               | Fact-checking agencies                           | <ul style="list-style-type: none"><li>- Access to labeled datasets for model training.</li><li>- Collaborative misinformation reports.</li></ul>                |
| Internal Functions     | R&D, Legal, Marketing teams                      | <ul style="list-style-type: none"><li>- Compliance with AI regulations (e.g., DEFEND Act).</li><li>- Clear ROI metrics for investor updates.</li></ul>          |

## 2. Stakeholder Requirements

| Stakeholder            | Needs   | Pain Points  |
|------------------------|---|--|
| Journalists            | Verify news authenticity before publishing    | Time-consuming manual checks; risk of spreading misinformation                           |
| Governments            | Detect fraudulent media for national security | High-stakes consequences of deepfake-driven misinformation (e.g., election interference) |
| Social Media Platforms | Automatically flag deepfakes in user uploads  | Regulatory pressure to combat misinformation; reputational damage from viral fakes       |
| General Public         | Simple, accessible tool to verify content     | Distrust in digital content; lack of technical expertise to identify deepfakes           |

### 3. Solution Requirements

#### Functional Requirements

1. The product shall, upon viewing a media type, run analysis and report to the user whether that video is authentic or altered in a clear window on the screen
2. If the media is determined to be product shall explain to the user why altered media was flagged and the detection type which was used
3. Ability to detect altered media across all media types and provide detection in real-time
4. Flags altered media to clearly notify the user that the media is not in its original form
5. Integrated or embedded within content platforms for seamless interaction (ie. chrome extension or integrated into a social media app)
6. Ability to collect customer feedback for algorithm improvement and product improvement

#### Non-Functional Requirements

1. The software shall function with reasonable accuracy (let's say 95% correct???)
2. The software shall run its analysis of a media within a reasonable time dependent on media type (this is likely more complicated depending on length?)
  - a. 10 seconds per 150 words of opening a text
  - b. 20 seconds of opening a photo (size limits?)
  - c. 15 seconds per 60 seconds of opening an audio file
  - d. 30 seconds per 60 seconds of opening a video
3. The software should be compatible with multiple content platforms
  - a. Major web browsers as an extension
  - b. Social media applications (through collaboration with developers?)
  - c. As a web browser where media can be uploaded and analyzed
  - d. As a standalone application where media can be downloaded and analyzed

| Phase           | Requirements   | Examples for MythBuster.AI   |
|-----------------|--|--|
| Deployment      | Infrastructure setup, data migration, and initial user onboarding.         | <ul style="list-style-type: none"> <li>- Cloud configuration.</li> <li>- Import labeled deepfake datasets.</li> </ul>                  |
| Operation       | Tools for monitoring performance and handling real-time issues.            | <ul style="list-style-type: none"> <li>- 24/7 uptime dashboards.</li> <li>- API rate-limiting for social media platforms.</li> </ul>   |
| Maintenance     | Regular updates to address evolving deepfake techniques and user feedback. | <ul style="list-style-type: none"> <li>- Monthly model retraining.</li> <li>- Bug-fix sprints based on journalist reports.</li> </ul>  |
| Decommissioning | Secure data disposal and user notification if services are sunset.         | <ul style="list-style-type: none"> <li>- Anonymize stored metadata.</li> <li>- 90-day advance notice to enterprise clients.</li> </ul> |

#### 4. Transition Requirements