Microsoft Cognitive Services: Content Moderator

UNDERSTANDING THE CORE ASPECTS OF THE CONTENT MODERATOR APIS

Eduardo Freitas
DATA CAPTURE SPECIALIST

https://edfreitas.me

Overview

What Are Microsoft Cognitive Services?

Why Moderate Content?

Ways to Moderate Content

Content Moderator APIs

Accessing the Image, Text and Video Moderation APIs

What Are Microsoft Cognitive Services?

Set of APIs that perform specific AI features

Hosted on Microsoft Azure

Enable AI application development

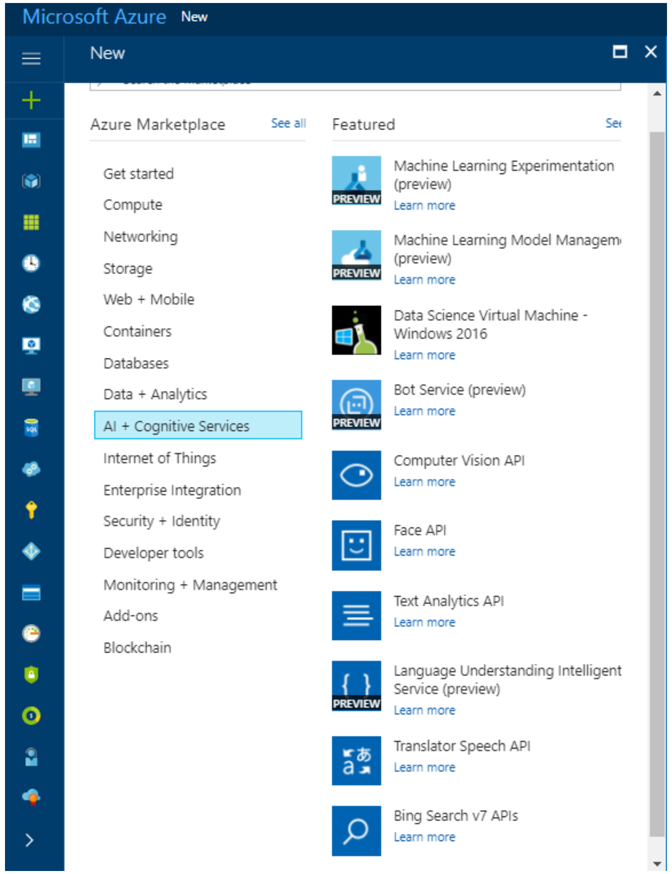
Core AI Features of Cognitive Services

Microsoft Azure Cognitive Services: Computer Vision API

By Eduardo Freitas

https://www.pluralsight.com/courses/microsoft-azure-cognitive-services-computer-vision-api

Getting Started with Azure



Azure subscription

API endpoint and subscription key

Send and receive JSON

SDKs for various programming languages

Why Moderate Content?

Flag and filter out unwanted content that creates risk.

Content Moderation Verticals

Online

Content generated from messaging, social media and online platforms

Enterprise

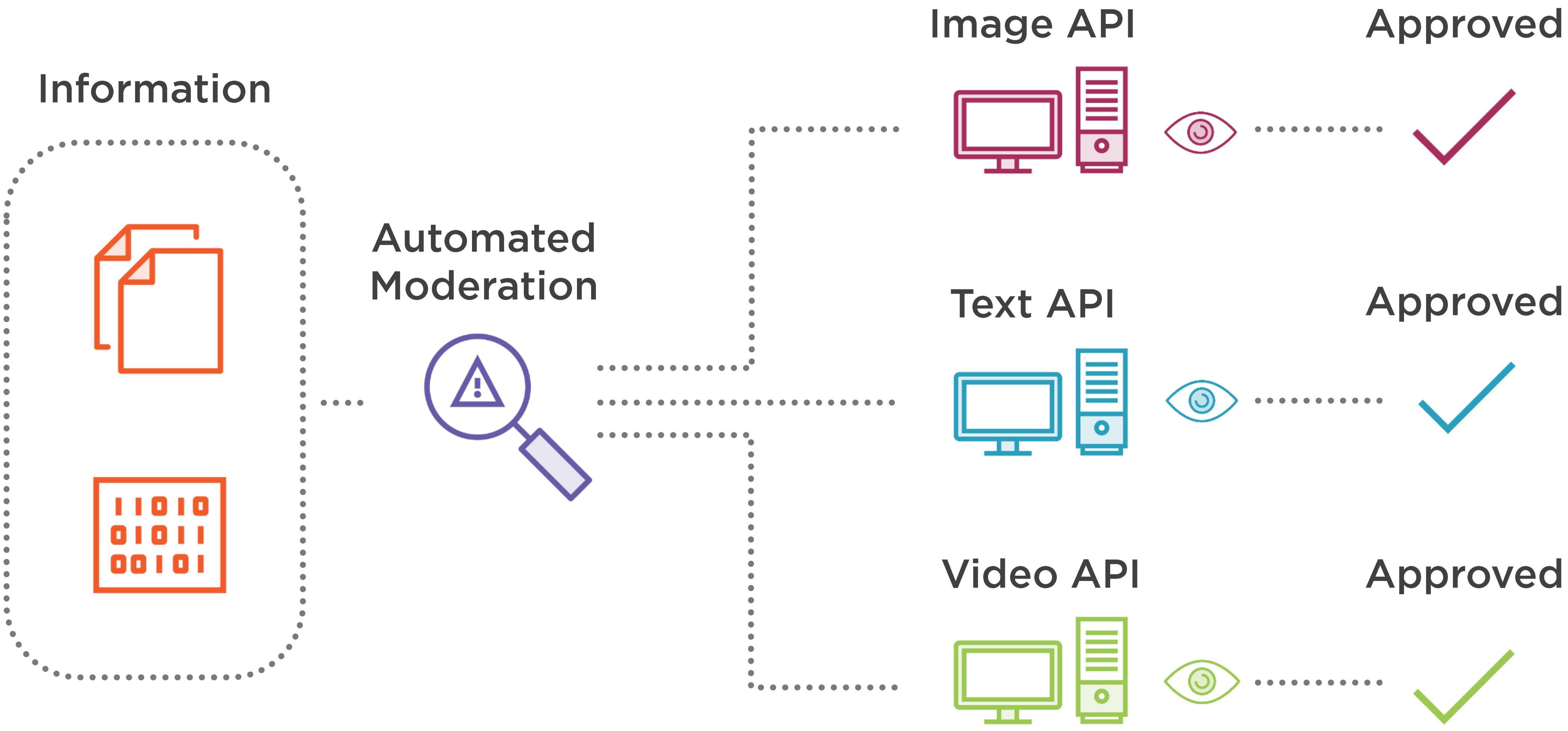
Content generated from enterprise systems and platforms

Peer-to-Peer

Content generated from peer communications or gaming platforms

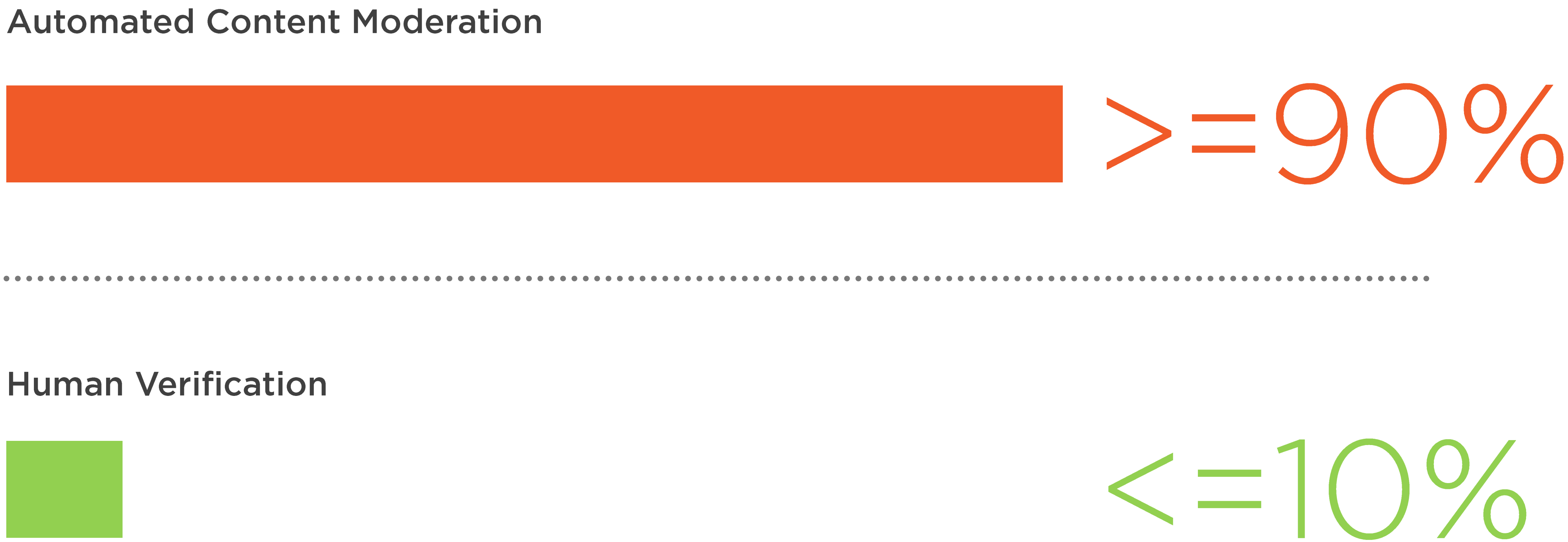
Ways to Moderate Content

Three-way Automation



Is it possible to achieve end-to-end content moderation automation?

Hybrid Moderation



Automated Content Moderation

>=90%

Human Verification

<=10%

Computer + Human-in-the-loop

Computer

Does most of the work

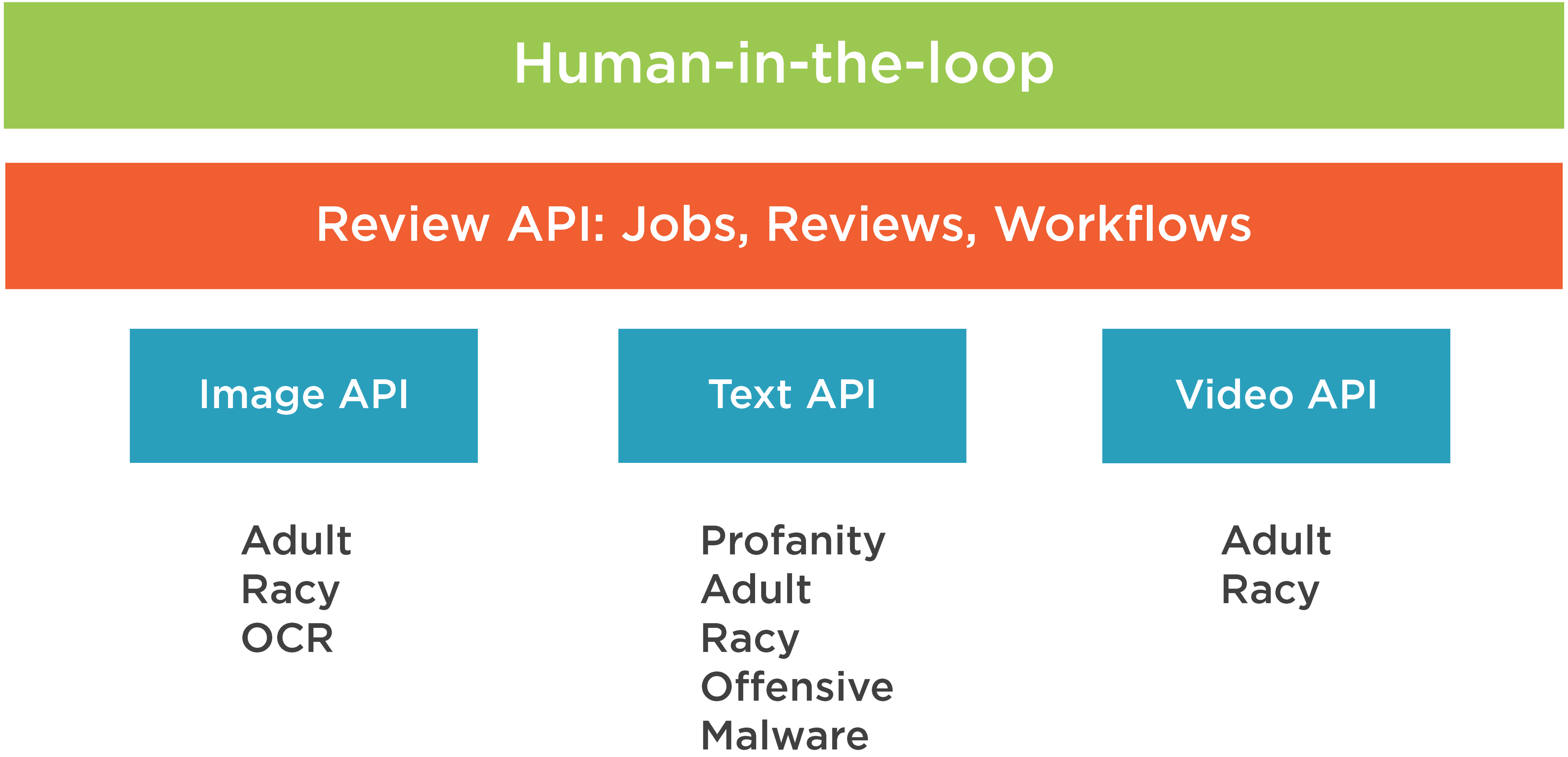
Human

Does the final check

Content moderation is specific to each organization.

Content Moderator APIs

APIs Overview



Human-in-the-loop

Review API: Jobs, Reviews, Workflows

Image API

Text API

Video API

Adult
Racy
OCR

Profanity
Adult
Racy
Offensive
Malware

Adult
Racy

Accessing the API

Subscribe to Azure Content Moderator

Obtain the subscription keys

Choose a programming language

Invoke the API using a programming language

Basic API Requirements

Images must have a minimum of 128 pixels

Images must not be larger than 4MB

Maximum of 1024 chars of extracted text

```
--curl -v -X POST
"https://[location].api.cognitive.microsoft.com/contentmode
rator/moderate/v1.0/ProcessImage/Evaluate?CacheImage={boole
an}"

-H "Content-Type: application/json"

-H "Ocp-Apim-Subscription-Key: {subscription key}"

--data-ascii "{body}"
```

cURL Request Example

- location

- Ocp-Apim-Subscription-Key

- CacheImage (optional)

- {body}

Content-Type
image/gif
image/jpeg
image/png
image/bmp
application/json

In C#

```
public static async void MakeRequest()
{
    var client = new HttpClient();

    var queryString = HttpUtility.ParseQueryString(string.Empty);
    client.DefaultRequestHeaders.Add("Ocp-Apim-Subscription-Key", "{subscription key}");
    queryString["CacheImage"] = "{boolean}";

    var uri = "https://.../ProcessImage/Evaluate?" + queryString;
    HttpResponseMessage response;
    byte[] byteData = Encoding.UTF8.GetBytes("{body}");

    using (var content = new ByteArrayContent(byteData))
    {
        content.Headers.ContentType = new MediaTypeHeaderValue(“image/png");
        response = await client.PostAsync(uri, content);
    }
}
```

```
{
  "AdultClassificationScore": x.xxx,
  "IsImageAdultClassified": <Bool>,
  "RacyClassificationScore": x.xxx,
  "IsImageRacyClassified": <Bool>,
  "AdvancedInfo": [],
  "Result": false,
  "Status": {
    "Code": 3000,
    "Description": "OK",
    "Exception": null
  },
  "TrackingId": "<Request Tracking Id>"
}
```

◀ Adult Classification Score

◀ True, if image contains Adult Content

◀ Racy Classification Score

◀ True, if image contains Racy Content

◀ Status, which contains a Description and Exception (if applicable)

◀ Tracking ID

Why use a library?

Demo

Accessing the Image, Text and Video Moderation APIs

Summary

Microsoft Cognitive Services

- Subscribe to Azure
- Accessing the Image, Text, Video Moderation APIs

Fundamentals

- Automated moderation
- Hybrid moderation
- Human verification