

AI AWARENESS AND BEST PRACTICES IN THE JUDICIARY

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Business Problem

Judges in the Indiana Judiciary face challenges with understanding and leveraging AI effectively in their roles. Core challenges include;

1

**Fear & Stigma
Surrounding AI –
Lack of
Awareness**

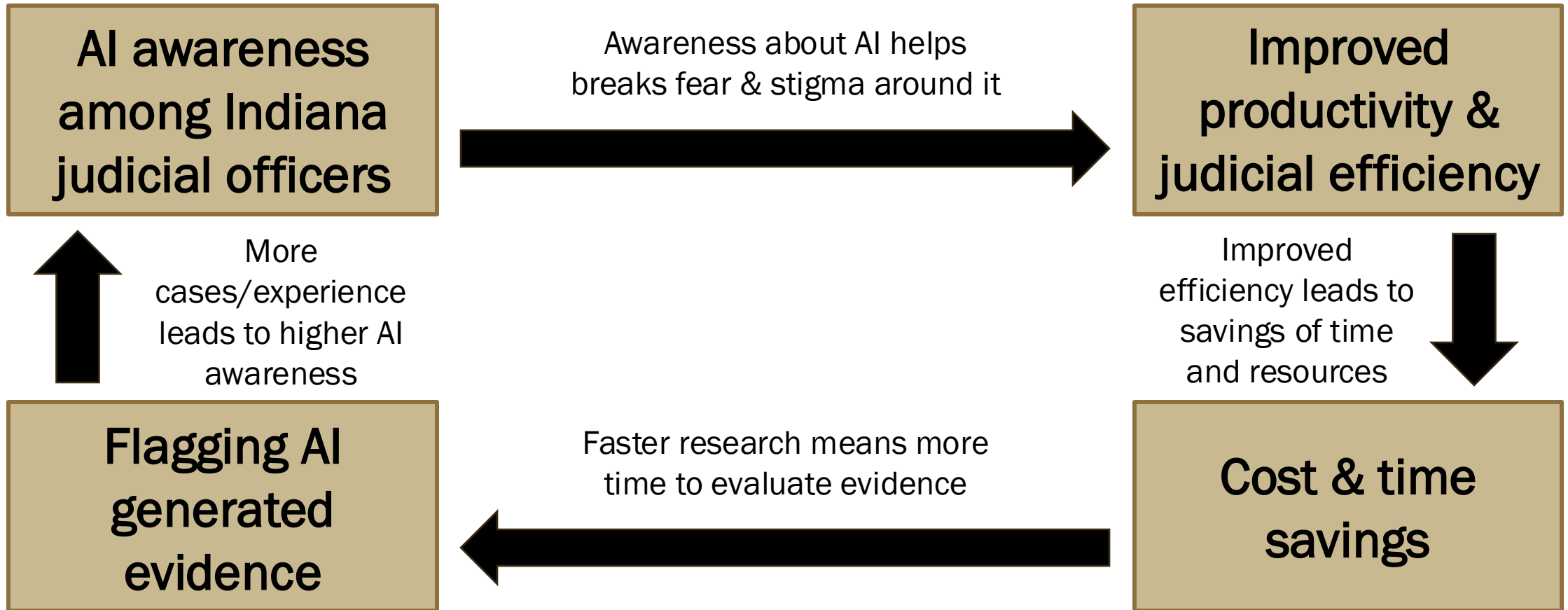
2

**Incorporation of
AI in everyday
Judicial
Processes**

3

**Identification
& Flagging of AI
Generated
Content**

Business Benefits



Business to Analytics Problem Framing

Business Problem

Analytics Problem

Lack of AI awareness



Quantify organizational gaps in AI awareness

AI agnostic daily workflows



Process mining for workflow AI integration

Identifying genAI content



Guidelines for probabilistic detection of genAI content

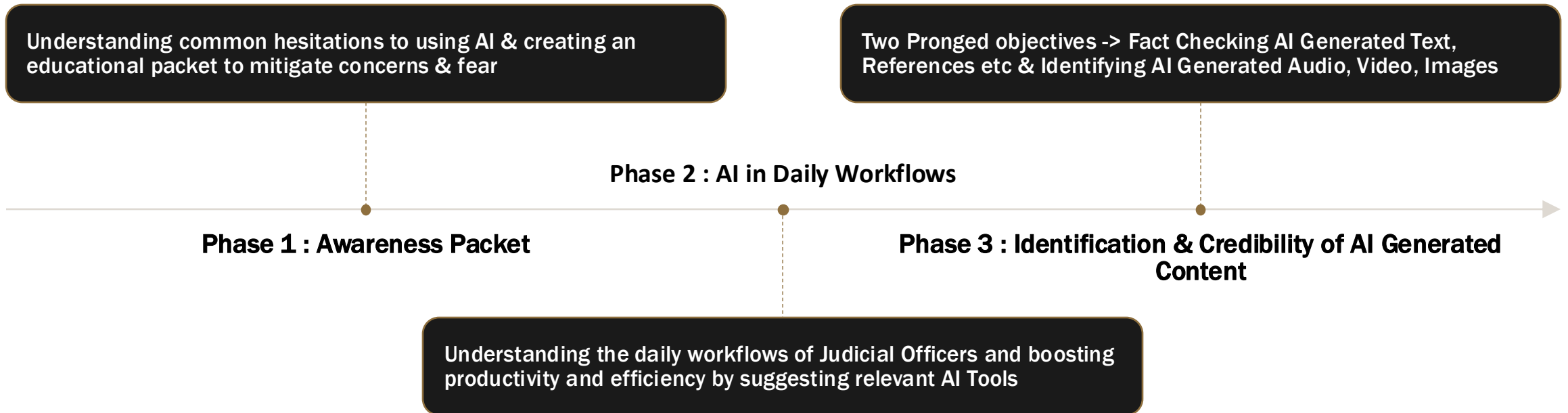
Flagging AI altered content



Guidelines for multimodal synthetic media detection

Project Roadmap & Baseline Metrics

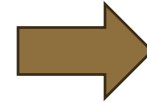
Project Roadmap



Baseline Metrics

Manual Assessment of Survey Data

- Finding common themes from open ended questions
- Picking actionable concerns from the survey report



~90% survey responses display either negative or neutral sentiments towards AI

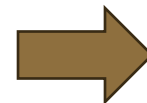
Key requirements include themes like – training, guidance, ambiguity

AI is deemed valuable for resources/processes like – policies, hearings, briefs

Concerns regarding AI revolve around themes – stakes, ethics, responsibility, danger

NLP Assessment of Survey Data

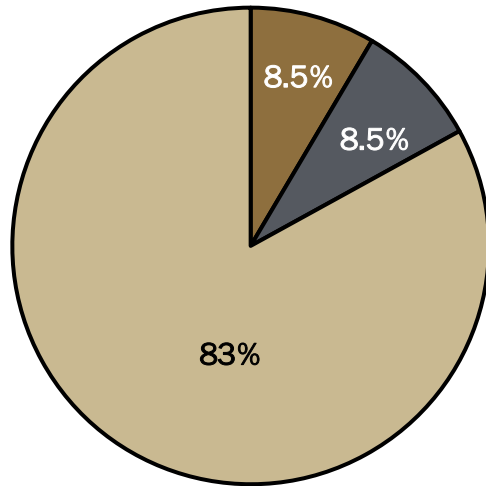
- Sentiment analysis to gauge current state of AI acceptance/understanding
- Key phrase analysis to pick out commonly occurring words



Baseline Metrics

What additional tools or guidance would be helpful?

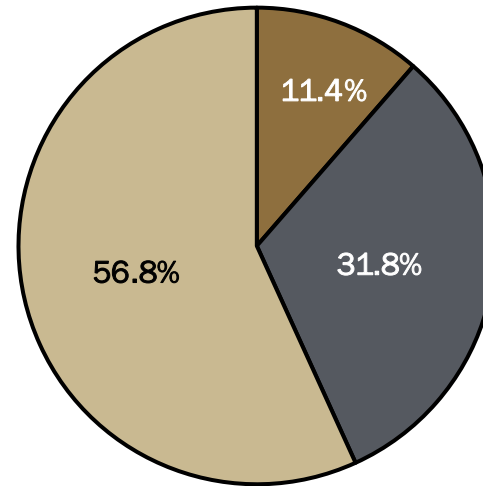
Responses



■ Positive ■ Negative ■ Neutral

Are there any other resources that were not listed that you would find valuable as a judicial officer?

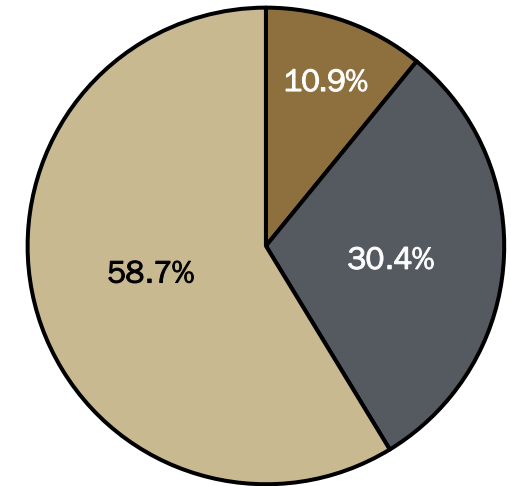
Responses



■ Positive ■ Negative ■ Neutral

What else would you like to share about the use of AI as a judicial officer?

Responses

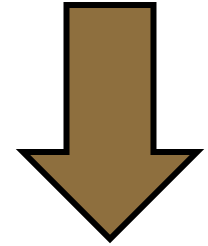


■ Positive ■ Negative ■ Neutral

Metrics for Success

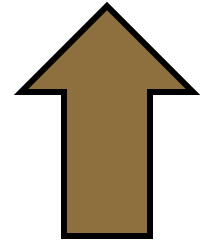
Reduction in Negative
Sentiment

< 10%



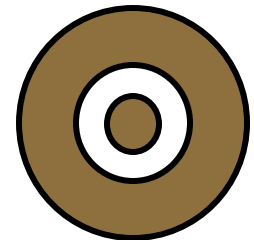
AI Supported Daily
Workflows/Use-Cases

5



Accuracy in Flagging
AI Content

~80%



AI Awareness Packet

Objectives

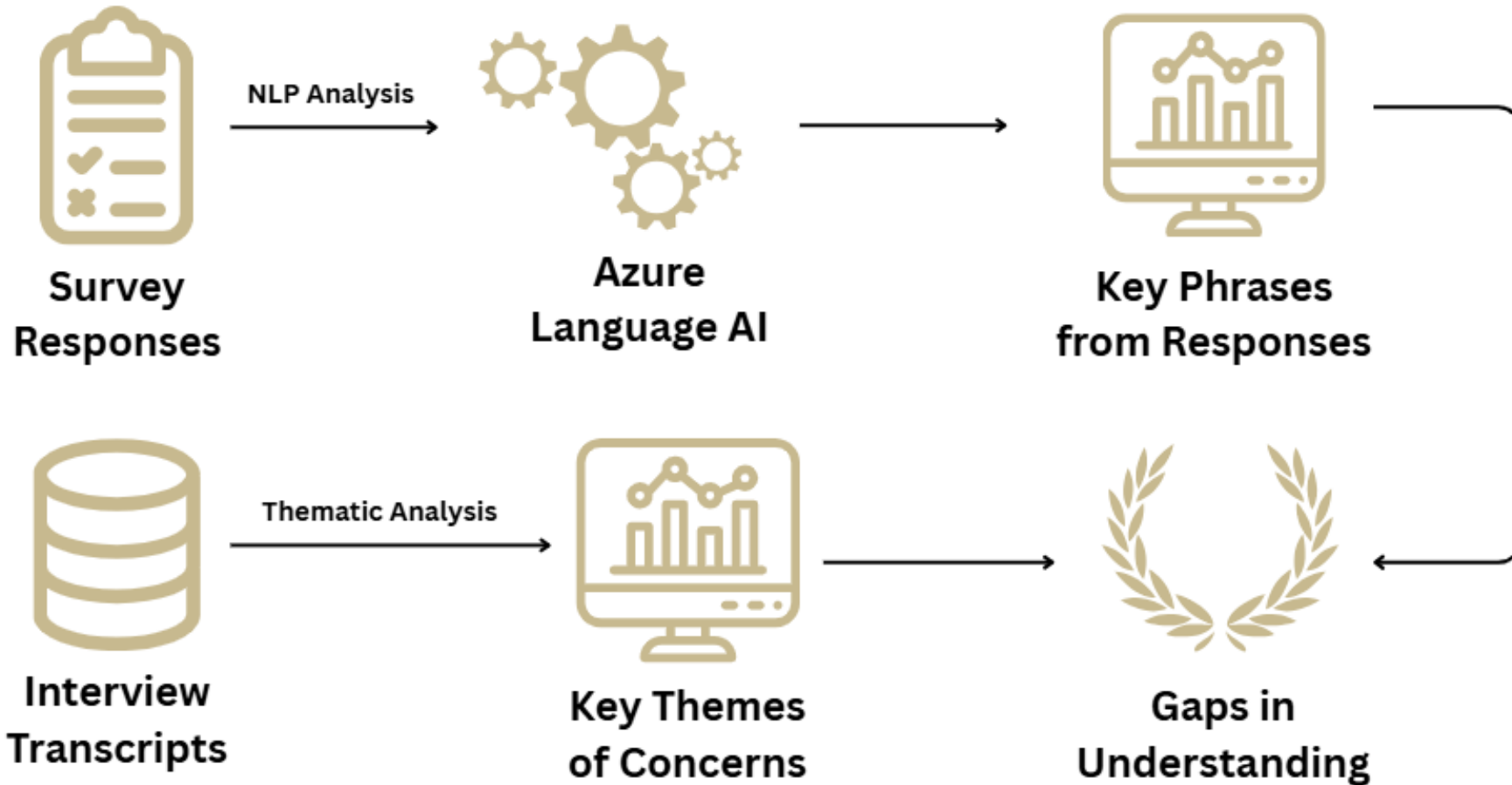
Explain the basic functions of AI and AI tools

- Definitions & explanations
- Courtroom use cases
- Considerations & pitfalls

Create exercises to build comfort around AI tools

- Examples in legal workflows
- Sample, DIY exercises for familiarity

Identifying Gaps in Understanding



Gaps in Understanding - Identified



Data Security



AI Identification



Data Accuracy



AI Incorporation



**Unfamiliarity with
Technology**



AI Caselaw

Solution - AI Onboarding & Training

The packet contains of 6 major stages,
each of which covers a theme,

- Basics of Modern Day AI
- Generic AI Use-Cases & Case studies
- Limitations & Considerations
- Sample Legal Use-Cases
- DIY Exercises for AI Experimentation
- FAQs & Further Resources

**Understanding
Artificial Intelligence:
A Primer for the
Judiciary**

**AI Tooling & Common
Use Cases Across
Industries**

**The Promise & Perils
of AI in the Judiciary**

**AI: Enhancing
Judicial Efficiency
and Access to Justice**

**Prompt Engineering
for Judges**

**Hands On:
Experiments with
Common AI Tools**

Content Overview

Understanding Artificial Intelligence: A Primer for the Judiciary

- Introduction to AI
- Types of AI
- Modern AI Landscape
- Why AI matters to the Judiciary
- Common Limitations
- Incentive for Judges to use AI
- AI as a Catalyst for Modern Justice

AI Tooling & Common Use Cases Across Industries

- *Healthcare* – Mayo Clinic Case Study
- *Finance* – JP Morgan Case Study
- *Education* – Arizona State University Case Study
- *Retail* – Amazon Case Study
- *Manufacturing* – Toyota Case Study

The Promise & Perils of AI in the Judiciary

- Inherent Limitations of AI
- Bias in Decision Making
- Lack of Transparency – Black Box Model
- Hallucinations & Inaccuracies
- Over-reliance on AI tooling
- Data Privacy

Content Overview

Enhancing Judicial Efficiency & Access to Justice

- Legal Research – CARA AI
- E-Discovery – Kira Systems
- AI based Case Outcome Predictions – Lex Machina
- AI powered Transcription – Verbit
- AI for Bias Detection – Hollistic AI

Hands on Exercises – Building Familiarity with AI

- Summarization with Quillbot
- Transcription with Otter.ai
- Writing improvements with Grammarly
- Real-time translations with Google Translate
- Ideation with GPTs
- AI Detection with Quillbot

Prompt Engineering for Judges, FAQs and Further Reading

- What is Prompt Engineering?
- Technical Aspects and Evolution with Time
- Elements of writing Good Prompts
- Ethical Considerations & Relevance to the Judiciary
- Examples and Use - Cases for Legal Processes for Familiarisation

AI in Daily Legal Workflows

Objectives

Find scope for AI aided daily workflows

- Understand a Judges' Daily Workflow
- Identify tasks suited for AI Tool
- Suggest AI – Aided Workflows for Efficiency

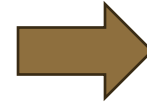
Automate operational tasks

- Identify Operational & Recurring Tasks
- Automate through AI Tools
- Allow Judges to Focus on Decision Making

Methodology – Qualitative Interviews

Selection of Judges from the System

- Random selection of judges by IOCS
- Diversity in 2 main factors,
 - Experience on the Bench
 - Jurisdiction/Type of Court



Level of Familiarity with AI Tools & Key Concerns

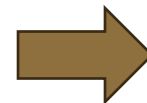
Preferred Mode of Instruction & Desired AI Support

Most Time-Consuming Daily Activities

Expectations from an Ideal AI Companion

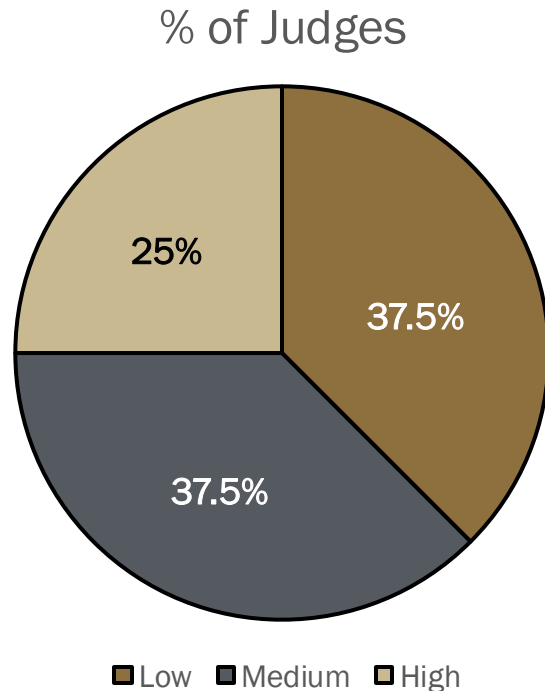
Creation of Interview Questionnaire

- Understand tasks that judges, ideally, want to spend less time on
- Find out processes that are inefficient or can be sped up through AI



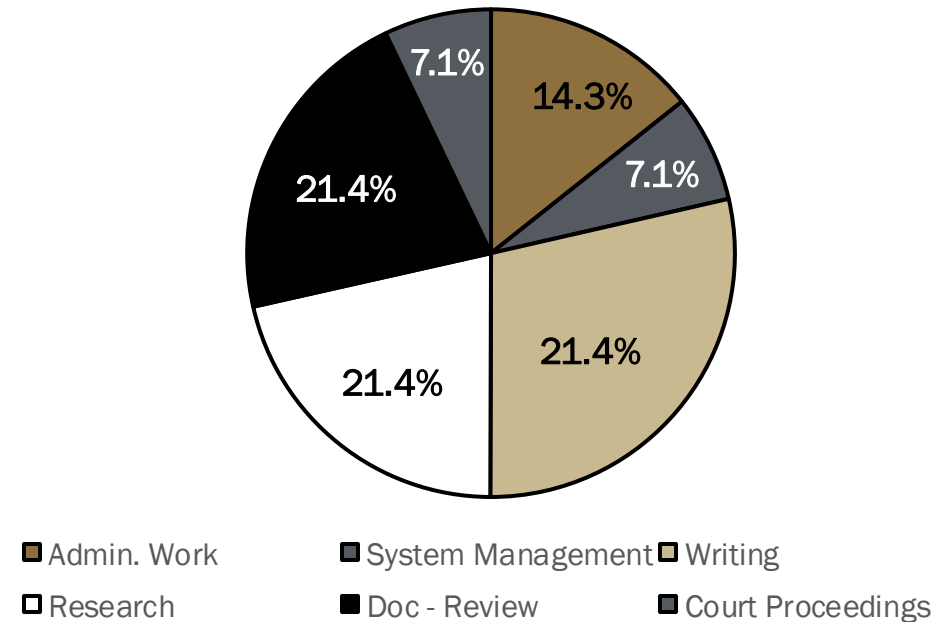
Understanding the Judges

Familiarity with AI & AI Tools
(ChatGPT, Quillbot etc.)



Most Time Consuming,
Recurring Activities

Time Consuming Activities



Key Findings & Observations

We can categorize most concerns that came out of the interviews with the judges into 3 main problem pools,

1

**Repetitive &
Monotonous
Work is a Major
Burden**

2

**Time Diversion
towards Grunt
Work is
significant**

3

**Training
Preferences vary
across
Experience**

Expectations from an AI Aide

- Accuracy is of paramount importance
 - AI based errors are unacceptable
- Tools should provide noticeable benefits with a low learning curve
- Explainability is paramount – black boxes are deal breakers
- Data confidentiality is the problem in most cases – court documents are not meant for the training loop

Accuracy

Transparency

Speed & Reliability

Data Confidentiality

Targeted Workflows



**Courtroom
Transcription**



**AI Detection
Guidelines**



**Doc Summarization
& Highlighting**



**AI Aided Legal
Review**



**AI Guidelines
Knowledge Base**

AI Generated/Altered Content Flagging

Objectives

Create & identify reasonable doubt

- Identify AI Generated Filings – extra caution
- Flag AI Generated/Altered Media Evidence
- Find Reasonable Doubt

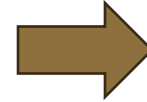
Ensure fairness & transparency

- Maintain objectivity in Verdicts
- Probabilistic Identification of AI generated or altered Evidence

Constraints & Requirements

Pre - Trial Requirements

- Identify AI Generated Filings
- Identify AI Generated Citations
- Increased scrutiny & reviews for GenAI work product



Transparent model with probabilistic output – how likely is a media AI generated/alterd

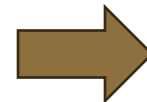
Identify which part of the Image/Video has AI tampering - rule on admission

Ability to Identify gives the Judiciary the ability to Regulate – AI Watermarking

Where to Go : In – House AI identification capabilities & infrastructure

In - Trial Requirements

- Identify & flag AI generated media – informed decision to admit evidence
- Identify & flag AI altered media – create reasonable doubt about extent of impact



Text Identification

- *Dataset* – 50 Essays (50% AI-generated)
- *Cost* – Usage Limits & Pricing
- *Transparency* – Blackbox output v/s explained output
- *Ease of Use* – Intuitive UI, Account Creation etc.

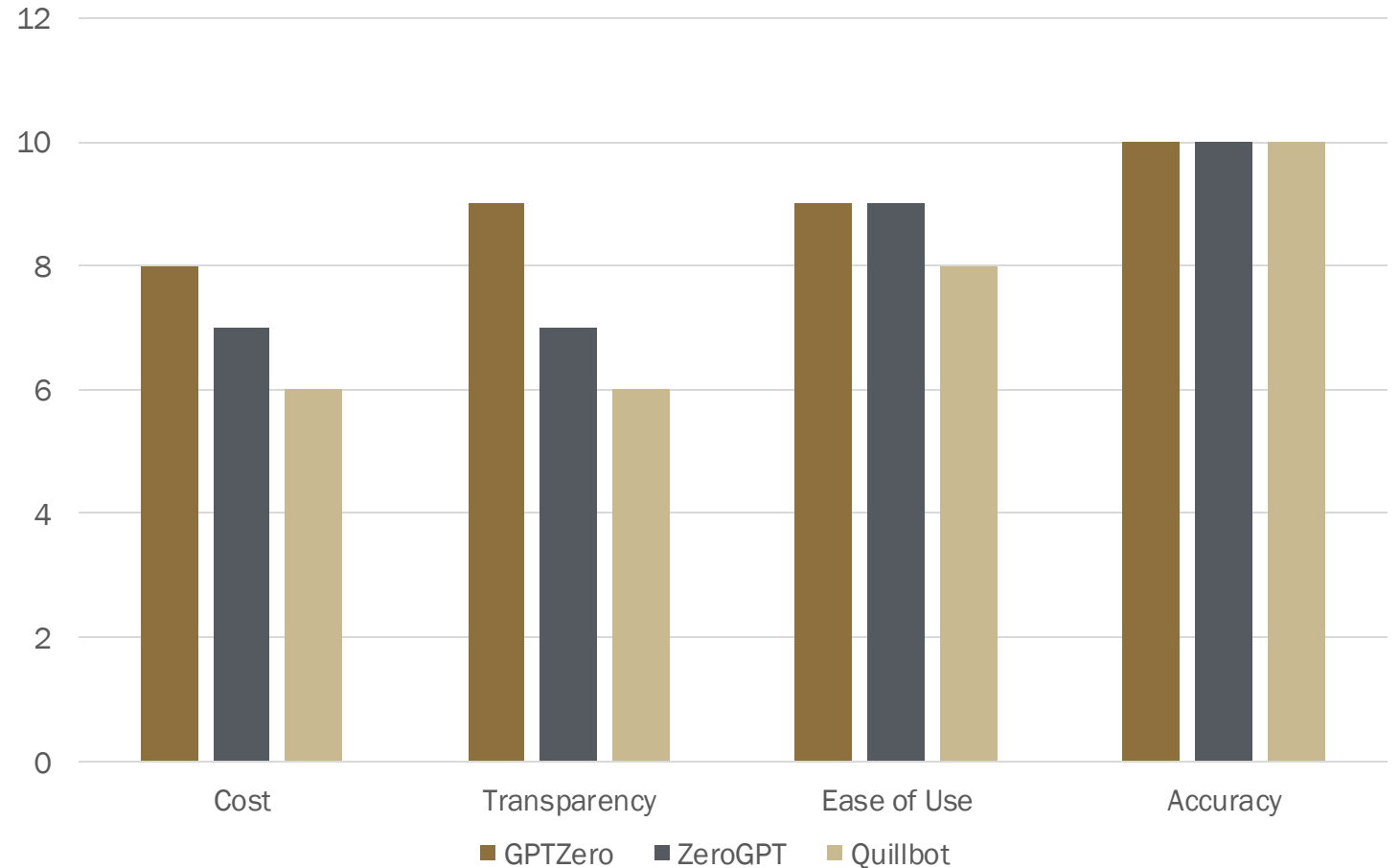
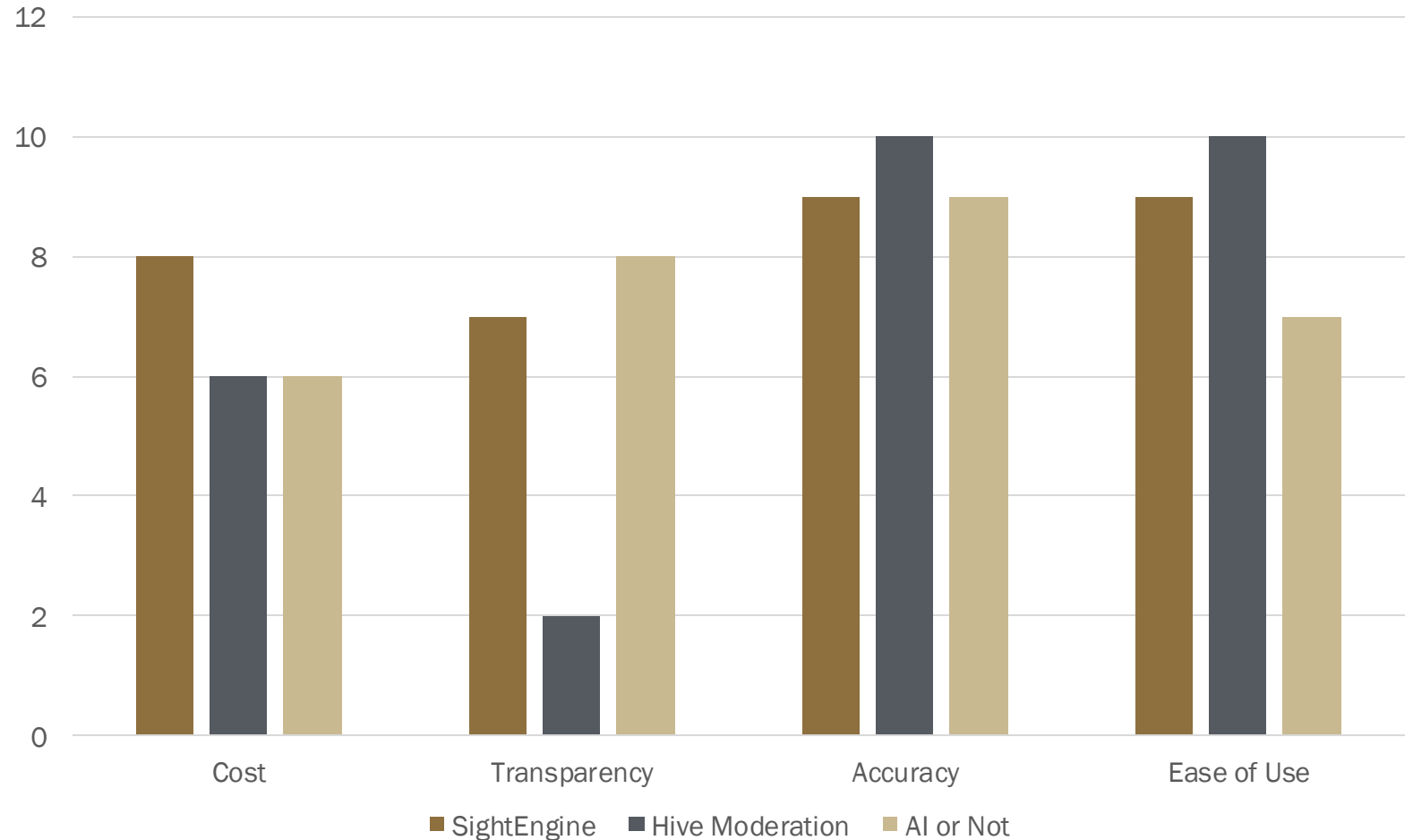


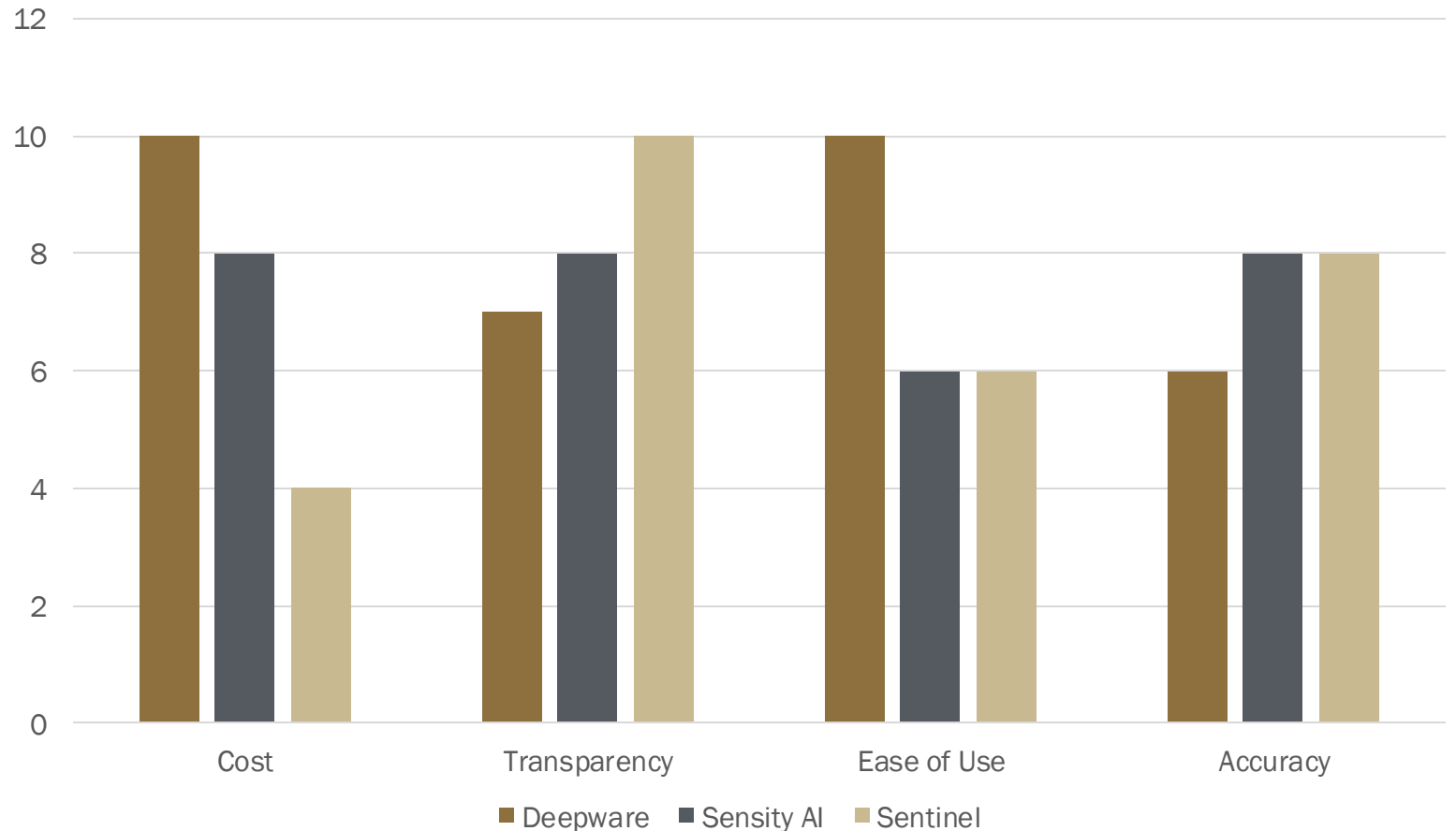
Image Identification

- *Dataset* – 50 Images (Mixed Sources)
- *Cost* – Usage Limits & Pricing
- *Transparency* – Blackbox output v/s explained output
- *Ease of Use* – Intuitive UI, Account Creation etc.



Video Identification

- *Dataset* – 50 Videos (Mixed Sources)
- *Cost* – Usage Limits & Pricing
- *Transparency* – Blackbox output v/s explained output
- *Ease of Use* – Intuitive UI, Account Creation etc.



Summary & Next Steps

Awareness Packet – Relevance

- Major Misconception – AI is the early coming of Skynet
- AI is your typical consultant – confidently incorrect
- Does using AI provide access to all files on the system?
- GPT 4o, o1 mini, Claude Sonnet 3.5, DeepSeek R1 – new terminator models?

LLMs & Model Types

Data Security - Skynet

Confidently Incorrect

What, Why, How

Awareness Packet – Next Steps

- New Course setup on Moodle for distribution to Judges
- Feedback form included at the end of the course
- Feedback summary shared with IOCS routinely



Initial Draft - Set of Documents



Preliminary Review - IOCS



LMS Integration for Rollout (Moodle)

Feedback from Course Takers

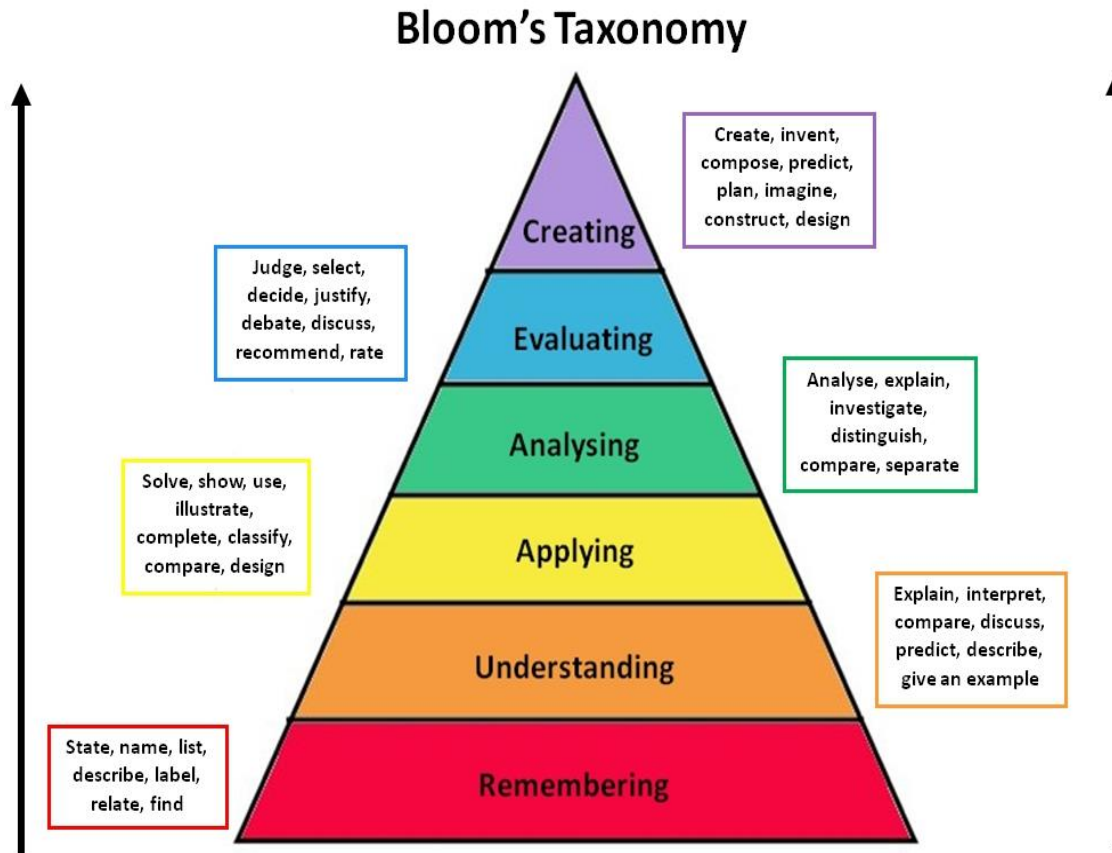


Awareness Packet – Next Steps



- LMS course feedback will have questions to gauge,
 - Change in familiarity with AI
 - Updated thoughts about AI
 - Addressal of previous concerns
- These will be used to perform a similar analysis to the original survey
- Results will be compared to evaluate efficiency. Process will be automated

AI in Daily Workflows – Relevance

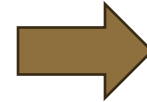


- Help ease the boredom of repetitive, routine and operational tasks
- Help reduce the dependance on trained labor – speeding up potential court processes
- Great at knowledge retention, average at higher order thinking
- World's best know-it-all helper/assistant

AI in Daily Workflows – Next Steps

Original Objectives

- Understand and identify relevant workflows
- Setup pilot programs with AI tools to for test runs



Detailed report about the conversations with judges

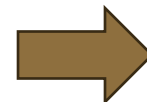
Identification of common concerns and workflows that need change

Understanding the expectations from a good AI tool

System Designs for AI Implementation in the future

Challenges

- Tight schedules – took longer than expected to find time with judges
- Slow feedback and approval cycles – led to lack of time for pilot implementation



AI Detection Guidelines – Next Steps

Phase 1 – Zero to One

- Market Analysis – Available Tools
- Guidelines & Instruction
- Hierarchy of Detection Tools
 - Cost
 - Transparency
 - Accuracy
 - Reliability

Phase 2 – One to Ten

- Use of available AI Tools for Detection
- Assessment, Performance & Integration testing for Cloud based AI Detection Tools
- Top Choices,
 - Azure Sentinel
 - AWS Rekognition

Phase 3 – Ten to Hundred

- Deployment of Cloud Based AI Detection
- Increased control over limits, transparency, granularity etc
- Design and development of In - House algorithms for AI Detection
- Mixed Use – Cloud + Native Algorithms

THANK YOU