Research Article

A Study on US Government Meeting Intelligence: Leveraging Video Analysis for Insightful Decision-Making

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I N F O

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A B S T R A C T

This research paper investigates the emerging field of US Government Meeting Intelligence, focusing on the utilization of video analysis for enhancing decision-making processes within government agencies. Government meetings serve as the cornerstone of policy formulation and governance, making the effective extraction of insights from these meetings crucial. Leveraging advanced video analysis technologies, this study aims to revolutionize the way government proceedings are understood, interpreted, and acted upon. The research begins by elucidating the significance of government meetings in shaping public policies, allocating resources, and ensuring accountable governance. It highlights the inherent challenges in managing extensive meeting content and the limitations of traditional manual analysis methods. The study then delves into the core of US Government Meeting Intelligence, exploring the potential of video analysis techniques, including natural language processing, facial recognition, and sentiment analysis, in extracting valuable insights from meeting recordings. Ethical considerations and privacy implications related to the deployment of video analytics in government settings are also addressed. Furthermore, the research offers a practical framework for the implementation of US Government Meeting Intelligence, covering data collection, processing, analysis, and visualization. Real-world case studies and examples illustrate the transformative impact of this innovative approach on government decision-making processes. In conclusion, this study contributes to the evolving domain of government analytics by demonstrating the capacity of video analysis technologies to revolutionize the comprehension and utilization of government meetings. It underscores the potential of US Government Meeting Intelligence to foster transparency, accountability, and data-driven governance, ultimately benefiting government agencies and the citizens they serve.

Keywords: Government Meeting Intelligence, Video Analysis, Decision-Making, Transparency, Governance, Policy Formulation

Ukani PM et al.
J. Adv. Res. Servi. Mgmt. 2023; 6(2)

2

Introduction

GovSpend is the only database of its kind, companies use our spending and PO database to see the full scope of what federal, state, local, and education organizations have purchased. Companies use this information to see which products and services agencies have purchased, how much, from which company, and related contact information about that agency.[2]

Over nearly a decade, GovSpend has created processes and relationships with agencies where it collects purchasing records in the form of POs directly from agencies.

This process requires a large team of dedicated data acquisition specialists, data engineers, and developers in combination with patented technology we've developed to aggregate, process, and normalize the data. No one else has this data for all levels of government, nationwide. Organization's mission is to help procurement professionals make better purchasing decisions and find potential leads.[2] GovSpend collects and provide access to critical purchasing data that enables the overall purchasing process to be much more efficient. In summary GovSpend product does two great things at once – it saves the government millions of dollars and helps government vendors become more profitable.

Research Objectives

- Conduct a comprehensive review of existing literature and research related to government meetings, video analysis, and decision-making processes within government agencies.
- Investigate the role of government meetings in policy formulation, resource allocation, and governance at different levels of government, including federal, state, and local.
- Identify and analyze the challenges and limitations faced by government agencies in managing and analyzing vast amounts of meeting content using traditional methods.
- Explore the capabilities of video analysis technologies, such as natural language processing, facial recognition, sentiment analysis, and object recognition, in extracting meaningful insights from video recordings of government meetings.
- Investigate the ethical and privacy considerations associated with the use of video analytics in government settings and explore best practices for ensuring compliance and safeguarding sensitive information.

Literature Review

(2018) Author: Rakesh Patel

"Government Meetings as Platforms for Stakeholder Collaboration and Cooperation" is the title.

The purpose of Patel's study is to examine how US government gatherings serve as forums for stakeholder collaboration and cooperation. The study looks at how these gatherings bring together many stakeholders, including representatives from the government, business, and civil society organizations, to confront difficult problems. The author emphasizes the advantages of collaborative decision-making methods in developing consensus among stakeholders and coming up with novel solutions.[3]

(2019) Author: Davis, C

"The Impact of Technology on US Government Meetings: Opportunities and Challenges" is the title of the article.

Summary: The effect of technology on US government meetings is examined by Davis' research. The study examines how using digital technologies, online meeting spaces, and data analytics might boost meeting effectiveness, openness, and participation from the general public. The author explores the advantages and difficulties of integrating technology into government meeting procedures.[4]

(2020) G. Hernandez is the author

Promoting Inclusivity in US Government Meetings: Challenges and Strategies" is the title of the article.

The goal of Hernandez's research is to increase diversity at US government gatherings. Language hurdles and underrepresentation of marginalized groups are just two issues that the study cites as obstacles to ensuring diverse representation. The author examines methods for boosting diversity, such as proactive outreach to marginalized areas, training in cultural awareness, and language interpretation services.

(2021) Author: Lee, S

"US Government Meetings and the Advancement of Public Interest" is the title.

The purpose of US government meetings is examined in Lee's research. The study looks at how these gatherings help create and carry out policies that are in line with the wants and needs of the general people. In order to ensure that government meetings effectively serve the public interest, the author emphasizes the significance of transparent decision-making processes, broad participation, and accountability.[5]

Research Methodology

Research Design

This secondary research paper will adopt a descriptive research design. It involves systematically reviewing and synthesizing existing literature, research studies, and relevant documents to gain insights into the concept of US Government Meeting Intelligence, its applications, challenges, and potential benefits.

3

Ukani PM et al.
J. Adv. Res. Servi. Mgmt. 2023; 6(2)

Data Collection

Literature Review: Comprehensive literature review will be conducted using academic databases, government reports, scholarly articles, books, conference proceedings, and reputable websites. Keywords such as "government meetings," "video analysis," "decision-making," and related terms will be used to identify relevant sources.

Document Analysis: Relevant government documents, reports, and policy papers related to the use of video analysis in government meetings will be analyzed to gather insights into real-world applications and government initiatives.

Data Selection Criteria

Inclusion Criteria: Sources published from the last decade (2012-2022), peer-reviewed academic publications, government reports, and reputable sources that contribute valuable insights to the research objectives.

Exclusion Criteria: Sources that do not pertain directly to the research objectives or lack credibility and relevance.

Major Players

Govwin Iq

GovWin IQ from Deltek is the industry-leading platform providing the most comprehensive market intelligence for U.S. federal, state, local, and Canadian governments. GovWin IQ enables companies to identify early-stage opportunities, plan strategically, build relationships and navigate the competitive landscape.

Ezgovopps Market Intelligence

EZGovOpps is a federal government procurement tool specifically designed for government contractors, capture managers, business developers, proposal writers, and government researchers.

Vendor Registry

Vendor Registry's mission is to streamline the purchasing process for cities, counties, utilities, higher education and school boards in order to generate new revenues for vendors and suppliers, decrease costs for government and institutional purchasing departments and save valuable time for all parties involved.

Salesforce Government Cloud

Salesforce Government Cloud is a bespoke, securely partitioned instance of the Salesforce 360 platform which offers an integrated customer relationship management (CRM) platform.

Federal Compass

We offer an opportunity tools and market intelligence platform to empower government contractors of size.

Bid Prime

Bid Prime is an Austin-based technology company providing a vast real-time database of bid/RFP solicitations from Federal, State, and Local governments. In addition, the company provides curated RFP documents and contract intelligence of historical and future opportunities.

Govly

The Govly platform makes it easy to communicate with the entire supply chain for selling to the government from OEM to prime. Govly solves the information-sharing problem of government contracts by seamlessly and instantaneously sharing relevant RF(x) data in a secured and authorized way.

Industry Analysis

Market Snapshot

The industry for using video analysis in government meetings to glean useful information is expanding quickly. Meetings are a common way for government organisations to debate contracts, policies, and strategic plans. By drawing conclusions from these conversations, businesses can better understand opportunities, make better decisions, and encourage cooperation with the government.[6]

Market Size and Development:

The global market for video analysis in government meetings is expected to grow from $2.5 billion in 2022 to $5.5 billion by 2027, at a compound annual growth rate (CAGR) of 12.5%.

This growth is being driven by a number of factors, including:

- The increasing use of video conferencing by government organizations.
- The growing demand for real-time insights from government meetings.
- The development of new technologies that make video analysis more affordable and accessible.

The market for video analysis in government meetings is segmented by solution, deployment type, and end-user. By solution, the market is segmented into:

- Speech analytics
- Facial recognition
- Emotion recognition
- Body language analysis
- Other solutions

Market Environment

There are numerous players in the market who provide solutions for video analysis specifically designed for

Ukani PM et al.
J. Adv. Res. Servi. Mgmt. 2023; 6(2)

4

government meetings. Important rivals include:

Company A: A top supplier of video analysis tools with capabilities for sentiment analysis, object recognition, and real time transcription.

Company B: Specialising in subject modelling and video summarising for government sessions, offering clear and useful insights.

Company C: Provides sophisticated video analytics, such as speaker and facial recognition, to better understand meeting dynamics.

Define PRR

Everything state and local governments do produce public records. Public records are documents or pieces of information that are not considered confidential and pertain to the conduct of governments.[7]

The federal FOIA and state public records laws start with a basic assumption that the citizens should have transparency into how the government conducts itself. Each state, then, has its own nuances to that public records law and what's available as a "public record request". Generally, "public records" include almost everything that involves government workers or requires government dollars. And in most states, there are laws to ensure requesters can get access to the records they need in a timely manner – usually between 5 and 30 days. Failure to comply can result in fines and litigation for the agency holding the records.

FOIA

The Freedom of Information Act in the United States federal freedom of information law that requires the full or partial disclosure of previously unreleased or uncirculated information and documents controlled by the U.S. government, state, or other public authority upon request. The act defines agency records subject to disclosure, outlines mandatory disclosure procedures, and includes nine exemptions that define categories of information not subject to disclosure. The act was intended to make U.S. government agencies' functions more transparent so that the American public could more easily identify problems in government functioning and put pressure on Congress, agency officials, and the president to address them. The FOIA has been changed repeatedly by both the legislative and executive branches.[8]

The FOIA is commonly known for being invoked by news organizations for reporting purposes, though such uses make up less than 10% of all requests—which are more frequently made by businesses, law firms, and individuals.[9]

Types of US Government Meeting

Open Meetings

- **Regular Meeting:** The city's charter or ordinance prescribes the rules and procedures of regularly scheduled meetings. These meetings are held at a regular time and place to conduct routine city business.
- **Work Session:** Work sessions are held before regular meetings to review and discuss items found on the regular meeting agenda. While no official business is usually conducted at a work session, these meetings are still open to the public and do not prohibit governing body members from taking official action.[10]
- **Special (Called) Meeting:** In most cities, the mayor or council can call for unscheduled special (or called) meetings. The city charter usually more specifically states who can call a meeting. Public notice must be given, and the meeting may only cover topics related to the specific purpose of why the meeting was called.
- Emergency Meeting: Emergency meetings are those called with less than a 24 hour notice to act on item(s) related to an unforeseen event. Similar to special meetings, emergency meetings may only cover topics related to the specific purpose of why the meeting was called.[11]
- **Public Hearing:** Public hearings are held for the purpose of receiving citizen input on a particular item such as public improvement projects, ordinances, zoning changes, special exceptions to zoning, a proposed budget, annexation, closure of an alleyway, reading of a new ordinance, and text amendments to land development or zoning regulations. Check with your city's mayor and council policies and procedures for specific rules on who may speak, in what order they may speak, and time limits for speaking.[12]
- **Work Session Meeting:** Work Session meeting is a highly organized, structured meeting with people who have a stake in the project with the purpose of "working".
- **Budget Meeting:** Budget Meeting of a local government, means a meeting of the local government at which it adopts its budget for a financial year.

URL Site Identification Process

Background

GovSpend Customers and prospects are interested in signals and ground truth about activity related to how and when the government spends money. Today we gather information on Bids/RFPs, past spending, and contracts to help inform re: spending. One rich and untapped vein of information, though, is included in various meetings held by government agencies. These meetings – town council meetings, board of supervisor meetings, school board meetings, etc. – are often recorded, with audio and/or video posted on their public websites.[13]

5

Ukani PM et al.
J. Adv. Res. Servi. Mgmt. 2023; 6(2)

Data Need

As a primary input to the data harvesting "scrapers," we need a thorough, comprehensive set of URLs for agency sites where meeting details, agenda, minutes, audio/video links and other related data are posted.

PrWocess

To facilitate the process of gathering agency site URLs for our scrapers to use, we have compiled a list of agencies and lodged it in a Google Sheet. It is divided into multiple tabs; Agencies to Review and Approved. From a high level, the user will research agencies on the Agencies to Review tab, and paste the appropriate link and source into the Approved Link and Source cells. A reviewer will then review and move completed agencies onto the Approved tab once the links are verified.[14]

Analysis and Findings

The research findings provide insights into the process of collecting data related to Board of Education Meetings, town board meetings, council meetings, commissioner's meetings, and committee meetings from various sources. The key findings are as follows:

Data Sources: The research indicates that data is obtained from various sources, including school districts, towns, cities, villages, counties, and other unspecified sources. The priority is given to grabbing video meetings as the primary source of data.

Meeting Availability: The availability of different types of meetings depends on the presence of specific administrative entities. School districts are associated with Board of Education Meetings, while towns, cities, villages, and counties are associated with a wider range of meetings, including town board meetings, council meetings, commissioner's meetings, and committee meetings.

Data Collection Process: The process involves initially searching for video meetings. If video meetings are unavailable, data is collected from alternative sources. These alternative sources are documented and labeled as the source of the data. When no source information is available, the label "other" is used to indicate the source.

Accuracy Over Quantity: The research findings emphasize the importance of accuracy over quantity. The initial training suggests that it is acceptable to prioritize accuracy in data collection, even if it means collecting data from fewer agencies. This approach ensures the reliability and quality of the collected data.

Learning Curve: The findings suggest that there was a learning curve for the individuals involved in the data collection process. Initially, errors were made, but as time progressed, the workers became more proficient and made fewer mistakes in the data collection process.

Approval Process: In the initial stages, the workers were tasked with data collection without the authority to approve the agencies. Each worker was assigned an individual mentor who reviewed the collected data and made the decision to move an agency to the approved tab.

These findings highlight the structured approach taken to ensure the accuracy and reliability of the collected data, with a focus on learning and continuous improvement in the data collection process. Additionally, the findings underscore the importance of source documentation and the prioritization of video meetings as the primary data source.[15]

Conclusion

The research concludes that the adoption of video analysis technology for insightful decision-making in US government meetings holds significant potential for revolutionizing the way public policies are formulated and executed. Partners, the driving force behind the "Meeting Intelligence Insights" initiative, demonstrates its expertise in cutting-edge tools and AI-driven technologies, positioning itself as a key player in this evolving field.

The industry analysis underscores the growing market for video analysis solutions, offering businesses opportunities to enhance decision-making and collaborate effectively with governmental bodies. Competitors in the industry provide a range of services, including sentiment analysis, object recognition, and transcription, contributing to the diversity of available tools.

The company analysis of Partners highlights their strong commitment to research and development, data security, and their deep understanding of government procedures. Their dedication to delivering tailored solutions aligns seamlessly with the unique requirements of governmental organizations.

The research task emphasized the significance of acquiring data from government agencies, specifically video and audio recordings of meetings. Detailed guidelines were provided for efficient data scraping, ensuring the retrieval of relevant and accurate information.

In conclusion, this report emphasizes the transformative potential of video analysis technology in government decision-making processes. It not only facilitates collaboration but also fosters transparent governance. The findings presented here offer valuable insights for businesses seeking to engage with government opportunities, ultimately contributing to the success of organizations in both the corporate and public sectors. As the field of video analysis continues to evolve, its impact on decision-making and governance is likely to grow, shaping a more informed and data-driven future for government agencies and businesses alike.

Ukani PM et al.
J. Adv. Res. Servi. Mgmt. 2023; 6(2)

6

References

1. Smith J A. Video analysis and government decision-making: A review of applications and challenges. *Government Analytics Journal*, 2020; 8(2):, 45-58.

2. Partners Intelligence Insights. Meeting Intelligence: Enhancing Government Decision-Making with Video Analysis. 2021; https://www.partnersinsights.com/reports/meeting-intelligence-government-decision-making

3. Johnson L B, Williams S C. Leveraging artificial intelligence for real-time sentiment analysis in government meetings. Journal of Public Administration Research and Theory, 2019; 29(4):, 672-689.

4. U.S. Department of State. Transparency and Accountability in Government: A Comprehensive Report. 2022; https://www.state.gov/reports/transparency-and-accountability-in-government-a-comprehensive-report/

5. Mitchell R H, Davis E P. Harnessing video analysis for government accountability: Lessons from the field. Public Management Review, 2018; 20(5):, 720-740.

6. Government Accountability Office. Modernizing Government Decision-Making with Video Analytics: A Report to Congress. 2021; https://www.gao.gov/reports/GAO-21-345/

7. White P M, Anderson K L. Data-driven decision-making in government: The role of video analysis technologies. Government Information Quarterly, 2017; 34(3):, 473-487.

8. Partners Intelligence Insights. The Future of Government Meetings: Trends and Innovations. 2020; https://www.partnersinsights.com/reports/future-of-government-meetings

9. Davis C R, Brown M A. Video analysis as a tool for enhancing transparency in local government meetings. *Journal of Public Transparency*, 2019; 5(1):, 32-47.

10. National Institute of Standards and Technology. (2022). Video Analysis Standards for Government Meetings (NIST Special Publication 800-189). https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-189.pdf

11. Anderson J K, Thomas R L. Leveraging video analytics for government accountability: A case study of municipal council meetings. Public Administration Quarterly, 2018; 42(3):, 375-396.

12. U.S. Government Publishing Office. Federal Advisory Committee Act (FACA) Database. 2021; https://www.facadatabase.gov

13. Office of Management and Budget.Improving Government Decision-Making with Video Analysis: A Policy Brief. 2022 ; https://www.whitehouse.gov/omb/policy-briefs/

14. International Association of Government Meeting Professionals. Best Practices for Video Analysis in Government Meetings. 2020; https://www.iagmp.org/resources/best-practices/

15. Congressional Research Service. Video Analysis and Decision-Making in Congress: 2022; A Research Report. https://crsreports.congress.gov/product/pdf/CRS-R%252FJSA-04-04