GovTech GLOBAL FORUM

Follow-up Webinar

GovTech Advisory and Guidance Tool (GTAG)

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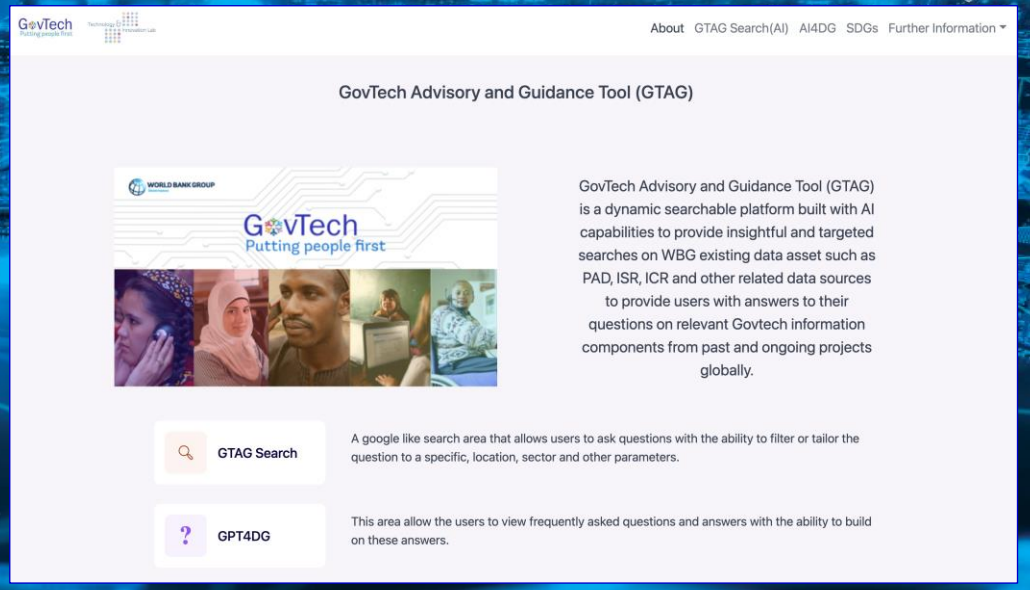
Asami Okahashi, Governance Specialist, Governance GP

Olushola Ibironke Joanne Martins, IT Officer, ITSTI



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WORLD BANK GROUP

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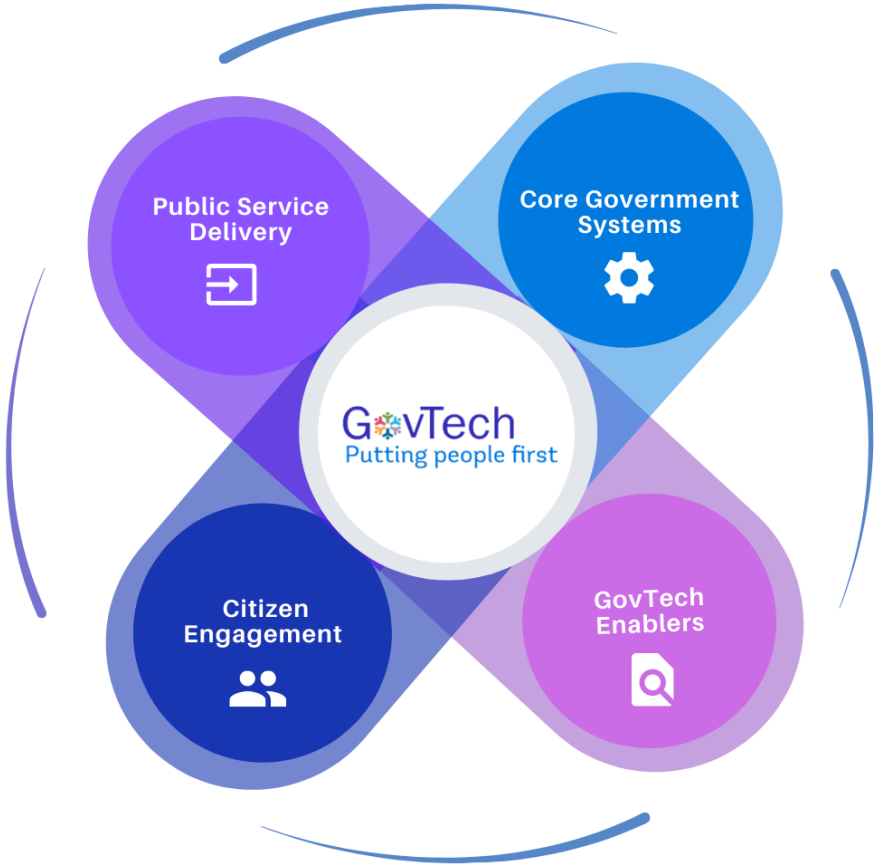
What is GovTech

GovTech is a whole-of-government approach to public sector modernization that promotes simple, efficient and transparent government with the citizen at the center of reforms



The GovTech approach emphasizes three aspects of public sector modernization:

- A whole-of-government approach to digital transformation
- Universally accessible citizen-centric services
- Simple and efficient government systems

The GovTech agenda also encompasses:

- Effective use of **disruptive technologies** (e.g., AI/ML, cloud, IoT),
- Public **data platforms** (promoting the use of public data by individuals and firms),
- Local **GovTech ecosystems** (supporting local entrepreneurs and start-ups), and
- Greater use of **public private partnerships** to draw upon private sector skills, innovations and investments to address public sector challenges.

Assumption / Challenge

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Our Journey: Approach GTAG Proof of Value

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Discover the Problem

Discover the Solution

01
Prepare

Framing
&
Planning

02
Discovery

Exploration
&
Understanding

03
Interpretation

Research
&
Findings

04
Ideation

Concept Generation
&
Prototyping

05
Develop

Refinements
&
Experimentations

Design Thinking Workshops

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Questions:

1. What is your current process for researching /sponsoring / designing a project at country or reginal level?
2. What data limitation do you have when preparing your projects / running your projects.
3. What data do you need and where do you get or access the data from?
4. Do you think this tool could be useful in supporting your day-to-day tasks?
5. If so, what sort of information/data do you want to see?
6. What would you like the data to tell you? (insights, validations, etc.)

Current Challenges, Desires, and Opportunities

What we heard from GovTech Experts, TTLs & Development Partners

Our clients would like to have access to information **on similar project that have being done in other countries with close similarity to their needs.** They need information on investment amount, procurement costs, project approach, lessons-learned.

Current database is **updated manually** with new projects and extracted from ops portal and through communication with project owners.

There is **no corporate mandate** to keep this database alive. Hard to convince TTL to keep this database updated because it is time consuming.

Challenges **keeping current database and sources up to date**. It is a time- consuming manual activity for TTL and teams.

Information that informs our decision to **invest through remote sensing** of projects opportunities.. Tracking Program & project level activities

Time consuming to review very lengthy documents to find the required information.

Highlight what projects have **GovTech related components** and who **is investing in** GovTech related projects.

Eliminate conflicting data from different sources. And ensuring better access to GovTech related data and components.

To support better communication between partner practices with common/similar goals/objectives.

Need of Surfacing Relevant Data & Info from Existing Data Assets

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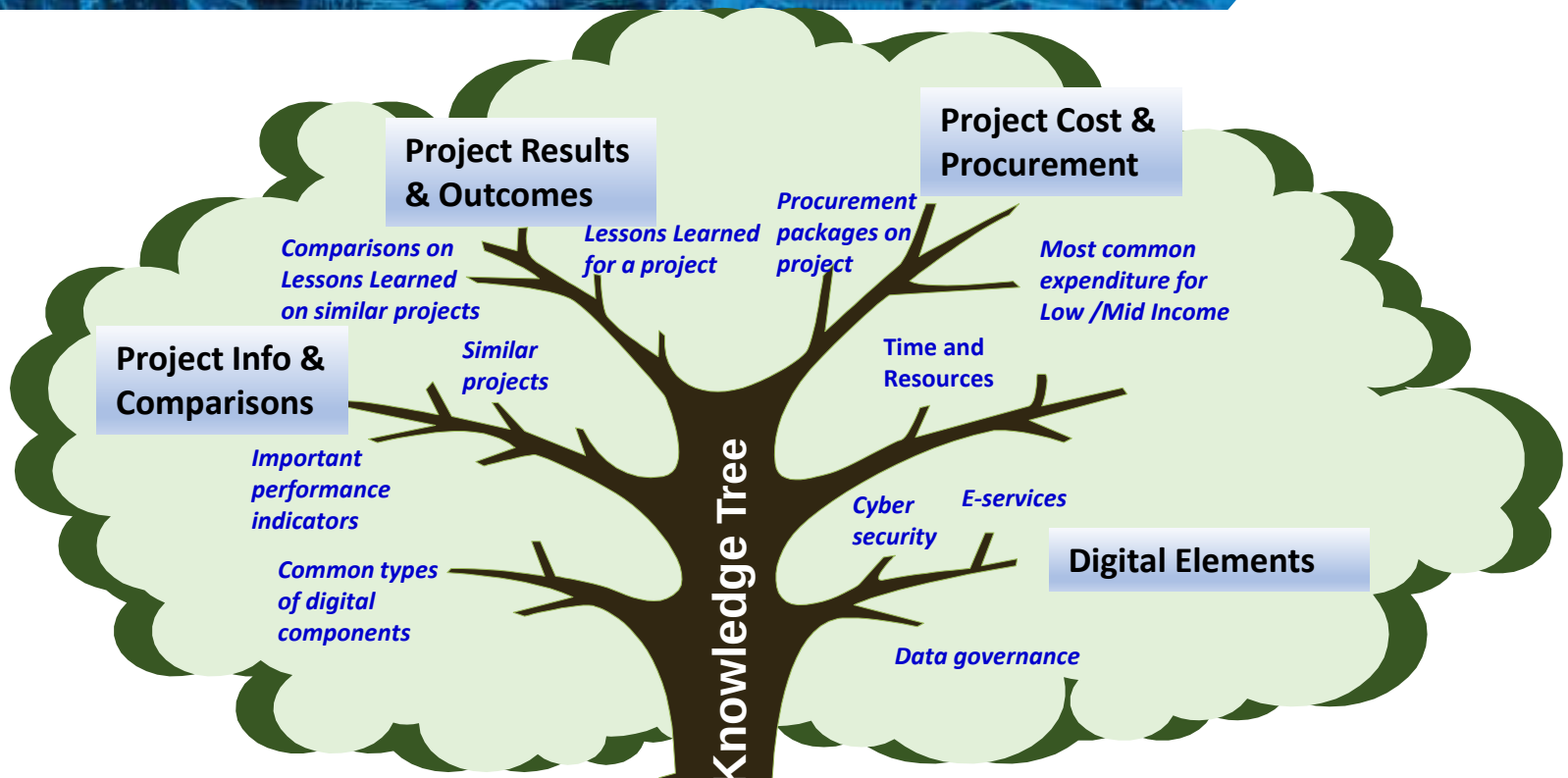

Data Sources

Operations Portal
PADs ISR/ICR
ASA

GovTech Tools

GTMI Tool

CPF/CPIA

IEG

Introduce an AI Enabled Tool to support GovTech Knowledge Advisory Services

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User Groups Owner
WBG GovTech Experts

User Groups – Clients & Partners (internal) , WBG Task team leads & Teams

Restricted access – out of scope for this prototype

Users Groups –Donors& Partners (external)

Searches info on relevant govtech data within WBG project documents (PADs, etc)

Excepted outputs

Govtech relevant/ hidden data within (PADs, ICRs , ISR ,ASA) across following categories :

- Project information & comparisons
- Project Results & Outcomes
- Digital Elements

GTAG Smart Repository/Dashboard

Google Search : provide a wider search based on Keywords or phrases

Guided Search based on frequently asked and answered questions across selected categories .

Data Snapshots such as SDG across projects

Data Sources

PAD/ICR/ISR, country related data , guidance on ASA & Diagnostics QER, Decision Meeting outputs.

.

Data Sources (Govtech Database& Ops portal) GTMI Dashboard

Proposed Technical Building Blocks

4

GTAG USERS

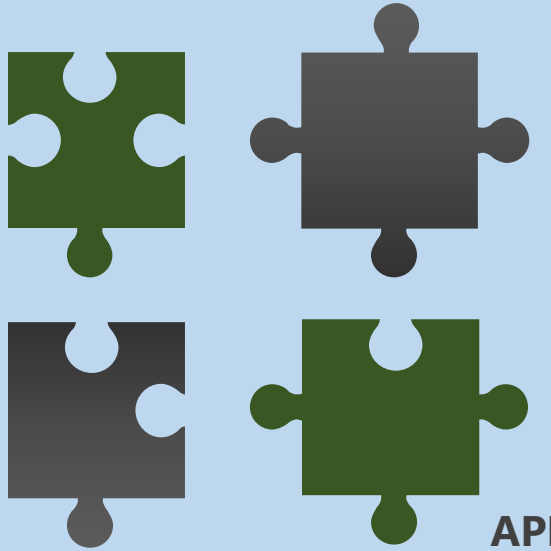
- Gov Tech expert
- Task Team Leads & Task Teams
- *Future Users - Donor & Development Partners(out of scope)*

Frontend

- **GTAG Dashboard**
  - GTAG Search (AI)
  - AI4DG

Data Sources

- Agree data sources & Access levels.
  - PAD
  - ISR
  - ICR
  - IEG
  - ASA
  - GTMI
  - CPF
  - CPIA



AI Algorithms

- Development of Algorithms to support
- Data insights and queries.

API integration

- Internal and external data sources (operations Portal)

Surfacing Hidden Data
WBG Task Team Lead Scenario

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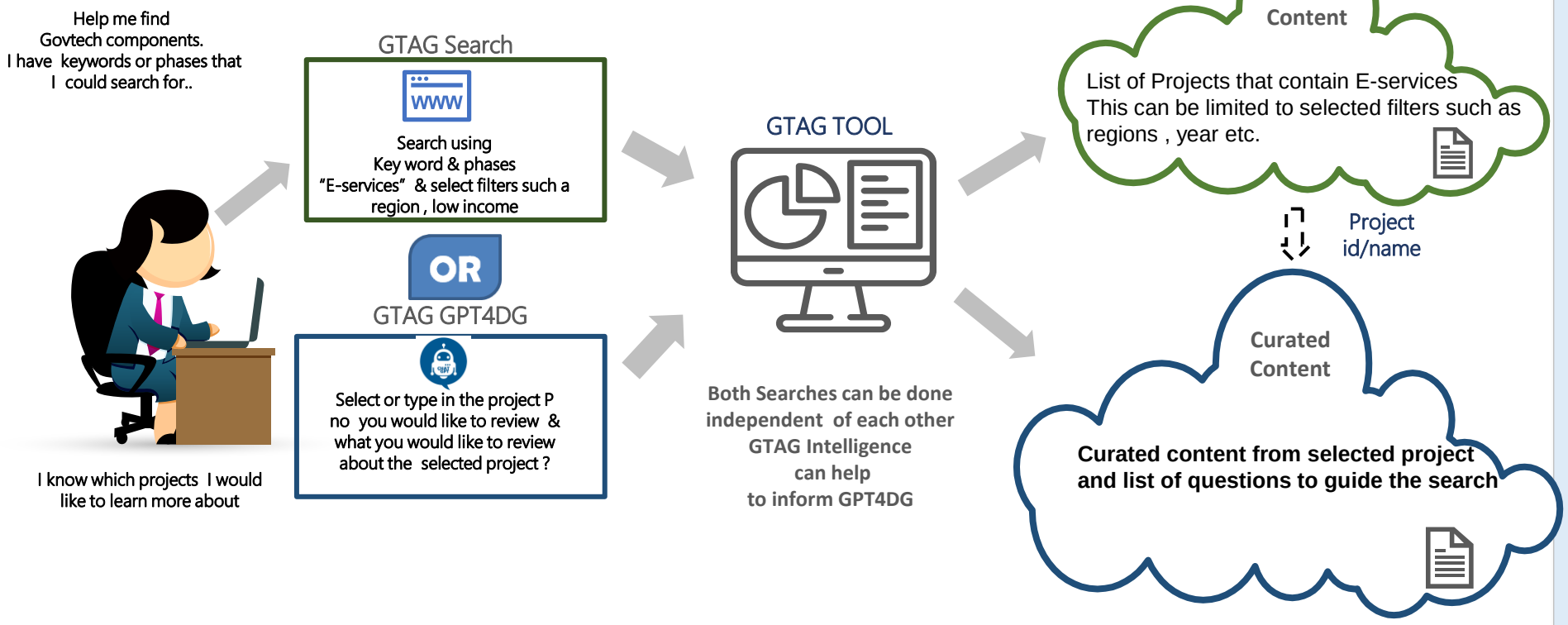
Jane a TTL has been working at the bank for just over a year. She is about to develop a new PAD for an ECA country, which will contain a GovTech related service. She is hoping that she could gather relevant data from past and ongoing project documentation. She is interested in the following data

- Project that have GovTech components such as eservices across ECA region
- Information on Similar projects & indicators ,
- Review any lesson learned and all associated costs.



Proof of Value solution

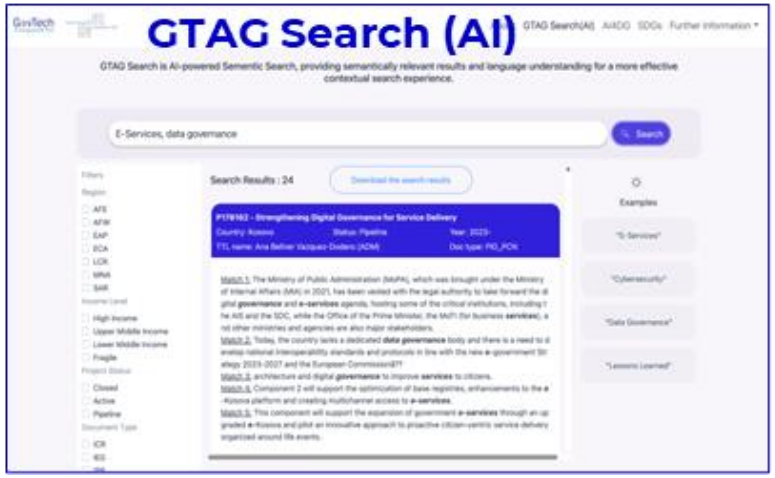
- Key Features Involved
- Google wide search (current in POV)
- Guided Search for surfacing data within document (future)
- Data Insights around SDG Goals

How can AI help with surfacing Hidden data ?

- **Semantic Search:** Using the Azure Cognitive Search with Semantic capability. Embeddings are created based on the corpus (documents) and finding relevant context based on the query.
- **Prompt Engineering for GPT-4 :** Using Semantic Search to select the most relevant section of a given document and gpt-4-32k model to generate responses based on user query.
- **Automation and Aggregation of** content from disparate sources
- **Continuous Content Curation**

Hidden Data :Data that lies somewhere in documents, not easy to find

Proposed Solution – Demo



Proposed Solution Architecture

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User

WBG

Front end

GTAG ANGULAR

Web App

GTag Intelligent Search

- Google like Intelligent Search

GPT4DG

- Guided Search (FAQ)

Data Snapshot-SDG

- Data Snapshot & Correlation related to GovTech & subject interest

About & Further Information

- Introduction
- GTMI
- Data Source
- Power BI dashboard
- Others

Azure Restful API

Back end

AI Model

Python Azure OpenAI

SEMANTIC SEARCH

Semantic Search

Semantic search denotes search with meaning, as distinguished from lexical search where the search engine looks for literal matches of the query words or variants of them, without understanding the overall meaning of the query

GPT-4

GPT-4

Understand and generate natural language. GPT-4 is a large multimodal model (accepting image and text inputs, emitting text outputs) that, while less capable than humans in many real-world scenarios, exhibits human-level performance on various professional and academic benchmarks.

Database / Cloud Develop

- PAD
- ISR
- ICR
- IEG
- ASA
- GTMI
- CPF
- CPIA

Azure Data Storage