Office of Evaluation (OED)



Food and Agriculture Organization of the United Nations

Exploring opportunities for applying AI in evaluation – Some practical examples



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Disclaimer

- Al is a fantastic tool. It offers unparalleled opportunities for innovation, efficiency, and personalized experiences, revolutionizing industries and enhancing human capabilities.
- However, It is limited to its reliance on existing data and algorithms; it is not infallible and may produce erroneous results; users should exercise caution and discretion when relying on AI-generated outputs.
- The responsible and ethical use of AI demands awareness of its limitations and a commitment to complementing automated processes with human judgment and expertise.

The following slides are based on a mix of imaginary and real-time applications

Context



Has been assigned as a team member

- Name: Rémy
- Profession: Evaluator



• Evaluation of the project "Improving livelihoods of apple farmers in the province of Orchardistan"

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Context – Team meeting



- Meeting with Team leader to discuss workload
- Requests:
 - 1. Desk review of existing documents
 - 2. Analysis of types of apple received per farmer
 - 3. Writing of a short case study
- Submission by the end of the day

1- Desk review



- Available articles about Apple farming
- Upload to an AI tool for qualitative research which helps getting fast & detailed answers to research questions

Example that will be shown in next slide:

Hinman, Tammy and Ames, Guy. (2011). Apples: Organic Production guide. National Sustainable Agriculture Information Service ATTRA, 40 p., retrieved from <u>https://ucanr.edu/sites/placernevadasmallfarms/files/112366.pdf</u>

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1- Desk review

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		All Bookmarks
AILYZE	Home About Try AILYZE Lite✔ Contact Login/ Register for AILYZE Pro✔	
	Upload file (docx, pdf, xlsx, csv, xls) (limit 10MB/file)	
	Choose Files Apple.pdf	
	Choose the type of analysis Summarize	
	Ask a specific question Conduct thematic analysis	
	Compare viewpoints across documents	

2- Analysis

Apple Varieties
Granny Smith (30%); Gala (20%); Honeycrisp (30%); McIntosh (20%)
Granny Smith (10%); Gala (50%); Honeycrisp (20%); McIntosh (20%)
Granny Smith (50%); Gala (50%); Honeycrisp (0%); McIntosh (0%)
Granny Smith (25%); Gala (25%); Honeycrisp (25%); McIntosh (25%)
Granny Smith (20%); Gala (20%); Honeycrisp (30%); McIntosh (30%)
Granny Smith (30%); Gala (20%); Honeycrisp (30%); McIntosh (20%)
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Granny Smith (20%); Gala (20%); Honeycrisp (30%); McIntosh (30%)
Granny Smith (30%); Gala (20%); Honeycrisp (30%); McIntosh (20%)
Granny Smith (25%); Gala (25%); Honeycrisp (25%); McIntosh (25%)

- Data shared is in excel format
- Entry for type of apples is as shown in picture on the left
- More than 1,000 row with different percentages
- <u>Goal is to find the</u> <u>percentage of Gala</u> <u>received by each farmer</u> <u>and average</u>

2- Analysis



- Uses ChatGPT to find a quicker solution
- States the tab or a similar type of dataset and asks the chatbot to provide him with a formula to extract the percentage of Gala in a separate column

A You

Hello

ChatGPT

Hello! How can I assist you today?

You

I have the following on tab on an excell sheet: "Granny Smith (30%); Gala (20%); Honeycrisp (30%); McIntosh (20%)" - Can you help me find a formula to extract the percentage of Gala?

ChatGPT

Yes, you can use the `FIND` and `MID` functions in Excel to extract the percentage of Gala from the given string. Here's a formula you can use:

excel	🗂 Copy code
=VALUE(MID(A1,FIND("Gala",A1)+6.2))	

Assuming the string is in cell A1, this formula will search for the position of "Gala" in the string and then extract the two characters immediately after it, which represent the percentage. The `VALUE` function is used to convert the extracted text into a numerical value.

Make sure to adjust the cell reference if your string is located in a different cell. Also, this formula assumes that the percentage is always represented by two digits. If the percentage can have varying lengths, you may need to adjust the formula accordingly.

 $\mathbf{1}$

9°C1%

Message ChatGPT...

SU	UM \checkmark : \checkmark \checkmark f_x =VALUE(MID(A2,FIND("Gala",A2)+6,2))		
	А	В	
1	Apple Varieties	Percentage of Gala	
2	Granny Smith (30%); Gala (20%); Honeycrisp (30%); McIntosh (20%)	=VALUE(MID(A2,FIND("Gala",A2)+6,2))	
3	Granny Smith (10%); Gala (50%); Honeycrisp (20%); McIntosh (20%)	50	
4	Granny Smith (50%); Gala (50%); Honeycrisp (0%); McIntosh (0%)	50	
5	Granny Smith (25%); Gala (25%); Honeycrisp (25%); McIntosh (25%)	25	
6	Granny Smith (20%); Gala (20%); Honeycrisp (30%); McIntosh (30%)	20	
7	Granny Smith (30%); Gala (20%); Honeycrisp (30%); McIntosh (20%)	20	
8	Granny Smith (10%); Gala (50%); Honeycrisp (20%); McIntosh (20%)	50	
9	Granny Smith (50%); Gala (50%); Honeycrisp (0%); McIntosh (0%)	50	
10	Granny Smith (25%); Gala (25%); Honeycrisp (25%); McIntosh (25%)	25	
11	Granny Smith (20%); Gala (20%); Honeycrisp (30%); McIntosh (30%)	20	
12	Granny Smith (50%); Gala (50%); Honeycrisp (0%); McIntosh (0%)	50	
13	Granny Smith (25%); Gala (25%); Honeycrisp (25%); McIntosh (25%)	25	
14	Granny Smith (20%); Gala (20%); Honeycrisp (30%); McIntosh (30%)	20	
15	Granny Smith (30%); Gala (20%); Honeycrisp (30%); McIntosh (20%)	20	
16	Granny Smith (25%); Gala (25%); Honeycrisp (25%); McIntosh (25%)	25	
	Grappy Smith (20%): Gala (20%): Honoverisp (20%): Melatoch (20%)	20	

Once all percentages are extracted → The average can be extracted through a simple formula:

- =Average()
- Or ask ChatGPT 😳

3-Writing



- Information analyzed → Writing of the case study report
- Ask Claude AI to write a case study

PS: The AI bot assists well in generating compelling and accurate reports with ease. However, it is fundamental to know its limits (generic writing & mistakes) and to use one's own handwriting skills and judgement.

Greeting and Assistance \sim

R Hello

Hello! It's nice to meet you. How can I assist you today?

R I would like to write a 1-page case study about distribution of apples in Orchardistan. 30% of distributed apples are "Gala" variety with no pesticides used. Recipients of distributed apples were happy and are able to cultivate their fruits every season.

Here is a draft 1-page case study on the distribution of apples in Orchardistan:

Case Study: Apple Distribution in Orchardistan

Background

Orchardistan is a region known for its fertile lands and apple orchards. The apple industry is a critical part of the local economy, with many family orchards supplying apples domestically and for export. However, some smaller orchards have struggled with pests, lack of resources, and inability to consistently cultivate quality fruit.

The Apple Distribution Initiative

To support these smaller orchards and ensure food security, the regional government launched the Apple Distribution Initiative in 2022. The key goals were:

- 1. Provide disease-resistant, pesticide-free apple varieties to struggling orchards
- 2. Teach sustainable orchard management practices
- 3. Facilitate seed/sapling exchanges between orchards

The Initiative focused on distributing the popular "Gala" apple variety, which makes up 30% of the region's production. These Gala apples were certified as pesticide-free.

Implementation and Impact

In the first year, over 50,000 pesticide-free Gala apple saplings were distributed to 375

Implementation and Impa

In the first year, over 50,000 pesticide-free Gala apple saplings were distributed to 375 family orchards across 18 villages in Orchardistan. Extension agents provided hands-on training in organic pest management, pruning, and other cultivation best practices.

The impact has been extremely positive. Recipient orchards report higher than expected yields of quality apples in the first harvest season. Many cited the disease-resistant Gala trees and sustainable practices as key factors.

Farmer Kabir Saleem stated, "With these Gala trees and what I've learned, I can get consistent yields without spending on expensive pesticides. My family is food secure and we even had extra to sell at market."

Looking Ahead

⋇

Based on the first year's success, the Apple Distribution Initiative will be expanded. The focus for upcoming seasons is to facilitate widespread adoption of sustainable orchard management techniques across all of Orchardistan. Seed exchanges between regional varieties are also being organized to promote biodiversity.

With this initiative, Orchardistan is well on its way to a future of bountiful pesticide-free harvests that ensure food security and economic growth. The apple distribution model could also be replicated in other agriculture regions.

🖺 Copy 🖱 Retry 🖒 👳

Claude can make mistakes. Please double-check responses.

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Submission



- Final review of data and writing
- Submission to supervisor

PS: All pictures in the story were Al-generated



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Thank you! Questions?