

# USING ARTIFICIAL INTELLIGENCE FOR SOCIAL RESEARCH & EVALUATION: ARTIVAL'S EXPERIENCE

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# MAIN CONCEPTS/IDEAS



- 01 Introduction**  
How could the AI support the research/evaluation process: we ask the machine.
- 02 Limitations**  
Key considerations before using AI for research purposes
- 03 AI applications & tools**  
Use of AI in the different evaluation phases
- 04 Examples**  
Some real examples from our work.

# 1. THE MACHINE (Chat GPT) ANSWERS:

What can you **do to support the process of evaluating** an initiative in the development and humanitarian fields?

- 1.Data Collection and Analysis
- 2.Performance Metrics
- 3.Impact Assessment
- 4.Cost-Benefit Analysis
- 5.Data Visualization
- 6.Geospatial Analysis
- 7.Natural Language Processing (NLP)
- 8.Machine Learning
- 9.Dashboard Development
- 10.Surveys and Feedback Analysis
- 11.Stakeholder Engagement
- 12.Report Generation
- 13.Ethical Considerations
- 14.Security and Data Protection
- 15.Sustainability Analysis



What are your main **limitations** to supporting a research or evaluation process in the development and humanitarian fields?

- 1.**Bias in Data**
- 2.Data Quality Issues
- 3.**Lack of Context**
- 4.Overemphasis on Quantitative Data
- 5.Inflexibility
- 6.Ethical Concerns
- 7.**Over-Reliance on Automation**
- 8.Limited Data Sources
- 9.Complexity of Tools
- 10.Cost
- 11.Resistance to Change
- 12.Technical Failures
- 13.**Data Security Risks**
- 14.Interoperability Issues
- 15.Misinterpretation

## 2. OUR EXPERIENCE

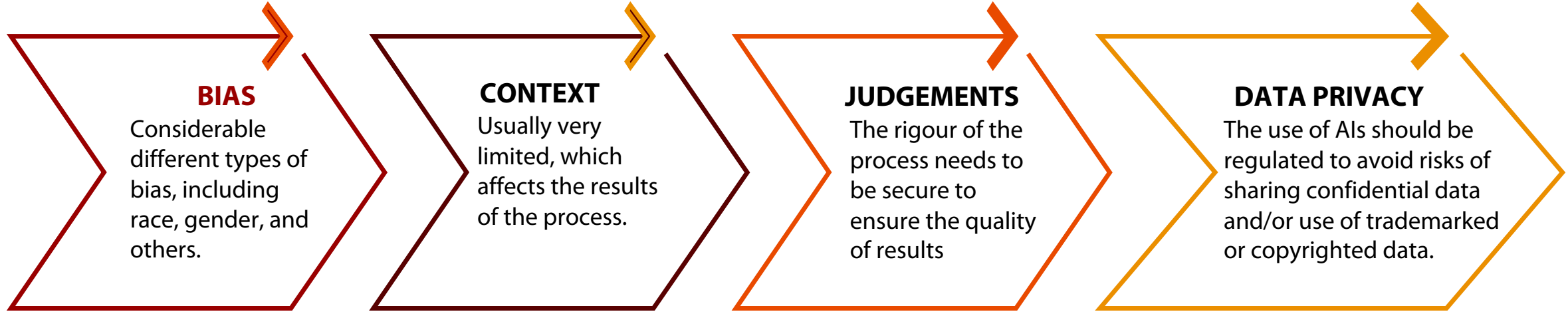


### CONSIDERATION 1

AI goes beyond automated doing by providing automated thinking. However, the researcher needs to add their own thinking, expertise and judgment for meaningful results.

### CONSIDERATION 3

We have not developed ad-hoc systems, we basically use commercial AI.



### CONSIDERATION 2

We have just started to scratch the surface and potential of AI in our workflow.

### CONSIDERATION 4

AI in research & evaluation is also incipient and pretty new. The “AI and evaluation” group recently created in LinkedIn.

# 3. AI APPLICATIONS AND TOOLS



WE HAVE ACHIEVED GOOD RESULTS USING AI FOR THE FOLLOWING PURPOSES

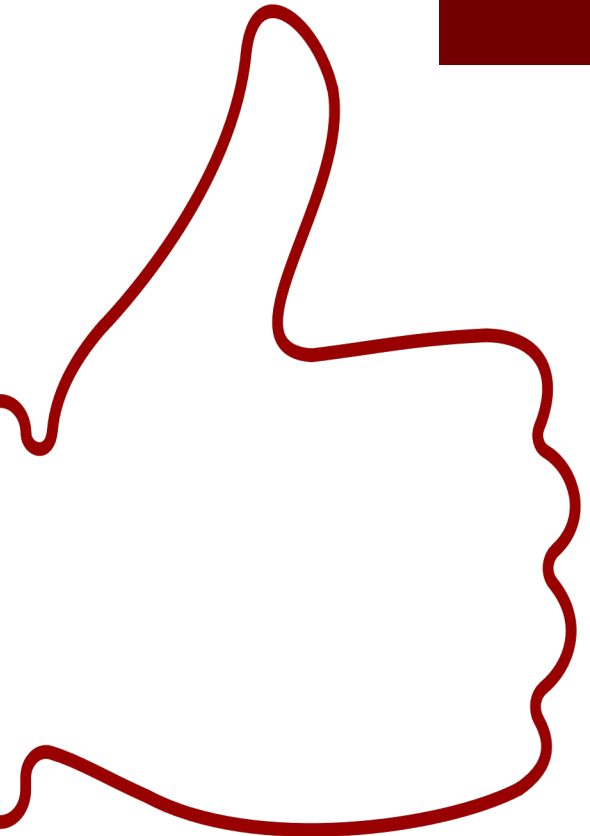
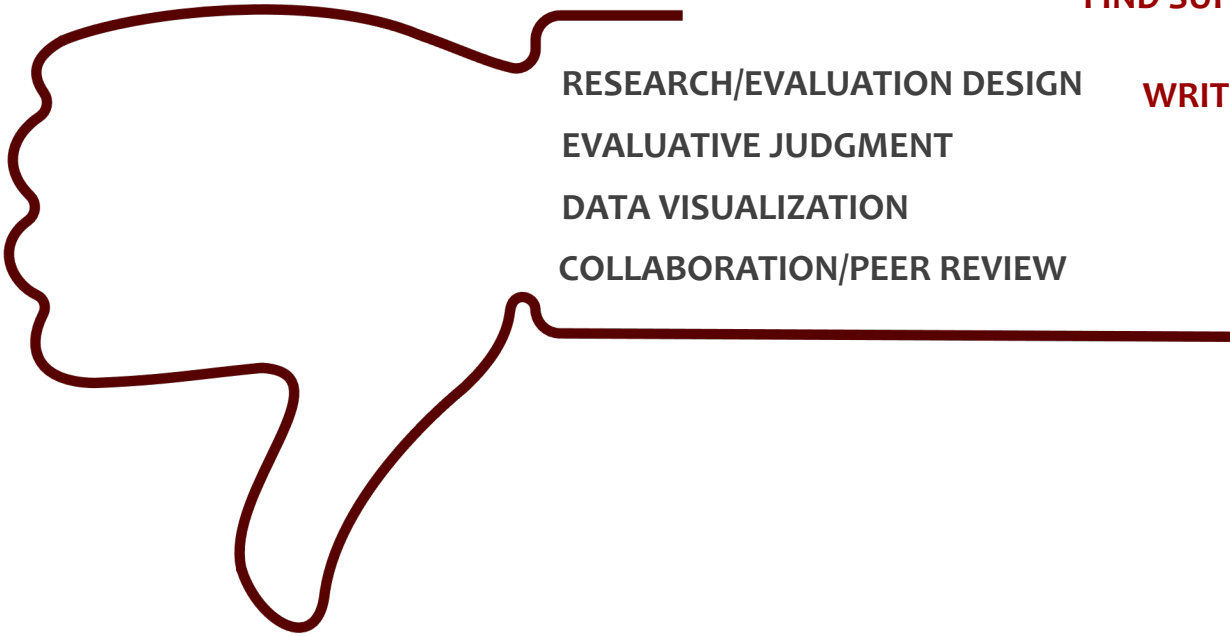


- DEVELOPMENT OF PERFORMANCE METRICS
- DATA COLLECTION (TRANSCRIPTION)
- VIEW THINGS FROM DIFFERENT PERSPECTIVES
- FIND SUPPORTING & COMPETING EVIDENCE
- SENTIMENT ANALYSIS
- WRITING ASSISTANCE & SUMMARIZING
- FORMULA ASSISTANCE
- IMAGE GENERATION

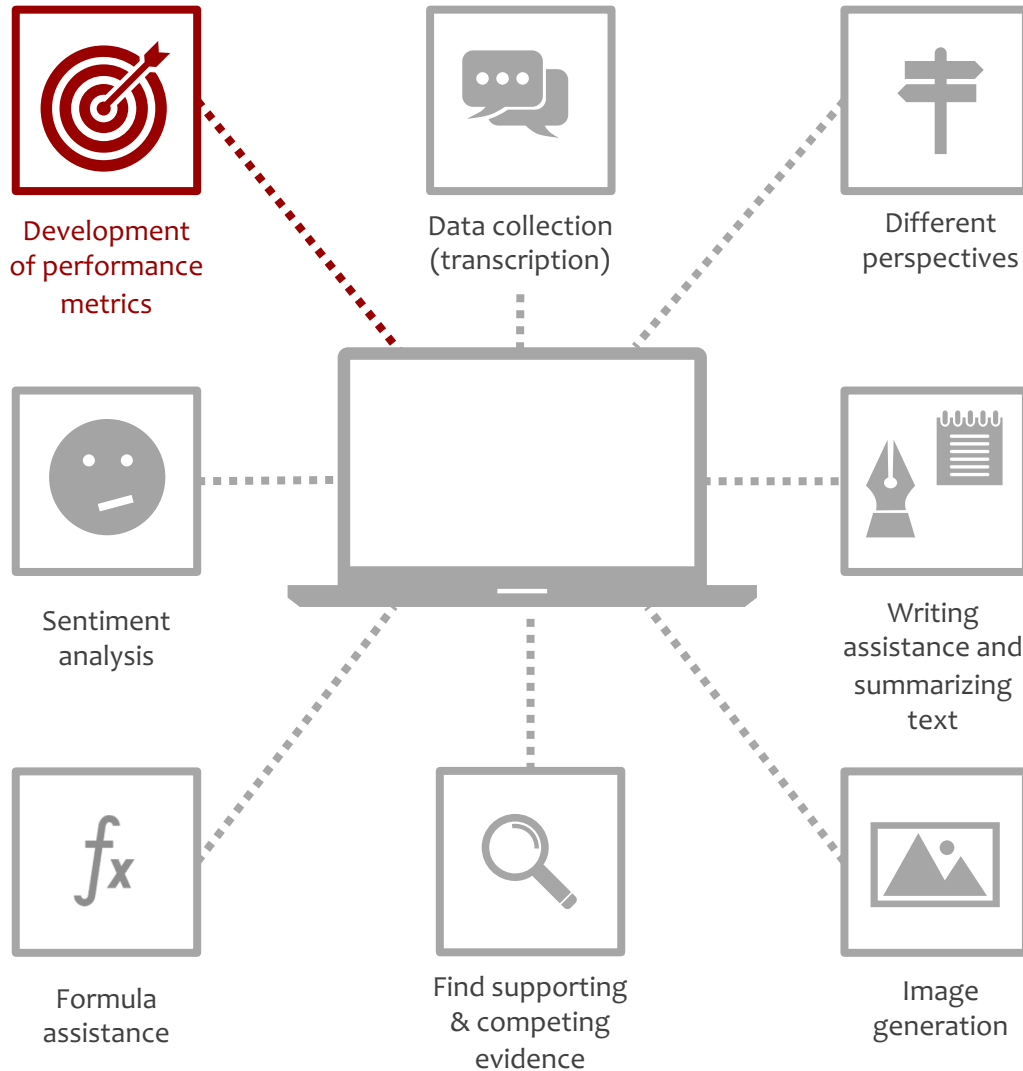
- RESEARCH/EVALUATION DESIGN
- EVALUATIVE JUDGMENT
- DATA VISUALIZATION
- COLLABORATION/PEER REVIEW



CONVERSELY, THE FOLLOWING TEST DID NOT YIELD SATISFACTORY RESULTS



# 3. AI APPLICATIONS AND TOOLS



## DEVELOPMENT OF PERFORMANCE METRICS

- Provide good initial ideas for designing indicators.
- Provide good ideas for rubrics and Likert scales.
- Even survey designs, including different types of potential questions

## TOOLS TESTED



ChatGPT

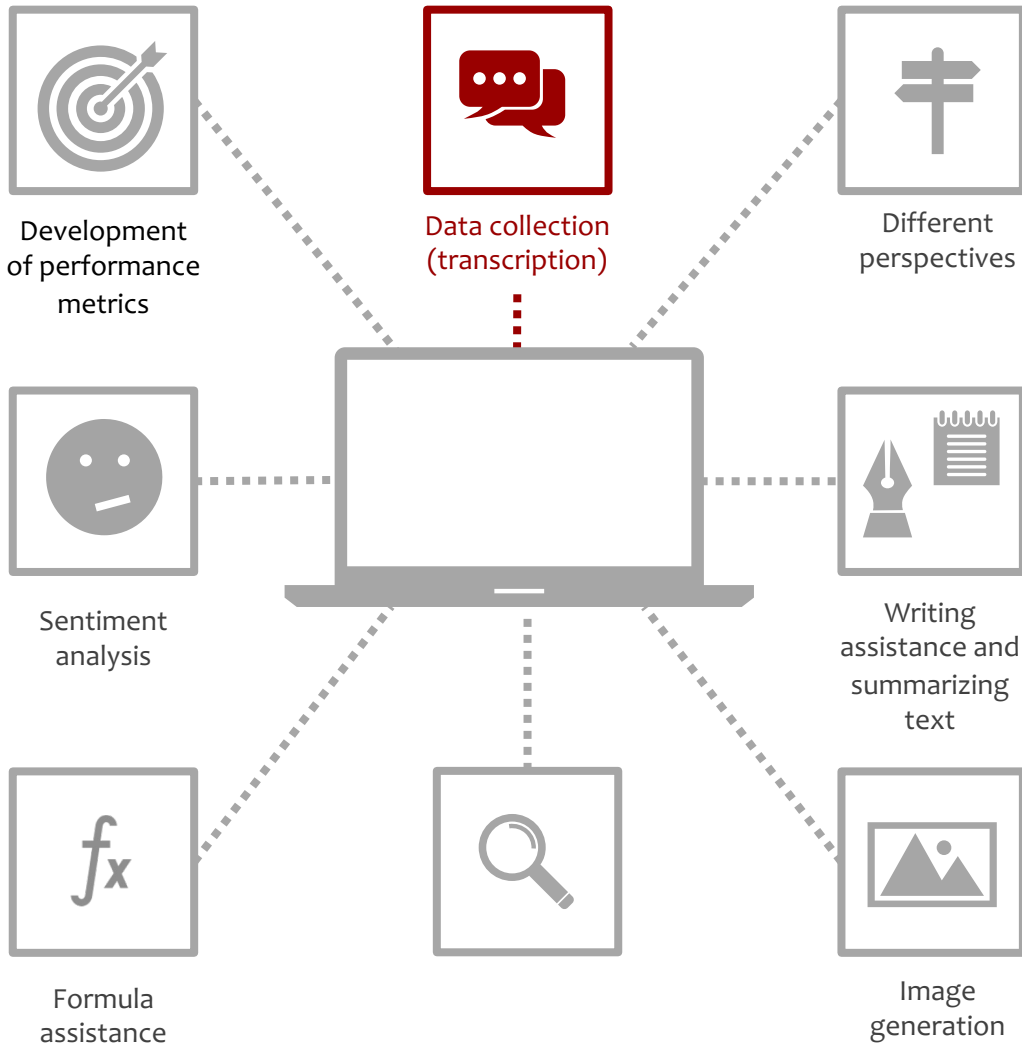


BING



Pollfish

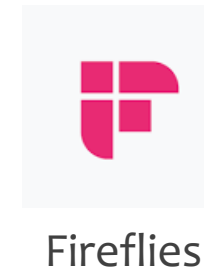
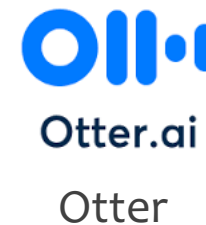
# 3. AI APPLICATIONS AND TOOLS



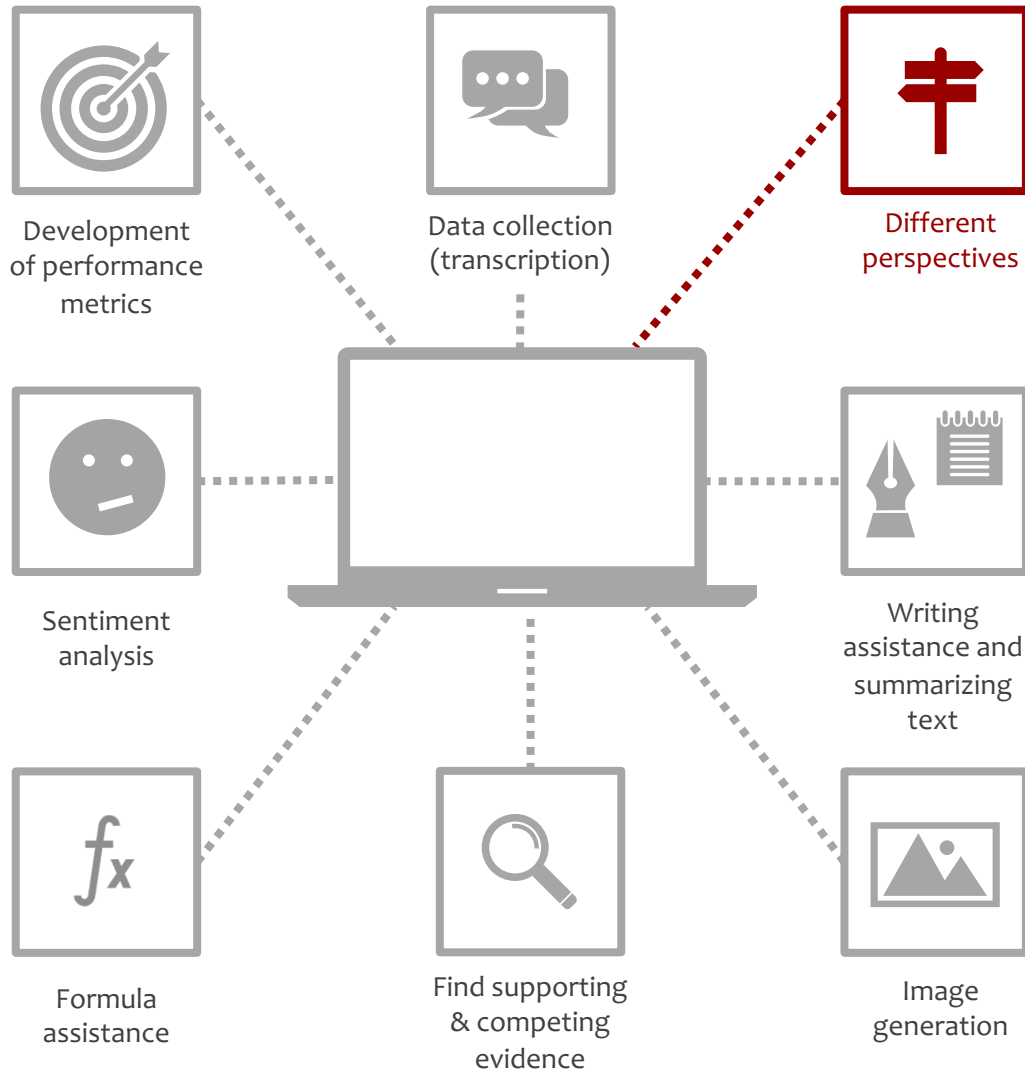
## AUDIO TRANSCRIPTION

- Live transcriptions are available in the most common apps for videoconferencing (Zoom, Teams, etc.)
- Other Apps offer better transcription services, including a preliminary analysis.
- Saves a lot of time and resources, although checks are always needed.

## TOOLS TESTED



# 3. AI APPLICATIONS AND TOOLS



## VIEW THINGS FROM DIFFERENT PERSPECTIVES

- Provide enriching opposing perspectives and ideas to consider for research and evaluation purposes.
- Start listing as many perspectives as possible in a particular topic (e.g., use of even/odd points in a Likert scale)
- Decide which are the most relevant ones to consider further and include.

## TOOLS TESTED



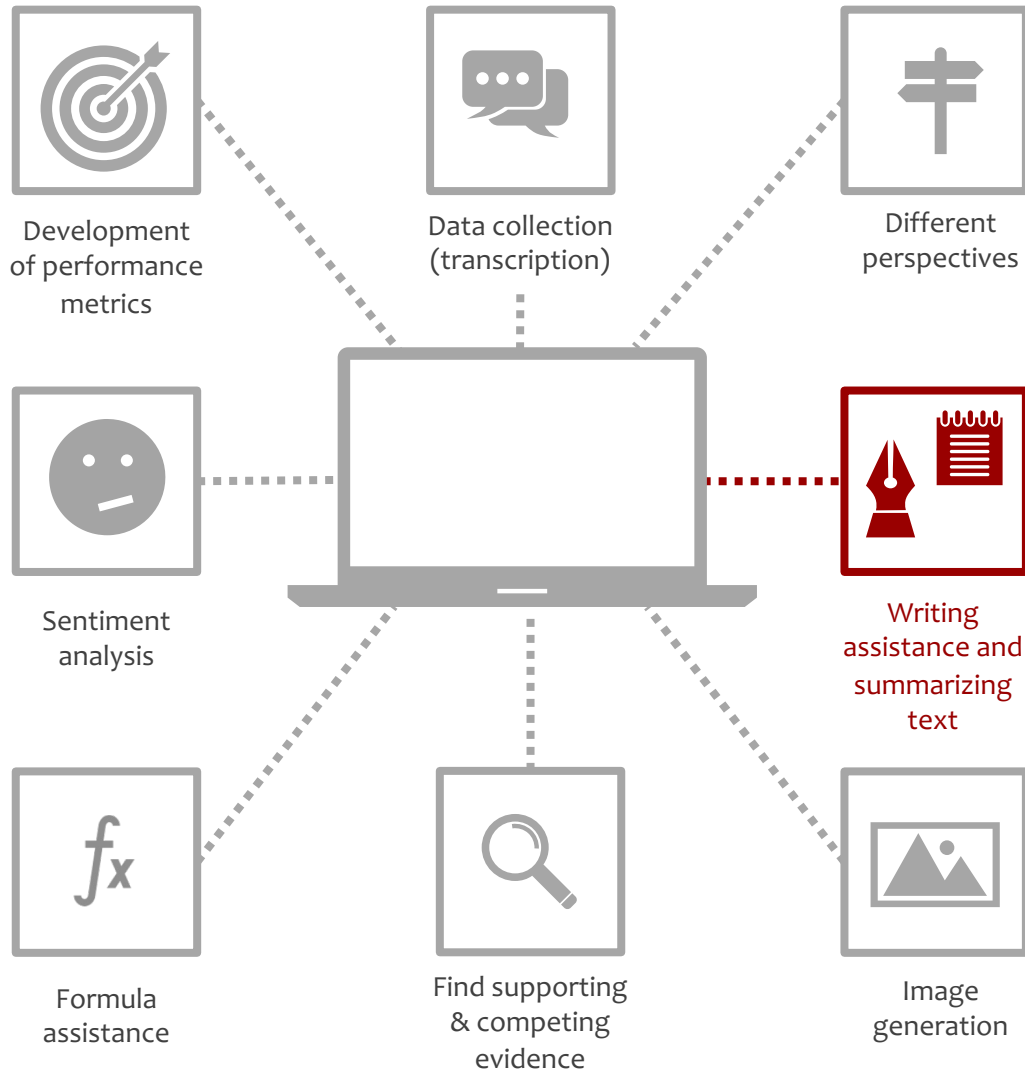
ChatGPT



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# 3. AI APPLICATIONS AND TOOLS



## WRITING ASSISTANCE & SUMMARIZING

- Improve the grammar with custom rewrite
- Formal rewrite (“engaging”, “simplify”)
- Summarize: shorten and simply sentences
- Expand rewrite
- Changes the person who is speaking.
- Identify key aspects of a given text.

## Translations

### TOOLS TESTED



ChatGPT

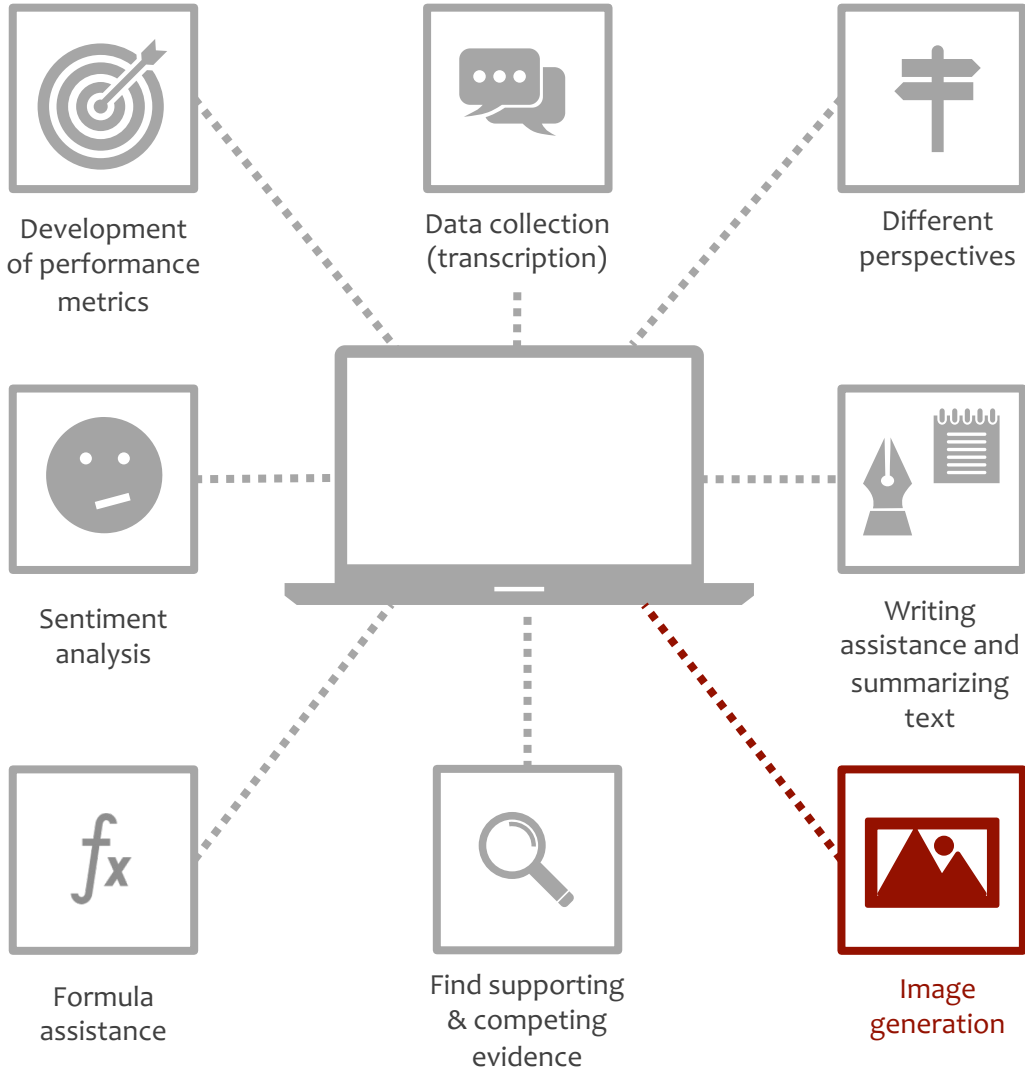


Hyperwriteai



Grammarly

# 3. AI APPLICATIONS AND TOOLS



## IMAGE GENERATION

- Images for report covers
- Images of concrete topics



“Unequal distribution of wealth between men and women”

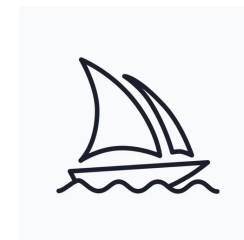
## TOOLS TESTED



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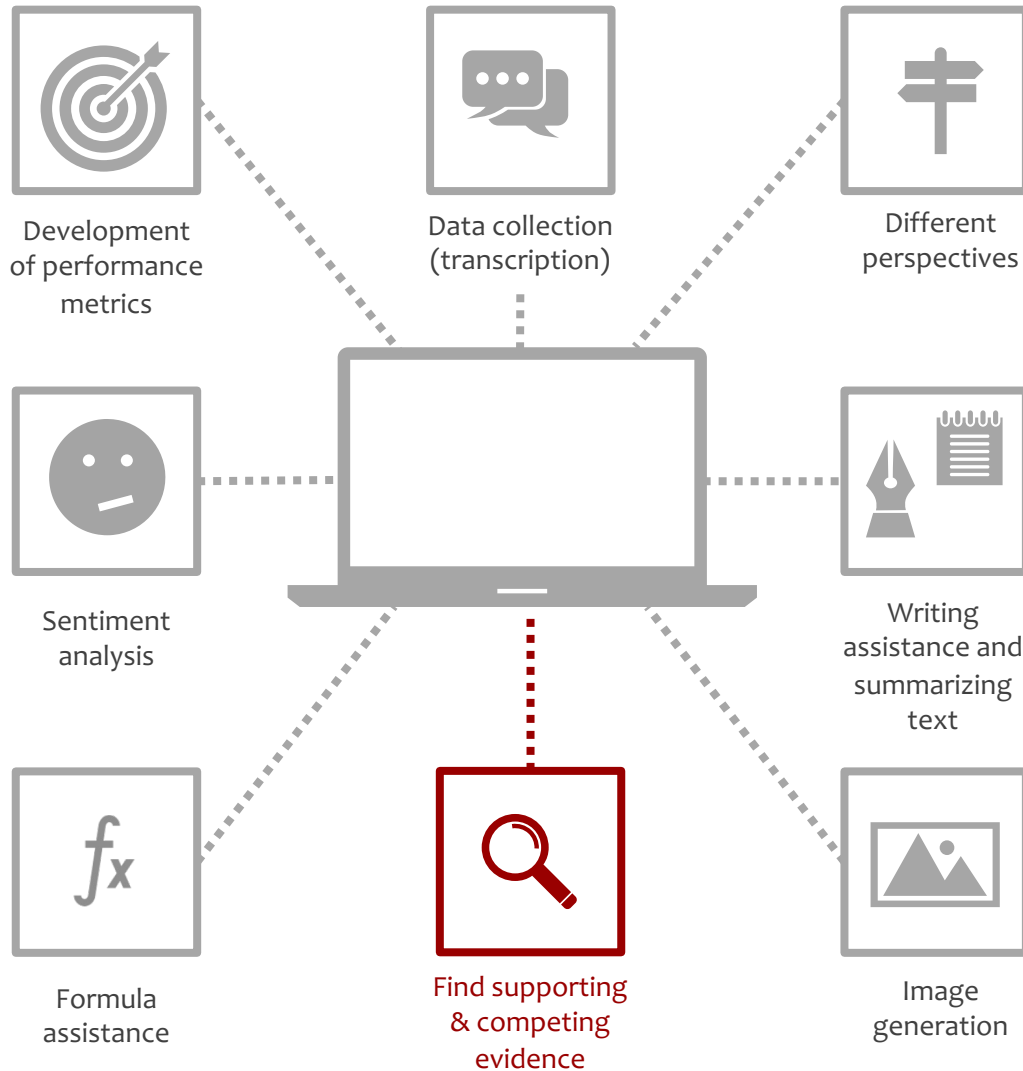


DALL-E



MIDJOURNEY

# 3. AI APPLICATIONS AND TOOLS



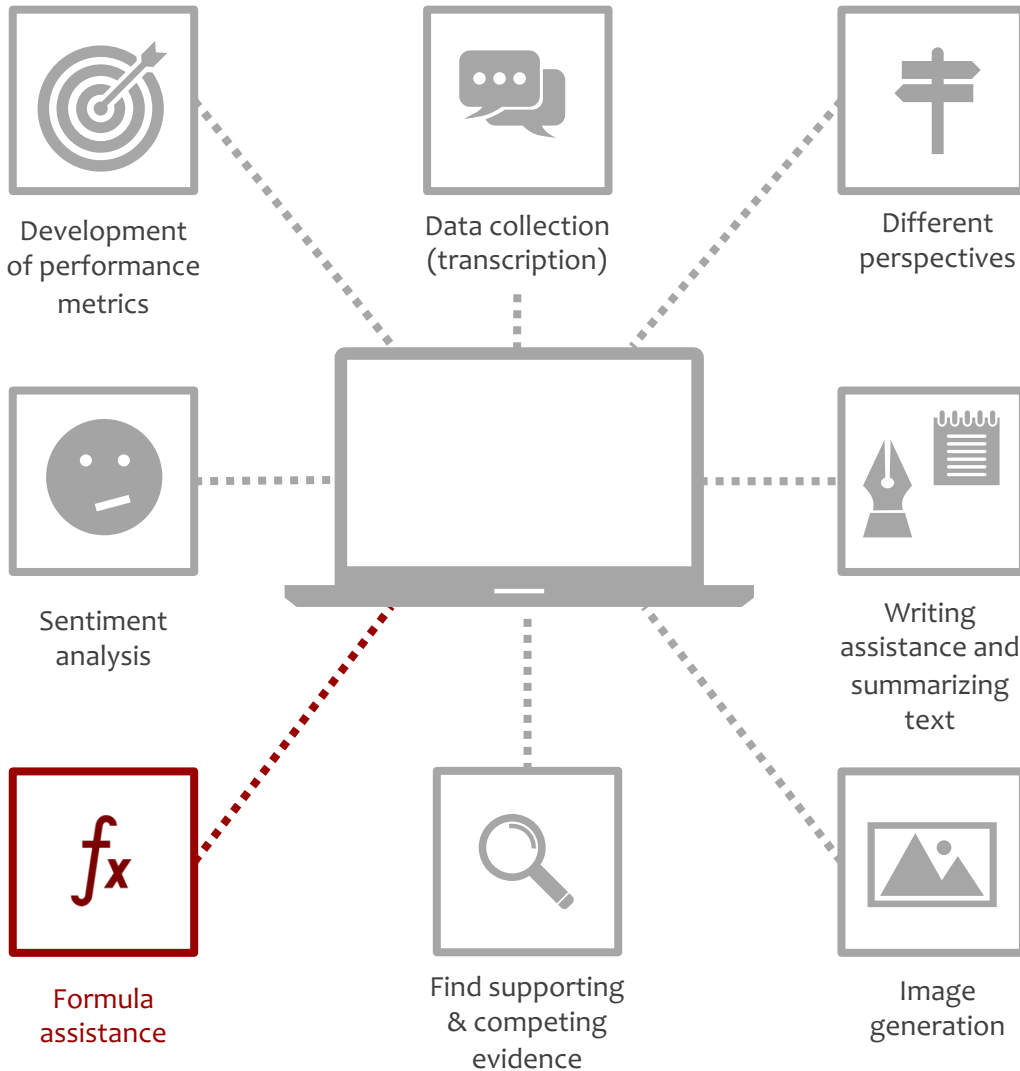
## FIND SUPPORTING EVIDENCE

- Provide supporting evidence and links to relevant scientific articles or documents
- Strengthens the process of referencing and finding relevant or competing evidence with solid grounds
- Find sources for claims made by other Ais

## TOOLS TESTED

**scite\_**  
scite

# 3. AI APPLICATIONS AND TOOLS



## FORMULA ASSISTANCE

- Formula generation (Excel and Tableau)
- Formula explanation
- Formula editor
- Specific tasks: combination, calculation, extract
- Presentation of results

## TOOLS TESTED

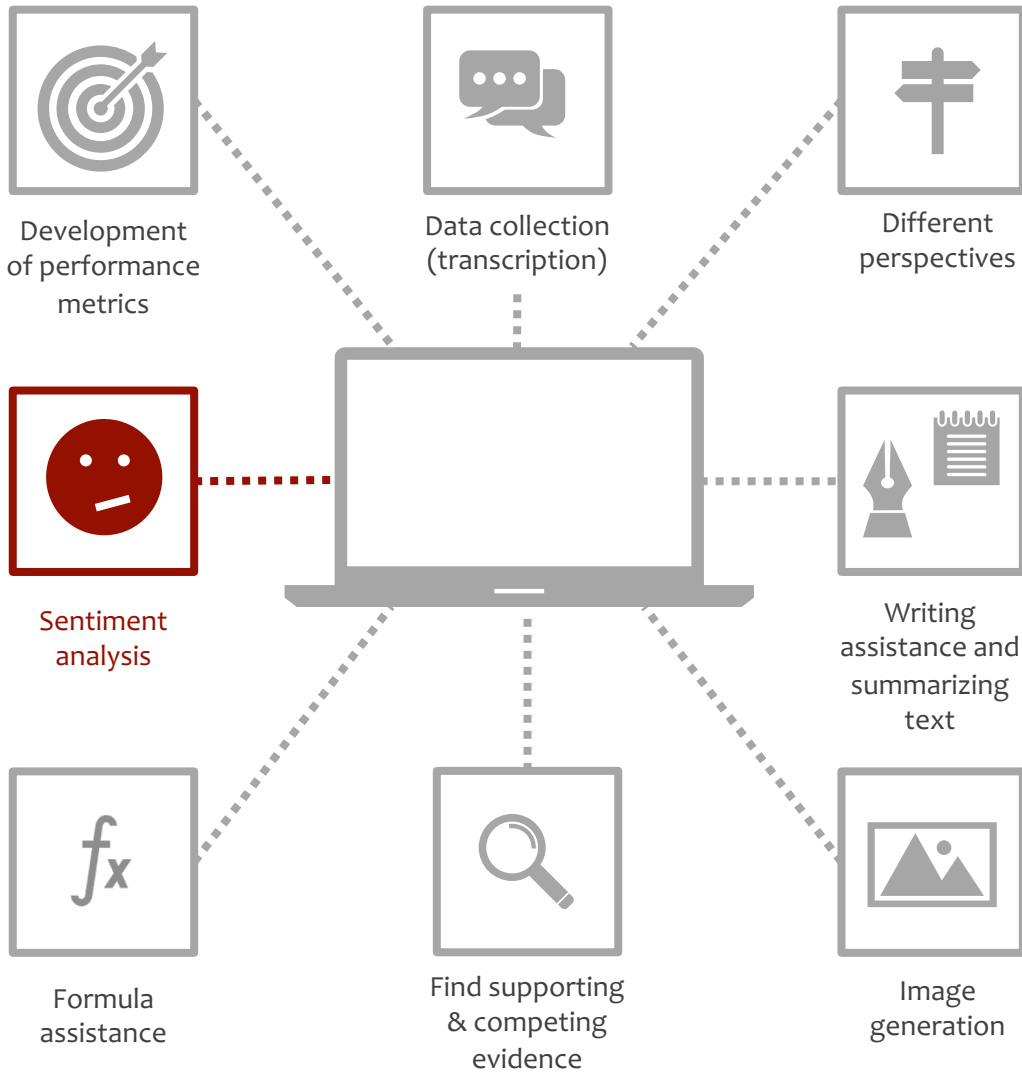


ChatGPT



Formularizer

# 3. AI APPLICATIONS AND TOOLS



## SENTIMENT ANALYSIS

- On qualitative databases (e.g. surveys):
  - Provide analysis of perceptions
  - Identify the most recurrent themes.
- Visualization of results

## TOOLS TESTED



ChatGPT

# EXAMPLES

## GIVING CONTEXT AND PROMPTING IN CHAT GPT

1. Set custom settings
2. Chat GPT Prompt formula
3. Refine:
  - Chat GPT' Self critique
  - Help to design the correct prompt
4. Examples:
  - Excel formulas
  - Facts and figures
  - Drafting emails
  - Plain text , Table, HTML format

# CHATGPT PROMPT FORMULA

Context

Task

Instruction

Clarify

Refine

You are an experienced social researcher with high levels of expertise. Your job is to provide the most relevant indicators and tools to monitor a training initiative conducted for governmental officials in migration governance. Be specific, and include both quantitative and qualitative measures.

Rewrite using more natural, expressive language and include some examples to accompany the information.

# EXAMPLES

## USING AI TO SUPPORT CODING/FORMULA DEVELOPMENT IN TABLEAU

- Built a visual for qualitative analysis – outcome harvesting
- Development of a new chart – vertical parallel coordinates
- Very helpful in testing and analyzing potential solutions
- See the results at <https://artival.es/visualizing-outcome-harvesting/>

### SIGNIFICANT CHANGE - INDIVIDUAL LEVEL



#### LEVEL OF VALIDITY

- (All)
- Validated with one source
- Validated by two sources
- Validated by 3 or more so...

#### Sustainability (copies)

- (All)
- Limited contribution
- Moderate contribution
- Significant contribution
- Highly significant contri...

#### TYPE OF CHANGE

- (All)
- Output
- Outcome
- Impact

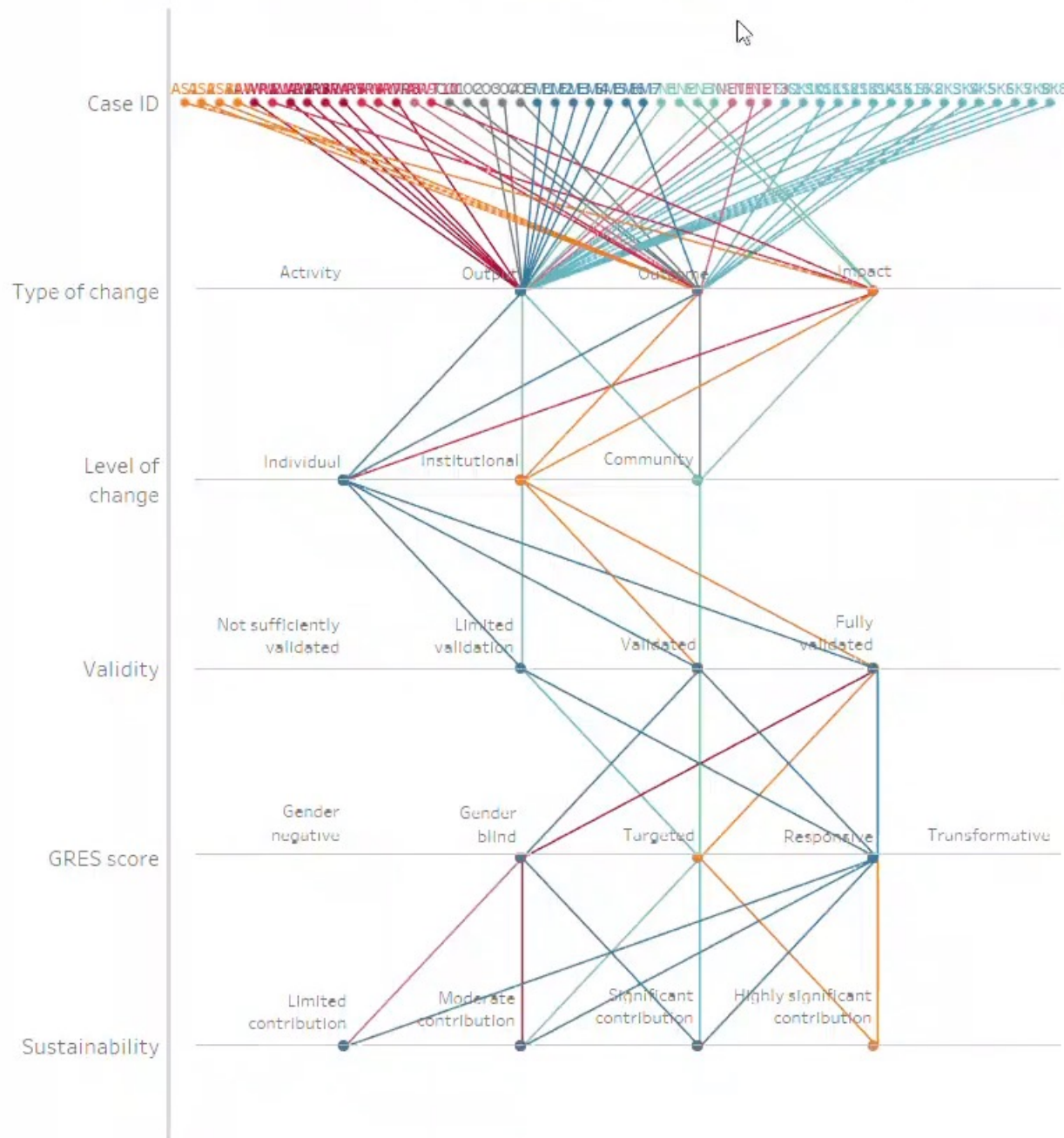
#### LEVEL OF CHANGE

- (All)
- Individual
- Institutional
- Community

#### CHANGE DESCRIPTION

Indicator	Activity	Output	Outcome	Impact	TOTAL
AWR6	Awareness Raising	Contributes to making irregular migration visible and the sustainability of results			Volunteers by their commu... TV and Radio
AWR7	Awareness Raising	Ability to convey messages based on the consequences of irregular migration			Ability to kno... the consequ... migration for
AWR11	Awareness Raising	Partnership with media stakeholders developed, which contributes to the sustainabil...			Radio station... to cooperate... long-term. Tv
CO2	Social cohesion	Generate more peaceful societies, social cohesion.			Develop the c... and the value... social commi...
EM6	Access to employment	It strengthens the professional career of volunteers while also building their capacity to raise...			Volunteers h... Several volun... participated
EN3	Engagement	Strengthening visibility and participation of volunteers in decision-making processes wit...			Opportunity... making proce... community
SK3	Skill/capacity development	Strengthen the capacities of volunteers to convey life experiences in migrants, so tha...			Oral expressi... produced by... of the individ...
SK11	Skill/capacity development	Ability to convey messages based on the consequences of irregular migration			Development... structuring a... concepts of v...
SK14	Skill/capacity development	Contributes to strengthening the capacities of volunteers			Psychosocial volunteers. L... who partici...
SK16	Skill/capacity development	Content creation is a potential sources of income for both individual volunteers and their...			Volunteers by... content creat... volunteers ar...

# RESULTS - MOST SIGNIFICANT CHANGE - INDIVIDUAL LEVEL



## LEVEL OF VALIDITY

- (All)
- Validated with one source
- Validated by two sources
- Validated by 3 or more so...

## Sustainability (copla)

- (All)
- Limited contribution
- Moderate contribution
- Significant contribution
- Highly significant contri...

## CATEGORY OF CHANGE

- Access to employ..
- Associationism
- Awareness Raising
- Engagement
- Networking/syne..

## TYPE OF CHANGE

- (All)
- Output
- Outcome
- Impact

## LEVEL OF CHANGE

- (All)
- Individual
- Institutional
- Community

## GRES SCORE

- (All)
- Blind
- Targeted
- Responsive

## CHANGE DESCRIPTION

TOTAL NUMBER 50

AS1	Associationism	Contribution towards ensuring	Volunteers interactions lead to buildi..
AS2	Associationism	Contribution towards ensuring	Be an inspiration for other countries t..
AS3	Associationism	Put knowledge and skills into p..	Acquire knowledge to create a local v..
AS4	Associationism	The associations are all at diffi..	Migrant associations created. Variou..
AWR1	Raising awaren..	To acquire the necessary skills i..	Ability to speak in public
AWR2	Raising awaren..	Ability to dialogue between coll..	Raising awareness by including other..
AWR3	Raising awaren..	Recognize the threats posed by..	Understand and better accept their o..
AWR4	Raising awaren..	Generate messages that bring..	The reinforcement of self-esteem fro..
AWR5	Raising awaren..	Put limits on irregular migratio..	Be assertive. Learn to say no, and set..
AWR6	Awareness Rai..	Contributes to making irregular..	Volunteers becoming champions in th..
AWR7	Awareness Rai..	Ability to convey messages bus..	Ability to know and understand butte..
AWR8	Raising awaren..	It contributes to sending messa..	The digital content that has been crea..
AWR9	Networking/sy..	It contributes to sending messa..	Collaboration with other entities with..
AWR10	Awareness Rai..	Partnership with media stakeh..	Radio station interested in continui..
AWT10	Awareness Rai..	Developing media skills and cap..	Media are able to report on migratio..
CO1	Social cohesion	Favors rooting in communities.	Strong social cohesion between volun..
CO2	Social cohesion	Generate more peaceful society.	Develop the capacity of volunteering..
CO3	Social cohesion	Accompany the families of retu..	Possibility of approaching families to..
CO4	Social cohesion	Learn to listen to others. Be aw..	Accompaniment to returned migrant..
CO5	Social cohesion	Generate belonging to the com..	Generate the idea of belonging to a ar..
EM1	Access to empl..	Commitment to start a local us..	Entrepreneurship
EM2	Access to empl..	Interact with different people a..	Get a job. Opportunity to meet and ap..
EM3	Access to empl..	Identify and develop personal a..	Create a business. The opportunity to..
EM4	Access to empl..	Contribute to identify personal..	Ability to look at oneself and recogniz..
EM5	Access to empl..	Give the opportunity to put int..	Make job opportunities visible. Visit d..
EM6	Access to empl..	It strengthens the professional..	Volunteers have been hired as actors..
EM7	Access to empl..	Improve personal productivity, ..	Improve working conditions in their c..
EN1	Engagement	Ability to develop ideas, and de..	Generates motivation in the voluntee..
EN2	Engagement	Ability to motivate people, gro..	Generates motivation in the local com..
EN3	Engagement	Strengthening visibility and par..	Opportunity to participate in decisio..
EN4	Engagement	Building the confidence and sel..	Recognition by the Volunteers of imbr..
NET1	Networking/sy..	It favors to increase the networ..	Discovering other cultures, favors kn..
NET2	Networking/sy..	Develop social skills and put int..	Being able to generate synergies with..
NET3	Networking/sy..	Ability to organize and plan bus..	Working as a team generates person..
SK1	Skill/capacity d..	Ability to transmit awareness..	Create and edit a video (images). Vide..
SK2	Skill/capacity d..	Organized way of working. Abili..	Learning to manage resources and de..
SK3	Skill/capacity d..	Strengthen the capacities of vo..	Oral expression. Generate a discoure..
SK4	Skill/capacity d..	Analyze and identify the most c..	Ability to analyze the activities to be..
SK5	Skill/capacity d..	Generate clear messages.	Generate structured messages. Oppo..
SK6	Skill/capacity d..	Development of personal skills.	Autonomy. Capacity to make decisions
SK7	Skill/capacity d..	Stop hesitating to develop acti..	Break their shyness. Act naturally to..
SK8	Skill/capacity d..	Know the social, cultural, politi..	Have more knowledge related to irreg..
SK10	Skill/capacity d..	Recognize skills acquired to con..	Transform the knowledge acquired in..
SK11	Skill/capacity d..	Ability to carry out the social res..	To get involved in a Master's degree..
SK12	Skill/capacity d..	Development of cognitive abilities, st..	Development of cognitive abilities, st..
SK13	Skill/capacity d..	Development of social skills, su..	Visits to migrant families for advocac..
SK14	Skill/capacity d..	Contributes to strengthening t..	Visits to migrant families for the reso..
SK15	Skill/capacity d..	This is part of learning about de..	Psychosocial accompaniment of volun..
SK16	Skill/capacity d..	Content creation is a potential..	Capable of producing content that bre..



# EXAMPLES

## CREATING YOUR OWN AI DATABASE OR “SECOND BRAIN”

### QUIVR

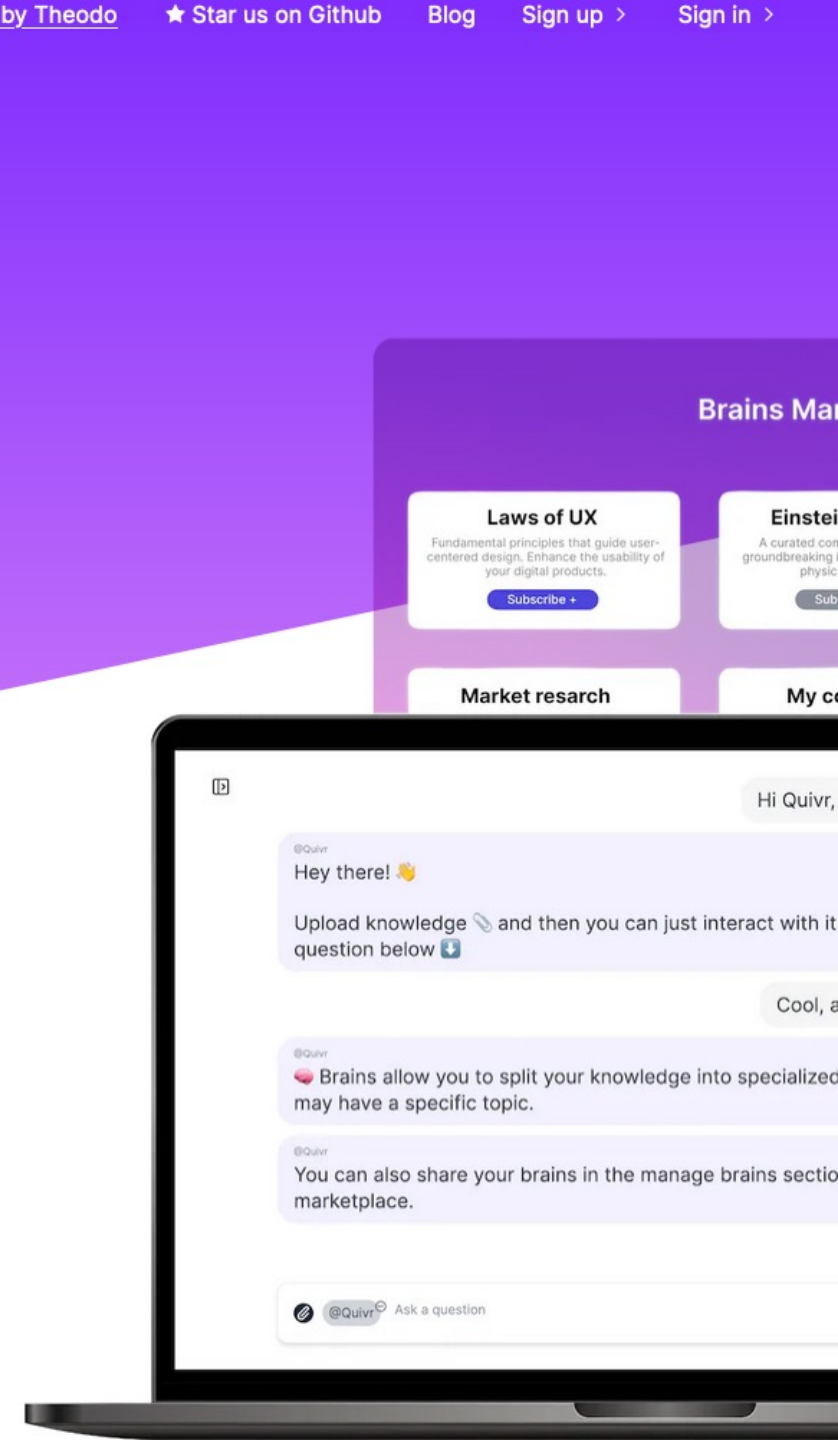
- Build your AI knowledge base over your data
- Surpass ChatGPT accuracy
- Very easy to set up
- Opensource
- Transparent on data storage and data security
- Own local instance available

# Get a Second Brain with Quivr

Upload all your files and start talking with them.

[Try free demo >](#)

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QUESTIONS?

