Philanthropy and NGOs (Analysis of Reports, Receipts, and Scanned Documents for Social Projects and Grants)

Scenario:
In the philanthropy and NGO sector, organizations manage large volumes of reports, receipts, and scanned documents related to social projects, grants, and donations. Efficient management of this documentation is crucial for transparency, accountability, and evaluating funded projects. A multimodal chatbot combined with a semantic extractor based on OCR + Computer Vision + LLM can automate the analysis of these documents, facilitating the extraction of relevant information and improving the efficiency of managing social projects and grant funds.

How the Integration Works in the Philanthropy and NGO Sector

1. Multimodal Interaction with the Chatbot:
   ○ Project managers, fund administrators, and auditors can interact with the multimodal chatbot through:
   ■ Text: Requesting information extraction from reports, receipts, or project-related documents for grants and donations.
   ■ Images: Uploading scanned images of financial documents, project reports, or receipts for automatic extraction of relevant information, such as amounts, dates, beneficiaries, and project details.
   ■ Audio: Making verbal inquiries about extracted content, such as financial details of a project or the results of an evaluation report.

2. Information Extraction from Reports, Receipts, and Scanned Documents:
   ○ OCR: The chatbot uses OCR to extract text from project reports, scanned receipts, and financial documents. This includes key information such as amounts received or spent, transaction dates, beneficiaries, and details of funded social projects.
   ○ Computer Vision: Analyzes images to identify and organize information in forms or tables found in reports and receipts, allowing financial or administrative data to be presented in a structured way.
   ○ LLM (Large Language Model): Once the text is extracted and analyzed, the LLM organizes the information contextually. This allows generating summaries of reports, analyzing fund usage, and verifying if expenses align with project goals or grant conditions.

3. Automating the Evaluation and Management of Social Projects and Grants:
   ○ Extracting Financial Information from Grant Documents: The system can automatically extract financial data from grant-related documents, including the total amount of funding, disbursements made, and reported expenses, facilitating the evaluation of fund usage.
   ○ Project Report Analysis: Progress and evaluation reports of social projects can be automatically analyzed, providing summaries highlighting achievements, challenges, and the project's impact on the community, as well as verifying whether funds were used as intended.
   ○ Processing Scanned Receipts: Receipts related to project expenses can be digitized and automatically analyzed, extracting information such as the supplier, the amount spent, and the transaction date, helping NGOs perform internal audits or report to donors.

4. Real-Time Response and Project Fund Management:
   ○ Text: The chatbot provides detailed responses on the information extracted from reports or receipts, answering questions like "How much was spent on educational materials?" or "What were the outcomes of this project's funding?"
   ○ Images: For scanned documents, the system can visually highlight key parts of a report or receipt, facilitating the verification of financial data or project progress.
   ○ Audio: Project managers or auditors can make verbal inquiries about the status of funds, such as "What funds are pending disbursement?" or "Is this receipt's expense consistent with the project's goals?", receiving real-time automatic responses.

Advantages of the Integration in the Philanthropy and NGO Sector
1. Automating Project and Grant Management:
   ○ NGOs and philanthropic organizations can automate the extraction of key data from reports and receipts related to projects, speeding up the financial tracking process and accountability to donors or sponsors.

2. Transparency and Accountability:
   ○ The system facilitates transparency by automatically extracting and organizing financial and project progress information, enabling organizations to report accurately and promptly, ensuring that funds are used appropriately and as planned.

3. Greater Accuracy in Project Evaluation:
   ○ By automating the analysis of project reports, the system ensures the accurate capture of results and social impact, allowing project managers to identify achievements, challenges, and areas for improvement more quickly and effectively.

4. Optimization of the Audit Process:
   ○ Financial documents and receipts can be digitized and organized automatically, facilitating internal and external audits of funded projects, reducing the risk of errors or fraud in fund management.

5. Reducing Human Errors in Financial Document Management:
   ○ By automating the extraction of information from financial documents and receipts, human errors in data entry are minimized, ensuring that financial reports are accurate and complete.

6. Scalability for Large Projects and International Institutions:
   ○ This system is highly scalable, allowing large NGOs or philanthropic institutions to process vast volumes of documents, reports, and receipts related to multiple projects and grants simultaneously.

7. Integration with Project and Grant Management Systems:
   ○ The extracted information can be directly integrated into project management systems or grant platforms, facilitating real-time tracking of progress and fund usage, and improving coordination between teams and funders.

Workflow Example of a Multimodal Chatbot for Philanthropy and NGOs

● Case 1: A project manager uploads a progress report for a social project.
  ○ Chatbot: "What information would you like to extract from the report?"
  ○ Project Manager: "Extract the main achievements and fund usage."
  ○ Chatbot Response: "The project has completed the construction of 3 water wells, benefiting 500 families. €10,000 was used for materials and €5,000 for labor."

● Case 2: An auditor uploads a scanned image of a receipt related to a project expense.
  ○ Chatbot: "What information would you like to extract from the receipt?"
  ○ Auditor: "Extract the supplier, amount, and date of the expense."
  ○ Chatbot Response: "Supplier: ABC Company. Amount: €1,500. Date: October 15, 2024. Description: Purchase of educational materials."

● Case 3: A funding officer makes a verbal inquiry about a grant received.
  ○ Chatbot: "What information would you like to know about the grant?"
  ○ Funding Officer: "How much money is still pending disbursement?"
  ○ Chatbot Response: "€20,000 remains pending disbursement, corresponding to the last quarter of 2024."

This integration of a multimodal chatbot with a semantic extractor based on OCR + Computer Vision + LLM in the philanthropy and NGO sector allows for the automation of managing and evaluating reports, receipts, and documents related to social projects and grants. It enhances transparency, accountability, and the efficient use of funds, while also optimizing the tracking and auditing process for projects.