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DEVELOPMENT of FACEBOOK-BASED VIRTUAL FAMILY PLANNING GUIDE FOR NOMADIC GENZ IN MONGOLIA
(Professional Service Contract)

TERMS OF REFERENCE

BACKGROUND

2030 Agenda for Sustainable Development and Programme of Action of the International Conference on Population and Development highlighted a need to improve health and wellbeing of the adolescent through the indicator on reducing adolescent birth rate (SDG 3 Ensure healthy lives, promote wellbeing at all ages and SDG 5 Achieve Gender Equality, and empower all women and girls).

Within Mongolia, there has been a rise in unmet need for family planning (FP), and the most recent data (MICS, 2018) confirms that the country is experiencing their highest level of Adolescent Birth Rate (ABR) within the last 20 years (42.6 per 1,000 live births). Due to the vast landmass of Mongolia, young people in the remote and rural areas often have to travel long distances to access health care, including counseling and quality family planning services. The lack of access to family planning services is particularly relevant to young people aged 15-24 years in rural areas, especially within nomadic families, which is linked with higher ABR and unmet need for FP.

To address those issues faced by the young people of Mongolia, UNFPA CO Mongolia has been implementing the project "Virtual FP guide for Nomadic GenZ in Mongolia" supported by a seed funding from UNFPA headquarters. The goal of the project to build an innovative Virtual FP guide based on Machine Learning technology for nomadic Gen Z in Mongolia to empower them to make their own decisions related to SRHR and family planning.

The proposed Virtual Family Planning guide will provide scientifically accurate information, emotional support, empower girls to make their own decision, enable access to confidential youth-friendly services, and free contraception to adolescent girls in remote areas to reduce Adolescent Birth Rate and unmet need for family planning. It makes reliable support available at their fingertips 24/7, accessible through Facebook (FB) messenger, which is the most commonly used social media platform in Mongolia. By utilizing the bot powered by AI, the project team is aiming to increase access to services and utilization and uptake of free FP services that are available at AFHCs.

With the above background, the UNFPA Mongolia is seeking a potential service provider with appropriate technological solutions to develop advanced level bot powered by AI in Mongolian language.

SCOPE OF WORK AND TENTATIVE TIMELINE

The main purpose of the consultancy is to develop a fully functional conversational bot as a FB–Messenger based virtual guide that can work as personalized guide with application of advanced natural language processing (NLP) in Mongolian language, live agent function and user segmentation. The specific objectives of the consultancy will focus on the following areas:
1. To build up to 90 % accuracy of intent recognition and synonyms with application of advanced NLP
2. Live conversation demo (speech to text)
3. Customer segmentation and chat analytics
4. The bot (platform) should be installed to the dedicated server at NCMCH.

KEY DELIVERABLES OF THE CONTRACT

1. The service provider will develop and handover a fully functional bot with Advanced Natural Language Processing (NLP) module ensuring the 90 % of accuracy response in Mongolian language to UNFPA. The bot would have functions such as:
   o Latin to Cyrillic convertor; misspell correction, synonyms, PoS (part of speech) tagger, named entity recognition tagger, conversation story, multiple intent/context recognition, and chit-chat, common/general meaning recognition, users' emotion, sentiment analyzer, and random and context-based answer;
   o Demonstration of the platform that voice to text recognition of the natural language processing.
2. The service provider will complete a customer segmentation and chat analytics on:
   o behavior-based segmentation, personalized recommendations and follow up with referrals to adolescent services through Google mapping;
   o unrecognized intents, age group and geographical and other possible segment;
   o referrals to and from live agents
3. The service provider will set up NCMCH server and bot should be fully operational on that server for further development with full features.
4. The service provider will submit the final report including all data collected under the service as well as technology development and functionality of chat bot with above features and users dashboard and hand over the admin panel page with full authorization access to UNFPA.

Payment schedule:
- 30% of the contract amount will be paid upon submission of deliverable 1 accepted by UNFPA by end of May 2020
- 30% of the contract amount will be paid upon submission of deliverable 2 accepted by UNFPA by end of July 2020
- 40% of the contract amount will be paid upon submission of the final report accepted by UNFPA by end of September 2020

Tentative Timeline:

April 1 2020	Call for proposal announced
April 14, 2020	Deadline for submission of proposals and supporting documents
April 20, 2020	Potential institutions will be selected, contracted and technical assistance commences.

REQUIREMENTS AND QUALIFICATIONS

The service provider should
- be a legal entity that has at least 2 years of experience in development of advanced level chat bots with artificial intelligence module;
- have proven evidence of successfully completed similar assignments;
- have sufficient financial and human resource capacity to complete the service timely and efficient manner.

DOCUMENTS TO SUBMIT TO UNFPA FOR SELECTION:

- Detailed information on their expertise for chatbot with utilization of advanced machine learning and NLP Mongolian language and live conversation (brochure, bot samples);
- Technical proposal for above consultancy, demonstrating the advanced NPL design, chatbot development, proposed methodologies for live conversations, and estimated timeframe;
- Organization's experiences and capacity (company introduction, reference letters, lists and copies of similar contracts and other available documents);
- Team members' CVs with highlighting the potential experience;
- Scanned copies of the state registration certificates of the organizations;
- All-inclusive financial proposal with detailed budget item description for the assignment;
- Price proposal for the maintenance and support services required for the chat bot for the next 3 years if any

CRITERIA FOR SELECTION OF THE BEST OFFER

Combined Scoring method will be used in the selection of a service provider, where the technical proposal (expertise, methodology, experience and qualification of key personal) will be weighted a max of 70%, and combined with the price offer which will be weighted a max of 30%.

Below is the breakdown of points of Technical proposal: 100 points that equal 70% of the total scoring:

- Expertise of the organization (NGO, company or academic institution) - 30 points;
- Proposed methodology and timeliness of the implementation plan - 30 points;
- Proposed team management structure and qualification of key personnel - 40 points;

ASSISTANCE TO APPLICANTS AND TRANSPARENCY

Please visit the UNFPA Mongolia website for more information
http://countryoffice.unfpa.org/mongolia/
Results of the selection will be announced on the United Nations Global Marketplace website
www.ungm.org.