

PROCUREMENT NOTICE

FOR THE ENGAGEMENT OF AN INDIVIDUAL CONTRACTOR SERVICES

Date: October 08, 2020

Procurement Notice Title:	Individual Contractor (IC) – Consultant on Social Network Analysis (SNA) and Big Data Analytics
Starting Date:	Upon Contract Signature Date
Duration:	(16) working days over a period of one (01) calendar month
Location:	Home-based assignment
Project:	Digital Lighthouse Initiative (DLI) – Monitoring Hate Speech
Requisition Number:	
National or International individuals:	International Individual
Is this a LTA (yes/no):	No

CONTEXT/BACKGROUND

Social and cultural diversity in the Arab region is facing increasing threats due to various internal and external factors, be it socio-political, economic, environmental or geopolitical. The erosion of state structures in some Arab countries and structurally weak institutions that lack the mandate to enforce inclusive citizenship are among the driving forces behind identitarian (or identity-based) polarization and propaganda, and this has contributed to the rise of hate speech in many Arab countries. At the same time, freedom of speech and expression has been witnessing a setback in recent years, despite resistance from citizens who are becoming more vocal in voicing their demands given the expansion of the informal public space made possible by advancement in information and communication technology (ICT).

In the Arab region, mobile-cellular subscriptions have increased by around 40% between 2010 and 2018 and estimated to have reached a penetration rate of 103% by the end of 2018. The percentage of individuals (% of total population) using the internet in the Arab region is also expected to have more than doubled by the end of 2018, levelling at 54.7% up from 24% in 2010.¹ Social media has also grown into a powerful tool of political and social interaction and opened the door for not only self-expression but also for collective expression of various groups. The total number of monthly active Twitter users in the Arab region is estimated to have reached 11.1 million in March 2017, up from 5.8 million in 2014, of which 29% are in Saudi Arabia and 18% in Egypt. Out of the 166 million internet users in 13 Arab countries, 66% (or 110 million) have opened Facebook accounts by December 2017.²

¹ <https://www.itu.int>

² <https://www.internetworldstats.com/stats5.htm> accessed in May 2019.

With the aim to capitalize on the potential of big data and AI technologies, the “Monitoring Hate Speech in the Arab Region” regional initiative is part of UNDP’s Digital Lighthouse Initiatives (DLI) and aims to explore the use of these under-utilized and promising technologies - without compromising impartiality, privacy rights, and methodological/conceptual soundness – to monitor and understand the rise of hate speech in a world that is being shaped by new developments in ICT and rapidly increasing mobile phone and internet penetration. Online platforms are viewed as having indirectly triggered the rise of violent content by offering a relatively inexpensive space to disseminate and build up a community of followers, and studies have argued that social media platforms tend to offer more visibility to negative. It has been argued that an open space of freedom of expression has indirectly led to the spread of hate speech and discriminatory language, especially against groups that are considered an easy target outside virtual space. In one way, the virtual space has mimicked the power relations that exist in the non-virtual world, giving power to specific groups to attach more marginalized groups, and this unbalanced power dynamics is being maintained by the de facto legal and institutional framework that does not treat all citizens equally in some Arab countries.

SCOPE OF WORK, RESPONSIBILITIES AND DESCRIPTION OF THE PROPOSED WORK

Under the supervision of the DLI Chief Technical Advisor, the “Monitoring Hate Speech in the Arab Region” regional initiative is looking to recruit a consultant on “social network analysis and big data analytics” to conduct a mapping/materialization and measuring of networks and flows based on pre-identified categories.

Duties and Responsibilities

- Familiarize herself/himself with the twitter database and output produced by the research team and conduct a first mapping/materialization of networks based on pre-identified categories;
- Provide temporal network analyses, especially around key dates/junctures, where dates/specific events are identified by the research team;
- Conduct network analyses associated with pre-identified key categories and subcategories of the project (e.g. networks where incitement violence/discrimination are high, specific emotions (e.g. anger), networks against specific target groups), and provide a temporal change map associated with these single layer variables, with specific focus around key dates/junctures.
- Provide a multi-layer social network analysis (SNA) where the identified maps are combined;
- Provide complex data analyses (multi-level multi variate) SNA of incitement; and
- Present findings in 3 meetings and/or webinars (total of 8 hours).

EXPECTED OUTPUTS AND DELIVERABLES

Expected Outputs and Deliverables	Expected No. of working days for each deliverable	Targeted Due Dates	Review and Approvals Required
<u>Deliverable 1:</u> Submitting a short methodology note (3 pages) on Social Networks Analysis within the framework of this project (to complement the project’s data methodology). This should be produced once the consultant has reviewed the outputs produced by the research team;	Up to (03) working days from contract signature date	Within (01) calendar week from contract signature date	Digital Lighthouse Initiative (DLI) Chief Technical Advisor – Farah CHOUCAIR (Ms.)

Deliverable 2: Conducting preliminary analysis and SNA mapping with the necessary visualization to depict interaction among networks;	Up to (05) working days following satisfactory completion of deliverable (1)	Within (01) calendar week from satisfactory completion of Deliverable (1)	Digital Lighthouse Initiative (DLI) Chief Technical Advisor – Farah CHOUCAIR (Ms.)
Deliverable 3: Submitting a final analytical note with the respective visualization of the conducted mapping and materialization.	Up to (08) working days following satisfactory completion of deliverable (2)	Within (02) calendar weeks from satisfactory completion of deliverable (2)	Digital Lighthouse Initiative (DLI) Chief Technical Advisor – Farah CHOUCAIR (Ms.)

INSTITUTIONAL ARRANGEMENT

- The individual is required to exhibit his or her full-time commitment with UNDP Regional Bureau for Arab States (RBAS);
- S/He shall perform tasks under the general guidance and the direct supervision of the Digital Lighthouse Initiative (DLI) Chief Technical Advisor;
- The supervision will include approvals/acceptance of the outputs and deliverables as identified in the previous section;
- The individual is expected to liaise and collaborate in the course of performing the work with other consultants, suppliers and UN colleagues;
- The individual is required to provide periodical progress reports on regular and needed basis throughout the assignment to monitor progress;
- The individual is required to maintain close communication with UNDP-RBAS on regular and needed basis at any period throughout the assignment in order to monitor progress. In the event of any delay, S/he will inform UNDP promptly so that decisions and remedial action may be taken accordingly;
- Should UNDP deem it necessary, it reserves the right to commission additional inputs, reviews or revisions, as needed to ensure the quality and relevance of the work.

DURATION OF THE WORK

The expected duration of the assignment is expected to be up to sixteen (16) working days over a period of one month from the contract signature date.

DUTY STATION

This is a home-based assignment.

TRAVEL PLAN (OPTIONAL)

If any unforeseen travel outside the individual home-based city is requested by UNDP and not required by the Terms of References (ToR), such travel shall be covered by UNDP in line with applicable rules and regulations and upon prior written agreement. In such cases, the individual shall receive living allowances not exceeding the United Nations (UN) Daily Subsistence Allowance (DSA) rate for such other location(s).

QUALIFICATIONS OF THE SUCCESSFUL INDIVIDUAL CONTRACTOR

I. Education:

- PhD in data Science, Mathematics, Social sciences or any discipline relevant to Social Network Analysis (SAN).

- II. Work experience:
 - At least (03) years of research experience in quantitative and qualitative data analysis, Big Data analytics and social network data;
 - Experience in SNA and NLP, scientific computing, network modelling and analyses
 - Proven experience conducting social network analysis (SNA) for big-data research projects;
 - Experience in SNA visualization and analyzing complex data from social monitoring systems; and
 - Familiarity with analytical techniques such as text mining, sentiment analysis, machine learning, predictive analysis, event detection, or modeling of complex systems desirable.
- III. Language Requirements:
 - Language proficiency in both written and oral English is required. Knowledge of any other UN language is an asset. Knowledge of Arabic is a plus.
- IV. Key Competencies:
 - a) *Corporate*
 - Demonstrates integrity and fairness, by modeling the UN/UNDP's values and ethical standards;
 - Promotes the vision, mission and strategic goals of UNDP;
 - Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.
 - b) *Functional*
 - Demonstrated ability to meet deadlines and work under pressure;
 - Ability to communicate insights, expertise and trends in a way that non-specialists can comprehend;
 - Good presentation skills in a workshop setting.
 - c) *Knowledge Management and Learning*
 - Ability to strongly promote and build knowledge products;
 - Seeks and applies knowledge, information and best practices from within and outside of UNDP;
 - d) *Judgment/Decision-Making*
 - Mature judgment and initiative.

SCOPE OF PRICE PROPOSAL AND SCHEDULE OF PAYMENTS

Interested candidates should provide lump sum fees for requested services with detailed breakdown. This amount must be "all-inclusive". Please note that the terms "all-inclusive" implies that all costs (professional fees, travel costs, living allowances, communications, consumables, etc.) that could possibly be incurred are already factored into the final amounts submitted in the proposal. Also, please note that the contract price will be Deliverables/Outputs based - not fixed - subject to change in the cost components.

The contractor will be paid an all-inclusive Deliverables/Outputs based lump sum amounts over the assignment period, subject to the submission of Certification of Payment (CoP) duly certified or an invoice and confirmation of satisfactory performance of achieved work (deliverables/outputs) in line with the schedule of payments table hereunder:

Expected Outputs and Deliverables	Expected No. of working days for each deliverable	Targeted Due Dates	Payment Terms/Schedule
<u>Deliverable 1:</u> Submitting a short methodology note on Social Networks Analysis within the framework of this project (to complement the project's data methodology). This should be produced once the consultant has reviewed the outputs produced by the research team;	Up to (03) working days from contract signature date	Within (01) calendar week from contract signature date	After satisfactory completion of deliverable(s) (01) and submission of duly certified Certification of Payment (CoP) up to 20% of total contract
<u>Deliverable 2:</u> Conducting preliminary analysis and SNA mapping with the necessary visualization to depict interaction among networks;	Up to (05) working days following satisfactory completion of deliverable (1)	Within (01) calendar week from satisfactory completion of Deliverable (1)	After satisfactory completion of deliverable(s) (02) and submission of duly certified Certification of Payment (CoP) up to 30% of total contract
<u>Deliverable 3:</u> Submitting a final analytical note (4 pages) with the respective visualization of the conducted mapping and materialization.	Up to (08) working days following satisfactory completion of deliverable (2)	Within (02) calendar weeks from satisfactory completion of deliverable (2)	After satisfactory completion of deliverable(s) (03) and submission of duly certified Certification of Payment (CoP) up to 50% of total contract

RECOMMENDED PRESENTATION OF OFFER

Interested individual consultants must submit the following documents/information to demonstrate their qualifications. Candidates that fail to submit the required information will not be considered.

- 1) Duly accomplished **Letter of Confirmation of Interest and Availability** using the template provided by UNDP;
- 2) **Personal CV or P11**, indicating all past experience from similar projects, as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references;
- 3) **Brief Description** of why you consider yourself as the most suitable candidate for this assignment;
- 4) **Technical Proposal consisting of** a at least a page long document detailing how the individual will approach the assignment, prioritizing activities to meet the deliverables as set above in the most efficient and effective manner);
- 5) **Financial Proposal** that indicates the all-inclusive Deliverables/Outputs based total contract price, supported by a breakdown of costs, as per template provided. The terms "all-inclusive" implies that all costs (professional fees, travel costs, living allowances, communications, consumables, etc.) that could possibly be incurred are already factored into the final amounts submitted in the proposal. If an Offeror is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the Offeror must

indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.

All necessary information including: Complete Procurement Notice, the Selection Criteria, and Annexes are found on the following link under Procurement <http://procurement-notice.undp.org/>

Interested individual consultants must submit the above-mentioned documents to demonstrate their qualifications **to Job advertisement website (https://jobs.undp.org/cj_view_jobs.cfm)** not later than **20 October 2020**. Candidates that fail to submit the required information on or before the set deadline will not be considered.

Please do not submit financial proposal in this stage. Financial proposal shall be requested from Candidates who are considered technically responsive

CRITERIA FOR SELECTION OF THE BEST OFFERS

This selection criteria will follow the Combined Scoring method – where the qualifications and methodology will be weighted a max. of 70%, and combined with the price offer which will be weighted a max of 30%; using the following evaluation criteria

Criteria	Weight	Max. Point
<i>Technical Competence</i>	70%	100
Criteria A: PhD in data Science, Mathematics, Social sciences or any discipline relevant to Social Network Analysis (SNA).		10
Criteria B: At least (03) years research experience in quantitative and qualitative data analysis, Big Data analytics and social network data;		15
Criteria C: Proven experience in SNA and NLP, scientific computing, network modelling and analyses;		10
Criteria D: Demonstrated experience in SNA visualization and analyzing data from complex social monitoring systems, as well as contributions to relevant publications that used SNA;		10
Criteria E: Proven track record conducting analytical techniques such as text mining, sentiment analysis, machine learning, predictive analysis, event detection, or modeling of complex systems;		20
Criteria F: Language proficiency in both written and oral English;		05
Criteria G: Technical Proposal.		30
<i>Financial (Lower Offer/Offer*100)</i>	30%	100
Total Score	Technical Score * 0.7 + Financial Score * 0.3	

Step I: Screening and desk review:

Individual consultants will be evaluated based on the following methodology.

Applications will be first screened and only candidates meeting the following minimum requirements will progress to the pool for shortlisting:

- **Criteria A:** PhD in data Science, Mathematics, Social sciences or any discipline relevant to Social Network Analysis (SNA);
- **Criteria B:** At least (03) years of progressive research experience in quantitative and qualitative data analysis, Big Data analytics and social network data; and
- **Criteria F:** Language proficiency in both written and oral English is required.

Step II : Technical Review

Shortlisted candidates will undergo a technical evaluation and a submission of a proposal to tackle the assignment.

Technical evaluation Criteria max 100 points (Weighted 70):

- **Criteria A:** PhD in data Science, Mathematics, Social sciences or any discipline relevant to Social Network Analysis (SNA) *(10 points)*.
- **Criteria B:** *At least (03) years* research experience in quantitative and qualitative data analysis, Big Data analytics and social network data *(15 points)*;
- **Criteria C:** Proven experience in SNA and NLP, scientific computing, network modelling and analyses *(10 points)*;
- **Criteria D:** Demonstrated experience in SNA visualization and analyzing data from complex social monitoring systems, as well as contributions to relevant publications that used SNA *(10 points)*;
- **Criteria E:** Proven track record conducting analytical techniques such as text mining, sentiment analysis, machine learning, predictive analysis, event detection, or modeling of complex systems *(20 points)*;
- **Criteria F:** Language proficiency in both written and oral English *(05 points)*;
- **Criteria G:** Technical Proposal *(30 points)*.

Financial Criteria - 30% of total evaluation

For those offers considered in the financial evaluation, the lowest price offer will receive 30 points. The other offers will receive points in relation to the lowest offer, based on the following formula: $(PI / P_n) * 30$ where P_n is the financial offer being evaluated and PI is the lowest financial offer received.

Step II: Final evaluation

The final evaluation will combine the scores of the desk review and the financial proposal with the following weights assigned to each:

Individual consultants will be evaluated based on the cumulative analysis methodology (weighted scoring method), where the award of the contract will be made to the individual consultant whose offer has been evaluated and determined as:

- Responsive/compliant/acceptable; and
- Having received the highest score out of a pre-determined set of technical and financial criteria specific to the solicitation.

Technical Criteria weight: [70%]

Financial Criteria weight: [30%]

Only Individual Consultants obtaining a minimum of 49 points (70%) on the Technical evaluation would be considered for the Financial Evaluation.