#Tech4Youth BootCamp
Grand Popo, 7-8 August 2019
1. **Background**

UNFPA is engaged in the development of mobile health solutions to promote sexual and reproductive health and rights especially toward adolescents and youth. Countries such as Benin, Burkina Faso, Ghana, Nigeria and Togo, for the past years have created in association with adolescents and Youth applications and platforms for Comprehensive Sexual Education (CSE) in French and English. These are official languages not spoken by the fringe of population who is illiterate, which reduces access to information, leaves some behind.

Through the ongoing #Tech4Youth initiative, countries share experiences; assess needs of young people and strategize on how technology can add value towards achieving UNFPA’s SP objectives, including Demographic Dividend (DD), assess successes and challenges in implementing mHealth initiatives and most of all, identify common key priorities and strategic objectives with use of technology to accelerate results of the adolescents and youth program, Benin, Burkina Faso, Ghana, Nigeria and Togo initiate this project.

The project approach is to:

- Ensure the technological **interoperability**, coordination and **scaling up** of CSE mlearning and eLearning between targeted countries
- Ensure availability of tools in at least 3 African languages (Hausa, Fulfulde, Fongbe) in our sub-region in UNFPA m-learning and e-learning for SRHR for the adolescents and youth (Ma Vie, Mon Choix”; “QG Jeunes” and “You Must know”)
- Build a strong mechanism of South-South Cooperation while establishing a **knowledge sharing platform**,
- Integrate the **m-Health impact tool** for monitoring and evaluation and metrics measurements to better frame m solutions.

Following the above points, targeted Country Offices have agreed to hold a deep dive boot camp with stakeholders that will be a Co creation space focusing on the interoperability settings.

2. **Objectives**

- Bring all stakeholders, including South-South cooperation, together understand, ideate and co-create a coordination mechanism using human centered design
- Discuss and contribute to the feasibility document on potentialities to integrate Artificial Intelligence into UNFPA’s SRHR technologies solutions,
- Have a first draft of an integration plan for our existing solutions that guides the upcoming Hackathon

3. **Participants**

The following stakeholders are expected to attend the Boot Camp:

- Country Office Resident Representative;
- Technical Analyst of UNFPA Innovation Secretariat (HQ);
- Chief of Innovation and Technology Solution Office (HQ)
- #Tech4Youth COs focal points;
4. Methodology of work
The boot camp will be conducted using plenary, presentations, discussion and Q&A. There will be group work that will line up the common platform prototype and South-South cooperation action plan.

5. Day 1: Plenary, presentations, comments and Q&A
The boot camp started officially on the 7th August by ranking on a continuum, for each participant, on the feeling about i) #Tech4Youth, ii) Artificial Intelligence and Natural Language Processing and iii) the relation with UNFPA mandate.
Inspirational and challenging was the first day with the presentation of the potential of AI by Hao Zhang from Dorabot Company, who eloquently displayed the potential of AI for UNFPA. Also and most importantly, participants deep-dived into each other initiatives, including the CSE Live Streaming project on China with knowledge exchange, honest and constructive feedback on how to improve and scale up for enhanced results but also lay foundation for discussion on interoperability.

6. Day 2:
The second day of the boot camp was characterized by three sessions; first one focused on different private sector partner on board to showcase their domain of work and expertise; secondly a session on the Natural Language Processing, especially on the Text To Speech process that will used as process for integration of languages in existing apps and the third one on the m-Health Starter Pack and tech initiatives at global level. The plenary gave place to three different groups that worked separately on 1) designing/proposing a prototype of solution for interoperability; 2) TTS languages at local and regional level and 3) partnership global and local partnerships can be leveraged for a more holistic results in #Tech4Youth including project on integration of languages in apps.

Generally speaking, the first thematic work came on the fact that the platform of interoperability will be a sort of Content Management System (CMS) with integration of NLP and AI, the second one agreed on languages to be considered a local level in the next phase of the project and le last one stresses on the importance of partnership, including with China and external entities, for more holistic impact of the initiative (Conf. annex 1 for details on findings)

The day and the camp ended on a high note intervention from Dr. Joannie Marlene Bewa, a UN Young Leader for the Sustainable Development Goals, drawing clear links of the #Tech4Youth Initiative to at least 10 of the SDGs including primarily those on gender equality, good health and well-being, innovation and reducing inequality. She emphasized the absolute importance of ensuring that
interventions to promote SRHR issues do not contravene on the achievement of any of the SDGs which are inherently linked. In committing to use her platform to push Tech4Youth to the frontline of innovations, Dr. Bewa encouraged the team to build partnerships, and remain passionate and motivated.

7. Recommendations and follow up

- In addition to the African local languages to be integrated in the apps via TTS process, French and English, with African accent, will be added;
- Build for interoperability of the digital tools for young people, a back end platform based on Content Management System with Chatbot, NLP and AI;
- The Hackathon to find digital solution for the interoperability, has no more reason to be conducted and must be abandoned due to the fact that digital solution has been found;
- Aligned digital back end platform connectivity to the national digital health strategy;
- Discussion with the Innovation team of ITU for a collaboration and with the Ministry of Digital Economy of #Tech4Youth countries to ensure that our initiative is connected and nurturing the national ecosystems for sustainability and efficiency purposes,
- Explore possibility of having experts on AI, NLP or TTS from China as technical partner to support on demand on different technological outcome and help improve them,
### Annex 1: Day 2 findings

- **TTS**

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<tr>
<th></th>
<th>Benin</th>
<th>Burkina Faso</th>
<th>Ghana</th>
<th>Nigeria</th>
<th>Togo</th>
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</thead>
<tbody>
<tr>
<td>Local language</td>
<td>Fonbgé</td>
<td>Mooré</td>
<td>Twi</td>
<td>Yoruba</td>
<td>Ewé</td>
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<td>Spoken</td>
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<td>Community Radio</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Population</td>
<td>11 millions</td>
<td>19 millions</td>
<td>30 millions</td>
<td>200 millions</td>
<td>10 millions</td>
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<td>Regional language</td>
<td>Fulfuldè, Yoruba</td>
<td>Dioula</td>
<td>Haussa</td>
<td>Yoruba</td>
<td>Mina</td>
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</tbody>
</table>
- **Partnership**

- Global Experience
- Social Expertise
- Clear measurable goal
- Non profit
- Seeds investments

- Interoperability
- Tech4Youth (SRHR)

- Cultural, religious topics
- Risk averse
- Procedures + bureaucracy
- Business model inter
- Business model global corporation
- Technical expertise
- Competition agencies
- Duplication inefficiency
- Leadership management
- Combination teams
- Picking the wrong partner

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**China**
- Corporate, national companies
- Youth

- Make more impact

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China, Epitech, Africa Design School, tech partners, Start-ups, State strategic partners (Govt, UNICEF, World Bank, ITU)

- Outsource
- Mapping
- Lmax corporate or + categorization
- MoU letter of intention
- Utilising expertise of China for each section
- Data + Data Analysis
- Fundings to Small
Interoperability framework proposal

- Pictures
- Audio
- Text
- Video
- Content multilingual

+ TAG content
(Age group, gender...)

- User profile
- Content delivery
- Content delivery structure
- IVR
- FAQ
- Clinic database (geolocalisation)
- User feedbacks

Phase 2
- TTS
- NLP
- Gamification (Quiz, puzzles...)
- Reward and badges
- Live streaming

Dashboard, Ownership, Governance, maintenance, M&E

Inputs

Process...

Output
## Annex: 2 Participants List

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of participants</th>
<th>First and last name</th>
<th>Organization</th>
<th>Fonction/Titre</th>
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<tbody>
<tr>
<td>Burkina Faso</td>
<td></td>
<td>Désiré OUEDRAPO</td>
<td>UNFPA</td>
<td>Communication</td>
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<tr>
<td>Chine</td>
<td>4</td>
<td>ZHENG Haoran</td>
<td>UNFPA</td>
<td>Project Officer on Youth Leadership</td>
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<tr>
<td></td>
<td></td>
<td>CHEUNG Yuen Ting</td>
<td>UNFPA</td>
<td>Innovation Fellow</td>
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<tr>
<td></td>
<td></td>
<td>ZHANG Hao</td>
<td>Dorabot</td>
<td>Co-Founder and CTO</td>
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<tr>
<td></td>
<td></td>
<td>ZHANG Xuemei</td>
<td>Dorabot</td>
<td>Branding Manager</td>
</tr>
<tr>
<td>Cote d'Ivoire</td>
<td>1</td>
<td>Uriel ELINGUI</td>
<td>VoxyGen</td>
<td>Expert NLP</td>
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<tr>
<td>Ghana</td>
<td>5</td>
<td>Emmanuel ADARE</td>
<td>UNFPA</td>
<td>ICT Manager</td>
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<tr>
<td></td>
<td></td>
<td>Derrick BOTCHAY</td>
<td>UNFPA</td>
<td>Yole</td>
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<td></td>
<td></td>
<td>Dorcas MANORTEY</td>
<td>UNFPA</td>
<td>Innovation fellow</td>
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<td></td>
<td></td>
<td>Abigail SHARPY</td>
<td>UNFPA</td>
<td>Yole</td>
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<td></td>
<td></td>
<td>Aurelien</td>
<td>UNFPA</td>
<td>AYSRH Programme Assistant</td>
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<tr>
<td>HQ</td>
<td>2</td>
<td>Gilles VIRGILI</td>
<td>UNFPA HQ</td>
<td>Innovation Technical Analyst</td>
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<tr>
<td></td>
<td></td>
<td>Nayanesh BHANDUTIA</td>
<td>UNFPA HQ</td>
<td>Chief ITSO</td>
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<tr>
<td>Nigeria</td>
<td>1</td>
<td>Fortune MGBANGSON</td>
<td>UNFPA</td>
<td>Programme Assistant for Youth Programming</td>
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<tr>
<td>Togo</td>
<td>1</td>
<td>Nestor KOLAMBIGUE</td>
<td>UNFPA</td>
<td>IT Manager</td>
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<tr>
<td>Benin</td>
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<td>Barbara LAURENCEAU</td>
<td>UNFPA</td>
<td>CO Representative</td>
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<td>Theodore SOUDE</td>
<td>UNFPA</td>
<td>Assistant Representative</td>
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<td>Wilfried ROUAMBA</td>
<td>UNFPA</td>
<td>Programme Analyst - Innovation focal point</td>
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<td></td>
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<td>Alban AMAMION</td>
<td>UNFPA</td>
<td>Lan and Knowledge sharing Associate</td>
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<td></td>
<td></td>
<td>Djawad RAMANOU</td>
<td>UNFPA</td>
<td>Innovation Fellow</td>
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<td>Nadine AZIFAN</td>
<td>UNFPA</td>
<td>Assistant Communication</td>
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<tr>
<td></td>
<td></td>
<td>Joannie Marlene BEWA</td>
<td>UNYE</td>
<td>United Nations Young Leader for the Sustainable Development Goals</td>
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<td></td>
<td></td>
<td>Sedjro MENSALH</td>
<td>UNFPA</td>
<td>International Consultant</td>
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<td></td>
<td></td>
<td>Christophe KINDJI</td>
<td>Google Custom Developer Group</td>
<td>GDG organizer</td>
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<td></td>
<td></td>
<td>Boris Dehoumon</td>
<td>Google Custom Developer Group</td>
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<td></td>
<td></td>
<td>Basile BARRINCIRO</td>
<td>Etrilabs</td>
<td>Developer</td>
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<td></td>
<td></td>
<td>Claire HAZOUHE</td>
<td>Africa Design School</td>
<td>Communication officer</td>
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<td></td>
<td></td>
<td>Emmanuel SOLOMO</td>
<td>Epitech</td>
<td>Directeur pédagogique d'Epitech</td>
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