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# NTeALan - AI/NLP/NLU Platforms For Sharing and Leveraging African Language Resources For Education In Africa

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**NEW TECHNOLOGIES FOR AFRICAIN LANGUAGES**

Language Teaching | Collaborative Dictionary | Scientific journal | TAL tools for African languages



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**THE NTEALAN PROJECT**

NTeALan (New Technologies for African Languages) is an Association that works for the implementation of intelligent technological tools for the promotion, development and teaching of African national languages.

**MAIN GOAL**

Digitize, safeguard and promote African national languages through digital tools and Artificial Intelligence to build a new generation of young Africans aware of the challenges of appropriating the languages and cultures of the continent.

**OUR STRATEGIES**

- ✓ Create a community of professionals specialized in sociolinguistic and technological issues (NLP / NLU / IA) for Africa
- ✓ Create a community of volunteer contributors around collaborative platforms for building common language resources
- ✓ Systematically equip all the African national languages by language family and encourage their use by young people
- ✓ Collaboratively use created resources to set up an autonomous language teaching platform
- ✓ Systematically equip all the African national languages according to language families and encourage their use by young people

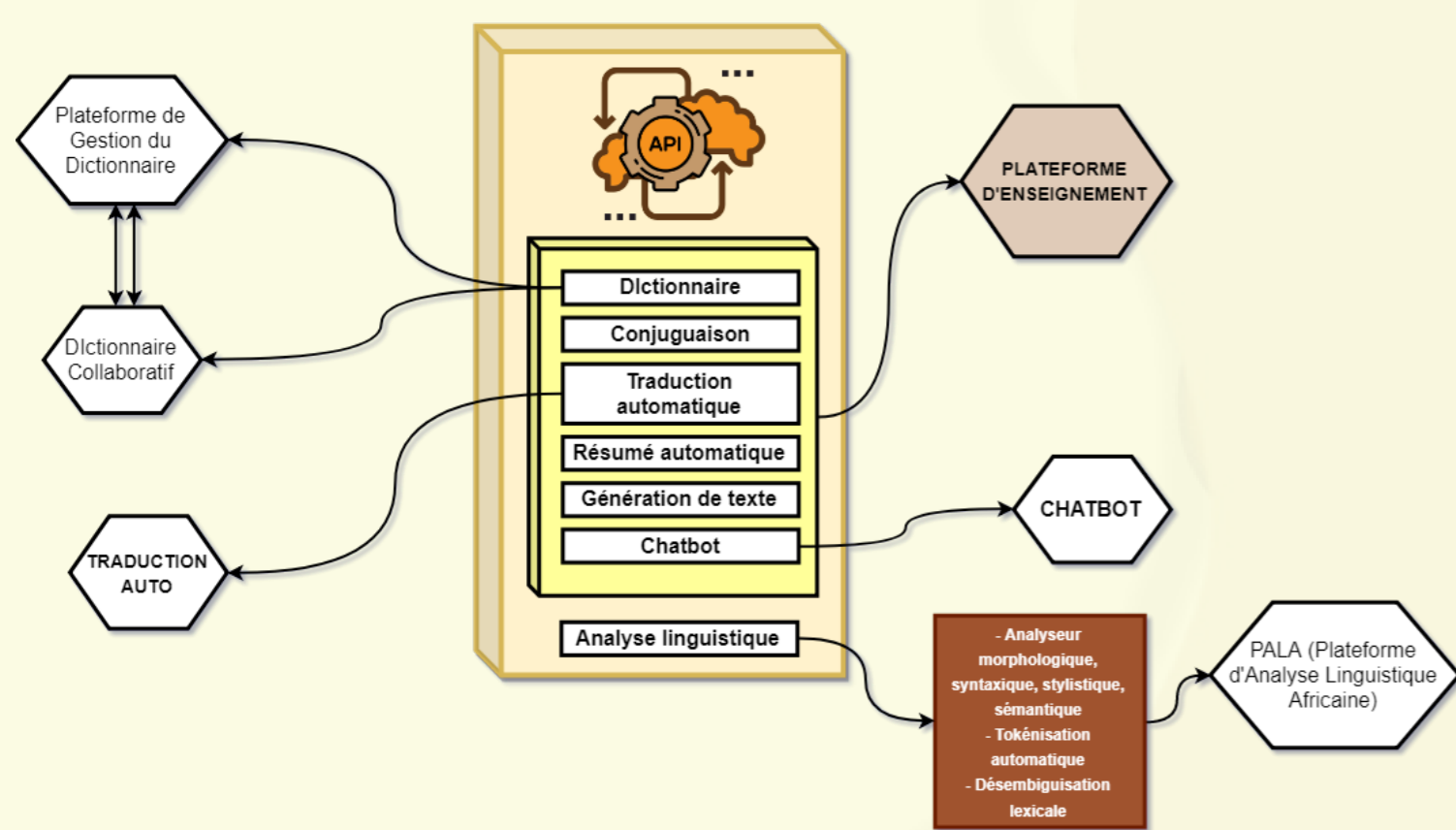
**PROBLEMS TO SOLVE**

- ✓ No African scientific community dedicated to technological issues related to the written and oral transmission of knowledge in African languages
- ✓ Few standardized African languages on a vast ensemble
- ✓ Few teaching and literacy tools in African languages on the internet
- ✓ NLP/NLU/IA researches are not yet enough developed on the continent for African languages

**THE MAIN'S NTEALAN PROJECTS**

- ✓ Automated learning management system based on virtual assistant
- ✓ The conversational agents platform [ NTeABot ],
- ✓ The collaborative dictionaries platform for African national languages [https://ntealan.net/dictionnaires],
- ✓ REST and Websocket APIs for sharing language resources [https://apis.ntealan.net],
- ✓ The platform for the management of lexical and terminological resources in African languages [https://ntealan.net/dictionaries-platform]
- ✓ The platform dictionary illustration [http://up-files.ntealan.org/koken],
- ✓ The tool for digitizing documents in African languages
- ✓ The dictionaries annotation platform (component of the scanning tool) [ http://dico-edit.ntealan.net ],
- ✓ Scientific research activities in Natural Language Processing (NLP) and Natural Language Understanding (NLU) for African languages,
- ✓ The management of the NTeALan center at Makepe (Douala) and many others internally.

**AFRICAN LANGUAGES RESSOURCES AND TOOLS**



Creation of APIs for NLP/NLU/IA applications of :

- ✓ Collaborative Dictionary
- ✓ Automatic Conjugation
- ✓ Automatic Translation
- ✓ Auto summary
- ✓ Text Generation
- ✓ Chatbot
- ✓ Opinion Mining
- ✓ Language Analysis

Realization of teaching platforms, Chatbot, Dictionaries, automatic translation, etc.

**NTEALAN IN FIGURES**



**OUR ACHIEVEMENTS**

**NTEABOT**  
NTeABot is a conversational agent development platform that comprehensively addresses all types of questions with an African linguistic and cultural particularity.

**ANNOTATION PLATFORM FOR DICTIONARIES**  
Platform for digitizing dictionaries and books in African languages.

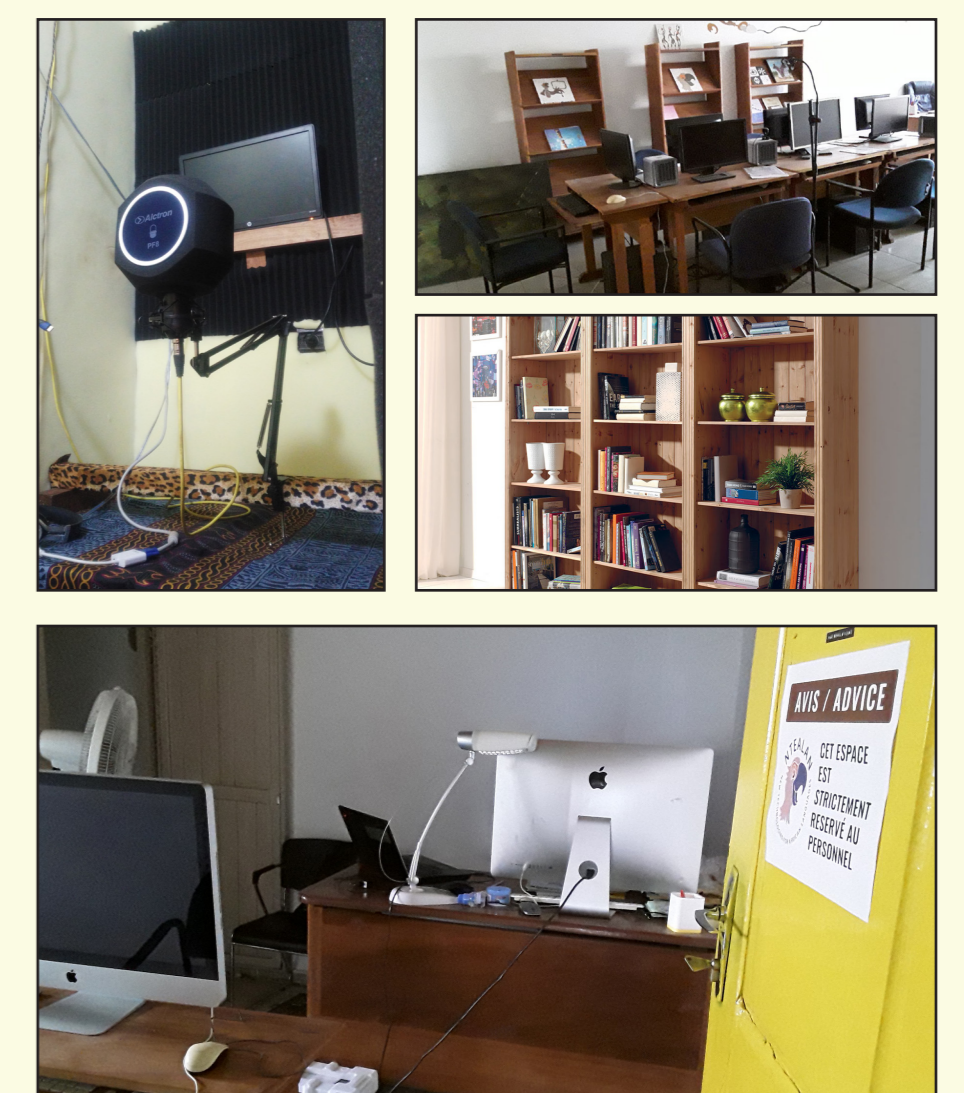
**CULTURAL ILLUSTRATIONS PLATFORM**  
This platform gathers all illustrations together, used in the collaborative dictionary and particularly the other NTeALan's platforms

**COLLABORATIVE DICTIONARY OF AFRICAN LANGUAGES**  
The Collaborative Dictionary of African Languages and Cultures is an open-source project that will enable African language development and helps actors to use digital and accessible linguistic and cultural resources

**THE APIS**  
✓ API for Lexical resource management  
✓ API's Conversational Agents  
✓ API creation for Language Teaching  
✓ API's for African languages processing

**LINGUISTIC MAP OF AFRICAN LANGUAGES**  
This interactive online map represents all the linguistic layers that can be found in Africa.

**RESEARCH AND DEVELOPMENT CENTER**



**NEXT PROJECTS**

- ✓ Autonomous platform for teaching languages and cultures
- ✓ Conversational Agent Assistant for Language Teaching
- ✓ Virtual cultural museum for the safeguarding of the African socio-cultural inheritance

**PARTENERS**



**INSTITUTIONAL SUPPORT**

- ✓ Ministry of Posts and Telecommunication of Cameroon
- ✓ Ministry of Culture of Cameroon
- ✓ Linguistic Department and African Languages of the University of Douala

**OUR TEAMS**

**Develop software** : Daniel BALEBA , Jean-Marc BASSAHAK , Elvis MBONING  
**Linguists** : Prof. Jules ASSOUMOU , Juanita FOPA , Merci Christian BONOG BILAP, Marcel TOMI BANOU  
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