

Harnessing the power of the Diaspora through Web 2.0. Technologies



White Paper

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Preface

It suffices to say that the news coming out of Africa, or about Africa isn't always comforting or flattering, from endless wars to chronic poverty, to diseases and rampant under-development, the list is long. Some have started talking about an "Afro-Pessimism". Yet Africa is blessed with an abundance of natural resources and the most important one being its young population. The time has come to view this natural resource as the pivotal driving force in lifting our countries out of poverty, and onto the path of sustained development.

However, Africa remains the continent the most affected by the "Brain Drain" of its most skilled professionals. Africa, as is the case for most other developing regions, has a big number of scientists, engineers, economists, doctors, ... who have studied, work, and own businesses in many developed countries, yet the impact of their professional expertise, research and experience, remains inadequate on the African continent.

There is a lot of research on the subject of the Brain Drain, especially on Africa, and how to reverse this trend. The numbers are staggering and "frightening". Many initiatives exist to try and reverse this trend and begin on the path of the "Brain Gain". However the impact of these initiatives remains marginal considering the needs on the African continent. Furthermore not every professional, who has built a life for himself/herself in their host countries, will find it an easy decision to return to his/her home country to contribute to the country's social and economic development.

While continuing to promote and encourage the return of African professionals living in the diaspora, how do we engage and leverage the contributions of those professionals who are not yet ready to permanently return. How do we get their knowledge, experience and networks to work for Africa?

The purpose of this concept paper and of the Web 2.0 platform 'Rebrain' is to find an innovative way to answer the question above, on how to harness the skills and experience of the professionals living outside of Africa.

Executive Summary

Rebrain aims to be a social networking platform that links participating institutions in home countries with potential “followers”, in the diaspora. These ‘followers’ are generally skilled professionals with interests in fields and activities similar to those of the “followed” institution. It is true that African countries have large diaspora groups living and working outside Africa. These groups have in large parts deep rooted relations with their home countries; this is further evidenced by the contributions made through remittances, which are valued in the billions of US Dollars.

However, as the saying goes, “give a man a fish and you feed him for a day, teach him to fish and he will never go hungry again”, though these contributions in terms of remittances do contribute to the socio-economic development of countries of origin, a lot more can be done and is expected from these groups with much more to contribute.

In addition to financial contributions, how can African countries leverage and harness the expertise and experience that these diaspora groups possess?

Today, many countries in Africa, especially those with the largest diaspora groups, have come up with various strategies to harness the resources of the diaspora.

These strategies include the utilization of Diasporas to facilitate cross-border trade, investment, and access to advanced technology and skills. This last point about access to advanced technology and skills is mainly true to countries like China and India, and less true to African countries, where evidence of this is limited.

According to a study conducted by the World Bank¹: the migration of highly educated or skilled people is critical, controversial and a difficult subject. It is critical because it involves the transfer of human capital, which is a key economic growth and poverty reduction. It is controversial because, in many cases, the transfer takes place from countries suffering from scarcity of such resources to

¹ <http://documents.worldbank.org/curated/en/721621468194077795/pdf/616360PUB0REPL0d0EPI009780821382578.pdf>

countries enjoying relative abundance. It is difficult to analyze because the general lack of data means that neither the causes nor the impacts of the phenomenon are well understood.

Although the causes of such migrations can vary tremendously, however one aspect remains a constant, and that is the emotional ties that each migrant still harbors towards his/her home country.

Despite these well-established emotional ties, it remains difficult for skilled migrants to leave the lives that they have created for themselves in the host countries in order to return home and contribute their skills and know-how to the development of their home countries.

With these few facts in mind, one needs to look for an in-between solution that does not always require the physical presence of these experts in their home countries in order for them to have an impact.

It is in this context that we have, for some time now, been thinking, and started working on a social networking platform, whose purpose is to tap into this pool of highly skilled professionals that live and work outside the African continent. Our initial idea is to pair individuals' skills and ideas with various institutions in countries of origin.

The main idea is to get local institutions to publish/post, where this is possible, projects that are being contemplated in order to attract foreign based skilled labor and/or constructive ideas and concepts on how to successfully implement such projects, without necessarily requiring the help of expatriates.

This pairing based on professional skills would help local institutions have a pool of CVs from which they could hire for specific positions that usually end up being filled by expatriates. For the professionals living outside Africa, this could help them keep track of areas of interest in their respective countries, and or regions, even though they might not be ready to go back and settle home, but still want to maintain links with their respective countries. They could, through Rebrain, positively contribute with implementation ideas on specific projects that match their area of expertise. In some other cases, Rebrain is a platform to share research ideas that could be viewed and where relevant taken up by local institutions for the improvement of Africa.

These contributions, after the successful pairings between individuals 'skills and publicized projects and/or concepts, could come in the form of one deciding to go back home and be hired full-time on those projects, commit to work part-time on some portion of the project (on holidays back home, for example), or share with the local institutions their experiences and know-how in dealing with similar projects in their current or past jobs.

1. Introduction

“The number of skilled people and professionals our continent has lost over the decades is truly frightening. Since 1990, Africa lost 20,000 academic professionals who left their countries [and] 10 percent of highly skilled information technology and finance professionals have also left the continent in recent years ... It is estimated that more African scientists and engineers live and work in the USA and the UK than anywhere else in the world”

Thabo Mbeki – Former South African president

1.1. Background

According to a 2013 United Nations report², one in nine Africans with a tertiary education – “2.9 million people live and work in developed countries; in Europe, North America and elsewhere”³. The consequence of such a big loss of skilled professionals becomes more apparent when, the Deputy Director-General of the International Organization for Migration (IOM) notes that overall Africa spends more than USD 4 billion a year in the recruitment and hiring of about 100,000 non-African expatriates to fill this void.

1.2. Reversing the Brain Drain – Tried solutions

Many varying successful initiatives have been put in place and tried out through out the years, in order to reverse Africa’s ‘Brain Drain’, and tap into the skills of African expatriates.

Some initiatives involve the physical relocation of expatriate Africans either to their home countries or elsewhere on the continent. But these programs require large sums of money and some expatriates may wish to be repatriated with their entire families. Repatriation does not always offer the expected results. “The IOM’s Reintegration of Qualified African Nationals Program, which ran from 1983 to 1999, only managed to relocate about 2,000 nationals to 11 participating countries.”⁴

Other initiatives rely on ‘Building Networks’ of professionals that try to make it easier for skilled workers, in specific areas of work, to provide specific services to people back home. For example there are networks of South African doctors living in Canada, which make it easier for these doctors to provide medical services.

² <http://www.oecd.org/els/mig/World-Migration-in-Figures.pdf>

³ <https://qz.com/599140/how-severe-is-africas-brain-drain>

⁴ <http://www.un.org/en/africarenewal/vol17no2/172brain.htm>

These types of initiatives referred to as “sequenced visits”, may include short stays, on a number of occasions, to service a particular need, for example, “a request for a specialist doctor in a remote part of Africa”. This doctor continues to live and work abroad, returning when needed to complement the work of teams in the African country.

This approach is among the most popular because it does not require participants to permanently relocate to their home countries.

1.3. Rebrain – An Online Communities of Practice

“A community of practice is a group of people who share a concern or a passion for something they do and interact regularly to learn to do it better.”

Dr. Etienne Wenger

Rebrain as a “Communities of Practice (CoPs)”⁵, is a gathering place of people with common interests, a place for people seeking and sharing experience and interests. Many of the African professionals living and working outside of Africa have strong ‘emotional ties’ with the continent of Africa, and are/would be willing participants in many of the existing initiatives to reverse the brain drain, we have embarked on creating a solution that would ‘complement’ some of the most preferred programs. Programs such as the IOM’s Migration for Development in Africa aim to leverage the skills and capabilities of diaspora based professionals by organizing “sequenced trips of short stays” to help and complement the local resources.

However these programs present some limitations, mainly their sustainability and impact over time. First, organizing such trips is undoubtedly expensive and can happen only a couple or a few times during the course of the year. Second, these trips have to rely on the availability of these professionals, who can afford this time only during their holidays/breaks from their professional jobs in the host countries.

The Rebrain platform aims to improve these solutions of pairing local needs to targeted professionals without being refrained by the two main limitations, which are the cost of organizing homebound trips and the availability of the professionals.

Rebrain is built on the basis of a ‘knowledge sharing’ social networking platform working with local government, private institutions, individuals and businesses,

⁵ <https://wenger-trayner.com/wp-content/uploads/2012/01/09-10-27-CoPs-and-systems-v2.01.pdf>

etc., to provide them with a platform where they can expose specific needs on their daily tasks, planned work, or technical issues requiring some expert troubleshooting. Each participating institution once registered on the Rebrain platform is viewable by a growing community of experts from around the world, who have also registered on the Rebrain platform as 'Expert' users and who have indicated their area of expertise and interest. From this provided information, the Rebrain platform makes pairing suggestions to these 'Experts' to 'follow' institutions in their home countries that meet their areas of expertise and interest. Once the 'Expert' follows a participating institution, he is able to receive notifications on his/her profile, whenever the paired institution creates an 'action', on the Rebrain platform, requiring expert advice. In this situation, the expert might need from a few minutes to months, on his/her personal computer, depending on the complexity of the problem; to help solve whatever issue the home institution would have reported. For the home-based institutions they can expect to be actively followed by countless enthusiastic professionals who possess the skills and experience that might be in short supply at home. For a home institution looking for an answer to a complex problem, they can expect a big, rich and diversified solution set. In some cases the institution will likely get, through hundreds of comments and messages, more than what was initially sought, because 'followers' will be from many different countries and continents, and with different thought processes, leading to different approaches on how to solve a specific problem.

1.4. Rebrain - Solution Principles

1.4.1. Rebrain a Knowledge Sharing Tool – Communities Of Practice (CoPs)

Rebrain offers a place where knowledge, expertise and experience are sought and shared by members. Rebrain as a CoPs offers access to information, strategies, templates, best practices and examples to support institutions in our home countries. The home-based institution once matched to a group of people that have shown similar interests, can initiate a 'query process' that will bring the initial question to the attention of the community of diaspora experts following the institution, or those experts possessing the required

knowledge and have indicated a willingness to share their knowledge and experience.

1.4.2. Rebrain as a Recommender System and Expertise Finder⁶

Rebrain is also an ‘expertise finder’ that finds expert users according to their expertise, experience and preferences, and then matching them with an institution’s area of work, needs and requirements. The logic behind Rebrain is to find professionals around the world with the appropriate expertise to answer a question submitted by a participating institution. An institution submitting a question will have the benefit that their problem will be solved collectively.

1.5. Rebrain - Main Challenges

The biggest challenge is how to attract government institutions as well as private institutions to publish those projects that are not security sensitive, in order for them to be viewed and scrutinized online by a pool of qualified individuals, and expect contributions from professionals around the world. If we cannot convince these institutions to actively participate in Rebrain, then the main purpose of the application would be lost. As is the case in Open Source projects, the key functionality is to be able to pair many individual contributors to a project.

The second related challenge is how local institutions in home countries will follow up on the professional advice received from experts. If this platform is appealing to the users, then the risk becomes on the amount of information that institutions are likely to receive, thus institutions might experience a sense of ‘information overload’. However, Rebrain mitigates this problem by a peer-reviewed rating system that promotes and demotes those answers, or contributions that are deemed irrelevant, or unhelpful to the initial questions

⁶ <http://da.xmachina.gr/Proceedings/KIGSS2013/files/papers/paper30.pdf>

2. The Rebrain Audience

2.1. Public and Private Institutions in Countries of Origin

Government or private institutions willing to publish all or part of their on-going projects, while seeking professional advice, or best practices, from experts around the world. It is now becoming clearer that most of the projects on the continent require a lot of feasibility studies conducted by paid experts that come from the developed world. In my opinion, opening up some of these projects to a wider public that is professionally knowledgeable would help alleviate the tremendous costs of hiring outside consultants to do feasibility studies or any other kind of study. I would compare such an approach to the Open Source community, where you have many engineers spend a little bit of their time contributing on a common project. In the end, these many small intellectual and professional contributions eventually lead to a product capable of competing with traditionally designed and implemented products.

2.2. African Professionals in the Diasporas

Rebrain allows free online registration for any professional wishing to submit their professional profile, and looking to be matched with local institutions in his/her home country, or matched with institutions in another country, as long as the match is made based on his/her professional interests and expertise.

As a platform for social networking, Rebrain provides all the functionalities of a social networking site. In addition to allowing users to follow participating institutions, Rebrain provides facilities to share expertise on particular projects, share research papers related to on-going projects, help troubleshoot and fix technical issues.

A rating point scheme allows peer-reviews to filter and to eliminate irrelevant contributions.



Rebrain might sound familiar to **LinkedIn**, but different for it is designed to target specific individuals and pair individuals to institutions from their respective country of origin.

Most studies and most testimonies point to a thirst from professionals in the diaspora, to be able to help even if in a very small manner to the development of their home countries.

A platform like Rebrain, even if one is not actively contributing, would give those living and working in the diaspora, a clear understanding of what is happening in their countries of origin in terms of economic and social development.

3. The Revenue Stream Model

3.1. Web Advertising

Rebrain is a 'knowledge sharing' social networking platform targeting an audience of mainly Africans and Africa's enthusiasts, but also anyone out there with some knowledge and know-how that they would want to share with others. The focus on professionals of African decent, or simply anyone interested in Africa and living outside of the continent of Africa, provides 'Niche Marketing' to advertisers to channel all marketing efforts towards one well-defined segment of the population. With millions of potential users and hundreds, maybe thousands of institutions on the African continent participating, we see a real opportunity for advertisers to showcase their products and services to very specific demographics.

3.2. Membership Fee on Institutions in Home Countries

Participating institutions in home countries register for the basic services on Rebrain and pay a yearly membership fee. Looking at the breadth of services that these institutions can expect to receive from professionals in their chosen fields, compound this with the millions of résumés that these institutions would have access to, we believe that a token membership cost would be commensurate to these expected services and content.

3.3. Special Premium Accounts for Institutions in Home Countries

3.3.1. Leveraging Rebrain as an advertising platform

Advertising on the Rebrain platform would be a sure way for local institutions to not only get expert advice from the diaspora, but it would also be a platform for these institutions/companies to promote their products and services.

3.4. Premium Membership Fee for Rebrain users

Rebrain will also offer a premium package to users wanting to take further their discussions with local institutions.

In such a scenario, the Rebrain team will offer a dedicated liaising service between the professional and the chosen institution. In some cases, the professional would have a product and/or service that they wish to directly propose/sell to local stakeholders. The Rebrain liaising services would take up the task of fully understanding the proposal and advise on the best course of action based on local context.

3.5. Rebrain as an Enterprise Version

Rebrain's enterprise version provides extended control of the platform to the paying institution in order to customize it to its own specific needs. This customization could include how to control the number of people following the institution, could also include how to control who follows and who sees the institution's plans, needs and proprietary processes.

4. The Execution Plan

In order to fast-track this concept WiredIn has embarked on the creation of a Proof of Concept (PoC) to showcase the merits of an alternative solution to the Brain Drain problem. The solution focuses on improving many of the already tried solutions that in most part require the physical presence of diaspora professionals in their countries of origin. Though these solutions have had some level of success, we thought they could be improved even more by making them more inclusive and less dependent on availability of funds and on professionals' off-work schedules.

After the PoC we intend to work on the implementation of a Pilot phase that would feature a few local institutions, in Rwanda, willing to partake in this phase. This pilot would also seek participation from a small number of professionals in the diaspora, or locally based. The purpose of this pilot would be to provide us with feedback on what we would need to do to improve the whole application before opening it up for everyone.

4.1. The Proof of Concept (PoC)

- **September 2017.** Completion of the PoC showcasing this solution from the perspective of local institutions and diaspora professionals.
- Developed two web applications:
 - o Home Institutions – Beneficiaries/Consumers:
<http://rebrain.backend.wiredin.rw/>
 - o Professionals – Contributors/Collaborators:
<http://rebrain.frontend.wiredin.rw/>

4.2. The Pilot

- **June 2018.** Creation of a fully functional prototype on a live platform, ready for use by select participant institutions in Rwanda and by a limited number of professionals in the diaspora and in Rwanda.

4.3. Rebrain Live

- **January 2019.** Official launch of the live platform. Available in all African countries with participating institutions.
- Deployed under the domain name: <http://www.rebrain.africa>