



CODERS 4 AFRICA (888) 418-1146 554 N Frederick Avenue Suite 216, Gaithersburg, MD 20877 USA

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2012 YEAR OVERVIEW

Coders4Africa (hereafter C4A) wrapped up another successful year. One of our goals for 2012 was to become recognized as the premier organization that provides African IT professionals a gateway to free high quality training and certification via the main technologies and platforms that currently dominate the software development industry. This was accomplished by adhering to the following principles:

"Capacity Building, Empowerment, Sustainability and Self-Sufficiency"

In 2012 C4A evolved from a project mindset entity into an implementation geared organization. This strategy allowed us to achieve the goals and objectives set out in 2012.

Some of the remarkable achievements in 2012 where the creation of coders4africaradio.com which allowed the African developer community to engage in knowledge transfer and reach a wider audience in regards to the apps/projects they were working on. This tool also allowed C4A to communicate its goals, visions and strategy to its Pan-African ecosystem at wide. We launched our signature *Practical Project Based Training* (PPBT) in Senegal where we provided 20 developers with free training in the standards and best practices of Software engineering and soft business skills. These developers were teamed with clients in Agriculture, Business, Health Care, Government and general Social needs, with the end result being to create 5 products for these 5 distinctive clients.

In addition, the C4A online community saw an increased number of registered members and groups; hosted and attended several events in the Africa, US, Canada and Europe which led to increased visibility and public relations; and ultimately sealed new partnerships and collaborations.

The C4A community also created several Apps. (See section APPS below for a list of some of the applications)

Coders4Africa Year in Review 2012



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2012 ORGANIZATION ACHIEVEMENTS

C4A's member base grew by 600+ members in 2012 and totaled some 1100 members with organizing efforts in more than 25 countries across Africa and the globe. We have seen an increase of about 10% of members from the diaspora, who are African IT professionals living and working outside of Africa. Most of these individuals volunteered their time and effort to support the community and help spread our core visions and goals.

One third of our community at large is composed of professional developers who are employed or started their own business endeavors. Another third constitutes computer science students who are looking to gain hands on experience and opportunities. Even though the IT industry is dominated by English speaking individuals there is an equal amount of Anglophone and francophone Africans who share knowledge on the C4A developer portal www.coders4africa.org. This Pan-African community has and will continue to be one of the strengths of our network, with several projects in progress and/or wrapping up for 2012.

C4A successfully launched a Radio show in 2012 dubbed Coders4AfricaRadio.org. This media offshoot was part of C4A social and communication strategy to create and join current conversations about ICT development on the African continent and diaspora. Through a variety of weekly news, interviews and listener contributions the relevant issues affecting our community are debated with an aim to reflect the true nature of ICT developments as they are happening on the ground. This tool available online allows developers and technologists worldwide to tune in and participate as a voice and an avenue for uncensored and honest discussion. We currently host a show titled "The African Tech Weekly", broadcasted live from our portal on Sundays at 1:00PM Eastern, or 17:00 GMT where listeners can and are strongly encouraged to participate through Skype, Twitter or Facebook.



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PRACTICAL PROJECT BASED TRAINING (PPBT) LAUNCH

In 2012, we launched our signature training in Dakar, Senegal. Unlike traditional software development training practices, our program focuses on specific technologies in web/mobile, soft business skills and software development patterns while keeping the African context in mind. This approach, training and knowledge transfer treats every trainee as a potential employee and/or entrepreneur.

20 software developers were taught the Software Development Life Cycle (SDLC) principles (which is often missing from traditional education, practices and processes) and how to understand/translate technical writings in order to effectively communicate with other developers, engineers and most importantly clients for each project.

"Simply put, trainees worked on real projects for real clients while receiving the fundamental experience only gained by working in the software industry"

Upon completion of the program, software products will be built/delivered and utilized by their respective clients who are involved in every step of the training program (following an Agile SCRUM methodology). Trainees approached stakeholders for requirements, User Stories, acceptance criteria etc. and kept them updated throughout the whole development process.

The 20 coders in Senegal were divided into 5 groups of 4 and tackled the following projects:

- 1 <u>DARAL</u>
 - a **Description:** Farmers and Cattle herding management system
 - b **Client:** Amadou Sow (Secretary of the Union of breeders of Fatick, Senegal)
 - c **Team composition:** Sokhna Sagna, Sada Kalidou Sow, Mansour Fall, Amdane Samb and Ibrahim Khalil
- 2 <u>GEOPHARMA</u>
 - a **Description:** Management of Pharmacies and health facilities in Senegal
 - b Client: Senegalese Association of Pharmacies
 - c **Team Composition:** Fatoumata Traore Sall, Togbe M. M. Lucrece, Omar Sokhna, Prince P. Tsaty
- 3 <u>KENEFA</u>
 - a **Description:** A Pan-African health system with a repository of infrastructure and health facilities, statistics and country comparison will be available.
 - b **Client:** Peter Speyer Director of Data Development Institute for Health Metrics and Evaluation, University of Washington
 - c **Team composition:** Pape Samba Diop, Jacob Sawodogo, Yazid Abdou Wabi and Ousmane Samba

4 <u>ELIMU</u>

- a **Description:** School management system to monitor and manager public and private schools in Senegal
- b Client: Etablissement scolaire Samibou, Yoff Dakar, Sénégal
- c **Team composition:** Andalla Mbengue, Saikou Fall, Herilovasoa Rakotoarison and Abdoul Aziz Wade
- 5 QUICKCOLLECT
 - a **Description:** Data collection and transmitting solutions using mobile devices Tablets and smartphones with Android OS
 - b Client: IDEV Consulting, Dakar Senegal www.idev-ic.coml
 - c **Team composition:** Momar Kouta, Talla Diop, Bocar Sy, Houefa Awohouedji and Leger Djiba

These projects are on track to be completed by the end of January 2013.

Screenshot of DARAL App

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Screenshot of QuickCollect App

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Screenshot of Kenefa App

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Screenshot of GeoPharma App



2012 BUDGET CONSTRAINT

C4A was successful due to marketing/social media campaigns and thanks to major donors who believed in the formula we employed for the development of the African continent and its people. We were able to fund other activities and achieved most of the objectives we set out for 2012. However there still exists a lot of work to be done.

In 2013 we will be more aggressive in terms of getting funding. Only with major grants will we make the impact needed to be truly sustainable and self-sufficient. In the past 2 years we did not go after big grants due mainly to a couple of factors. First, our official 501(3)(c) certification came in late thus our funding strategy did not focused on foundations, public and private institutions. It is only during the last 3 months that we started exploring sizable donors/grants. We believe we have an excellent profile that combines economic development, education, youth and human capital development to land us a substantial grant that can propel and provide the necessary boost for our organization.

Our biggest focus in terms of seeking grants and submitting proposals will be on creating our first DevHub -an ICT Incubator. This physical venue will offer services to educate the 1000+ "Coders4Africa" who will develop/improve tools in education, health care, agriculture, business, government and general social needs within their communities. This new technology and human infrastructure will create a strong basis for economic growth through innovation, the creation of new markets, entrepreneurship and the overall betterment of livelihood, especially in poor areas.

2012 PARTNERSHIPS, SUPPORTERS AND SPONSORS

C4A has established new partnerships with most of the following organizations and institutions. Some of these organizations have only assisted as sponsors or supporters

- 2012
 - World Wide Web Foundation: established in 2009 by Web inventor Sir Tim Berners-Lee to tackle the fundamental obstacles to realizing his vision of an open Web available, usable, and valuable for everyone <u>http://www.webfoundation.org</u>.
 C4A & Web Foundation formed a partnership to strengthen C4A Practical Project Based Training. Web Foundation instructors will focus on User Experience Design (UX) and on Entrepreneurship courses while Coders4Africa will focus on the hardcore software development principles. (PARTNER)
 - University of Cheikh Anta Diop of Dakar (UCAD): The purpose of this MoU is to establish a framework of collaboration between C4A and UCAD for formulation, implementation and technical support in research, training, and such other areas as parties may agree on (PARTNER)
 - World Bank , ICT Sector Unit (SUPPORTER/SPONSOR)
 - Ministry of ICT Sénégal (PARTNER)
 - IBM (SUPPORTER/SPONSOR)

- Microsoft WECA (PARTNER)
- iLabAfrica (Strathmore University), Nairobi, Kenya (PARTNER)
- American Chambers of Commerce in Senegal AMCHAM (MEMBER)
- Advanced Information Technology Institute (AITI), Accra Ghana (SUPPORTER/SPONSOR)
- eTrilabs, Benin (PARTNER)
- **ComputerAid International**, Nairobi Kenya **chapter** (PARTNER)
- Egerton University, Kenya (SUPPORTER/SPONSOR)
- Taita Taveta University, Kenya (SUPPORTER/SPONSOR)
- AFRINIC (SUPPORTER/SPONSOR)
- WORLDQUANT, USA (DONOR)
- Ecoband, Accra, Ghana (SPONSOR)
- IDEV-ic, Dakar, Senegal (PARTNER)
- UNCTAD (COLLABORATOR)
- SupInfo International IT Academy of Dakar (PARTNER)
- **OpenITAfrica Canada** (PARTNER)
- PluralSight (SPONSOR)

2012 APPS

In 2012 C4A worked on several App projects that leverage both mobile and web in the following fields: e-Agriculture, e-Learning, business, education, linguistics, health and social needs. The following are examples of Apps that we worked on 2012:

CooPNet - Coffee farm management system to enhance the managerial, financial and production operations of traditional Coffee farms in Mirembe, Uganda

uPID - Urban Poverty Intelligence Dashboard - Multiview dashboard and data visualization tool which displays current status of poverty metrics and key performance indicators (KPIs) for a given African urban city or district

LINGUAFRICA - Centralized web database application for all African languages and dialects -A reference base for all African languages that can be used for linguistic research/tracking of historical and geographical African continental migration etc.

KELASI - a Community based online learning platform that features learning designed specifically for interactive study via the web.

ELIMU - School management system to monitor and manage of staff and students in public and private schools in Africa

QUICKCOLLECT - Data collection and transmittal solutions using mobile devices Tablets and smartphones with Android OS

GEOPHARMA - Management of Pharmacies and health facilities in African countries **DARAL** - Farmers and Cattle herding management system

KENEFA - A Pan-African health system repository and infrastructure

ACTIVITIES BY COUNTRY IN 2012

Kenya Chapter

- 1 Coders4Africa First Egerton University Mobile Bootcamp 13-15th December 2012 www.egerton.ac.ke
- 2 Coders4Africa in Action Kenya November 10th 2012 presentation Codeigniter PHP Framework Open source At @ilabAfrica Strathmore University, Nairobi Kenya http://tinyurl.com/clxdqm5
- 3 Coders4Africa Second Taita Taveta University J2ME, SMS-USSD, WP7, PHP, Python Boot Camp, Oct 26, Taita, Kenya http://tinyurl.com/8hl4vea
- 4 Coders4Africa in Action August Meeting Python coding, Aug. 17th 2012 At @ilabAfrica Strathmore University, Nairobi Kenya http://tinyurl.com/9hwvpmy
- 5 Coders4africa First Taita Taveta University college Mobile Bootcamp 13-14th July 2012 www.ttuc.ac.ke
- 6 Coders4Africa Kenya J2ME & Android First Boot Camp Apr. 28th 2012 at @ilabAfrica in Strathmore University in Nairobi, Kenya <u>http://tinyurl.com/d8es3an</u>
- 7 C4A In Action Kenya #3 March 9th 2012 At @ilabAfrica Strathmore University, Nairobi Kenya http://tinyurl.com/clovebz
- 8 C4A In Action Kenya #4 At @ilabAfrica Strathmore University Apr 13th 2012 Nairobi Kenya with Guest Jiamulie, Semacraft http://tinyurl.com/d6dakcp
- 9 C4A In Action Kenya Feb 10, 2012 At @ilabAfrica Strathmore University, Nairobi Kenya http://tinyurl.com/cw9mlt6

Senegal Chapter

- 10 Coders4Africa Sanitation Hackathon sponsored by World Bank Dec 2nd 2012, Dakar Senegal http://tinyurl.com/czmclpl
- 11 Coders4Africa Project Based Training 2012 Kicks Off, Oct. 1st 2012, Dakar Senegal http://tinyurl.com/c5abtu2

Ghana Chapter

- 12 Coders4Africa in action with Python African Tour Apr. 14th 2012 at BusyInternet, Accra Ghana Coding Python http://tinyurl.com/cc3wv45
- 13 Coders4Africa in action Mar 3rd 2012 at BusyInternet, Accra Ghana http://tinyurl.com/c995k75
- 14 Coders4africa event at Computer Science Student Association COMPSAA week celebration in university of Ghana Feb 23rd 2012 http://tinyurl.com/bu3he3l

Burkina Faso Chapter

- 15 Training workshop: Introduction in Mobile development with Android) May 18th, Ouagadougou, Burkina Faso http://tinyurl.com/boqxd6j
- 16 First Coders4Africa 2012 Burkina Technology Conference February 17th 2012 http://tinyurl.com/bn2gmpx

US Maryland Headquarter

17 Coders4Africa Radio launch June 24th In Maryland USA http://tinyurl.com/c74qvqp

18 40 Weekly co-founders and board members meetings

Toronto Canada

19 Coders4Africa & OpenItAfrica collaboration http://tinyurl.com/arcmoqg



EVENTS PARTICIPATED IN 2012

- 1 Global Forum 2012: SHAPING A CONNECTED DIGITAL FUTURE: Stockholm, Sweden: One of the C4A co-founders Amadou Daffe was invited as speaker at the Global Forum 2012 in Stockholm Sweden. Amadou gave a Coders4Africa's perspective on platforms to grow innovation in developing countries especially in Africa. Prior to coders4Africa, the global forum committee only solicited organizations, participants and speakers from Europe, North America, South America and very few Asian countries. African representatives were never in the picture. Because C4A represented Africa very well the year before, the global forum committee suggested that Coders4Africa brought another African ICT leader as a guest in order to bring more African presence at the global forum. We brought Alex Corenthin who is Director of Information Systems at the University Of Cheikh Anta Diop Of Dakar in Senegal, and the president of ISOC Senegal. From this new relation Coders4Africa and the University Of Cheikh Anta Diop Of Dakar entered into a partnership. <u>http://www.items-int.com/spip.php?rubrique111</u>
- 2 WORLD BANK ICT Sector Day and Learning Days 2012: The Coders4Africa Team was invited to be part of the World Bank's (hereafter WB) SDN Forum 2012 -ICT Learning Day 1. In attendance were Ibrahim Cisse (Mali/Senegal -Co-Founder and Dir. of Technology), Amadou Daffe (Senegal -Co-Founder and CEO), Kwame Andah (Ghana -Co-Founder and Dir. of Marketing/Communications) and Ellwood Kerkeslager (USA CEO Information Futures and C4A Strategic Advisor). The session was moderated by Samia Melhem, Sr. Operations Officer, ICT Sector Unit. Our presentation, titled 'A Pan-African perspective towards ICT sustainability in Africa', was focused on creating and supporting a Pan-African community of competent, internationally certified IT professionals focused on developing the IT tools for African Agriculture, Business, Education, Healthcare, Government and general Social needs. The theme of our speech revolved around the concept of 'Capacity + Empowerment + Sustainability = Self-Sufficiency'. http://tinyurl.com/c5tdso2
- **3** World Bank International Open Data C4A Co-founder guest speakers Conference, Coders4Africa Presentation on Open Data from the developer perspective July 2012, USA
- 4 The World Bank's Water Practice and ICT Sector Unit SANITATION HACKING 101 (Sanitation App Challenge mentorship) Identifying Sanitation Problems That ICT Could Help to Solve, Co-founder participate as guest and mentor at November 8th 2012 Washington DC
- **5 OpenIt4Africa Hackathon** Co-founders attended June 2012 http://tinyurl.com/cya7jzw
- 6 Triennale sur l'éducation en Afrique, February 2012, Burkina Faso http://tinyurl.com/cszgqhe
- 7 Informa Telecoms & Media (App Gig @ VAS Africa) July 2nd 2012, Johannesburg, South Africa http://vasafrica.comworldseries.com/app-gig/
- 8 Voice of America Interview, Co-founder guest invite at , November 2012 http://bit.ly/VkmeY6

- **9** Africa Gathering, Co-founder guest invite, November 2012, USA <u>http://wapo.st/Ug8cGs</u>
- **10 Storytellers In Fashion** Co-Founder guest invite December 2012, USA http://bit.ly/RxTjUJ
- **11 Mobile Web East Africa 2012** C4A Kenya Chapter manager guest invite Feb. 22nd and 23rd 2012, Nairobi, Kenya http://tinyurl.com/dxrut3t
- **12 Ministere des TICs Senegal** Co-Founder and Senegal country manager invited October 2012, Senegal
- **13 SlumFest Kenya** Kenya Chapter manager guest invite 8th November 2012 Strathmore University http://slumfestkenya.kbo.co.ke/
- **14 Visualization meet up** C4A Kenya Chapter manager guest invite at @iLabAfrica. Friday 9th November 2012 http://visualizing.org/marathon2012 ,Kenya
- 15 Insertion socio-economique des jeunes, November 2012, Sénégal
- 16 Insertion socio-economique des jeunes, December 2012, Ivory Coast
- 17 Africa Content Initiative, December 2012, Senegal by Kheweul.com
- **18 AMCHAM Senegal (American Chamber of commerce),** guest meeting December 2012, Senegal

PRESS

- 1 UNCTAD Information Economy Report http://unctad.org/en/PublicationsLibrary/ier2012_en.pdf
- 2 ICT in Agriculture Building IT and Software Capacity http://www.ictinagriculture.org/ictinag/content/coders4africa
- 3 AmCham News Magazine, page presentation Coders4Africa, October 2012, Sénégal
- 4 API Evangelist OpenIT4Africa Hackathon with Coders4Africa Kenya participation http://tinyurl.com/b6w67z3
- 5 **Computer Aid Supports** Training for Computer Coders in Kenya <u>http://computeraidinternational.wordpress.com/tag/coders4africa/</u>
- 6 BizTech Africa Multimedia http://www.biztechafrica.com/videos/coders-4-africa/39/
- 7 ICT Update ICT Innovation <u>http://ictupdate.cta.int/Links/Web-Resources/Coders4Africa</u>
- 8 **Seneweb** Le Sanitation Hackathon : Du codage pour la technologie environnementale : <u>http://tinyurl.com/acxleus</u>
- 9 Senegal Media Le Sanitation Hackathon : Du codage pour la technologie environnementale <u>http://tinyurl.com/a8gch8c</u>
- 10 Coders4Africa on Decode Global's radar http://decodeglobal.org/2012/coders4africa/
- 11 Worldbank Sanitation Hackathon http://www.sanitationhackathon.org/users/coders4africa

LOOKING AHEAD IN 2013

In 2012 C4A helped fill a major gap in the ICT African industry -the human capital development area. Our programs are in demand and we are reminded every day by African developers all across the globe. Therefore, in 2013 one of the main objectives will be to strive to be more visible by adopting a bigger and more aggressive PR strategy that will bring along more IT professionals, local communities and support from private, public and governmental institutions.

C4A will continue its practical project based training program in Ghana and Kenya respectively in February and April 2013. The program will incubate 40 developers who will be working on 10 projects and interfacing with real clients while learning the best practices and fundamentals of Software engineering applied in the African context.

In 2013 we will integrate an incubation model (the C4A DevHub) as part of our program. Many developers (turned entrepreneurs due to the lack of job opportunities), clearly expressed the need for an initiative like ours. Their thirst for knowledge transfer in regards to entrepreneurship and how to grow into a sustainable and profitable business will continue to be answered through our programs and events.

In 2013, we will strive to create local chapters in new countries. Hundreds of developers have expressed the desire for C4A's activity in their location. In this regard, we envisage developing partnerships with like-minded entities in Somalia, Gabon, Uganda, Gambia, Nigeria, South Africa, Benin, Togo, Ivory Coast and Rwanda. By creating more local chapters we are looking forward to enrolling 100 new members. With the increase of our member base we will redesign and rebuild the current developer portal in order to accommodate the expected traffic and users. The new foreseen developer portal will be more dynamic and include an online learning platform with knowledge sharing, interactive video courses and developer cloud service tools. We are in the process of building a corporate website as well which separate from the developer portal. It will house relevant information and quick access to our core funders and organizations at large interested in our business model and principles. This site will be geared towards non-developers and serve our partners, supporters, donors and sponsors by adding another dimension to the already present developers' portal.

In 2013, C4A will continue to solidify and seek funding to build our first DevHub. This physical structure will provide information and communications technology education, support services, and act as an ICT Incubator to achieve the mission of C4A. It will be a sustainable ecosystem with the aim to lessen the digital divide comprised of *Community ICT Center Services, Coders Services, and Data Centers*.

These objectives will position C4A to scale up the momentum, lay out the foundation for sustainability and most importantly bring on board more African IT professionals who aspire and share in our vision of a Pan-African community becoming more competitive, creating and not

simply consuming ICT and ultimately building the solutions that their individual countries and communities face.

Thanks to Coders4Africa team and members all across the world. Let's make 2013 together an even bigger success!