Hour of Code™

Project Proposal

2015 | 2016

change the |world|
SOUTH AFRICA

HOUR OF CODE
SOUTH AFRICA

Hour of Code is Trademarked & run in South Africa as a Chapter of Code.org.

Index

Excited Students at the Hour of Code Launch, OR Tambo
Southern Sun Hotel, 2015.

1. INTRODUCTION

Imagine a nation with a coding generation? Young kids, adults and youth, using core analytical skills to solve problems, build industry and reduce inequality in South Africa. The future of South Africa depends on the young people of today, and it is important that we develop this talent while it is young to ensure that we do not lose it later. We have a solution that can effectively address and radically change the current education system through enabling our students to become part of a global campaign that will see them being able to compete with the best of the best around the world. **The Hour of Code** is that kind of solution and as of this year, Change the World Trust is the official Chapter Partner in South Africa and Southern Africa.

> *Who We Are:*
>
> *Change the World Trust is a Non – Profit Organization passionate about long-term solutions and ripple-effect project results. Its primary focus is educational projects benefitting youth and children.*
>
> *Over 7,000 Youth have completed quality ICT Learning Courses at CTW Training Centers.*

"The Hour of Code is the most catalytic form of transformation available to SA schools, corporate and Government agencies in tackling the lagging quality of secondary school education."

The South African education system currently does not actively promote innovation at a young age, and a key subject that can address this, Computer Science is often highly neglected even though Information and Communications Technology (ICT) skills are highly sought after in the current job market. We are therefore faced with a situation where there is a mismatch between the employment opportunities available and the skills that our students possess. Hour of Code is an opportunity to bring Coding to Classrooms in a fun and immersive manner. It also has the capacity to do more for education in South Africa than any other single movement and this is because the effective learning environment of the 21 century is based in access to Information Technology and the efficiencies in learning it brings.

We are inviting your organisation to become a HoC Platinum Partner by sponsoring South African Schools & NGOs to benefit from this program, while also empowering your staff to become involved in hands on Hour of Code activities linked to this initiative.

Change the World Trust
NPO 074764 | PBO 930034052

mail@changetheworld.org.za
www•changetheworld.org.za

+27 76•8872701
+27 11•4552282

POBox•440
Bedfordview•2008

What is "The Hour of Code?"

The Hour of Code can be broken down as follows:

- *A campaign that raises awareness for the need of coding in schools.*
- *Allows anyone to learn to code.*
- *Is fun, provides multiple levels of fully interactive courses built on micro-projects which build confidence and allow self-study and learning.*
- *Can be done anywhere on any connected device.*
- *Is offered free of Charge.*

The concept behind the **Hour of Code** is to energize, encourage and empower students, in their current state, in their current school with the power to code. The power-to-create is strong within every young person and many just love this opportunity to begin "creating" through code. So why do we have to wait until Maths and Sciences are perfect before we begin creating opportunity, opening minds to limitless possibilities and teaching new and exciting [coding] languages to the youth?

"Hour of Code" was first launched in late 2013 by the Non-Profit Organization Code.org. It received unprecedented support from a broad range of celebrities and powerful personalities ranging from President Obama to singer Shakira and achieved 20 million signups in the first year. As of 2015, South African Youth now have an opportunity to take part in this worldwide campaign and develop key skills on the language of the future.

All Tutorials and Educational Materials are available on the website: www.hourofcode.co.za

2. PROJECT OVERVIEW

Why Computer Science?

Software is becoming a critical layer of all our lives. It is the language of our world. In the future, not knowing the language of computers will be as challenging as being illiterate or innumerate are today.

The Hour of Code campaign aims to demystify computer science for youth across the country by taking them through introductory tutorials that can be completed online, on a smartphone, or even unplugged.

The Hour of Code is not primarily about equipping the next generation to work as software engineers, it is about **promoting computational thinking**.

Computational thinking teaches you how to **tackle large problems by breaking them down into a sequence of smaller, more manageable problems**. It allows you to tackle complex problems in efficient ways that operate at huge scale. It involves creating models of the real world with a suitable level of abstraction, and focus on the most pertinent aspects. It helps you go from specific solutions to general ones.

A Student developing Computational Thinking by finding solutions to the different challenges online.

Change the World Trust
NPO 074764 | PBO 930034052

mail@changetheworld.org.za
www•changetheworld.org.za

+27 76•8872701
+27 11•4552282

POBox•440
Bedfordview•2008

3. PROJECT DETAILS

Objective:

- Raise awareness about coding and bring coding into hundreds of schools, thousands of homes and 100,000 student's lives.
- This is to be accomplished through partnering with corporates, private institutions, public and private schools, NPOs, community organizations and government.

Direct Goals:

- o 100 000 Estimated South African Youth participate in the Hour of Code via Online Learning or directly as result of the HoC Campaigns.
- o +10 000 - 20 000 Youth do more than one hour.
- o 150 High Schools and 25 NPO/NGOs as partners.
- o Advocacy: Lobby for coding & computer science to become a core part of High Schools' curriculum.

YEAR 01 - Set Up And Launch

Step 1: Raise Awareness with on- and offline partners

- Online Marketing Partners
- Street Banners
- Radio
- Mainly online partners, portals and news agencies as well as email blasts

Step 2: Material Engagement with Schools and Teacher Testing Training

- Creation, customization and text of material for schools and partners in a Sample group of 20 or more.

Step 3: Pre-launch Marketing – Get material and partners in line

- Bring in the relevant partners who want to know more.

Step 4: Launch and set up Site

- Get forum for Site linked up with teaching organizations.
- Engage with Teachers and Parents

Step 5: Engage with Teacher Associations, NPOs & government

- Get email blasts and other online information sent to organization databases and email lists.

Step 6: Community Ambassadorship Program Implementation

- Create a model of engagement with students, community leaders and school club volunteers.

Step 7: Advanced Social Media Campaigning

- Engage in immersive social media campaigns leading up to key events and link with offline media.
- Employ Growth Hacking as well as social engagement motivation.

Step 8: Create Chapter Partner Engagement Models for Provinces and Key Cities

- Implement Chapter Models 3 key cities

YEAR 02 – Looking Forward

Goal 01: Engagement with Donors on School – level

- IT expertise collaboration, Lab Setups, 4 x weekly training and long-tail internship and employment opportunities for key students.

Goal 02: Expand to more National Media Awareness and Implementation Projects

- Make sure that Big Media Houses are on Board and promoting the project through their channels to the target audience.

"Not learning to code has been the biggest misstep of my academic and professional life," he says. "Had I learned it when I was in my early twenties, I'd have been 10 times as effective as a leader and businessperson. Hindsight is 20/20, but let this be foresight for young people: If you can stomach it, learn to code. You won't regret it." – CEO of GonnaBE , Hank Leber.

4. PROJECT SEQUENCE DETAILS

Step 1. Launch Local Version of Online Site and Portal

- The domain, www.hourofcode.co.za has been secured for this purpose early in 2014. The site is ACTIVE!
- Facebook and Twitter pages for this purpose have already been set up:
  www.twitter.com/hourofcodesa
  www.fb.com/hourofcodesa
- This web portal allows any IT user can connect to a resource-friendly online platform which creates a fun and interactive project-based coding activity. The activity time ranges from 10-60 minutes and allows personalization, gamification through badges and points or simply achievement based encouragement. Links to advanced free courses will also be provided.

Step 2: Raising Awareness:

- The Hour of Code (HoC) will be promoted through a very intense and focused marketing campaign, through the use of mass media.
- The idea behind this marketing campaign is to have as many people know about HoC in a relatively short time (SEO's, mass emails, street banners, newspaper ads, magazine features, coupons etc).
- Through the use of persistent media exposure the target audience (youth between the ages of 10 to 25 as well as teachers and community leaders in townships) will become aware of coding and its benefits and will be motivated to do an hour of code. Teachers and leaders in the communities will also be encouraged to push computer science in their classrooms and schools.

Step 3: School and NGO Expansion

- Change the World team will actively engage schools and NGO's to promote coding in their circles of influence.
- A CTW Trainer will offer regular training sessions and seminars on computer science, coding, its benefits and how to implement such training.
- Guidance and mentorship will then be offered telephonically and through regular follow ups.
- An initial engagement package will be given to each "coding ambassador" who commits to driving it in their school, NGO or community. (Engagement will continue regularly)

Step 4: Corporate Engagement

Corporates will engage in bringing the Hour of Code (HoC) to South Africa through:
  o Promoting HoC within own employees and families of employees.
  o Adopting a school and bringing coding into the school, including equipment.
    upgrades, training, mentoring. (See "Geekify my School" for more information)
  o Competing to have the most youth trained in coding.
  o Providing scholarships or internships to top performing students.

This is to be complemented by:
  o Competitions
  o Awareness Campaigns
  o Promo Video Production
  o Celebrity on-boarding
  o Policy & Government Support for Coding in Schools

5. PROJECT IMPLEMENTATION

Project implementation will be the exclusive responsibility of CTW Trust and partner organizations.

LAUNCH:
  o Project was launched on 20 June 2015.
  o Location: OR Tambo, Southern Sun Hotel.
  o Attendees: 80 Top Students from schools in Gauteng with their Educators.

1. WEBSITE PORTAL AND INFORMATION MANAGEMENT

• Weekly research, indexing, calling and updating the website/Social Media channels with the latest information, events and opportunities for youth and code in schools.
• Allow organizations to list their opportunities or related ICT Training events for youth and the community.
• Allow organizations to receive material or information regarding launching coding events in SA.

OUTCOMES:

- Compiling information about Scholarship opportunities for youth.
- Media Liaison – providing feedback and press releases to media outlets.
- Interviews – on and offline engagement with students, teachers, partners and/or celebrities.
- Marketing.
- Research of local resources and opportunities – short- term training and coding opportunities: Organisations, events or coding opportunities that promote coding events.
- Project Management – Management of targets, schedule, troubleshooting, motivation, volunteer and partner coordination.

2. THE HOUR OF CODE HELPDESK

The HelpDesk will offer the following services:

• Provide information or advice on Coding and Coding opportunities/careers to youth in the country – Via Phone, Whatsapp, Facebook, Twitter & Email.

• Send Newsletter, attend events and encourage teachers, principals, administrators and students to begin coding and coding events in their schools, high schools, community centers or homes.

Students being fully engaged and immersed during their Hour of Code.

6. PROJECT MONITORING

This program is monitored by Change the World Trust SA and third-party stakeholders in Government, Business and Civil Society. Reports and feedback will be provided to donor participants. Donated equipment will be used for the sole purpose of educating and training underprivileged children and young people in this project.

Project Monitoring will take place on a regular basis. This will include all or some of following elements:

- Reporting
- Management Training
- Technical Assistance
- HR mentoring
- Quality Control
- Sample Training of students

7. BENEFITS TO PROJECT PARTNERS OR SPONSORS

This amazing opportunity of providing quality training within underprivileged communities is unprecedented and the positive effect of this intervention can help motivate both employees and clients.

- STAFF RETENTION: Improved Employee Satisfaction from Project Awareness & Volunteerism
- ICT IMPACT: Unrivaled CSR/CSI ICT Development Footprint*
- PUBLICITY: Quality Footage/Photo/Press Release Opportunities for Company Staff and Management
- RECRUITMENT: Youth recruitment opportunities
- TAX BENEFITS: Claim back via Section18A Tax Receipts for 100% of investment
- BEE BENEFIT: SED Qualifies for 100% of spend – over 95% of beneficiaries are black.
- POOL OF TALENT: Access to a large pool of young people with ICT skills.

EXPOSURE:
- Large* Main Partner Logo on Outside of Branch *(*optional)*
- All Branch Flyers.
- CTW/HOC Website.
- IT Training Website
- Mentioned in all related press releases, radio programs, etc.
- Premium Access to CTW events.

8. VOLUNTEERING OPPORTUNITIES

Volunteers are encouraged to engage in add-on workshops for classes. Usually, these are based on topics such as: Personal Budgeting (Excel), Small Business Budgeting (Excel), personal brand & presentations (PowerPoint), Employability & Job search, etc.

Note: these volunteering opportunities are applicable to anyone with a standard control of PCs and software, but expertise in particular areas can be matched to individual tasks and workshops.

9. MOTIVATION

It is generally agreed in the research and academic communities that there is a direct relationship between ICTs and economic growth and the social development of a country. (Avgerou, 2007: 139 &Bedi, 1999)

Year after year, a lack of skills is listed as the largest barrier for economic growth in South Africa. (Grant Thornton 2010) Technology is changing the face of higher education through eLearning platforms, (Ipke 2011) and students are often not equipped with the necessary e-skills.

63% of South African youth between the ages of 18-24 are not in an educational institution (Cloete N 2009) and only 20% percent of them are participating in any type of economic activity. (DG Murray Trust, n.d.)

It is obvious that ICTs can empower education and ventures in poor communities, but inadequate skills hamper their application.

CTW seeks to be a catalytic partner and enabling entity in promoting 'high-level personal [ICT] knowledge', which will accelerate government's goal of developing a new generation of 'trainee ICT engineers, programmers and software developers'. (Department of Education 2003)

Computer science is a top paying college degree and computer programming jobs are growing at 2x the national average.

(Bureau of Labour Statistics, NSF)

10. STRATEGIC PARTNERSHIPS

CTW Trust is in communication and/or collaboration with the following partners:

Collaborative Partners for Youth Development Pipeline

- **Johannesburg Center for Software Engineering** (JCSE) – Wits University
- **e-Skills Institute** – (DoC)
- **Knowledge Production Hubs** in Western Cape, Eastern Cape and Gauteng.
- **USAASA** – Universal Service and Access Agency of South Africa
- **Local & Provincial Government** – Human Development and Economic Development
- **Department of Education** – Tembisa
- **City of Johannesburg** - Legal

In addition to this CTWT is in collaboration with an extended number of **NPOs and community organizations.** (e.g. Afrika Tikkun, Dimponyana Children's Home, Ikamva Youth , Impilo Foundation, Siyakhula, Edu Nova&Khulisa).

The Pilot Team from NGOs and Schools in Gauteng at the launch.

Change the World Trust
NPO 074764 | PBO 930034052

mail@changetheworld.org.za
www•changetheworld.org.za

+27 76•8872701
+27 11•4552282

POBox•440
Bedfordview•2008

11. SPECIFICS AND BUDGET

Section 1: Budget

HoC Fund - Flexible Investment in HoC Objectives:

Objectives and Activities of the Fund	210000
Total HoC Fund	210000

Signage:

Description	Price	Quantity	per item
2 Roll ups	2700	2	1350
10 Shark Fins	8500	10	850
9 Vynil HoC 3x1m Banners	11500	5	2300
Branded Shirts	28600	220	130
Caps	1800	40	45
A2 Posters for GP	10000	200	50
A3 Posters for GP	9300	300	31
Distribution & Mounting	3200		
A2 for WC, MP, EC & LP			
A3 for WC, MP, EC & LP			
Distribution & Mounting			
Total Signage	75600		

Competition Creation:

Online Competitions	0
Inter-school	0
Offline Competitions	0
Bursaries as prizes	0
Total Competitions	0

Intermittent / Ongoing SM & Media Prizes:

Description	Price	Quantity	per item
Prizes for Schools - 3 Tablets	**5700**	3	1900
Community Youth Leaders - 2 Laptops	9800	2	4900
Total Signage and Tangible Marketing	91100		

Provincial HoC Chapter Setup:

Gauteng	
Pre-selection Visit	1900
Training	2950
Setup	4120
Equipment	8900
Sub Total	**17870**
Mpumalanga	
Pre-selection Visit	1900
Training	2950
Setup	4120
Equipment	8900
Sub Total	**17870**
North West	
Pre-selection Visit	1900
Training	2950
Setup	3920
Equipment	8900
Sub Total	**17670**
Provincial HoC Chapter Setup	53410

CORE: Staff, Campaign and Management:

Head: HoC Campaign Management - Gov & Stakeholders	21200
Administration & Social Media Manager	7200
Technical Project Manager & Training Coordination	12900
Event Management & HoC Chapter Setups	2100
North West Chapter - Liaison	3900
Gauteng Chapter - Representative	4200
Mpumalanga Chapter - Representative	3950
HoC Ambassador Training	1900
Monthly Total Staff, Campaign and Management Costs	57350
Annual Total Staff, Campaign and Management Costs	688200

This financial breakdown seeks to portray as accurately as possible the costs involved. It is to be noted however, that expenses and estimates can vary from time to time according to events and unforeseeable circumstances.

Operational Costs:

Hosting and SAAS	2400
Email Management	1200
Designers/Copywriters	2900
Printing - Toner & Ink	2100
Space/Office Rental - Proportional	4500
Internet - 2 Sites	1200
Phone/Communications	1350
Total Monthly Operational Costs	15650
Total Annual Operational Costs	187800

Awareness Drive, Schools/Partner Engagement & eNewsletters:

Events, Seminars, Tech-events & Edu-events

5 events per year (9k each) - min. 50 attendees	45000
3 minor events (5k per event) min. 25 attendees	15000
Reporting*	2100
Accomodation for Awareness Engagement	8200
Flights & Travel - Awareness Speaking Engagements	10200
Gov Lobby - Embedded in Salaries/ops costs	0
Total Annual Awareness & Engagement Costs	80500

Schools Engagement Package Design & Delivery:

Package Design - Concept	8200
Package Finalizing - Meeting & Collaboration	10600
Package Details	
- Posters A2 - Event -Hosting & Awareness	
- Information Pages	
- Stickers	
- Packaging	
- Postage	
Per Package Costs	400
Number of Packages	120
	48000
Edu Package Engagement (*incl. Creation & Shipping*)	66800

Equipment:

	Price	Quantity	per item
25 Laptops to assist in off-site Training	172500	25	6900
25 Laptop bags, security cables & warranty	30000	25	1200
25 Software (Office & Anti-virus)	18000	25	720
3 Staff laptops	18300	3	6100
3 Laptop bags, security cables & warranty	3600	3	1200
3 Software (Office & Anti-virus)	2160	3	720
3 PCs for Provincial management volunteers	17850	3	5950
3 Software (Office & Anti-virus)	2160	3	720
Total Laptops & PCs Cost	264570		

Total Budget

Total Phase II Costs Year 01 - HoC Projects & Campaign

HoC Fund - Flexible Investment in HoC Objectives	270 000.00
Signage - Initial Outdoor Market	75 600.00
Competition Creation:	0.00
Intermittent / Ongoing SM & Media Prizes	91 100.00
Provincial HoC Chapter Setup	53 410.00
CORE: Staff, Campaign and Management	688 200.00
Operational Costs	187 800.00
Awareness Drive, Schools/Partner Engagement & Newsletters	80 500.00
Schools Engagement Package Design & Delivery	66 800.00
Engagement Package Design & Delivery	67 940.00
Equipment	264 570.00
HoC Platinum Partner Package	1 845 920.00

Disclaimer:

All costs listed are estimates. And can vary from site to site. In this case deficiencies from one set-up will be filled by excesses by other sites. In the case of a site not needing maintenance or specific equipment, funding received will be reserved for maintenance and/or replacement costs.

CTW Trust guarantees project success in project implementation on all sites. Outcomes of Force Majeure unforeseeable events such as civil unrest, riots, theft and weather damage cannot be held liable to CTW Trust and its employees.

Section 2: Timeline & KPIs

Key Performance Indicators – HoC – Year 01

Outcomes Reporting

Monthly KPI's -

Number of students reached per month	10000
Number of Schools reached per month	14
Number of Teacher & Principals HoC Ambassadors	28
Number of Packages Sent	420
Number of completed HoC projects online	15000
Number of completed HoC projects offline	2000
Number of Sign Ups for eNL online	200
Advocacy with the Department of Education	

Staff Mandates:

1 HoC Ambassador & Project Manager Mandate

Integration with Gov. Mandates

Liaison With Minister of Education

Compiling information about Scholarship opportunities for youth

Media Liaison Officer- celebrities, press releases, interviews, marketing

Research of local resources and opportunities

Project Management

HoC Assistant/ Call Centre Agent Mandate

Answering all incoming phone calls regarding the campaign

Assisting with reporting

Assisting with media liaison

Assisting with research

Compiling information

Mass Media & Awareness Monitoring Matrix:

- # Radios

- # TV

- # Print Media

- # Online Media

- # Media Partners

- # Corporate Promotion Partners

- # Gov Agency Promotion/Partner

Section 3:Alternative HoC Partner Budget

Initial & Setup Costs
Signage

Description	Price	Quantity	per item
2 Roll ups	R 2 700.00	2	1350
10 Shark Fins	R 8 500.00	10	850
9 Vynil HoC 3x1m Banners	R 11 500.00	5	2300
Branded Shirts	R 10 400.00	80	130

Intermittent / Ongoing SM & Media Prizes

Prizes for Schools - 3 Tablets	R 5 700.00

Provincial HoC Chapter Setup:

Gauteng	
Pre-selection Visit	R 1 900.00
Training	R 2 950.00
Setup	R 4 120.00
Equipment	R 8 900.00
Sub Total	

Suggested Investment - Initial or Setup Costs   **R 56 670.00**

Ongoing Project Costs
CORE: Staff, Campaign and Management:

Head: HoC Campaign Management - Gov & Stakeholders	R 11 200.00	*Portional*
Limpopo Chapter - Representative	R 4 200.00	
HoC Ambassador Training	R 1 900.00	
Monthly Total Staff, Campaign and Management Costs	R 17 300.00	
Annual Total Staff, Campaign and Management Costs	R 207 600.00	

Operational Costs:

Hosting and SAAS	R 2 400.00
Email Management	R 1 200.00
Designers/Copywriters	R 2 900.00
Printing - Toner & Ink	R 2 100.00
Space/Office Rental - Proportional	R 4 500.00
Internet - 2 Sites	R 1 200.00
Phone/Communications	R 1 350.00
Total Monthly Operational Costs	R 6 500.00
Total Annual Operational Costs	R 78 000.00

Suggested Investment for Ongoing Costs   **R 285 600.00**

Total Alternative Investment in *Hour of Code*   **R 342 270.00**

change the world
SOUTH AFRICA

Thank you for your collaboration and partnership.

Alone we can do so little; together we can do so much.
– Hellen Keller

When we seek to discover the best in others,
we somehow bring out the best in ourselves. —William Arthur Ward

Change the World Trust
NPO 074764 |PBO 930034052

mail@changetheworld.org.za
www•changetheworld.org.za

+27 76•8872701
+27 11•4552282

POBox•440
Bedfordview•2008