

Vol. 1 No. 7 September 2015



# Magazine EDUCATION

## **SPECIAL DIGITAL EDUCATION ISSUE**

*This edition was designed by  
**The Mighty Pen EDUCATION magazine**  
for their expo at the  
Digital Education Show – Africa 2015*

THE ONLY **SCHOOL COMMUNITY**  
EDUCATION MAGAZINE IN SOUTH AFRICA  
TO BRING YOU **E-LEARNING** IN SCHOOLS

*We feature our **most popular** technology  
in education & e-learning **articles** since  
our launch issue in March this year*





...your call to CeeBee  
The School Fees debt recovery specialists

Since 1999 we've made School Fee Debt Collections our business. We currently successfully and efficiently assist over 200 schools to recover bad debt.

CeeBee is your risk free solution ensuring your best prospect for bad debt recovery.

- No collection, no charge
- Legal at no cost to you - Credit Listing, Summons and Judgement
- Fixed Fee Structure - effective rate of 16%
- Month to month contract
- Personal service - one point of contact with regular progress and legal reports
- Established in 1999, with an excellent track record
- Fully accredited, registered with Council for Debt Collectors and ADRA
- Understanding of school environment
- Background credit checks and debtor verification
- Owner run and managed
- National footprint

#### More info:

0861 CB DEBT or 0861 22 3328  
sales@ceebee.co.za www.ceebee.co.za

**CEE BEE**  
DEBT MANAGEMENT SERVICES (PTY) LTD



**THE MIGHTY PEN** Educational Marketing & Publishing  
Magazine  
**EDUCATION**

## Contents

### >> Technology feature

Technology in teaching: use it or lose your students –

How it works at tertiary level..... 3

The Paperless Classroom – some tech-facts

for learners ..... 6

Get maths smart for a brighter future with Maths at

Sharp and Seartec..... 8

One year of Digital Education for some of SA's learners.. 12

Safer Internet for children in schools and homes..... 14

The Big Switch-On – Gauteng schools to have paperless

classrooms ..... 16

Early Childhood Development is enriched by human

interaction – and technology..... 20

### >> Education matters

The Cummins Dream Machine Initiative..... 10

#### Advertisers:

**CeeBee Debt Management Services**

(IFC) Inside Front Cover

**ALT (Pty) Ltd**

Page 4 – 5

**EDUBOARD**

Page 7

**SEARTEC**

Page 9

**Knowledge Network**

Page 13

**Terrapinn**

Page 19

**Freedom Stationery**

(IBC) Inside Back Cover

**UC-Wireless Education**

(OBC) Outside Back Cover

#### Our front cover

Digital expo issue,  
featuring our top  
e-learning articles.



**THE MIGHTY PEN** Educational Marketing & Publishing  
Magazine  
**EDUCATION**



#### Publisher

Sunward Park High School  
P.O. Box 17233  
SUNWARD PARK, 1470

#### Branding

TheMightyPen.co.za

#### Editor

Janos Bozsik

#### Editorial panel

ASH Peens (Principal)  
Dr. G. C. Pereira (Former SGB Chair)  
Proof concepts

#### Contributors

- Prof Seugnet Blignaut, leader of Technology Enhanced Learning for Higher Education (TELHE)
- Martha Chauke, Social Media Specialist
- Christina Watson, CEO of Via Afrika
- Bhavna Lutchman, Online Counselling Project Manager at Childline SA
- Gavin Keller, education expert

#### Correspondence and enquiries

editor@themightypen.co.za  
082 940 3771

#### Advertising and publicity

marketing@themightypen.co.za

#### Production, design and layout

VLC WorX

#### Website

www.themightypen.co.za  
www.sphs.co.za

#### Copyright®

All rights reserved

## Editor's column

### Yesterday, today and tomorrow

When children used to carve toys from pieces of wood, fashion custom caricatures from clay and mould entire universes from their mind's eye – then children were imagining, playing . . . and learning.

From those children society produced genius philosophers, divine poets and average people who spoke, read and wrote in at least three languages – fluently and competently.

Even the moderate person with very little formal education, status or employment would be an avid reader of newspapers and an eager participant in crossword puzzles, quizzes and pursuits of knowledge-based interests.

There was print, there was radio and even the beginnings of television – and there was a very different learner. There was a learner who had a culture of learning, a learner who had a thirst for knowledge, a learner who had respect for the teacher and a humble acceptance of method.

#### So what went wrong?

Today we have children who teach their parents how to use a remote control or smart phone, children who can access an almost infinite amount of knowledge in minutes and teenagers who are giving adults advice on human relations and emotional development.

They do not, however, know the difference between an index, table of contents or a glossary.

Today these children will argue with their parents about ethical dilemmas and relativist morality. They know what's best for the economy, what political system we should have and how God's mind works.

They do not, however, know the difference between intrinsic, individual scruples and social consequences – if no one sees me doing wrong and I don't get caught then I haven't done anything wrong.

Today the toys have become the tools. Technology was first introduced to children as a distraction, a new way of playing and entertaining. That very same technology now serves as a textbook conduit.

I have just never understood the fundamental premise for e-learning, that being: "Kids today are used to looking at a screen and pressing buttons – so if we put their "schooling" behind a screen they will learn better, faster and be more motivated."

#### Really?

I am told by the tech-peddlers that tablets in schools, content on portals and Internet connectivity will result in collaboration between children. Now they can all be united in the global village. So little Faruk from Pakistan and little McMac from Scotland are now friends and academic soul mates. When last did they turn to the human being next to them and say *hi, how are you?*

And let's not forget the teachers, those who answered and committed to *the noble calling*. A good teacher was "good" because of their knowledge and expertise, and mostly because of their character, personality and humanness.

Tomorrow, the best teachers will be those who have the most proficiency in using the latest pedagogical software. Never mind their humanness.

Bring on this new world of education.

**Editor**

## Technology in teaching: use it or lose your students

### How it works at tertiary level

Technology does not necessarily make people learn better or faster. What it does do is it enables us to learn and teach more efficiently, meaning we use fewer resources and can reach more students. Using technology, we can do more with less and have larger classes. That's the only thing that has been scientifically proven so far.

This does not mean that lecturers can carry on teaching without bringing technology into their classes. "Students have smartphones and tablets, and if we don't make their education moments memorable, we will lose them," says Prof Seugnet Blignaut, leader of Technology Enhanced Learning for Higher Education (TELHE).

The TELHE project started out at the North West University (NWU) Potchefstroom Campus but has since been extended to the Vaal Triangle Campus, where Prof Blignaut is now based, and has a strong track record in related research on serious games, eye-tracking and speech recognition technologies. These fields have the potential to help create memorable education moments that hold students' attention.

"Eye-tracking research can tell us where a person looks first and whether the eye is seeing what it needs to see, for example in a visual presentation," says Prof Blignaut, who has a PhD in computer-assisted learning (the first such qualification to be awarded to a South African). Similarly, serious games, which are interactive video games that are both educational and entertaining, can help keep students' concentration.

The TELHE team has three main research priorities: establishing a framework for technology-enhanced learning at universities; designing, developing and evaluating software apps (applications) for higher education, and investigating the effectiveness of teaching with technology.

The common thread running through all three areas is people, and specifically how they interact with learning technologies. The experiences of lecturers, especially those who did not grow up with internet and mobile phones, are well worth looking into.

#### Catch up or lose out

"The older generation has to catch up or lose the younger generation," says Prof Blignaut. "Gone are the days when you could give a 50-minute lecture without any stimulation other than your voice. Fortunately, there are many lecturers and teachers over 40 who are really grasping the idea of technology-enhanced learning and running with it."

Among them are about 45 teachers in Butterworth in the Eastern Cape who in 2013 did the NWU honours degrees in education through distance delivery. "These were teachers in remote rural areas," she says. "To enable them to interact with each other and share experiences, they became part of a virtual learning community through a Facebook page called Face Funda – 'knowledge in your face'. "After six weeks we asked them what results they had achieved and they said they were thrilled with their new social media skills. It wasn't always easy for them, though. One of the teachers said his own children laughed at him when he used Facebook and that it was hard to be taught by a child."

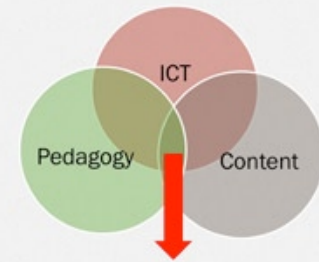
Asked what NWU academics are doing particularly well in using technology for teaching and learning, Prof Blignaut says: "Theology – they are right at the forefront of technology-enhanced learning." Theology students on the Potchefstroom Campus no longer receive their study guides on paper and instead download these via the internet from the NWU's eFundi learning management system. All the faculty's students have access to the internet and a laptop is issued to every first-year student. A critical success factor for implementing technology-enhanced learning is to involve lecturers fully from the outset. "Resistance to change is the most important stumbling block in implementing technology-enhanced learning," she says. "Top-down decision-making creates resistance and negative attitudes in lecturers. To become a motivated and transformed teaching corps, lecturers have the need to be involved from the initiation phase." ▲



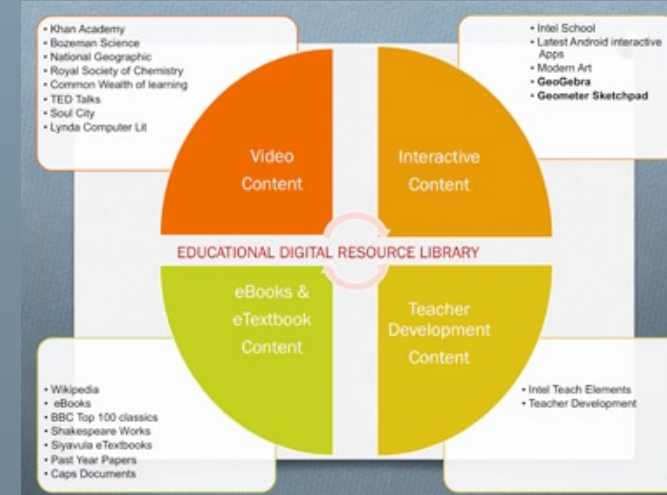
## ALT 21<sup>st</sup> Century iSchool



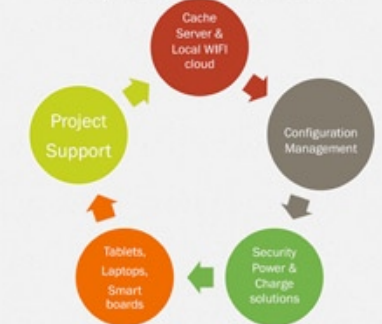
## eLearning Integration



ALT AFRICA's HOLISTIC BLENDED LEARNING SOLUTION



## Total ICT Infrastructure Key steps to success



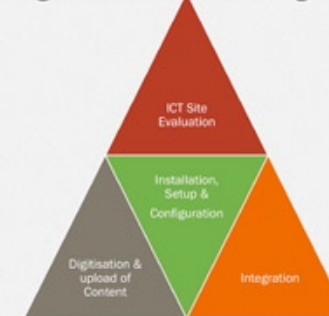
## eLearning Holistic Solution



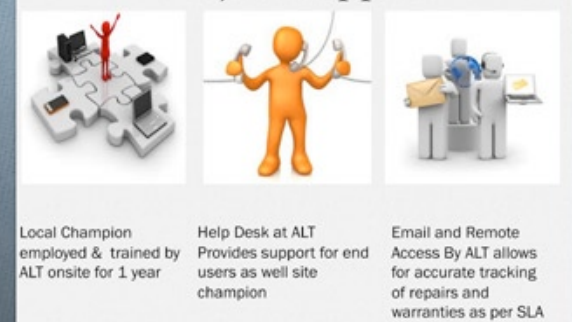
## eReadiness Program



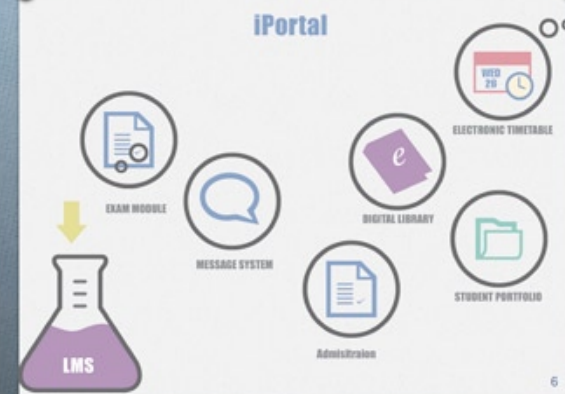
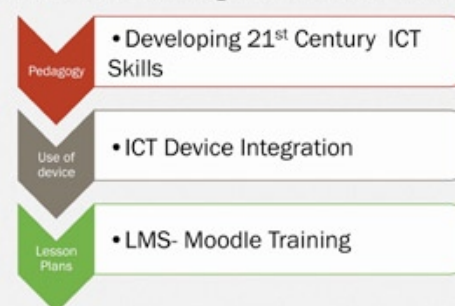
## Configuration Management



## Project Support



## Teacher Development & Training



## Project Roll Out Plan



## Road Map for School





# The Paperless Classroom – some tech-facts for learners

By Martha Chauke, Social Media Specialist

Just the other day you would be in detention if a teacher caught you busy on your cell phone (instant messaging your buddies) or feeding your Tamagotchi during class. In fact, not long ago the only form of tech in a classroom was old and big table-top overhead projectors which used pull-down screens to project what was written on transparencies.



All of this has changed today. The classroom you were once all too familiar with got a face-lift! Out with the old and in with the new. Teachers no longer stand in front of the class trying to manage behaviour (while sneezing from chalk-board dust) and teach all at once. The classroom is more interactive, alive and fun through the use of new tech.

Let's explore must have awesome gadgets and affordable tech to aid teaching and learning in and out of the class:

## Laptops vs Computers

Teachers and students need to get the right laptop that caters for their daily needs. Take weight, screen size, storage space, memory, battery life, keyboard size, touch (like Windows 8.1) or not, ports and drives into consideration before investing in one. We all love cheap stuff but brands matter. Any device is as good as the company that stands behind it.



Traditional computers cost less and are not easy to steal, but they are not mobile and take up more storage space in your home or residence. You can easily carry a laptop to

class, home, the library or when travelling on a daily basis. The beauty of a laptop is its portability. You can connect quick and easily to free Wi-Fi at coffee shops, your local park or bus stop (when and where you work is literally up to you!)

Depending on what you need to use your laptop for, choose the one with features you need the most. In today's market you are spoilt for choice.

## Tablets, iPads and Apps

Tablets and iPads are altering methods of teaching and learning to an extent that by the end of the 2017/2018 financial year the Gauteng Department of Education hopes to have rolled out the paperless education project in all Gauteng Township and rural schools. Some schools already bid farewell to the "old school pen and paper" method of note taking. Students do activities on their tablets and

iPads and submit assignments via apps like Dropbox, Google Docs or Moodle.



Primary and high school learners with iPads have access to textbooks at reduced prices and also for free from ZA Books with the added benefit of making notes within e-books themselves. While all students (up to MBA level) with tablets using Android or Windows can enjoy access to low-cost and free textbooks, exam preparation help and access to downloaded content offline at any time from Intel Explore & Learn. For more useful apps download *The Ultimate South African Education App Guide for iPad*.

## Connectivity

Literally everything today works with internet. Can you imagine no internet for a month? The world would come to a standstill. One can't function with slow internet connection either. That's just how important the internet and connectivity is to you in order to do research on your homework, projects and assignments as well as for your teacher's lesson preparation. If your school is experiencing dire internet connection recommend they seek advice from industry leaders on the best connectivity options available. ▲

## Interactive classroom solutions for a truly immersive learning experience



 **EDUBOARD®**  
INTERACTIVE CLASSROOM SOLUTIONS

↓ | Contact Us

National: 086 111 4194  
info@edu-board.co.za  
www.edu-board.co.za

For enquiries in Northwest & Gauteng contact  
Estriwize (PTY) Ltd (EduBoard Platinum Partner)  
Ph: 012 253 2469 | info@estriwize.co.za

Interactive Whiteboards • Data Projectors • Professional Teaching Software • Tablets • Tablet Classroom Management Software  
Mobile Device Management Software • Whiteboards & Chalkboards • Board Resurfacing Materials • Student Response Systems  
Interactive MediaLab • Turnkey Installations • Training and Support



# Get maths smart for a brighter future with Maths at Sharp and Seartec

Creating a strong foundation in mathematics is a fundamental part of a school learner's education. Learning mathematical concepts is not purely for the sake of passing exams, but has a powerful role to play in enhancing students' critical thinking and problem solving skills. Students also have increased options in terms of further studies at tertiary education institutions if they have passed and done well at maths at matric level. With South African students performing extremely poorly with regards to numeracy levels – an assessment in 2012 found that only 58.6% of Grade 6 pupils were functionally numerate – schools, teachers and parents need to work together to assist learners to understand and engage with maths – for the sake of their future.

For this reason, Seartec, proud distributor of Sharp has formed the Maths at Sharp website as a resource for teachers and students. The website provides access to a rich array of learning tools that teachers can download and use free of charge, including maths and maths literacy worksheets for Grades 8 to 12, memorandums, revision worksheets, a free PC simulator of the calculator and an exam bank with exam papers. All content is compliant with the CAPS curriculum and is developed exclusively for the Maths at Sharp site. With regular maths practice being the cornerstone of building mathematical skills, these resources can give students a powerful boost. Teachers who have accessed the Maths at Sharp site have expressed how impressed they are by Seartec's dedication to improving numeracy and assisting teachers through the site.


For students and parents, the site also has a section that allows students to submit questions in order to get assistance, and a section on selecting the appropriate calculator for the various levels of schooling, as well as information on how to use a calculator to its full advantage. These "how to" tutorials transform a calculator into a useful tool to demonstrate and reinforce mathematical concepts. Useful articles on everything from how to cope with pre-exam nerves to maths games to play in the car are also available on the site.

Sharp's latest scientific calculator is designed specifically for the CAPS curriculum. The EL-W535HT Scientific calculator includes a DRILL MODE function which allows students to practice their critical mental maths skills – something that is core to learning all future mathematics. The calculator provides maths questions and the student needs to type in the answer. The calculator marks the question either correct or incorrect, and if incorrect, will repeat the question. The calculator provides the final mark at the end of the drill. There are many other modifications made to the calculator including an easy to use statistics function and an unlimited table mode.

The website also has an interactive and engaging element in that Maths at Sharp runs competitions for school learners and additionally, selects a "School of the



Month" to support with learning resources and calculators to help underprivileged children. This is part of Seartec's ongoing commitment to community upliftment in South Africa.

Seartec is creating a culture of fun mathematics learning with several suggestions on how to include calculator games into different sections in the mathematics class. Why don't you take a look at the website today and start having fun while learning maths! 



# SHARP



$t = r \times F \sin \theta$   
 $t = 0,1m \times 627,2N \cdot \sin 20^\circ$   
 $t = 21,45 \text{ Nm}$

$f = ma$   
 $f = 64kg \times 9,8m/s^2$   
 $f = 627,2N$

$V = V_0 + at$   
 $V = 0,1m/s + 3,6m/s^2 \cdot 2s$   
 $V = 7,3m/s$

GRAVITY  $9,8m/s^2$

**SMART IS THE NEW COOL**  
 With the EL-W535HT

Sign up for the FREE Maths at Sharp Monthly Newsletter at:  
[www.campaigns.seartec.co.za/maths-at-sharp](http://www.campaigns.seartec.co.za/maths-at-sharp)



# The Cummins Dream Machine Initiative

## Using innovation to advance corporate responsibility and make dreams come true

"Innovation is more than a word at Cummins, it is also a value that we live by," began Schuylla Goodson Bell, Managing Director of Cummins Southern Africa, the local subsidiary of the global power leader, Cummins Inc, at the Cummins Dream Machine Initiative Awards Ceremony held at the company's head office in Johannesburg on 29th September 2015. The winners were announced at a memorable event to mark the first annual competition which awards and celebrates innovation and creativity.



**The Cummins team celebrating innovation, creativity and originality**

The Cummins Dream Machine Initiative was borne from a normal walk-about around the Cummins Master Rebuild Centre in Johannesburg where engines are disassembled and rebuilt for customers across Southern Africa. "The premise is that engine parts can be used to educate others about upcycling and to create jobs with local artists, crafters and artisans," said Goodson Bell. O-rings, gaskets, pistons, belts and other engine parts are separated for waste and recycling. The results? Beautiful upcycled art and functional items with a strong industrial aesthetic; earrings, handbags, candle holders, gasket wind chimes, decorative photo frames, mirrors, gear bookends, O-ring mobiles, serviette rings, paperweights...the creations are limited by the boundaries of the mind and the powers of the imagination. The concept quickly developed into opportunities for enterprise development and job creation; providing a platform to help advance local artists, crafters and artisans' dreams. A special emphasis is also placed on empowering women and knowledge sharing of sustainable practices for emerging businesses.

"We will award innovation, creativity, originality, youth education, environmental impact, the level of enterprise development and ease of understanding required to assemble the creation," explained Goodson Bell. Additionally, the company's corporate responsibility activities' key focus areas of education, the environment and social justice also needed to reflect in the entries. "I extend my hearty congratulations to the winners of the various categories on the Cummins Dream Machine Initiative competition; Enterprise Award, Innovation/Creativity Award, Education Award, Environmental Compliance and the Overall Winner's Award. Your prize-winning masterpieces are exemplary and bear testament to what we can do with very little when we think creatively! I applaud your out-of-the-box thinking, this is what Cummins calls innovation!" she cheered.

Contestants were invited to share their inspiration behind their creations with the judges; the uses and benefits, which parts and techniques were applied and the

link to education, the environment and social justice. Judges were faced with strong competition, but after much deliberation and debate the winners were announced.

Judges included Ms. Raina Washington, wife to the U.S. Ambassador to South Africa Patrick Gaspard, Masana Chikeka, Cultural Development from the Department Arts & Culture, Eugenie Drake, founder of Piece and Nomvula Mashoai-Cook, Executive Director, Mpumalanga Traditional Art Market.



**Tasneem Nazeer welcomes the judges and media**

The Overall Winning Team (photo below) was the Design Masters Team who also won the Innovation Category. Schuylla Goodson Bell, MD of Cummins Southern Africa (front row far left), with members of the Overall Winning Team of the Cummins Dream Machine Initiative. The full team comprised Stephen Radzilani, Thuleleni Gcanga, Shanil Haripersad, Sello Ntshala, Harry Dooks, Xolani Gazu, Nhamo Chinyange, Richard Ramolefo, Constance Matjia, Shalendra Kalichuran, Wiehann Steinmann, Hannelie Steyn, Gert Kok, Tanya Cairns and Jansen Herman.



Team 2 won the Creativity Category whilst Team 4 won the Originality Category.



A broad spectrum of creations were displayed and presented. These varied from objets d'art to functional items including lampshades, candle holders, ice bucket holders, photo frames, jewellery and tables with glass tops to wine coolers.

Cummins believes in making a positive and lasting impact on the communities in which it operates by rendering sustainable support. This is evidenced by providing artists, crafters and artisans from less privileged communities the opportunity to increase their income-earning capacity and market reach through initiatives like the Cummins Dream Machine Initiative. Additionally, the company will also be introducing the initiative into secondary schools to educate and increase environmental awareness amongst students. Furthermore, Cummins will also be engaging with NGOs and crafts associations to create a platform for enterprise development to ensure longevity and sustainability of their business ventures.

Cummins traditionally innovates to meet the needs and demands of their customers. "The Cummins Dream Machine is advancing corporate responsibility efforts to help better the communities where we live and work. Importantly, it also makes our local artists, crafters and artisans' dreams a reality, which is really exciting," concluded Goodson Bell.

Cummins traditionally innovates to meet the needs and demands of their customers. "The Cummins Dream Machine is advancing corporate responsibility efforts to help better the communities where we live and work. Importantly, it also makes our local artists, crafters and artisans' dreams a reality, which is really exciting," concluded Goodson Bell.

### About Cummins Dream Machine Initiative

The Cummins Dream Machine Initiative is derived from viewing engines and its parts through a creative lens that serves as a catalyst for innovation that can make dreams a reality.

A team of dedicated employees based at Kelvin and the Master Rebuild Centre (MRC) are busy developing formal protocols to identify, collect and clean specific engine parts that previously would have been recycled or scrapped. Through a carefully coordinated process, these engine parts will be upcycled as art and functional items with a strong industrial aesthetic.



**A beautiful and creative bhizautare (bicycle in Shona)**



**Candle holders at their best**

Innovation is about unlocking and unleashing new ways of thinking, doing and delivering against a background of continuous improvement. Innovation is the Cummins way which is illustrated in the various projects that have emerged in several countries. Innovation is behind the Baringo Project in Kenya, a Cummins tailor-made biomass power solution that uses an invasive weed to create power. The project has created local jobs and learnings are being leveraged in the development of other rural electrification projects in Zambia and other Southern Africa countries. Innovation is behind the Cummins College of Engineering for Women in Pune, India, the company's commitment to diversity, bettering the communities, the Technical Education and Communities projects in Morocco, Nigeria and coming soon to Southern Africa. ▲



**Jewellery, wind chimes, photo frames, wine coolers and candle holders were crafted from various engine parts**



**MD of Cummins Southern Africa, Schuylla Goodson Bell proudly shows the judges and media the innovative and creative artwork**



**Creative illumination works of art created from engine parts!**



# One year of Digital Education for some of SA's learners

This month marked the first anniversary of the Via Afrika Digital Education Centre (VADECs) initiative. This initiative has seen e-learning leading to dramatic improvements in the results, and futures, of learners in rural Limpopo, Mpumalanga, and the Free State.



At Sohlazane Primary School in Mpumalanga, Thabantsho Primary School in Limpopo, and Itemeleng Primary in the Free State where the VADEC initiative has been operating, learners have shown a dramatic improvement in school results, and mathematics in particular. Prior to the VADEC initiative 17% of Grade 6 learners across the three schools were reaching the minimum level required to be promoted to the next grade in mathematics. However, in 2014, after the VADEC had been in place for only six months, 51% attained that level in mathematics.

These results were externally measured by the Annual National Assessments (ANA). In one scenario, 2013 Grade 6 learners were compared to 2014 Grade 6 learners.

In a second scenario the same group of learners at Thabantsho Primary who wrote the Grade 5 ANA in 2013 wrote the Grade 6 ANA in 2014 and they achieved an increase of 22 percentage points in their performance.

For the VADEC initiative, Via Afrika upgraded container libraries with 15 Android tablet devices packed with the company's latest ebooks, apps, and tools. In addition to this, Via Afrika provided 3G connectivity with 10 GB of data a month.

According to CEO of Via Afrika, Christina Watson, the success of this initiative rests on what, beyond technology, Via Afrika's provides the schools: "Key to the initiative's success was our undertaking to travel to these schools on a regular basis to train staff on how to maximise the educational returns of these tablets for learners and their own teaching."

"CSI initiatives in education can often be based on noble intentions, but without a solid understanding of what is needed to make significant and real change. We believe that ongoing support and training have to be provided along with the hardware and software if a sustainable change is to be seen. Without this understanding, these projects often fail to provide the desired results," Watson says.

According to independent research group Trialogue, in South Africa, companies spent R8.2-billion on Corporate Social Investment (CSI) projects in 2014 with the lion's share going into education initiatives.

Additionally, it found that between 2008 and 2013 there was an increase in the country's overall CSI spend on education, from 31% to 43%.

Corporate South Africa is clearly eager to put its CSI spend into assisting education, but a lack of reporting and accountability make it difficult to ensure that investments bear fruit.

Via Afrika is now stepping into this breach to launch a venture that replicates the VADEC initiative through corporate sponsorship. This new Digital Education Centre (DEC) programme is run by Via Afrika in partnership with the Department of Basic Education.

"Working together with corporates and the Department of Basic Education, we look forward to reproducing the outstanding success we have seen at Sohlazane, Thabantsho, and Itemeleng primary schools this past year, at other schools across the country," Watson concludes. ▲

## Computers, laptops, Androids and iPads

### Hello! An iPad in class

**Joshua K. Labuschagne**

Grade 8 student at  
School of Merit, South Africa, 2014

Hello! My name is Joshua, and I am a Grade 8 student at the School of Merit Private School, situated in Edenvale, Johannesburg.

iPads have greatly influenced work in many areas.

Ever since we started using iPads in class and have been trained by Knowledge Network, our work ethic has improved.

Not only does it improve how efficiently we do our work - for example, instead of relying solely on books and the occasional research on a school desk computer, we can now quickly and efficiently do research online and in any place, by using our iPads.

In addition, other apps such as Keynote, Pages, iDraw, and a few others greatly improve how and how quickly we can complete our work efficiently, quickly and with a professional appearance.

Knowledge Network plays a big role in how efficiently we can work on our iPad, by means of how to correctly use our various apps, how we can quickly and easily find the best research online, while maintaining a good sense of Internet security, and at the same time taking care of our iPads.

We don't only learn about Apple's IOS but have also learnt about various concepts covering computing and apps in general.

This also assists us in transferring knowledge gained from our iPad to other platforms such as Windows.

We are more motivated to work too. The reward being either access to gaming apps or music (by means of earphones).

Overall, iPads have influenced me in a very positive way.

My Knowledge Network lessons on Mondays are definitely one of our favourite classes.

Gaining knowledge on how to use an iPad, is not only beneficial to us now, but will stand us in good stead in our future careers and adult lives.

iPads are definitely the more professional, efficient and enjoyable way forward.

Schools, corporates, teachers

By the time  
Joshua leaves  
school, he and  
his classmates  
will be:

Varsity ready  
Workplace ready  
Employer ready  
Career ready  
E-Learning ready

By the time  
Joshua leaves  
school, his  
teachers will be:

Upskilled in the  
teaching and  
learning tools of  
the day  
E-learning ready  
Using all types of  
technologies in  
teaching and  
learning  
Using  
technology for  
personal  
productivity

"How awesome  
is that."

Jil Hrdliczka  
Founder  
Knowledge  
Network®

Integrated Curriculum Using Technology  
Upskilling  
KN-10up  
Androids  
KN-3to5  
iPads  
KN-6to9  
KN-10up  
OpenSource  
KN-2004h  
KN-10up  
OpenSource  
KN-2004h  
iPads  
iPads  
Windows  
Your Partner in Learning

3 Bentley Office Park  
67 Wessel Road  
Rivonia, South Africa  
P O Box 651576  
Benmore, 2010, South Africa  
Tel +27 11 803 5554  
Fax +27 11 803 9117  
info@knowledgegenetwork.co.za  
www.knowledgegenetwork.co.za



**Knowledge Network®**

2015  
KN-UPskilling



# Safer Internet for children in schools and homes



**Opinion piece by Bhavna Lutchman: Online Counselling Project Manager at Childline SA**

Bullying – which used to be limited to direct social environments like schools, parties and clubs – has bloomed into virtual spaces at a terrifying pace. Whether the bullying happens online or directly, the effects are the same. Children are often left with deep scars that ache well into adulthood. Children who are bullied are more vulnerable to a host of psychological effects and which can manifest in debilitating low self-esteem and can lead to self-harming, drug abuse and even suicide.



Cyberbullying is especially prevalent amongst the youth and ranges from rumours to threats to outright, unrelenting harassment.

Childline recognises that in light of the growing use and popularity of the internet and various on-line communication options amongst children and adolescents, especially in schools, and has tailored a way to be available through the very channels that young people are most familiar with.

And while bullying is a major concern, Childline aims to help protect youth in cyberspace against all the forms of abuse they are exposed to there. Young people need to understand the dangers of, amongst other things, data theft, cyber-stalking, the subtle ways in which sexual predators lure potential victims as well as internet addiction.



The first question to ask ourselves is about the amount of exposure children have to these threats. It's been reported that the average teen spends around 31 hours a week online. If smartphone usage is included, it goes up to 100 hours a week.

And while social networks like Mxit, Facebook and YouTube are publicly criticised, the reality is that these are here to stay.

We cannot wish them away. We can only respond to them – and teach our children to respond to them in a way that keeps them safe.

Childline Services, in keeping with the ever-growing use of technology and the mobile culture, is meeting children where they are. We offer an online counselling service through Mxit.

The service is free of charge to South Africans under the age of 21 and who are registered on Mxit. The same service is available to adults who are concerned about their children. That service is available weekly from 2pm to 6pm.

These services are offered in close consultation with all Childline's provincial offices, to which children and youth who require face-to-face services are referred.

## An example of a cyber-safety initiative

Safer Internet Day (SID), a 12 year old initiative promoting safer and more responsible use of online technologies, was marked across the world earlier this year.

Google Africa marked SID with more than 600 learners in day-long workshops in South Africa, Kenya, Nigeria, and Senegal. In these workshops learners discussed and formulated their own ideas on how to make the internet a safer space.

Responding to the core theme of SID 2015, "Let's create a better internet together," Public Policy Manager for Google in South Africa, Fortune Mgwili-Sibanda says Google is committed to empowering young web users.

"Google has provided tools for parents, teachers, and most importantly young people to learn more about staying safe online. The aim of this cross-continent event is to reach out to young internet users and share information with them on how they can enjoy the multiple benefits offered by the internet, while at the same time staying safe from harm and exposure to age-inappropriate material." Mgwili-Sibanda said.

To ensure that lessons were shared by all those who took part in the events, all learners in the four participating countries took part in a virtual plenary and report back session. Also showing the learners how technology can be used positively, this session was held over Google Hangouts.

In the plenary session, a spirited discussion took place with learners both being pro and anti-anonymity as a solution to online safety.

Those in the pro-anonymity group argued points such as whatever information an individual posts online can never be used against them in the future. Other pro-anonymity positions argued that an entirely anonymous internet would protect young peoples' identities from potential abusers and molesters.

The anti-anonymity group argued that anonymity was often the very thing which led to bullying online. They also pointed out that if anonymity was the default setting online there would not be real interaction on the web. Much to the entertainment of the gathering, one learner pointed out that when using the internet for online dating one could fall in love with one's own cousin if anonymity were a default.

Google Africa also wants to ensure the day's messages of internet safety reach as many young people as possible. In that regard they have also partnered with key organisations.

In SA, Google Africa has partnered with the Film and Publication Board (FPB), to further address and publicise the issue of internet safety for young people.

"We are delighted to launch our back to school campaign with Safer Internet Day and highlight the importance of online safety," comments Themba Wakashe, CEO of the FPB.



We aim to explore and use all forms of electronic communication open to children, youth and adults in order to ensure that everyone – including those with disabilities, and especially those that are hearing and speech impaired – is included.

We are guided, in many instances, also by the sterling work done by tech companies such as Google, who provide safety guides for families and schools, including easy-to-use tools about safety basics. All adults, and especially parents and educators, now have an extended duty to protect children – not only out in

the "real" world, but in the parallel one in which our children now move more naturally than we do, and which they inhabit far more than we think they do.

Childline hopes to meet children where they "play" in the virtual world and to offer not only a shoulder to cry on, but a guiding hand. ▲



# The Big Switch-On

## Gauteng schools to have paperless classrooms

When Gauteng schools opened on 14 January this year it was business as usual for most. However, seven schools in the province were on the brink of a watershed moment for South African education: The launch of a pilot project by the Gauteng Department of Education (GDE) called The Big Switch-On.

Spearheaded by Gauteng Education MEC Mr. Panyaza Lesufi, the project has transformed seven schools into modern e-learning institutions with paperless classrooms. The project aims to introduce smart schools of the future to ensure that learners and teachers have broadband access to digital content through a tablet device.

"We are officially burying the chalk board, we are officially burying the duster, and we are officially burying the chalk," said MEC Lesufi during the launch at Boitumelong Secondary School in Tembisa. "Gone are the days when they have to write in exercise books and hand-in assignments on paper."

Using their tablets, learners connect via the UC-Wireless Ruckus Wi-Fi solution to the Train Your Brain (TYB) education resource portal provided by MIB Technology. The TYB portal allows learners to download their prescribed textbooks and access hundreds of educational resources.

### SPHS – the blueprint for success

One of the seven schools, Sunward Park High School (SPHS), was the first public school to migrate to a 100% e-learning platform in 2013, which grew from the vision of the principal, Mrs. Peens, and the (then) chairperson of the SGB, Mr. Vinay Somera. The school has played a pivotal role in assisting the MEC and the GDE with a seamless roll out in the six pilot schools, namely:

- Boitumelong High,
- Ponelepele Oracle High,



Sunward Park High School educators training the teachers at Boitumelong Secondary School in Tembisa



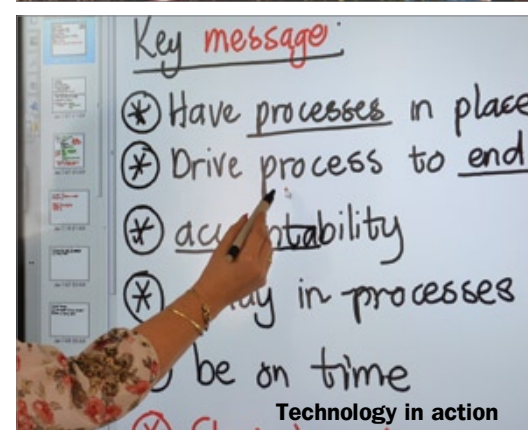
Gauteng Education  
MEC Mr Panyaza Lesufi



Dr. More Chakane, CEO of  
the Matthew Goniwe  
School of Leadership and  
Governance (MGSLG)

- Phomolong High,
- Tandi Eleanor Sibeko High,
- Tlamatlama Primary, and
- Tshepisa Primary.

The department hopes to roll out the project to all Gauteng township and rural schools by the end of the 2017/2018 financial year at an estimated cost of R17 billion. All high



The Big Switch-On broadcast live on SABC

school learners in public schools will be provided with tablets. The system will also be introduced to grade 7 learners who are in primary schools so as to prepare them to easily adapt to learning on the devices in high school.

Principal of Boitumelong Secondary, Mrs. Sesi Makena, said: "This is an exciting time in our country's education system and I am so proud of my teachers and learners."

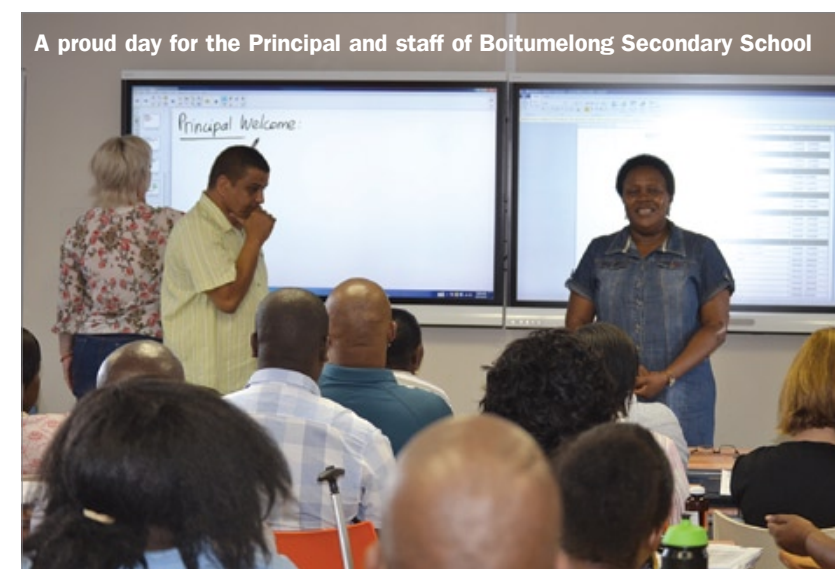
Educators at the school were trained prior to the launch by SPHS teachers through the Matthew Goniwe School of Leadership and Governance (MGSLG). Under the leadership of CEO Dr More Chakane, the MGSLG is a semi-autonomous, non-profit organisation established to serve as the training arm of the Gauteng Department of Education.

### The Department's mandate

The 5th Administration of government approved ten pillars for the Department of Basic Education. The Gauteng Department of Education adopted these pillars for implementation over the next five years.

One of the pillars is Pillar 6: ICT in Education. Within this pillar, GDE identified six priority areas:

- Connectivity – system-wide-access,
- Content – digital teaching and learning resources,
- Capacity – Training, support, and ICT skills development,



A proud day for the Principal and staff of Boitumelong Secondary School

- Infrastructure – e-Equipped schools and GDE offices,
- Support – Efficient technical Support, management, etc.
- Innovation – research related to curriculum and technology.

"We want the schools which are performing to have capacity to continue to do so," said MEC Lesufi, and hailed the project as "a game changer in the education of the African child." All schools on the programme will be

>> to page 18



SPHS Learners in the paperless classroom



Tablets being delivered to Boitumelong Secondary School



Principal of Boitumelong Secondary School, Sesi Makena



>> from page 17

provided with unlimited data for learners while they are at school, and they would receive 4G connectivity to ensure the pupils can also work from home. MEC Lesufi said the data costs at the seven schools had been fully paid for by other government departments and the private sector.

### The SPHS event

During the launch at Boitumelong Secondary, Sunward Park High School was linked live to the event and held their own ceremony to commemorate the occasion. Attended by parents, principals, media and provincial dignitaries, SPHS provided the detailed background to e-learning success, which culminated in a tree planting ceremony.

Deputy Speaker of the Gauteng Legislature, Mr. Uhuru Moilola, said: "Statistics show that 71% of 18 to 35 year-olds are out of work, they are not fitting into the economy. An initiative such as this will ensure that we prepare our youth through modern education for the demands of the future. Fifty years from now our country will look back to this day as the turning point in South African education."

During the tree planting ceremony, Mr. Clifford Elk of the Peermont Schools Support Programme (PSSP) said, "The only way we can unlock the potentials of the future is by building the capacity of our youth through inspired education. The principal and team at Sunward Park make it a truly pioneering school. Access to technology is like planting a tree – you need to harvest the fruits. I hope that in five years from now, this tree will be a forest."



Clifford Elk of the Peermont Schools Support Programme



SPHS learners demonstrate tablet technology



The SPHS choir entertain the guests during The Big Switch-On



Mr Uhuru Moilola – Deputy speaker of the Gauteng Legislature



Dignitaries lend a hand at the SPHS tree planting ceremony

Summing up, Principal Peens thanked the parents and learners of SPHS. "It's the heart of the school, the learners who adapted and grew with this initiative to make it a success and the parents who supported it from the start. Without you, we would just be another school in the system. Thank you."

"It has been a tough journey," said principal Peens, "and things did not just happen overnight. We had to learn from our mistakes, correct them and move forward in order to reach what we have achieved. I think this is why the Gauteng MEC for Education, Mr. Panyaza Lesufi, has labelled us the 'model blueprint school' for e-learning." ▲

# The Digital EDUCATION SHOW AFRICA 2015

6 – 7 October 2015 | Sandton Convention Centre | Johannesburg | South Africa

1000  
ATTENDEES

120  
SPEAKERS

50+  
EXHIBITORS

500  
EDUCATORS

REGISTER NOW TO ATTEND FOR FREE

[www.terrapinn.com/digitaledafrica](http://www.terrapinn.com/digitaledafrica)

Title Sponsor

Diamond Partner

Gold Sponsor

Connectivity Sponsor

In Association with:





# Early Childhood Development is enriched by human interaction – and technology

Harnessing interpersonal traits and the ability to develop relationships are at the very heart of early learning and development in children. As children grow and develop, they increasingly want to play; speak and take in what is happening around them, which ultimately influences their own behaviours and mannerisms. Through early interactions children learn to communicate and enjoy being in a social environment.

Education expert Gavin Keller says: “Children’s understanding of the world around them is often given a meaning by their exposure to immediate relationships, communication interactions, how they play and how their needs are met through contact with others. Many interactions are spontaneous whilst others come about through careful planning and direction from the parents or minders to ensure that the child is developing well in all areas. It is a well-known fact that children learn by being with others.”

During early development it is important that children are encouraged to learn through self-initiated and self-directed learning tools. At other times, the adult leads through planned and guided activities and increases or lessens the amount and type of support as children grow in confidence and competence.

Children learn more effectively by being involved in making choices and decisions, and by feeling in control. Through interactive games, learning can become part of every activity, which is enjoyable and rewarding for the child as they can challenge themselves to learn new skills or build on their existing skills. It is in this type of interactive environment that children also practice language and problem-solving skills. Keller adds, “When an adult is listening attentively to the child while displaying positive body language and uses words, phrases or gestures to let the child know they are listening, the child is encouraged to express himself in a creative manner by using their imagination.”

## Technology can make a difference

“The biggest development of children comes from interaction; therefore it is imperative to make sure that we are using the right tools to assist in the development of children’s skills. Interactive tools such as STIMULEARN from Nestlé NIDO 3+, help children explore, discover inquire, make decisions and take risks. Through this experience, children gather information which helps them build skills such as language, psychomotor, problem solving, attention, concentration and memory,” says Keller.

It can easily be said that children use playing as a vehicle to learn through exploration, imagination and investigation. Many education theorists support the



idea that playing is an essential part of children’s lives, it teaches them to learn, think and solve problems, imagine, create and communicate.

Understanding that children learn interdependently and interactively with parents or teachers, the App also creatively combines parental interaction with cognitive stimulation through the various games that make up the App. The App also has a special learning feature for mothers to help monitor their child’s development, equipped with tips and advice from experts.

Keller concludes “Movement activities are especially well-suited to helping children develop social skills.

The App serves as the ultimate visual learning tool specifically designed to meet the learning needs of children whilst understanding children need to be active with games such as:

- Pearl Beach – designed to aid or improves Psychomotor Skills.
- Island Market – designed to aid/improve Language, Memory and Attention.
- Story House – designed to aid/improve Language and Attention skills.
- Forgotten Castle – designed to aid/improve Memory.
- Mr Skylab – designed to aid/improve Problem Solving skills. ▲

**MARLIN KIDS**  
real good value!



**FREEDOM STATIONERY AND MARLIN UNDERSTAND THAT WHEN IT COMES TO EDUCATION, THERE CAN BE NO COMPROMISE ON QUALITY.**

THAT’S WHY MARLIN PRODUCTS ARE DESIGNED TO BE RELIABLE AND DEPENDABLE, ENSURING THAT LEARNERS GET THE BEST POSSIBLE ASSISTANCE WHEN IT COMES TO THEIR GROWTH AT SCHOOL.

**MARLIN**  
real good value!



facebook.com/MarlinStationery

twitter.com/MarlinRSA

www.freedomstationery.co.za





# The future of education ...



## Considering e-Learning ?

### Smart Wi-Fi

The first critical step to any e-Learning solution



**DYNAMIC BEAM FORMING**  
Adaptive Intelligent Beam-Steering  
Interference Rejecting Smart Antenna



**QUALITY OF SERVICE**  
Precision Per-User Video/Data  
quality of service.



**MESHING**  
Self-provisioning, self-optimizing  
high speed Wireless Backbone.



**SECURITY**  
Patented Advanced Per-User Security

- Enterprise-Grade High Density Wi-Fi
- 100% reliable for multiple concurrent connections
- Tried and tested for education globally
- B.Y.O.D. fully supported and compatible with any e-Learning solution
- Professional, prompt and efficient installation
- Support & training provided for simple, seamless configuration

Contact Quentin

Jhb Office: 011 452 6633

CT Office: 021 939 1542

Email: [education@uc-wireless.com](mailto:education@uc-wireless.com)

Website: [www.uc-wireless.com](http://www.uc-wireless.com)

