



Welcome

Warmest wishes for continued success and an enchanted holiday season. Thank you for your continuous support in 2019, it really has been a great year. I am sure everyone is looking forward to a well-deserved break.

IDSC welcomes Durban University of Technology (DUT) as our 22nd

client. "As the Client Liaison manager of IDSC, I would like to take this opportunity to welcome you as our new client. We are excited to have you on board with us. We are confident that we will enjoy our partnership and that our quality service will bring you utmost satisfaction."

- Euna Maisiri

Client Visitations

Our CEO, Glen Barnes has been hard at work, he has been to at least 18 client visits and training workshops this year. This gave each client the opportunity to engage with Glen in the more strategic discussions, on the continued relationship between both parties and to plot key focus areas going forward for each client.

IDSC found these discussions extremely valuable and these have highlighted a number of areas in the Higher Education sector that need urgent attention.

The main issue is one of capacity – the sector is in dire need of additional capacity and we note the many skilled people who are leaving the sector via retirements and placements within other sectors.

The other is funding which seems to manifest itself very differently in the sector. While funds are essentially limited we seem to see many instances where funding is thrown at tools and systems without addressing the required human capital to operate these. The analytical capability of the sector remains inadequate for our intentions and aspirations.

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**Simplicity Through
Innovation**

Collaborations & Partnerships

The IDSC team seeks to build trusting relationships in order to advance the services provided to Higher Education.

2019 has seen IDSC formally partner with You_source SA on the development front, increasing our development capacity.

IDSC has collaborated with Quantum Solutions on a few fronts, the results of these have yet to be realised.

In addition a mentorship programme was established with the IT Certification Academy.



Reflection on the User Group

This year's user group was a great experience for me as I got to meet and interact with most of the clients, which is my primary focus here at IDSC. It was also a great way of learning and understanding our product offering. Our thought-provoking topic this year, **"Integration in Higher Education: What does this mean for the HEDA community?"** really got us thinking..... *Integrate what, why and how?*

The first thing that came to mind when I thought about education and technology was, what are the possible opportunities and challenges that integration offer.

I also looked at technology as an integral part of living in the 21st century, referred to as

the fourth industrial revolution accompanied with challenges and opportunities. The world is connected, students want to consume education in new ways.

Educational Institutions have so many diverse needs and they need to have the ability to move in a lot of different directions, now more than ever. It is pivotal to understand the complex nature of technology in order to integrate it effectively and in a responsible manner into quality education.

This User Group explored a number of practical issues around integration in our environment, amongst others:

- Integrating disparate data sources into effective staging areas or warehouses;

- Integrating different data into better informed decision support models;
- Integrating data into better designed reports, dashboards and information dissemination techniques;
- Integrating new and different technologies to exploit the advantages of cross-platform or cross-application solutions;
- Integrating different skill sets within the community towards more comprehensive solutions.

Ultimately this all comes down to providing appropriate services and solutions to the Higher Education sector.

- Euna Maisiri

Dr Alfred Mutanga's 'Greater Insight to Experiences at the University of Limpopo'

Dr Alfred Mutanga (UL) also shared his experiences through two presentations titled (1) Gaining Greater Insights for Students, Staff and Academic Departments at a University through Data Integrations, and (2) Data Integration as an Enabler to Achieve a more Personalised and Targeted Student Advising within Higher Education – keeping in line with the theme for the User Group.

Summarized remarks:

HEIs need a design and implementation for an infrastructure that will bring together the tools and the data to provide access to the stakeholders.

The infrastructure should include integration and curation for data from different sources, embedded statistical environment, high performance computational back end and extensibility for unstructured data.

When data from multiple sources are collected and merged, i.e., the data are integrated, they may reflect the dispersed activities of institutional core lines of business in a more precise way than what is possible for each individual data source.

Without institutional processes to integrate the varied and multiple data assets, there is no one place to facilitate institutional intelligence and optimise resource allocation!!

IDSC and the Durban University of Technology Partnership (DUT)

The DUT partnership agreement with IDSC was formalized on the 10th of April when the Server became available. The implementation took place on the 25th of June and the deployment on the 12th of December. IDSC is proud to support this well-established university in its endeavours to develop as an African university providing leadership in knowledge creation and dissemination.

The Launch was a success and was well received by all stakeholders. Prabashnee Kisten and Shamila Ishwarkumar shared their insights on their experience with the launch of PowerHEDA.

They identified a number aspects of significance through this process.

MI Challenges:

- Lack of data integration as data exists on various decentralized platforms. (ITS, LMS, Celcat, CELT, Elements, etc.)
- Limited access to data.
- Absence of a data warehouse.
- Lack of Business Intelligence (BI) Tools, self-service data, real-time reporting, learning and predictive analytics, warning systems and

dashboards.

- Staff have limited knowledge on how to use data.
- There is a lack of a 'data approach' and culture to decision-making within the University.

Beginning of PowerHEDA Journey:

- HEMIS, ITS and Peer Data Modules, PowerHEDA, HEMIS Manager and Student Tracking were selected.
- Dedicated Project Manager appointed.

- Project Team identified with key staff from MI and ITSS.

MI is now empowered with the capability to:

- Integrate data from various sources into the data warehouse.
- Create BI reports, dashboards and data models.
- Develop BI analytics capacity.
- Provide access to information.
- Build capacity of staff in the use of data.

PowerHEDA Launch at DUT



Did you Know?

I - Information
D - Delivery and
S - Statistical
C - Consultation



Useful Tools

Riekert van Lith shared some valuable tips and tricks with the delegates at the 2019 HEDA User Group. These are a few of the tips that we at IDSC find useful:

- **Notepad ++ as an alternative to Notepad**

- Notepad++ is a text editor and source code editor for use with Microsoft Windows. It supports tabbed editing, which allows working with multiple open files in a single window, language formatting (javascript, xml, sql, etc) and many other features and functions.

- **Use Winmerge to compare files, folders and text**

- WinMerge is a free software tool for data comparison and merging of text-like files. It is useful for determining what has changed between versions, and then merging changes between versions.

- **Manage folder sizes with TreeSize Free**

- TreeSize Free is a free disk space manager for Windows. The software shows you the sizes of folders including all subfolders.

- **PicPick**

- PicPick gives you the tools to take screenshots quickly and then edit them. It provides a full-featured screen capture tool, intuitive image editor, color picker, color palette, pixel ruler and protractor.

- **Useful websites assisting with UI design:**

- Color Palettes; <http://colormind.io/> and <https://colors.co/>
 - Create, save and share perfect palettes.
- Icons: <https://www.iconsdb.com/>
 - IconsDB let's you customize and download icons in any color and size.
- CSS: <https://www.cssmatic.com/>
 - CSSmatic makes it easier to code new features such as borders, shadows, textures or gradients.

TIPS & TRICKS

- **Useful shortcuts for Windows 10:**

- Quick Access to certain functions: Windows Key + X (or right-click on "Start")
- Clipboard Manager: Windows Key + V (Has to be enabled in Windows Settings)
- Magnifier: Windows Key + (+)
- Run as administrator: Ctrl+shift - click

- **Some considerations if you're using SQL Server Management Studio:**

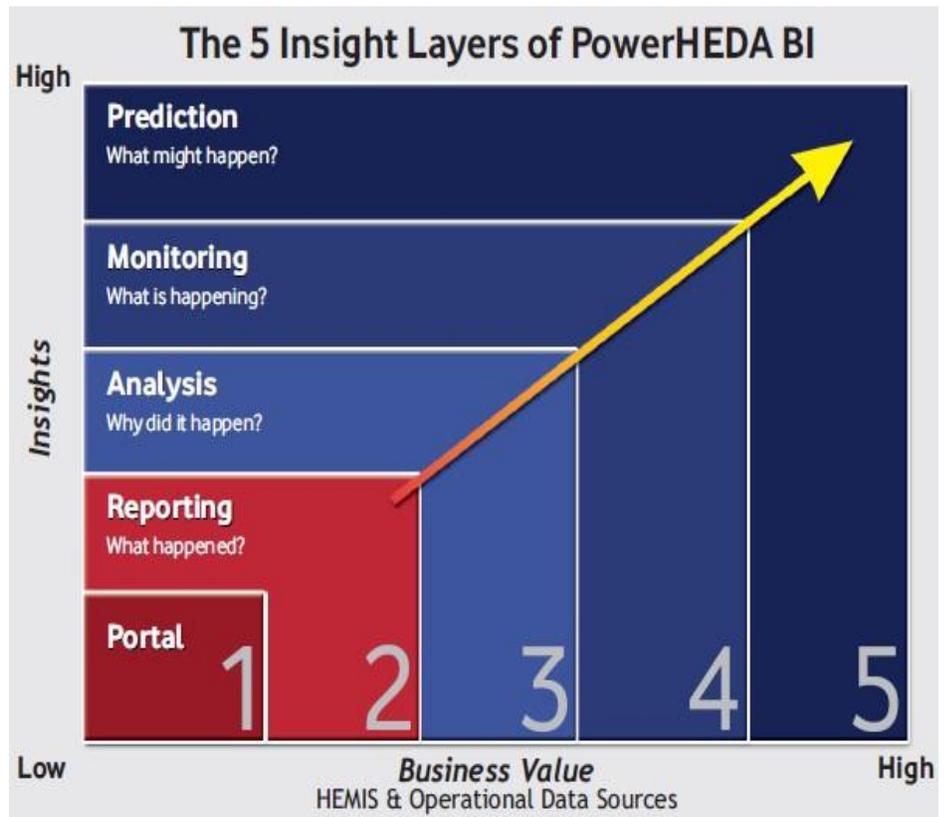
- In the options > connection properties during login, define custom server colors for easier identification of which server is in use.
- Define your own custom keyboard/query shortcuts - Tools > Options > Environment > Keyboard > Query Shortcuts.
- Install RedGate SQL Search for powerful searching of database objects within SSMS.

PowerHEDA

PowerHEDA is a tool that has the ability to provide an integrated storage and reporting solution for all data available at any given institution.

It is currently used by 22 of the higher-education institutions in South Africa to facilitate real-time reporting for strategic planning and institutional research. The tool allows the extraction of live data from any operational data source and integrated HEMIS data in a warehouse.

PowerHEDA reports and dashboards provide end-users access to much of their reporting needs in a secure, single point of reference, user-friendly environment.



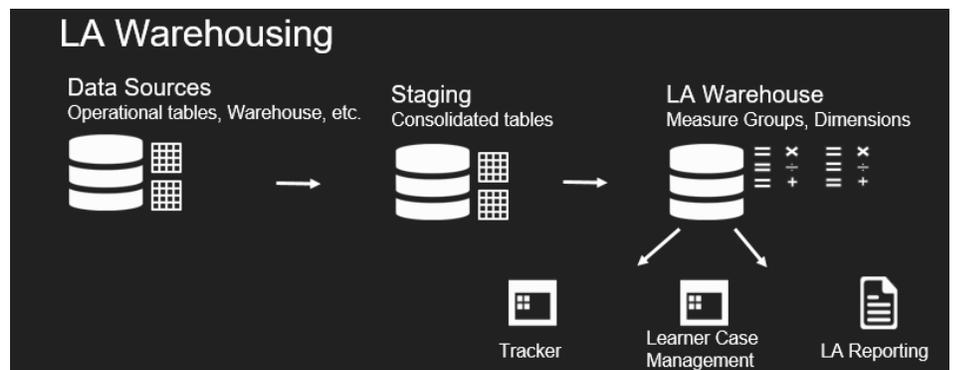
Learner and Predictive Analytics

The application of predictive analytics in higher education has evolved progressively in the last decade, with institutions focusing on learner analytics to answer questions like, "what are the characteristics of students who persist in their studies and of those who graduate within a specified time?"

The Learner Analytics App is a reporting tool that allows you to drill down using filters from the student-qualification level all the

way down to the student academic record, to assist on decision making based on the analysis of the reports. Making use of dynamic SQL the content of Learner Analytics can be transformed to the demands of the client and further customized by clients themselves.

The contents of the LA Warehouse is packaged into pre-defined analyses and dashboards addressing learner progression, success, risk, profiling, demographics and detailed academic results.



THANK YOU

FOR BEING PART OF OUR TRAINING



Thank you to all our clients who attended the 2019 User Group. We hope that you found the workshops informative and worthwhile.

Thank you for your comments and feedback, we assure you that each will be given consideration so that future workshops will be even more of a success.



Please note that all IDSC offices will be closed from the 17th of December 2019. We will reopen on the 2nd of January 2020.

We wish you all the warmest of holiday cheer!

New Staff

As we continue to grow, the year 2019 has brought about significant successes and consequently we have increased our staff compliment at our Centurion and Potchefstroom Offices.



Dmitri's areas of specific interest include:

- Data warehouse architecture
- Business Intelligence development
- Business and data analysis
- Data modelling



Pieter's areas of specific interest include:

- Network Architecture
- Server Architecture
- Software Support
- Systems Administrator



Euna's areas of specific interest include:

- Service Delivery and Customer Care
- Client Engagement
- New Business Development

Skill Transfers

Unfortunately time will demand that some staff move onto new opportunities, we have had our share of 'transfers'...

- Gert Venter has moved on to pursue a career in Software Development.
- Evan Witten has moved to the University of Free State and remains in Higher Education.

We wish them all the very best in their new endeavors!



2019 HEDA User Group in Pictures

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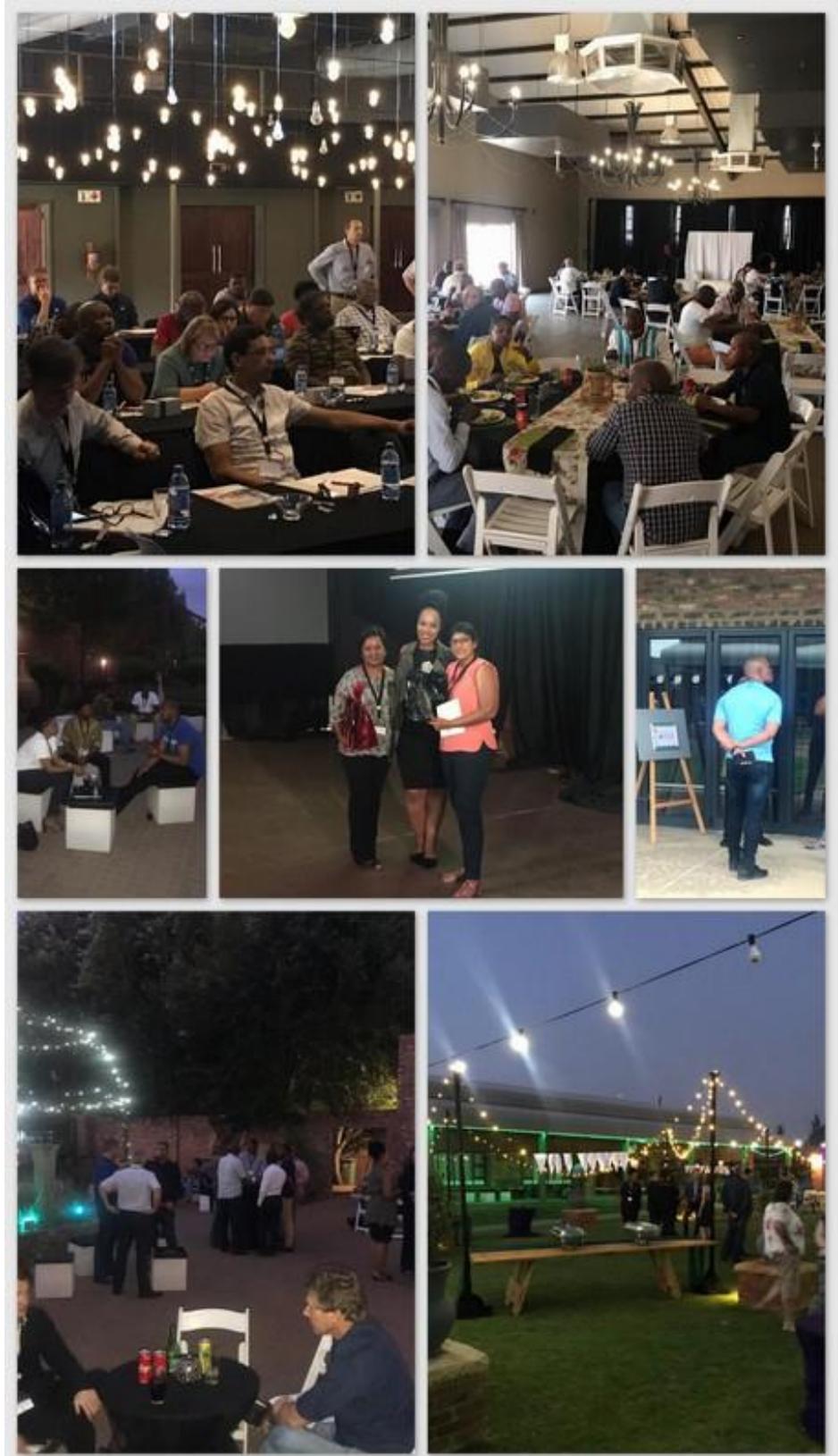
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Next Publication

March 2020