Proceedings Report on

DEPLOYMENT OF OPEN DATA DRIVEN SOLUTIONS FOR SOCIO-ECONOMIC VALUE THROUGH GOOD GOVERNANCE AND EFFICIENT PUBLIC SERVICE DELIVERY

as part of the

INNOVATION FOR INCLUSIVE DEVELOPMENT (IID) LEARNING SEMINAR SERIES

Date: 30 August 2018
Time: 9:30 to 14:30
Venue: CSIR International Convention Centre, Pretoria

Presented to the Department of Science and Technology (DST) by

the Academy of Science of South Africa (ASSAf)

on

28 September 2018

The Academy of Science of South Africa (ASSAf) was inaugurated in May 1996. It was formed in response to the need for an Academy of Science consonant with the dawn of democracy in South Africa: activist in its mission of using science and scholarship for the benefit of society, with a mandate encompassing all scholarly disciplines that use an open-minded and evidence-based approach to build knowledge. ASSAf thus adopted in its name the term 'science' in the singular as reflecting a common way of enquiring rather than an aggregation of different disciplines. Its Members are elected on the basis of a combination of two principal criteria, academic excellence and significant contributions to society.

The Parliament of South Africa passed the Academy of Science of South Africa Act (*No 67 of 2001*), which came into force on 15 May 2002. This made ASSAf the only academy of science in South Africa officially recognised by government and representing the country in the international community of science academies and elsewhere.

DEPARTMENT OF SCIENCE AND TECHNOLOGY AND ACADEMY OF SCIENCE OF SOUTH AFRICA

INNOVATION FOR INCLUSIVE DEVELOPMENT LEARNING SEMINAR

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WELCOME AND INTRODUCTION

Mr Stanley Maphosa (National and International Liaison Manager, ASSAf) welcomed everyone to the third seminar in the Innovation for Inclusive Development (IID) series. The seminars are hosted by the Academy of Science of South Africa (ASSAf) and sponsored by the Department of Science and Technology (DST). The information collected and the recommendations made will be used to inform and influence government policy via the DST.

OVERVIEW OF THE INNOVATION FOR INCLUSIVE DEVELOPMENT SEMINARS

Mr Ephraim Phalafala (Socio Economic Innovation Directorate, DST) explained that the IID seminars are a key mechanism for providing an enabling environment for inclusive development, and linking researchers and other interested parties with policy-makers. The seminars are part of the ongoing initiative to improve the robustness of data collection and knowledge within the DST. The Socio Economic Innovation Directorate undertakes pilot projects in key areas and is currently involved with the CSIR Built Environment Division in developing a knowledge-sharing portal in the domain of human settlements. The portal will ensure that everyone involved in this domain has access to all the available information and research findings, although this is not yet open data.

SESSION 1: OVERVIEW OF OPEN DATA: NATIONAL AND INTERNATIONAL PERSPECTIVES

Overview of Africa's open government data readiness journey and key lessons relevant for emerging economies (Dr Paul Mungai, University of Cape Town)

The requirements for the success of open government data (OGD) include a supportive legal framework, openness of operations, alignment with democratic principles and public scrutiny responsiveness. Appropriate feedback mechanisms, policies, efficiency and privacy are also important. OGD properties include the need for good structure, the right to re-use without restriction, and ease of access. In structuring the data to be provided, it is important to take into account how the data will be accessed.

In order to create increased public awareness, it is essential for governments to enable communication and collaboration. Innovation in the way in which government open data are provided and made available will lead to increased transparency regarding government programmes and activities, enable government responsiveness to citizen needs and promote democracy.

The findings of the OpenData Barometer (ODB) (2015, 4th Edition published by the Worldwide Web Foundation) indicate that Africa is lagging behind other regions in the use and impact of open data. No sub-Saharan African country ranks in the top 40, while six rank in the bottom ten. Only 10% of the 1380 datasets analysed were open, and it is alarming that only two of these datasets were from Africa. Performance across the continent is relatively poor, and a downward trend is all too common in the overall barometer scores between 2013 and 2015. South Africa showed a slight improvement. Generally ODB implementation scores are lower than readiness scores, and the gap is not closing. Open data initiatives lack long-term commitment and resources, resulting in short-term gains that are unsustainable.

From the timeline of the Kenya Open Data Initiative (KODI), it is evident that once the World Bank funding came to an end in 2016, there was a reduction in activity as there was no government funding to continue. Lessons from KODI indicate that four major

things need to be in place: planning, coordination and capacity building; awareness buy-in and ownership; law; policy and advocacy. Based on citizen demand, governments need to prioritise which data will be made available.

According to the Global Partnership for Sustainable Development Data, good data are essential to the success of the Sustainable Development Goals. Serge Kapto (Policy Specialist, Data for Development, United Nations Development Programme) has expressed the view that the issue of data is inherently both political and technical. The example of Tanzania opting out of the Open Government Partnership in 2017 for internal political reasons seems to endorse this view. Civil society is placed at risk by political actions.

Open data initiatives and the Open Government Partnership: promise and practice in South Africa (Prof Tracy-Lynn Humby, University of the Witwatersrand)

South Africa is a founding partner of the international Open Government Partnership (OGP), which aims to bring together government reformers and civil society leaders to create action plans. The 70 OGP participating countries and 15 subnational governments have made more than 2500 commitments to open government. An Independent Review Mechanism (IRM) is built in to the partnership structure.

With respect to the role of open data in the OGP, participants commit to increasing the availability of information about government activities, the provision of support to civic participation, the implementation of the highest standards of integrity throughout their administration, and increasing access to new technologies for openness and accountability. The declaration signed by participants is detailed and far-reaching and includes the proactive provision of high-value information, including raw data, in a timely manner, in formats that the public can easily locate, understand and use, and that facilitate re-use. There is also a commitment to seeking feedback from the public and the pledge to take such feedback into account to the maximum extent possible.

The IRM secretariat undertook a review of a representative sample (242) of the over 2000 commitments that have been submitted. The results of the review are published in a report entitled *Aligning supply and demand for better governance: open data in the Open Government Partners 2012–2015*. Research questions included the prevalence of open data in the OGP; whether OGP commitments are limited to the supply of information or whether they also cultivate demand and the use of data; whether open data commitments are cross-cutting whole-of-government reforms or whether they serve specific producer and user communities; whether technical reforms lead to broader legal and institutional issues necessary for useful open data; and how impactful open data commitments are.

The findings of the report included:
- Open data must be useful.
- Open data commitments emphasise government supply of data, and government coordination mechanisms over-identify and stimulate public demand for data.
- There was a smaller subset of commitments aimed at aligning supply and demand by reforming the regulatory framework and setting up mechanisms to ensure greater demand (supporting intermediaries, public awareness campaigns, citizen feedback mechanisms, high-value content, and data evangelists within governments).

- There was some evidence that sector-specific approaches to open data result in higher rates of implementation than cross-cutting and whole-of-government approaches.

The IRM recommended that open data reforms should be integrated with open decision-making and holding public officials to account. It also recommended better alignment between supply and demand. Blockages to accessing high-value data should be removed, and right-to-information legislation should be reformed to allow for data flow and participatory prioritisation exercises. High-level political support is essential. Following the IRM report, the OGP Open Data Working Group commissioned five research studies.

In reviewing South Africa's commitments to open data in the Third National Action Plan, there were references to the concept of open data in several parts of the plan, but only two specific commitments were made, namely the environmental management information portal and the pilot open data portal.

The Department of Public Service and Administration (DPSA) is responsible for developing a pilot open data portal. This portal was envisaged as a whole-of-government platform consolidating various datasets from the three spheres of government. A 'throw-away tool' was developed consolidating 409 datasets, but the portal has not been populated. The challenges included the lack of public funding, reticence by some government departments to make datasets available, and the lack of demand for open data. The DPSA had now partnered with civil society organisations and secured funding for an open portal based on ten datasets.

The commitment to the Integrated Environmental Management Portal focused on the aggregation of existing datasets already in the public domain and the addition of some other appropriate datasets. Progress was hampered by technical issues, and the portal is not yet live. There was also some resistance to making datasets available, particularly in the domain of mineral resources.

It needs to be acknowledged that the open data movement in South Africa is in its infancy, and it is questionable whether the OGP can be the driver of initiatives to take the movement forward. However, civil society has considerable commitment to open government. It is important to heed the OGP research on open data initiatives. Demand and supply must be aligned, and sectoral approaches must be instituted that are aligned with civic participation, public accountability and social justice movements. There is a need to reform the Promotion of Access to Information Act (No. 2 of 2000), as it is more often a hindrance than a help.

SESSION 2: OVERVIEW OF OPEN DATA: SECURITY AND PRIVACY

Open data, security and privacy (Dr Uche Mbanaso, Executive Director: Centre for Cyberspace Studies, Nasarawa State University, Keffi, Nigeria)

Data constitute the raw material for the digital age and are highly prized, but it is important to consider security concerns as most data in use today have embedded privacy and national security related issues. Data has always been of national security interest, especially data of personally identifying information (PII) and sensitive

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government transactions. Open Data security considerations include national security, privacy, existing data protection laws and copyrights, intellectual property, etc. Generally, important data security properties include confidentiality, integrity, authenticity, availability and non-repudiation, which raises the question: does 'openness' de-emphasise the security aspects of data?

There are important questions that need to be asked with regard to open data and national security. These include whether open data should contravene national security interests; which data can be classified as being of national security interest; and whether existing laws hamper open data initiatives. It is important to determine whether it would be necessary to reclassify data in order to comply with national security interests. Ultimately it is important to strike a balance between national security interests and open data benefits, and to determine how data from security intelligence agencies that might benefit the public good could be published without compromising national security.

Conversely, in theory, anonymising can data minimise privacy risks but could diminish the value of the data. Thus, critical questions need to be answered, such as the benefit of using non-aggregated data for public good and the risks of using data containing sensitive information. It is important to determine the best technical, ethical and policy approaches that guarantee privacy while at the same time maximising the benefits of open data.

Many datasets may have associated with copyright issues. It will be necessary to assess the value to the public good of such data and determine how copyright and intellectual property can be dealt with to support the benefits of open data. There is also the need to deal with co-authored data that may belong jointly to government and private enterprises.

Contextually, in order to conduct an assessment of security and privacy with regard to open data, five key security goals – confidentiality, integrity, availability, authenticity and non-repudiation, must be factored as data assets are first identified. A security risk and privacy impact assessments can then be of great help, which can help draw up open data security standards or requirements.

In summary, security, privacy and related legislation may place restrictions on the use of open data, making relevant assessments critical factors to drive the benefits of open data. Consequently, frameworks must be developed to support open data security, privacy and quality (or trustworthiness). All these issues and concerns raise the need for more R & D (research and development) inputs from the research community or academics.

Questions/Comments

Question: What are the possible solutions for Africa in the domain of open data?

Response (Dr Mungai): The key is consistency. There are several key meetings taking place in the near future, so there could be a flurry of activity, but rushing towards solutions without follow-through is not the answer. It would be useful if the implementation of open data initiatives were a key result area for government officials. It

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must also be borne in mind that processing data in this new way requires additional work, and government will have to address any capacity gaps. Capacity and appropriate skills would lead to greater consistency and success.

Observation: The open data initiative is noble, but it is important to consider that researchers whose careers depend on the creation and reporting of data will need assurance that the data can be trusted. It is also essential that researchers and authors are protected by copyright.

Response (Dr Mbanaso): Trust is very important in relation to the integrity and authenticity of open data. The research community has to find ways of presenting and authenticating government data.

Question: Would civil society hinder or facilitate open government data?

Response (Prof Humby): The involvement of civil society would facilitate open data, especially the parts of civil society that are working for social justice.

Response (Dr Mungai): In strong democracies civil society is seen as enabling, but civil society tends to be regarded as a hindrance in weak democracies. There is also a need to build trust and ensure the permanent availability of data.

Response (Dr Mbanaso): Since the focus is primarily on government, democratic roots will help transparency. For example, the lack of data has hampered the fight against corruption in Nigeria; data would facilitate transparency.

Last thoughts from the presenters:

Prof Humby: Implement open data in the government environment.

Dr Mbanaso: There should be greater advocacy for open data, especially in Africa to entrench good governance and transparency.

Dr Mungai: Create enabling infrastructures.

SESSION 3: OPEN DATA FOR SOCIO-ECONOMIC VALUE: ROUNDTABLE DISCUSSION

Ms Gabriella Razzano (Executive Director, Open Democracy Advice Centre)

A piece of data or content is open if anyone is free to use, re-use and redistribute it, subject only, at most, to the requirement to attribute and/or share alike.

The concept of open data is well known, but the aim should be good open data that are updated, accessible, linked, high quality, relevant, with clear metadata, in multiple formats, non-proprietary and free.

The benefits of open data are economic (McKinsey quotes US$3 trillion in economic value in opening data), have social benefits, increase accountability and legitimacy, and enhance engagement, innovation and commerce. An example of informed decision-making from open data is the saving made by the Botswana government on

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the acquisition of a particular pharmaceutical product. The drug was found to be much cheaper in South Africa, which enabled the Botswana government to re-negotiate the price they were paying to the supplier. This type of interaction is only possible with the availability of reliable open data.

South Africa has no specific open data policy, and the legislation regarding access to information is fragmented. There are several applicable acts, but open data as such has not been dealt with in law, which makes it a difficult environment in which to work. The Promotion of Information Act (PAIA) is the overarching law that should provide the background, but there are issues related to using active real-time data. There is a need to promote understanding and build case studies to show the value of open data.

The call that should be made regarding the opening of data is the promotion of the presumption of openness guided by PAIA. Priority areas for attention should be the development of policies and comprehensive understanding to enable rather than hinder the opening of data, and considerations of the quality of data. It is also important to encourage and incentivise the exploration and development of released data, and to demonstrate the real value of opening useful data.

Ms Ina Smith (African Open Science Platform, ASSAf)

The African Open Science Platform project aims to understand policies related to open science and open data on the continent. The project also considers infrastructure, capacity building and incentives. Research data inform government policies and decisions, and government data inform research. Access to quality data is increasingly important. Without data, one is just another person with an opinion.

Governments use taxpayers' money and therefore need to build transparency, accountability and trust, much of which can be achieved through the correct management of open data. An example of this was the follow-up to the Ebola outbreak in Africa. Foreign national health and aid workers came to Africa and collected much data on the outbreak, which they took home with them when they left. Only after the outbreak was under control was there a call for good open data from researchers for use in possible future outbreaks. Collecting data is expensive, so re-using data and building on existing data is essential. Another example was the case of the high incidence of species substitution and mislabelling detected in meat products sold in South Africa. Unfortunately the complete research results were not made available to the public. Citizens have the right to see this type of data in order to make their own informed decisions.

Open data will streamline the dissemination of information, including the sharing of information between government departments. Open access will help democratise the country through the provision of equal access to all, and will provide information for better decision-making by policy-makers. Access to open data enables the targeting of resources, but deep understanding of how to curate valuable data resources is essential. To maximise the usefulness of data, it is essential that it is well curated, as open as possible, and as closed as necessary.

In order to address global challenges, international collaboration and the sharing of government data is very important. Unfortunately South Africa is lagging in this regard.

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The documents on the South Africa National Data Portal were uploaded in 2015 and nothing has been added since then. The Open Data Institute publishes some government information in their report *Supporting sustainable development with open data*, and also shows many examples of how data can help countries address socio-economic challenges.

Delegates were encouraged to attend International Data Week in Gaborone, Botswana from 5–8 November 2018. Information on the event is available at www.scidatacon.org/IDW2018/.

Mr Francois van Schalkwyk (Stellenbosch University)

Mr van Schalkwyk presented two open data use cases.

Before presenting the cases, he drew attention to the fact that there are three types of open data, namely open government data, open research data and open corporate data. In each institutional domain, there are different advantages to publishing the data, and the specific incentives for releasing data are different. It is important to identify these in order to embed open data practice in each institutional context.

A project was undertaken at the University of Cape Town to determine whether university planning departments in South Africa were using open data from the Higher Education Management Information System (HEMIS). An unexpected finding of the study was the use of intermediaries in the provision of data in the higher education system. The Department of Higher Education and Training (DHET) collects data from universities and publishes it on their website, but it is not easy to find the data on the website, and the very large data tables are difficult to use without notes or explanation. The Centre for Higher Education Transformation (CHET), a non-governmental organisation (NGO), has reworked DHET tables and presented the data in a more user-friendly way. Private companies build dashboards from the DHET data and sell the data back to universities in a usable format.

There are thus three sources of data in the small ecosystem of higher education and training: government data that are very difficult to find or use; open data from an NGO that is usable but not necessarily sustainable because the NGO relies on donor funding; and dashboards built by a private company that is more sustainable because it has developed an income-generating business model.

Twelve case studies have been published in the book *Open Data in Developing Economies* highlighting the impact of open data. One of these is a case from South Africa on the price of medicines. The South African government publishes online on a quarterly basis the exit price of medicines in a spreadsheet with some 15 000 lines of data. An app was developed by OpenUp to show users of the app the price of alternative medicines to those prescribed. It also provides information on available generic medicines. OpenUp needs to download the data manually from the government website and clean the data before it can be used by the app. OpenUp receives no funding despite the time it invests to keep the app running; nor does it charge for the use of the app. The developer has approached government for support, including making the data available via an API (application programming interface) to remove the labour-intensive manual work from the process. Government is unwilling to

provide support and believes that it is already fulfilling its duty simply by publishing the information in the public domain. The app is used not only by interested individuals but also by doctors who serve poorer communities, which means that the benefit of cheaper medicines is reaching a wider group beyond those who own smart phones and who are technologically literate. This shows the importance of intermediaries in open data value chains.

Questions/Comments

Comment: Government documents have to be classified, for example, as confidential. Government must be seen to be working efficiently with openness and transparency, but open data do not necessarily assist government as a whole.

Comment: It is important to take language into account when developing tools. In higher education, it would be useful if solutions and tools that look at entrepreneurship are introduced prior to graduation. The government should drive initiatives that focus on self-employment.

Question: The case studies have not focused on business models. In looking at the funding model for the Ergonomics Exchange that will soon be launched, the advertising that was attracted was not always appropriate. Is there any way to filter advertising on to a site so as to ensure that the advertising that appears helps to support the cost model but excludes dubious deals?

Response (Ms Smith): Optimising the value of the data has not yet started.

Response (Mr van Schalkwyk):
- From the experience of working in Africa, it is clear that governments are often unaware of the data that they hold. It is beneficial to begin by mapping the available data. The confidentiality status of the data can then be determined.
- Entrepreneurship needs to be stimulated, but unfortunately government data are often unreliable, and entrepreneurs need reliable data.
- Advertising is not an easy issue to address, but perhaps it might be possible to engage with Google on this issue.

Response (Ms Razzano):
- Language is a huge issue not only in relation to open data but also to the internet, which widely used but excludes many due to language issues.
- It is sometimes interesting to see how a culture of openness can drive bureaucratic behaviour. Sweden has had an access to information law since 1776. E-mails sent from government departments in that country are immediately available to the public at large unless classified as confidential.
- The Promotion of Access to Information Act obliges government departments to make available a list of documents produced by the department. This has not been done systematically, but the newly created Information Regulator might offer an opportunity to drive open data policies and guidelines.

Question: In addressing the business model, there are questions over who should cover the costs of creating and converting data to usable forms. If end-users pay, their requirements will be taken into account during development. There need to be

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measurement mechanisms and drivers for managers regarding the creation of data. There are question over the use of open data in the commercial domain and the abuse of data by intermediaries. How will such issues be dealt with?

Question: How much capacity does government have to make data available? What are the incentives, motivation and skills required to make data available? Should there be national legislation per sector regarding open data? What has worked in other countries?

Question: What is the impact on economic development of working in silos? Is culture impeding progress on open data? Are we ready for open data, or should we be more realistic about timeframes for implementation?

Question: It is not always in the best interests of government to fully embrace the notion of open data. The instruments that should be used to keep government accountable are both political and technical. What should be put in place in government to assist in accessing open data?

Response (Ms Smith): Government will have to find ways to collaborate and make manpower available. The sharing of data is essential. In order to avoid having to pay to have information published and having to buy data, it is important to take responsibility for policies on copyright and licensing in a digital environment. We should learn from the research environment, where considerable progress has been made in how to manage research data.

Response (Mr van Schalkwyk):
- The adoption of open data requires a shift in mind-set rather than a technical shift.
- With regard to the issue of capacity, there are examples of partnering with private and not-for-profit organisations; for example, National Treasury makes information available to NGOs, which in turn develop apps and websites.
- Experience of developing policy in Africa has shown the need for an implementable plan rather than a broad base.
- On the issue of silos, the importance of inter-departmental sharing is not sufficiently appreciated. Cooperation provides incentives and feedback loops. It should not necessarily be assumed, however, that incentives will bring about change, as the initiatives may die if there is a change in the initial drivers.

Response (Ms Razzano): Legislation tends to move slowly. Perhaps the legislative processes should move out of the way and allow policy processes to do the majority of the work on implementation. Many of the problems could be handled in creative ways through practical interventions.

Commercial value from open data should be encouraged, as people are often prepared to pay for value-addition on top of available datasets. There is a change of thinking regarding the need to pay for value-addition.

There are increasing calls for evidence-based decision-making by government departments. This is a data issue and will later become an open data issue.

Question: Some of the remarks made have been quite scary, for example, about the open data movement being in its infancy, the need for greater advocacy and mechanisms for engagement, and the removal of data for political reasons. What thoughts are there on the most realistic and politically savvy ways for organisations to mobilise and adopt an OGP ethos?

Question: Who should drive open data in society? Depending on who drives the initiative, there might be bias in the data that are made available. Are the public educated about open data and its benefits, which kinds of data can be made openly available, and possible infringement of privacy?

Comment: Open data is problematic because it is very valuable, but it is not defined or governed, and does not have a certificate to denote ownership. The dialectic between privacy and openness has not been resolved. Moreover, there is the political problem of data. Real-time data are even more problematic, as a lot of data is handed over freely. The law will have to define data and determine the way in which data are handled.

Response (Ms Razzano):
- It is not clear whether the law can handle data or adapt quickly enough to the issues. This is a fascinating debate. The privacy question is of especial concern.
- Legal compliance obligations might be a way of facilitating advocacy.

Response (Mr van Schalkwyk):
- Piracy in the music industry illustrates what can happen if the law is not able to keep up, and this could also happen with data. The European Union has a policy on privacy and is more aware of these issues.
- The general public does not necessarily need to know what open data is or how open data works, but it is important to know about privacy rights and for them to benefit from open government data through improved accountability of government, improved delivery of services, etc.
- With respect to advocacy, it is important for NGOs to be both critical and supportive. It is important to give credit where good things are happening in government.

Response (Ms Smith):
- We live in smart cities with surveillance cameras collecting data that are used without our knowing.
- Open data in the research environment have been driven by researchers, and they are only now talking to government on these issues. However, researchers need to ensure that data are curated properly. Organisations such as ASSAf and the National Research Foundation are concerned with the curatorship of data.

Final words from presenters

Ms Razzano: We are big fans of open data but even bigger fans of finding real solutions for people, especially those in government, with a strong focus on helping people to do good.

Mr van Schalkwyk: We need more discussions on open data with an even more diverse audience, including government representatives.

Ms Smith: African government data need to be open in order to address African issues and challenges in moving to a more equal and democratic society.

SESSION 4: CASE STUDY

Open data in South African higher education: policy landscape and factors for participation (Ms Michelle Willmers, University of Cape Town)

Today we are faced with the open ecosystem – open access, open data, open education, open government, open licences, open scholarship, open science and open source software. These are integrated, but there are challenges and tensions. It would be good to see more collaboration between the different disciplines. All open practices rely on engagement with and understanding of intellectual property and open licensing. Intermediaries such as librarians are crucial in building the knowledge of copyright principles among academics and applying open licensing. It is essential to pay attention to the terms, conditions and fine print before signing contracts to ensure that copyright is secured.

The two pillars of data stewardship are based on the premise of 'first do no harm'. One pillar is concerned with the consensual, ethical and legal aspects, and the other with comprehensibility, coherence and value. Stewardship is not only about sharing, but also about research data management and open data publication. Institutions and policy frameworks have matured, and open data is no longer a matter of just putting things online. There are questions around the availability of capacity to ensure data management. Increasing numbers of institutions are developing research data management policies, but this is uneven across universities.

There is a hierarchy in access to data. At the lowest level there is access to infrastructure (lights, water, Internet). This is followed by permission, which includes policy on intellectual property, ownership and copyright issues. There is confusion at this level over who owns the data, and what can or cannot be used by individuals. Awareness of what data are available is next in the hierarchy, followed by capacity, and finally volition where the need to share is identified.

There is still considerable uncertainty among academics about ethics, ownership, re-use, rights to publication and the implications for collaboration. There is a lack of certainty regarding the quality of data and how to actually prepare data for publication. Data management planning is part of research management planning.

Many academics ask the question, 'So what?' The value proposition entails being able to build on previous work. On large-scale projects with several researchers, access to good micro-data is invaluable.

The policy that should be developed to address the value proposition should include more concerted promotion of utilising open datasets, together with a reward and incentive system revised to recognise effort. Policy should also acknowledge the efforts of intermediaries in the academic system and integrate and recognise data stewardship and curation in ethics processes. Longtail reporting, citations, analytics and impact stories should be addressed, and open data practices should be recognised in the quality assurance (peer review) process.

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Questions/Comments

Question: As part of a particular research project, transcripts and audio files are stored on a shared drive. Some participants in the research have now requested anonymity. What organisational policy approach is recommended in this situation? How can anonymity be protected in a shared drive environment?

Response (Michelle Willmers):
- Most research collaborations are governed by a memorandum of agreement, grant conditions or a research contract dictating how this kind of situation would be managed. Not all contracts are stipulated in much detail, however, and many are not even read.
- Complete anonymity is very unusual in the research environment. Confidentiality is different, and there are protocols in this regard. At the first level of data collection, content can be captured and secured, depending on the particular research contract and infrastructure. Mechanisms are implemented as needed.

Comment: There are many data management tools available that could help with the storage of research data.

CLOSING REMARKS

Mr Tshepang Mosiea (Director: Science and Technology for Sustainable Human Settlements, DST)

Important points have been made regarding open data, its role in governance and the partnership between government and civil society. The African perspective and the barometer of performance indicate that there is still much to be done. The quality and accuracy of data are very important. Portals must be maintained and contain useful data. Data represent power, but important points regarding challenges and privacy issues were raised. These seminars provide a platform for dialogue and make a valuable input to government policy and practice.

Mr Maphosa thanked the speakers, organisers, delegates and the DST for their contributions to the success of the seminar.

APPENDIX 1: LIST OF DELEGATES

Title	Name	Surname	Organisation
Mr	Bongani	Maluleka	Air Traffic and Navigation Services (ATNS)
Mr	Percy	Morokane	ATNS
Ms	Sithulile	Mzobe	ATNS
Mr	Lazarus	Senyolo	ATNS
Dr	Siyavuya	Bulani	Academy of Science of South Africa (ASSAf)
Dr	Linda	Fick	ASSAf
Dr	Leti	Kleyn	ASSAf
Dr	Tebogo	Mabotha	ASSAf
Ms	Marvin	Mandiwana	ASSAf
Mr	Stanley	Maphosa	ASSAf
Ms	Thato	Morokong	ASSAf
Ms	Ina	Smith	ASSAf
Ms	Kelebogile	Seotloe	ASSAf
Ms	Henriette	Wagener	ASSAf
Mr	Nick	Mannie	Aurecon
Dr	Uche	Mbanaso	Centre for Cyberspace Studies, Nigeria
Mr	Sthembiso	Mkhwanazi	Council for Scientific and Industrial Research (CSIR)
Dr	Mark	Napier	CSIR
Ms	Nobubele	Shozi	CSIR
Ms	Precious	Lukhele	Department of Science and Technology (DST)
Mr	Tshepang	Mosiea	DST
Mr	Tiyani	Ngoveni	DST
Mr	Ephraim	Phalafala	DST
Ms	Lynne	Smillie	Department of Trade and Industry (the dti)
Mr	Anele	Apleni	Government Printing Works
Ms	Hanlie	Baudin	Human Sciences Research Council (HSRC)
Ms	Laetitia	Louw	HSRC
Prof	Kedibone	Phago	Mangosuthu University of Technology (MUT)
Ms	Thandi	Smith	Media Monitoring Africa
Ms	Pheladi	Mabotha	Moloko Kwizeen
Mr	Letlhogonolo	Tlhako	National Health Laboratory Service
Ms	Nthabiseng	Maseko	North-West University (NWU)
Ms	Nicolene	Steyn	NWU
Mr	Coert	Van Rensburg	NWU
Mr	Malindi	Edward	Office of the Premier, Limpopo
Ms	Madikana	Mokgokong	Office of the Premier, Limpopo
Ms	Sophie	McManus	Open Data Durban
Mr	Robert	Louw	Prefrontal Constructs
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APPENDIX 2: LIST OF ABBREVIATIONS

ASSAf	Academy of Science of South Africa
DPSA	Department of Public Service and Administration
DST	Department of Science and Technology
IID	Innovation for Inclusive Development
IRM	Independent Review Mechanism
KODI	Kenya Open Data Initiative
NGO	Non-governmental organisation
OADC	Open Democracy Advice Centre
ODB	OpenData Barometer
OGD	Open government data
OGP	Open Government Partnership
PAIA	Promotion of Access to Information Act