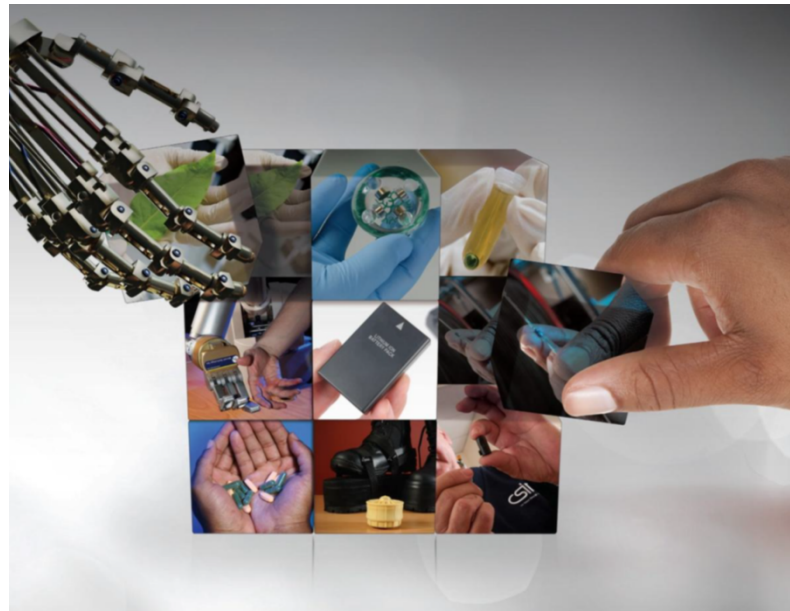
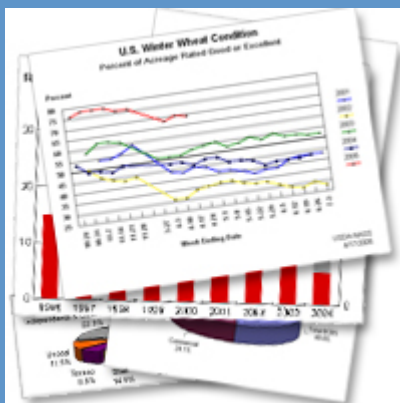
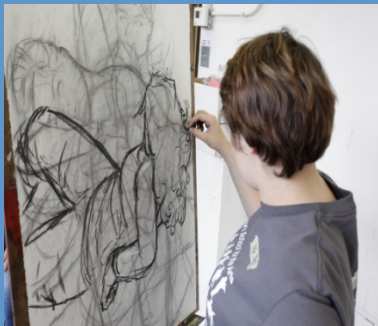
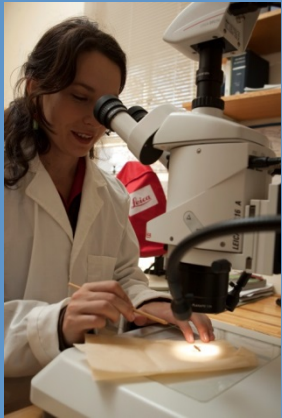


Institutional Research and uses of research-related information in research-intensive universities in South Africa



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INTRODUCTION

Background:

Scope of activities typically conducted under the rubric of Institutional Research seems not to effectively include the research function of Universities. In this paper, we illustrate how research offices conduct institutional research.

Research questions:

- *How do research managers generate, interpret and communicate research-related information of the University?*
- *How does research-related information form part of the broader IR activities of the University?*

Research design and Methodology:

- *Case study of 6 research-intensive universities in South Africa*
- *Semi-structured interview schedule*
- *Telephonic interviews*
- *Transcribed*

Analysis:

- *trends analysis; mapping*



Categories of institutional research-related information

Information on researchers (HR information)
Publication outputs (journal articles, book chapters, conference proceedings)
Masters and doctoral student information (enrolments, graduations)
NRF-rated researchers
Post-doctoral fellows
Funding and grants: Internal university grants
Funding and grants: national
Funding and grants: international
Contracts (number, source of funding, partners, duration, agreement details, conditions, outputs, legal clearance)
Facilities and equipment (buildings, labs, register of expensive equipment)
Ethics approvals / Information related to research integrity
Intellectual property and Technology Transfer
Information on focus areas, initiatives, flagships, Centres of Excellence, Chairs)
Partnerships, research collaborators
Strategic Management Indicators
Benchmarking information
Rankings information

Custodianship of institutional research-related information

Curator of Information and process owner:

responsible for definitions, processes to capture information, data quality, processes to update information, reporting the information

Curator of Database and Information System:

responsible to develop and maintain the database and technical system, software, information architecture, interoperability, integration

Categories and custodianship of research-related information												
Curator of Information and process owner: responsible for definitions, processes to capture information, data quality, processes to update information, reporting the information												
Curator of Information System/Database: responsible to develop and maintain the database and technical system, software, information architecture, interoperability, integration												
	Institution A			Institution B			Institution B			Institution B		
	Curator of Information	Curator of Information System	Name of system	Curator of Information	Curator of Information System	Name of system	Curator of Information	Curator of Information System	Name of system	Curator of Information	Curator of Information System	Name of system
Information on researchers (HR information)	HR Division	IT in partnership with HR	Oracle-HR	HR Department	ICTS (Information & Communications Technology Services Department) in partnership with HR Department	SAP HR	HR Division and Research Office	HR Division and Research Office	Protea	HR Division/Colleges to update	HR Division/ICS	HEMIS
Publication outputs (journal articles, book chapters, conference proceedings)	Research Office	IT in partnership with external service provider	Research Administrator (RA)	Research Office	Research Office & external vendor (University Office)	IRMA Publications (2016 - Thomson Reuters Converis)	Research Office	Research Office and IT	Protea	Research Office	Research Office/ICS	IRMA
Masters and doctoral student information (enrolments, graduations)	Student Information System Support Office, a unit of Institutional Research and Planning	IT in partnership with Student Information System Support Office	Student Information System (SIS) (Homegrown system)	Faculty Offices & Academic Administration, a unit of the Office of the Registrar	ICTS in partnership with Office of the Registrar	Oracle-Peoplesoft Campus Solutions	Student Information System, Registrar's Office and Research Office for PG funding	Registrar's Office and Research Office, and IT	Protea	Student Information System, Registrar's Office/Colleges	Registrar's Office	IRMA and Excel spreadsheet
NRF-rated researchers	Research Office	Research Office. Not enterprise class system at present	Excel spreadsheets	Research Office	Research Office	Excel spreadsheets (2016 Thomson Reuters Converis)	Research Office	Research Office	Excel Spreadsheets	Research Office	Research Office	Excel spreadsheet
Post-doctoral fellows	Research Office	IT in terms of Student Information System (SIS)	SIS and Excel spreadsheets	Faculty Offices & Academic Administration, a unit of the Office of the Registrar	ICTS in partnership with Office of the Registrar	Oracle-Peoplesoft Campus Solutions	Research Office	Research Office	Excel Spreadsheets	Colleges	Colleges	HEMIS and Excel spreadsheet
Funding and grants: Internal university grants	Research Office	IT	Finance System (Homegrown system)	Post-Graduate Funding Office (PGFO), a division of the Research Office	ICTS in partnership with PGFO and the Office of the Registrar	Oracle-Peoplesoft Campus Solutions	Research Office	Research Office	Excel Spreadsheets	Colleges	Colleges	No sure
Funding and grants: national	Research Office	IT	Finance System (Homegrown system)	Post-Graduate Funding Office (PGFO), a division of the Research Office	ICTS in partnership with PGFO and the Office of the Registrar	Oracle-Peoplesoft Campus Solutions	Research Office	Research Office	Excel Spreadsheets	Research Office and Legal Services	Legal Services	ImageNow and Excel spreadsheet
Funding and grants: international	Research Office	IT	Finance System (Homegrown system)	Post-Graduate Funding Office (PGFO), a division of the Research Office	ICTS in partnership with PGFO and the Office of the Registrar	Oracle-Peoplesoft Campus Solutions	Research Office	Research Office	Excel Spreadsheets	Research Office and Legal Services	Legal Services	ImageNow and Excel spreadsheet
Contracts (number, source of funding, partners, duration, agreement details, conditions, outputs, legal clearance)	Research Office	IT in terms of the enterprise system.	Contract Management system and Excel spreadsheets	Research Contracts & Intellectual Property Services (RCIPS) Department	RCIPS & external vendor (University Office)	IRMA Contracts & Grants (2016 - Thomson Reuters Converis)	Research Office	Research Office	Excel Spreadsheets/RIMS	Research Office and Legal Services	Legal Services	ImageNow and Excel spreadsheet
Facilities and equipment (buildings, labs, register of expensive equipment)	Facilities division	External service provider	SU Facilities System	Properties & Services (P&S) Department	ICTS in partnership with P&S	Various systems including Archibus, SAP Plant Maintenance	Facilities division	Facilities division	Excel Spreadsheets/Protea	Facilities division and Colleges	Facilities division and Colleges	Not sure
Ethics approvals / Information related to research integrity	Research Office	IT in partnership with NRF RIMS team	(Homegrown system)	Research Office	Research Office	Various systems including MS Access system, IRMA Animal Ethics, Excel spreadsheets	Research Office	Research Office	RIMS	Research Office and Colleges	Research Office	Excel spreadsheets
Intellectual property and Technology Transfer	INNOVUS	IT in partnership with NRF RIMS team	Info-Ed	Research Contracts & Intellectual Property Services (RCIPS) Department	RCIPS and external service provider	Homegrown MS Access system	Research Office	Research Office	Excel Spreadsheets	Inqubate	Inqubate and Legal Services	Not sure
Information on focus areas, initiatives, flagships, Centres of Excellence, Chairs)	various	various	various	Various, including Institutional Planning Department and Research Office	Various	Various	Research Office	Research Office	Excel Spreadsheets	Research Office	Research Office	Excel spreadsheets and annual reports
Partnerships, research collaborators	various	various	various	Research Office and International Academic Programmes Office (IAPO)	Various	IAPO: MS Dynamics CRM (2016 - including Research Office)	Research Office	Research Office	Excel Spreadsheets	Research Office, Inqubate and Legal Services	Legal Services	ImageNow and Excel spreadsheet
Strategic Management Indicators	various	various	various	Various	Various	Various	various	various	various	Institutional Intelligence	Institutional Intelligence	Not sure
Benchmarking information	various	various	various	Institutional Planning Department	Various	Various	various	various	various	Institutional Intelligence	Institutional Intelligence	Not sure
Rankings information	various	various	various	Various	Various	Various	various	various	various	Institutional Intelligence	Institutional Intelligence	Not sure

*"It refers to...a broader...process of acquiring data...
analysing data...using data for the benefit of the
university for strategic planning" Interview 1*

Definition of research-related information, stories and institutional memory

*"It's an ongoing challenge...to break open
those silos...and to create formal structures
like steering committees...to bring those
different players together. But it is a real
challenge, because we tend to operate in
silos because of the way in which our
university support systems are structured.
But we are finding that more and more we
have to put mechanisms or structures in
place to bridge those silos and to work more
together" Interview 5*

*"All of the data is brought together, collated by the Business
Intelligence Service Unit, the BISU. They are responsible for
collating data. They collate data from a wide array of databases.
BISU's responsibility is to provide the data, but also to update the
definitions, so you know exactly what the data means. Every year
they go around to all these units and have a session with them,
and check definitions, and check what is going on and, you know,
is this still working. I know they go to the DVC Research and say: Is
the dashboard working for you, do we need to alter anything, etc.
you know, within organisational limits...." Interview 1*

*...actually need to register that on the risk register. I think there is
a huge risk in the amount of knowledge that sits with individual
people. It is not something that you can move away from, because
all data, especially qualitative....stories... research story type of
.....knowing who is doing what....can be captured on systems
in databases. So...in this division particularly, there are people
who have been (here).....who knows how things have developed
and evolved, and there is a huge amount of institutional memory.*

*"...is undergoing an extensive business process review of
all that support research. So it is not just the
research office, but it includes things like the
funding office, the research contracts and
the libraries, the e-research facility, the
information office, and also, to some extent HR
and marketing, and of course Research
what we have realised is...we ran great
but this information is embedded everywhere,
in different systems...a lot is on people's hard
disks, now, Excel spreadsheets...." Interview 5*

Analysis of categories of research-related information through the lens of three types of organisational intelligence: Terenzini (1999; 2013)

Technical/analytical intelligence (1999:23)

Factual knowledge or information, and analytical and methodological skills and competencies; “building blocks” of institutional research; familiarity with the standard categories and definitions of basic terms; basic rules and formulae

Issues intelligence (1999:24)

Knowledge of major issues/decision-making areas of institution; goals; resource allocation; planning; maintenance; programme evaluation; functioning; institutional structures and systems

Contextual intelligence (1999:25)

Understanding the culture of HE in general and of the particular institution; historical and political developments; values and attitudes; governance and decision-making processes; national and international environments



"What we have found is that we know the policies and the processes and the procedures, but for a new researcher, for example, it's an absolute maze of information, and they don't know where it all sits....so the Researcher Persona is to try to repackaging what is sitting somewhere on the website, but in many different places. Now we try to provide them with a information that they can click on policies, and they research-related policies that they need to know opportunities for them to help to do their research, opportunities spread across our division, the library on services, IT, the language centre, everywhere. repackaging existing things to make it more easily for our researchers (on an online web-based platform)" Interview 4

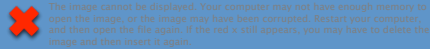
"...(the information pack)....I think it adds an enormous amount of value at departmental and faculty planning level...and that's the kind of feedback we also received from our departmental chairs and deans, in that it came at the right time for them to really use that information in their budgeting and planning for the next three years. So...that's probably the biggest value it adds...we want our faculties and departments to make informed decisions....." Interview 4

decision-making areas.

"...the annual research report...is really a publication that showcases the effect and the contribution and the impact of our research. So...it tells a story. And I think that is important. So, it covers all those different types of research information we referred to. Of course we also give some of the statistics there, to indicate performance. ...we make it accessible to different audiences, external and internal, publicising and showing the impact of our research. " Interview 4

visibility

"...we talk a lot in South Africa...in research, you know, we've got three hundred NRF rated researchers, and anybody from outside South Africa say: three hundred what? You know, they don't know what that means. So I always try to make the data speak to the audience..." Interview 4



USES OF VALUE-ADDED RESEARCH-RELATED INFORMATION

1. Innovative reporting of research performance

- audiences
- interpretation
- information graphics and data visualisation
- aggregated and integrated information

2. Evidence-based decision-making

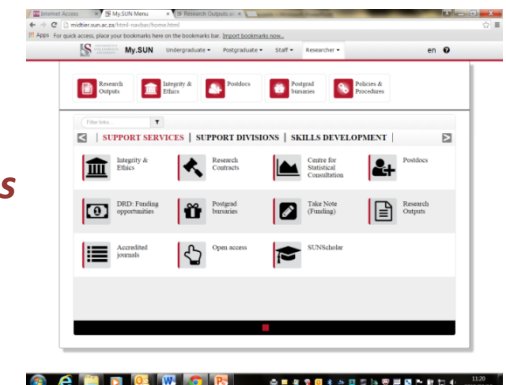
- policies
- strategies
- processes

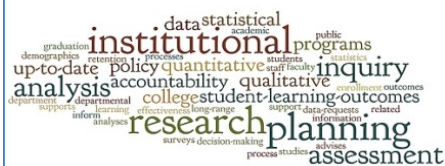
3. Raising the visibility of research

- science communication
- research report/newsletters/website
- impact and relevance

4. Enhancing direct research support

- platforms for communication
- capacity building
- planning and executing directed interventions





Enabling the generation of value-added research

"It just brings a special kind of dimension to your service that you can provide a researcher if you really understand how research works, and understand the

"It's really vital because we're a small science system in South Africa. And I think we can achieve so much more if we work together. So it's...of course, you know, academics are always competitive. Universities are competitive by definition. So I guess it's about maintaining that balance...from where I'm sitting on the management side, I truly believe in the value of collaboration and partnerships at all levels. And that would include sharing good practice, working together to improve things, so that ultimately we can have a better voice globally, for the continent....for Africa"

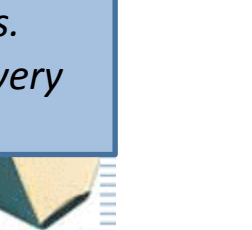
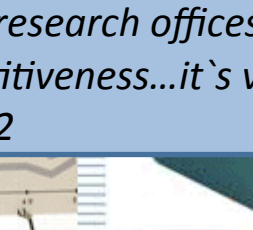
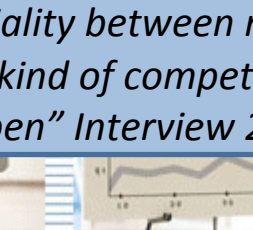
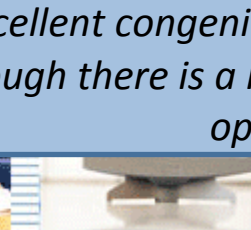
Interview 5

pers

3. Inter-institutional cooperation between Research Offices

- **sharing**
- **organisa**
- **benchma**

"We are constantly benchmarking our research outputs with our top competitors....and that is where I'm also focusing strategically, is that we want to develop more partnerships with other universities...I find there is an excellent congeniality between research offices. Although there is a kind of competitiveness...it's very open" Interview 2



FINDINGS AND CONCLUSION

1. Integrated information

- *Terenzini levels 2 and 3 dependent on competency in level 1*
- *The higher the level, the more complex*
- *The higher the level, the more co-ordination and integration*

2. New forms of:

- *Organisation*
- *Cooperation*
- *Communication*
- *Competencies*

3. Role of research managers as IR practitioners

- *Meeting reporting obligations*
- *Support institutional performance management*
- *Support and participate in strategy development*
- *Support in decision-making*
- *Identify and support strategic initiatives*

*For effective operations and strategic positioning of institutions
and national knowledge systems in a global context*



Thank you

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