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Land administration as an academic discipline:
to be, or not to be.

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FIG Working Week 2012



ITC FACULTY OF GEO-INFORMATION SCIENCE AND EARTH OBSERVATION



WHAT TO EXPECT

- Scope of the study
- Assessment framework used
- Formal definition of Land administration
- Knowledge base for Land administration
- Professionals
- Research community
- Icons
- Conclusions
- Follow-up



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SCOPE OF THE STUDY

- The status of land administration as an academic discipline
- Unclear
 - 'a coherent, unique discipline' (*Williamson et al, 2010*)
 - 'much more conceptual understanding and description of land administration is needed' (*Zevenbergen, 2009*)
- Relatively new discipline
- Recognition in formal academic environment is lacking

What is the nature of land administration as an academic discipline?



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SCOPE OF THE STUDY

'Disciplines are scholarly communities that define which problems should be studied, advance certain central concepts and theories, embrace certain methods of investigation, provide forums for sharing research and insights, and offer career paths for scholars'.

'A discipline is a particular branch of learning or body of knowledge whose defining elements – i.e. phenomena, assumptions, epistemology, concepts, theories and methods – distinguish it from other knowledge formations'

Scholl, 2008



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ASSESSMENT FRAMEWORK

Dimensions and indicators	
Land administration defined	A formal definition
The knowledge base	A common knowledge base Unifying theories Shared vision of the domain's significance
The professional field	Both professional and academic associations Terminology/discipline specific lingo Strong interaction between discipline and field of practice
The research community	A unique cluster of research problems Accepted procedures and methods of inquiries A worldwide research community Journals and recurring conferences Icons (visible/leading scholars) Researcher self-identification with the discipline Accepted rules
The university programs	Structural elements on university level Graduate programs and students Text books



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DEFINITION OF LAND ADMINISTRATION

- UNECE (1996), Dale & McLaughlin (1999), FAO (2002), UNECE (2005), Williamson et al, (2010).
- From a narrow definition, focusing on land information processes, towards the broader concept including land management.
- The goal moves from underpinning land markets towards supporting sustainable development and good governance.
- The UNECE (1996) definition, revised in (2005), most commonly used.
- **A 'mature' definition of land administration, accepted by the professional and scientific community, has not yet arrived.**



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KNOWLEDGE BASE

- Cadastre and land registration are at the heart of land administration and shaped its development






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KNOWLEDGE BASE

- Developments and concerns in the 1990's related to: Land information silos, new integrated systems, holistic and systems approaches, information and spatial technology, the land management paradigm, the RRR's, access to land and security of tenure, SDI and the spatially enabled society and 3D cadasters



- 'cadastre and land registration' evolved into 'land administration'



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KNOWLEDGE BASE

- Two streams
 - A **information management** stream
 - Land information systems, SDI, and supporting e-Governance
 - A **land management** stream
 - Resource management, land use planning and development, supporting sustainable development

Within these two streams:

- **Formalization of informal land tenure** to provide economic growth



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KNOWLEDGE BASE

- Diversity of societal goals
- Sometimes conflicting goals and objectives
- Change over time
- Actual concerns relate to climate change and disaster management, and land grabbing
- **Unclear if there is a shared vision of the land administration domain's significance**



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PROFESSIONALS

- Professionals in land administration:
 - surveying and mapping: geodetic surveyors, engineers
 - land registration: lawyers, notaries
 - land valuation: valuers, solicitors
 - land management: social scientists, economists, (land use) planners, developers, public administrators
 - Land professionals?
 - **Land administrator? A unique profession? Or a collection of land professionals?**



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PROFESSIONAL ORGANISATIONS

- FIG
 - Platform where land administration has been shaped
 - Seminars, workshops, working weeks, taskforces, conferences
- EU, FAO, UNECE, UNECA, Un Habitat, World Bank, and many other organizations and NGO's
 - Regional and global debates, policies and programs

↓

Reports, policy notes, guidelines, frameworks, professional publications

↓

Development of the land administration professional domain



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THE RESEARCH COMMUNITY

- Web of Science Search (02.10.2011)
 - Scientific publications (ISI)
 - High impact journals
 - Limited to 'land administration' in the 'topic'
 - English literature
- 121 scientific publications in land administration
- Main authors, institutions, journals and topic categories



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MAIN AUTHORS

Authors	Record count	%	University
Williamson, I.P.	14	11.6	Centre for Spatial Data Infrastructures and Land Administration, Department of Geomatics, University of Melbourne, Australia
Van der Molen, P.	5	4.1	Faculty of Geo Information Science and Earth Observation (ITC), University of Twente, Enschede, The Netherlands
Wallace, J.	5	4.1	Centre for Spatial Data Infrastructures and Land Administration, Department of Geomatics, University of Melbourne, Australia
Enemark, S.	4	3.3	Department of Development & Planning, University of Aalborg, Aalborg, Denmark
Rajabifard, A.	4	3.3	Centre for Spatial Data Infrastructures and Land Administration, Department of Geomatics, the University of Melbourne, Australia
Bennett, R.	3	2.5	Centre for Spatial Data Infrastructures and Land Administration, Department of Geomatics, University of Melbourne, Australia
Inan, I.H.	3	2.5	Faculty of Engineering, Department of Geomatic Engineering, Karadeniz Technical University, Trabzon, Turkey
Stuedler, D.	3	2.5	Centre for International Cooperation, Swiss Federal Directorate of Cadastral Surveying, Federal Office of Topography, Switzerland
Van Oosterom, P.	3	2.5	Delft University of Technology, OTB, Delft, The Netherlands



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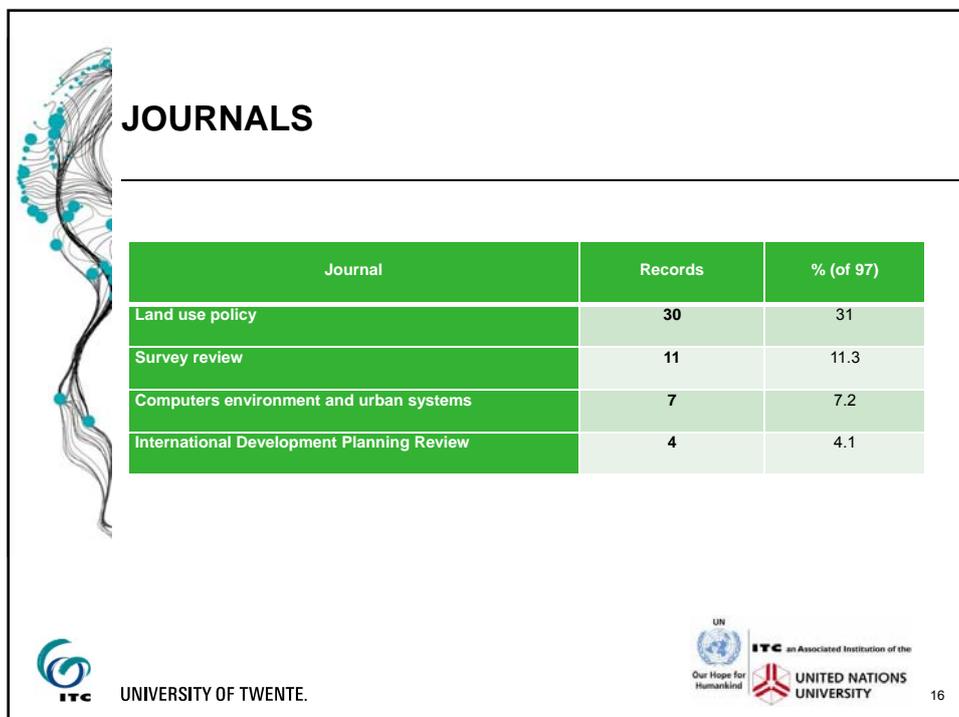
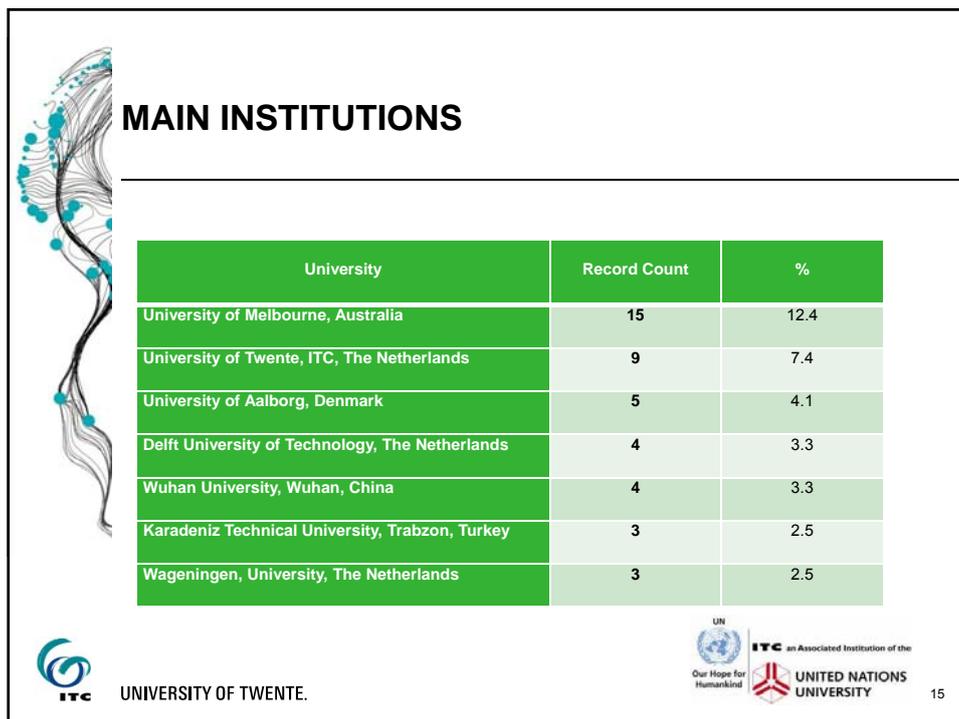


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THEMATIC CATEGORIES

Category	Records	
Environmental studies	44	
Remote Sensing	16	
Planning development	14	
Geography	13	
Geosciences multidisciplinary	13	



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THEMATIC CATEGORIES

Study by Çağdaş & Stubkjær (2009) on doctoral dissertations in the cadastre field (published in the period 1999 – 2006):

- social and behavioural sciences aspects (11 dissertations)
- information sciences aspects (5 dissertations)

▪ all dissertations addressed:

- rights in land
- official recording of these rights through national information systems.



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- Factors analyzed:
 - Geography
 - Institutional factors (history, cultural framework, legal framework including formal and informal law, social relationships within society);
 - Stakeholders (land registry, cadastre and other governmental organizations, parliaments, courts, private practitioners/professional, academics, households, parcel owners, NGO's, interest groups, and donor agencies)
 - Procedures (adjudication, transfer, subdivision)
 - Technology (surveying and mapping devices, information systems).

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THEMATIC CATEGORIES

The analysis of the research themes and factors examined reveals
 the broad scope of the land administration research area
 and
 a large variety of scientific disciplines,
 sub-disciplines and inter-disciplines involved.

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ICONS

Who are the leading scientists or great thinkers in the land administration discipline?

- Hernando De Soto?
- Others?



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METHODS

Further analysis of the dissertations related to social and behavioural sciences aspects (10):

- Qualitative research is preferred
- All applied case study methods
- Only one researcher draws on 'land administration' theory', however this theory was not explicitly introduced

Social and behavioural science methods are applied in research that is predominantly performed at a Faculty of Geodetic Surveyors:

**'in an epoch favouring multi-disciplinary research,
this may be considered trivial'.**

Çağdaş & Stubkjær (2009)



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UNIVERSITY PROGRAMS

- Increasing number of universities offering land administration programs
- The multi-faceted nature of the land administration field requires special skills from the course and curriculum developers.
- Faculties offering land administration courses: geodesy, geomatics, geo-informatics or engineering faculties. Well equipped?

Land administration academic education is heavily influenced by one academic discipline or academic field with its own way of thinking, terminology, culture and professional norms.



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ASSESSMENT FRAMEWORK

Dimensions and indicators		
Definition	A formal definition	Yes
The knowledge base	A common knowledge base Unifying theories Shared vision of the domain's significance	Partial No No
The professional field	Both professional and academic associations Terminology/discipline specific lingo Strong interaction between discipline and field of practice	Yes No Yes
The research community	A unique cluster of research problems Accepted procedures and methods of inquiries A worldwide research community Journals and recurring conferences Icons (visible/leading scholars) Researcher self-identification with the discipline Accepted rules	Partial No No No/partial Partial No
The university programs	Structural elements on university level Graduate programs and students Text books	Yes Yes Partial



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CONCLUSIONS

- Land administration represents a discipline still in formation
- Land administration constitutes an emerging area of interdisciplinary study
- The discipline is still primarily based in the traditional areas of land registration (land lawyers) and cadastre (geodesists/surveyors)
- Technical universities are responsible for research and academic education in land administration, with dominance of few universities and research groups.



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FOLLOW-UP

- Further work could be undertaken to improve validation of the results provided here.
- A more robust analysis of other forms of literature (i.e. non-ISI, non-English) appears necessary.
- An up-to-date and global inventory of university programs in land administration is recommended.



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FINAL STATEMENT

The above conclusions calls for
a worldwide and interdisciplinary scientific community
to come up with a shared vision, develop a land administration theory
and propose procedures and accepted methods of inquiry.

Thank You

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