THE REGIONAL SCIENCE ASSOCIATION INTERNATIONAL

RSAI

May 2013

Teaching Regional Science

The newsletter of the RSAI *New Series 9: May 2013*

Contents

1. Introduction

1.1 Welcome from the President

Jean-Claude Thill

Every two years, leadership at the helm of the Regional Science Association International (RSAI) rotates and the baton is passed from one president to another. Yoshiro Higano served RSAI in countless ways over the past two years that we all should thank him for his dedication and steady leadership. We look forward to his continued involvement in shepherding RSAI towards even brighter futures. As I have assumed the presidency of your association, my agenda will build on the accomplishments of my predecessors.

With the support of RSAI Council, and a renewed collaborative spirit with our ERSA, PRSCO, and RSAmericas, we are forging ahead with initiatives to assert a greater presence in 'new' countries, and strengthen our activities in other regions where we have been active for decades. New and reinvigorated initiatives are in the making on the educational front and with our publication activities. Drs. Roberta Capello, Editor-in-Chief of Papers in Regional Science, and Mike Carroll, Editor-in-Chief of Regional Science Policy and Practice, look forward to working with you to get your scholarly work published in their journals. New research networks are being forged among Spanish and Portuguese speaking regional scientists, as well as in the Mediterranean area. Now is the time for you to be involved.

2013 will see major international conferences in Bandung, Indonesia (PRSCO Conference), Palermo, Italy (ERSA Congress), Arica, Chile (RSAmericas Conference), and Atlanta, USA, (NARSC Meetings), in addition to countless opportunities to be part of the Regional Science community at national or regional conferences and workshops. I look forward to meeting many of you at these events. With little fanfare, Walter Isard and our forefathers laid the foundation of an international movement in 1954. As we close in on six decades of excellence in scholarship on the science of the region and the city, we stand proud of this heritage and prepare for another sixty years of regional science and practice.

I welcome your comments and suggestions on all matters contributing to making RSAI a better community for us all. My inbox is waiting for you: Jean-Claude.Thill@uncc.edu.

1.2 Welcome from the Editors

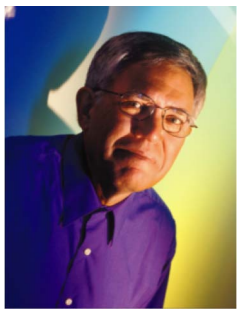
Graham Clarke and
Eveline van Leeuwen

The theme of this newsletter is teaching in regional science and we have three very different articles, taking us from the origins of regional science teaching at Penn in the USA to the latest innovations in virtual field-classes and scientific publishing. Our Fellows profile is Bob Stimson from Australia and we also take a look at one of the leading and most prolific regional science centres at West Virginia. Our

congratulations go to the new Fellows and various prizewinners and we also would like to offer our best wishes to Jean-Claude in his term of Presidency.

2. Teaching Regional Science (1): The first twenty years

David Boyce, Northwestern University



In 1956, Walter Isard, at age 37, moved his small research team, and his large family, from M.I.T. to the University of Pennsylvania in Philadelphia to establish the first academic program in Regional Science. Working methodically and aggressively over the next 20 years, he built the faculty and courses that became Penn's once renowned Regional Science Department. The objective of this short essay is to recall and describe how this program evolved under Isard's leadership during the period he served as department chair until 1977.

Isard, together with Lawrence Klein, who would receive the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel in 1980, were recruited by Irving Kravis in an effort to re-invigorate Penn's declining and traditionally-oriented Economics Department. As Isard (2003, p. 114; personal recollection) described the situation in the mid-1950s, the primary competition among faculty of Penn's Economics Department concerned who could write the best-selling textbook. Indicative of the situation, Sidney Weintraub, then the senior professor in microeconomics, wrote in the Preface to his Price Theory textbook that Greek symbols were best suited to decorating the facades of fraternity houses.

The content of the Regional Science Program, as defined by the Preliminary Examination in the Bulletin of the Graduate School, 1961–1962, was:

1. Theory and method in regional science including relevant elements of theory in related social science fields;
2. Application of quantitative methods and statistics to regional problems;
3. An applied field such as Transportation, Land Use, Industrial Location, or Population.

Course offerings in Regional Science were initially based on Isard's books on location theory and methods of regional analysis (Isard, 1956; Isard et al., 1960). As the number of students increased, more courses were added, first in spatial statistics and quantitative methods, then in regional development, social science theory, and spatial diffusion, and later in transportation and human capital. Another objective was to offer courses with specific content and examples pertinent to Regional Science, instead of sending students to service courses in other departments. These new courses reflected Isard's views concerning the desirable content of a Regional Science curriculum, as influenced by his expanding faculty. Isard believed that faculty members should have an opportunity to teach courses on the subject of their current research interests. As an example, in the early 1960s Isard shifted his own basic research towards general social science theory and decision analysis, and initiated new courses on this topic (Isard et al., 1969).

The development of the program over time can perhaps best be visualized and understood by examining the expansion of the course offerings over

the 1959–1976 period, as documented by selected issues of the Bulletin of the Graduate School, as shown in Table 1, together with the course instructors. The faculty in the order of their appointments are shown in Table 2, with the fields of their Ph.D.s and the areas of instruction. Initially, the faculty consisted of recent Ph.D.s in economics and geography, in addition to Benjamin Stevens, who moved with Isard from M.I.T., and William Warntz (part-time lecturer), an innovative geographer with a strong quantitative bent. Three of the initial

Table 1. Cumulative Course Offerings in Regional Science, 1959 to 1976

1959–1960	
Industrial Location and Regional Development: Principles	Isard
Gravity, Potential and Interaction Models	Isard, Warntz
Linear Systems: Applications to Regional Problems	Isard, Staff
Resource Problems and Policy: Regional and National	Isard, Staff
Industrial Location and Regional Development: Problems	Isard, Staff
Seminar in Regional Science	Isard, Staff
1961–1962	
Regional and Social Science Theory	Isard
Non-Linear Systems: Applications to Regional Problems	Stevens
Regional and Interregional Social Accounting	Leven
1965–1966	
Welfare, Strategy and Social Decisions in Reg. Development	Stevens, Reiner
Industrial Location and Urban Development	Czamanski
National Economic and Regional-Spatial Planning	Reiner
Quantitative Methods in Spatial Analysis	Wolpert
Concepts of Space	Wolpert, Chatterji, Kanal
Regional and Social Science Theory	Gannon
Advanced Regional and Social Science Theory	Isard
1967–1968	
Spatial Aspects of Political and Social Structures	Wolpert
Regional Systems in Latin America	Reiner
Regional Systems Analysis I: Elementary Models	(revision) Miller
Regional Systems Analysis II: Advanced Models	(revision) Miller, Stevens
Location Theory (revision)	Stevens
Stochastic Models in Regional Analysis	Kanal
Models of Information Diffusion	Wolpert
1971–1972	
Regional Industrial Development	Parr
Economic, Social and Environmental Problems of Metropolitan Regions: Issues and Techniques of Analysis	(revision) Stevens, Allen
Methods of Regional and Interregional Analysis	Isard, Staff
Advanced Topics in Location Theory	Stevens, Smith
Transportation Networks and Demand in Multiregional Systems	Boyce, Wathne
Spatial Stochastic Processes	(revision) Smith
Interregional and Intrametropolitan Migration	Wolpert
1975–1976	
Statistical Analysis in Regional Science	Vining
Regional Systems Analysis III: Dynamic Models	Miller
Human Capital and Regional Development	Madden
City Systems	Parr
Advanced Topics in Multivariate Regional Analysis	Smith
Individual and Social Decision Making in a Regional Context	Smith

Table 2. Chronological Faculty Listings in Regional Science, 1959 to 1977

Name	Field	Area of instruction	Year listed
Walter Isard	Econ	Location and general social theory	1959–60
Charles Leven	Econ	Regional economic accounting	
Benjamin Stevens	RegPl&Ec	Linear systems, location theory	
William Warntz*	Econ	Gravity models	
Michael Dacey	Geog	Spatial statistics	1961–62
Duane Marble	Geog	Linear systems	
Laveen Kanal	ElecEng	Spatial models	1965–66
Stan Czamanski	RS	Regional economic accounting	
Gerald Karaska	Geog	Economic geography	
Ronald Miller	Econ	Linear systems, linear models	
Thomas Reiner	RS	Regional development and planning	
Julian Wolpert	Geog	Spatial statistics, quantitative analysis	
Manas Chatterji	RS	Spatial statistics	1967–68
John Parr	Geog	Regional development, location theory	
Tze Hsiung Tung	RS	Regional economic accounting	
Bruce Allen	Econ	Transportation, location theory	1971–72
David Boyce	RS	Transportation networks and demand	
Colin Gannon	RS	Regional and social science theory	
Aaron Gellman**	Econ	Transportation industrial organization	
Tony Smith	RS	Spatial statistics and analysis	
Robert Douglas*	EconHist	Methods of regional analysis	
Janice Madden	Econ	Human capital, reg. development	
Daniel Vining, Jr.	PubPolicy	Spatial statistics and analysis	
Magne Wathne	EnvEng	Transportation networks	
Masahisa Fujita	RS	Location and land use theory	1976–77

*Lecturer on Regional Science **Adjunct Faculty in Transportation

appointments from other universities moved on within two or three years. Together with Isard and Stevens, however, Ronald Miller and Julian Wolpert provided the stabilizing influence needed for the program to flourish. As early students completed their Ph.D.s, several remained in the department to expand the course offerings. Some were short-term appointments, such as Stan Czamanski, Manas Chatterji and Ted Tung. Others became tenured faculty members, especially Thomas Reiner and Tony Smith, and for nearly a decade, David Boyce. Then, in the early 1970s, once again new assistant professors were recruited from outside the university (Janice Madden, Magne Wathne and Daniel Vining, Jr.), perhaps in response to pressures from the administration not to hire one's own best students, a growing trend at that time in many leading universities.

Enabling the development of the Regional Science Department were three opportunities grasped by Isard. One was the undergraduate program in Geography in the Wharton School of Finance and Commerce, in which all of the social science departments were housed at the time. In accepting responsibility for instruction in geography, Isard was able to use the associated budget to make key appointments (Julian Wolpert and John Parr, and Gerald Karaska to manage the program), which strengthened the Regional Science course offerings and research program. A few years later, he

performed the same trick with Wharton's graduate transportation major, hiring four new faculty (Bruce Allen, David Boyce, Colin Gannon and Aaron Gellman, part-time adjunct, and later Masahisa Fujita). The third was the development of a successful undergraduate Regional Science major, led by Robert Douglas, a student in Economic History whose research was related to regional science. Moreover, undergraduate majors were able to earn course credits toward an M.A. degree in Regional Science while completing their undergraduate degrees.

In summary, the course offerings were expanded to deepen the theoretical and methodological content of the Regional Science Program, to stimulate the research activities of the faculty, and to draw students into the program with strong interests and skills in theory, mathematical models and quantitative analysis. At the same time, Isard resisted expanding course offerings in regional development planning, despite the interest of an expanding number of students from developing countries, as well as certain faculty members (Reiner and Parr, for example).

Penn's Regional Science Department contributed to the advancement of the field of regional science in several ways beyond the training of students. It served as the headquarters of the Regional Science Association throughout this period, organizing the annual meetings of the Association (Isard and Boyce) and editing the Papers of the RSA (Isard, Reiner and Parr). Moreover, the department supported the editorial activities of the Journal of Regional Science (Isard, Stevens and Miller) founded in 1958.

From the first degree awarded in 1960 to the most recent in 2004, the University awarded 182 Ph.D. and 331 M.A. degrees in regional science, including M.A. degrees to 41 former undergraduate majors in regional science. The temporal distribution of both degrees is shown in Figure 1.

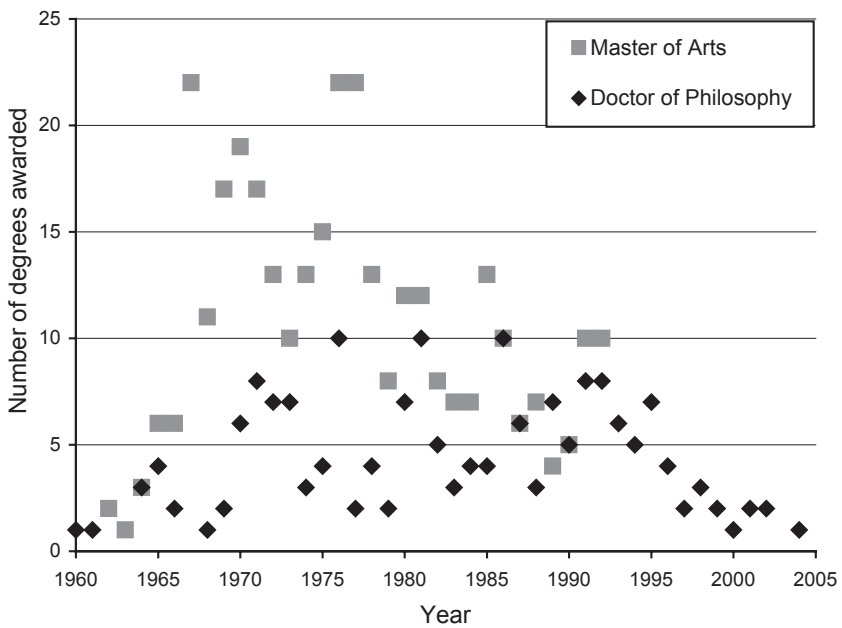


Figure 1. Number of Degrees Awarded by Year

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3. News and Recent Events

3.1 Four New Fellows

RSAI is pleased to announce the election of the following Fellows in **2013**:

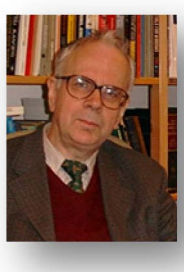
Roberta Capello, Polytechnic Milano, ITALY

Roberta Capello is professor in Regional and urban economics at the Politecnico of Milan. Past-President of the Regional Science Association International (RSAI). Editor in chief of the Italian Journal of Regional Science and co-editor of Letters in Spatial and Resource Science (Springer Verlag). Editor in chief of *Papers in Regional Science* from RSAI. Author of many scientific papers and a textbook in Regional Economics, published in Italian and English.

Kiyoshi Kobayashi, Kyoto University, JAPAN

Kobayashi is the recipient of several awards and prizes for his research including the Hinomaru Prize in 1988, the JSCE (Japan Society of Civil Engineers) Research Prize in 1993, 2001 and 2007. In 2007 he was included in the Top 50 City Creators and Urban Experts of the Ministry of the Environment of Denmark. From 1978–1986, Kobayashi was a Research Associate in Graduate School of Engineering of Kyoto University. In 1987 he became an Associate Professor at the Department of Social Systems Engineering at Tottori University, where in 1990 he became a full time Professor. In 1996 he returned to Kyoto University as a full time Professor at the Graduate School of Engineering. In 2007 he became the Vice Dean of the Graduate School of Management of Kyoto University and in 2009 he became the Dean.

Tönu Puu, University of Umeå, SWEDEN



Tönu Puu, born in 1936 in Tallinn, was Professor of Economics at Umeå University from 1971 to 2001. Afterwards he worked at the Centre for Regional

Studies (Cerum) for ten years. In total, he has published twenty books and 130 scholarly articles in economics, mathematics and philosophy.

Jean-Claude Thill, University of North Carolina at Charlotte, USA

Jean-Claude Thill is Professor of Public Policy, University of North Carolina at Charlotte, USA. He has previously held positions at SUNY – Buffalo, the University of Georgia, Florida Atlantic University and the Université Catholique de Louvain in Belgium. He has also served NARSC superbly for many years in many administrative capacities. His research has centered on the spatial dimension of mobility systems and their consequences on how space is used and organized in modern societies; statistical and computational methods of spatial analysis; and most recently urban land-use dynamics.

3.2 NARSC 2012

Neil Reid, University of Toledo

The 59th Annual North American Meetings of the Regional Science Association International were held in Ottawa, Canada November 7–10, 2012. The meetings were attended by 564 regional scientists from all over the world. These meetings were the last that were held under the leadership of the outgoing NARSC Executive Director, Jean-Claude Thill, who has served NARSC in that capacity since 2005.

Claude Thill, outgoing NARSC Executive Director, receives a painting as a thanks for his eight years as NARSC Executive Director. From left to right, Mark Brown, Jean-Claude Thill, Bruce Newbold, Bill Anderson, and Neil Reid

The 2013 meetings will be held in Atlanta, Georgia November 13–16. More details about the Atlanta meetings can be found at http://www.narsc.org. The Atlanta meetings will be held in the city's uptown neighborhood of Buckhead. Abstracts for the Atlanta meetings are being accepted until July 1.

3.3 WRSA conference 2013

Rachel Franklin, Brown University

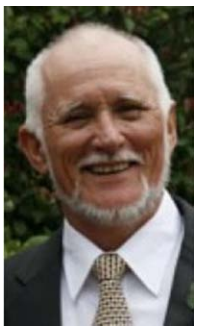
In keeping with a long tradition of holding high quality meetings in very pleasant locations, the Western Regional Science Association (WRSA) met in late February in Santa Barbara, California for its 52nd annual meeting. Over 200 regional scientists from around the world came together for over 40 paper sessions and plenaries, to say nothing of the social program and delightful weather expected of a WRSA meeting. At the meeting, WRSA President, Hans Westlund, delivered his presidential address, with discussant remarks provided by Waldo Tobler. This year's meeting also featured the inaugural Getis-Ord Lecture in Spatial Analysis, given by J. Keith Ord of Georgetown University.

Hans Westlund gives his presidential address

With discussant remarks from Waldo Tobler

If the idea of scholarly exchange and fun in a sunny location in mid-winter is enticing, consider attending the next WRSA annual meeting in San Diego, California, February 16–19, 2014. The WRSA is regional in name only: participants from around the world are welcome! The deadline for paper submission is October 15, 2013. Further details are available at www.wrsa.info or by contacting Rachel Franklin at rachel_franklin@brown.edu. We hope to see you there!

4. Meet the fellows: Bob Stimson



I became involved in Regional Science in 1972 when the economist Professor Alex Kerr invited me, along with a number of other people in Australia to attend a meeting to discuss the formation of an Australia and New Zealand Section of Regional Science. I thus became one of a small group who were the founders of ANZRSAI, with our first annual conference being held in 1976. I've been heavily involved in the Regional Science Association ever since, attending my first overseas meeting that same year – the North American annual conference held in Toronto.

In the time since then I have been to all except five (I think that's correct) of the annual meetings of ANZRSAI, and I was President of that Section for three years from 1980 to 1982. For the first time in 1981 we hosted PRSCO in Australia. From the early 1980s I became a regular participant in the WRSA meetings, as well as PRSCO and NARSC meetings, and from the 1990s I have been a frequent attendee at ERSA meetings, and since 2000 I have had the pleasure of occasionally attending the annual meetings of the British and Irish, the French Speaking and the Italian Sections, and also meetings of the recently formed sections in Brazil, Chile and Argentina.

So regional science has been a major part of my life, and the involvement in RSAI activities over what is now a span approaching four decades had resulted in not only making countless good

friends around the world, but also in developing a number of most productive research collaborations that have resulted in publishing a number of books and other publications. International collaborations with other regional scientists have included Reginald Golledge, Rick Church, Lay Gibson, Edward Blakely, Roger Stough, Kingsley Haynes, Alan Murray, Antoine Bailly, Peter Nijkamp and Patricio Aroca.

I was deeply honoured when I was asked to become the President of RSAI in 2005 and 2006. And then in 2010 I was elected as Fellow of RSAI, an award that I cherish more than any other. Earlier in 1997 ANZRSAI had honoured me by making me a Life Member; in 2010–11 I was appointed President of WRSA; and in 2012 ANZRSAI presented me with the Distinguished service award.

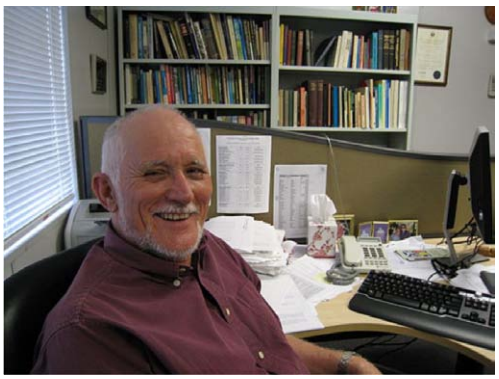
All of this has been a life-enriching and career-enhancing experience that I never dreamed of when I started out as a young academic human geographer in an isolated country at the end of the world in the mid-1960s. I owe a great debt to regional science and the involvement in RSAI has been immensely enjoyable.

Reflecting on one's career as an analytical human geographer and regional scientist and the research in which I have been involved, it is interesting to identify in my case a number of distinct phases that seem to have run for overlapping spans of about a decade each.

When I started out as a Senior Tutor in Economic Geography at the University of Melbourne in 1966 (after a few years as a high school teacher following my undergraduate course at the University of New England in Armidale in rural New South Wales where I had grown up and gone to school), marking the beginning of **phase 1** of my career, I had commenced conducting research into the patterns of post-war immigrant settlement in Melbourne. Then in 1968 when I moved to a lectureship in Geography in the School of Social Science at the two-year-old new Flinders University in Adelaide I extended this interest in social urban geography to investigate social differentiation in residential areas of cities and the residential location decision and choice. The latter was the topic in which I undertook my doctoral research while teaching at Flinders U. That then morphed (by the late 1970s) into a wider interest in investigating socio-economic advantage/disadvantage in cities within a welfare geography framework that was inspired by the writings of the geographer David Smith. That has tended to remain a theme in some of my research up till the present. Part of that research effort was to publish a highly successful and widely used *Social Atlas of Adelaide*.

The 15 years I spent at Flinders marked **phase 2** in my career. In many ways the years at Flinders were dominated by my developing a keen interest in the collection of primary data through survey research to investigate aspects of human spatial behaviour. That was spurred through two important influences that led to a long period of collaboration first with Reginald Golledge (the doyen of analytical behavioural geography and a former tutor of mine when I was an undergraduate at UNE), and Charles Cannell and Robert Marans in the Institute of Social Research at the University of Michigan where I spent a sabbatical in 1976. While at Flinders U, with a colleague Tony Cleland, a psychologist, we set up the Centre for Applied Social and Survey Research, of which I became the Director. CASSR was one of three survey research centres in universities in Australia at that time, the others being at the University Sydney and the Australia National

University (ANU), with which we developed productive collaborations, along with the Australian Bureau of Statistics. Through CASSR I became heavily involved in multi-disciplinary research involving colleagues from a variety of disciplines. This phase I have referred to as the 'sales and service' days of my career, and it was great fun.



Phase 3 of my career saw me placing an increasing emphasis on undertaking research to inform public policy. While at Flinders U in the late 1970s I had become heavily involved in housing policy analysis. But following a move to Canberra (the national capital), where I became Director of the Australian Institute of Urban Studies (AIUS), my work became almost exclusively policy-oriented. At AIUS we conducted policy research on a variety of urban topics, including rental housing provision, foreign investment, urban real estate, and local economic development (the latter being undertaken in conjunction with Edward Blakely). The second part of my seven years in Canberra was spent as the Dean of the Management School at The Canberra College of Advanced Education, later to become the University of Canberra, where there was a strong teaching program in public sector management. Not surprisingly the administrative load was heavy, and my research was dependent more and more on collaborative effort with others taking much of the lead.

That focus on public policy was continued when in 1990–91, having completed my five-year stint as dean, I was enticed to Brisbane, Australia's third largest metropolitan region by the then Lord Mayor of Brisbane City, Sallyanne Atkinson, to lead *The Brisbane Plan* project, which developed a comprehensive strategy for the development, planning and management of the city for the next 20 years. That begun **phase 4** of my career, which was predominately concerned with addressing urban planning issues with a focus on housing and economic transition and urban development. In 1991 I was appointed to the newly established Chair in Urban Studies at Queensland University of Technology (QUT) and began a research program monitoring the performance of the Brisbane-South East Queensland region.

Then in 1997 the Vice Chancellor of the University of Queensland (UQ) enticed me to relocate to UQ to a Chair in Geographical Sciences and Planning, where I had the role of providing leadership in developing a higher profile for urban and regional research in the university. Thus began **phase 5** of my career. A new node of AHURI was also established at UQ. While there was a continuing focus on urban research, I also began a substantial effort to develop a much more explicit focus on regional economic development and especially on measuring and modelling endogenous regional performance. That involved collaboration with Roger Stough and Patricio Aroca. That orientation also led to me being asked to join with Peter Nijkamp and Roger Stough to be part of the group organising the Tinbergen Institute workshops that bring together 20 to 25 senior and young scholars to give papers on a theme in regional development focusing in particular

on aspects of innovation and entrepreneurship. Those workshops have produced a number of edited books and special issues of journals. This is an example of how regional scientists collaborate to organise highly productive small events in a collegial atmosphere.

At UQ we developed the Centre for Research into Sustainable Urban Futures, of which I was the director, which later became the Urban and Regional Analysis program in the newly established Institute for Social Science Research. The research conducted at UQ over the period from 1998 to 2010 involved teamwork. Most of that work involved multi-disciplinary teams and covered a range of urban and regional fields including: evaluating homelessness programs in Australia; investigating the operation and future of the retirement village industry in Australia; conducting surveys to model subjective quality of urban life; modelling urban and regional opportunity and vulnerability in Australia; and building a large scale urban model for the Brisbane-South East Queensland. We also had a focus on developing spatial decision support systems, an initiative that in fact dated back to the late 1990s with Alan Murray when he was a Research Fellow with me, first at QUT and then at UQ.

Phase 6 of my career also emerged while I was at UQ when in 2004 a group of social scientists from universities across Australia won a bid to establish one of the new Australian Research Council's Research Networks. Thus, the AUC Research Network in Spatially Integrated Social Science (ARCRNSISS) was established and I became the convenor for the life of the Research Networks program for the five years from 2005 to 2009. ARCRNSISS was a consortium of 18 universities and two federal government agencies and had more than 500 individual participants, along with some international participation. Among many things, we also put almost 100 graduate students through an annual residential Summer School in Spatially Integrated Social Science Theory, methods and Applications. And we developed with additional ARC research infrastructure funding a Shared Research Resources with data from some federal agencies and researcher generated data sets incorporation an e-Research Facility for Socio-Spatial Analysis and Modelling.

I was retiring at the beginning of 2011 when the University of Melbourne asked me to be the Director of the newly established Australian Urban Research Infrastructure Network (AUTRIN), a $20 million federal government funded project to develop an e-Infrastructure for facilitation access to diverse distributed data sets, data integration, and data interrogation through the provision of on-line e-research spatial, statistical and visualisation tools to enhance research capability for urban and built environment researchers in Australia.

Looking back over my career I have been privileged to have been a university teacher and researcher during an era of great change. Especially in Australia, the period from the 1960s to the 1980 was really a time of rapid development of the university system. University life was highly collegial and it was really a lot of fun being part of it. I think the managerialism that has taken over universities to a significant degree since is a shame as the academy seems to have lost influence and certainly control of many of the important aspects of universities. Now it's all about key performance indicators, frequent restructuring, and often the loss of discipline identity. The collegiality of regional science is more and more a welcome heaven to escape from all of that.

If I had a message for younger up-and-coming regional scientists it would be to take every opportunity that RSAI offers for developing an international network that leads to collaborative research. RSAI is a unique institution to which many of the finest scholars in the world belong and they are very collegial and open to assisting younger scholars. RSAI can literally open up the world for you. Embrace it; you won't be disappointed; it will be richly rewarding as well as being a lot of fun.

5. Teaching Regional Science (2): Virtual fieldwork in a course on Economic Geography

Aleid Brouwer, RUG Groningen

Together with Frans Sijtsma, I lecture and coordinate the first year Economic Geography course in the BSc programme Human Geography and Planning. This course is 8 weeks, three lectures a week and we have 220 students, freshly graduated from secondary education. Next to the course in Economic Geography they follow a course in Cultural Geography and workshops in 'Thinking about Geography and Planning'. This first year course Economic Geography has been rather similar – content wise – for at least 25 years. We talk about the 'Grand Theories of Economic Geography'; Von Thünen, Christaller, Weber, Lösch, Hotelling, Marshall, Smith, Pred, Simon, Schumpeter, Jacobs, Ricardo, Myrdal, Vernon, Perroux etc.

When I took this course – yes, I am a very sticky person in slippery space – 18 years ago, we were a group of close to 100 students. To make all these theories more visible and tangible, we took a three-day field trip, to see and experience Economic Geography. I can clearly remember, during this excursion the professor asked us: what do you see? And we just saw a shopping street … and again he asked us, what do you see? Awkward silence … after a very uncomfortable period someone tried and said: Maybe we can see urbanization economies? Yes! Finally our eyes were opened: Economic Geography isn't just brilliant – but sometimes slightly boring – thoughts of old (and very often dead) people. It is all around us and it defines and creates how we live, work and shop. All of a sudden Economic Geography became my favorite subject!

This 'Erlebnis' is something I want to create for my students as well, but since we had major economies of scale at my university and I only have 8 weeks and 220 students, a three-day field trip is not possible and hasn't been for quite some years. Hence, Economic Geography came to be perceived as the boring and dull subject in the first year of the BSc program, compared to the much more narrative course in Cultural Geography and the small-group-teaching of the workshops. Without seeing and experiencing Economic Geography we lost contact with what is the core of our subject: the world around us. To learn to truly appreciate geography starts with fieldwork. So how could we solve this problem? My colleague and I therefore developed 'Virtual fieldwork'. We created an innovative interactive web-application, which is used as a digital learning environment (very similar to Google Maps) by which we hope to have brought back practical fieldwork back into an early stage of the study. We use online questionnaires, user-uploaded photos and upload surveys from the

field. We expected the motivation of learners to increase as a result of these more practical tasks and active learning activities, meaning that students would see their own (economic) activities fitting into 'Grand Theories'; go out and explore and see Economic Geography in their own environment; go out and see Economic Geography experienced by other people;. share all these experiences and create an environment in which peer assessment helps to generate higher learning experiences.

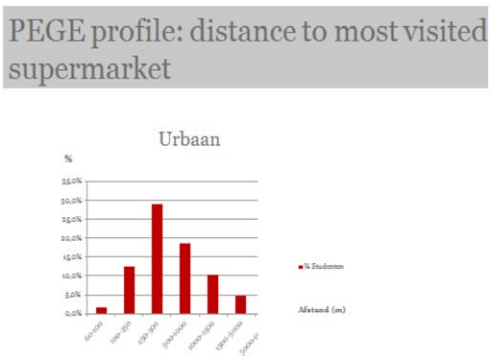


Figure 1. A result from the online questionnaire. Students shop at their closest supermarket – behaving perfectly as Christallerian customers.

The Virtual Fieldwork experience consists of three assignments (two of these are graded as part of the end grade of the course). The first one is an online questionnaire, which the students have to fill out. It asks them about their favourite things and most visited facilities: shoes, shops, food, beverages, bands, bars, festivals, holiday destination, cars etc. The students have to fill out the name/ brand of their favourites and place a marker on the map where e.g. the Albert Heijn grocery shop is located, where Heineken is produced, where Puma sneakers are produced, the location of the Irish Pub and where the Glastonbury festival takes place. Since we also have the students' postal code, we can 'predict' their 'spatial behaviour' (see for example Figure 1), and guess what? Students shop as Christaller predicted! How awesome! Honestly, for some that comes as a huge surprise – being the highly individual personalities as they are at age 18. Their own input is also used in explaining other theories, such as for example Weber (see Figure 2). The second assignment is an individual field trip in which they go to an assigned area of town and they have to photograph a geographic term, such as urbanization geographies, localization economies, concentric circles, threshold or polynuclear cities (see Figure 3).

Figure 2. Exam questions based on the students' 'own map' of where their favourite products are produced. "Which 'grand theory' is helpful to explain the spatial pattern shown in the map?"

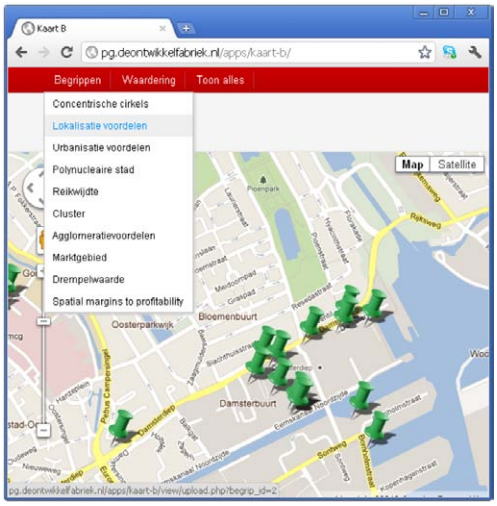


Figure 3. A selection of student-markers on localization economies as shown in a specific area of the city of Groningen.

Figure 4. A photo and a description of the concept of urbanisation economies, judged as satisfactory (pass).

They have to take the picture, post it on the map and explain why it is that this term can be seen in the picture (see Figure 4). The student can fail, pass or be graded excellent. It is a very helpful exercise in order to visualize and experience Economic Geography around you. Interesting is the peer learning experience. Sometimes students take pictures of the same area, mark it, but put a different label. For example, some use urbanization economies, others use localization economies, and all can pass – depending on their argument. It educates an understanding of the value of definitions, interpretation and truth.
The third assignment involves the students being researchers. They have to go to an assigned area in the wider region around Groningen and take five (ready-made) questionnaires to individuals in the area. The have to report the results on the map and share them in a database, accessible to all students. Then they have to interpret their own results in the light of the results from all combined data.
The combined data is presented to the students by us (see Figures 5 and 6). This exercise again makes students realize that theory and practice are not far apart, but also generates a sense for research and connecting concrete themes.

Did it work? Yes, I would say so. After the first pilot course in 2011 we evaluated the course and these are the results. Students did like it (72% in evaluation), students did start studying earlier (63% indicated in evaluation) and students did perform better (the cohort scored a 64% pass at the first exam – which is normal for this course, however, the cohort did not have similar high passing results in the other courses that year …). It activated the learning behaviour of the individual students, it made them connect theory and practice: apply and recognize concepts in practice and made the course more fun! But even before the formal evaluation we recognized an alteration in students' behaviour in class. More students attended, they were more focused, better prepared and we created an interactive atmosphere in which questions and discussions were stimulated. We ran the virtual fieldwork again this year; formal evaluation isn't in yet, but again the atmosphere in class improved, much

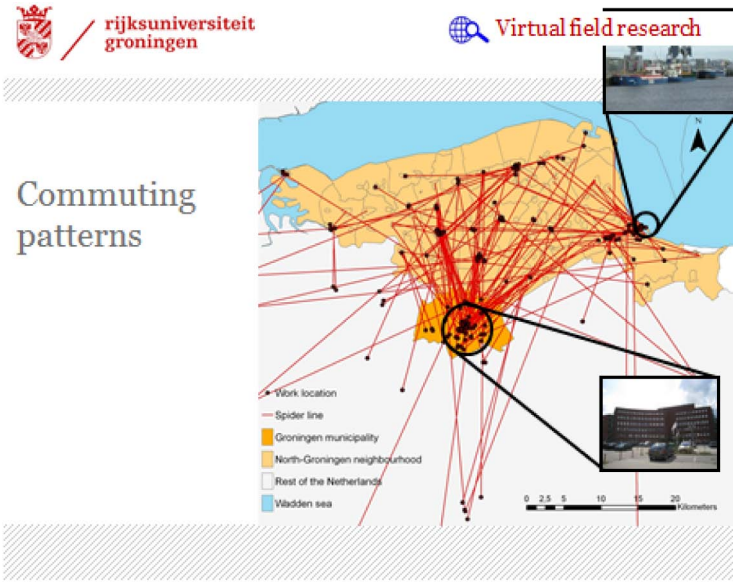


Figure 5. results from all students' questionnaires (5*220 entries), in this case on commuting patterns

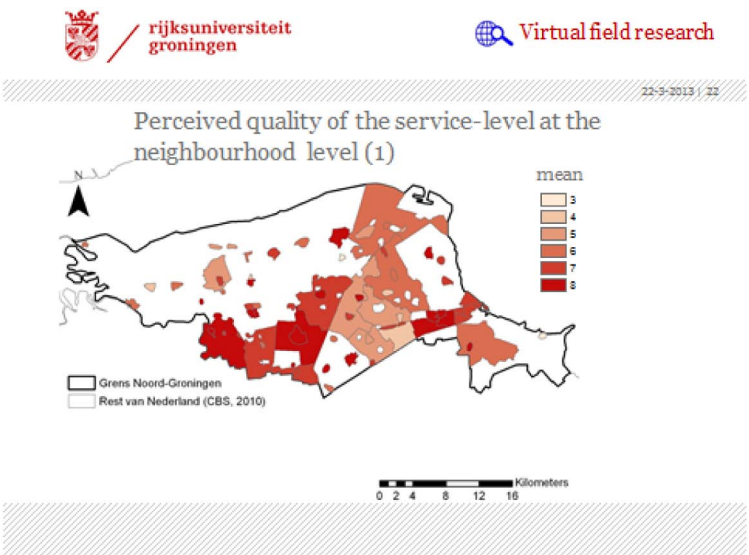


Figure 6. results from all students' questionnaires (5*220 entries), in this case on perceived quality of the service level at the neighborhood level

more active learning behaviour, more questions, more discussions (even with over 200 students) and again better results at the final exam.

The development of Virtual Fieldwork was funded by the Gratema Stichting – University of Groningen, gratefully acknowledged

6. RSAI prize winner

The Hirotada Kohno Award for Outstanding Service to the RSAI

Congratulations to Robert J (Bob) Stimson who is the winner of the 2013 Kohno Prize.

Bob Stimson is a quantitative human geographer and regional scientist. He has been teaching and conducting research in universities since 1965. He retired from the University of Queensland in January 2011. Bob is one of the leading urban researchers in Australia and is well known internationally for his work in analytical human geography, human spatial behaviour, and regional economic development analysis and planning strategy. Bob is a former President of the Regional Science Association International, the Australia and New Zealand Section of RSAI, and the Pacific Rim Council on Urban Development. He is a former President of the Western Regional Science Association (U.S.) and is currently Chair of the Applied Geography Commission in the International Geographical Union.

7. Centres of Regional Science: The Regional Research Institute at West Virginia University

Randall Jackson, West Virginia University

As an internationally-recognized center for the advancement of regional science, the Regional Research Institute (RRI) at West Virginia University has engaged in nearly five decades of interdisciplinary research on the economic and social development of distressed regions. With a dynamic staff that incorporates rich international experience and a vital external advisory board that draws upon critical expertise from prestigious national and international institutions, the RRI has built a solid record of research that has had a positive impact on the theories and history of regional economies; methods for studying regions; and policies for stimulating their development.

RRI's success is the result of a wide range of interdisciplinary national and international interaction involving nearly three dozen WVU campus faculty research associates representing 17 different disciplines; a solid core of in-house regional science faculty; an extended network of scholars in the US and abroad; and an outstanding and talented group of inspired graduate students!

RRI's growing research network has spawned collaborations with experts from key universities including the University of Pittsburgh, Carnegie Mellon University, Georgia Institute of

Technology, the University of Washington in Seattle, George Mason University, Florida International University, Pennsylvania State University, Virginia Polytechnic Institute, Arizona State University, and the U.S. Department of Energy's National Energy Technology Laboratory (NETL) in the U.S, Italy's University of Bologna, Korea's Andong University, and the Korea Institute for Industrial Economics and Trade.

Significant recent additions to RRI's WVU-based roster of expertise include Research Associate Professor Donald Lacombe and Research Assistant Professor Gianfranco Piras, whose recognized skills in theoretical spatial econometrics and applied spatial analysis are internationally recognized.

The Institute's WVU-based graduate research assistants have scored significant recognitions for their work in support of regional science. In 2012 alone, RRI Graduate Research Fellow Christa Jensen, who just this May completed her doctorate in economics, received the Southern Regional Science Association's Barry M. Moriarty Student Paper Award for her research in modeling the flows of hazardous waste among regions of the United Kingdom. Her paper was titled Examining Subnational Waste Flows in the United Kingdom: A Spatial Interaction Approach." Meanwhile, Zheng Tian, Ph.D. RRI Graduate Research Assistant, authored the winning paper, "Measuring Agglomeration Using the Standardized Location Quotient with a Bootstrap Method" in the Mid-Continent RSA's M. Jarvin Emerson Student Paper Competition.

While the Institute has no explicit curricular role, it supports graduate research assistants (GRA) nominated by their departments or by faculty associates. Most GRA study Economics, Geography, or Natural Resource Economics but History, Law and Sociology are also often represented. The WVU Economics doctoral program offers students the opportunity to study regional development and planning, environmental and resource economics. The Geography Ph.D. program offers students the opportunity to study regional development and planning, environmental and resource geography, and geographic information systems and remote sensing. Focus areas within the Geography program include Appalachia, southern Africa, Europe, and North America. The Ph.D. program in Natural Resource Economics specializes in resource and environmental economics, environmental management and policy, links between environmental quality and economic development, and international and regional development. The Institute also offers a popular two-week, four-part spatial econometrics workshop each summer, building a new generation of

scholars who are using these innovative techniques to bring fresh insight into many of today's most critical research questions. The RRI also hosts a small number of high-quality, on-campus seminars each year.

Scholars from around the globe have participated in RRI's Visiting Scholars Program, contributing to and benefiting from the Institute's diverse, intellectually stimulating, and thriving environment. The Institute also works to disseminate the basic concepts, analytical tools, and policy issues important to regional science by maintaining the popular RRI Website, a significant feature of which is the Web Book of Regional Science, providing free access to dozens of new and classic monographs on regional science topics spanning methods, empirical issues, topical and policy oriented topics. The Web Book logs more than ten million hits per year by researchers and practitioners from more dozens of countries, who use the resources in introductory, upper division undergraduate and graduate courses.

Regional Research Institute

WestVirginiaUniversity.

All RRI researchers participate in external funding activities, including the preparation and submission of external funding proposals and the conduct of funded research. Under the direction of Dr. Randall Jackson, RRI has attracted financial support from several key sources. The U.S. Department of Energy's National Energy Technology Laboratory, the U.S. Department of Agriculture, and the U.S. National Science Foundation have supported recent project research, which in 2012 resulted in nearly 50 refereed journal articles, a half-dozen RRI Working Papers and Technical Reports, and numerous conference presentations. Visit our website at RRI.WVU.edu to learn more about the Regional Research Institute at West Virginia University.

8. Teaching Regional Science (3): Scientific Publishing in Today's Global Village

Barbara Fess, Senior Editor Economics and Political Science, Springer

There is no doubt that we are currently witnessing a historical transformation that affects nearly every facet of modern society, and which is in the process of fundamentally redefining how we communicate, exchange and generate information. The new possibilities for interaction and collaboration now available to us, collectively labeled Web 2.0, are accelerating a transformative process that began roughly two decades ago. Since then, it has blurred the boundaries between global and regional, individual and crowd. At the same time, it is especially impacting science and research – fields which themselves often serve as drivers in this process. As is well known, the first virtual networks were established at academic institutions before expanding into the World Wide Web, and many of today's most common online formats and platforms were initially used for exchange between

researchers. As a result, in major fields of scientific research the much-touted "global village" was a reality far earlier than in other parts of society – a fact that entailed a variety of consequences for academic work, ongoing discourses, learning and education.

It is remarkable that the quality standards for academic work have remained unharmed by these changes. Instead, the greatest impact has been on the form and speed of cooperation and exchange between research partners on the one hand, and on the availability of research findings on the other. In fact, the availability of scientific information has never been as high as it is today, a convenience that readers take advantage of 24 hours a day and 7 days a week. Just what that means can be seen for instance on the service website Realtime (realtime.springer.com) offered by Springer, which shows the location (as determined by IP-to-city matching) of downloads from Springer's online platforms on a world map. This visualization highlights the dedication (and non-traditional working hours) of the research community and the speed and frequency at which scientific information is accessed today – new publications are downloaded and read at various locations simultaneously, all day and every day. Of course that's not something wholly new: publications often enjoyed global readerships in the pre-digital age as well. But the level of rapid, uncomplicated access has given publishing an entirely new dimension.

Downloads from Springerlink at one point in time on March 22: Glasgow 9.12 am, Beijing 5.12 pm, New York 5.12 am, Vancouver 2.12 am
Source: http://realtime.springer.com/map

The publishing world and how it views itself have of course also been touched by these changes. Since the mid-19th century at the latest, publishing houses have assumed a central role in scientific discussions as disseminators of new insights, findings and theories. They offer a forum for exchange within and between the various scientific communities as well as a framework in which academic texts can be published, e.g. in the form of journals and other compendia. The core of publishers' traditional duties in the scientific discourse has essentially remained unchanged. However, over the last several years, further functions have been added. In many cases, the

impulses for these changes come directly from the scientific communities. At the same time, publishers themselves push forward these changes – from innovative technologies and digital platforms, to rights management and developing new formats to facilitate rapid access and exchange.

One prominent example is the epub format. Epub (short for "electronic publication") is a free and open data format developed in 2007 by the International Digital Publishing Forum that allows text to adjust for a variety of devices, from notebooks to eBook readers to smartphones. The majority of publishers have since adopted epub as their standard format for digital content – ensuring that the content can be read around the world and regardless of the mobile device used.

© Sergey Rusakov, iStockphoto

Further, there are reference-linking initiatives like CrossRef, which was developed as a cooperative effort between a group of major publishers and academic societies. CrossRef enables reference linking between different platforms and publishers and allows researchers to move on to the next relevant publication with just a mouse click.

Given the fact that over the last twenty years the amount of new findings, data and corresponding publications has veritably exploded, it has become vital for researchers and students to be able to quickly get an overview of new results. The rise in interdisciplinary cooperation has also made it essential for researchers to be able to quickly familiarize themselves with new subjects and fields. Readers therefore rely on publications that are easily accessible and in which content is presented in a way that is conducive to efficient information gathering. To respond to these needs, publishers have developed innovative new formats that complement traditional books and journal programs.

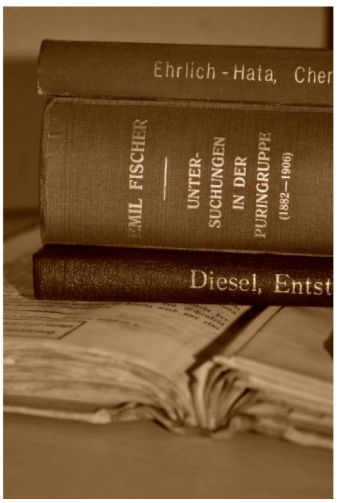
In many disciplines, "letters journals" have developed to support the rapid publication of first research results. The *Letters in Spatial and Resource Sciences (www.springer.com/journal/12076)* , edited by Henk Folmer and Amit Batabyal, was the first such journal in the field of regional science and environmental economics. Founded in 2008, it combines two innovative features. As an e-only "Letters" journal with a highly efficient review process, it offers a platform for concise and fast communication of new findings. It also promotes interdisciplinary research by stimulating the interaction between spatial and resource sciences, two fields which are closely related but have nevertheless largely developed independently of each other.

Another example in the field of regional science is the series *SpringerBriefs in Regional Science (www.springer.com/series/10096)* , edited by Henk Folmer and Mark Partridge with a team of co-editors, which provides, across disciplines, a platform for authored works that are of an intermediate length between those of journal articles and monographs. It publishes lecture notes, reviews, interesting cases or policy papers concerning all areas of regional science. Volumes in the series offer readers a concise overview of a topic or methodological concept, or a

quick insight into a cutting-edge application.

At the other end of the spectrum, large reference works also provide new platforms for scientific exchange. In the SpringerReference program, the forthcoming *Handbook of Regional Science* (springerreference.com/book270), edited by Manfred Fischer and Peter Nijkamp, combines the "traditional" print format with a Wiki-style updatable online format. Not only does this make it possible to include corrections, updates and new topics as they emerge, rather than having to keep them on hold until the next printed edition. The reference also provides a platform for scientific discussion and development where other experts can respond and add to the existing body of knowledge, following a review and approval process.

One of the most prominent and necessary developments involves ensuring lasting access to publications. The goal is clear: everything printed today should remain available in perpetuity and be instantly accessible, around the clock. For this purpose, publishing houses collaborate with digital archives to ensure that all content remains accessible, even in the event that the publishers themselves should no longer be able to provide direct access. Just as important, however, is making sure that publications from the past are also made accessible with the help of digitization. The great majority of journal content, back to the very first issues, was already retroactively digitized and made electronically available years ago. In 2013 Springer is following suit with its book content: A total of ca. 100,000 works, reaching back to the company's founding in 1842, have been or will be digitized and made available in both electronic form and as printed books (again). Why this huge effort is worthwhile becomes clear when you consider the works themselves, as their significance as fundamental texts often reaches far beyond historical interest. Works by Max Born, Werner Siemens or Rudolf Diesel will soon be digitally available, just as the first book by Alvin E. Roth, Nobel Prize Winner for Economics in 2012, will. In the field of regional science, the long-established book series *Advances in Spatial Science* is also being digitized back to its first volume, *New Directions in Spatial Econometrics*, edited by Luc Anselin and Raymond Florax and published in 1995. Before long, the term "out of print" will have disappeared from our vocabulary!



While publishers invest in preserving the research of the past, much thinking and also some experimenting goes into their role in the research of the future. Publishers see their role shifting to a greater involvement in the collaborative processes that lead to research output, rather than focusing solely on producing and disseminating publications. The transformation from print to digital has fundamentally changed attitudes about what should be published and when, and even what publication really means. Traditionally, books were published only after reaching maturity in content and style, a process that could take many years of hard work and was only rewarded after publication. Now, early versions of research are usually communicated in some form or another, and parts of the discussion and

exchange that lead to the advancement of science happen before the final publication. Using their expertise in infrastructure and communication, publishers have started to offer a range of services to support these processes, including discussion forums, pre-publication platforms, or integration of citation management software. Today's students, all of them digital natives, will certainly push further in their ways to collaborate and communicate through new technologies. To serve their needs and demands, publishing will need to become ever more immediate, engaging and accessible, and keep developing entirely novel services for readers and authors alike.

9. Future Events

9.1 Summer Course in Morocco

The Regional Science Association International will organize jointly with the regional scientists from Morocco, a Summer Course, with the theme Regional and Urban Economics – design, modeling and application of policy tools, that will be held from 7th to 13th of October 2013 in Rabat, Morocco.

The goal of the Summer Course is to provide PhD-students and young researchers with: a) advanced training in spatial econometrics, operational regional models and in policy analysis of complex urban systems; b) an opportunity to present and discuss their research if possible enlarged to the supervisors with the use of communication technologies, c) to obtain improved skills and knowledge to advance their careers as researchers.

The summer course will take place during seven highly focused and intense days of advanced training, student presentations and discussion, and discussion of career strategies. It will also include a study visit to the more remarkable urban systems of Morocco that will complete the unique experience of the summer course.

The summer course will be divided in four parts: Regional, rural and urban economics, Land use modeling, Spatial econometrics, Operational models of regional and urban economies and Urban Policy Tools and Decision Support Systems.

Participants shall be Master students; Ph.D. students; or researchers that complete a Ph.D. in the former ten years. Applicants who are Master or Ph.D. students shall submit *recommendation letters of supervisor* that would state applicants' future activities in regional science fields and active expert that would like to obtain additional skills in regional science research methods.

The number of participants is limited to 30. We are expecting 20 from the North of Africa, 5 from Sub-Saharan Africa and 5 from the rest of the world. Master student, doctoral, PhD students and other applicants who want to participate in the summer course should submit their application to rsai@apdr.pt. For more information see http://www.regionalscience.org/

10. Next issue

The theme of the next issue will be 'Agent-based modelling, microsimulation and issues in regional science'. Please send any contributions directly to Eveline van Leeuwen e.s.van.leeuwen@vu.nl or Graham Clarke G.P.Clarke@Leeds.ac.uk.