

## Invisible colleges in the adult education research world

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### Abstract

*Invisible colleges - researchers' networks of communicating academic work - are power-generating actors shaping research fields. A key question concerns the relation between local research communities and their dependence on global actors. A key arena is articles and citations in academic journals. An actor-network-inspired empirical investigation of the geographical origin of articles and references in the journal "Studies in the Education of Adults" and a check of references to journals in "Adult Education Quarterly" was made. The origin of articles and study objects in the International journal of Lifelong education was also analysed. Some conclusions can be drawn from the material. One is the heavy impact of "real" geographical location, i.e. the origins of texts and references are located in very specific areas on the map, i.e. in spite of the possibilities of cyberspace and global mobility. Another conclusion is the unilateral relation between an Anglo-American centre and a periphery in the distribution systems of texts. Adult education is faced with a contradictory situation between culturing invisible colleges in adult education and getting resources in the emerging economy of publications and citations through membership in other invisible colleges.*

**Keywords:** bibliometrics; publications; adult education; invisible college; academic journals

### Invisible colleges as actor networks

Researchers often have a personal involvement in their work – they are keen on understanding more about the issue they are exploring. The struggle with research questions and the joy and despair of writing is only the beginning of the process aiming at being recognised by some audiences – a process of making research work meaningful (Larsson, 2004). To trace research with a similar interest, but also the researchers behind the research is part of the joy of doing research. The aim is to make your research noticed or more ambitious – to have some mutual contact. The notion of such communication and collaboration between colleagues as creating “invisible colleges”

was launched by what is generally considered as the founder of scientometrics – de Solla Price (1986, p. 56 ff). He pointed to the early correspondence in the form of letters by scientists in the 17<sup>th</sup> and 18<sup>th</sup> centuries. They wrote letters, since it was not easy to meet, but through the letters they were like colleagues at the same college, but an invisible one. These invisible colleges were often international – botanists in the 18<sup>th</sup> century could be in intensive contact across borders by means of letters. Academic journals later became a supplement to these “private” links forming communication networks. Nowadays, researchers are in touch with each other in various ways – by e-mail, conferences and not least reading each other’s articles in journals. Such links can be used in the invisible colleges of our time: networks where ideas grow and results are communicated. However, the academics are operating more and more in a context of an economy of publications and citations (Larsson, 2009), where articles become units in contemporary forms of governance of higher education. We might view networks of citations as “invisible colleges” in the sense that they include and exclude, i.e. create demarcations between which texts will be recognised and which do not deserve to be mentioned. Invisible colleges are in this respect not referring to networks connecting researchers, but connections between texts.

The notion of invisible colleges can fruitfully be “imbedded” in the more general theoretical framework of actor networks, with their stress on relations between actors, human or non-human, producing effects. Not least, they can present us with a Janus face in the invisible colleges: these networks are not only bridges between researchers enjoying each other’s contributions to the collective knowledge, the non-human actor “citations” also exercise power. The citations and the connections they represent, the invisible colleges, affect the struggles in the academic world, with consequences for what counts as academic knowledge: "Scientific activity is not about nature, it is a fierce fight to construct reality" (Latour & Woolgar, 1986, p. 243). As can be seen from the examples above, actors in networks can be seen as both humans and non-human things. The latter also have effects, i.e. are actors according to actor-network thinking. Journals, articles and references are thus actors, together with bibliometric databases and ranking lists, in a sociotechnical order powering the invisible colleges. Law & Hetherington (2002) uses other examples: “Texts such as this, newspapers, the pictures on the television at night, books in the libraries, CD roms, maps, films, statistical tables, spreadsheets, musical scores, architect’s drawings, engineering designs, all of these are information – but information in material form.” (p. 1). The perspective of actor-networks also places questions about the location in the spotlight: the place where something is done or the space, where something is moving comes to the forefront. Geography and space thus become a key category (Edwards & Usher, 2000; Edwards, 2003). In our case, academic journals pick texts written in specific places, which refer to other texts, written in other places. When published, these texts are referred to in still other texts. In this way, networks are created that connect texts, references, and researchers across space, although not in an accidental way. Such networks include and exclude and they are involved in struggles for positions of power - or rather: this side of the face is part and parcel of academic work, whatever the intentions of researchers are. Invisible colleges are also themselves powerful actors.

### **The emerging economy of publications and citations**

The theme of this article - publications and citations in academic journals - has become a very important issue recent years, when bibliometrics has been introduced as an

instrument for steering academic work, research resources and, indirectly, our reputation. An economy of publications and citations thus emerges (Larsson, 2009). Publications and citations become “disembedded symbolic tokens” (Giddens, 1990, p. 21-22) – like money or grades in schools (Andersson, 2000). Winners and losers are created in this game - on all levels - individual researchers, research groups and universities. The fate of disciplines and research areas is also at stake. There is also a geopolitical aspect of this economy; domination based on geography and languages: continents and countries or regions and how they are related to language domination globally and regionally.

Since these bibliometric measurements are very selective, they actually create special cases of invisible colleges, creating boundaries between texts, which count and excluding those, which do not count in the bibliometric databases. The political context is a new way of governing the public sector – New Public Management, which is a part of a neo-liberal utopia, where a business perspective should be expanded to all sectors of the society. This is also a discourse spreading into higher education and to most corners of the world (Elzinga, 2010). An example is the Bologna process, preparing for competition between universities (Fejes, 2008). Higher education has been a target for a long time in countries such as Australia (Davies, Gottsche & Bansel, 2006), while it has arrived somewhat later at universities in continental Europe, as an example of travelling reforms, often implemented with bizarre consequences in some countries (Steiner-Khamsi, 2009). Globalisation in the policy arenas often have the mission of reducing variation and create worldwide uniformity, as in the Bologna process. However, international cooperation can actually be based on the usefulness of variation (Larsson, Abrandt Dahlgren, Walters, Boud & Sork, 2005). Universities in this framework are considered to be an asset generating economic output in their region, but their uniformity is thought to be the basis for competition and comparison, e.g. to undermine the links of universities to the local context. Another guiding principle is that universities also internally should operate in a businesslike manner, i.e. privatization, deregulation and competition, but also the introduction of uniform performance measurements. This discourse is in sharp contrast to earlier discourses of independent scholars, e.g. the Humboltian utopia, formulated in the early 19<sup>th</sup> century and revitalized after the World War II. However, in countries like Sweden, there has also been a period where especially educational research became an instrument in the construction of a welfare state after the second world war, often built on shared views of the political agenda between researchers and government.

Bernstein (1977) argues that education is not completely parallel to the organisation of society, it is, rather, a contradictory relation, which may also be the case with higher education, i.e. there is a semi-dependance. Contemporary higher education in countries such as the Nordic countries is not completely, but rather partly, neo-liberal. One might rather say that the neo-liberal agenda is in the process of colonizing higher education in this region, while Davies et al. (2006) argue that the neo-liberal university in Australia has reached its peak. The practice of independent scholars is still respected to some extent. If the logic of a private company had permeated Swedish universities, I would not be allowed to publish an article like the present one – there is no freedom of speech in private companies, e.g. you cannot criticize the quality of a company’s products in public if you are employed by the company. The logical consequences of utopias must not be the same as the real consequences, e.g. the neo-liberal utopia generates certain practices, which are not expressed in its theory, i.e. neo-classic liberalism. The real New Public Management has, for instance, resulted in the creation of huge bureaucracies in order to operate quasi-markets, e.g. staff involved in

the measurement of performance and in buying and selling exercises between fractions of the same administration (Dunleavy, Margetts, Bastow & Tinkler, 2006). Since there is no real market, one has to invent some output, which should be the judge of performance, in order to distribute some kind of reward. Huge resources are used in marketing the universities, based on the usual lofty promises – probably eroding the established image of universities as serious and reliable institutions, e.g. very high in relation to the corporate sector, which, in New Public Management, is viewed as the exemplary organisation (Statskontoret, 2009). Another effect in higher education is that the academic scholars are disempowered, e.g. a reduction of academic self-governance is the consequence of erecting hierarchies similar to those in the corporate sector. University management, the state authorities and external stakeholders are instead strengthened (Elzinga, 2010, p. 11).

One of the problems with the units, which are used to measure performance, is that they are very crude and not very convincing in terms of validity. When universities are ranked, the Shanghai list is probably most often used (ARWU, 2010). The ranking is primarily based on awards (e.g. Nobel prizes) and publication and citation in high ranked journals, especially in the natural sciences. The consequence is that the whole performance of a university is judged from the performance of very few scientists. When such lists are appropriated by public opinion, these very few scientists represent all kinds of aspects of a university, which they have no part in whatsoever – all kinds of teaching and research, also in faculties that do not count. Dunleavy et. al. (2006) discuss what they call perverted incentives as a consequence of the New Public Management, i.e. civil servants do what pays according to the performance criteria and not what they think is rational or reasonable or in the interest of the public good. In the case of research, this is obvious – in order to generate resources one has to concentrate on publishing in a selection of academic journals and not writing books for broader audiences. The most popular tool for bibliometric measurements is ISI/Web of Science – it is used by e.g. the Shanghai list and by the Swedish government as a basis for the allocation of a share of the research resources to the Swedish universities, etc. This database does not recognize books or any other way of communicating, only a selection of academic journals. This gap between what is measured and what is commonly considered to be good performance is, among other things, a consequence of the use of uniform units, which are valid for small sectors of the activities in higher education, but irrelevant in other. One has to develop “citation consciousness” (Paasi, 2005, p. 783) in order to have resources for research. Wright (2009) points out that audit systems teach academics to be accountable selves in order to do what counts (p. 22). Other aspects can be used in order to measure research performance, e.g. how much money researchers or groups of researchers have received from external sources historically. Typically, this kind of performance measure is used to steer resources to these who are already well resourced. However, the lack of validity and rationality is not a very successful argument in practice – it does not stop the practices from being implemented. It would actually not be a good idea to neglect these measurement criteria – the risk is that such a neglect would ruin your chance to do research. Ironically, a lack of quality in the measurements is typical when the quality of performance of higher education is measured in the New Public Management.

## The ruler of the rules

Invisible colleges themselves operate in the conditions of the hierarchy of the economy of publications and citations. One might say that ISI/Web of Science and their selection of media, i.e. journals and then the selection among the journals, set the rules for the invisible colleges: it is a matter of ruling by producing the rules for rulers on a lower level – they judge what counts as valuable research. Only one of the journals on adult education is indexed in ISI: *Adult Education Quarterly* – it is the only journal where it pays to be cited. ISI is owned by a trans-national company, Thomson Reuters. It has occupied the position of constructing the “machinery” and have in this way gained a kind of ultimate power on a meta-level level over academic research. ISI has become a very strong actor in the globalisation of research, creating a trans-national geopolitical order. Today, ISI and its indexes have what is close to a monopoly, strengthened by many actors – the Shanghai list is partly based on ISI, governments such as the Swedish government distribute part of the financial resources to universities based on ISI indexes, and local universities use it as a yard stick in the internal struggles for research resources between disciplines and research groups. However, the swiftly changing technology and economy might mean that ISI will be replaced by e.g. Google. We should therefore focus on the machinery as such, which might be more long-lived: the economy of publication and citations in various versions.

What has so far been even more sustainable is the operation of invisible colleges and their acts of inclusion and exclusion. Viewing their operation from a geopolitical perspective can therefore also be fruitful. This means in our case that we can also look at other journals than those indexed by ISI.

## Significant actors: Money and language

Research in adult education as well as research generally is unevenly distributed over the world. There are various reasons for this. The inequalities in material resources between regions of the world are one obvious background. Poor universities cannot afford good libraries. Related to this is the concrete condition of the systems, which make existing research available to researchers – the distribution systems of books and journals and reports etc. This is right now in a flux – from reports and books to journals and from paper distribution to electronic distribution. The new phenomenon of open access, which might reduce the present exclusion of universities and researchers in poor countries from access to articles, is gaining momentum. However, there are other actors than money that have a strong impact. Language is one.

What can you do to be recognized in social science? A first answer should be: Write articles in a language that can be read by many researchers. Nowadays, English has taken the dominating role of being the “lingua franca” in many parts of the world. This situation has accelerated during the post World War II period. Earlier, languages like French and German were many intellectuals’ second and third languages. However, this does not seem to be the case anymore. One paradoxical example is how “gurus” like the German “Habermas” and the Frenchman “Foucault” are referred to in English translations and the academic discussion in their own mother tongue is seldom commented on in articles in English. It is like there is a separate invisible college of Foucault in English. Several languages are spoken by more persons than is English – slightly more than 5% of the world population has English as their mother tongue (Ethnologue, 2010). Language domination in the academic world creates various

advantages for those places where English is the local lingua in the economy of publications and citations. One is that there is no separation between publication for a local audience and a world audience – this split in most countries in the world creates more work. An empirical investigation of some science disciplines using the ISI index concludes that “the vast majority of the highly cited papers in a speciality is in fact domestic” (Persson, 2010, p. 398). This is due to US researchers’ preference of domestic citations, while researchers in small countries are international. If you write a book in English, it will also be readable in countries where English is the first and second language, but if you are a Polish researcher you might publish in English, but will lose most readers in Poland unless you write a version in Polish. The effects of languages on the construction and operation of invisible colleges is probably fundamental: local languages create networks, connecting researchers, research groups and texts through local language conferences, journals and publishing companies as key actors. It also creates boundaries, which exclude those who does not understand. An investigation of Spanish universities showed that a large proportion of scholars, who were rated as prestigious, do not appear in ISI or Scopus (Extebarria & Gomez-Uranga, 2010).

When there is a globalised economy based on publications and citations, language becomes one important actor in the production of a geopolitical hierarchy. It can also be seen as a tool for other actors, e.g. ISI, which on the whole neglects journals using languages other than English. These positions created by languages are without doubt becoming more and more significant if one want to understand the acts of researchers in the struggles in the economy of publications and citations. Ignoring these aspects of the game can be very risky, e.g. not publishing in English, not cooperating with researchers from the countries that dominate the English-writing academia. Researchers in dominating countries will also be in a position where they need the other researchers to be recognised since the new economy will probably pkace these researchers in a global market of publications and citations. They will probably face falling shares of citations, when researchers from other parts of the world become more skilled in the game. The National Science Foundation (2007) in US actually complained about such falling shares of US research.

### **Another actor: Geography**

The main theme of this article is to discuss the geographical aspect. Basu (2010) shows that the number of journals included in Scopus (Elsevier’s bibliometric database, less influential than ISI) from a country explains 80% of the variation in citations from that same country. If the four dominating countries are excluded, the number of journals in a country, which are included in Scopus, explains as much as 87% of the variance. A researcher’s citation score in Scopus is more a question of how many journals the have included from the researchers country than the quality as such. This is due to the importance of domestic citations. It shows the importance of geography – in order to be cited you have to have your own country’s journals in the databases. Almost all journals in Education and Educational research, which are selected by ISI, are British or North American. Persson (2010) found that the most cited papers were domestic and these were mostly from US, while smaller countries had to be international. Since articles in adult education on the whole will end up in journals classified as education or educational research, we can start by having some empirical data on such ISI indexed journals and how citations are distributed on countries. In which country should you

work in order to be recognized by other academics in ISI indexed journals? The answer suggests that a few countries could be preferred: 89.1% of all citations in ISI-indexed academic journals on education were in articles from five countries: Australia, Canada, New Zealand, UK and USA<sup>1</sup>. The irony here is that when governments outside of the five dominating countries begin to use ISI to judge the value of their own researchers' work, ISI-indexed academic journals, which consider themselves as primarily British or North American, will probably be invaded by researchers, from other countries, who were not very interested before. If they resist, they will be actors in discrimination, since they have discrimination effects on researchers outside their own countries, whose academic position and success is measured by being published and cited in these journals. As we can see, this is a reciprocal process. This is a part of the globalisation process, where global powers invade local contexts in a way that was not done earlier except during colonial occupation. Higher education has always been international, but in earlier times relations were based on other structures of power. One might say that we are in a dramatic globalisation process in academia, not only as regards research but also as a result of the emergence of a trans-national "export industry" of higher education (Larsson et al., 2005).

Another answer concerns the actual size of research in terms of resources – this might explain the uneven distribution of citations. However, if we look at statistics about OECD countries' investments in Research & Development in relation to GNP, we find that all the five dominating countries, except the US have investments in Research & Development, which are below the OECD average, and US is not among the highest (OECD, 2010).

### **Invisible colleges in adult education research**

It seems that research fields and disciplines varies in the construction of the "actor-network", which the discipline is constituted as. Nesper (1996) writes about Physics as a very narrow actor network and about Management as open and wide, using the notion of actor-networks in an ethnographic study. We might think of adult education research in a similar way, e.g. trying to characterize the practice of this research. In my case, the focus is on artefacts of researchers' work: texts, published in a few journals, which have the potential to be read in many corners of the world. We can ask: Are the indicated invisible colleges e.g. provincial or international, or international in what sense?

Adult education research is not defined and delimited in a very clear way. There can be many reasons, but I want to highlight two. The first has to do with the lack of a common knowledge base, i.e. what could be common knowledge among those who are doing the research. This is not particularly surprising, since it is also the case with educational research in general and also areas such management, gender studies, etc. – research areas, which are more defined by their study object than by a perspective. What becomes more troublesome is the lack of common delimitations of what constitutes this study object: Is it adults who are taught or also adults who are learning without being taught, or is the educational system provided for adults, etc. Does higher education belong here and what about human resource development? The answers are provisional and shift according to the region in which the research activity takes place. In relation to academic journals, there is a difficulty since various invisible colleges operate at least partly independently from each other, e.g. in higher education, human resource development and in learning in the workplace. The second problem concerns the tendency for researchers to belong to several sub-disciplines. A lot of adult education

research is sociological and some of it develops themes, which could be part of educational philosophy. Some researchers use learning theory as a result of which they participate in conferences, where all the participants are connected by such theory, which operate as a producer of a node in an actor-network. One might say that many adult education researchers belong to several invisible colleges or are at least faced with such choices. The challenge for a new journal, like RELA, is a difficult one since some of these rival sub-disciplines offer better rewards, e.g. have journals, which are indexed in ISI. Higher education had, for instance, 13 such journals among ISI's selection in education and educational research in 2007 (Larsson, 2009). This lack of concentration, i.e. that the researcher is often connected to several invisible colleges, has an undermining effect on the strength of adult education research as a collective – it becomes a loose network that cannot act forcefully. This is the condition for a new journal and nothing can really be done in the short term to have it included in the selective databases.

The invisible colleges can be viewed as less volatile, slowly transforming entities. My analysis is therefore not delimited to the indexes and their selection of journals, but concerns the more general question about the invisible colleges or networks of references to texts and their location in journals. On the other hand, invisible colleges and their power also change and are to some extent dialectically related to the technology of the EPC and similar managerial tools.

Since I want to have my conclusions and reasoning empirically grounded, journals in adult education/lifelong education and their citations could give some contribution to the reasoning. We can look upon references as an indication of which texts counts in the sense that the author want to give a sign that the text is valuable. One can then look for the geographical origin of the text and then have a map of the connections. On such a basis we might characterize our research field in terms of actor-networks as they are described by the choice of references.

## Data

Empirical data consist of origins of first authors of articles and also authors of the articles, which are referred to in the reference lists of the articles in two volumes of "Studies in the Education of Adults": Volume 2005 as well as the autumn 2008/spring 2009 issues. The origin of the first author was traced through Google Scholar or sometimes just Google, but also by tracing the article or book. A second investigation concerned "Adult Education Quarterly". Here, I looked for the journals referred to in the articles of the only ISI-indexed journal in our field. This is used for a discussion about their geographical origin. Do authors publishing in this journal refer to articles in other academic journals, i.e. what is the chance of being cited in AEQ and in this way become noted in ISI's index? A third empirical example is the "International Journal of Lifelong education", where the origin of authors was investigated as well as the contexts of empirical studies. I also looked at the texts in Studies of the education of Adults in order to see how the articles contextualise their interpretations: if they care to relate to empirical results from other countries or if they try to explain the context of their text in a way that makes it accessible for an international audience.

The idea was to have a selection of journals, which could give some indication of how journals act in adult education research with consequences for the invisible colleges and their trajectories across time and space.



## Studies in the education of adults

The first cases to be presented are the 2005 volume and autumn 2008/ spring 2009 volume of *Studies in the Education of Adults*. The journal represents a British context, e.g. eight members on the editorial board are currently English and two are Scottish. It is one of only a few alternatives if adult education researchers want to have an international audience, i.e. it is in English and might be available outside its local context. The journal is also important as an actor, which might build invisible colleges focusing on adult education research. The editor recently discussed this, although from a purely British perspective (Zukas, 2009). However, on one occasion, another editor declared an international ambition, i.e. that the board “has consistently made the decision that we wish *Studies* to be at the forefront of research and scholarship in the education of adults internationally” (Edwards, 2003, p. 121)

On the first level, we can look at the origin of the articles in the 2005 volume in terms of the academic institution the authors are affiliated to. These are the figures: UK: 5, Canada: 4, Australia: 2, Germany: 1. These countries are distributed over three continents and can give the impression of being beyond doubt international. One first obvious limitation is the lack of articles from any poor country – maybe mirroring a lack of research in such countries. A second limitation is that 11 out of 12 articles are from the five countries that dominate the ISI in educational research generally – Australia, Canada, New Zealand, the UK and the USA with 89% of all citations. Another question is: are the issues dealt with relevant outside their own country? A check tells us that all articles, except one, elaborate on the author’s own context or engage in conceptual matters. The exception is an article on Thailand. A peculiar fact, when we discuss the conditions for international publication, is that all the articles, except the German one, originate in countries where Elisabeth II is head of state. She seems to represent connections that constitute the fabric of academic relations – a colonial heritage transformed into an academic empire. However, only three rich countries in the broader context of the former British empire are represented – there are close to 60 countries in the world with such a background. The English language may play a role here – it is the mother tongue of most of the citizens in these countries. On the other hand, English is the language used in academic contexts in many other countries and academics routinely publish in English since it is the dominating lingua franca in international communication, e.g. conferences etc. The conclusion will therefore be that language is not a sufficient explanation of the domination pattern.

If we look at the autumn 2008/ spring 2009 issues, we can follow the development of the combined acts of authors thinking it is worthwhile to select this journal for their manuscripts and the gatekeepers’ work, i.e. basically the editor and reviewers: eight articles are written by authors from the UK and one each from Germany, Sweden and Canada. If we look at the content of the articles and the issues they deal with - how they contextualise their work, we can see how there are few signs of any interest in being international in the texts from UK, with one exception. There is no comparison with similar studies from other countries or no obvious effort to describe what is peculiar in the British system, which would make the text accessible for a foreigner. Some signs of such ambitions can be seen in the non-British articles: the German text uses comparative data from many countries to put the German data into context and also explain this local context. The Swedish text makes some effort to describe what is peculiar about the Swedish health system and the Canadian text relates the issue to the UN and FAO. The British exception is a text about the concept of self, which seems to treat the topic as a transnational phenomenon.

This picture may be further explored by looking at the lists of references. This is where we can spot the invisible colleges, i.e. which texts or maybe which authors are connected to the text. It is without a doubt possible that authors read more widely than indicated by the origin of the references selected. One can imagine the case where an author is part of an international discourse, informed by a broad base of references from all parts of the world, choosing to neglect everything else but references with a local origin, e.g. related to the study object. On the other hand, if there is one common international adult education research community, it should result in a substantial spread of references over the world, even if the study object and authors are situated in a specific country: If everyone follows each other's work and uses it, it should have an effect in the references. An empirical check of the origins of the references can indicate an answer. There were a total of 453 references in the 2005 volume of "Studies of the Education of Adults". In 10 cases, it was impossible to trace their origin. 443 remain, which could be classified by their origins. These were the results: UK: 37%, US: 32%, Canada: 11%, Australia: 9%. These four get 89%. The rest of the world gets 11% of the references of which 4% are from Germany. This picture falsifies the image of a broad international invisible college, and instead indicates reading that is limited to texts originating in pretty much the same regions of the globe as the articles. The only important expansion is that the authors include texts from the US in their reference list, in spite of the fact that no article originated from there. We can also note that the pattern in the journals in education, selected by ISI is repeated here.

In the autumn 2008/spring 2009 issues, there were a total of 555 references, where the origin of the first author could be identified. Of these, were 60% from UK, 15% were from US, 6 % from Canada and 5% from Australia. These four countries get 86% of all references. Countries in Europe get 11% and the world outside of Europe, the US, Australia and Canada get 1%. Of 4% German references, 3% come from the only article in the journal, which has a German author. The Swedish article has 20% references from Sweden, most of the rest are from the UK and the US.

What we can see is very few signs of a broader invisible college: adult education research, represented in this journal, does not seem to connect to other adult education research trans-nationally. It not only collects data locally, but most facts indicate that there is little interest in trying to compare or relate to what happens anywhere else. There is little indication of reading habits that include some information about what could be seen as international. In the case of Studies in the Education of Adults, its Britishness is stressed by the non-British texts being the ones that have to explain their local context, while it is taken for granted in the text from the UK.

### **Gatekeeper of the economy of publications and citations: Adult education quarterly**

From the perspective of collecting rewards from the recent systems of measuring quality, the journal "Studies of the Education of Adults" is only an intermediary – it is not indexed by ISI, but if researchers read the journal and notice the articles, they could end up in journals as references, which are indexed. Adult Education Quarterly has been given the position of deciding on successes on the global level, when ISI indexes are used for promoting academics in various countries in the world, sometimes also salaries are based on ISI (Larsson, 2009). It is therefore a powerful actor in that it shapes networks, in this case invisible colleges, by offering texts that can be connected to.

If the texts in *Adult Education Quarterly* refer to articles in “*Studies in the Education of Adults*”, the latter would operate effectively as a mediator in the EPC. I therefore checked how many references there were to articles published in “*Studies in the Education of Adults*” in the 2005 volume of *Adult Education Quarterly*. There were none. The distribution of references to adult education journals in “*Adult Education Quarterly*” 2005 volume is the following: *Adult Education Quarterly*: 24, *Adult Basic Education*: 7, *New Directions in Adult and Continuing Education*: 4, *Canadian Journal for the Study of Adult Education*: 2, *Convergence*: 2 and one each to *Adult Learning*, *New Zealand Journal of Adult Learning* and *International Journal of Lifelong Education*. All references to adult education journals except four (4) were to North American journals. The invisible college indicated here, seems to have very strong boundaries. In spite of its role in the emerging global academic economy, it has a provincial character with its boundary being North America.

Returning to the same question some years later investigating the 4 issues from 2009 of *Adult Education Quarterly*, there seems to have been a slight change in various ways. The number of references this time was 881 in all. The references to journals in adult education and related research fields were now distributed in this fashion: *Adult Education Quarterly*: 56, *New Directions in Adult and Continuing Education*: 10, *Canadian Journal for the Study of Adult Education*: 3, *Convergence*: 6, *Adult Learning*: 7, *International Journal of Lifelong Education*: 16, *Studies in the Education of Adults*: 3, *Management Learning*: 6, *Human Resource Development International*: 4 and the *Chronicle of Higher Education*: 3. One or two references to journals in the same research areas amount to 23. One change is a striking increase in numbers of references to journals focused on adult education, lifelong education, higher education and human resource development - from 42 to 137. The focus on references to journals from the North-American continent is however still remarkable, but UK-dominated journals are given a share this time. Connections between North America and the British Isles have no doubt developed.

*Adult Education Quarterly* seems to be an actor, which so far excludes most of the world, in spite of its position in the academic global economy. A connection to the UK has developed in the recent years, but it is still tenuous and mostly related to the most international of the academic journals for adult education research: the *International Journal for Lifelong Education*, although based in the UK.

### **Including some of the others: The international journal of lifelong education**

This is a journal, which promises in its title to be international. However, it is dominated by British academics on the editorial board, i.e. all the editors are British. There seems to be a more international mix of text, than in the journals so far discussed in spite of the editors’ uni-nationality. We should look more closely at this journal - it might bring hope of an actor that promotes a more international invisible college.

I have looked at the 2009 volume, which has 6 issues. My focus in this case was on the origin of first authors. The 2009 volume has articles that originate from 19 countries and from every continent except Latin America.

Europe dominates with 24 articles, 10 originating from the UK and 6 from Scandinavia. Eight are from North America and 5 from Asia. Here, Turkey is counted as European (being both in Europe and in Asia). Five are from Oceania and one from Africa. What can be understood from this is that there are more from Britain and Scandinavia, than could be expected in a truly international journal, but the general

picture is that this journal seems to be an actor, which affects or at least has the potential to affect the invisible colleges to be more international. If we look at the study objects, this actually adds to this latter image. Two articles are comparative – one French and one Swedish. A number of articles have foreign countries as their study object: Two articles contribute to knowledge about African contexts – a Canadian article about Nigeria and a Lebanese article about Egypt. Four articles focus on have Asian contexts – a Canadian article about Thailand, a Swedish article about Japan, a British article about China and an article from the US about Bangladesh. These figures compensate somewhat for the relatively low number of articles from Africa and Asia. A reasonable conclusion would be that the International Journal of Lifelong Education in many respects is international. As an actor, it can also contribute to a more international invisible college, if the readers pay attention to the full span of articles. Time has not permitted a more elaborated empirical calculus of the references and their origins. This is a pity since it would give some indications of the authors' distribution of references. It is still a possibility that the texts come from all corners of the world, but still refer to a few places as in the case of empires, where the centre of the empire is all that counts in the cultural sphere, positioned like a queen bee in a colony of bees.

The International Journal of Lifelong Education operates as an actor that can support the emergence of an international invisible college. Another aspect of this fact is that the journal will also be the closest competitor to the new European journal – both being alternatives for a broad international community of researchers, if the new journal chooses to be truly international.

### **Conclusions and some notes on the contradictory effects of bibliometrics**

Adult education research is definitely not a tight international actor-network. There is more support for the conclusion that there are a number of national actor-networks, but the empirical basis here cannot give a clear picture of how tight these national networks are. The tenuous connections between the national contexts or bi-national networks in adult education research are only one problem here – the other is the habit of spreading texts to journals that differ in their focus, e.g. sociology, policy or general education, i.e. which are not focussed on adult education. In this sense, adult education research is unclear as a sub-discipline, i.e. it is not an international actor-network, which includes and excludes in a clear way. If we think about Nesper's conclusions comparing physics and management, adult education research might in this latter perspective operate as management - a loose actor-network, with many, but not very strong connections. It is not much of an invisible college, rather part of many invisible colleges, often in the margin. With this comes short-sightedness – one can always open new connections and leave old ones, not caring much about the research fields and its development since there are several actor-networks, weakly connected and somewhat like amoebas.

An obvious consequence is the contradiction between the means to survive, i.e. get credit for your publications through citations in recognized journals, with one exception not focused on adult education, and the means to develop the research area of adult education, which should mean a concentration towards the latter kind of journals. The result might be that adult education will disappear as academic research and be only a field of practice. Another consequence is that researchers with the label adult education actually do not belong to an invisible college related to adult education, they only exploit the positions and then cultivate some other invisible colleges in their academic journals, etc.

The global domination pattern is obvious. How stable is this? It fits into a pattern of Anglo-American domination in academic research since the end of World War II. There is no reason to believe that such domination will last for ever – history tells us that power centres shift. Due to general changes in global relations, academic domination might also shift in the decades to come. Academia is increasingly considered to be important economically and politically, which might persuade otherwise powerful parts of the world to use power to position their own academia in the centre, e.g. EU. There is growing cooperation among European researchers, but on the same level as growing global cooperation (Tijssen, 2008). Google's growing ambition to expand its control to more areas of information processing might change something, e.g. Google Scholar can deal with more languages than just English.

The invisible colleges in adult education become weak when there are not many journals to publish in. The network of citations is quite simply limited. In this sense, it would be good if there were more academic journals, since this would mean more "conversations", i.e. more research exposed through articles and more researchers recognising texts that are relevant to their own research.

One aspect of the recent changes is that more resources than before must be acquired through negotiation, competition or bargaining. We might compare alternative tools to get resources for research in adult education, where publishing and promoting your work to get citations in order to cash in on bibliometric measurement is only one mode of getting research resources. Another is to get resources through the micro-politics of universities or by negotiating contracts with various private, public or civil organisations. A third is to acquire research resources by applying to various research funds, which are open to researcher-generated questions. In some countries, it is possible for some scholars to be independent of these sources, e.g. acting like an autonomous scholar in the Humboltian fashion, but for most scholars abstaining from taking part in such money-generating activities will often result in a heroic death as a researcher or turn research into a hobby. It is difficult to stay outside the existing economy, i.e. one has to evaluate the alternatives and their relative merits. The notion of a new kind of scholar has been discussed – entrepreneurial, flexible and useful rather than stubbornly independent and truth-seeking, which was earlier a popular figure in the discourse on academics. The alternatives mentioned above result in different conditions for adult education researchers – my judgement here is based on my own experience, which is certainly limited, but I take the risk of reflecting on these conditions.

Unfortunately, adult education is often not in a very favourable position in the university hierarchy, with the possible exception of those who are doing research on higher education. This has to do with differences in prestige and where adult education suffers in to ways: first, education is not very highly regarded by our colleges in other disciplines (van Zanten, 2009, p. 56), secondly, adult education is not a proper discipline, but a sub-discipline or something cross-disciplinary, which is also, with few exceptions, seen as being less valuable. In some cases adult education is seen as part of teacher education, where all the focus is on children and adult education is marginal.

Another tool is doing commissioned research, i.e. when researchers work as subcontractors. This is often a possibility and often constitutes a significant part of the resources for adult education researchers. However, it has a price, e.g. the external partner must like your research and also have plenty of resources. This means that it is easier to get money in the rich area of working life education than in the poor civil society. It is also very difficult to get any money for something that is critical in a different way than suits the one who pays (Kogan, 2005). Another aspect is that policy discourses invade academia or replace proper theory (van Zanten, 2009, p. 56). A

standard context in contracts with the public sector is evaluation, i.e. researchers become a standard tool in the operation of the New Public Management. Gaining some academic knowledge from the work with the evaluation is possible, but not always easy. Following a scholarly-driven research agenda presupposes that the interest of the researchers and those who pay the bills are the same. It is not academic autonomy but might look like it.

Getting money for research from research council funds, which are governed by academics, is often difficult, but it often gives more space for the research interest of the researchers and sometimes even supports critical perspectives. Adult education is probably suffering also here from lack of prestige in many countries, but sometimes it is the application and not the research area that is evaluated. However, political agendas often colonise also research funds, not least for educational research – either by formulating research questions as in Denmark (DSF, 2010) or through general directions for their use as in Sweden. However, a variety of funds provide reasonable conditions for research focused on the accumulation and development of research-driven agendas. Sometimes, some success in the economy of publication and citations is necessary to get funding.

If we view the conditions for working under a “bibliometric regime” and compare it with the other regimes, e.g. university micropolitics, external sub-contracts, research council funding, a contradictory picture can be painted. It is in many ways very difficult for adult education researchers to be successful in all these games. However, in the bibliometric regime, there are some advantages for critical research or research that is not immediately useful if we compare it with external contracts. The same might also be said in relation to university micropolitics in universities, where the rulers are often anxious to have good relations with local authorities in order to maintain their position as subcontractors. The bibliometric regime is less aware of content, since it is a machine at a distance. In the case of adult education, this unfortunately means that you have to publish in other journals than those focusing on adult education, since only one is indexed by ISI. This might also mean that researchers have to subordinate themselves to the Anglo-American issues if they want to be cited. For such researchers, who have established relations with more or less local money sources and appreciate usefulness in a more practice-oriented way, the bibliometric regime seems to be unimportant since they are not dependent on their university position, where bibliometric measurements translate into an influence on the fate of individual researchers. Instead, they are dependent on their contract- partners. However, here there might be more complicated interdependences between these different regimes, varying between countries. In many countries, academic freedom and its prerequisite job security are granted in various documentary forms. Often this is limited to a narrow selection of professors and often the duties of teaching reduce research to a hobby for the dedicated university teacher, thus making other “regimes” influential. On the other hand, in some countries academics might still have a more independent position, as in the Humboltian utopia of job security and “lehr-freiheit” and with reasonable time for doing research. However, this utopia is actually the opposite of the view of the civil servant in the New Public Management, where civil servants should be surveilled and monitored rather than trusted.

As pointed out earlier, the contemporary steering system using bibliometrics, ISI, etc., may change rather rapidly in various ways, while the invisible colleges should be more sustainable since they represent the researchers’ habit of referring to each other’s work. How can we handle the difficult situation of adult education research – publishing and cultivating invisible colleges in other areas, if we want to acquire a position through

bibliometrics, but on the other hand cultivate an invisible college, where adult education is important in the actor-network? In the long run, is this question related to the survival of adult education as a field of research? Is there any point in an adult education invisible college when it is not supported by the contemporary steering system? I think the answer is yes, i.e. in order to survive, adult education researchers may have to live with the contradiction. Increasingly, they have to keep an eye on the economy of publication and citation, which means that they have to be part of various invisible colleges with strong representation in ISI-indexed journals. However, if they do not at the same time care about adult education invisible colleges, some of them might lose the advantages of having the identity of being an adult education researcher, e.g. running programmes, research units or conferences with an adult education profile.

Another aspect is the importance of having elaborated communication in adult education research in order to generate a reasonably advanced and informed discourse – the whole collective of adult education researchers suffers from thin and unfocused communication. Such communication contributes to the content of texts, teaching and the formulation of research questions. This communication can take many forms – it can be conferences, networks and visits, but it can also be books and collections and articles in academic journals. The elaboration of such communication should benefit from being international – it results in a broader mindset, but also the awareness of issues that are transnational. Contemporary technology, such as open access academic journals, makes it easier to reach everybody who is interested – library budgets are not an obstacle when articles are open to everybody on the web. This opportunity vitalises adult education as an academic area by inviting academics from more countries to take part, not least in poor countries, i.e. where the majority lives. There is a double benefit here: those who were excluded can learn more and elaborate their own work, one side of which is that they can also contribute articles of good quality. This would make the adult education richer as an actor-network. And would be a very nice prospect.

## Note

<sup>1</sup> Articles in the categories education and educational research published in 2003, measured in 2008 by ISI. Calculations are made by the bibliometric group at Linköping University library (Larsson, 2009).

## References

- Andersson, P. (2000). *Att studera och bli bedömd. Empiriska och teoretiska perspektiv på gymnasie- och vuxenstuderandes sätt att erfarastudier och bedömningar*. Linköping: Linköping University.
- ARWU (2010) Accessed May 24, 2010 from <http://www.arwu.org>
- Basu, A. (2010). Does a country's scientific productivity depend critically on the number of journals indexed? *Scientometrics*, 82, 507-516.
- Bernstein, B. (1977). *Class, Codes and Control, Vol. 3, Towards a Theory of Educational Transmissions*. (2nd ed.). London, Henley and Boston: Routledge and Kegan Paul.
- Davies, B., Gottsche, M. & Bansel, P. (2006). The Rise and Fall of the Neo-Liberal University. *European Journal of Education*, 41(2), 305-319.
- DSF (2010). *Ti skarpe om strategisk forskning*. Accessed August 28, 2010 from <http://www.fi.dk/raad-og-udvalg/det-strategiske-forskningsraad/ti-skarpe-om-strategisk-forskning-1>
- Dunleavy, P., Margetts, H., Bastow, S. & Tinkler, J. (2006). *Journal of Public Administration Research and Theory*, 16(3), 467-494.
- Edwards, R. (2003). Ordering subjects: Actor-networks and intellectual technologies in lifelong learning. *Studies in the Education of Adults*, 35(1), 54-67.

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- Edwards, R. & Usher, R. (2000). *Globalisation and Pedagogy. Space, place and Identity*. London & New York: Routledge.
- Elzinga, A. (2010). Globalisation, new public management and traditional university values. A key-note address at the *1:st Workshop of the Nordic Network for International Research Policy Analysis (NIRPA) organised by the Swedish Research Council (VR)*, Stockholm 7-8 April at the Swedish Royal Academy of engineering Sciences (IVA).
- Ethnologue (2010) Accessed February 9, 2010 from <http://www.ethnologue.com/web.asp>
- Extebarria, G. & Gomez-Uranga, M. (2010). Use of Scopus and Google Scholar to measure social science production in four major Spanish universities. *Scientometrics* 82, 333-349.
- Fejes, A. (2008). European Citizens Under Construction: The Bologna Process analysed from a Governmentality Perspective. *Educational Philosophy and Theory*, 40(4), 515-530.
- Giddens, A (1990). *The consequences of modernity*. Stanford, Cal.: Stanford University Press.
- Kogan, M. (2005). Modes of knowledge and patterns of power. *Higher Education*, 49, 9-30.
- Larsson, S. (2004). Joy and Despair in Writing. *Nordisk Pedagogik*, 24, 97-112.
- Larsson, S. (2009). The emerging economy of publications and citations. *Nordisk Pedagogik*, 29(1), 34-52.
- Larsson, S., Abrandt Dahlgren, M., Walters, S., Boud, D. & Sork, T.J. (2005). Confronting Globalization: The Challenges of Creating Space for Global Learning. *Innovations in Education and Teaching International*, 42(1), 61-71.
- Latour, B. & Woolgar, S. (1986). *Laboratory Life. The Construction of Scientific Facts*. Princeton: Princeton University Press.
- Law, J. & Hetherington, K. (2002) Materialities, Spatialities, Globalities. [www.comp.lanc.ac.uk/sociology/soc029j1.html](http://www.comp.lanc.ac.uk/sociology/soc029j1.html)
- National Science Foundation (2007). *Executive Summary*. (Working paper). Accessed November 28, 2007 from [http://www.nfs.gov/srs07204/content.cfm?pub\\_id=1876&id=1](http://www.nfs.gov/srs07204/content.cfm?pub_id=1876&id=1)
- Nespor, J. (1996). *Knowledge in Motion: Space, Time and Curriculum in Undergraduate Physics and Management*. London: Falmer Press.
- OECD (2010) Accessed May 9, 2010 from <http://www.oecdilibrary.org/oecd/content/tablecollection/2075843x>
- Paasi, A. (2005). Globalisation, academic capitalism, and the uneven geographies of international journal publishing spaces. *Environment and Planning A*, 769-789.
- Persson, O. (2010). Are highly cited papers more international? *Scientometrics* 83, 397-401.
- Price, de Solla, D. (1986). *Little Science, Big Science...and Beyond*. New York: Columbia University Press.
- Statskontoret (2009) Bilaga 5 till rapport 2009:1. Förtroendet för myndigheter, rapport från SOM-institutet. Accessed May 24, 2010 from [http://www.statskontoret.se/upload/publikationer/2009/200901\\_bilaga5.pdf](http://www.statskontoret.se/upload/publikationer/2009/200901_bilaga5.pdf)
- Steiner-Khamsi, G. (2009). Knowledge-based regulation and the politics of international comparison. *Nordisk Pedagogik*, 29, 61-71.
- Tijssen, R. J.W. (2008). Are we moving towards an integrated European Research Area? Some macro-level bibliometric perspectives. In: H. Kretschmer & F. Havemann (Eds.): Proceedings of WIS 2008, Berlin. *Fourth International Conference on Webometrics, Informetrics and Scientometrics. 08:19 Ninth COLLNET Meeting* (pp. 1-8). Humboldt-Universität zu Berlin: Institute for Library and Information Science.
- Wright, S. (2009). What counts? The skewing effects of research assessment systems. *Nordisk Pedagogik*, 1(29), 18-33.
- van Zanten, A. (2009). From ritual intellectuals to "Idea brokers". Traditions and new developments of links between research and policy-making in education in France. *Nordisk Pedagogik*, 1(29), 53-60.
- Zukas, M. (2009). Editors, Journals and the education of adults: actors and actor-networks. *Studies in the education of adults*, 41(1), 1-5.