

Open Access to Research and Knowledge – Are All Winners?

Seminar speakers:

- Håkan Billig, Professor at the Sahlgrenska Academy and former Secretary General of Medicine at the Swedish Research Council
- Karen Burns, Chief Operating Officer, ResearchAfrica
- Jan Hagerlid, Senior Executive Officer, Programme Co-ordinator of OpenAccess.se at the National Library of Sweden
- Susanne Murray, Managing Director, African Journal Online
- Stig Wall, Professor and Editor in Chief, Global Health Action, Umeå University
- Eva Hemmungs-Wirtén, Professor in Library and Information Science at Uppsala University
- Merie Jacob, Professor in Research Policy at the Research Policy Institute, Lund University, and UNESCO Chair in Research Management and Innovation Systems
- Tomas Kjellqvist, Head of Department, Secretariat for Research Cooperation, Sida

The introduction was presented by Katarina Bielke, Director General, Division for Research Policy, Swedish Ministry of Education and Research and Mehari Gebre-Medhin, Professor em in international childcare and member of the Swedish National Commission for UNESCO.

Moderator: David Isaksson, CEO Global Reporting

Open Access to Research and Knowledge – Are All Winners?*

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Background

Access to scientific journals is fundamental for researchers in all parts of the world, and online electronic journals have made a great difference for many research institutions and their scientists in low-income countries and neglected research areas. However, the cost of access to many of these journals remains prohibitive for some low-income countries and research institutions. Several schemes have been developed to assist access, including the *Open Access* movement, an approach for allowing access of research results to a greater audience. But Open Access also raises a number of important issues that need to be dealt with.

At the seminar, researchers and editors from Sweden and South Africa together with representatives for the Swedish National Commission for UNESCO and Sida presented their views on Open Access and discussed the challenges and obstacles of this approach.

Summary

Central issues for Open Access that were lifted and debated at the seminar included:

- *Open Access* implies that the findings of publicly funded research should be made accessible to the public, but perhaps not to the general public. Presentations of data and findings need to be of a high quality and could thus be too complex for non-scientific audiences. What then is the acceptable level for understanding Open Access presentations, and who decides?
- Will Open Access have an adverse effect on the quality of research and the presentations of data and findings?

* Förkortad version. För fullständ rapport se: www.unesco.se

- These days information exchange is basically asymmetric. Can Open Access contribute to a shift in power, with more information shared from the South to the North? And how can inequalities in access to Information and Communication Technologies (ICT) be addressed?
- Risks with Open Access that need to be addressed: By whom can it be exploited and to what purpose, and intellectual property rights.
- How can Open Access be funded?

Main issues for a National position on Open Access presented at the seminar:

- Acknowledge the principles of the Berlin and the Salvador Declarations on Open Access.
- Focus on the marginalised in order to mobilise knowledge worldwide. Recognising that incentivising Open Access in developing countries requires cooperation rather than competition.
- Recognise that Open Access is a market instrument and that costs for the reader must not be covered by somebody else.
- Open Access must go hand in hand with the popularisation of science, recognising that there are academic drivers as well as other drivers in society.

Presentations and Debate

What is Open Access?

Håkan Billig opened the Forum by taking up the fundamental question of what Open Access involves and presenting some common concepts, expectations and misunderstandings. He also commented on the crucial issue of how/if Open Access will affect the way we conduct research.

Basically, Open access can refer to any form of scientific information (publication, data, etc.) made available to readers/users at no cost over the Internet. So far it has mainly focused on peer-reviewed publications in scientific journals presenting the findings of publicly funded research.

Berlin Declaration a step forward

Nobel Prize winner and former director of the National Institutes of Health (NIH), Harold Varmus, initiated the debate on increased access to scientific information in the 1990s. He advocated a system in which scientific journals make their articles available on the free digital database PubMed Central (www.ncbi.nlm.nih.gov/pmc). His commitment to this issue led to an increased debate on Open Access and to a number of initiatives in this field.

The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (2003) was a vital step forward. The declaration encourages researchers and grant recipients to publish their work according to the principles of the open access paradigm. It also advocates contributions to an open access infrastructure by, for example, software tool development and metadata creation. Today 286 universities, museums and founda-

tions have signed the declaration, thereby granting users access to authors of scientific material at these institutions.

- A free, irrevocable, worldwide, right of access to, and a license to copy, use, distribute, transmit and display the work publicly;
- To make, distribute and derivative works, in any digital medium for any responsible purpose;
- Make small numbers of printed copies for their personal use.

Mr Billig stressed that the debate on Open Access had nothing in common with the Pirate Bay debate, despite taking place at roughly the same time. Open access also benefits the author, and that is not the case with Pirate Bay methods.

In order to establish Open Access, some institutions have this form of publication as a requirement for receiving funding, among them EU Framework Program 7, the Swedish Research Council and the Wellcome Trust. At Harvard Law School and Helsinki University, Open access is a requirement for employment, an approach that, according to Mr Billig, is not possible in Sweden due to the employment laws.

Green and Gold Open Access

Mr. Billig highlighted two main methods for Open Access publishing: Green and Gold.

Green Access is based on self-archiving. The authors deposit the peer-reviewed manuscripts of their articles in repositories, open archives, making them available in an open access mode. Sometimes there is an embargo period to allow the publishers to recoup their investment. Many funders stipulate an embargo period of six months.

With *Gold Open Access* it is the author, the founding body or other sources such as university libraries that pay the publishing costs instead of readers via subscriptions. Gold Access ensures that research articles are made available to the public as soon as they are published.

Arguments in favour of Open Access

Why should research articles be easily accessible and free of charge? Mr Billig: “Traditional printed journals will only reach persons or institutions who can afford the subscriptions, which is not acceptable for several reasons.”

The main argument for the *general public* is that academic research is funded by public money and charities. The taxpayers therefore have a “right” to the findings. For researchers, increased access means increased usage and impact.

An *economic* argument for Open Access is the increasing subscription cost of scientific magazines, which prohibits libraries and institutions from providing these publications. As subscriptions usually come from research funds, subscription fees could have a negative impact on the design of the research.

What is Open Access *not*?

“There are many misconceptions and misunderstandings about Open Access”, continued Mr Billig. The most common is that Open Access cannot be combined with commercial exploitation like patents. Other facts, often misunderstood, are:

- An open access requirement does not force anyone to publish

- Researchers are free to submit to the journal they find most appropriate
- It is not free to publish any article or report – peer review is applied
- It is not without cost – but the reader does not pay

Challenges for Open Access

“Open Access is accepted and has past the tipping point”, concluded Mr Billing. ”But there are challenges that still need to be addressed. It gives free access to research findings but does not fundamentally change the cost of being read”.

One solution could be economic support for institutional membership to Open Access journals. Also, when subscriptions costs fall in the coming years, resources have to be shifted back in order to bring down the publishing cost for the researcher.

He warned that some traditional, learned societies might stick to the old subscription model. “They might think that their identity is in their journal”.

Will Open Access affect how research is conducted?

Mr Billig closed his speech by listening to implications with Open Access that could lead to a changed mode for research.

- Will the publisher adopt tools for increased visibility/searchability for their papers in order to increase revenue on ads or to push their agenda?.
- Will the “market value” of a paper be a part of the decision to publish?
- Will other factors than research quality be determining?
- Will the taxpayers demand that researchers also make their data understandable?

Moderator David Isaksson asked how acceptable the commercial interests were in Open Access.

“I cannot see anything wrong with making money out of knowledge,” answered Mr Billig. “I think we will see very inventive ways in this field in the coming years. Google economy has shown that free can be successful. Who knows, perhaps Google will also handle research findings!”

Open Access – Why is it Relevant?

For the next session, four Open Access experts had been invited to reflect on the relevance of Open Access: Karen Bruns, Jan Hagerlid, Senior Executive Officer, Programme Co-ordinator of OpenAccess.se at the National Library of Sweden, Susanne Murray, Managing Director, African Journal Online, and Stig Wall, Professor and Editor in Chief, Global Health Action, Umeå University. Before the discussion began, each speaker presented their perspective on Open Access and data sharing.

Karen Burns: “We must realise that Africans are both users and producers of research”

“We often think of low income countries like those in Africa as solely benefitting from Open Access as they get access to research from developed countries. But also poor countries produce research that should be made available,” stressed Ms. Karen Burns in her presentation.

As a publisher and Chief Operating Officer at ReserchAfrica, she has noted a 270 per cent increase in the number of printed copies sold since Open Access was applied for their publications. “Lots of people check the quality of a book or a report on the net, and if they are content they will buy it. This implies that the issue of *content* is most vital – not only the Open Access way of distribution. How to achieve content that is interesting, vital and of a high quality needs to be further debated.”

Karin Bruns stressed that access is a centuries-old principle applied by the libraries of Alexandria, mosque libraries and inherent in the scholarly enterprise. “Africa, in contrast to the Western world, has not yet reached the tipping point for Open Access so this will take some more time for us.”

Technology must be appropriate for the socio-economic context of use, she stated: “Access is one thing, Open Access another. Africa has very slow internet access, and once online it could take minute or more to get to a web page, which hardly encourages searching and surfing!”

For the Knowledge economy, Open Access is crucial, Karen Bruns continued. “It provides the material base and leads to greater economic efficiency, which permits greater local production”.

Some people think that Open Access will change everything, she concluded. “My question is – will all this information be read? I think the big concern for Africa today is to find sustainable models for providing people with books. And we must find economical solutions: who will pay for access and especially Open Access?”

Jan Hagerlid: “The UN can help finance Open Access”

Jan Hagerlid, Coordinator for the OpenAccess.se programme at the National Library of Sweden, stressed the need for Open Access in the developing world. “For many medical institutions in those countries, buying medical journals is cost-prohibitive and researchers often work in a vacuum. The information gap between doctors working with, for example, HIV/AIDS treatment in the North and the South is horrendous. Quite often, doctors in the South have no knowledge of recent treatments.”

He listed three forms of access, Toll Access, Donor Access and Open Access.

Toll Access, still the most common mode, entails the reader having to pay for access to reports and data. “It is a severely restricted access for researchers and academic professionals to global research”, he said. “Furthermore, research from the developing world is seldom included, and the coverage of the specific health and environment problems of the developing world is very weak”

Donor Access entails free access to certain journals, made possible by publishers, through funding or other support. “Large publishers have realised that they cannot sell their product to some countries, so they give them away with support from, for example, the UN,” explained Mr Hagerlid. “Donor Access fills some gaps but has serious limitations. Only very poor countries are given this access and when their economy develops they will have to pay.”

It is not a question of if *Open Access* will be applied, but how, Mr Hagerlid concluded. Today developing countries account for 20 per cent of Open Access journals and repositories. “There are realities that have to be tackled, but Open Access will continue to grow.”

He had noticed that some Swedish researchers frowned upon the growing amount of Open Access journals from the developing world, but many of these journals are from

countries with rapidly developing economies like India, China and Brazil and we must all realise that the world is changing. “The fact that China has bought Volvo is a good example of that!”

Susan Murray: “Open access vital for development and poverty reduction”

Managing director for African Journals OnLine, AJOL, a non-profit organisation based in South Africa, Susan Murray has practical experience of the use of Open Access. Today AJOL publishes 399 titles from 30 African countries, and two thirds of AJOL partner journals are not on line anywhere else.

“For many years, the World Bank did not regard higher education as important in developing countries. It was not until 2000 that they changed their view. But this attitude still impacts on how much money donors assign for education and support to research in those countries.”

She criticised the lack of interest among donor countries and organisations in communicating research findings to developing countries, despite the link between economic development and poverty reduction being recognised. Open access to research findings is an important prerequisite for this.”

She called the digital divide a major obstacle for Open Access in Africa. It is not only an issue of telecommunication infrastructure, efficiency and electricity prices, etc. It is also about inappropriate or weak regimes, language divides and insufficiency of organised ways for sharing: “One effect of these shortcomings is the fact that it is much easier to share information from North to South than between neighbouring countries in the developing world. We need systemic changes in order to address this issue.”

Her list of challenges for Open Access in Africa that urgently needs addressing includes:

- Limited awareness and/or understanding of what Open Access is and how it can be implemented
- Intended readers may not have access to internet or even a computer
- Resistance to change and fear of the unknown by journals, authors, university leaders, etc

Open Access in Africa has already achieved a great deal. For example, many health-related journals have transitioned to Open Access platforms and awareness of Open Access among researchers is steadily growing.

Stig Wall: “We want to narrow the gap between globalisation winners and losers”

Mr Wall is the founder of the Open Access web journal Global Health Action, published by Umeå University. “I was increasingly frustrated, angry and annoyed by the lack of transparency in our work. I wanted a forum for sharing findings and getting comments,” he explained.

One aim for Global Health Action is to narrow the gap between globalisation winners and losers. “Normally medical journals vastly underestimate diseases in developing countries. Our mission is to address critical issues in global health and facilitate collaboration between the North and the South.”

He presented figures that showed the bias for the North in published research material:

- Researchers in eight industrialised countries produce 85 per cent of the world's leading science
- 163 countries, including most of the developing world, account for less than 2.5 per cent.
- In 2006, some 1,346 scientific articles were published in 23,750 peer reviewed journals

Mr Wall listed six good arguments in favour of Open Access: Visibility, Impact, Archiving, Democracy, Recycling and Affordability, and presented his own "top list". All six are important to him, but the most crucial are Visibility and Democracy.

Innovations introduced by Global Health Action include mentorship for researchers from developing countries, an International Advisory Board that checks articles and can be of support, and on line comments on PhD review papers. "We want a dialogue with readers, authors, students etc in a way that we narrow the gap between countries and regions."

Open Access – Global Perspective: Panel Debate

Why is Open Access relevant? This was the headline for the panel debate that followed the above presentations. Stig Wall opened by taking the issue a step further: "Open Access may appear to be a narrow and technical issue, but it opens up for a wider discussion on how we look upon knowledge and research. Is it property owned by the researcher or publisher, or an infrastructure to be used and developed? This also leads to a discussing on access to the research data".

In the publication that Mr Wall edits, Global Health Action, they had also practiced making data available on research reports that they publish. Readers are asked to send an email explain their reasons for wanting the data and they normally get it.

"Many researchers would be reluctant to publish data for a number of reasons," argued Susan Murray. "They might fear that their data would appear in a context they did not approve of or that somebody else came to even more interesting conclusions from their material." She saw a need for improving collaboration between research teams in North and South. "We should develop quality by collaboration in contrast to competing by working on our own."

David Isaksson asked the panel what incentives they thought were crucial for developing Open Access.

"Tackling the cost of Open Access until it is fully established," said Jan Hagerlid. "As Open Access corresponds with scientific traditions and ethics, most researchers approve of it. And from society's point of view Open Access is a way of getting publicly financed research from universities into the national grid. But the financing needs to be developed; it cannot solely depend on the funds made available to researchers."

Stig Wall agreed: "Some of us researchers do not have much funding, and publishing in Open Access journals can actually be too expensive as things stand today."

Should there be Open Access to all research areas or just some was the next question. "For us in the South, some research fields are more important than others", said Susan

Murray. “I am surprised at all the effort you in the North put into developing things like Viagra compared to malaria prophylaxis. But as malaria is more relevant for countries in the South we must find ways to share knowledge.”

“I think universities are in a state of shock with the realisation that they really will need to disseminate their results”, commented Karen Bruns. “In recent decades universities have lost their role as communities where sharing is the general norm. They now need to turn back to this fundamental view, which could be painful for some of them.”

Does Open access imply a change of power in the field of research and what will happen in the coming ten years?

“The cost benefit of electronic publishing is enormous, and as most African researchers never get published in traditional scientific journals, this shift can really be of importance for us,” continued Karen Bruns.

“I will not call it a change of power when South gets access to all data from the North, but a shift that benefits all,” said Stig Wall. “When the big libraries stop paying for the most expensive scientific journals, then it really is a step forward.”

Jan Hagerlid mentioned the situation in the BRIC countries (Brazil, Russia, India, and China) that are rapidly developing their research. “They have chosen Open Access from the outset, which might give them an extra plus in the future.”

“Have you heard of the band Radiohead,” asked David Isaksson when summing up the debate. “They put their new CD online for free and asked those downloading it to pay what they thought it was worth. They received an average five USD a copy and it also sold the traditional way more than any other of their CDs. What would be the equivalent for Open Access to Radiohead’s successful approach in this field,” he asked in conclusion.

“Open Access to education is a huge issue, and the next big challenge is learning material for students. It has real volumes and students are often quite picky and well-aware of what is most valid,” said Karen Bruns. Jan Hagerlid hoped for a creative competition between Open Access journals to enable cheaper ways of publishing. Stig Wall concluded the debate by saying that he was thrilled by the possibility of bringing the reader closer to the field where the problems are and the data are collected. “This is the really big change.”

A Swedish Perspective on Open Access

Open Access in a Swedish perspective – a concern for everybody was the first topic for the afternoon session with Eva Hemmungs-Wirtén, Professor in Library and Information Science at Uppsala University, as speaker. She underlined that we are entering a new phase and logic in communication where issues such as how to reach, engage and involve readers are becoming vital.

“Open Access is an important topic among students today,” she said and related to the discussion on intellectual property rights. “Open Access to books has been prolonged from 50 to 70 years after the death of the author. We need to see other aspects of this issue in order to get access to knowledge. Research is best served by openness.”

One issue to be solved is the communicative infrastructure for humanities, she stated. So far, Open Access has mainly been used for sharing material in the field of natural sciences. Researchers within the humanities often present their findings by writing books,

not articles in scientific journals. “Therefore, humanitarian research is not shared to the same extent as the natural sciences. Printed books on humanities are a success if shared in only 400 copies. Often they are too expensive also for university libraries.”

There are good examples, as Open Book Publishers (www.openbokkpublisher.com), an independent online publisher that presents peer-reviewed monographs in the humanities and social sciences. “But”, said Ms Eva Hemmungs-Wirtén, “many researchers in this field still think that they need to publish in established journals in order to be recognised and get funding or scholarships. Senior researchers need to lead the way and use the open access possibilities.”

When it comes to policies for Open Access, she found it strange that the debate in Sweden, the home country of Pirate Bay, was so narrow and lacking a global dimension. “Open access is an advantage, not a problem. The more knowledge we share, the more involved we become,” she concluded.

From a Swedish perspective, our language is an obstacle as few speak Swedish, she continued. Researchers therefore need to publish findings and data in, or also in, English.

When it comes to strategies for Open Access, she saw a need for a more realistic debate on how to publish material in an open mode. “We need to question the models that exist today and not swallow everything that the editors of these publications say,” she claimed, adding: “New ways of publishing also demand new ways of writing.”

Researchers’ Role in Society and the UNESCO Stance

Merie Jacob was the next speaker, invited to present her views on the role of researchers in society and how/if UNESCOs should support Open Access. As a professor in Research Policy at the Research Policy Institute at Lund University, and UNESCO Chair in Research Management and Innovation Systems, she was indeed qualified for developing these perspectives.

She began with a provoking comment: what is the problem that Open Access addresses? “There is a diffuse understanding that Open Access is a solution, but what it facilitates I am not quite sure of,” she said – to the surprise of at least parts of the very engaged audience.

“Access to scientific publications has become increasingly expensive and difficult, and I wonder why you cannot just pick what you need from these publications, and pay only for that. As it is today, you must take all or none at all.”

She noted that no publishers of traditional scientific journals were invited to the seminar and thought it was a pity as she would like to have heard their view on this important issue.

“There have been a lot of mergers among publishers of scientific journals, which has increased the power of the larger publishing houses. Now a few of them own a lot, which took place without us really noticing. It’s like when you buy a Volvo, today you actually buy a Ford!”

The gradual shift from paper to electronic delivery implies that access also depends on infrastructure such as bandwidth, software, internet access etc. “It is not only in Africa access is a problem, but also in many places in Europe outside the big cities access can be slow or problematic and cause lots of problems for researchers,” she claimed

Are we supposed to work for free was the next provoking question. “If we pay for conducted research, making peer reviews and also for the publication on Open Access

sites, who benefits from all this free work and who doesn't? This may not be an easy issue to talk about but it is nonetheless vital."

Where to get published is also an important thing to discuss. "Publication is important, but even more to publish in the right journals. And so far the most respected journals are not Open Access. Why? I think because it is good business to keep them closed, most of us are basically snobs and do not want to be part of societies for all, it's too easy!"

Also, the audience for Open Access must be scrutinised. "Is the issue to widen the audience for scientific papers? You cannot write for all and still perform at the top level. Will Open Access then be a platform for popular science?"

She ended with a comment on why she did not approve of UNESCO as the responsible body for developing Open Access. Mergers of scientific journals have led to a concentration of owners in a few states. UNESCO as a state-oriented organisation would run into problems if it questioned the economic interests of these journals in some member states. Furthermore, there is already an NGO network that promotes Open Access, and also universities and institutions.

In conclusion she added, "UNESCO's baroque organisational ethos and culture makes it an unlikely candidate for Open Access. UNESCO needs to slim its organisation and focus on the mission rather than the form. Still, UNESCO can function as a forum for exchange of best practice of Open Access."

Open Access to Knowledge and Research – Are All Winners?

The last speaker of the day, Tomas Kjellqvist, Sida and member of the board of the Swedish National Commission for UNESCO, reflected on the theme of the day, *are all winners?* Tomas has worked at Sida's research department SAREC since the 1990s and took part in the transition to digital performance that got underway some ten years ago. "We discussed the monopolised situation for medical journals back then too, and I am glad to see that things are changing," he said.

Some central issues for developing Open Access that Mr Kjellqvist pointed to included:

Will Open Access change the scene of conducting, writing and publishing research, in order to promote presentation of the findings to a wider audience than fellow researchers, and is this a challenge to scientific quality? "Today we see a change in the way researchers write, present their facts, etc. But we need to discuss this issue further," he said.

With increased information from all parts of the world, there is a need for reflecting on and encouraging shifts in power in the world. "Brazil, China and India are quite big on Open Access publishing today, and this implies that a change is underway."

Other issues of importance include developing the infrastructure for information and communication, ICT, and issues related to intellectual property. "We must also discuss who can exploit Open Access and for what purposes and watch out for so called armchair empiricism, parachuting researchers and data theft. We also need to support the *use* of the Open Access possibilities, not only the access to information," he underlined.

He presented some points for a Swedish position on Open Access, among them to acknowledge the principles of the Berlin and the Salvador Declarations, a focus on marginalised people and cooperation rather than competition for developing Open Ac-

cess. On the issue of brain drain he claimed it might diminish, as Open Access supports increased academic mobility of knowledge without moving people.

Two other points for a Swedish position were how to finance Open Access, and to recognise that it must go hand in hand with the popularisation of science.

He continued by commenting on the possible roles of UNESCO, EU and Sida in securing Open Access for all:

UNESCO has a role in working for increased awareness of what Open Access is and is not, promoting ethical conduct and ideas on relevant infrastructures, and establishing a fund to cover Article Processing Charges for LIC authors.

EU's role could be to promote ICT and energy infrastructures in the developing world, particularly Africa, and capacity building on Open Access for policymakers in the fields of science and technology, researchers and university libraries.

Issues for Sida/SAREC are, e.g., to review funding and cooperation models for scientific communication, allow for costs for publishing in Open Access journals when funding research, and promote low-cost technology solutions. "Sida can also support different forms of mentorships in Open Access publishing and the use of Open Access models for communication with partners in the wider society," he concluded.

David Isaksson closed the forum by underlining that the debate on how to organise, finance and promote Open Access will continue. "There are issues of concern to be discovered, scrutinised and solved, but the journey has, for sure, begun.

Summing up: Central Issues for Open Access:

During the forum, a number of issues, aspects and problem areas concerning Open Access were mentioned, debated and questioned. Some of the speakers gave their personal view on those topics, others a more general perspective. There were few issues of total consensus, rather a number of topics being brought up and analysed.

The most mentioned and debated issues, aspects and problem areas during the forum are as follows:

- **What persons, institutions, funds etc. shall finance Open Access publishing?** Although Open Access means free access for the reader, somebody has to pay the bill for publishing. Is it possible to find "neutral" financiers with no agenda of their own, or is it better to recognise that all financiers have an interest in what they support, and go for a variety of financial solutions?
- **How to make Open Access publications more attractive than publication in traditional scientific journals?** Many researchers and many research fields still show a reluctance to Open Access publication. The reason can be prejudice about or little knowledge of what Open Access publication entails, e.g. that peer review is required and a professional selection of articles is made. Other reasons can be deeply rooted traditions or, simply, vanity – some researchers prefer to be part of an exclusive environment. Regardless of why, this issue has to be dealt with.
- **Does Open Access to information imply a power shift?** When welcoming an increase in information from all parts of the world, we also need to reflect on and, maybe, encourage shifts and adaptations of power in the world. Access to ICT – Information and Communication Technology – is also a central issue.

- **Is it possible to force researchers to publish their findings on Open Access web journals**, or will such a strict rule violate the freedom and integrity of the researcher? Can force be the rule at least for public financed research? Is it appropriate that universities, institutions, funds etc. have Open Access publication as a criterion for allowing funding, employment, internship, studies etc? (This is already applied at some universities and research institutes). What might be the consequences of this more strict approach?
- **Is commercial interest in Open Access publications a venture or not?** Are there risks involved with a commercial approach? For example, can other factors than research quality determine the decision to publish or not publish? Or, on the contrary, will commercial competition speed up the development of Open Access and contribute to better and more creative solutions for Open Access publication, search functions etc? Are there combinations of commercial and non-commercial interests that can form acceptable solutions?
- **How to support access to and the sharing of research findings from the developing world, the South?** We live in a world of asymmetric information exchange. Research findings from the North dominate the global scientific scene, as researchers in those countries have far better possibilities to be published in both traditional and Open Access publications. It is still rare for research findings from countries in the South to be shared with the North. Also, the sharing of research between countries in the South is lacking. It is of vital importance that countries from all parts of the world are represented in the global research community and that research results are shared between them.
- **Will Open Access publication change the research subjects and fields?** The domination today of Western researchers and West funded research programmes leads to a dominance of Western oriented research fields. Improved access to and sharing of research from other parts of the world is expected to influence research subjects. “It is surprising how much research there is on Viagra compared to e.g. malaria,” was the comment from one speaker at the seminar. What are the implications and possibilities with a transition to a more South-oriented research agenda? What reactions can be expected from funders, publishers etc? Will there be a shift in power – e.g. that other actors than today decide which research will get most funding and support?
- **How will the BRIC countries (Brazil, Russia, India and China) influence the research agenda?** Those countries with a newly advanced economic development invest substantial parts of their GDP in research and are all advocating and supporting Open Access. How will the engagement from those countries – and in the coming years other countries with booming economies – influence the global agenda for research and Open Access?
- **Should there also be free access to research data on Open Access websites?** Some researchers, institutions etc. advocate that research data also be made accessible on Open Access web sites and free to use for other studies, but what if this data are used – or misused — for purposes not at all approved by the responsible researcher or funder? Should permission be applicable for using this data and, in that case, should the researcher, the funder or the institution permit access? How do we avoid what is called armchair empiricism and parachuting researchers?

- **Will Open Access publication demand a less scientific mode of presenting findings in order to reach a wider audience?** If so, will this way of presenting scientific findings have a negative impact on quality? What are the advantages of addressing a broader audience?
- **How to share findings from the humanities to the same extent as the natural sciences?** Open Access publishing is dominated by the natural sciences. The fact that research findings from the humanities are often presented in book form rather than an article is one possible reason. What can be done to make research within the humanities as accessible as that of the natural sciences?
- **Open Access and Intellectual Property:** what are the rights of the creator or compiler? What restrictions, rules etc. are needed for the sampling of information? Also, how can Open Access be exploited and for what purposes? How to avoid “armchair empiricism”, “parachuting researchers” and data theft?
- **How to get access to Open Access?** The most basic issue is the non-existence or poor access to electricity, internet and computers in vulnerable and poor areas, including substantial parts of Africa. In those areas, this issue must be addressed before or at the same time as Open Access publication. Due to the lack of access to research findings in print or on the net, many doctors in poor areas still use old and little effective methods when treating e.g. HIV/AIDS.

