

THE OPEN ACCESS INTERVIEWS: HÉLÈNE BOSC

Richard Poynder talks to Hélène Bosc, former librarian at [INRA](#), convenor for the [EuroScience Working Group on Science Publishing](#), and passionate champion of Open Access in France.

27th March 2009

Hélène Bosc began advocating for [Open Access](#) in 1995, before the term even existed and just one year after [Stevan Harnad](#) had posted his seminal [Subversive Proposal](#) on an Internet mailing list.

Like other librarians who have embraced OA, Bosc's starting point was the so-called [serials crisis](#) — the phenomenon that has seen the cost of scholarly journal subscriptions consistently rise faster than the retail price index. With their serials budgets unable to keep pace, librarians have found themselves having to cut the number of journals they subscribe to year on year, depriving their researchers of more and more of the peer-reviewed literature that they need in order to do their research.

Over time no library has been immune to these depredations, not even those in large research institutions like [INRA](#) — the largest agricultural research institution in Europe and Bosc's employer until she retired in 2005.

Also like other librarians Bosc was hard pressed to see any obvious solution to the problem. Moreover, to her growing frustration, INRA appeared to be conspiring in the process: Although it had been publishing a number of its own journals since the 1950s, in 1989 INRA decided to outsource the task to [Elsevier](#), the largest scholarly publisher in the world, and the for-profit company that many believe had played a major role in creating the serials crisis in the first place. Either way, after Elsevier began publishing INRA's journals the cost of subscribing to them began to rise steeply.

In 1995, however, Bosc attended a conference at which French-Canadian academic [Jean-Claude Guéron](#) presented a paper on the serials crisis. Rather than simply describe the problem, Guéron proposed a solution: If the research community used the Internet as a publishing platform it could reduce the costs of producing journals, and make the contents freely available. Intriguingly, Guéron's proposal was not just theory; it was based on practical experience. In 1991 he had founded Canada's first electronic journal — [Surfaces](#); a journal that continues to be published today.

Inspired by Guéron, Bosc determined to try and persuade INRA that it should stop being part of the problem, and start working towards a solution. In other words, rather than restricting access to its journals, and stoking the inflationary fires, INRA should make them freely available on the Web so that any scientist in the world could access them without being confronted by a paywall.

Explains [Hervé Le Crosnier](#), OA advocate, former librarian, and currently computer science teacher at the [Université de Caen](#): "Hélène tried to explain to INRA why they were heading down the wrong road by selling all their in-house publications to Elsevier, and that OA is the only way to return to having their research distributed around the world."

Le Crosnier adds: "By this time it was a tough fight between librarians and Elsevier, which had become the primary monopoly provider of scientific publications, and H       became one of the main warriors."

B       de p      

As part of her advocacy, in 2000 Bosc set up a [web site](#) to inform the French research community about OA, and chronicle developments.

"H       became known in France because she created some pages on INRA's web site and began to record the history and events of 'Libre acc    ', explains Patricia Volland-Nail, who worked alongside Bosc at INRA's [Centre de Tours](#). "Hers was the first site on the subject in France."

In fact, it was the first such site in the world, being created before de facto leader of the movement [Peter Suber](#) had started his [OA blog](#), and before he had created his own [OA Timeline](#).

From this point on Bosc began raising the topic of OA at every available opportunity: during internal meetings at INRA, on the Web, in online forums, at library conferences, anywhere in fact. As Volland-Nail puts it, "H       took her *b       de p      * (a French expression meaning that she began to promote her cause everywhere, and in a militant manner), and wrote papers, and expressed her opinions. That's how she became known. She was happy to be recognised in this way, and she became more and more militant as a result."

But convincing the powers-that-be at INRA of the benefits of OA was no easy task. In addition to her public advocacy, between 1995 and 2002 Bosc wrote a number of reports to the directors of INRA explaining the transformation that was taking place in scholarly communication, and urging them to embrace OA. These had little discernible effect, although INRA did eventually end its relationship with Elsevier.

Gu       was also recruited to the task. As he explained to me: "I have known H       since 1995 and consider her a good friend. With her help, I tried to convince INRA to transform its journals into OA journals, given the essentially minuscule, if not negative, input of the publisher, but the pyramidal nature of the organisation prevented real action."

Bosc's husband — who happened to be an editor of one of INRA's journals — was roped in too. "H       was helped somewhat by the fact that her husband, Michel, a researcher, as well as a journal editor, in the same lab in which she was librarian, was also keen on the idea of OA," explains Harnad. "But I'm pretty sure she was the instigator."

Instigator she certainly was. In 2001 Bosc persuaded her husband to attend an OA [workshop](#) in Geneva. Energised by the event, and the enthusiasm of the OA advocates he met there, Michel Bosc immediately returned to INRA to add his voice to the efforts to persuade management to consider the possibilities of OA publishing.

Archivangelism

By now, however, H       Bosc's focus had begun to shift. After meeting Harnad at a conference, and joining his OA [mailing list](#), she had come to believe that there was a quicker way to achieve OA.

A self-styled [archivangelist](#), Harnad had long maintained that rather than trying to convert subscription journals to a new publication model, the OA movement simply needed to persuade researchers to [self-archive](#) their published papers on the Internet.

For Bosc the appeal of Harnad's strategy was threefold. First, there were too few OA journals for researchers to publish in. Second, publishing in an OA journal (the so-called [Gold](#) road to OA), appeared to require paying publishers a publication fee (on the grounds that if they ceased charging a subscription, publishers would need to be paid in some other way). But it was not clear where this money would come from. Third, by self-archiving (the [Green](#) road to OA), researchers could continue to publish in journals that had a high [impact factor](#), an essential requirement if they were to get tenure and be promoted.

To facilitate self-archiving, Harnad had in 1999 commissioned a doctoral student, [Rob Tansley](#), in the School of [Electronics and Computer Science](#) at UK-based [Southampton University](#), to develop an open source software package called [EPrints](#). This allowed research institutions and university departments to quickly and easily create dedicated OA repositories.

EPrints was launched in [2000](#), in the wake of an important [meeting](#) held in Santa Fe the year before. At that meeting it had been agreed to develop a protocol that would allow multiple distributed archives to be interoperable — the so-called Open Archives Initiative Protocol for Metadata Harvesting ([OAI-PMH](#)).

In this way, third-party harvesters like [OAlster](#) could aggregate thousands of isolated institutional repositories around the world into a large virtual archive.¹ All that was needed was for every research institution to create an OAI-compliant [repository](#), and have their researchers deposit their papers in them. As a result, the entire corpus of scholarly literature would become freely available to all, and accessible through a single search interface.

Convinced of the merits of self-archiving, and bruised by her vain attempts to convince INRA to embrace Gold OA, Bosc reinvented herself as an archivangelist. "[A]ll my attempts at mobilising INRA on electronic publishing had had no result," she explains. "It seemed to me, however, that it might be possible to realise OA at an individual level."

Fortunately, while senior management at INRA had proved deaf to her OA advocacy, the head of her lab (now a departmental head at INRA) [Philippe Chemineau](#) had not. "I was convinced by Hélène that the only way to escape [the serials crisis] in the long-term was to develop our own journals, and to develop open archives," Chemineau emailed me. For that reason he added he, "agreed that Hélène should create an open archive based on the perimeter of the division I am in charge of (about 1,000 permanent staff, and 350 Scientists)."

As a result, in 2002 Bosc created an institutional repository in her lab in [Nouzilly](#), near [Tours](#) — the Animal Physiology and Livestock Systems [archive](#) — and began filling it with papers that had been published by the lab's researchers. "Hélène was actively involved in setting up the first archive at INRA," says INIST's [Francis André](#). In fact, it was one of the first archives to be created in the whole of France.²

¹ At the time of writing OAlster provided access to 20,310,591 records, from 1096 separate sources.

² A number of archives were created in 2002. The [l'Institut Jean Nicod](#) archive was initially created by CCSD using EPrints software (France's national archive HAL was not then functioning) — following a talk given by Stevan Harnad at a "virtual conference" held in Paris in November 2001 called [Lecture et écriture scientifique "dans le ciel": Une anomalie post - gutenbergienne et comment la résoudre](#). [Skyreading and Skywriting for](#)

That same year Bosc also helped in the preparations for a meeting that was to have historic importance for the movement, and see the launch of the Budapest Open Access Initiative ([BOAI](#)). It was at this meeting that the term Open Access was coined, and where the OA movement was effectively born — thanks to a [\\$3 million grant](#) from financier and philanthropist [George Soros](#)' Open Society Institute ([OSI](#)).

Although she did not attend herself, Bosc helped publicise the BOAI, and she recruited pre-signatories, including the signature of her boss Chemineau.

Bosc's dedication and vociferous commitment to OA also inspired Chemineau to seek to persuade INRA's President [Marion Guillou](#) to sign the [Berlin Declaration](#) — an influential "manifesto" calling for OA in Europe that was launched in 2003. Eventually, says Chemineau, Marion Guillou did agree to sign.

However, this appears not to have been an easy task: As Bosc points out in the interview that follows, INRA did not sign the Berlin Declaration until July 2004, nine months after the other major French research institutions.

Meanwhile, another hurdle confronted the OA movement in France.

The French Road

Bosc was not the only French OA pioneer. There were others too, not least the influential physicist [Franck Laloë](#)³. As a physicist, Laloë was familiar with the physics e-print repository [arXiv](#), which had been founded by US theoretical physicist [Paul Ginsparg](#) way back in 1991. Conscious that arXiv had become central to the way in which physicists communicated their research, Laloë wanted to see something similar in France.

Founded as a central [preprint](#) repository, however, arXiv pre-dated OA, and was viewed by physicists not as a tool for freeing the refereed literature, but a useful way of sharing preprints with one another prior to publication — a habit that they had first acquired in the print world.

Due to physicists' cultural predisposition for sharing, arXiv became hugely successful, and over the years has grown to encompass not just physics papers but also astronomy, mathematics, computer science, nonlinear science, quantitative biology and, latterly, statistics. Today arXiv hosts over half a million papers, and another 5,000 are added each month.

Laloë's plan was to create a French variant of arXiv. Like arXiv it would be a central repository; unlike arXiv it would be a national repository encompassing all disciplines, not a subject-based archive. Essentially, the aim appeared to be to construct a single database that could house the entire French national research output.⁴

This, then, was to be the French Road to OA — one that, given the hierarchical nature of the French research environment, seemed well suited to the national mindset.

[Researchers: A Post-Gutenberg Anomaly and How to Resolve it](#). Also created in 2002 were [l'Archive Lyon2](#), Bosc's [AnimalPhysiology-LivestockSystems Archive](#), [Archivesic](#), [Paristech](#), [Archive ENS LSH](#), [Thèses-En-ligne](#).

³ Laloë is now emeritus director of research at CNRS, Département de Physique de [l'école Normale Supérieure](#)

⁴ Laloë might argue that this is an oversimplification. In an email he told me that HAL "has no official national mission: who wants to deposit does it. It is open to scientists all over the world". Indeed, he said, some researchers from other countries do deposit in HAL, but added, "In practice, most active users are French."

Certainly Laloë's vision was very different to the Harnad/Bosc notion of a global network of institutional repositories. And given his senior position within the French research community, Laloë was soon able to convince powerful organisations [like](#) the [French Academy of Sciences](#) and [CNRS](#)⁵ to support him.

In 2000 CNRS created a new department — the Centre pour la communication scientifique, or [CCSD](#) — which Laloë was put in charge of. Some eighteen months later a French national database called [HAL](#) was launched, into which all French research could be deposited.

While she welcomed the development of HAL, Bosc was concerned that rather than accelerating OA, Laloë's approach threatened to delay it. France, she concluded, had taken a wrong turn.

Why? Bosc believed that Laloë's concept of the role that HAL should play was self-contradictory. In writing about HAL,⁶ for instance, Laloë appeared to imply that HAL offered an alternative to traditional scholarly publishing, rather than a place where researchers could deposit supplementary copies of papers that had been published in regular journals. HAL, he wrote, would enable "communication scientifique directe".

This suggested that Laloë viewed HAL as a publication platform as much as a repository, particularly as he seemed to assume that some kind of review would take place before a paper was deposited in the database. But why would it be necessary to do this if the papers had already been peer reviewed by a journal?

"In June 2008 Franck told me that the whole submission process for HAL (which is a multidisciplinary archive) would be done by six 'peers'," says Bosc. This in turn invited the question: How could every paper submitted to a national multidisciplinary repository be adequately evaluated by six reviewers?

So far as Bosc was concerned, this was not a viable plan, not least because she did not believe that researchers would be receptive to what appeared to be a radical new approach to publishing research papers.

Laloë denies that this was his intention. When I asked him if he envisaged HAL dispensing with publishers he replied: "I do not mean that. I think that scientific journals play an important role, if only through the refereeing system."

However, he added: "In parallel, I think that open archives can offer another service that is extremely useful too." Exactly what this other service might consist of was not clear, particularly when Laloë added, "The only thing we are very strict on is that we want the scientific evaluation to be homogeneous and totally independent of institutions (exactly as in scientific journals)."

Nevertheless, as Bosc concedes, HAL is open to researchers who want to self-archive their peer-reviewed papers. "While HAL does accept them today," she says, "it would appear that it was not conceived as a repository for published articles."

All in all, however, one is left with a somewhat hazy picture: is HAL primarily a place for researchers to deposit supplementary copies of papers that they have had reviewed and published in journals? Is it a place where they can share their preprints? Is it a place where they will at some point be able to

⁵ CNRS is the largest French research institution.

⁶ [Pour la Science](#) N°352 (2007)

"publish" papers (i.e. have them peer reviewed) instead of submitting them to a journal? Or is it a place where all these things can take place simultaneously?

Leaving all that aside, the central predicament confronting HAL today is that its developers appear to have assumed that all other disciplines would voluntarily embrace the sharing culture characteristic of physicists (and to some extent by economists and computer scientists).

And it is this issue that has been the source of Bosc's greatest disagreement with Laloë. "This, I think, is a deep disagreement," says Bosc. "[C]ertainly it is the deepest disagreement I have with Laloë."

Based on her experience trying to fill her departmental repository, Bosc had become convinced that most researchers would never self-archive voluntarily. After all, by the time she retired from INRA she had only managed to secure 50 papers for her repository, a number that had grown to just 340 two years later when the archive was mothballed.

This had been a source of frustration for both Bosc and Chemineau. "One relatively disappointing point is that we have not succeeded in filling our own archive, which has only a very small percentage of all the papers published by our division," Chemineau told me. "We tried to fill it by inciting our scientists to enter their publications by themselves, but we failed."

Bosc had therefore concluded that to be successful any self-archiving policy would have to be mandatory. Laloë, however, appears to be unconvinced. In any case, he is sceptical that French research institutions will agree to introduce mandates. As he put it to me, "mandates are extremely difficult to obtain from the directors [of research institutions]."

Given his influential position amongst the higher ranks of the French research community, Laloë's lack of support for mandates has certainly made it much harder to convince the powers-that-be that they are necessary.

Missed opportunity

But Bosc, it seems, has been proven right about the necessity for mandates: Today, seven years after its creation, HAL contains fewer than 50,000 self-archived articles.⁷

By 2006 it had become clear to all that something more would be needed if HAL were to fulfil its mission. Consequently all France's scientific and scholarly research organisations signed a [protocole d'accord](#) (Memorandum of Understanding) aimed at increasing deposit rates.

Once again, however, it was decided take a voluntary approach, and when the *protocole* expired last year no further progress appeared to have been made. In short, says Bosc, HAL has turned out to be a missed opportunity.

So what next for OA in France? Like everywhere else, French experience has confirmed that [mandates](#) are essential if Green OA is to prevail. To date, however, only two mandates have been introduced in France, one by a small [research funder](#) and one by a single [university department](#).

⁷ Laloë told me that HAL contains more than 100,000 full-text documents and — according to [Webometrics](#) — ranks third amongst OA repositories in the world. At the time of writing this number had grown to [120,000](#). However, closer inspection suggests that less than half of these documents are self-archived refereed papers: 13,000 of them are theses, 51,000 appear to be back-copies of journals deposited by CCSD with the agreement of publishers, and 6,500 are classified as INRIA reports. This suggests that in total there are only around 48,000 self-archived papers in HAL.

And while [INSERM](#), one of France's larger research institutions, did briefly flirt with introducing a mandate, the process stalled when the then director [Christian Bréchet](#) moved on. "Christian Bréchet intended to introduce a self-archiving mandate," says Nathalie Duchange, from the HAL-INSERM team, but adds: "at the moment there is no indication that the new director will put this policy in place."

Could it be that Laloë was also right: that French research institutions simply won't introduce mandates? Or might they learn from the US, which in 2005 introduced a voluntary self-archiving policy that [failed](#), and was two years [upgraded](#) to a mandate.

Bosc thinks they will. As research institutions and funders around the world increasingly adopt mandates, she anticipates that France will eventually fall into line. If nothing else, she says, all the discussion about mandates is generating greater interest in self-archiving.

In retrospect, Bosc's greatest disappointment is that while France developed the necessary infrastructure for OA early on, it failed to build on its lead. "HAL was created seven years ago, and following the signing of the *protocole d'accord* in July 2006, all French researchers are supposed to deposit their publications in HAL," she says. "That would seem to suggest that we are ahead of other countries, and yet we are not: In spite of our technical lead, HAL has achieved a compliance rate of only 10-15 %."

"HAL, led by the physicist Franck Laloë, is typical of developments in France," says Guédon. "OA in France faces the general centralised nature of that country."

Symptomatic of this hierarchical culture is the fact that despite his commitment to OA, Chemineau has still not been able to introduce a mandate in the Department of Animal Physiology and Livestock Systems. "Philippe would have been ready to sign one but he couldn't do so without the agreement of the President Director of INRA," says Bosc. "That is why our [policy](#) on [ROARMAP](#) is written in the future tense."

The French Road to OA, it seems, has turned out to be no expressway.

On the other hand, suggests Bosc, France's hierarchical centralism could yet turn out to be an advantage — because when the OA tide finally turns the impact of any policy change is likely to be rapid. "This could see OA spreading very quickly in France — if the right decision is made."

Stubborn in the good sense of the word

However the future plays out, OA is surely [inevitable](#). And when the inevitable arrives, perhaps, sceptics in the higher reaches of the French research community may have to conclude that they should have heeded Bosc long ago, even though, as a librarian, she inhabited a relatively low position in the pecking order.

"Hélène has always suffered from this, particularly because she was caught in a somewhat low-rank role," says Guédon, adding that her continued struggle against the odds she faced was "all the more laudable" for that.

One characteristic that Bosc has clearly demonstrated is stickability. But what else can we say about her? Those who know her invariably describe her as a shy and self-effacing person. "Hélène is modest," says [Le Crosnier](#). "You have to push her to say that she is not only an evangelist for OA, but

someone who has worked for it in very concrete practical ways in her own institution, not only spending time with researchers, but providing practical tools to enable them to embrace OA."

"Hélène is a thoughtful, considered advocate who does not push herself to the fore but from whom sound advice and opinion founded on experience can always be obtained," suggests Alma Swan, British OA advocate and member of the governing board of [EuroScience](#)⁸.

"I had the impression of a discrete, modest, but warm-hearted, person; enthusiastic and full of energy at the same time," says INIST's Herbert Gruttemeier. "She was never 'mainstream', always with a certain distance from official policies, didn't really represent any trend, or any institution, and obviously didn't receive much support from her employer INRA, nor (and this is probably even more important) from her professional community, librarians."

How accurate are these descriptions? Personally, I was not completely convinced: In interviewing Bosc I found her to be a firmer and more forceful person than I had been led to believe. Not only was she surprisingly directive about what we did and did not discuss, for instance, but she also had strong views on the manner in which we discussed them.

I was also struck by her response when I emailed the text of the interview to her. Seizing on the draft introduction I had also attached she said: "I was really surprised and felt rather unwell when I read the comments people had made about me. It is probably true that I am shy and don't like to be in the spotlight (except when speaking about OA, which I enjoy: I become someone else, and forget my shyness). But you portray me as a Saint Bosc and I don't want to appear like the Saint and Martyr of OA in France. It is too much!"

Later, after giving the matter more thought, she emailed me: "Concerning the introduction, it's OK. At the moment I am still surprised by my first reading, but perhaps there is not a lot I would change: it is all true."

The next day she emailed again: "I feel a few corrections may still be needed," she wrote, adding: "Curiously I feel I am discovering who I am: it feels like I am going through a period of psychoanalysis!"

Wrong to be right too early?

So how do we sum up Bosc's contribution to OA? "It is always very difficult to describe in brief the activity of a pioneer," says Université de Lyon's [Jean-Paul Ducasse](#). "She is one of a small group who understood from the outset the importance of open archives."

Harnad concurs: "I would say that Hélène is one of the very first, if not *the* first, in France to have really understood what OA was (before it was called that, of course), and she immediately set to work both providing it in her own lab, and also convincing her compatriots of its importance, and how to do it, and she has not stopped since."

If Bosc has suffered disappointment, suggests André, it is simply because she was "wrong to be right too early." He adds: "She did have original thoughts on the way that the large French research organisations ought to disseminate their research results."

⁸ The European association for the advancement of science.

As Bosc is retired there is a temptation to talk about her in the past tense. That would be wrong. For whatever the future might hold for OA, and however long it takes to prevail, we can be sure that Bosc has not given up the fight. With her *bâton de pèlerin* held high she has every intention of continuing to rally the troops — until the bitter end.

A year after retiring, for instance, she managed to persuade INRA to commission a [report](#) on OA — a report that recommended the introduction of mandates in France. Once again, to date nothing has come of that recommendation. But Bosc is convinced it is only a matter of time now. Until then she plans to continue pressing her case.

And as convenor of the [EuroScience Working Group on Scientific Publishing](#) Bosc now has a public platform — a platform, moreover, that gives her much greater visibility than she had as a librarian at INRA.

The point to remember, suggests Université de Lyon's [Jean-Paul Ducasse](#) is that, "Hélène has shown herself to be a long-distance runner, not just a sprinter."

Let's leave the final word to her erstwhile employer Philippe Chemineau. Bosc, he told me, was always "very convincing and she was right!"



Hélène Bosc

The interview begins ...

RP: Can you start by saying something about your background, and your career?

HB: I was born in Paris in 1944. My father was born in Russia and my mother in Bulgaria, but they emigrated to France with my grandparents around 1922, at the time of the Russian revolution. They were only one or two years old when they arrived in France.

RP: Why did your grandparents emigrate? Were they [White Russians](#) or Jewish perhaps?

HB: On my father's side they were White Russian. It was more complicated on my mother's side: one of the reasons for their immigration was the [Balkan Wars](#).

Anyway, as a result I inherited the Russian language and Russian culture that my parents had inherited from their parents, and that led to my studying Russian at University.

RP: *After which you went to work at the French National Institute for Agricultural Research, ([INRA](#)). Can you tell me about that?*

HB: I started at INRA in 1967 and retired in 2005. I worked as a librarian and Russian scientific translator in one of INRA's laboratories.

RP: *INRA is one of a number of large central research institutions in France isn't it?*

HB: Yes. It's the largest agricultural research institution in Europe, and employs 8,500 people in total (about 4,000 of whom are researchers).

RP: *I'm told that French research institutions tend to be very hierarchical, partly perhaps because they are so large.*

HB: Indeed. INRA, for instance, is headed up by a director, and there are two deputy directors and five scientific directors. Then at the lower level of the management hierarchy there is a Director of Innovation, Scientific Information and Communication. This director sets policy in his or her area.

I should also add that INRA is divided into 14 different research departments, and in total there are 218 units in 20 centres scattered around different regions of France.

RP: *And within this large distributed organisation presumably there is a network of libraries.*

HB: At the beginning of 2000 there were about 60 librarians and documentalists in charge of the different libraries in all the different centres. I worked at the [Centre de Tours](#), which is where I met my husband Michel Bosc. He was working there as a researcher.

RP: *Tell me something about the [lab](#) you worked in?*

HB: The scientists in my unit worked on the physiology of reproduction and behaviour of domestic animals. When I started there were only 14 researchers in the lab; when I retired there were about 65.

In addition – as part of a long history of international collaboration – our unit each year would have at least ten foreign researchers (professors, post-docs, PhDs, trainees) attached to it. These researchers came from all parts of the world, and they would stay from one month to three years.

As a result, during my career I met and worked with hundreds of researchers from more than 20 very different countries, including the US, England, Australia, New Zealand, Sweden, Spain, North Africa, Central Africa, Latin America and Eastern Europe.

Serials crisis

RP: *How, when, and why did you become interested in [Open Access](#)?*

HB: In March 1995, at a conference for librarians in [Bordeaux](#), I met the [Quebec](#)-based academic [Jean-Claude Guéron](#). I was particularly interested in the theme of his paper, which consisted of an analysis of the "[serials crisis](#)".

RP: *As a librarian, of course, you would have had first-hand experience of the serials crisis.*

HB: Absolutely. By then I had been cancelling subscriptions for years. To give you an example, when I took charge of my library in 1967 we had subscriptions to 169 scientific periodicals covering biology, neurosciences, endocrinology, statistics, and agricultural techniques. The majority of these journals were published in English (with around 15% in French, German, and Russian).

Year after year the prices of these journals kept going up, while our budget remained static. This meant that I was forced to cancel more than 60 periodicals in 30 years.

RP: How did you decide which journals to cancel?

HB: My decision would be based on the fact that I was obliged to keep the best known international periodicals – that is, the periodicals that were most read in our lab, and in which our researchers published. That meant those journals produced by large publishers like [Elsevier](#), [Springer](#), [Blackwell](#)⁹, etc.

In doing so I realised that I was reinforcing the monopoly that those publishers already had on the serials market, and so helping to kill off the small publishers. But I had no choice: I was obliged to do it.

RP: What was significant about what Jean-Claude Guédon had to say regarding the serials crisis?

HB: What I realised during the conference was that these cancellations were not inevitable, and I began to see that there was a remedy. Jean-Claude, for instance, talked about a free electronic periodical that he had founded in 1991 called [Surfaces](#). Bear in mind, by the way, that at this time (1995-2000) electronic scientific publications were still a novelty.

The other part of this is that INRA itself publishes a number of periodicals. These had been progressively launched between the 1920s and 1970s. They were not exclusive to INRA scientists: agronomic researchers, biologists and pathologists worldwide could publish papers in them, and could read them – assuming, that is, that their institution had a subscription to the journal.

Initially INRA had published these journals itself, but in 1989 it had signed a co-publishing agreement with Elsevier, after which the journals began to increase in price year on year. I concluded that this was not a good omen so far as the distribution of our publications at an international level was concerned.

RP: An alternative approach, therefore, would be to follow Guédon's example and make INRA's journals electronic – which might enable INRA to make them freely available on the Internet?

HB: It was my belief that as the producer of scientific journals our research institution should be providing a "useful" service for the entire worldwide scientific community; and, yes, one way of doing this would be by experimenting with free electronic periodicals.

Consequently on a number of occasions between 1995 and 2000 I asked INRA to organise a conference to discuss the idea with Jean-Claude Guédon. By being very insistent, and taking a tactical approach, the first time I managed to get a letter of agreement out of our President Director. Unfortunately that was not enough, as the then Head of Scientific Information didn't organise the conference in time.

In 1999 I wrote a second letter to the new Director of INRA, again asking for a conference to be organised. My thinking was that if an individual like Jean-Claude Guédon could launch and maintain a free electronic journal it must surely be within the means of a huge institution like INRA to convert a portfolio of journals that already existed.

RP: How did the new director reply?

HB: He didn't reply.

⁹ Blackwell was [acquired](#) by Wiley in 2006.

RP: *You mentioned that you met your husband Michel Bosc at INRA. Did the fact that he was a researcher and, I believe, a journal editor, have any bearing on your decision to start advocating for OA?*

HB: Yes my husband was a researcher (he too is now retired), and he was the editor of one of the INRA journals during the last four years of his career. This gave me a good understanding of the mechanism of peer review and what it provides. Yes indeed, living and working with a researcher influenced me. I used to say that in marrying Michel, I married Research.

However, the influence went both ways, especially over the issue of OA. Like many other researchers, my husband didn't at first understand the profound change that was starting to take place in scientific communication, so he initially tended to follow my activities from a distance.

But in February 2001 I persuaded him to accompany me to the [first OAI workshop](#), which was held at [CERN](#) in [Geneva](#).

RP: *That convinced him of the benefits of OA?*

HB: He realised that OA could improve the visibility and reach of INRA's periodicals, and thus their global impact; but he felt that the first thing to do was to conduct a study in order to establish whether this was best achieved by licensing the journals to a new publisher, or by re-licensing them to the current publisher, which by then was [EDP](#).

Green and Gold OA

RP: *How would you characterise your aspirations when you began advocating for OA?*

HB: I could see the advantages of OA publishing, and I thought that INRA could play a useful role by experimenting with it. In this way, it could set an example to the international scientific community.

RP: *So your initial interest was in OA publishing, or [Gold OA](#). Gold OA is generally viewed as a model in which researchers (or their funders) pay an article processing charge ([APC](#)) in order to have their paper made freely available on the Web. Your views on the best way of achieving OA changed over time didn't they?*

HB: Well, in November 1996 I met [Stevan Harnad](#) in [Lyon](#), at another small conference. This too was for librarians, and was devoted to discussing the changes in scientific communication that were enabled by Internet.

RP: *Stevan Harnad, of course, is the leading Green advocate. Green OA is where, instead of publishing in a Gold journal, researchers continue to publish in traditional subscription journals and then [self-archive](#) their papers, either in their [institutional repository](#), or in central or subject-based repository like [arXiv](#) or [PubMed Central](#). (Although I think in France you tend to use the term archive rather than repository).*

HB: Yes. Anyway, at the time there was an annual conference organised by local politicians under the rubric of "RenaiScience". It was held in Tours and was intended to promote collaboration between science and industry on a regional basis.

When a call for topics to be discussed was made I asked Stevan if he would take part in a conference session on the new possibilities that electronic publishing provided that I planned to submit to the organisers. My intention was to also invite Jean-Claude Guéron, and a number of French OA pioneers.

RP: *Were you successful?*

HB: No. I wasn't able to convince the organisers that such a topic would be of interest.

Nevertheless when, in September 1998, Stevan [set up](#) his mailing list – the American Scientist Open Access Forum ([AmSci](#)) – I subscribed to it, and began to monitor OA developments.

RP: *As an AmSci subscriber I guess it was inevitable that you would become more sympathetic to [Green OA](#) issues. Stevan Harnad is a very persuasive Green advocate! But what was the main attraction to you of self-archiving?*

HB: Well, all my attempts at mobilising INRA to experiment with electronic publishing had had very little result – although one promising sign was that in 2000 INRA ended its relationship with Elsevier and entered into a licensing agreement with EDP, a quite reasonable French publisher.¹⁰

EDP also later became [Green](#). I remember that in 2004 I insisted that it make its policy clear on self-archiving, and post the details in [RoMEO](#).

But the main point is that it seemed to me it might be possible to realise OA at an individual level, particularly after the [Santa Fé Open Archives Initiative](#) was published in 1999, and the [EPrints](#) repository software was launched in 2001.¹¹

RP: *EPrints offers a quick and cheap way to create an institutional repository, and OAI is a protocol that enables distributed repositories to become interoperable. Combined, these two initiatives meant that many small, local initiatives could be aggregated into a single global initiative, allowing thousands of small repositories to behave as if they were one large (virtual) repository.*

HB: And so I believed that it would be useful if EPrints were better known in France. To that end, in 2001 I offered to translate the EPrints web pages into French.

Over time I became more and more interested and involved in EPrints. Eventually in 2002, with the help of our computer technician Daniel Tanguy, I set up an EPrints [archive](#) in our lab and began to fill it with published articles.

RP: *This is the [Animal Physiology and Livestock Systems Archive](#) is it?*

HB: Correct. I am very grateful to Daniel, by the way. He agreed to help "just for me". It was not an official project, and at that time OAI was totally unknown, even amongst computer technicians.

I would like to stress, however, that I am open to both roads to OA (OA publishing and OA archiving).

RP: *You have always supported both roads to OA?*

HB: Yes. I advocated for both in my lab. As I said, I set up an EPrints archive, and I am also proud to say that in 2003 and 2004 researchers in my lab were among the first French scientists to publish with the OA publisher [BioMed Central](#).

RP: *Would it be fair to say, however, that in recent years you have tended to put more energy into Green OA?*

HB: It would. Of course in the beginning I only "felt" that green OA was the best way of rapidly increasing scientific progress, by creating and sharing a [commons](#). But I am also pragmatic and always want to put my effort where I can see rapid results. Self-archiving became so obvious that I began to devote my time to that.

¹⁰ Some scholarly publishers enjoy profit levels of over 35%. In 2003 it was [reported](#) on library lists that Elsevier's profits had grown by 43%. EDP's [profits in 2000](#), by contrast, were 6%.

¹¹ The beta version of EPrints was [launched](#) in September 2000 and the first version at the beginning of 2001.

initiatives has never been easy to obtain historically, and in the present period of financial crisis is highly unlikely to be forthcoming.

Green OA, by contrast, is easy to start everywhere, and it is not expensive.

So far as France is concerned the Directory of Open Access Journals ([DOAJ](#)) indicates that there are currently 81 French Gold journals. One of them is an INRA periodical [Productions Animales](#) which started in 1988 and became electronic in around 2001. It is more technical than the other INRA journals.

Others are sometimes the initiative of single researchers – e.g. [Carnets de Geologie](#), and [Alsic](#). I know more about these than the others because they were set up and are maintained by Bruno Granier and Thierry Chanier respectively, both of whom are members the [EuroScience Working Group on Scientific Publishing](#) that I am convenor for.

RP: Can you say a little more about these journals?

HB: Thierry Chanier created *Alsic* in 1998. Chanier has for many years been a very active advocate for OA in the humanities in France. He supports both Green and Gold OA, and in 2003 he created the [Edutice](#) archive. Actually, the whole story and evolution of *Alsic* is very interesting. You should speak to Chanier some time. For his part, Bruno Granier is in danger of drowning in the success of *Carnets de Geologie*.

What Bruno Granier and Thierry Chanier have both demonstrated is that researchers are entirely cognisant of what the research community needs. They are also aware of what new tools are available, and are willing to devote their time to promoting OA.

However, they shouldn't be obliged to sacrifice their research careers as a result, and I presume that they are not alone in France in promoting Gold periodicals. My view is that those researchers experimenting with OA publishing deserve much more recognition and appreciation as specialists than they currently receive, and they ought to be given more help and attention by their universities, by research institutions and by the French government.

RP: You said that author-pays is not a good economic solution. What does this imply for the future of Gold OA, and of OA in general?

HB: Author or institution-pays is not a viable solution today because we are in a transition period during which paying to publish would effectively mean having to pay twice: once for subscribing to the traditional periodicals; a second time for publishing articles. These costs are very high, even for an institution like INRA since it already pays for a lot of periodicals.

It is not hard to see that few researchers in the world can afford to opt for author-pays. I remember when BioMed Central changed its first very attractive, and not particularly expensive, membership licence – in I think 2005 – to one based on the number of researchers who had published in BioMed Central periodicals during the preceding year. This meant that if only 400 researchers (that is, one tenth of the researchers employed by INRA) had published the previous year we would have had to pay \$20,000 on top of our other subscriptions.

RP: In other words, if scientists rush to embrace Gold OA the research community's costs will initially increase, rather than decrease – since institutions will still need to pay their journal subscriptions, plus they will need to find additional money to pay APCs. And, as you said, governments are unlikely to be willing to fund Gold OA in the present economic climate.

HB: That's right. But once 90% or more of published papers are made freely available via self-archiving libraries will be able to start cancelling their journal subscriptions and redirecting that money towards paying for their researchers to publish.

By then archives will host all the research output of institutions, who will be able to showcase their research. In addition, archives will be able to assist in essential administrative tasks like asset management and performance evaluation.

Advocacy

RP: *Ok. So you were an early convert to OA, and you became an active champion of the OA movement in France. To that end you began to publish papers on OA. What other forms did your advocacy take?*

HB: A number of different forms. Between 1995 and 2002, for instance, I wrote several reports to the directors of INRA informing them about the transformation that was taking place in foreign universities, and the developments being discussed at the annual OAI workshops in Geneva.

I also tried several times to have Jean-Claude Guéron invited to talk at INRA, and in 2004 I eventually succeeded. I also participated in discussions on different French library lists.

RP: *You organised a number of conferences on OA too I believe?*

HB: I did. In March 2000, for instance, I was one of the organisers of a joint INRA-[INSERM](#) conference held in Paris called [Publication électronique des Résultats de la Recherche](#). On this occasion I succeeded in convincing the main organisers to invite Stevan Harnad to give a talk on self-archiving.

And in September 2000 I created a web page called [La communication scientifique revue et corrigée par Internet](#).¹² The aim was to create an incremental timeline tracking developments in OA publishing and archiving, structured by different paragraphs, and updated monthly (at that time there were only about five or six important events a month!).

RP: *Your aim was to create something similar to [Peter Suber's Open Access Timeline](#) (Which has recently been [incorporated](#) into the [Open Access Directory](#)) was it?*

HB: Yes, although I think I started my web page some months before Peter Suber started his Timeline. I guess we had the same idea almost simultaneously!

RP: *Today Peter Suber's [blog](#) is viewed as the go-to place for information on OA. But Suber didn't start his blog until 2002. From where did you source information for your web page?*

HB: My primary source was AmSci, Stevan Harnad's mailing list.

RP: *So you envisaged your site as both a timeline and a general information resource on OA for French speakers?*

HB: Right. It was used, for instance, by [CNRS](#) when it ran its seminar called [Open Access to Scientific and Technical Information: State of the Art and Future Trends](#) in 2003.¹³ However, INIST and CNRS subsequently created their own OA information page, which they call [Libre Accès à l'information scientifique et technique](#).

Then in 2001, I took part in the international virtual conference called [text-e.org](#). This was organised in France around (amongst others things) a paper of Stevan Harnad's called [Lecture et écriture scientifique "dans le ciel": Une anomalie post - gutenbergiennne et comment la résoudre](#).¹⁴

And in 2002 I helped "behind-the-scenes" in France to prepare for the Budapest Open Access Initiative ([BOAI](#)). BOAI was launched on the 13th February that year.

RP: *What do you mean when you say you helped behind the scenes?*

¹² Scientific communication revisited and improved by the Internet

¹³ This took place in Paris between 23th and 24th January 2003.

¹⁴ *Sky Reading and Skywriting for Researchers: A Post-Gutenberg Anomaly and How to Resolve it.*

HB: I belonged to a small group of people tasked with finding pre-signatories for the Declaration, and contacting journalists. I also arranged for the English Web page to be translated into French. (Thanks to Viviane Bouletreau from the [Université de Lyon 2](#), who spent days and nights translating the Declaration in time for D-Day.)

RP: *You also became a regular speaker on OA at conferences yourself didn't you?*

HB: Yes. I gave talks in France about 25 times between 2002 and 2006 – speaking, for instance, to librarians at INRA and French universities, to INRA researchers, and to a variety of decision makers (e.g. INRA scientific directors, a member of parliament at a UNESCO conference, etc.).

Additionally, I was invited to speak abroad on a number of occasions. Interestingly, I was "discovered" by EuroScience members as a result of one of my PowerPoints being put on the Web, after which I began to receive invitations to talk abroad under the auspices of EuroScience. In August 2004, for instance, I spoke at [ESOF in Stockholm](#). I spoke at a round table event at the [Allea meeting in Budapest](#) in March 2005; and I spoke at an [ENCS workshop](#) in Berlin in November 2008.

I was also a co-organiser of a workshop on OA [at ESOF in Munich](#) in July 2006.

RP: *I wonder what kind of reception you got from other librarians when you began advocating for OA.*

HB: It is difficult to generalise because I think that my advocacy was perceived in different ways by colleagues. Most of them were receptive and interested, but at the beginning they were absolutely not ready to follow me.

I remember, for instance, a comment made by one of my colleagues after I raised some questions about INRA projects at an internal meeting of librarians in 1999. This colleague said, with an ironic smile but nevertheless a touch of admiration: "So, you are putting electronic publications on the table again!"

Later, in 2002, when I started to talk about self-archiving, I think that many began to disapprove of my independence, and the fact that I was propagating ideas that had not been approved by the hierarchy (at this time the whole idea seemed dangerous). For example, once when I had been invited to speak about self-archiving to researchers at an INRA centre, I was discretely taken aside at the start of the conference and politely asked not to engage in any "proselytising".

At times my colleagues took totally opposite views: In 2002, for instance, at an internal presentation on archives requested by our Director of Scientific Information, one librarian colleague reported that an archive in biology was "impossible".

I had not been invited to the meeting, and did not know about it. But when I did learn about it, and its conclusion, I ended up having some spirited exchanges with our Director, trying to explain to him that it *is* possible, and that he had not chosen the right advisor. But he didn't change his mind.

By contrast, in 2003 or 2004 another colleague created his own archive, using DSPACE software. Unfortunately, two years later the Director of Scientific Information told him to close it.

RP: *On what grounds?*

HB: I don't know. I suspect because INRA had begun working on its own archive ([PRODINRA](#)) and it was felt that PRODINRA should be the only archive that appeared under the banner of INRA.

RP: *When you set up your own archive presumably your wish was that INRA would support it, and roll it out across the whole institution. Is that what INRA is now doing with PRODINRA?*

HB: When I set up my archive in 2002 it was generally considered a dangerous thing to do, not least because everybody had the idea that archives are only ever created for depositing non-refereed

papers in. But I wanted to show that an archive can be filled with refereed articles, and that is what I did.

In 2003 I asked our Head of Scientific Information if she wanted to assume responsibility for the archive so that I could declare it to be OAI-compliant. She replied that it was not her responsibility, and that INRA scientists should take it on themselves. That is why I asked the head of my laboratory (and later departmental head) [Philippe Chemineau](#) to assume responsibility for it.

So to answer your question: since the policy seemed to be that responsibility for archives was to be delegated to scientists themselves, I imagined that we would have 14 departmental repositories like mine (one in each department) and that they would then all be harvested to create one central virtual archive within INRA.

RP: *That's not what happened?*

HB: No. In 2004, I presented my "experimental archive" at a talk I gave in [La Rochelle](#). I said that there were only 17 documents in it, but that if each INRA laboratory was willing to do the same we could immediately provide 17x 200, or 3,400 documents, and that would be just the start!

That same year, however, INRA decided to create a large administrative system, and to include a central INRA archive (PRODINRA) within that. Later they commissioned a private company to create the system. But although INRA has been working on PRODINRA for four years now, the archive has still not yet been completed.

RP: *You described how librarians reacted to your OA advocacy, but what about researchers? How did they react?*

HB: I did sometimes have the opportunity to talk to groups of 20 or 30 INRA researchers, and when I did I found them all to be very interested. Indeed, often one or two of them would be interested enough to agree to help me spread the word in different centres of INRA. This created a snowball effect and often led to my being invited to talk again in a new place.

I also had the great good fortune to gain the ear of the head of my unit, who later became head of the department. I suspect that at the beginning he did not completely understand what OA was: he was very busy and it was not easy for him to give me the time necessary for explanations. But he agreed to support or take part in all the OA projects I submitted to him, and his help was very precious.

RP: *You are referring again to Philippe Chemineau?*

HB: Yes. You will find Philippe's name (as a departmental head at INRA) among the [first organisational signatories](#) of the [Budapest Open Access Initiative](#). In April 2004 he was also one of the first departmental heads in the world to introduce a self-archiving policy (although not a mandate), and in 2003 one of the first scientists at INRA to [publish](#) in [BioMed Central](#). As I said, he also assumed responsibility for our archive when it became [OAI compliant](#) in 2003. And he signed the [Brussels petition](#) for OA in the EU in February 2007.

RP: *Chemineau told me that you and he disagreed over some aspects of OA. Can you talk about that?*

HB: I am not sure that we disagreed. So far as introducing a mandate in our department is concerned Philippe would have been more than willing to sign one, but he couldn't do so without the agreement of the President Director of INRA. That is why our [policy](#) on [ROARMAP](#) is written in the future tense.

RP: *I want to come to mandates in a moment. But I think Chemineau was mainly referring to the question of whether scientists should be expected to do their own self-archiving, or whether it should be done for them.*

HB: Well, I don't remember if Philippe ever said or wrote anything to encourage the staff to self-archive. And while I would have liked researchers to do it themselves (with my help the first time), our old computer was so sluggish that I found it very hard to do it myself. It was so slow simply moving from one window to another. In such conditions it would not have been a good idea to ask researchers to do their own self-archiving.

As a result I was only able to consider the question after we moved to a newer computer, which was just a few months before my retirement. I have even written something about the advantages of "real self-archiving" but it was not published. I also prepared a guide when the archive was first set up; and one month before I retired I presented a "PowerPoint tutorial" on self-archiving to my lab in preparation for my departure. Unfortunately, very few researchers attended.

RP: *So what are your views today on "real self-archiving" – by which I assume you mean researchers archiving their papers themselves, rather than it being done for them by a third-party such as a librarian?*

HB: As I said, we started with a very old and sluggish computer, so it was not practical for researchers to self-archive at that time. However, in theory when a paper has just been accepted, and is fresh in their memory, the actual process of depositing is very easy for researchers: Southampton University's [Leslie Carr](#) and Stevan Harnad [estimated](#) that it takes 6 to 10 minutes.

If, however, you want to control the status of papers properly, and to check the copyright situation, I think a librarian's help is essential: It saves a researcher's time and makes him less reluctant to self-archive. However, for a librarian to do this administrative work as well as deposit the paper can take time: I calculated that it took me more than two hours to deposit a paper by proxy, including doing all the administrative tasks.

As I told you, my objective was to self-archive the final accepted draft and I can explain why it took so long to do it on my own: The process required my first being alerted to the fact that a new publication existed – something I often only discovered a few months after publication. I then had to find the paper, assess its copyright status, ask the researcher to send me the file, verify the file, print the paper, and then (while the paper was sitting in the buffer) ask the researcher to confirm that the copy I had was the final version (and to sign a signature on the copy giving me authorisation to archive it).

In the process I often found that they had sent me the wrong file (since most versions seemed to be called "final.doc"), and it didn't correspond to the article in question. I also often found that the figures were not complete, etc. etc.

RP: *This suggests that both researcher and librarian need to be involved?*

HB: Correct. Self-archiving by proxy is not always a quick or easy task, but when the job is shared with the researcher it takes less time for a librarian to establish the copyright status, and to check the deposit.

RP: *Ok, we've established that librarians were divided about your OA advocacy, researchers were frequently sympathetic to the idea, but the political environment at INRA made it difficult for you to achieve your objectives. What about the other French research institutions – CNRS, INSERM, [CEA](#), INRA, [INRIA](#) etc.? Were they receptive to your message?*

HB: Well in 2000 and 2003 I collaborated with colleagues from both CNRS and INSERM in organising two international conferences on new forms of scholarly communication, which was held in Paris. But I had no contact with any of the other research institutions in France.

HAL

RP: *If you ask people in the research community about OA in France they invariably cite [Franck Laloë](#) as a leading OA advocate; as the University of Montreal's [Jean-Michel Salaün](#) put it to me: "Franck Laloë, now retired, had certainly a decisive importance for OA in France. He was the director of the Laboratoire de physique de Paris and he founded CCSD ([HAL](#))". I believe you have had a number of interactions with Laloë concerning HAL, and OA strategy, over the years?*

HB: Yes. I was very interested by the birth of HAL in 2001. As you say, it was Franck Laloë's project and I mentioned it on my web page as soon as the CCSD (which is the CNRS lab in charge of HAL) was created in 2000. In fact, I think I was the only one publicising and sustaining HAL for several years.

RP: *But you haven't always seen eye to eye with Laloë on OA?*

HB: In 2002 both Franck and I were invited by one of the five INRA scientific directors to talk about archives and OAI. When Franck explained the thinking behind HAL I was immediately struck by our very different perception of what an archive is. His view was very similar to the central [arXiv](#) model adopted by physicists. As such, it was very different from the OAI concept.

RP: *Essentially you are talking about the difference between creating a central resource versus a distributed resource. Laloë is a physicist, so I guess it would make sense for him to have modelled HAL on arXiv.*

HB: Right. Then in 2005, I posted online a chapter from a book¹⁵ and sent a preprint of it to Franck. He reacted very strongly (by e-mail) to paragraph 3.5¹⁶, which addressed the issue of centralised versus decentralised archives.

RP: *What did Laloë object to?*

HB: My argument was that there is a place for both central and institutional repositories (CRs and IRs), but that an institutional archive [is easier to fill](#). (At that time the idea of imposing a mandate on researchers was very new, but it was clear that proximity was vital). This, of course, suggested taking an approach very different from the centralised model that Franck had taken with HAL.

Franck believes that a centralised deposit approach is the only way to create a good quality repository. My view is that with tools like [SWORD](#)¹⁷ now available the specific archive a paper is deposited in is not particularly relevant, since SWORD can be used to easily and automatically transfer papers from one archive to another (including from a CR to an IR, and vice versa).

RP: *So the area of disagreement between you and Laloë centred on the respective merits of an [institutional repository](#), or archive, versus a central repository – be it a national repository like HAL, or a subject-based repository like arXiv?*

HB: Correct, and our main disagreement appeared when he published – with Pierre Baruch – an article called [Archives Ouvertes: Quels atouts](#).¹⁸ This disagreement remains today.

RP: *Can you say something about that article?*

¹⁵ [Archives ouvertes](#) : 15 ans d'histoire, in: *Les Archives Ouvertes : enjeux et pratiques. Guide à l'usage des professionnels de l'information*

¹⁶ p.10

¹⁷ SWORD: Simple Web-service Offering Repository Deposit protocol for making automatic deposits in repositories

¹⁸ [Pour la Science](#) N°352 (2007)

HB: Sure. In reading it I could see that there was a second area of disagreement between us. Franck wrote that HAL is a place for what he called "communication scientifique directe"¹⁹, and he opposed it to traditional scientific publishing.

RP: *You are saying that Laloë believes HAL will change the way in which scholarly publishing takes place?*

HB: Well, this is how he defines the role of archives: "*Les archives ouvertes sont des bases de données où les auteurs peuvent déposer, par téléchargement, leurs manuscrits scientifiques, ce qui les rend immédiatement et gratuitement disponibles à leurs collègues du monde entier. On parle de communication scientifique directe pour souligner que, contrairement aux revues scientifiques traditionnelles, aucun intermédiaire n'intervient, ni comité éditorial ni éditeur commercial. Certes, les responsables du système effectuent un examen élémentaire du contenu avant la mise en ligne, mais cet examen ne dure que quelques minutes par document; il a juste pour but d'éliminer les dépôts évidemment inadéquats.*"²⁰

RP: *So the question arises: If there is no intermediary involved then what does scholarly publishing consist of? And presumably a key issue here is what happens to peer review?*

HB: Right. In June 2008 Franck told me that the whole submission process for HAL (which is a multidisciplinary archive) would be done by six "peers". While it does accept them today, it would appear that it was not conceived as a repository for published articles.

RP: *In short, your view of the role of an archive is very different from the role that Laloë sees HAL playing?*

HB: It is. The primary purpose of an archive is to house the last accepted draft of peer-reviewed publications, with a link to the web page of the periodical in which it appeared so that readers can confirm the existence and quality of the journal.

Secondarily, coverage can also be extended to include the deposit of other (nonpeer-reviewed) papers, so long as the metadata clearly indicates the status of the item deposited: unrefereed/refereed, unpublished/published (along with the journal name and its website).

RP: *I should point out that Laloë told me by email that he does not envisage scholarly journals being superseded, or by-passed. As he put it, "No, I do not mean that. I think that scientific journals play an important role, if only through the refereeing system. This system is expensive, so it is normal that the publishers collect money through journal subscriptions (some do it normally, some others charge three times the price, but that is ...). This is the traditional academic scientific communication, which most scientists support."*

He did add however: "In parallel, I think that open archives can offer another service that is extremely useful too, for reasons that are developed in the article." My French is not good enough to follow closely Laloë's argument in the article, or fully understand what he means when he talks about "another service". Can you help me?

HB: I too cannot understand exactly what Franck wants from an archive. But he does not seem to believe that its role is simply to provide a supplementary copy of a published work, which is my view. Immediate access to peer reviewed literature is what scientists need. And if the article has been reviewed by a journal it is not necessary to have it peer reviewed again before depositing it in HAL.

¹⁹ Direct scientific communication

²⁰ "Open archives are databases where authors can deposit, by downloading, their scientific manuscripts, making them immediately and freely available to colleagues worldwide. We call this 'direct scientific communication' to emphasise that, unlike traditional scientific journals, no intermediary, editorial board or commercial publisher is involved. To be sure, the system administrators perform a cursory examination of the content before putting online, but this review takes only a few minutes per document; its aim is just to exclude the deposits that are obviously inappropriate."

RP: What for you then are the implications of the creation of HAL for OA in France?

HB: HAL could be a great opportunity for France to provide OA, but Franck Laloë's approach to archiving may have the effect of slowing down self-archiving in France, because all researchers are attached to the system of publication in traditional peer-reviewed periodicals (Gold or Green) and for different reasons they are not ready to start "publishing" in archives.

Franck himself would seem to recognise this. In the article I quoted previously he also says, "*Une question fondamentale posée aux archives ouvertes et qui reste débattue est celle de la validation scientifique, à laquelle les chercheurs sont très attachés. Faire valider un article par un comité de lecture composé d'experts est un processus long et coûteux. Il serait beaucoup trop lourd pour des archives ouvertes.*"²¹

So far as I am concerned, however, the only control necessary when depositing a duplicate in an archive is to check that the text is indeed a scientific (or scholarly) publication and that it is within the scope of the archive. And the advantage of an institutional repository is that this kind of control is much more easily managed than it is in a central repository — and that the institution can mandate and monitor it.

RP: I note in a [2008 paper](#) of yours that you say most French archives were "absorbed" by HAL (presumably replaced). I guess you feel the danger here is that by physically absorbing these archives HAL will promulgate the belief that repositories can replace publishers?

HB: No, that's not really the problem. The problem is that if HAL had not absorbed them, the various individual pioneer projects that were being developed could have continued their different experiments — archiving peer-reviewed scientific articles, or not, or only theses, testing different software, etc. etc. HAL brought all these experiments to a halt, and replaced them with a homogeneous hierarchy.

These experiments would have encouraged trial-and-error and healthy competition between different institutions, and so allowed us to arrive at a maximally effective self-archiving system. And during this process of competition no doubt some mandates would have been introduced. HAL's absorption of everything has slowed the movement in that way.

RP: We should perhaps make the point that you are not the only critic of HAL in France: In your [2008 paper](#) you cite others who do not agree with the approach adopted by Laloë, including [Pierre Mounier](#), who I think has argued that different French institutions will have different expectations about the role that HAL should play, and that this will inevitably lead to disagreement and conflict. Can you expand on this, and say whether you think this might be a generic problem with central and national repositories? I know, for instance, that there have been heated debates over arXiv, with some [claiming](#) that its founder [Paul Ginsparg](#) has behaved autocratically when developing arXiv.

HB: I think that in the beginning few researchers in France were aware that there are other models for OA archiving than that adopted by HAL, because they were not watching what was happening outside France. I can only guess that the approach adopted by Laloë was contested by some. But trying to express your disagreement on what has already been decided at the upper level when you are lower down in the hierarchy is guaranteed to be ineffectual in France; moreover, it is not perceived favourably by one's superiors.

As it happens, HAL is not even a normal national repository, because it doesn't harvest the output of institutional repositories: you must first deposit in HAL and thereafter your output is "virtually" returned to your institution, via institutional portals. Consequently HAL doesn't allow much flexibility.

²¹ "A fundamental question facing open archives that is still under debate is scientific validation, to which researchers are very attached. To validate an article by a peer-review committee composed of experts is a long and costly process. This would be far too heavy for open archives."

RP: So this is the very reverse of the OAI distributed model?

HB: Right. But to go to Mounier's point, I am sure that a self-archiving system that was formulated eight years ago cannot be expected to suit all of France's 120,000 researchers working in all the different research fields today.

So yes, it is far from clear that HAL's policy and technical evolution could be agreed upon in going forward if all those institutions using it were asked to express their needs and preferences.

Black and white?

RP: I wonder if the contrast between HAL and OAI is as dichotomous as it appears however? You mentioned HAL's institutional portals. I'm also conscious that Laloë said to me that HAL is envisaged as enabling both a central repository to be created, and also institutional repositories. As he put it, "HAL has a system (portals and collections, as we call them) which allow any lab or institution to use it as an institutional archive. Actually some do that. Some prefer to have their own system, this is fine too." Does that not sound like a reasonable and practical approach?

HB: Yes of course, it is! Especially now that we have tools like SWORD. But HAL is a national archive that needs to be filled rapidly. It is important that all French institutions contribute to filling it easily, and to achieve that they need to be able to choose the method that suits them best.

RP: To push you on Laloë's point about portals and collections: I saw a [comment](#) by Thierry Chanier on AmSci recently in which he talked about creating sub-archives within HAL. Combined with what Laloë' said, it made me think that HAL must work differently from arXiv – that it is not envisaged so much as a single central repository, but as more of a single distributed repository. (If you'll forgive the oxymoron). That is, everything gets posted into HAL, but institutions are able to create their own front end and brand them as being their own institutional repository. Maybe this is what Chanier means when he talks about creating a sub-archive? (I suppose research institutions could in any case do the same thing with arXiv, but perhaps none have done so?).

HB: I am not a technician but I think there are four ways of organising deposits in France:

- 1) Papers can be deposited directly in HAL.
- 2) HAL can harvest the archives of volunteer institutions, and integrate the data into itself.
- 3) HAL can harvest volunteer institutional archives by taking the data, but then returning the source document back to the institutional repository.
- 4) HAL can, as you say, create an institutional front-end for a university.

In the latter case HAL acts as the host and the database, but the interface and "look and feel" can be customised for the institution. My understanding is that that is what Thierry did with the Edutice archive, and this is the way it works with the INSERM repository

In this model the deposit mechanism, as well as the management of the archive makes the process indistinguishable from that of a local institutional repository. The best analogy is that of the "hosted" institutional repository model provided by services like [EPrints](#), [bepress](#), [Open Repository](#), and probably others. It is simply another way to implement an IR.

All the services provided by HAL are explained in a [booklet](#) on line.

RP: Is HAL OAI-compliant?

HB: Yes, but actually it is more than OAI compliant. In practice this means that if an institutional repository wants HAL to harvest its data it has to do some technical work to enrich its metadata to comply with HAL's requirements. With standard OAI metadata this extra work is not necessary: the metadata are simply exposed to the world for anyone to harvest.

So the HAL method appears to increase the work load on both sides – for the institutional repository, and for HAL. This provides one more deterrent at a time when we are still struggling to get authors to deposit, and to persuade institutions to care whether their researchers deposit.

RP: *In other words, when we look at how HAL works in practice the IR/CR dichotomy is not quite as black and white as it might at first appear. However, let's move on: another thing Laloë said was that "local archives are almost always mediocre, because local pressures exist to put uninteresting stuff in them."*

HB: As I said, Franck does not seem to understand the concept of self-archiving as a *complement* to refereed journal publishing, in order to maximise access to the published article, rather than an alternative to it. What researchers are asked to deposit is a duplicate of their refereed article, not the original (which is published in a refereed journal). When I was running my archive I deposited only articles that had been published, and exact copies. This meant that the contents of the archive were a direct reflection of the quality of the lab's research output.

RP: *You did previously say, however, that unpublished material can be included in institutional repositories. Indeed, discussions on mailing lists like [JISC-Repositories](#) suggest that there is a lot of pressure to archive other "stuff" too, including [nonpeer-reviewed material](#). There is even disagreement over how you [define a peer-reviewed paper](#). Again, perhaps it is not quite as simple as you imply?*

HB: Yes you can archive all you want. And you can show the status of a paper with the metadata. Scientists should be treated as grown-ups: they know that they have to be cautious when using and citing non-refereed articles. I also assume that they are clear-sighted enough to be able to distinguish good articles from everything else.

However, we must not forget that today the most urgent and the most useful task to be undertaken is that of filling archives with the final refereed draft, and since [63%](#) of publishers allow setting access to the deposit as open access immediately, that is perfectly possible. For the remaining 37% of deposits, repositories can implement the "[Request eprint](#)" button.

When all the archives have been filled with "traditional" publications in this manner then we can argue over what constitutes peer-review, and perhaps even change the way it is done, and the way an archive is filled. But first things first!

RP: *Let's discuss the Request eprint button a little later. I am still conscious that, discussions of HAL aside, there is widespread disagreement today not only over what should be deposited in repositories, but what their role and purpose should be in the first place (Although of course these two things are connected). This issue was discussed recently by Andrew Albanese in [Library Journal](#). Like many in the OA movement, you see repositories as a place for depositing copies of papers that have been published in scholarly journals. Others (including perhaps Laloë) see them performing some kind of publishing function too, and some believe that they should play a role in digital preservation. The latter certainly seems to be another function envisaged for HAL. I believe, for instance, that it has been agreed to pay the French scholarly publisher [EDP](#) 60,000 euro to post back copies of journal articles in the repository. Can you say more about that, and whether you see this as a problematic issue for the self-archiving movement?*

HB: Well, since I retired I have been totally cut off from all such decisions, and from French projects on OA. Like you, however, I can get information by hunting on the web. Certainly I was surprised when I found (in a report on HAL) the details of this project, which apparently involves paying for back copies of journals. But I have no idea if it is actually being done or not, now.

That said, my understanding is that HAL was created by Franck with the aim of preserving French research papers, and I would think that archiving for the purposes of preservation is probably within the scope of future French policy.

If you look at the Salençon Report ([rapport Salençon](#)²²), for instance – which was published in May 2008 – you will see that a whole section discusses²³ the necessity of organising the preservation of electronic or paper periodicals, both at a French and at an international level. To that end the Report requests a budget to buy digitised periodicals published before 1995. This was proposed by publishers and has, of course, next to nothing to do with OA and self-archiving.

RP: Can you say more about the Salençon Report, and its likely impact on French research institutions and OA?

HB: The Salençon Report was written in May 2008 for [the General Director of Research and Innovation](#) and the General Director of Higher Education ([enseignement supérieur](#)) who is responsible to the Minister.

It is a report on scientific and technical information, and includes a discussion of the problems arising from the cost of periodicals [the [serials crisis](#)] and the role of publishers. It also discusses the question of archiving. The conclusion includes some recommendations.

What impact it will have on French research institutions is difficult to know. As you will appreciate, a lot of reports are written that end up having little or no consequence.

RP: To finish up on HAL: Hervé Le Crosnier of the [Université de Caen](#) suggested to me that its interface is not very user-friendly. As he put it, "I fear it is not a very intuitive and ergonomic system." Would you agree?

HB: Actually, I have never archived directly in HAL, so it is difficult for me to judge. I started to self-archive in [Cogprints](#) (which uses EPrints software). Now I use the French archive [Archivesic](#) to deposit my publications.

RP: What is ArchiveSic?

HB: ArchiveSic is one of the first EPrints archives, and was set up in 2002. It is dedicated to science communication. Recently (in January 2009), I had the pleasant surprise of seeing that I had made the 1,000th deposit in Archivesic – it was a milestone that was [noted](#) by others too, and was pleasantly symbolic for me!

RP: This goes back to the point we discussed about the way in which institutional repositories can be integrated into HAL I guess. You can deposit in HAL by depositing through the interface of an apparently separate archive like Archivesic?

HB: Sure. When ArchiveSic was integrated into HAL in 2006 I believe it kept the very simplified metadata format of EPrints, so I feel very much at home when I archive in it. The only difficulty I had the first time I used it was in getting the name of my lab entered correctly (that is, in the way that they required it). It was not clear how to do it and I lost a lot of time.

Later, I wanted to self-archive as a retired author, and discovered that when the system was set up retired depositors had not been envisaged! So I was obliged to ask my colleagues at ArchiveSic to implement this feature for me.

Fortunately, I am used to self-archiving and so was not discouraged by these little inconveniences. But if a first-time depositor had encountered similar problems they might have been tempted to say "see you later" after opening the first window.

RP: Which underlines the need for repository software to be as user friendly as possible?

²² A report, delivered on 19th May 2008 to the Director General of Research and Innovation and the Director General of Higher Education in France, analysed the evolution of scientific and technical information (STI). The committee's recommendations encouraged STI to define a strategy at the ministerial level focused on two areas: relations with publishers and open archives.

²³ p.17. Section 3.5

HB: Absolutely. As it is built on EPrints, Cogprints does not insist on you providing metadata indicating your affiliation. Anyway, all of this is to say that I expect Hervé may be right when he says that HAL is not a very intuitive system.

For example, when I looked at page 41 of the HAL guide ([Mode d'emploi de HAL](#)) – which is 72 pages long – that was certainly the impression I formed. But this is all trivial, since depositing a paper itself is not a complicated matter, and any archive's interface can be redesigned to be maximally depositor-friendly. The critical thing is to ensure that the process itself does not frighten off potential depositors to HAL.

Mandates

RP: *Let's move on to mandates. In explaining to me how his views on OA differ from yours Laloë said: "Hélène tends to favour the approach that I call 'Harnad 3' (institutional repositories plus mandate), while I tend to favour archives above institutions such as arXiv (for scientific reasons) and I think that mandates are extremely difficult to obtain from directors. This is not a deep disagreement, just a matter of strategy." Would you agree?*

HB: I wonder what Franck means when he says "Harnad 3". The term that has long been used for Harnad's strategy is the ID/OA mandate. To date [36 directors or rectors](#) in the world have opted to set up institutional archives and to introduce a mandate in order to ensure that those archives are filled. Does Franck really believe that these directors had no "scientific reasons" for doing this? That they did so just for fun? This, I think, is a deep disagreement; certainly it is the deepest disagreement I have with Laloë.

If French directors are worried or hesitant about introducing a mandate they should invite Stevan Harnad to talk to them, and explain the [ID/OA](#) mandate²⁴. And they should invite [Rector Bernard Rentier](#) from the [University of Liege](#) to explain how he succeeded in introducing a mandate at his university.

RP: *The ID/OA mandate goes hand in hand with the so-called Request eprint button you mentioned earlier. Together they constitute a strategy in which researchers are mandated to post all their papers in their institutional repository immediately on publication, regardless of whether or not the publisher has sanctioned self-archiving, and regardless of whether the publisher insists on [embargoed access](#). The mandate specifies, however, that if the publisher does impose any limitations on self-archiving, researchers should only make the bibliographic details OA. In this way, the thinking goes, potential readers will be able to ascertain from the bibliographic details whether a paper is of interest to them and, by hitting the Request eprint button, automatically contact the author and ask him or her to automatically email the paper to them, thereby overcoming the access restrictions.*

HB: Correct. Publishers have no say over internal institutional record-keeping. Embargoed articles can be made *Closed Access* instead of *Open Access*.

RP: *Your belief in the need for mandates is I suspect partly a consequence of the difficulties you faced in trying to fill your own archive at INRA. Referring to it Laloë said to me: "I do not have the impression that much happened (I remember an archive with something like 30 documents)". I believe your archive was later discontinued?*

HB: All perfectly true. I think there were 50 documents when I retired. After I left some of my departmental colleagues continued to fill it for a while, with both recent and old articles, and when they stopped in 2007 there were about 340 articles in it. But if 50 papers seems like a small number remember that until 2004 only 50% of journals had given the green light to [self-archiving](#) post-prints (the final accepted draft).

²⁴ Immediate deposit/optional access

Moreover, what Franck does not add is that it was only a lab repository, and an experiment at that. The aim was to try and create (legally) an archive of *published* articles written by the researchers in my lab. I could have added more if I had included all the theses and reports produced by the lab, but I wanted to draw the world's attention to *published* articles. But as you say, it confirmed my belief in the need for self-archiving mandates.

RP: So how would you present the case for self-archiving mandates both generally, and within the context of France?

HB: Mandates are necessary to fill up repositories. All the [author surveys and outcome studies](#) that have been undertaken worldwide show this to be so, including studies in France: In a [study](#) I did, for instance, I showed that by assisting researchers to archive [Ifremer](#) has managed to capture 80% of recently published papers in the institution's repository, [Archimer](#). By contrast HAL has captured only 10-15 % of French research output.

RP: Are you saying that Ifremer has introduced a [mandate](#)? It is obligatory for Ifremer researchers to self-archive?

HB: A mandate can be perceived in two ways. It can have a light meaning: it is part of the institution's mission to self-archive; or it can have a strong meaning: it is a requirement. Ifremer does not have a requirement-mandate, but a mission-mandate: it has dedicated staff whose mission it is to archive, by proxy, the publications of the institution's scientists.

RP: Which goes to our earlier discussion about mediated access perhaps? But tell me: What is the overall situation in France with regard to mandates today: How many have been introduced and how effective are they proving? [Hervé Le Crosnier](#) said to me: "Hélène is retired, but it seems she won her fight, and OA is now 'mandatory' in most French scientific organisations". I'm not sure that's correct is it?

HB: Actually [ROARMAP](#) indicates that only two French mandates have been introduced: one departmental mandate at the [Laboratoire de Psychologie et Neurosciences Cognitives](#), and one funder mandate at the Agence Nationale de la recherche ([ANR](#)). Hervé le Crosnier may have a different definition of mandate: for example the word "demande" is a polite expression sometimes used in administrative matters. However, if behind "demande" there is neither carrot nor stick — I would expect that some "demandes" will wait a long time before bearing much fruit.

RP: Do you expect many mandates to be introduced in France in the near term?

HB: In 2006, after my retirement, I suggested to the Director of Scientific communication at INRA that she look at the possibility of introducing a mandate at INRA. As a result, she asked two colleagues to write a report on the matter.

The [report](#) has been well received by all French institutions, and even translated into English. As of today, however, no decision to introduce a mandate has been taken. In the case of INRA, I hope that it is just waiting for PRODINRA to be launched before introducing a mandate.

RP: The report recommended introducing mandates did it?

HB: Yes it did. It recommended mandates in the sense that only papers that had been self-archived would be counted when it comes to evaluating researchers for career advancement.

I also know that some form of mandate has been considered at other French research institutions, certainly at INSERM.

RP: Yes I was told by Nathalie Duchange, who is a member of the HAL-INSERM team, that a mandate was indeed proposed at INSERM. However, plans to introduce it stalled following the departure of its former director [Christian Bréchet](#). Duchange said: "Christian Bréchet had the intention of introducing a self-archiving mandate indirectly through evaluation: only articles that had been deposited in HAL would have been taken into account during evaluation."

Currently there is no indication that the new director will put this policy in place." Meanwhile, the deposit rate at INSERM is just 20%.

HB: OK. In discussing mandates we should also mention the fact that, in order to help fill HAL, in July 2006 a [protocole d'accord](#)²⁵ was signed by all French research institutions, universities and [grandes écoles](#). It was a two-year agreement which ended last year.

RP: As I understand it, this is a voluntary agreement rather than a mandate; one moreover that has still not managed to achieve a deposit rate higher than 10-15%. So can we expect to see any mandates introduced in France in the near future?

HB: After the experiment of the *protocole d'accord* I hope there will be a real change in policy. However, I don't know what is being prepared at a national level right now.

RP: What do you envisage will emerge?

HB: I can tell you that the Salençon report says this about HAL: "*La structure de pilotage de HAL doit être clarifiée, afin d'attirer la production d'un plus grand nombre. L'objectif de drainer 75% et non 10-15% (chiffre actuel) de la production scientifique française doit être affiché.*"²⁶

And in the conclusion the [report](#) talks of "encouraging publishing in HAL".²⁷ To me, however, this suggests that the concept of depositing a supplemental copy has still not been fully understood at higher levels. And unless it is understood that all that is required is to deposit a duplicate of published articles I doubt we will see a positive outcome.

On the other hand – in the wake of all the talk about mandates – interest in self-archiving is growing, and I know that some new institutions are keen to try and increase the deposit rate of their research in HAL in 2009. I am also hopeful that we will soon see mandates exploding like time bombs across France, especially now that mandates are beginning to take off in the States.

RP: What are your views on the debate about licensing e.g. whether mandates should (like the [Harvard](#) and [MIT](#) mandates) also aim to secure the necessary rights to allow the institution to archive papers on behalf of researchers, or whether it is enough to mandate the self-archiving of supplemental copies? Alternatively, some argue that authors should insist on publishers using Creative Commons ([CC](#)) licences when publishing scholarly papers?

HB: You know physicists began archiving their publications in the 1990s without any preoccupation with copyright issues, and in 1999 [APS](#) changed its licence to allow them to continue to self-archive.

Certainly we need to change the perception inherent in the copyright system that knowledge is property. Science is a commons to be shared. But the question is, who in 2009 will be first to adapt to the changes that the Internet makes inevitable: the lawyers or the scientists?

Creative Commons licences are a good alternative to traditional all-rights-reserved copyright and are very appropriate to the Web, but there are still only [70 mandates](#) in the world and it is not at all clear that agreement is easier or more likely for a CC plus deposit mandate than it is for just a deposit mandate (and deposit is sufficient in any case).

RP: So you don't see copyright as an issue?

²⁵ French national protocol for establishing a self-archiving policy

²⁶ "HAL's direction needs to be clarified in order to attract a larger number of deposits. The goal of capturing 75% rather than (the current) 10-15% of French scientific output should be publicised."

²⁷ "*Les chercheurs doivent être incités, par une communication adéquate, à publier sur HAL*" p. 30 (Researchers must be encouraged, through effective communication, to publish in HAL.)

HB: I believe that the progress of science should not be allowed to be held up by unnecessary caution. Today 63% of journals sanction self-archiving. That is enough to ensure that an ID/OA mandate (combined with a Request eprint button) will work.

An author providing an individual eprint of his own work for research use is no more copyright circumvention (in the legal sense) than authors providing paper reprints is: it is [fair dealing](#).

The problem with HAL, of course, is that the Request eprint button has not yet been implemented. As I wrote in [my article](#), in order to enable 100% OA with HAL it will be necessary to introduce an ID/OA mandate, which in turn will require that HAL has a Request eprint button.

This reminds us that any policy decided by the director of a central repository is imposed on all other research institutions. As such, it gives individual research institutions no freedom to make choices suited to their own archive's technical functionality.

RP: *We discussed the fact that the French research environment is very hierarchical, and that this made it very difficult for you to galvanise INRA into action. I'm conscious, however, that INRA has nevertheless ploughed a slightly more independent furrow than other research institutions so far as OA is concerned. In your [2008 paper](#), for instance, you point out that although it signed the 2006 protocole d'accord (which was intended to develop HAL as a national archive) INRA has been developing its own institutional repository, PRODINRA. What do we learn from that?*

HB: I assume that INRA felt it was responsible enough and mighty enough to be able to follow its own path so far as archiving is concerned, and without depending on another institution. So INRA understood the benefits of HAL as a national repository for gathering French output, but did not feel that it had to deposit directly in HAL.

RP: *Given that there is a national repository like HAL, other research institutions might presumably be expected to be reluctant to spend money on building their own.*

HB: Cost is not an issue. If French universities or other institutions were to conduct a study into the costs of creating an institutional archive they would discover that it is not an expensive process.

Leslie Carr [estimated](#) that the hardware costs for an archive using EPrints are about \$600 a year. And since the software is free, and set-up and maintenance costs can be absorbed by existing personnel, the total cost is minimal.

If they have the staff for the maintenance, individual institutional archives can be perfectly autonomous, and they can export their output to HAL – which will continue to be the French national archive.

The French context

RP: *We've talked a lot about France of course, but I want to try and get more of a feel for the specific French context for OA. In your [2008 paper](#) you said that as late as 2005 only two French participants attended the [Fourth OAI Workshop](#) (as compared to 17 from Belgium), but that by [2007](#) the trend had been reversed. At the same time, however, I am conscious that HAL was established as early as 2002. How do you explain this somewhat contradictory picture?*

HB: I can only offer some possible explanations. One possibility is that the OA message has only recently begun to get through in France. And this has perhaps been triggered by the fact that institutional repositories are beginning to prevail over central repositories in other countries; and by the fact that OA mandates are growing around the world.

RP: *I was thinking more about the contrast between a country that was pioneering enough to have created a national OA archive over seven years ago, but that has subsequently shown a surprising lack of interest in OA. Perhaps the explanation lies in the fact that HAL was*

modelled on arXiv, which grew out of a very specific preprint culture amongst physicists, rather than a desire for OA per se?

HB: Yes, as we said, the conception of HAL was undoubtedly heavily influenced by the physics preprint culture. But we should also note that in order to promote a new product it is necessary to publicise it, and there was little or no publicity for HAL, or for OA, in France for many years

RP: How would you describe France's take-up of OA as compared to other Western countries?

HB: As we said, HAL was created over seven years ago, and following the signing of the *protocole d'accord* in July 2006, all French researchers were supposed to deposit their publications in HAL. That would seem to suggest that we were ahead of other countries, and yet today we are not: In spite of our technical lead, HAL has achieved the global default deposit rate of only 10-15 %.

RP: So the puzzle is that although France has long had the technology in place, it has so far failed to exploit that technology effectively. On the other hand, a [10-15% spontaneous deposit rate](#) is a typical outcome where no mandate has been introduced in most, if not all, countries. I just wonder if there is a particular barrier in France beyond that.

HB: I think so: the problem is that there is a "wait-and-see attitude"; and this attitude is more deeply embedded in French research institutions than in other western countries, most of whom are busy creating institutional repositories.

This wait-and-see attitude is partly a consequence of the fact that librarians do not feel empowered to promote OA in France. We know that informing researchers is vital if we want to encourage self-archiving; and we know that librarians need to help researchers to self-archive. But in France the majority of librarians don't feel committed to, or engaged with, the idea of a central archive like HAL. It's not their baby.

RP: This suggests that another consequence of centralisation is that it leads to a lack of commitment within research institutions, with key intermediaries like librarians feeling very little sense of ownership?

HB: It seems so. In addition, there are too few conferences in France explaining what is at stake at a national level. There have been local conferences organised by the main French leaders – Franck Laloë at CNRS, [Thierry Chanier](#) at the [Université de Franche-Comté](#), and Nicole Pinhas at INSERM – but we need to create more of a snowball effect in other institutions and universities in France.

If you look at Peter Suber's web page of past conferences²⁸, for instance, you will see that everywhere in the world there have, for years now, been hundreds of international OA conferences. In the case of some countries – e.g. the UK, Germany, and Australia – you will see that they have been very active, and you will note that there have been several conferences a year in these countries, in some cases even several conferences a month.

In France, by contrast, the last conference appears to have been the one held in La Rochelle in 2004 – as if nothing significant has changed since that conference. But we need conferences in order to explain what is at stake.

RP: What is at stake?

HB: What is at stake is that if France wants to be in the research vanguard, it must embrace OA quickly, before all the other countries pull ahead.

My view is that as the first French universities see the deposit rate in their repositories approach 100% they will understand the [OA citation advantage](#), and start to benefit from all the other [advantages provided by OA](#). For instance, they will start to see themselves ranked among the

²⁸ [Conferences and Workshops Related to The Open Access Movement](#).

highest in the world by the [G-factor international university ranking](#) and other impact-sensitive metrics.

RP: *In thinking about mandates, and the role of librarians, I am struck by one thing: You say that it is not possible to fill archives without a mandate. And yet by doing the depositing for researchers librarians at Ifremer have managed to achieve an 80% fill rate. Does this not suggest that mandates may not be essential after all? Perhaps all that is needed is for librarians to be more proactive?*

HB: Librarians must certainly be more proactive. But they do not have enough time to self-archive by proxy. As I said, they can help the researcher in the administrative tasks associated with self-archiving, but they have too much work to do to do the depositing as well. For years now when a documentalist or librarian left at INRA their post has not been renewed, and yet the workload remains practically the same.

With the current economic crisis you can be sure that it will be impossible to provide dedicated staff for self-archiving in research institutions and universities, both in France and probably in the rest of the world.

I would remind you that self-archiving is sufficiently easy that researchers can quickly acquire the necessary skills to do it themselves, and in the process they will develop a kind of reflex response to do it immediately after hearing that their paper has been accepted for publication: the deposit process need then take no more than about 10 minutes once or twice a year.

RP: *Ok, so the Ifremer experience is unlikely to be replicated across institutions. Thinking still about the French experience, I wonder if concern about the importance and status of the French language might also play a part in the slow progress of OA in France.*

HB: Well, in the humanities it is necessary to continue publishing in the French language (it is easier to express and elaborate one's ideas and findings in one's native language) and therefore to continue publishing in French periodicals.

Since French publishers are reluctant to allow researchers to self-archive this does have implications. As Thierry Chanier pointed out [in a blog post](#), it means that French publications will not be harvested, and so will not be included in the various new scientometric measurement tools being developed to evaluate research quality.

In all other fields, however, scientists now generally publish in international periodicals, and thus in English. And since 63% of these journals endorse self-archiving, French scientists do not have the same concerns.

By the way, the native-language issue, and the need for translation, is not a specifically French issue, and the problem this poses for the humanities and social sciences was discussed at a [symposium](#) in Florence recently.

RP: *Jean-Michel Salaün said to me: "To understand the French specificities you have to understand the way that research is organised in France, and the role played by CNRS and the other big laboratories (INSERM, CEA, INRA, INRIA etc.) since the end of the Second World War. This is very different from the way it works in other countries, especially in terms of the relationship of these organisations to universities." We talked about the hierarchical nature of these institutions but can you expand on this issue a little?*

HB: Yes. France has a lot of research institutions besides the universities. Some of these research institutions are very important, and have thousands of researchers. CNRS, for instance, has 12,000 researchers, INSERM has 6,000 and INRA has 4,000.

Other institutions may not be as big, but they nevertheless still employ hundreds of researchers – places like the [Institut Pasteur](#), [Ifremer](#) etc.

Then there are about 85 universities, and 30 *grandes écoles* which are special because they are outside the framework of the universities — that is, entrance to them is competitive, whereas universities must accept any candidate from its region who holds a [Baccalauréat](#). For this reason the *grandes écoles* are considered more prestigious.

By the way, Franck Laloë belongs to one of the most prestigious *grandes écoles* in physics: the [Ecole Normale Supérieure](#), which is one of the cradles of French Nobel laureates.

RP: Are there any other implications for OA arising from the way in which researchers in France tend to be concentrated in large research institutes?

HB: As we discussed, this increases the levels of hierarchy, and therefore makes it harder for the General Director to see what is happening down in the labs. The benefits of OA were seen long ago by the upper management of these institutions, yet OA has never been seen as a top priority. For example, INRA didn't sign the [Berlin Declaration](#) until July 2004, nine months later than other French institutions like INSERM and CNRS.

On the other hand, centralism can have benefits, since the impact of decisions can be rapid. This could see OA spreading very quickly in France — if the right decision is made.

So the frustrating thing is that if there had been a real will to mandate OA in France we would, in less than a year, have become the OA leaders of the world. Thanks to the centralism of HAL we have a repository available to receive the entire French research output. The task is to fill it!

There is, by the way, a proposal aimed at reforming French universities, along with CNRS. That could present an opportunity for OA, although these changes are being contested by the scientific community; and again, of course, OA is not a priority.

RP: What sort of reform is being considered?

HB: The aim of the government reform is to give greater autonomy to universities. This autonomy would reinforce the powers of (university) presidents, who are themselves elected by their peers. The government's goal is to make it easier to assess research and researcher productivity.

At the moment the policy concerning CNRS is not yet clear, but it is certain that CNRS will be subdivided into more or less autonomous institutions.

Additionally the decree (that gave rise to the current crisis) proposes transferring to university presidents the right to make promotion decisions for faculty (teachers and researchers). At the moment this is decided by the National Council of Universities ([CNU](#)), which consists of faculty chosen by the government.

RP: So universities would become solely responsible for promoting faculty?

HB: The CNUs are organised by discipline. Today the CNU for each discipline is composed in part of teacher/researcher members, elected by their peers at the national level, and in part by members recruited from the same institution. They are the ones who manage promotions, advancement, research, bonuses, sabbaticals etc. partly because each institution also has a quota of promotions (provided largely by the Ministry) that it uses at its discretion. In the new system, almost all of this will be devolved to the local level.

RP: A key issue presumably will be how universities evaluate researchers. Might this help progress OA?

HB: Sure. The important point is that OA enhances researcher productivity and impact and, as Chanier pointed out, it also provides new and richer metrics of research productivity and impact.

RP: You are referring again to [OA Scientometrics](#) here. The point is that if researchers can see that by embracing OA they can improve their chances of promotion and/or tenure (since the

improved metrics enabled by OA are better able to evaluate research quality) they will be more inclined to do so?

HB: Yes. So, for instance, a French agency for the evaluation of university research and teaching ([AERES](#)) has been created and charged with assessing research teams (including, in social science and humanities, classifying journals in order to classify researchers as "publishing" and "nonpublishing").

As part of their (four-year) research assessment by the French Ministry, universities can choose between two different pieces of software. And one of these does computations on an institution's publications on the basis of deposits in HAL (note that this does not take account of whether or not the researchers have deposited the full text: it is based only on the metadata, because in the old system, still in effect, you can deposit a publication's metadata without needing to deposit the full text).

At the same time French laboratories are beginning to understand that everything needs to be declared in HAL.

Europe

RP: Let's pull out to the wider European stage for a minute. You mentioned earlier that you are convenor for the [EuroScience Working Group on Science Publishing](#). Do you see that as another venue for promoting OA, and not just in France but across the whole of Europe?

HB: I am very grateful to those French members of EuroScience who discovered my work on OA by "googling" on the Web. Evidently they concluded that I could help the European scientific community to [spread the word](#).

As I said earlier, after finding my PowerPoint on the Web they invited me to give a talk on OA at [ESOF in Stockholm](#) in 2004. And after my talk I was co-opted to be convenor of the Working Group. Since the EuroScience members who invited me clearly knew of my involvement in OA I would have been passing up an opportunity had I not treated it as another important venue where I could express my OA convictions. So yes, I have used the Working Group as a channel for promoting OA.

Recently, for instance, I was invited, under the auspices of the EuroScience working group, to participate in a workshop called, [Copyright Regulation in Europe – An Enabling or Disabling Factor for Science Communication](#).²⁹ I replied to the invitation by saying that I have neither competence nor enthusiasm to talk about copyright reform, but that I could talk about archiving instead. They agreed to that.

RP: What was your message?

HB: My message was simple and straightforward: we do not have to wait for copyright reform to achieve OA; all we have to do is start archiving today.

I would stress, however, that there are representatives of all the different flavours of OA (archiving, publishing, copyright reform etc.) within the EuroScience working group. And as I do, they all express their ideas and opinions on our discussion list, on our blog and outside the working group.

But to go back to your original question: Our working group is now very committed to OA. However, I am totally open to newcomers asking for help to develop ideas or projects within EuroScience that are unrelated to OA.

This happened recently, when a young German scientist sent me a message saying that he wanted to promote the use of digital identifiers for scientific authors. I invited him to express his ideas on

²⁹ Berlin November 14-15th 2008

our forum, and this led to an [article](#) in the [Euroscientist](#) newsletter which he co-published with two other members of the Working Group.

RP: *Thierry Chanier told me that you contribute to an OA blog. That would be the EuroScience blog you mentioned would it?*

HB: In 2007 our working group started a European blog [Opening Scientific Communication](#). Personally I don't contribute very often, but I encourage members to express their ideas there, often after a discussion on our forum. [EuroScience](#) is the "Voice of science", and European scientists need to be heard in this way.

RP: *What role, if any, do you see for [EurOpenScholar](#) in pushing OA at the European level?*

HB: It is precisely what we need: In federating all European universities, and providing an [example](#), the [Université of Liège's](#) Rector [Bernard Rentier](#) will help the leaders of all European universities to understand what OA is, and how easy it is to achieve. I found his last post on the success of the mandate he has introduced requiring researchers to deposit in the [ORBi](#) archive entirely [convincing](#).

RP: *We should maybe add that EurOpenScholar is being reinvented as EnablingOpenScholarship (EOS) – a process that will see it become international in scope. This brings me to another point: I sometimes feel that OA is primarily viewed as an Anglo-American phenomenon, which it clearly is not. In a [paper](#) you gave at the 2008 [ENCES European Workshop](#), for instance, you mentioned Harnad's 1994 [Subversive Proposal](#) as being one of the early milestones in the development of OA. But you also mentioned something called the [Halle Meeting](#), which took place in 1994 too. At that meeting, you said, the German theoretical physicist [Eberhard Hilf](#) declared that all journals "Should be free for all to read." This suggests that some European scientists were calling for OA at the very beginning of the movement if not before. Can you say something about the Halle Meeting, and (assuming you agree) why the OA movement is (erroneously it seems) viewed as mainly an Anglo-American phenomenon?*

HB: I think that the Halle Meeting stayed in the domain of mathematics and physics alone, and as a result the German movement remained in the shadow of ArXiv.

But if the OA movement is viewed as an Anglo-American phenomenon it is because it has been led mainly by Stevan Harnad, who is attached to the UK's [University of Southampton](#) and Canada's [Université du Québec à Montréal](#); and by Peter Suber, who is attached to [Earlham College](#) in Indiana.

The important thing that Stevan realised was that self-archiving is not only relevant to physicists, but can be transposed to all disciplines, and so he has put all his energy into spreading green OA to all fields of research. We all know of Stevan's ability to debate the issues with sceptics until he convinces them!

This reminds me that I wanted to take this opportunity to underscore the important role that he has played – with the help of Southampton University's [ECS](#) – in providing the necessary tools to support OA. Every time the need arose – I'm thinking, for instance, of things like EPrints, DemoPrints, the Request eprint button etc. – a new tool was developed to meet that need.

For his part, Peter Suber has played a key role with his [blog](#), and his [SPARC Open Access Newsletter](#). Peter's writings have become the key reference tools for the worldwide OA community.

Key events

RP: What would you say were the key events and change points in the development of OA, both in general and in the context of France specifically?

HB: I would say that the key events all occurred between 2000 and 2001. During that two-year period we saw the creation of EPrints, the founding of BioMed Central and, in France, the launch of HAL. In addition, of course, a hugely important development came a little later, when self-archiving mandates began to be introduced by institutions and research funders.

RP: We've probably said all we need to say about HAL. But why do you think these other two developments were so important?

HB: The impact of EPrints was not immediate, of course, and it was not as visible as the launch of BioMed Central. However, as archiving becomes better understood I believe the creation of EPrints will increasingly be viewed as the masterstroke of the OA movement.

RP: There are now a number of other repository software solutions available too – [DSpace](#) and [Fedora](#) for instance.

HB: Sure, but EPrints remains the solution that best fits the needs of researchers in terms of functionality – both from a technical and a psychological point of view. Consequently EPrints software is the solution that is most likely to encourage widespread self-archiving in the world. To understand why just take a look at the tutorial [DemoPrints](#) and consider the power of the Request eprint button – which, as we discussed, is an important feature of the software.

RP: Given what you said about author-pays, why do you say that the launch of BioMed Central was so important?

HB: BioMed Central allowed us to remove the brakes, and to start freeing scientific communication in a field other than physics.

RP: This goes to the point we discussed about self-archiving having taken place in arXiv since 1991, long before anyone was talking about Open Access. For this reason what is now known as OA was long viewed as an activity of relevance to physicists alone – until, that is, Harnad pointed out that it could (and should) be generalised to all disciplines?

HB: Exactly. On the other hand, of course, the success of BioMed Central had the unfortunate side-effect of encouraging people to think that OA is synonymous with OA publishing. Nevertheless, its success was an important first step in helping OA to gain mindshare.

One problem in the context of France is that even though BioMed Central provides an opportunity for French biologists to publish in an OA journal, French research institutions still favour traditional journals with higher impact factors when evaluating researchers.

RP: Which is another reason to prioritise Green OA perhaps: French biologists can continue to publish in journals with a high impact factor, and then self-archive them.

HB: Precisely. And although the impact factor of some of Biomed Central's 200 journals is growing, they do not provide sufficient coverage to cater for all the specialised fields of biomedicine. For this reason there is an "obligation" on researchers to continue publishing in Green journals.

To give you an example: In 1994 a study carried out in our lab revealed that during the period 1982 to 1992 our 60 researchers published in 98 different peer-reviewed journals. This included only those journals in which at least two articles were published; there were also many other periodicals that were used only once.

Moreover, as we discussed, I am not convinced that the author-pays model is a long-term solution for OA.

RP: Yes, and you suggested that part of the problem is that governments will be reluctant to fund OA publishing. What model do you see for Gold journals then?

HB: Each field of research will find its own solution, and in some fields we will probably see a mix of solutions (sponsorship, advertising, subsidies etc.). After all, the costs of publication are very different in each discipline, and research organisations are different in different countries. In France, with our large institutions, we should be able to promote Gold journals more easily than other countries are able to.

I can give you one example of how a Gold journal was funded that impressed me. In 2002, at [the second OAI workshop](#) at CERN, [Ulf Rehman](#) explained how in 1996 he created a Gold journal in mathematics called [Documenta Mathematica](#). He also wrote [an article](#) about it in which he outlines how the periodical is managed and how they even made money from it!

RP: How did they make money?

HB: In 1998 the International Congress of Mathematicians ([ICM'98](#)) was organised by the German Mathematical Society ([DMV](#)). This Congress takes place every four years at different places around the world and is "the" event for all mathematicians worldwide, bringing them together from many countries.

In 1998 the electronic production capabilities of *Documenta Mathematica* were used to produce the proceedings of the ICM'98 (as extra volumes) in a three volume edition consisting of 2,400 pages.

For this purpose the Congress organisers provided 25,000 euro. The actual production costs for publishing the volumes were 1,250 euro, and sales were 6,500 euro. The end result, once the combined earnings/savings were calculated and the costs recovered, was a net contribution to the journal of 30,250 euro.

RP: How do you see OA developing in the future, both in general and in France specifically? Might France take a very different route to the rest of the world?

HB: [I have been advocating for OA for years](#), and sometimes I have felt discouraged. But today we can see a growing number of mandates worldwide, and I expect to see OA archiving to explode soon. Minds are ready, even in France!

I heard somewhere that a new idea takes 10 years to be adopted: OAI, EPrints, and HAL will all be celebrating their tenth birthday in 2010. At that point I expect France to be just a node in the global OA network!

Looking Back

RP: I want to finish by talking a little about your specific role in the OA movement, and the way in which you have approached the task of advocating for it. [Jean-Paul Ducasse](#), who in 2002 created the first French university archive (at the Université de Lyon-2, Lumière) said to me: "Hélène is stubborn, in the good sense of the word, and never gives up despite setbacks. France is a country where research institutions operate on a hierarchical principle, and are centralised. It took perseverance for Hélène to raise awareness of OA issues."³⁰ Would you agree with that?

³⁰ Hélène est obstinée, au bon sens du terme, et n'a jamais lâché prise malgré les déconvenues. La France est un pays où les institutions de recherches fonctionnent sur le principe du respect de la hiérarchie et de la centralisation. Il a fallu de la persévérance à Hélène pour arriver à faire prendre conscience des véritables enjeux à une direction.

HB: I would say that this interview has demonstrated that the OA message was clearly understood by librarians, by the scientists around me, and by my head of department. Any misunderstandings about the urgency of the need for change comes from the higher levels of the hierarchy of French research institutions. They are too far from the real needs of the researchers, and probably not very well informed.

You know every researcher needs to be alerted to the newest article in his field. To do this they can create a "[veille technologique](#)"³¹ – which enhances their personal productivity.

In 2000, in order to update my web page I started doing this kind of "monitoring" on the topic of OA, and INIST is doing the same thing with its web page today.

What seems most curious to me is that nobody within the higher ranks of French research institutions seems to have been asked to report on new developments in the global scholarly communication system. If these large institutions wanted to progress, and stay abreast of other countries, then doing so would seem to be an obvious way of helping them orient French research strategy.

RP: *I note that you have successfully deflected my question about you into a discussion about SDIs! Let me try a different approach: Another comment frequently made about you is that you are too modest. Hervé Le Crosnier, for instance, commented: "Hélène is modest. You have to push her to say that she was not only someone who was an evangelist for OA, but that she concretely worked on this in her own institution." Do you think you always do yourself justice?*

HB: My goal is to put OA in the spotlight, not myself. I was recognised as an efficient archivangelist by some people in France, mainly librarians. And a few months before my retirement even "the scientific committee of evaluation for INRA" – composed of (anonymous) scientists – wrote a eulogistic commentary on my pioneering work for OA.

The way I see it is that I worked for scientists, and if they have come to appreciate my work I ask for nothing more.

RP: *As we both know, there is constant debate within the movement about the best way of achieving OA, and often quite heated disagreement. INIST's Francis André commented to me: "Hélène is definitely an activist and fruitful 'agitator of ideas' who has been very useful for the OA movement, even if she sometimes could appear partial and not fully objective". Do you agree that you have not always been objective, perhaps due to the stubbornness that Ducasse claims is characteristic of you? Or is it simply that André has a different view of what is required?*

HB: I have chosen to promote and defend the need for mandated OA because I think that it is the only way to accelerate OA. In defending this view with some passion I am of course liable to be judged as not being fully objective by all those who are not convinced of the necessity for mandates.

Yes, I am an "archivangelist" and, as the [message to Laodicea](#) puts it, I would prefer to be judged cold or hot rather than lukewarm.

RP: *That sounds like an excellent note on which to end. Thank you very much for your time.*

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³¹ An alerting service, or [SDI](#).



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