Last week Patrick Dunleavy discussed his experience (http://blogs.lse.ac.uk/impactofsocialsciences/2012/08/20/organisation-research-library-mendeley-convert/)of transferring his personal research library onto the Mendeley software package. Today **Sierra Williams** *(http://blogs.lse.ac.uk/impactofsocialsciences/blog-contributors/#Sierra_Williams)talks to Mendeley co-founder* **Victor Henning** *about the company's new approach to enhancing the impacts and visibility of academic work.*

Some estimates suggest that there are around 150 million 'knowledge workers' in the world today – that is, people who regularly undertake or utilize academic research in their daily jobs. Set against that number, how far has Mendeley come along the road that you and your co-founders envisaged for it?

We're just approaching 2 million users for Mendeley.com (http://www.mendeley.com/). Between them they have uploaded some 270 million documents to our databases, and we are currently processing 500,000 to 800,000 new documents every day, so we are growing our server use very rapidly. I think your knowledge workers number is about right – worldwide we estimate that there are around 80 million students; 18 million academics, researchers and PhD students; and large numbers of people working in business, commercial research, media, professions and government who are deeply involved with academic work.

Academics are cautious people who look a long way ahead. If they are going to invest time and effort uploading their research libraries to Mendeley they'll want to know that you will have a stable 'offer' for the long term. So tell us about Mendeley as a company.

We first began to work on the idea that would turn into Mendeley less than five years ago, when I was a Ph.D. student at Bauhaus-University of Weimar, my co-founder Jan was at theUniversityofCologne, both inGermany, and my third co-founder Paul was a freelance web developer inLondon. We developed a prototype of the software and got some angel investment from Stefan Glänzer – then chairman of the music service Last.fm – which enabled us to release out first in-house beta in early 2009. Subsequently, we've attracted additional investment from the Estonian co-founders of Skype and from Access Industries, the investment arm of Len Blavatnik (the American/Russian billionaire) – so all our investors are highly experienced in this sector. We are now based in London – a very dynamic area (http://www.independent.co.uk/news/business/analysis-and-features/londons-golden-for-foreign-firms-8007237.htm) at present for innovative IT companies – and we have a staff of 36 people, with a small New York office.

We are growing very rapidly both our user-base and our number of documents. I mentioned that our users have 270 million files uploaded now, and when you de-duplicate that number, we are managing a total document store of 65 million documents. That compares favourably with Thomson Reuters' Web of Knowledge, which has 49 million, and Scopus which has 47 million – and we're still growing exponentially.

Our basic service, as you know, is free for the first one gigabyte of information that users upload, and that also allows you to work in groups with three colleagues on a further one gigabytes of documents. But we are now rolling out paid-for (but still low cost) premium accounts that give users a range of expanded options for document storage as their data storage needs grow, and team packages for collaborations of up to 50 people in labs and departments. With tens of thousands of paying users, it's proven to be a good business model already.

The public image of Mendeley up to now has been something used primarily by IT folks and medical researchers. Who are the current users and is the service just as relevant for social sciences and humanities?

Looking at the disciplinary background of our 2 million existing users, it is true that the largest current group is bio-medical sciences with roughly 30%, followed by engineering, IT and computer sciences on 20%. But social sciences and humanities (including business and law within that) are also at 20%,

somewhat more than the natural sciences on 15%. Our biggest users are major research universities like Cambridge, Oxford, MIT, Stanford, Michigan, Harvard, Imperial and UCL. Social sciences is rapidly growing – for instance we already have 700 users at LSE.

Mendeley is designed for all disciplines, and my own background was in business research – I did my PhD on the role of emotions in consumer decision making. The problems of finding and accessing the right research, sifting out what is most valuable and then linking academic research to the maximum number of users in business, the professions and government are general ones, equally applicable in all disciplines.

Currently Mendeley distinguishes the following categories of outputs:

'Black' outputs, i.e. formally published literature and products	▪ Book ▪ Book Section ▪ Encyclopaedic article ▪ Journal article ▪ Working paper ▪ Magazine article ▪ Newspaper article ▪ Television broadcast ▪ Film ▪ Patent
'Grey' literature, i.e. not formally published outputs	▪ Report ▪ Conference proceedings ▪ Bill ▪ Statute ▪ Hearing ▪ Case ▪ Web page ▪ Computer program ▪ Generic

This list looks a bit traditional. For example, what about multi-author blogs (like this one), personal blogs, online presentations, videos or 'YouTube' clips – all of which are going to be frequently cited in social sciences and the humanities? (The MLA has recently issued guidance (http://www.mla.org/style/handbook_faq/cite_a_tweet)on how to reference Tweets). Are you in danger of being an advanced Web package that doesn't cater for Web 2.0 and social media outputs?

Good question – we are working on this aspect already. With databases as large as ours, making changes takes a lot of planning, purely on a technical level. But you can rest assured that we are determined to always meet the evolving needs of the scholarly community.

Finally, you've just launched Mendeley Institutional Edition (http://www.swets.com/mendeley-institutional-edition)(MIE) that is targeted at universities and other large research-producers. What is the core idea here?

One of the core ideas behind Mendeley has always been to use the huge amounts of data our users are uploading to make science more open and transparent. The Mendeley Institutional Edition creates a data dashboard on an institutional level: it tells a university exactly which journals are being read by their researchers, which lets librarians optimize their journal subscriptions and provide a better service to their researchers. It also enables the university to track their research output – what journals are their faculty publishing in, and how is this research being taken up in the rest of academia and in the outside world? Moreover, when a university subscribes to the Mendeley Institutional Edition, all of their students and faculty get upgraded to Mendeley premium accounts – we have now started to roll this out at places like Stanford University (http://librarypreview.stanford.edu/news/2012/08/join-us-road-mendeley-workshop-library-staff).

In general, it means that there is now a way to track the impact of academic research in real time, based on what almost two million academics around the globe are reading and researching right now, months or years before citation data becomes available from other proprietary alternatives. Interested readers can find some more information in the recent announcement (http://blog.mendeley.com/design-research-

tools/leading-universities-adopt-mendeley-data-to-accelerate-research-analytics-by-3-years/) on our blog.

With Jan Reichelt and Paul Föckler, **Victor Henning** *co-founded Mendeley.com (http://www.mendeley.com/) in November 2007 and released the first beta version of the program in January 2009.*

Note: This article gives the views of the author(s), and not the position of the Impact of Social Sciences blog, nor of the London School of Economics.

Related posts:

1. Organizing your personal research library and compiling bibliographies: I was an EndNote refusenik, but now I'm a Mendeley convert (http://blogs.lse.ac.uk/impactofsocialsciences/2012/08/20/organisation-research-library-mendeley-convert/)

2. We must make the digital world central to sociological research (http://blogs.lse.ac.uk/impactofsocialsciences/2012/07/18/what-is-digital-sociology/)

3. 'Good uni: Quality nightlife'. How harvesting tweets opens up a new world of valuable qualitative data (http://blogs.lse.ac.uk/impactofsocialsciences/2012/07/05/harvest-tweets-valuable-qualitative-data/)

4. Five minutes with Patrick Dunleavy and Chris Gilson: "Blogging is quite simply, one of the most important things that an academic should be doing right now". (http://blogs.lse.ac.uk/impactofsocialsciences/2012/02/24/five-minutes-patrick-dunleavy-chris-gilson/)

5. Five Minutes with Nicholas Lemann: "Incorporating academic research adds value to the social mission of journalism." (http://blogs.lse.ac.uk/impactofsocialsciences/2011/12/30/5-minutes-with-nicholas-lemann/)