

## **A jump to hyperspace: librarians in the times of social research sharing**

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## **Abstract:**

*The international debate on the Person-to-Person sharing of scientific articles through the internet (social networks such as ResearchGate, Academia.edu, Mendeley) compelled an in-depth reflection in the Italian NILDE librarian community, in order to evaluate the patrons' changes in their search habits. How will these changes affect librarians' work?*

*In the last four year, an exam on document delivery transactions has outlined a different trend that closely reflects requesting patrons' subject area; the need of a quick and immediate access to scientific articles is strongly expressed by those in the science disciplines, where the number of document delivery requests has been decreased remarkably. Meanwhile among those in the social sciences, the speed is not the key factor and the number of document delivery requests is steadily growing.*

*To better understand these trends, a national survey has been carried out in February 2016 among NILDE users and its goal was to investigate how users operate to access their wished articles or extracts of books. The presentation will show the survey results, analyze the trends and try to provide a best practice for the libraries to act upon. Through a data driven investigation, NILDE Librarians Committee is going to master new skills and means to fulfil most demanding patron's requirements.*

**Keywords:** interlending, interlibrary loan, resource sharing, survey, library patrons

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## **Introduction**

NILDE (Network for inter-library document exchange) is the most important instrument for ILL services in Italy.

We are a community of about 880 Libraries, of which 77% are university libraries, 9% health research institutes and hospitals, 8% public research institutions and 6% other public and no profit organizations.

NILDE also includes a special section for end users (students, professors, researchers...) where the users can submit requests directly to their own library, by filling out an on line form with bibliographic data.

At present NILDE users are about 45,000. Of course the users' point of view is very important to NILDE librarians in order to improve the service. The recent debate on free network sharing of copyrighted documents forced a reflection in the community of NILDE Librarians, to evaluate the users' changes in their search habits.

A group of six colleagues from the CBN (NILDE Committee), all working in STM libraries, noting a decline in NILDE transactions in their libraries, compared the data of the five-year period 2011-2015. A considerable decline in borrowing in 2015 was the result, after a positive peak occurred between 2013 and 2014.

Just to give an example the Technical Scientific Library of the University of Trieste had 1337 borrowing requests in 2014 and 910 in 2015, with a deficit of 427.

Did all the NILDE network of libraries have this decline?

An overall comparison was carried out using the statistic reports generated from NILDE.

Global data transactions showed an increase until 2014, then in 2015 a slight drop, however not corresponding to the substantial decline observed in our libraries.

It also seems that the trend in the decline doesn't affect all NILDE libraries, but only those of STM disciplines, which are prevalent within the network.

(see: <https://nilde.bo.cnr.it/learn.php?inc=network>)

How could we explain the causes of this process?

The great mass of scientific papers available online (both paid subscriptions and Open Access publications) plays a considerable role.

What about social networks?

It is worth taking into account the role of specialized scientific research social networks available online.

Scientific communication has many faces: one of the most famous include Academia.edu, ResearchGate, Mendeley, specialized social networks where researchers and scholars establish connections with other individuals who are interested in the same topics of study by sharing the results of their work and often also publications authored by members.

What about illegal document retrieving?

#icanhazpdf is a hashtag used on Twitter to find an article in electronic format: just send the article title, DOI or other useful information to this hashtag. Somebody who has access to this paper will send it to you via mail, then the tweet should be deleted.

Sci-Hub (abbreviation for Science-Hub) is an online database of around 51 million of scientific articles that are illegally provided free of charge. Recently an article published on Sciencemag, on April 28, clearly shows how this illegal system works and how it has spread all over the world.

Is it now unreasonable enough for publishers to argue that ILL services affect their subscriptions when six months of SCI-HUB downloads include 28 million papers?

Furthermore in early 2016 a lively debate in the discussion list “Open Archive Italy” attracted our attention.

Discussions on the list have been stimulated by the publication of a post at the University of California in which are compared the institutional repository Open Access University and social networks Academia.edu and ResearchGate.

These social networks usually offer an excellent space for discussion and exchange of scientific knowledge, but they also look like dark areas of illegal sharing of publications.

Yet it is sure that these social networks, which are more flexible and whose users are unaware or not interested in copyright law have been more successful than institutional repositories in giving access to scientific literature.

How is the trend in Italy?

We have tried to understand how scientific social media are known and used in Italy and which are the search habits to get a paper.

## **Methodology**

A survey has been submitted to all users linked to NILDE libraries.

The survey was opened on the NILDE blog from 23 february 2016 to 4 march 2016: the identity of the participants were anonymous.

Patrons were asked to give some personal information (department affiliation, subject area, qualification, age and gender).

Two questions were set to identify quantitative and qualitative search criteria:

1. How often do you use the following tools to find a full text paper or a book chapter?
2. Which is your favorite tool?

Being the survey hosted in NILDE blog, it allowed patrons to leave comments.

## Results and discussion

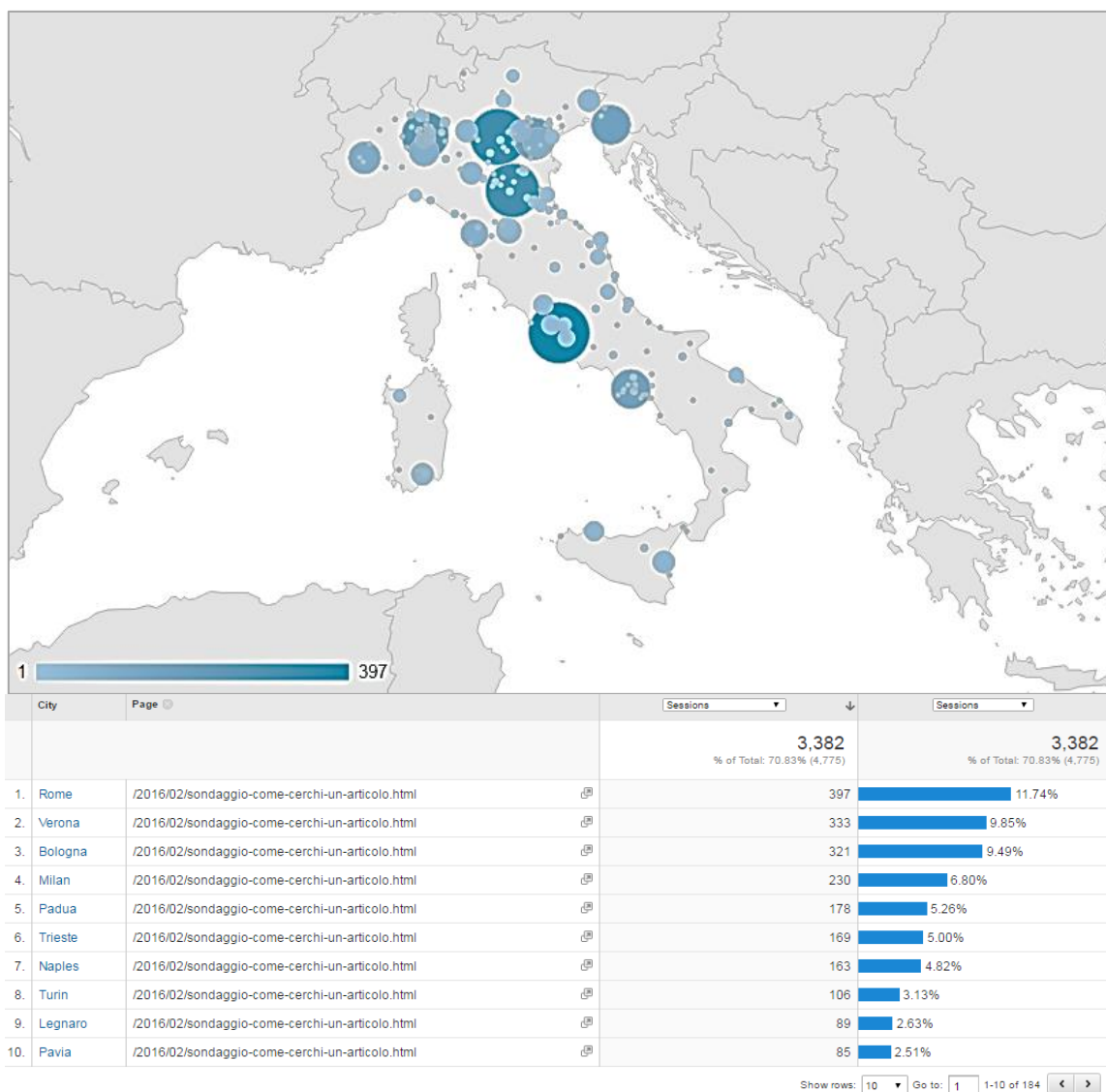
2774 patrons answered the survey.

University community has been the most represented, including all categories (professors, researchers, students, etc.).

This result is easily explained: NILDE network is mainly made up of university institutions.

Through Google Analytics it has been possible to display geographically all blog entries in the survey time: the highest number of them came from Rome (see Figure 1).

Figure1 - Map of survey: top ten sessions



Who are our users?

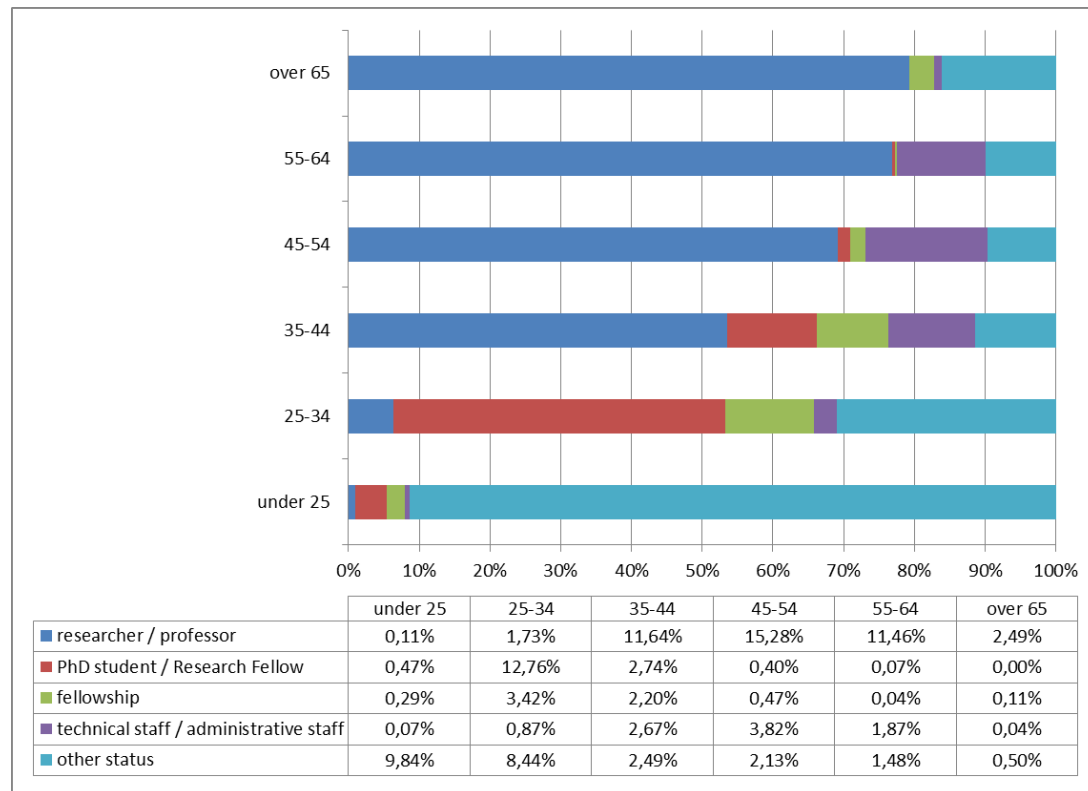
Most of the answers came from patrons aged between 25 and 54 years. This range is made up of researchers and scholars that mostly use the web for bibliographic research (see Figure 2).

People under 25 use the web most often but not for bibliographic purposes, while people over 54 use the web less often or they don't use it at all.

The qualification “student” is included in "Other status".

The humanistic, economic and legal context is mainly represented by University patrons, while the STM sector is represented by Universities as well as research institutions and organizations of the National Health Service.

Figure 2 - Percent of users stratified by age



First question: How often do you use following tools to find the full text of an article / book chapter?

To better define the topic, some answers have been suggested:

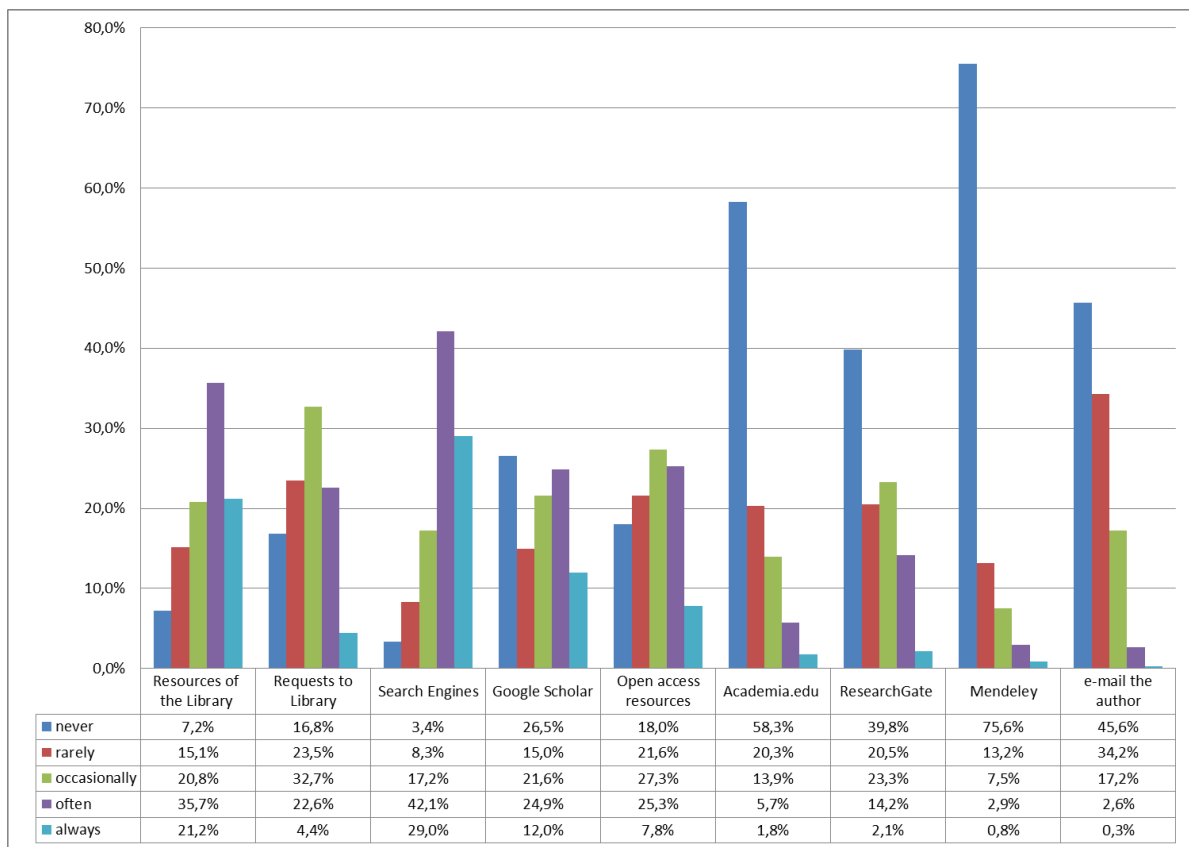
- Resources of the Library (understood as databases, discovery etc.)
- Requests to Library (defined as requests NILDE, e-mail, phone, etc.)
- Search Engines (not specific, as Google, Yahoo, Bing, etc.)
- Google Scholar
- Open access resources (institutional repositories, thematic, etc.)
- ResearchGate
- Academia.edu
- Email the author
- Other resources

Search engines have been the first choice in this question. Library resources ranked at second place (see Figure 3).

As regards to scientific social networks, ResearchGate seems to be the most preferred, while Academia.edu and Mendeley are not well known. Top users of social research networks are researchers and teachers, followed by PhD and PostDoc patrons. This is not surprising since

they are the most active categories in research. 11% in the technical and scientific and 6% in the biomedical environment declare a frequent use of these tools.

Figure 3 - Percent of use of various resources



Second question: Which is your favorite tool?

The same tools of the first question has been suggested.

The results have led to the first place for library resources and the second place for the search engines.

In this second question we asked users to specify the request "Other Resources". 12.4% of users have filled out the field. These are the answers in decreasing order: Pub Med, Scopus, Web of Science, ScienceDirect. Except for PubMed, the other tools are part of the library's resources. We can assume that most of patrons often confuse search engines and library resources, as through a simple search on Google they easily access, with few steps, to the full text.

They simply are not aware that their institutional IP is licensed to access subscribed materials.

## Conclusions

The results of the survey we carried out on the search habits of NILDE library users are quite surprising.

The Library and its resources (subscriptions, databases, ILL services...) are in the first two places of the resources used to get documents.

The survey shows that in the Italian context the library's resources have a major role in the research of scientific articles, more than scientific social networks. Basically patrons before resorting to social scientific networks prefer to follow other ways to get papers. Social networks are far from being main tools at present. It is not possible to attribute social research networks a main responsibility to the decline in STM ILL transactions: for sure a monitor activity has to be conducted in the coming years.

## **Acknowledgments**

Thank you all NILDE librarians who have helped us to spread the survey and encouraged its patrons to answer it.

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