Promoting Open Access at the Cyprus University of Technology: survey results

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Abstract
Today the Open Access movement gains more and more followers. The Library and Information Services at the Cyprus University of Technology has defined Open Access as one of its main strategies. Considering the current economic crisis, Open Access appears to be a solution to the reduction of funds at the academic institutions. The objective of this paper is to evaluate the perception and reaction of the academic community of the Cyprus University of Technology towards Open Access. The Library and Information Services conducted a survey in order to examine the familiarity of the academic community with Open Access and to define any difficulties that they find.
The survey results showed that the academic community is generally aware of the Open Access movement, but a lot of effort and work has to be done in order to make the academic community to trust and use Open Access. The survey also showed that Ktisis, the institutional repository of the Cyprus University of Technology, is not being used effectively by the academics. It was proved that the deposits in Ktisis do not reach the desired level and the reason is that the academic community is not aware of its existence. Therefore the academic community has to be convinced to prefer Open Access publishers for the deposit of their academic publications instead of commercial publishers and to retain sufficient rights adopting the SPARC addendum. Also, to promote open access through “author pay model” like Biomed Central.

Introduction
The evolution of the Internet and the possibility of finding the information you want very easily is due to the fact that the Internet is open to everyone. This means that Open Access is in the nature of the Internet. But we can also say that Open Access is not totally new. Libraries have always offered open access to everyone without charge, therefore placing them in the front line of promoting Open Access. Today with the economic crisis having brought severe consequences in the libraries’ budgets, Open Access has become vital for libraries to have scientific information without cost.
On the other hand Open Access is essential for Europe's ability to enhance its economic performance and improve its capacity to compete through knowledge. Open Access can also boost the visibility of European research and in particular it can offer small and medium-sized enterprises (SMEs) access to the latest research for exploitation (European Commission)
The Library and Information Services at the Cyprus University of Technology has set the promotion of Open Access as a main target. Based on this priority, the Library has designed and developed the first institutional repository in Cyprus, named “Ktisis”.
The journey of the Library towards Open Access

The Library and Information Services of the Cyprus University of Technology, following the recommendations of EUA (European University Association) and the EUA Working Group on Open Access has set Open Access to be one of its first priorities. According to the EUA Working Group on Open Access universities should develop institutional policies and strategies that foster the availability of their quality controlled research results. The basic approach for achieving this should be the creation of an institutional repository. Also, institutional policies should require that their researchers deposit (self-archive) their scientific publications in their institutional repository upon acceptance for publication. On the other hand, policies should include copyright in the institutional intellectual property rights (IPR) management. It should be the responsibility of the university to inform their faculty researchers about IPR and copyright management in order to ensure the wider sharing and reuse of the digital research content they have produced.

The Library and Information Services at the Cyprus University of Technology has adapted these suggestions and has proceeded to their implementation using the following steps: First the Library developed the institutional repository Ktisis with the use of the open source software DSpace. Then in 2007 the University decided that the academic staff must deposit their scientific publications to Ktisis. In 2008 the deposit of the undergraduate and postgraduate theses of the university students was made obligatory.

Then in 2011 the University signed the Berlin Declaration on Open Access. Moreover the library developed management policies for the undergraduate and postgraduate theses and the publications of the academic staff.

Another vital step in promoting Open Access was the adoption of the Creative Commons licenses under the Cyprus legislation. The Library and Information Services at the Cyprus University of Technology participates in a working group in order to work with this issue, adapting the Creative Commons licenses and formulating them according to the Cyprus Law and Legislation.

The Ktisis Project

Ktisis (http://Ktisis.cut.ac.cy/) is the institutional repository developed by the Library and Information Services at the Cyprus University of Technology. Ktisis is an open source institutional repository gathering any digital material relating to the various activities of the Cyprus University of Technology especially original research material produced by the members of the University. Defined in this framework, Ktisis demonstrates the intellectual life and the research activities of the University, preserving, spreading and promoting the scientific research to the local and international community.

When Ktisis was at the designing stage, the Library defined the set of goals that Ktisis needed to achieve. These goals were:

- To locate and archive together cultural heritage items from private collections.
- To guarantee long-term preservation and access to the data.
- To promote interest and involvement in the digitization process and preservation of cultural heritage.
Survey background

As mentioned above the Open Access is a key strategy for the Library and Information Services at the Cyprus University of Technology. In order to better understand the relationship and beliefs of the academic community it was decided to conduct a survey. The survey had two main targets. The first was to examine the degree of familiarity of the academic community with Open Access. The second target was to define the views and difficulties faced by the academic community on the Open Access model, in order to assist the library in the promotion of Open Access and consequently of the institutional repository Ktisis within the university. The results of the survey were presented in the event “24 hours library” which is organized annually by the Library. During the 2011 event, one of the days was devoted to Open Access and this is when the results of the survey were presented to the public.

Methodology

Aim of the research

The present study seeks to find what the academic community and PhD students think about Open Access, what kind of difficulties they face and also to examine the degree of familiarity this group has. As we know Open Access is not very popular, with the traditional publishing models dominating in the publishing industry. In Björk et al. (2010) it was showed that roughly 20% of the total output of peer-reviewed articles published in 2008 could be found using the Open Access model.

In our case an import fact that led to the conduction of the survey was that by the time of the survey 228 publications had been submitted in Ktisis, a number that does not represent the total scientific publications produced by the 361 people belonging to the academic staff. If we take into consideration the fact that Ktisis went live in 2008, this number is definitely a small portion of all the publications produced by the academic staff. Another aim of the survey was to define if the members of the academic community prefer to publish their work in Open Access or using commercial publishers and also if they take the step of adopting an author addendum policy.

Data collection procedure and tools used

The data for this survey was gathered using an online questionnaire. This method was chosen in order to save time to gather the users’ opinions in a quantitative manner. For the gathering of the responses it was decided to use the online tool Surveymonkey (http://www.surveymonkey.com/) since it is very easy to use and it offers a variety of choices.

Initially, a test questionnaire was distributed by electronic mail to the personnel of the Library and also to a sample of the academic community in order to evaluate the questionnaire. The results of the evaluation assisted the library to produce a more appropriate questionnaire which was distributed by electronic mail to the academic
community and PhD students, a group consisting of 361 people. The period of the research was from the 21\textsuperscript{st} of September 2011 to the 6\textsuperscript{th} of October 2011. A total of 101 responses were collected for analysis.

The questionnaire consisted of nineteen questions, structured in three parts. The first part consisted of seven questions that asked the users about their personal data (gender, age, academic rank) and familiarity with Open Access. The second part (2 questions) investigated the relation of the academic staff with the institutional repository Ktisis. The last and most significant part of the questionnaire (10 questions) examined the preference of the academic staff towards Open Access and commercial publishers. Summary statistics and bivariate correlation analyses were performed using the SPSS (SPSS Inc., Chicago, IL, USA) statistical software, version 18.0 for Windows.

**Survey Results**

**Demographic Data**

Table 1 presents the respondents’ demographic characteristics according to academic rank, age and gender.

<table>
<thead>
<tr>
<th>Academic Rank</th>
<th>n (%)</th>
<th>Age</th>
<th>n (%)</th>
<th>Gender</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>4(3.96)</td>
<td>20-29</td>
<td>14(13.86)</td>
<td>Male</td>
<td>60(59.41)</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>7(6.93)</td>
<td>30-39</td>
<td>52(51.49)</td>
<td>Female</td>
<td>41(40.59)</td>
</tr>
<tr>
<td>Assistance Professor</td>
<td>13(12.87)</td>
<td>40-49</td>
<td>23(22.77)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecturer</td>
<td>30(29.70)</td>
<td>50-59</td>
<td>8(7.92)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Scientist</td>
<td>20(19.80)</td>
<td>60+</td>
<td>4(3.96)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Researcher</td>
<td>13(12.87)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD Student</td>
<td>14(13.86)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Open Access**

From the survey results we may conclude that 68.32% of the people involved know what Open Access is. From these people who know Open Access, 84.06% are aware of scientific journals in their scientific field and they often use their articles for research and/or scientific purposes (Mean 3, SD 1.260).

**Ktisis**

Another result is the fact that 77.23% of the people involved say that they publish between 1 and 3 articles per year. On the other hand only 15.84% of them deposit
their publications into the Institutional Repository Ktisis and another 12.87% occasionally. This means that 71.29% of the people involved never deposit into Ktisis. The main reason for that with 72.22% is that they do not know Ktisis and they usually publish in commercial publishers. These facts give us a clear view in order to understand the reasons the academic community do not prefer to deposit in Ktisis. An effort has to be made in order to promote Ktisis, so that the academic community understands the benefits of an institutional repository.

**Publishing factors**

Moreover, it is important to observe that 47.52% of the people that completed the questionnaire wish to use Open Access for the dissemination of their publications while those preferring to use the publisher policies make up the 27.54% of the answers. This means that the academic community considers the Open Access to be something positive and they wish to help in order to promote it. On the other hand from the following chart we can see what the academic community also thinks that it is essential to publish an article.

Chart 1
Publishing factors

Looking at the chart we can see that the Impact Factor of a journal is very crucial in the decision when publishing an article. We observe that Open Access is important as we have already seen, but it comes to the last position between the publishing factors.

Additional result analysis revealed where the academic staff usually publishes its scientific work.
It is obvious that commercial publishers are the first choice of academic staff to publish the scientific work. It is important that open access journals are in the second place and institutional repositories are in the last place. From that result we can easily understand why the institutional repository Ktisis has relatively small number of publications. This means that the library should try more to convince the academic staff to deposit their work in Ktisis.

Another important result is the fact that 68.32% of the academic staff choose to publish their research results in commercial publishers and 31.68% in Open Access. This happens because the 57.43% of them believe that the publications in Open Access journals do not have the same impact as the publications in commercial journals. The reason they choose commercial publishers is that the 77.19% of them believe that they have a greater impact factor.

Further analysis between publication factors and publication environment using Pearson Correlation publication factors and publication environment showed that there is a 0.367 correlation between impact factor of the journal and publisher impact.

Another important correlation of 0.310 exists between commercial publishers and journal impact factor. On the other hand there is a 0.442 correlation in Open Access with time of publication. The analysis also showed a correlation of 0.199 between Open Access and impact of the publisher.

From the correlation results we can say that the academic community connects the commercial publishers with the impact factor and Open Access with the impact of the publisher and the time of publication. These results help Open Access to enhance what the academic community believes.

Copyright and preservation in Open Access and commercial publishers

It is important that the academic community feels safe using Open Access, because the 61.39% of the people that completed the survey think that copyright can be preserved in the same way either in commercial publishers or in Open Access and another 68.32% that digital preservation can be achieved in the same way either in commercial publishers or in Open Access.
If we consider the result that 47.52% wish to use Open Access for their publications, we can say that if the academics are convinced that Open Access can have the same impact factor with commercial publishers, this will lead to the raise of publications in an Open Access environment. It is very positive that the academic community feels that digital preservation and copyright is secure in Open Access.

**Author addendum**

Another interesting result is that the 87.13% of those who completed the survey is not negotiating the terms and conditions of their publications with the publishers. But another 89.11% would like the university to develop an author addendum policy in order to protect the author and university rights. Commercial publishers are limiting access everywhere they can. SPARC (The Scholarly Publishing and Academic Resources Coalition) has developed author addendum, a legal instrument in order to help the dissemination of research results. Author addendum policies are very important since commercial publishers often hold all the rights, including copyright, and the author gives all the key rights to the publisher. With this agreement the author keeps the critical rights.

**Results according to academic rank**

In order to understand the views of the academic community towards Open Access, an analysis of the results according to the academic rank was conducted.

**Professor:** The 25% of them are aware of Open Access and they sometimes (Mean 2) use articles from Open Access journals. The 50% of them deposit their publications in Ktisis and it is very important that professors very often deposit their publications in their personal web pages (Mean 4.25) which is a form of Open Access.

**Associate Professor:** The 57.14% of them are aware of Open Access and sometimes (Mean 2.25) they use articles from Open Access journals. The 57.14% of them sometimes deposit their publications in Ktisis. It is important that the 42.86% of them want their publications to be disseminated in password protected communities. In addition to these they all answered that they prefer to publish their work in commercial publishers and they do not negotiate the terms and conditions with commercial publishers.

**Assistance Professor:** The 69.23% of them are aware of Open Access and all of them are aware of Open Access journals in their scientific field. This academic rank regularly uses articles from Open Access journals (Mean 3.22). The 23.08% of them deposit their publication in Ktisis and 92.31% would like to use Open Access to their publications. On the other hand 66.67% believe that scientific work published in commercial publishers has greater impact factor.

**Lecturer:** The 76.67% of them are aware of Open Access and the 78.26% are aware of Open Access journals. They sometimes (Mean 2.60) use articles from Open Access journals. The 23.33% of them deposit their work in Ktisis. For the 8.33% of them the reason they do not deposit in Ktisis is because they are afraid of plagiarism.
Special Scientist: The 60% of them are aware of Open Access and 91.67% of them are aware of Open Access journals in their scientific field. They regularly (Mean 3.08) use articles from Open access journals and 20% of them deposit their work in Ktisis. Another 35% would like their publications to be disseminated in password protected communities.

Researcher: 61.54% of those who completed the survey are aware of Open Access and 75% are aware of Open Access journals in their scientific fields. They regularly use articles from Open Access journals (Mean 3.62). 66.67% of them do not deposit their work in Ktisis because they are not aware of its existence. However they prefer to publish in Open Access journals quite often (Mean 3.62).

PhD Student: 85.71% of them are aware of Open Access and 83.33% of them regularly (Mean 3.41) use articles from Open Access journals in their scientific field. The 14.29% of those who completed the survey deposit their work in Ktisis. The reason they do not deposit in Ktisis is because the 71.43% of them are not aware of it. It is important to mention that they 64.29% of them believe that their publications have the same value both in commercial publishers and in Open Access journals.

The analysis above allows us to have a thorough view on each academic rank. With these facts we can design a more targeted promotion strategy of Open Access at the Cyprus University of Technology. It is very positive that members of all the categories are aware of Open Access and Open Access journals in their scientific fields. On the other hand the library should promote the institutional repository Ktisis and should make the academic community understand the positive effects on depositing in it. Additionally it is very important for the library to convince the academic community that their publications rights are protected in Ktisis.

Results according to knowledge of Open Access

Another important analysis is to understand the different views for those who are aware of Open Access and those who are not. Therefore an analysis was conducted according to this parameter. Using this parameter it was shown that younger members of the academic community seem to have increased rates in being aware of Open Access. The 64.29% in the age group 20-29 is aware of Open Access and the rate reaches 73.91% in the age 40-49. For the age group 60+ the rate was decreased to 50%.

Furthermore, those who are aware of Open Access deposit their publications to Ktisis in the rate of 18.84%, while those who are not aware of Open Access deposit in the rate of 9.38%. This is very positive because even though they are not aware of Open Access they deposit in Ktisis, which means that with more information they will understand Open Access and use it more effectively.

Moreover, those who are aware of Open Access prefer it as a method for the dissemination of their publications in 52.17%. In addition to these the same group considers Open Access to be almost as important (Mean 3.23) in the factors when publishing an article. Those who are aware of Open Access prefer to publish in this way in 33.33% and negotiate the terms and conditions of their publications with
commercial publishers in 13.04% instead of 12.50% of those who are not aware of Open Access.

To sum it all up we can say that these results are very positive, because those who are aware of Open Access prefer to use it. The library would save a lot of money and academic staff would gain more citations with Open Access, due to the fact that access to their publications would be open and easier for anyone to find and cite on them.

**Future perspectives**

From the research results the Library and Information Services at the Cyprus University of Technology decided to set some targets in order to promote Open Access. Ktisis will also work as a local provider for Europeana and OpenAire. Europeana is an authoritative source of information coming from European cultural and scientific institutions (Europeana About us). The Europeana promotes collaboration between museums, archives, audiovisual collections and libraries so that users can have integrated access to their content through Europeana and other services (Europeana Foundation).

OpenAire aims to ensure that research results funded by the European Union are made available to the population at large for free (OpenAIRE Consortium, 2011). These aims will make Ktisis known to the whole of Europe. This will result in the academic staff to understand the global perspectives of an institutional repository and consequently to deposit their publications in Ktisis. Moreover, it is important to mention that one of the main goals in promoting the Open Access is the creation of promotional material that will be produced according to the survey results.

From the survey we can have an overview of the views and concerns of the academic community, so we can set a better strategy for communicating with the academic community and convince them to the benefits of Open Access and depositing their work in Ktisis. One of the main targets is the developing policy about Open Access.

Another issue in the Open Access policy is the author addendum policy. As mentioned before from the survey results it was shown that the academic community agrees to the development of an author addendum policy that will preserve the university and author rights.

In addition to these a research will be conducted in order to implement bibliometrics in Ktisis. Bibliometrics are techniques applied to determine the impact and rankings of documents and journals for the users of a digital library (Reeves, 2005). Obviously, this is an issue where the library has to consider the views and opinions of the authors. So we have to conduct another survey in order to ask the academic community if they would like Ktisis have that function.

**Conclusion**

It is generally observed that the academic community at the Cyprus University of Technology is aware of Open Access. Certainly the use of Open Access is in a good
level, but more promotion is needed. An important result from this survey was that the academic community is not aware of the institutional repository Ktisis. The library has to design a strategy in order for the academic community and the students to be convinced to use Ktisis. It is crucial to promote Open Access due to the economic crisis facing the libraries today; it is a fact that the budgets today are not enough to cover the demand of the users. Open Access is a way for every library to offer quality scientific material without cost. Another goal for the library is to promote the author “author pay model” as an alternative publishing model.

On the other hand the commercial publishers are dominant in the publishing industry. The academic community believes that the work published in commercial publishers has more impact. Open Access has to prove that this is not true; because the quality of work published follows the same standards and peer review process. Of course it is very positive that those who are used to Open Access prefer this way, which means that with a good strategic plan more authors will use Open Access for their publication of their work and make their publications more popular by providing free access to everyone.

As mentioned before, there are two main publishing models, the commercial publishers and Open Access. The last few years Open Access seems to gain more followers and there will be more publishers following this model in the future. There are traditional commercial publishers like Springer that offer Open Access journals. From the above we believe that Open Access is the future in the publishing industry.
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The Library and Information Services of the Cyprus University of Technology conducted an online survey on Open Access from 21 September to 6 October 2011. The questionnaire was anonymous and it was addressed to the Academic Staff and PhD Candidates.

1. What is your current academic rank?
   - Professor
   - Associate Professor
   - Assistance Professor
   - Lecturer
   - Special Scientist
   - Researcher
   - PhD Student

2. Gender
   - Man
   - Woman

3. Age
   - 20-29
   - 30-39
   - 40-49
   - 50-59
   - 60+

4. Do you know what Open Access is?
   - Yes (if yes go to question 5)
   - No (if no go to question 7)

5. Are you aware of any Open Access journals in your scientific field?
   - Yes
   - No

6. Do you use articles from Open Access journals for research and / or educational purposes?

   Please choose: Never 1 Sometimes 2 Usually 3 Often Enough 4 Very often 5

7. How many articles have you published per year (on average) for the last five years?
   - 1-3
   - 4-6
   - 7-10
   - 10+
8. Do you submit your publications in the institutional repository Ktisis
☐ Yes (if yes go to question 10)
☐ No (if no go to question 9)
☐ Sometimes (if sometimes go to question 10)

9. What discourages you from submitting your publications in the institutional repository Ktisis? (you can choose one or more)
☐ I don’t know what Ktisis is
☐ It is difficult to submit my publications in Ktisis
☐ I am used to publish my work in commercial publisher journals (Elsevier, Springer, Willey, Sage, etc.)
☐ It requires too much times to submit my work in Ktisis
☐ I believe my publications will not have the impact I want in an institutional repository
☐ I fear the possibility of plagiarism

10. Under which terms would you consider your publication to be disseminated?
☐ Publisher policy
☐ Open Access for all
☐ Availability in the university network
☐ Availability in password protected communities

11. How important do you consider the following factors to be when publishing an article?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not at all</th>
<th>A little</th>
<th>Enough</th>
<th>Much</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact factor of the journal</td>
<td>☐1</td>
<td>☐2</td>
<td>☐3</td>
<td>☐4</td>
<td>☐5</td>
</tr>
<tr>
<td>Publisher impact</td>
<td>☐1</td>
<td>☐2</td>
<td>☐3</td>
<td>☐4</td>
<td>☐5</td>
</tr>
<tr>
<td>Time of publication process</td>
<td>☐1</td>
<td>☐2</td>
<td>☐3</td>
<td>☐4</td>
<td>☐5</td>
</tr>
<tr>
<td>Open Access</td>
<td>☐1</td>
<td>☐2</td>
<td>☐3</td>
<td>☐4</td>
<td>☐5</td>
</tr>
</tbody>
</table>

12. Where do you usually publish your scientific work?

<table>
<thead>
<tr>
<th>Location</th>
<th>Never</th>
<th>Once</th>
<th>Sometimes</th>
<th>Very often</th>
<th>Too often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional repositories</td>
<td>☐1</td>
<td>☐2</td>
<td>☐3</td>
<td>☐4</td>
<td>☐5</td>
</tr>
<tr>
<td>Open Access journals</td>
<td>☐1</td>
<td>☐2</td>
<td>☐3</td>
<td>☐4</td>
<td>☐5</td>
</tr>
<tr>
<td>Commercial publishers</td>
<td>☐1</td>
<td>☐2</td>
<td>☐3</td>
<td>☐4</td>
<td>☐5</td>
</tr>
<tr>
<td>Personal web page</td>
<td>☐1</td>
<td>☐2</td>
<td>☐3</td>
<td>☐4</td>
<td>☐5</td>
</tr>
</tbody>
</table>

13. I prefer to publish my research results
☐ Commercial publishers
☐ Open Access

14. Do you believe that the publications in Open Access journals have the same impact as the publications in commercial journals?
☐ Yes (if yes go to question 16)
☐ No (if no go to question 15)
15. Why do you think that publications in commercial journals do not have the same impact as the publications in Open Access journals (you can choose one or more)?
- Open Access journals are not so popular
- There are much more citations in commercial journals
- The scientific work published in commercial journals has higher impact factor

16. Do you think that the copyright of your publications can be better preserved in
- Commercial publishers
- Open Access
- Copyrights can be preserved in the same way either in commercial publishers or in Open Access

17. Do you think that the digital preservation of your publications is better achieved in
- Commercial publishers
- Open Access
- Digital preservation can be achieved in the same way either in commercial publishers or in Open Access

18. Do you negotiate the terms and conditions of your publication with the commercial publishers
- Yes
- No

19. In commercial publishers authors usually grant all their rights including copyright to the commercial publishers. Would you agree if the university developed an author addendum policy for publications in order to preserve the university and author rights?
- Yes
- No