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Model of Desktop Publishing Services in the Modern Offer of an Academic Library

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MODEL OF DESKTOP PUBLISHING SERVICES IN THE MODERN OFFER OF AN ACADEMIC LIBRARY

Abstract

Enriching the offer of The Library of Center of Biostructure Research (CBR) with scanning, graphic file processing, PDF file creation and edition, has soon led to popularization of this type of services among the users. The services overlap with selected elements of desktop publishing (DTP) available on the market. However, because of poor technical facilities and limited human resources, these services couldn't be offered on the level satisfying the users. This problem contributed to the preparation of a library DTP studio model for the Main Library of Medical University of Warsaw (MUW), with affiliated library of CBR. A questionnaire run among the users of CBR library was used in order to gather data necessary to create a model of a studio. As CBR is one of the largest scientific-educational units of MUW, results of the poll may be extrapolated to broader academic community. In order to optimize the constructed model, analysis of selected DTP studios present on the Polish market was carried out, from the point of view of their organization, equipment and services rendered, and the review of training offer covering this field was performed. Collected data allowed confirming the demand for the services connected with computer-assisted preparation of manuscripts, determining abilities that specialists running the studio should command, specifying services rendered and establishing costs resulting from the purchase of equipment, software and directing employees for specialist trainings. The study describes advantages and problems brought by the process of implementation of such services, as well as trends of model development.

Introduction

The inspiration to write this study came from the experience gained while working with the users of The Library of Center of Biostructure Research (CBR), one of the affiliated libraries of the Main Library of Medical University of Warsaw. For the last two years in the CBR library there has been a noticeable increase of interest in gaining help in the services connected with the extensive process of preparing papers for printing and creating multimedia presentations. This state contributed to the fact that a librarian has gained the skills of using the scanner, graphic programs and has a wide knowledge of the Microsoft Office package. What is more, he has also obtained basic knowledge in publishing. The services provided by CBR library in the mentioned area in the years 2005-2007 are: text and graphic scanning, basic processing of graphic materials, help in preparing multimedia presentations, conversion of DOC files into PDF files, making and editing PDF documents. Unfortunately, the requirements of users and the number of orders were much higher than the possibilities of the library. This concerned the humble equipment and program backup, the skills of the librarian as well as the time consumed to do the earlier enumerated things by

the one employed person. The discussed area of benefits is very similar to the services offered by desktop publishing studios. The desktop publishing term (DTP) stands for *computer preparation of a document for printing, also a document for publishing in an electronic version. The process of DTP begins with feeding into the computer the text and images. Single graphic objects undergo individual processing and the text is fitted to the layout and undergoes correction. After connecting the processed elements a ready to be published project comes to life.*[1] The duties of an employee of a DTP studio also contain counseling in the choice of the appropriate equipment which will be adapted to the individual need of a project. This allows it to be rendered in the best way as well as in the shortest possible time.

Aim

This work is an effort to face the needs that research workers and students have in the mentioned area by creating a library model of a DTP studio that would bring benefits to the whole academic community. It would have to become a part of the Depertment of Scientific Information and Journals of the Main Library of the Medical University of Warsaw (MUW).

Methods

To gain the needed data an anonymous questionnaire was done (annex) among a hundred readers of CBR library – fifty research workers and fifty students. As CBR is one of the largest scientific-educational units of MUW, results of the poll may be extrapolated to broader academic community. What is more, in the group of research workers the respondents were diversified on the basis of their age, degree, the amount of papers which they prepared for print/presentation during the year. In the group which contained of students there were representatives of all the faculties, those who publish articles (students from study groups) as well as those, who are interested in the offer of the studio as it helps in preparing presentations, term papers, Bachelor's Degree thesis or an MA thesis. The questions concerned the following topics:
- independence of the questioned in the discussed area
- the description of the most important problems concerning the preparation of papers for print/presentation
- pinpointing the needed equipment and programs
- gaining the information about the people and companies which have already helped in the process of preparing the papers for printing/presentation
- the respondents' opinion about the idea of creating a library DTP studio
- pinpointing by the questioned what kind of services would be the most useful in a library DTP studio

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[1] Source: http://pl.wikipedia.org/wiki/DTP

To get the widest information possible each question contained a space for individual comments. The results of the questionnaire were supplemented with information from three DTP centers – BlackArt, Meritum and Yellow. An analysis of the offers given by companies which provide specialist trainings in DTP and supply computer equipment and specialist software was made. The gathered information allowed to:

– establishing the reasons for the growing interest in gaining help in the area of desktop publishing
– gaining the respondents' opinion about establishing a library DTP studio
– establishing the range of the service of the studio
– establishing the organization scheme
– establishing the needed equipment and programs
– specifying the right specialist trainings
– establishing the costs of the implementation of the project

Results

The reasons for the growing interest in gaining help in the field of DTP services

The results of the analysis of information gained from the respondents in the discussed area seem to justify the intensification of the interest in the DTP services provided by library (fig.1). Only nine of the questioned respondents state that they are fully independent in the discussed area, which is confirmed by a high average level

The level of independence of the respondents in DTP

moderate skills in DTP

94% 19%

9 23 68

group A 10 persons 81%
group B 58 persons 41%

number of respondents who **never** take help

number of respondents who **always** take help

number of respondents who **sometimes** take help

fig. 1
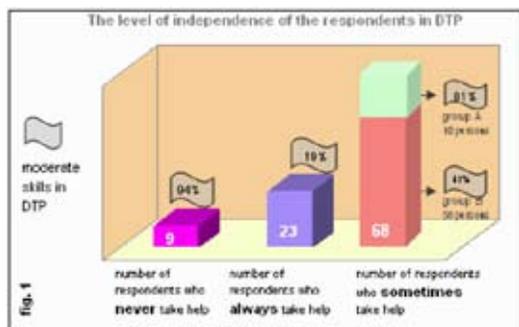
of skills in DTP, which reaches 94%. A similar kind of dependence can be noticed in a group of 23 respondents, who declare to always ask for help and for them the average of skills in the discussed area is very low. It reaches only 19%. This could suggest that most of the clients of the DTP studio will be a part of this group. This supposition is put into doubt after an analysis of the answers of the 68 respondents who declare to ask for help only sometimes.

In this group there is a clear division into two subgroups. The persons, who are in the first group (group A), need assistance in a narrow area, such as scanning or the conversion of a file. These respondents report to have a level of knowledge of the skills enumerated in the questionnaire at 81%. Unfortunately, the value of this parameter in relation to the more numerous group (group B) is only 41%.

The respondents from group B stress, that they have mastered the enumerated skills only on a basic level, which forces them to ask for help more often. The respondents most often ask for help their friends, computer engineers, librarian of CBR and rarely

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outside companies. From the people who use this kind of help, 63% is not satisfied with it (fig. 2).

When help from friends and librarians is considered, the reason for low satisfaction is usually a poor equipment and program background and a lack of professionalism, which is a result of self-taught skills. As for computer engineers, the respondents

fig. 2
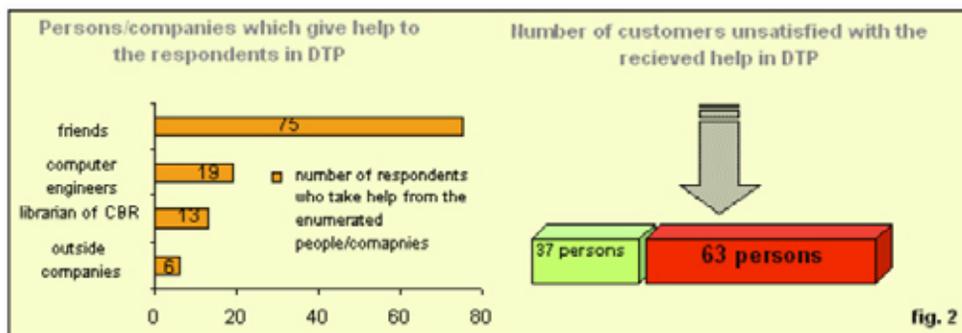
complain about the small amount of time which such specialists can contribute for them and their reluctance to do more than the basic duties. In both cases the respondents stress the fact that they feel uncomfortable when asking for help and that it is inconvenient to be dependant on someone's good will to help in the work. When it comes to companies, the reason for dissatisfaction are high prices, which can amount to even a 25 € for the preparation of one page of a project as well as the location outside of campus.

In the research workers group many of the respondents (67%) noticed that their need to look for help, when it came to DTP services, was caused by an overload of didactical duties. This is so because the dynamic growth of the number of students, observed from the year 2000, did not cause an increase in number of lecturers in the Center of Biostructure Research (fig. 3). Looking for help in the discussed topic is also connected with the respondents' poor programming background. It is clear when looking at graphic applications in a group of students, where only 17% of the questioned use professional programs such as CorelDraw or Photoshop. The rest of the respondents usually enumerate Microsoft applications – Photo Editor, Paint and Picture Manager as well as picture viewers, like ACDSee and Picasa, which have basic photo editing functions. In the research workers group 51% of the respondents use professional programs, but their knowledge usually does not exceed the few basic functions of the program. Another problem is a kind of awkwardness which is a result of rare usage of programs of this type. For the student group the resultant of the ability to use graphic programs, declared in the questionnaire is 75% but 27% of the questioned, usually out - of - town students, does not have access to a computer. From the rest of the respondents only 15% has a color printer and 7% has easy access to a scanner. In the research workers

fig. 3
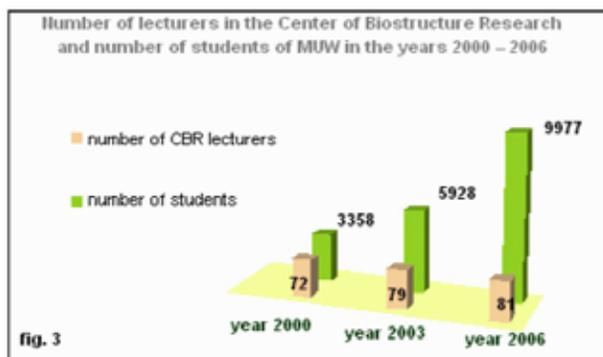
group access to a computer and other equipment does not seem to be a problem, but unfortunately the average of skills in the area of graphic processing amounts to only 46% (fig. 4).

The respondents' opinion about creating a library DTP studio

The majority of the respondents (97%) were in favor of broadening the library's offer and adding DTP services. The remaining 3% are people, who never use help in the discussed area. Arguments for creating a library DTP studio which appear most often are:

– getting access to professional servicing (professional equipment, programming and well trained staff)
– shortening the time of preparation of the project
– improvement of quality of the prepared materials
– the possibility of gaining professional consulting
– the possibility of giving a professional order
– the possibility of preparing the paper in one place, starting with having access to literature, getting instruction to authors, and finishing with technical support
– location of the DTP studio on campus
– the possibility of leaving the paper in the hands of people who have the knowledge of how a scientific paper should look like
– specializing of the studio in certain kinds of services, which derives from getting orders from students and the workers of MUW, in contrast with the widely specialized DTP studios situated outside of campus

A large group of questioned respondents (38%) described the project as this which would change their working terms and postulated a fast realization of the project. The main percentage of these respondents has a low level of skills in the discussed topic. What is interesting though is that 10% of these groups, are the research workers, who have mastered well the discussed skills and are often asked to help others in work concerning DTP. What they see in the studio is a chance to free themselves from an overload of duties, which they take up due to a lower position in the hierarchy of the school and the need to save their good relations with their colleagues.

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The services provided by a library DTP studio

On the basis of the analysis of the orders of the readers of CBR library from DTP services and after looking through the offers of Warsaw companies that specialize in DTP a list of services was created which the studio would offer. Placing it in the questionnaire enabled the respondents to show their preferences as well as give their own ideas which resulted in this preferable list of services provided by the studio:

Scanning

70% of respondents were interested in this service. The most numerous group are respondents, who have problems with scanning color and gray scale graphics. Over 50% of the studied respondents also propose, having the possibility of scanning photographic plates (films). There is also a great need for the using of chosen tools which better the quality of the scanned image, which only 28 of the respondents knows how to do. Below are photos of a heart of a mouse fetus in low quality – corrupted, blurry and overlighted (fig. 5). Next to it is the same photograph after scanning it with the usage of chosen tools which better the quality of the given object (fig. 6).

fig. 5   fig. 6
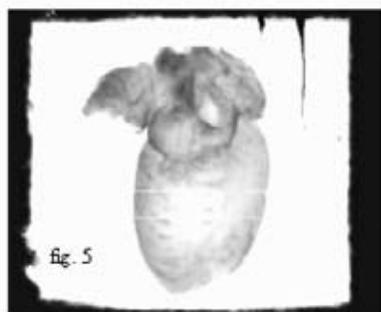
Graphic processing of images

The most popular in this area of work on an image is the possibility of having done by the workers of the studio 2D graphics (86% of respondents) and 3D graphics (85% of respondents). A vast group of respondents wants to be helped in cropping and correcting photographs.

The subjects below have been processed with the tools available in Photoshop. This enables the change from black and white coloring to color (fig. 6-9), as well as removing from the object needless elements – stains, fractures (fig. 7, 8).

fig.7

fig. 8

fig. 9
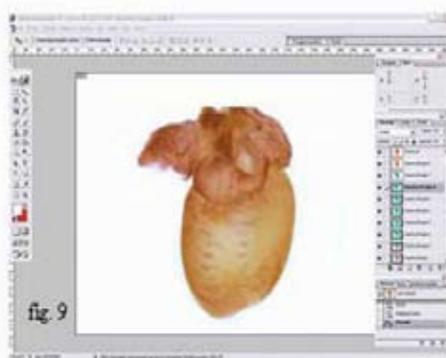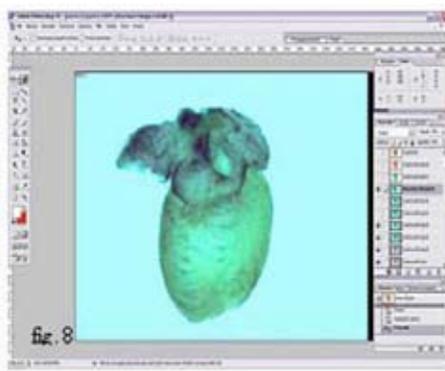
Preparing a multimedia presentation

45% of the respondents declared their interest in this service. The orders in this field would regard options that are not considered as standard such as adding animation or movie files as well as creating 3D objects for the need of the presentation.

Computer typesetting

Interest in this kind of service was declared by 19% of respondents. They are authors of books and people who have problems with computer typesetting of brochures and posters.

The images below show a text in a not formatted form and a graphic file (fig. 10) and a ready to print project, put together from elements in the program InDesign (fig. 11).

fig. 10

fig. 11
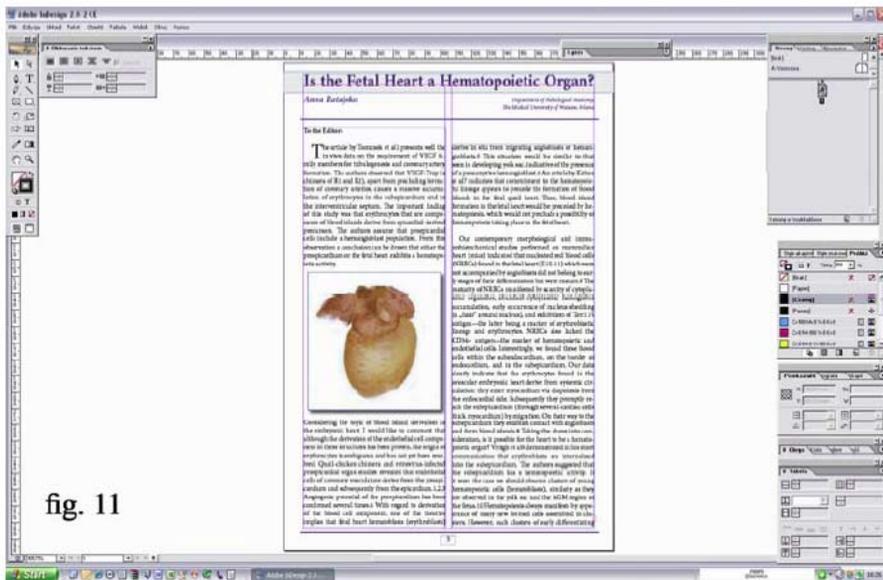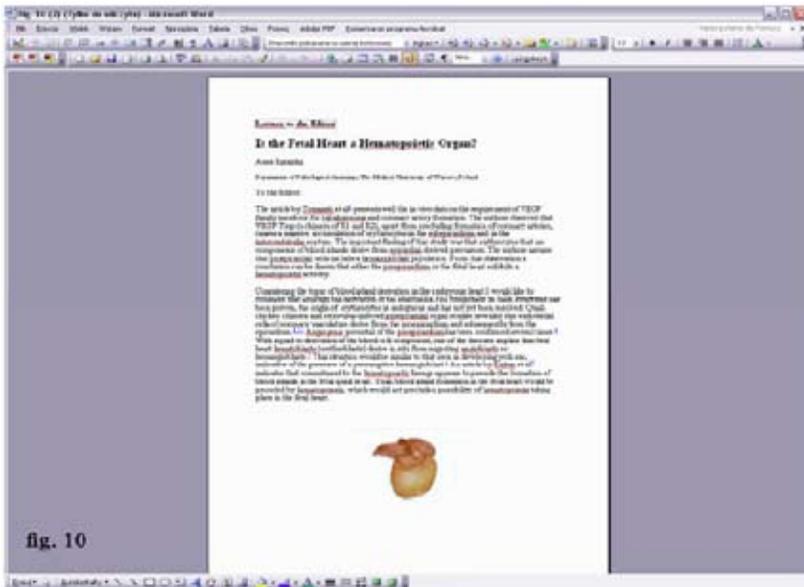
Preparing a graphic project

75% of respondents declared their interest in this service. Among them we have research workers who prepare posters, people who are responsible for making brochures for special occasions and students that will be doing their Bachelor's or MA thesis, who also have to prepare the graphic design of the title page.

Preparing tables and graphs

Over 50% of the questioned respondents would like to receive support help from the studio in these services, even though they declare a high skill level in producing tables (91%) and graphs (78%). The analysis of comments written by the respondents allowed producing a conclusion that the clients of the studio will seek help in advanced table and graph making as well as producing graphic projects inaccessible in MS Word and Excel.

Using special programs for creating a bibliography

A large group of respondents (89%) was interested in using this kind of tools. Many of the questioned got to know about the existence of programs for creating a bibliography. Those, who have already used them before, are also interested in using them in the DTP studio because they usually are in possession of temporary test versions.

Other services that would be gladly seen by the respondents in the studio:

Converting files into other formats – 61%

Preparing papers for print at the printing house – 56%

Color prints – 74%

Binding – 67%

Saving files on some kind of data carrier – 45%

The employees of the studio

In the staff of the studio there should be a person who would be responsible for contact with the customers, a graphic designer as well as a specialist in computer typesetting.

In the case of a small library studio on every position there will be one person employed. All of the members of the team, especially people responsible for the graphics and computer typesetting should also have some kind of knowledge of the things that the other workers are responsible for so that the absence of one worker would not disorganize the work in the studio.

For the proper organization of such a studio a precise division of duties is necessary. A worker who is in direct contact with the customer – a receptionist, is responsible for taking orders and giving out ready projects. This person is responsible before the client for the quality of the order and for handling payments. His duties also contain setting the details of the orders and their division among the suitable workers. All in all, this person should not only have the skills in customer service and a high knowledge of

programs and office equipment, but should also have the basic knowledge in desktop publishing. This person could also engage in the preliminary preparation of text, making prints, xerocopy, basic scans, binding, CD recording and converting files.

The graphic designer has the duty of scanning and widely understood processing of graphic files as well as preparing the project. The specialist in computer typesetting engages in fitting text and graphics to the layout based on the guidelines left by the customer and preparing the paper to be send to the printing house.

The accommodation, equipment and program standards

The reception, where the service of the customer takes place, is a very busy and noisy place. This means that it should be separated from the rest of the studio as not to interfere in the work of others. It needs to be designed in concern about the comfort of the customers, who should have the possibility of easy communication while giving an order and the space to spread out the brought in materials or the ones that are being picked up by the customer.

The working space of the graphic designer and specialist in computer typesetting, should be placed in a separate, quiet room. What is important is ensuring the right kind of work terms for the graphics such as the right kind of lighting and the possibility of darkening the room which has a great influence in the right kind of seeing colors.

For all the computer workstations a MS Office package needs to be purchased and for the receptionist an extra program for invoices. In this part of the studio a color xerox and a black and white laser printer can be present.

For the studio, to have the ability to do all of the functions mentioned above, the computer graphic workstations should be supplied with computers with high class monitors, a flat scanner with high resolution with the possibility of scanning A3 formats and films as well as a color laser printer which allows making prints of the size of 420x297 mm. The most economic solution in the matter of programming is buying packets that contain most of the needed applications for the studio. Besides buying CorelDraw Graphic Suite X3, the graphic workstations can be equipped with a Creative Suite Design Premium packet which contains such programs as Adobe Photoshop CS3 Extended, Adobe Illustrator CS3, Adobe InDesign CS3, Adobe Acrobat 8 Professional. What will also be needed is an extra set of fonts.

Specialist training for employees

People working at a studio should have a good knowledge of the computer, the MS Office package and internet issues.

On the market of trainings in computer graphics and DTP the company which has the best opinion is IT Media. A person who will take up the position of a computer graphic will have the possibility of going through a 14 hour training course from the handling of Adobe Photoshop on the basic level, with the elements of training in the process of scanning. The knowledge gained during such a course allows gaining the best quality of all images, with versatile correction and preparing for publication in

any kind of media. There is also a 21 hour course which teaches the managing of CorelDraw X3 and it allows gaining the needed skills for professional creating and editing of graphics, making computer typesetting for small documents and creating animations.

The worker responsible for computer typesetting should go through a training from the techniques of DTP on the basic level and if financially possible on the advanced level. The estimated time of both courses is 75 hours. It allows obtaining wide knowledge and skills required for a DTP operator based on the most popular programs from Adobe in the shortest possible time.

The reception worker should be acquainted with the most important techniques in the contact with clients, which stresses self presentation, effective communication, the rules of trade argumentation and handling difficult situations that can occur during contact with the client. This kind of two day training is offered by one of Warsaw companies High5 Training Group.

Discussion

Problems with the realization of the project

It is easy to guess that the largest problem in starting a library DTP studio will be gaining the financial sources. The results of the questionnaire can be used as an argument in the discussions with the MUW authorities, connected with the realization of a DTP studio by the Main Library. Another argument for starting of such a studio is the fact that there are plans to begin construction of a new library building at the nearest time.

EQUIPMENT					
two computer graphix workstations	scanner	printers:	color xerox,	cash register	
computer workstation for the receptionist		laser color, laser black and white	binder		9250 €
SOFTWARE					
programs for graphics and computer typesetting:	3 MS Office packs	extra font set	program for making bibliographies	program for invoices	
two packs:					5425 €
Creative Suite 3 Design Premium					
CorelDraw Graphics Suite X3					
SPECIALIST TRAINING FOR EMPLOYEES					2 000€
EXTRA MATERIALS					
color model	typographic rulers (for measuring the size of fonts)	graphic catalogues			
					250 €
				SUM =	16 925 €

The table below shows a projection of the costs which will be necessary to equip the studio in the needed equipment, programming, extra materials and expenses connected with specialist trainings of the employees.

In the extra costs one must also count the salary of the workers of the studio. The salary of DTP workers from outside companies come to about 1000€.[2] For inexperienced workers of our studio the salary could amount to about 625 € for a specialist in computer typesetting and a computer graphic and 500 € for the receptionist. The wages should be satisfactory for the employees because they transcend the regular wage of a librarian. At the beginning of the business there should be one person employed who has a bigger experience. The best thing would be employing a specialist in computer typesetting. This not only is a warranty of well organized work but it would also lower the cost of specialist training for other employees on the same position by 1 275 €. Savings of 2 000 € could be made by leasing a xerox instead of buying it.

It is hard to foresee the expenses that have to do with usage of materials such as paper, toners for printers, binding materials, as well as for the investments in continuous training of employees or the updating of software and the equipment. Another problem could be the unstable incoming of orders, disproportional to the financial capability of the studio for its development in employment, equipment and programming.

We must also expect that a surface of no less that 50 m^2 will be needed for the studio out of the library space and that the library staff might be cut down by people with a good knowledge of the computer and Internet.

The advantages of the implementation of the project

Enriching the library's offer in desktop publishing services will contribute to the increase of its share in the educational and scientific process of the MUW, which should have positive effect on the image of the library in the academic society. The implementation of the project will also boost the competitiveness of the Main Library of the MUW in the local library environment.

The DTP studio will ensure the library services connected with preparing occasional prints (posters, brochures, leaflets), materials for information tables, materials for trainings for university's and library's employees. What can also be useful is the possibility of making the www pages of the library more attractive.

There still remains a question of the fees that should be enforced for the services. Even if they become introduced it is for sure that they will be much lower than those in outside companies. This will not only be satisfactory to the clients but will also give the library extra earnings, which can be used for covering the expenses of certain materials or trainings.

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[2] the salary has been given in net value

The perspectives of development of the studio

The library DTP studio could be also used to plan the digitalization of the collection of the Main Library, during which the scanning of documents is necessary as well as digital processing. The professional service in the studio will allow getting high quality of the documents as well as a short time for their preparation.

The DTP services will enable the access to a group of qualified workers who could lead training courses from the basics of desktop publishing for university lecturer, students and library employees. When the users of the studio will become accustomed to it the training of the library staff seems quite obvious as to ensure the reduction of the easiest orders. A temporary solution would be making a www page for the studio on which the customers could find free links to programs of DTP and a list of most frequently asked questions and the answer to them.

In the future the services should be widened by preparing 3D graphics. The time consumed to create such projects at the beginning of the working of the studio will only allow the preparation of the easiest projects of this kind.

The services could be also enriched by collaborating with consultants that specialize in medical statistics or lexical and syntactical correctness. This kind of services was opted by 67% of respondents.

Conclusion

The results of the inquiry among the readers of the Library Center of Biostructure Research show that what the users want and expect in the aspect of final preparation of the papers for publication goes far beyond finding instructions to authors or checking the correctness of the bibliographical description. Facing these expectations is a big financial strain and the need of educating library teams in a completely new area – in publishing. What speaks for taking up this challenge is the fact that the realization of new tasks and developing new expertise always had a big effect on how we were and are treated by the users. In this case it means treating us as partners, and in my belief, this ensures us, librarians, the highest class of satisfaction from the work we do.

ANNEX

Dear Sir or Madam,

As it has been observed, there is a growing tendency in the interest of the possibility of gaining help in the services connected with computer-assisted preparation of manuscripts for print or multimedia presentations in the library. I would like to study the authentic level of your need for this kind of services. The results of this questionnaire will be helpful in making a decision whether the services of our library will be widened in this direction as well as in gaining necessary financial sources for the purchase of equipment, software and directing employees for specialist trainings.

☐ RESEARCH WORKER ☐ STUDENT

1. When preparing your paper for print/presentation (articles, posters, multimedia presentations, term papers, Bachelor's Degree thesis, MA thesis) do you take the help of other people/companies ?

☐ SOMETIMES ☐ ALWAYS ☐ NEVER

2. When preparing a paper for print/presentation on your own do you encounter problems? If yes, please name them.

☐ YES ☐ NO

....
....
....

3. If you take help in preparing your papers for print please tick the appropriate box.
☐ friends
☐ the Photomedical Department of MUW
☐ computer engineers
☐ CBR library
☐ outside companies (please name them) ....
☐ other...

4. If you take help in preparing your papers for print/presentation do you rate them as fully satisfactory. In the case of a negative answer please give reasons.

☐ YES ☐ NO

....
....
....
....

5. Do you have the ability to perform the following:

scanning

text	☐ YES ☐ NO
color images	☐ YES ☐ NO
gray scale images	☐ YES ☐ NO

using the available features
in formatting the scanned image　　　　　☐ YES ☐ NO

graphic processing of images

placing a graphic in the document	☐ YES ☐ NO
cropping of photos	☐ YES ☐ NO
correction of photos	☐ YES ☐ NO
creating 2D graphics	☐ YES ☐ NO
creating 3D graphics	☐ YES ☐ NO

computer typesetting　　　　　☐ YES ☐ NO
creating tables　　　　　☐ YES ☐ NO
creating graphs　　　　　☐ YES ☐ NO
changing the format of a file (ex. DOC into PDF)　☐ YES ☐ NO
preparing a multimedia presentation　　☐ YES ☐ NO
preparing a graphic project　　　　　☐ YES ☐ NO
saving files on some kind of data carrier

CD	☐ YES ☐ NO
PenDrive	☐ YES ☐ NO

preparing papers for print at the printing house　☐ YES ☐ NO

6. Which programs do you use in preparing your paper for print/presentation?
graphic programs

☐ CorelDraw	☐ YES ☐ NO
☐ Adobe Photoshop	☐ YES ☐ NO
☐ Adobe Illustrator	☐ YES ☐ NO
☐ Adobe InDesign	☐ YES ☐ NO
☐ MS Word	☐ YES ☐ NO
☐ MS PowerPoint	☐ YES ☐ NO
☐ Quark	☐ YES ☐ NO
☐ Paint	☐ YES ☐ NO
☐ other	

programs for creating a bibliography

☐ End Note	☐ YES ☐ NO
☐ Pro Cite	☐ YES ☐ NO
☐ Reference Manager	☐ YES ☐ NO
☐ other	

7. Do you think that access to services that would help in the preparation of papers for print/ presentation in the library is needed? If yes, please tick the most helpful things for you:

☐ YES ☐ NO
☐ scanning
   ☐ text
   ☐ color images
   ☐ gray scale images
   ☐ using the available features in formatting the scanned image
☐ computer typesetting
☐ creating tables
☐ creating graphs
☐ changing the format of a file (ex. DOC into PDF)
☐ navigating in PDF files
☐ help in opening/editing different graphic files ex. with an extensio PSD, CDR, QXP
☐ graphic processing of images
   ☐ placing a graphic in the document
   ☐ cropping of photos
   ☐ correction of photos
   ☐ creating 2D graphics
   ☐ creating 3D graphics
☐ preparing a graphic project
☐ using programs for creating a bibliography
☐ saving files on some kind of data carrier
☐ preparing papers for print at the printing-house
☐ preparing a multimedia presentation
☐ doing prints
☐ other ....

8. What advantages for yourself do you see in expanding the services offered by the library by those connected with the help in preparing papers for print/presentation? ....
   ....
   ....

9. If you have any other thoughts about the issues concerning the services mentioned in the questionnaire, please write them in the provided space below.
   ....
   ....