

Job offers from print to online advertisements through the prism of the Europeana Newspapers Project

Nataša Dakić

University of Belgrade, University Library "Svetozar Markovic", Belgrade, Serbia
dakic@unilib.bg.ac.rs

Aleksandra Trtovac

University of Belgrade, University Library "Svetozar Markovic", Belgrade, Serbia
aleksandra@unilib.bg.ac.rs

Vesna Vuksan

University of Belgrade, University Library "Svetozar Markovic", Belgrade, Serbia
vuksan@unilib.bg.ac.rs

INFORUM 2014: 20th Annual Conference on Professional Information Resources
Prague, May 27-28, 2014

Abstract

The basic idea of the "Europeana Newspapers Project" is to provide, through the Europeana portal, an integrated approach to the newspaper collections from various European countries. The project aims to enable users a complex full-text search of content which includes the use of various tools and technologies for advanced search and information retrieval. University Library "Svetozar Markovic" participates in the project with more than 40 newspaper titles and over 400,000 digitized pages printed mostly in Cyrillic and covering the period from the mid 19th to the mid 20th century.

Project also represents a great opportunity for researchers to view, search and examine, among other things, the content of advertisements in old newspapers, while advertisements represent a reflection of political, economic and social conditions in one country. The focus of the research were job offers. They appeared in Serbian press in the early 19th century modeled on the newspapers from Central Europe, mainly from Austria. It is interested to see how they change during the time, regarding their appearance as well as their content, from ads that were not sorted by any logical order and schedule to specialised online services. Today, newspapers and magazines typically have very few job offers. The overwhelming majority of ads are now online, whether on broad job boards, company websites, or display ads. Additionally, more and more job boards and web sites give the option of sharing job offers on social media such as Facebook and Twitter.

Keywords

Europeana Newspapers, Europeana, Serbia, University Library, jobs, ads, advertisements, search, newspapers, digitization

Introduction

The foundations of today's major newspapers were laid during the 19th century, which was the time of massive newspapers growth. Newspapers of this period were noticeably different from the ones that exist today: there were no bold fonts, illustrations or advertisements and all news, from actual news to job offers were printed back to back in a very tiny font. Those early newspapers brought daily news, announcements, and from time to time feuilletons of distinguished writers. There was no place for humorous content or mockery. Gradually, illustrations started being part of the newspapers along with the advertisements.

Perhaps the best place to gain a glimpse of the labor market development through time is in the newspaper. Not the front page—but the want ads. Digital versions of the advertisements from the 19th and beginning of the 20th century are freely available today through the “Europeana Newspapers” project. Those resources allow us to understand better the changes of the workforce throughout this period. During the 19th century most wanted jobs were shopkeeper, piano teacher, tailor or laundrywoman, however, in the 20th century employers were in search of typists, switchboard operators, repair technicians, keypunchers and elevator operators, not to mention that newspapers even had separate job listings for men and women. Today majority of want ads seek webmasters, application developers, desktop publishers, and many other lines of work, and it is important to mention the fact that most of the job seekers no longer turn to the want ad pages in their search for jobs, but to the Web pages and ads.

Undoubtedly, we live in a world that only few could have imagined 50 years ago. What will the workforce and workplace look like half a century from now?

Europeana Newspapers project

“Europeana Newspapers” is a three-year project (2013-2015) funded by the European Commission during which around 18 million digitized pages of newspapers in full text will be delivered to the TEL (The European Library) and Europeana. The project offers OCR – Optical Character Recognition, OLR – Optical Layout Recognition, NER – Named Entity Recognition technology as well as recognition of class pages for the purpose of improving search and information retrieval. Usage of OLR is very important in the process of structuring of newspapers articles. General rule system enables recognition of words, text lines, text blocks, columns, illustrations, advertisements, tables and the following page types: title page, content page, illustration page (a page that has at least one illustration) and a page that contains advertisements only.

Newspapers, in a time before the appearance of radio and television, had played a key role in the development of advertising and marketing. Ads and commercials content represents excellent material for researchers in the area of cultural history and theory of marketing, especially from the aspect of studying the history of advertising and marketing. An immense number of over 18 million digitized newspaper pages with advertisements will be in open and free access by the time the project cycle ends which will significantly affect the availability of these materials, and bring new users both to the Europeana portal and the local digitized collections. The contribution of the University Library "Svetozar Markovic" to the project includes more than 40 newspaper titles and over 400,000 digitized pages issued in the period from 1850 to 1945, mostly printed in Cyrillic. During the second project year the Europeana Newspapers project has collected millions of high-resolution images of newspaper pages. These pages will be made fully searchable and integrated in an online browsing tool developed by The European Library (TEL). The prototype interface has undergone usability testing and the external team doing the testing will report back in early May. TEL will then start working on adopting their recommendations, and also incorporating some other features such as the ability to

search over article-level records, and to search via named entities (e.g., persons or places) identified in the digitized text of the newspapers. The prototype of this tool is now available on TEL homepage. Users can search for specific historic newspaper titles and browse by various criteria such as issue date or country. A beta version with improved functionality will be released later in 2014.

Serbian historic newspapers are searchable through this browser. The quality of the OCR material is not so good, since all newspapers were printed in Cyrillic. There is a possibility of improvement, but it requires time and substantial effort and resources. Despite the disadvantages, this browser prototype was used for the research on job advertisements in Serbian historical newspapers.

Job opportunities in 19th century

Employment in the 19th century was primarily reserved for those in the middle class or for the poor. The upper class did not work because they were aristocracy or merchants who had earned enough money to quit working. Jobs for the middle class and poor were unsafe because there were no regulations to limit hours or to protect against hazardous materials and conditions.

Professional jobs or white-collar jobs such as bankers, newspaper publishers, doctors, lawyers and ministers were for men. These men were mainly from upper-class society, and as such, had more educational opportunities. Upper and middle-class women in the 19th century did not have careers. Universities barred women from employment in white-collar jobs.

ФИЛИП УНГАР
доктор медицине и помоћник
при порођају

даје лекарске савете у женским де-
чијим као и у кожним болестима.
Седи у Морфиној кући на пијаци.

PHILIPP UNGAR
Doctor der Medizin und Magister der Ge-
burtshilfe

ordinirt in Frauen- und Kinderkrankheiten, so
wie auch in Hautkrankheiten von 11 bis 12
Uhr Vormittags.
Wohnhaft: Rathhausplatz, Morphyisches
Haus, zur ebenen Erde rechts.

Figure 1. "Zemunski glasnik", br. 46, 1869

Јозеф Маркс
мајсторски мајстор у Земуну

препоручује се поштованој публици
у вршењу мајсторских послова, коју
ће радњу одсад сам на своју руку
да ради, пошто је последњих јед-
наест година са његом радњом по-
којног Флоријана Фелбера управ-
љао.

Увершавајући поштовану публику
да ће сваки поверени му мајсторски
посао точно и по умереној цени вр-
шити, нада се, да ће у многим при-
ликама посведочити моћи то своје
обезбеђење.

Josef Marx.
Maurermeister in Semlin

empfiehlt sich dem geehrten Publikum zur
Ausführung aller Art von Bauarbeiten, welche
er von jetzt an auf eigene Rechnung über-
nimmt, nachdem er die letzten elf Jahre
hiedurch das Baumeister-Geschäft des seel.
Herrn Florian Felber geleitet hat.

Das geehrte Publikum kann versichert
sein, dass er jede ihm anvertraute Mauer-
arbeit solid und zu möglichst billigen Prei-
sen ausführt, wovon es sich durch zahl-
reiche ihm zugewendete Aufträge überzeu-
gen wird.

Figure 2. "Zemunski glasnik", br. 24, 1869

In urban areas, there was an increasing number of shopkeepers, bookkeepers, salesmen and clerks coming from the middle class, also, a growing number of craftsmen migrated to urban areas and set up shops not only to practice a craft but to learn the ropes of entrepreneurship. Both men and women worked as teachers. At the end of the 19th century, education for all children became compulsory, so there was a need for more teachers. Women who were educated but impoverished, from middle-class families that had fallen on hard times, worked as nannies or governesses. Men had an opportunity to join the police force or be employed in clerical work in offices, and during the later part of the 19th century women also began getting the office jobs. The invention of the typewriter led to more women being employed, as women had smaller, nimbler fingers which made them better typists than men.



Figure 3. "Zemunski glasnik", br. 35, 1869

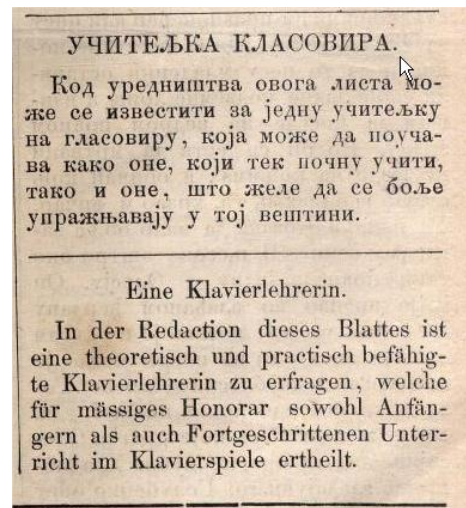


Figure 4. "Zemunski glasnik", br. 41, 1869

Most households in lower-class necessarily drew income from a number of sources, with many women and juveniles adding to wage earning even if their employment was usually more intermittent and low-paid than that of adult males. Although the male breadwinner wage was increasingly regarded as the ideal and even the norm, in practice many households were dependent upon female earnings, especially those households run by widows.

As the industrial revolution progressed through the 19th century, many people, men and women, would have worked in factories. Men usually worked in mines or factories. A lot of women would work in 'sweatshops' sewing clothes, very poorly paid work with very long hours. Laundries were another source of employment for poor women, anyone who could afford it would send their clothes to be washed. However, the most prevalent employment for a woman from a lower-class was as a domestic servant. Large numbers of people (especially women) would have worked in domestic service, nearly everyone who could afford it employed at least one servant, even quite a humble person like a shopkeeper or clerk would have been able to employ at least a maid-of-all-work (the girl as she was known) and wealthy people would employ many.

Recruiting in the 19th Century

Recruiting in the 19th century was quite simple. Job offers were put in the shop's window, or building wall, or in the local newspaper. Hired help in small communities had to have some recommendations, but in larger cities there was no way to tell what kind of person someone was or what their strong points were, except that they were shopkeepers, tailors or laundrywomen.

Job opportunities in 20th Century

During the 20th century a variety of jobs started gaining popularity: bankers and money lenders, industrial entrepreneurs, doctors, dentists, engineers, architects, chemists, accountants, surveyors, managers of private and public institutions (businesses, academies and hospitals), manufacturers, teachers, nurses, merchants and shopkeepers, bookkeepers, salesmen, and clerks.

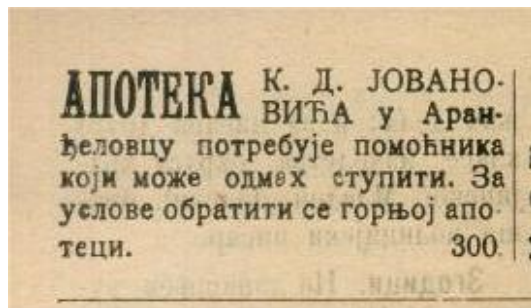


Figure 5. "Male novine", br. 145, 1902

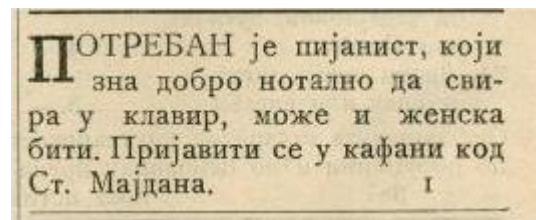


Figure 6. "Male novine", br. 5, 1903

At the beginning of the 20th century cultural norms dictated that it was acceptable for middle-class women to be employed as bookkeepers, typists, clerks, stenographers, and secretaries, because an office job paid more money than other job opportunities, which brought along a level of respect for women. Also, nursing and teaching became a respectable occupations for women. The outbreak of the First World War brought radical changes to the working lives of many women. With their men in the armed forces, industry needed women to meet government war contracts and women were engaged in industry like never before.



Figure 7. "Pravda", br. 120, 1929



Figure 8. "Vreme", br. 5739, 1938

Many women found employment in communications, retail stores, offices, and hotels. From the beginning women had predominated as telephone operators but few advanced beyond the lowest supervisory positions. Women also staffed retail stores all over the state and owned and managed many of them. Office workers were usually young, single women since it was expected of them to leave their jobs when they get married. Throughout the 20th century, women were paid less than men and about 60 percent of women held jobs by the turn of the 20th century. This figure is based on statistics for 1999. This shows a tremendous area of growth from the previous century where only 20 percent of the women held jobs.



Figure 9. "Pravda", br. 144, 1929

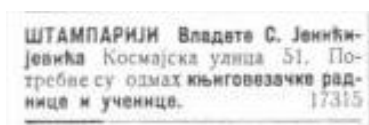


Figure 10. "Pravda", br. 80, 1929

After the war, office employment, including civil service and local authority jobs, grew dramatically. Due to the technological innovations, many working processes have been simplified and caused rapid productivity growth. These innovations caused a shift in labor demand to non-manual work within industries and shift in employment from production industries to services. The area of outstanding growth in late twentieth century was the service sector, which included transport, distribution, catering, and the professions such as health, education and public administration.

Recruiting in the 20th Century

Recruiting in the 20th century worked well enough for its environment. Job-seekers replied to ads they saw in the local newspaper, which were placed by companies looking to hire. The hiring manager would receive a reasonable number of resumes that he could personally look through to select candidates for further review. And a specialized profession of executive search consultants was born and evolved into the modern search business. The most commonly identified deficiencies in the system were long cycle times, opacity of market information, the impossibility of conducting truly thorough, truly national searches, and the inordinate power of the most successful executive search firms.

Job-seekers were applying for jobs in their present location (the exception being the case of a job-seeker looking to move there for family, work, or industry reasons). As the most common ways to learn about job openings was through the local newspaper.

In the 20th century model, recruitment advertising took place in the newspapers, which were local information monopolies. Even though most markets had two or more newspapers, the duopoly or oligopoly would tend to segment the audience into niches so that each paper might target a particular political, demographic, or income level. Radio and TV were never effective means of advertising open job positions as the much smaller amount of advertising space available meant substantially higher prices. Trade magazines and academic journals

were effective means of recruitment advertising but at much too small a scale to be considered a dominant force.

Job opportunities in 21st Century

One might think that the most promising occupations are one related to computer sector, such as computer information research scientists, computer support specialists and systems analysts. However, according to the Laurence Shatkin who studied the Bureau of Labor Statistics' projected data for 2008 to 2018, and analyzed a jobs predicted growth and openings, the top five most prosperous occupations are oral and maxillofacial surgeons, orthodontists, physicians and surgeons, chief executives, dentists. The computer and information systems managers who plan, direct or coordinate activities in such fields as electronic data processing, information systems, systems analysis and computer programming are on the 10th position. It's no surprise that many of the top jobs on the list require advanced education or training.

Recruiting in the 21st Century

Newspapers and magazines typically have very few "Help Wanted" ads anymore. That's especially true when it comes to professional, white collar positions. The overwhelming majority of ads are now online, whether on broad job boards, company websites, or display ads. Similarly, the application process is typically online as well.

Additionally, there are countless other resources available for a job search. Resources that can help in creating resumes, prepare for interviews, manage all your information flow, connect with new contacts, research people, companies, and opportunities, as well as many other aspects of the process.

Because it's easier for people to find and apply to opportunities online, it also means that companies receive far more applicants for each job than ever before. The internet has made it easy for people to point-and-click to apply to many more jobs than they ever have. As a result, there are more applicants, both qualified and unqualified for each job on the market.

Advertisers have also embraced social media, such as YouTube and Facebook. But they are still learning how to use these systems effectively and to understand both the advantages and disadvantages of social media. Other Internet ad media is also evolving rapidly, including large networks such as Google AdWords. An advantage of using social media and Internet is the huge amount of information that can be applied when it comes to targeting customers. Websites gather a lot of demographic information such as age, sex, salary range, likes and dislikes. This information can be mined to develop the ad campaign that will exactly target that customer. For example, if you know what TV shows your ideal customer watches, you can plan ads not only during that show, but also target people on Facebook who list that show as a favorite. Because it is possible to drill down to target niche groups, firms will have to develop a variety of ad strategies to cover the audience once held by major television or radio networks. The media innovations have splintered the audience into much smaller pieces and it will require a different plan to reach them all. However, the precise

targeting available through Internet resources makes this possible. The challenge is for agencies to develop strategies to take advantage of these changes.

Conclusion

Discovering content from the 19th and 20th century through numerous digitized newspapers that are part of the local and European collections offer many benefits for the end-users, both researchers and general public. Such resources represent great opportunity to view, search and examine, among other things, the content of advertisements in old newspapers, while advertisements represent a reflection of political, economic and social conditions in one country. Consequently, the 400.000 pages digitized by the University Library “Svetozar Markovic” depict everyday life in Serbia and development of all areas of human knowledge and practice throughout two centuries.

References

Costa, Dora L. “From Mill Town to Board Room: The Rise of Women’s Paid Labor.” *The Journal of Economic Perspectives*, Vol. 14, No. 4, (autumn, 2000), pp. 101-122.

Fullerton, H. N., Jr. (1999). Labor force participation: 75 years of change, 1950-98 and 1998-2025. *Monthly Labor Review*, 122, 3-12

Goldin, Claudia. “The Work and Wages of Single Women, 1870 to 1920.” *The Journal of Economic History*, Vol. 40, No. 1, *The Tasks of Economic History* (March, 1980), pp 81 -88.

Graham, J. W., & Smith, S. A. (2005). Gender differences in employment and earnings in science and engineering in the U.S. *Economics of Education Review*, 24, 341-354.

Henderson, Richard. “Industry employment and output projections to 2020”. *Monthly Labor Review*, January 2012, 65-83. <http://www.bls.gov/opub/mlr/2012/01/art4full.pdf>

Journal of the National Institute for Career Education and Counseling, 2012, Issue 29.
<http://saens.hi.is/sites/saens.hi.is/files/hooley-nicec-journal-oct2012.pdf>

Kahn, B. Zorina. “Married Women’s Property Laws and Female Commercial Activity: Evidence from United States Patent Records, 1790-1895.” *The Journal of Economic History*, Vol. 56, No. 2, *Papers Presented at the 55th Annual Meeting of the Economic History Association* (June, 1996), pp 356-388.

