

A View on the Representation of Women in Serbian Newspaper Texts

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Motivation

the presence of women in newspaper
texts from different perspectives

Our main interests

- The structure, repertoire and frequency of use of Serbian personal names used for women
- The way women are usually addressed in newspapers, formally and informally, e.g. *Snežana Banković-Đokić* vs. *Bankovićeva* and *Bankovića*
- The professions, roles and functions performed by women, and the way they are expressed in newspaper texts.
- The presence of women in texts from specific domains (politics, economy, sport, criminal, etc.)

What will we use?

- **The corpus approach** - corpora of contemporary Serbian newspaper text that we have already built for various different projects and corpus of old newspaper texts that cover over 100 years especially build for this purpose
- **Lexical analysis** - electronic dictionaries (Serbian morphological electronic dictionaries of simple words and compounds as well as electronic dictionaries of personal names) and local grammars

Two Perspectives

- Men **vs.** Women in the same corpus
- Diachronic – Women in Serbian newspaper texts from 30 and 60 years ago **vs.** contemporary newspaper texts.

Perspective 1 - introduction

We compared the results obtained for women with those that can be obtained for men on same corpus data.

The points of interest: the most frequent roles (or functions) occupied by women in comparison with those occupied by men, or, retrieval of domains in which women are significantly more or less represented than men

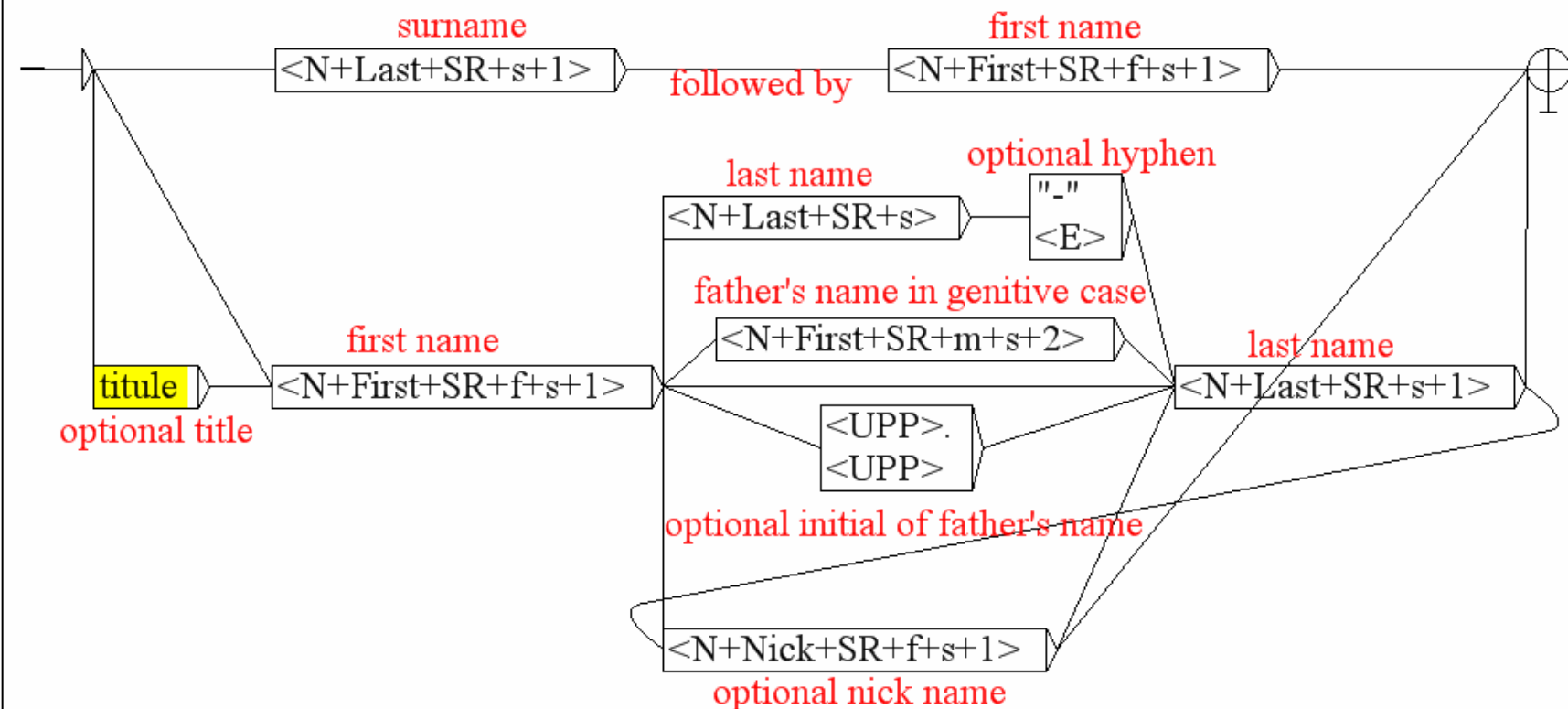
Perspective 1 – how?

We developed local grammars for the extraction of men/women names from the newspaper texts

Perspective 1 – Women

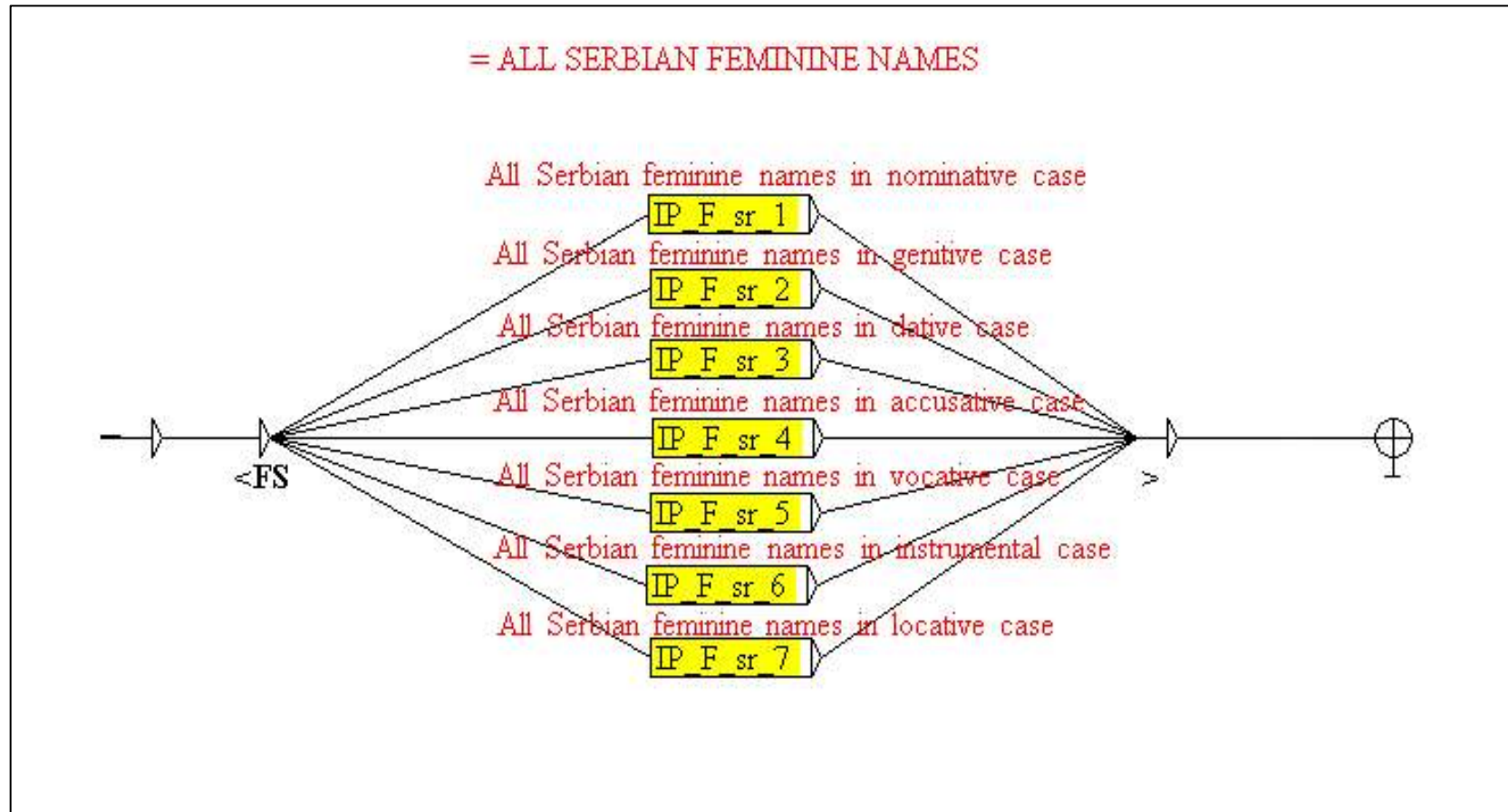
basic subgraph – IP_F_sr_1

IP_F_sr_1 = SERBIAN FEMININE NAMES in nominative case



Perspective 1 – Women

basic subgraph – FS



Perspective 1 – Women Results

1. ci firme "Vektra M" Violeti Josifov , koja je na tender
2. igde ni reči o Mirjani Marković i Slobodanu Milošev
3. i direktora Putnika Mirjane Stanković. Konzorcijum tvrd
4. oljoprivrede Srbije Ivani Dulić-Marković poslat je dopis
5. stuba će, po rečima Gordane Matković, biti sprovedena
6. btelu, prema rečima Marije Drča Ugren, ne znači da je o
7. čemu radi agencija Zagorke Branković "Marketing AND
8. vine. Po mišljenju Vesne Rakić Vodinelić njeno uvođenj
9. ivou", prognoza je Milice Bisić. Poreska reforma PD
10. onačelnica Beograda Radmila Hrustanović "S druge

(corpus "Ekonomist". 167/1368)

Perspective 1 – Men

**The same system was designed for
recognition of masculine names**

Perspective 1 – Men Results

1. o je njihov advokat [Dragan M. Repić](#). On je rekao da u
2. svog predlagača. [Milan Milo Radulović](#), kandidat nek
3. a kakvim, po rečima [prof. dr Radomira Simića](#) sa Ru
4. nansija i ekonomije [Božidarom Đelićem](#), koga će nasl
5. stituta iz Zagreba, [dr Dragomir Vojnić](#), govori kako Sl
6. zacija se nastavlja [Aleksandar Vlahović](#), ministar za
7. o je novog vlasnika [Aleksu Zekanovića](#) iz Valjeva, koj
8. Cirihi pokrenuo [Bogoljub Karić](#) povodom vlasničkog
9. o" čan gradske vlade [Siniša Nikolić](#). Projektna doku
10. Crne Gore" [Ranko Medenica](#) je na konferenciji za n

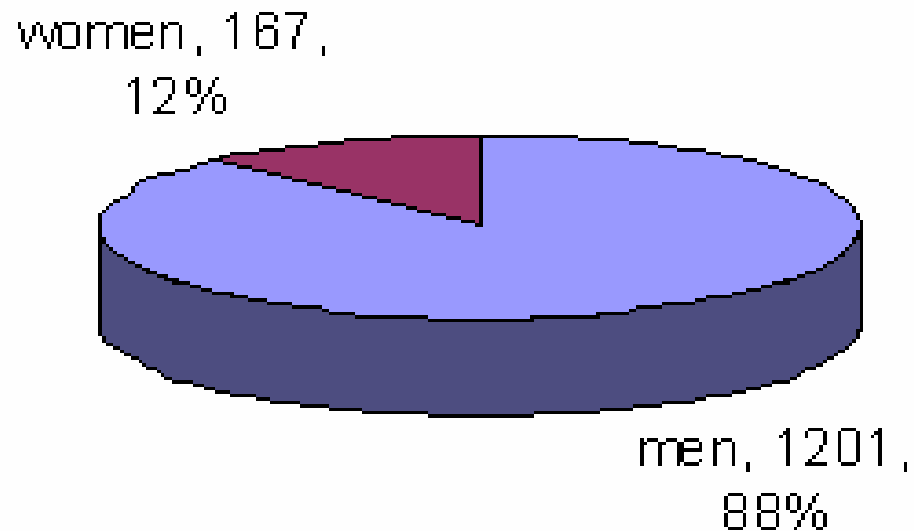
(corpus "Ekonomist". 1201/1368)

Perspective 1 – Men vs. Women

The journal “Economist” – period 2004 to 2005

The size of corpus: 413.000 words.

The total number of names: **1368**



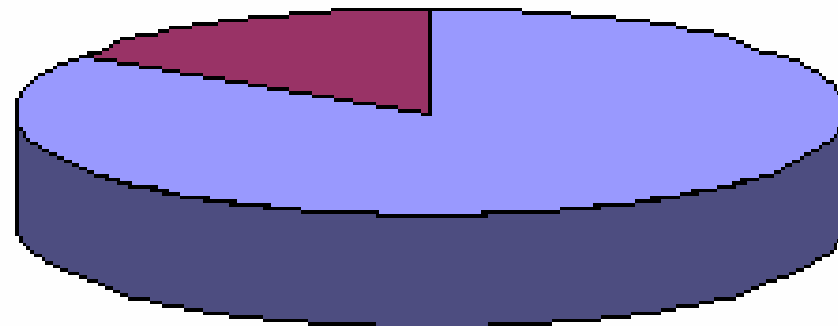
Perspective 1 – Men vs. Women

The newspaper “Politika” - period August-November 2007.

The size of corpus: 101.000 words.

The total number of names: **917**

women, 144,
16%

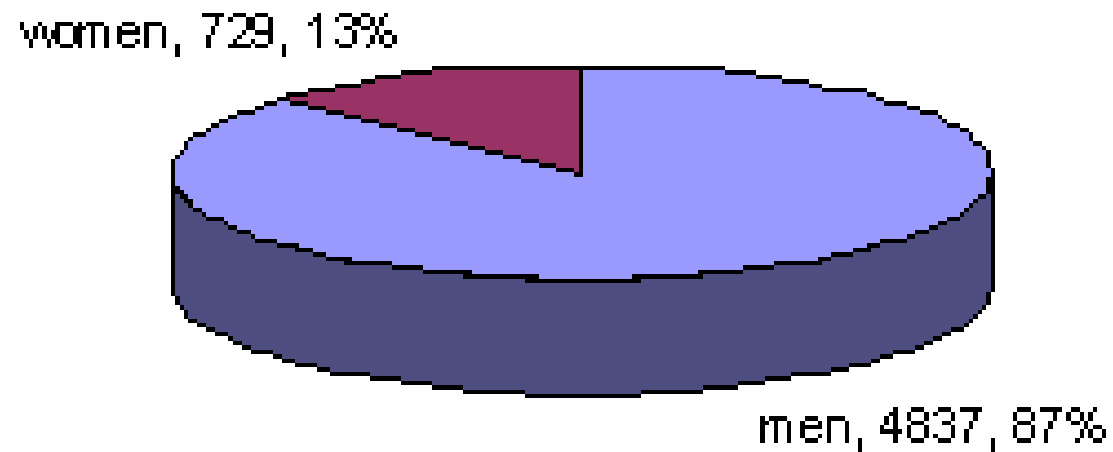


men, 773, 84%

Perspective 1 – Men vs. Women

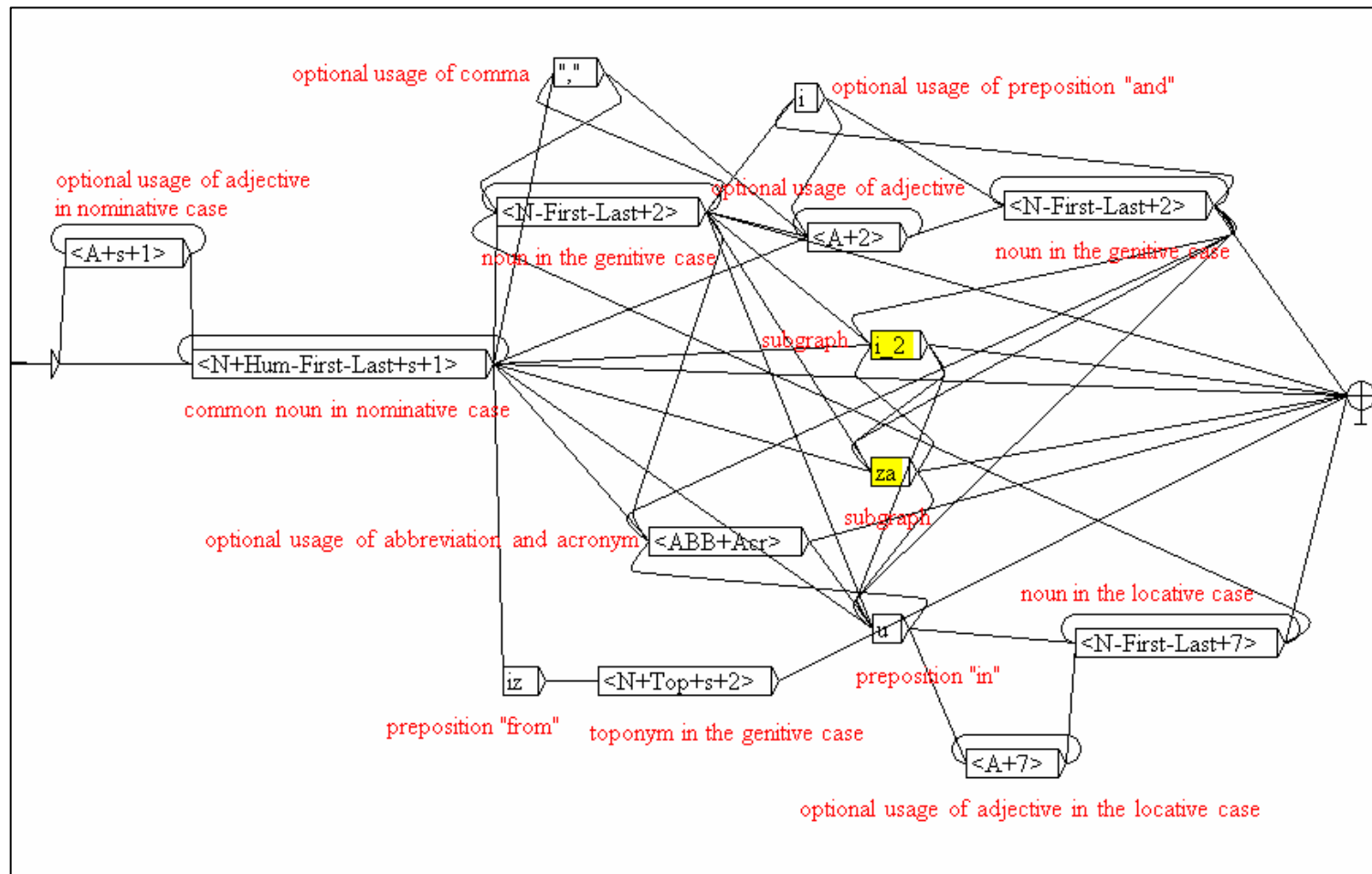
The newspaper „Politika“ – period September-October 2000.
The Size of corpus: 582.000 words.

The total number of names: **5566**



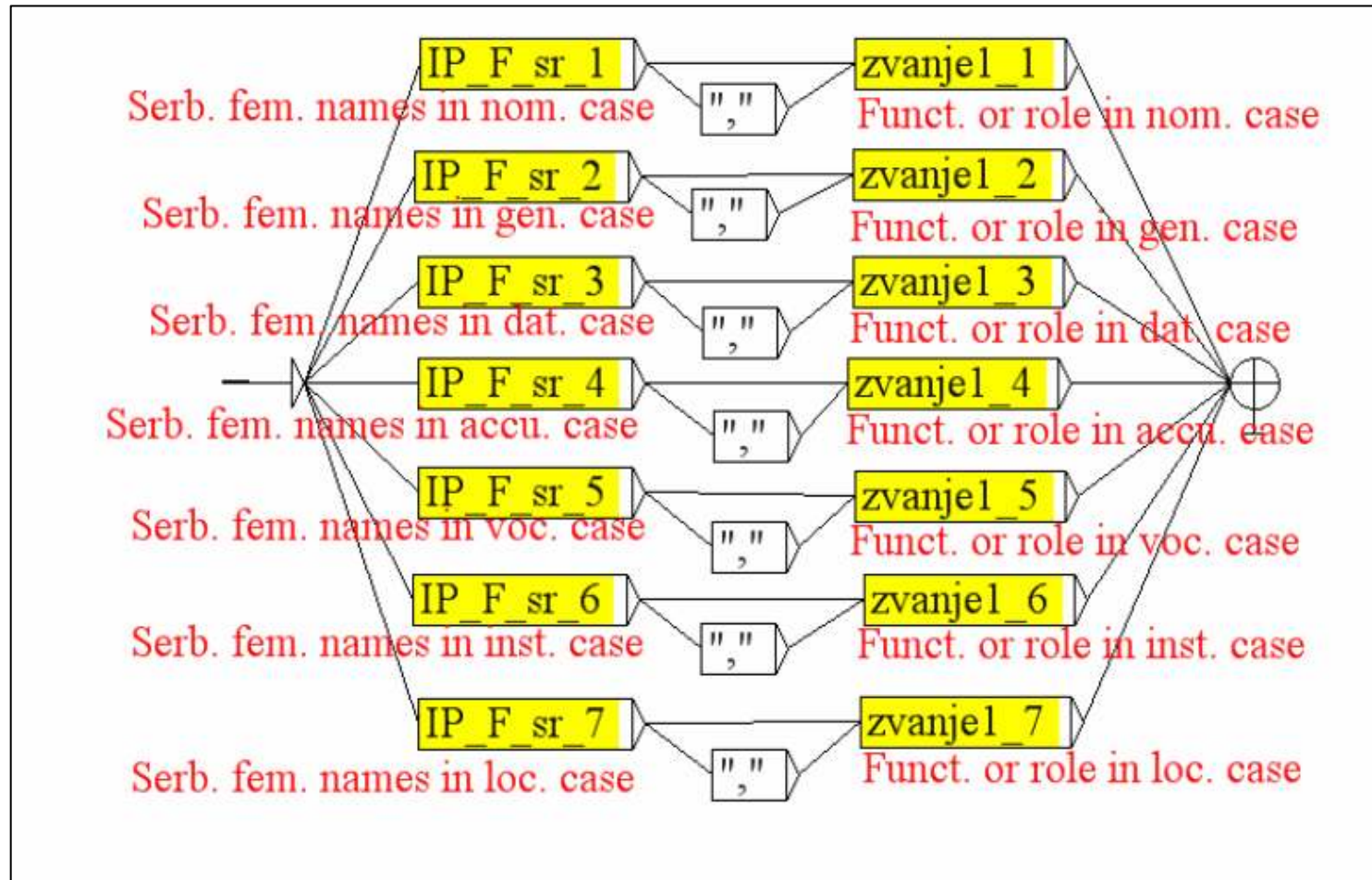
Women names with functions

function extraction in nominative case



Women names with functions

feminine names followed by their function



Women names with functions - examples

- vom skupu saopštena je i majci Tinki Mičić uručena naredba o van
- Ministar prosvete u Vladi Republike Srbije prof. dr Kata Lazović
- Ružica Milosavljević, predsednik jedinstvene organizacije samostalnog sindikata
- Spomenka Jakovljević, generalni direktor Kombinata drvne industrije
- đū ženama najbolji traktorista Moravka Milanović iz Zaječara.
- j dekadi, a student Jelena Vuković je izrazila uverenje da će soc
- vala je i naša olimpijska atletičarka Olivera Jeftić, koja je sinoć
- rganizacijama i predsednik Beogradske banke Borka Vučić, član
- ić i predsednik Opštinskog odbora JUL-a dr Zorica Milovanović

Names with functions

Newspaper „Politika“ – from 2000. Size of corpus: 582.000 words.

Found names: 5566. Names with functions: **2277**.

- Men names with functions: **2098 (92,1%)**

Men:

ministers 175 (84,2%), directors 128 (93,4%), presidents 437 (95,6%)

Total: **740**

- Women names with functions: **179 (7,9%)**

Women:

ministers 28 (13,8%), directors 9 (6,6%), presidents 20 (4,4%)

Total: **57**

Precision and Recall

Corpus: The newspaper “Politika” - August-November 2007.

Size of corpus: 101.000 words.

System for calculation of P and R: *Gerald Salton*

Names:

P: 100%

R: 90%

Functions:

P: 97%

R: 97%

Women names with functions - analysis

- agronom, arhitekta, atletičar, biznismen, kajakaš, pesnik,...
- američki građanin, pacijent, aktivista, barjaktar crnogorske delegacije
- kandidat za poslanika u Veću republika, predstavnik kancelarije UNICEF
- heroj i državnik SRJ, najveći srpski političar 20. veka, dokazani borac za mir, slobodu i nezavisnost zemlje

- operaska primadona, pedagog, prevodilac, vaspitač,...
- starica, prognanik, direktni potomak, najbolji traktorista, porodilja
- predsednik Odoobra za poljoprivredu u Vladi Republike Srbije, nosilac liste i kandidat za poslanika Veća građana Skupštine Jugoslavije, predsednik jedinstvene organizacije samostalnih sindikata

Women names with functions - analysis

- agronomist, architect, athlete, businessman, kayaker, poet,...
- the American citizen, patient, activist, flagbearer for the delegation of Montenegro
- the candidate for the minister in the Republic Council, the representative of the UNICEF office
- The hero and SRJ statesman, the greatest Serbian politician of 20th century, proven fighter for the peace, freedom and for the country independence

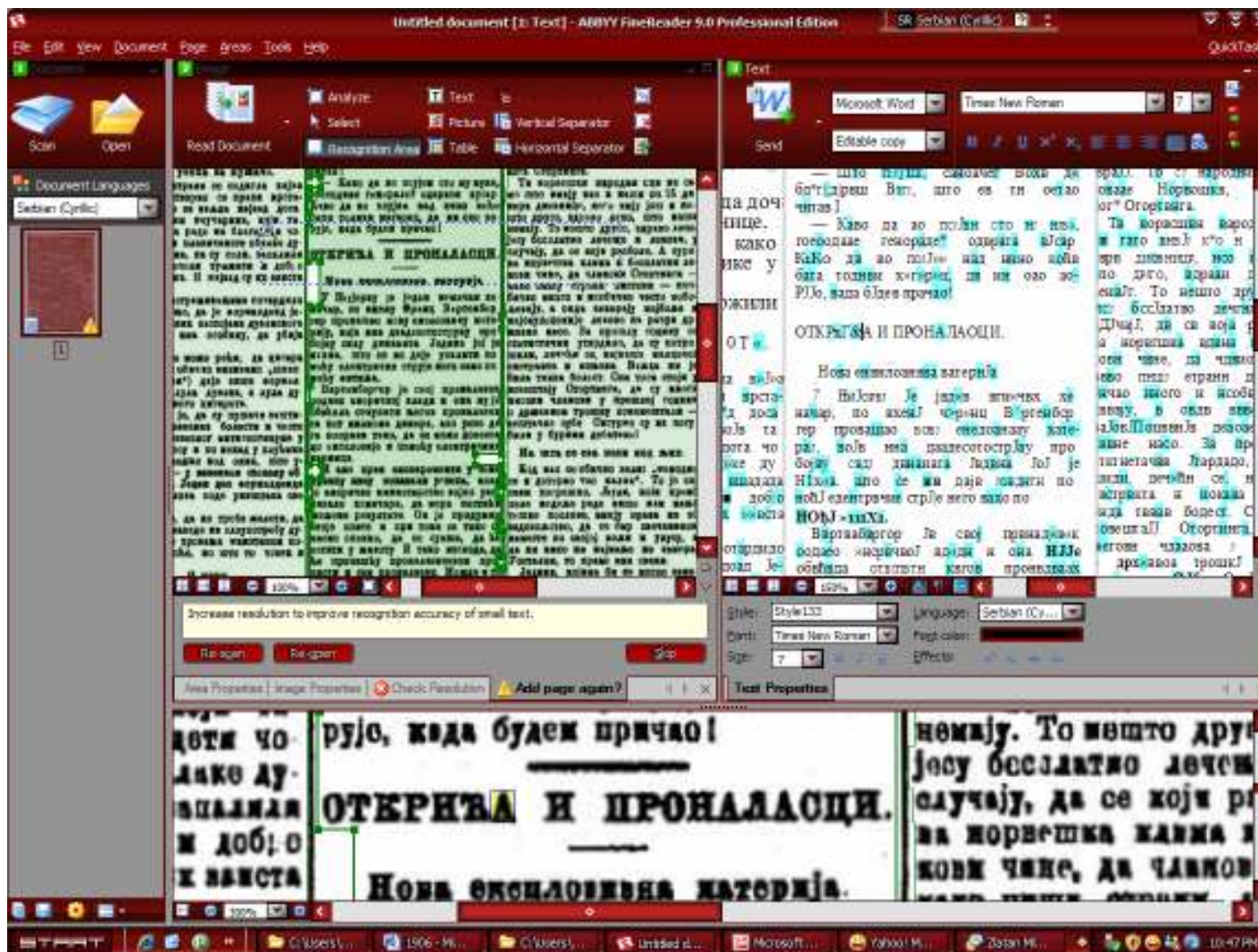
- opera star, pedagogue , translator, teacher...
- An old woman, outlaw, direct descendant, the best tractor driver, puerpera
- The president of the Board for agronomy in the Serbian Government, the leader of the list and the candidate for the minister in Citizenry Council of the Yugoslavian Parliament, the president of the union organization of independent syndicates

Perspective 2 - Diachronic

www.digital.nbs.bg.ac.yu

The screenshot shows a web application interface for a diachronic search of political documents. The interface is titled "ПОЛИТИКЈА" (POLITIKJA) and features a search bar at the top with a magnifying glass icon. Below the search bar are navigation controls, including a hand icon, a left arrow, a right arrow, a printer icon, a refresh icon, and a document icon. The main content area displays a grid of years from 1904 to 1941, arranged in seven rows and five columns. The years are: 1904, 1905, 1906, 1907, 1908; 1909, 1910, 1911, 1912, 1913; 1914, 1915, 1919, 1920, 1921; 1922, 1923, 1924, 1925, 1926; 1927, 1928, 1929, 1930, 1931; 1932, 1933, 1934, 1935, 1936; 1937, 1938, 1939, 1940, 1941. At the bottom of the grid, there are labels for "ГОДИНА" (YEAR), "МЕСЕЦ" (MONTH), "ДАН" (DAY), and "СТРАНА" (PAGE).

OCR using ABBYY Fine Reader 9.0 Professional Edition



Selection of Texts

The daily newspaper “Politika” – all issues published on April 6th

- Period 1904–1941- OCR of already scanned pages
- Period 1945 until today – OCR of printed pages

Newspaper columns

- Foreign affairs
- Internal affairs
- Other domains (economy, society, culture, etc.)
- Short news

Scanning and OCR: the problems

- ABBYY FineReader 9.0 Professional Edition does not recognize all characters and can not perform the clean conversion of the selected text
- Reasons: old printing technique, the characters are often blurred and difficult to recognize
- Solution: text has to be manually corrected using “Editable copy” following at the same time a text in “Recognition area”, before copying it into Word

Text after OCR (6th April 1904)

Том искреном одушевљењу много је допринела и необична љубазност Краљева и интересовање Његово за све народне ствари. Истина и краљ Милан је умео да буде љубазан кад је хтео, али је народ, који је увек добар психолог, осећао, да је та љубазност извештачена, хотимична, а не природна и искрена. Где год дође Краљ Петар се одмах меша с народом, са сваким се помало разговара за све се интересује; не тражи да га љубе у руку као што је то пре био обичај, већ се са сваким мушки и срдечно рукује. То је ситница једна, али је врло карактеристична. Јутро у 9 часова Краљ са својом свитом кренуо се из Пожаревца за Црнуће. Свуда уз пут излазио је силан народ да га дочека и поздрави. На неколико места Краљ се силазио (замрљано) и разговарао са икупљеним (замрљано).

У Црнуће је стигао у 10½ часова (замрљано) поздравио га је (замрљано), свештеник, а народ, нарочито омладина, бацала је цвеће Краљу и по путу којим је ишао. Пошто је обишао школу и цркву, краљ је отишао у млин браће Бајлони и разгледао сву машинерију.

Old texts – the first period

Obvious differences:

- 1-3 appearances of women names per edition
- women are almost always presented:
 - without the last name
 - as relatives of men - possessive form of men
first name: **Jovanova žena/Jovan's wife** or last
name (**Tomićeva ćerka/daughter of Tomic**)
 - special form of last name used for women:
last name + ka – Brankovića
last name + eva - Đorđevićeva

Examples

- Kod fabrike šećera konjanik je pregazio **Milicu, ženu Stanoja Stanojevića iz Meljaka.**
The horseman has run over Milica, the wife of G. Milan Đurađević, former cavalry officer, who se sa **g-đicom Verom, ćerkom g. Andrije Vaskovića, činovnika nemačkog poslanstva.**
Veru, the daughter of Mr. Andrija Vasković, the clerk in the German embassy.
- U Alenštajnu su pogubili **gazdricu Ržigodu** iz Reblave, koja je dva muža otela i jednog u Alenštajnu. **g-đicu Dordević** i oborio je na zemlju.
The landlady Ržigoda from Reblava who poisoned two husbands and one was executed in Alenstein.
- Sinoć oko 8 i po časova tramvaj je pred apotekom kod "Spasitelja" u Vasinoj ulici zakacio **neku Vukosavu Đokić služavku** i oborio je na zemlju.
The portraits of Mrs. Mašin and Miss Đorđević will be exhibited among other paintings.
- Sinoć se u Dušanovoj ulici posvađale i potukle **Anka Nađuba i Milena Mitrović radnice.**
Đokić a maid-servant and knocked her to the ground.
Anka Nađuba and Milena Mitrović, workers have quarreled and got into fight yesterday evening in Dusanova street.

Now.....Then

<ul style="list-style-type: none"> • title – gđa/gđica 	<ul style="list-style-type: none"> • title – g-đa, g-đica
<ul style="list-style-type: none"> • less abb and different punctuation 	<ul style="list-style-type: none"> • abb + punctuation– <ul style="list-style-type: none"> - nastavnica V.Ž. Škole - poč. Pavla Krstića sudije - g. dr. Ignjatom Vokurom prof. u Skoplju - G. Ilija K. Nikolajević, upravnik beogr. carinarnice
<ul style="list-style-type: none"> • members of royal families are rare 	<ul style="list-style-type: none"> • the names of the members of royal families are rare on a regular basis <ul style="list-style-type: none"> - princeza Jelena sa pratiljom
<ul style="list-style-type: none"> • last name + suffixes – rare in newspapers 	<ul style="list-style-type: none"> • last name + suffixes – <i>Brankovička, Jovanovićeva</i>
<ul style="list-style-type: none"> • first name only– rarely 	<ul style="list-style-type: none"> • first name only

Forms *last name + suffixes* still in use (daily newspaper “Danas”, 6th June 2008)

welcome to 

Nastavak... top

Najbolja srpska teniserka pobedila sunarodnicu Jelenu Janković u polufinalu Rolan Garosa i zahvaljujući eliminaciji Kuznjecove izbila na čelo WTA liste

Ivanovićeva novi teniski broj jedan

Paris - Srpski tenis na Rolan Garosu imaće najmanje tri finala. Ana Ivanović (na fotografiji) u direktnom duelu s Jelenom Janković osvojila je naslov novog broja jedan, te je tako izborila i meč za grand slem titulu, u kojem će igrati protiv Ruskinje Dinare Safine.

Najbolji dubl igrač Srbije Nenad Zimonjić biće akter čak dva finala. U paru sa Danijelom Nestorom igrace za titulu u muškom dublu, a za trofej, drugi put u karijeri, boriće se i u miksuzajedno s Katarinom Srebotnik. Ovaj veliki uspeh srpskog tenisa može biti još i veći, s obzirom na to da Novak Đoković danas protiv trostrukog šampiona Pariza Rafaela Nadala igra za finale. S. D.

Nastavak... top



NAS SUNCE POKREĆE 

biodizel VICTORIAGROUP 

i nasilja

on line magazin 

Old texts – the second period (6th April 1946)

Has *drugarica* replaced *gospođa*?

There are no evidencies of that.

Has the presence of women increased?

Not immediately.

Veroslava-Vera Marković domaćica kći Sofije i poč. Živote Markovića iz Požarevca i Mihailo Bobić poslovođa prodavnice obuće “Proleter” iz Požarevca venčani 31. III 1946 godine.

Miroslavka-Mika Đ. Rosić, iz Užica, i Petar M. Jončić, čin. iz Pirot, stupili u brak 6 aprila 1946 g. u Beogradu.

Miroslavka-Mika Đ. Rosić, from Užice, and Petar M. Jončić, clerk from Pirot, Married on 6th April 1946 in Beograd.

Future work

FSTs should be modified, considering all the **differences between living and writing style** (different first names, last names, functions, titles, professions)

from 1904 till today

Gospođa Leposava pok. Save Živkovića Špiklje trgovca iz Jagodine, moli nas da ovim putem izjavimo u njeno ime zahvalnost svima onima, koji su joj se s utešnim rečima našli pri smrti njenog muža.

Mileva se posvađala sa svojim verenikom **jednim krojačkim radnikom**, i bratom **pučerom**.
Mrs. Leposava of the late Sava Živković Špiklja tradesman from Jagodina, ...

Mileva had a quarrel with her fiancé, a tailor's worker and her brother, a ???.
Gospođa Jelena Šopovića, poznata beogradska virtuozka, glasoviru i g. Gustav Mihal, apotekar venčali su se jutros u ovd. rimo-katoličkoj crkvi i odmah otputovali na svadbeni put u Beč.

Miss Jelena Šopović, the famous Belgrade piano virtuozo...

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Thank you