

Uroš Krčadinac

Portfolio



Uroš Krčadinac (b. Feb. 1, 1984) is a Belgrade-based digital artist, technologist, writer, and educator interested in the ethics, aesthetics, and poetics of various complex systems.

Spanning data art, computer science, writing, mapmaking, digital drawing, and animation, his transdisciplinary media projects include several AI systems for generating visuals and prose, an installation that maps national debt to an amount of sugar for diabetics, digital poetry optimised by the Google Ads Keyword Planner, a book of hand-illustrated travel stories from the Balkans, Middle East, and Africa, a physical machine that is half-zoetrope, half-bicycle, and a 64 km long GPS drawing.

His work have been shown at festivals and conferences in Europe, Asia, and North America, such as *re:publica*, *International Digital Media and Arts Association Conference*, *Plan D, Designer – Author or Universal Soldier*, and *Art+Science* organized by the Serbian CPN. His research was published in scientific journals including *IEEE Transactions on Affective Computing* and *IEEE Transaction on Human-Machine Systems*. It was covered by *Creative Review*, *Vizkultura*, and *Visual Complexity*, and awarded by *iDMAa*, *University of Belgrade*, *Belgrade Chamber of Commerce*, and *Belgrade Documentary and Short Film Festival*.

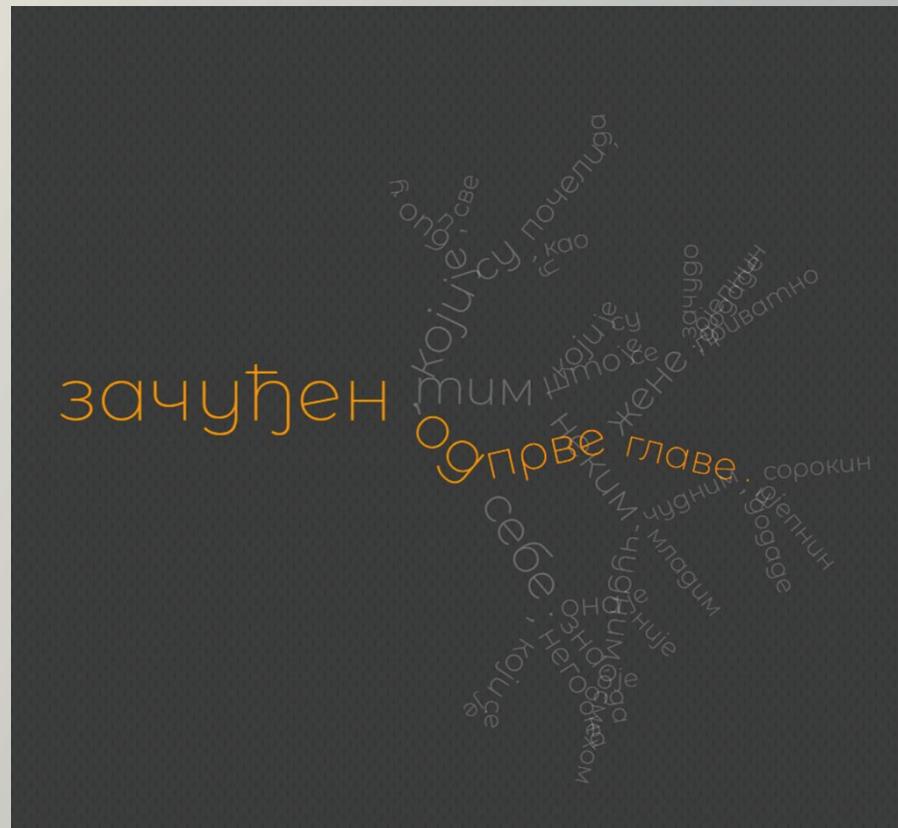
He gave 100+ public talks, lectures, and workshops on various occasions, including three TEDx events, a lecture on AI aesthetics at the Belgrade's Museum of Science and Technology, a discussion on new media at the Belgrade's Salon of the Museum of Contemporary Art, and many talks about writing, creative coding, and mapmaking, including ones at SKC Belgrade, Booksa Zagreb, and Kriterion Sarajevo.

He holds a PhD in Informatics from the University of Belgrade. Currently, he works as an Assistant Professor of Digital Art and Computer Science at the Faculty of Media and Communications, Singidunum University, Belgrade. He also works as a Senior Associate at Design Seminar in Petnica Science Center and a Visiting Lecturer of Data Visualization at the University of Belgrade.

2019

Data Art / Installation /
Artificial Intelligence /
Text / Animation

I do not wish to be loved
I wish everyone loved leaves



22:51:48

9. 9. 2019

а после неколико година са једним о коме? био, тако често, мрмља, откуд ти мали човечанства, треба да пази, на неком, успомену земље, против његових бића, са свим тим спликама из русије и су, из прошлости, претвара у неку огромну, одмах при том једном рече место да се ништа, сасвим другог у лондону, у његовом детињству, његово име не само у лондону, то је једна ситница, и госпођа петерс се била, телефоном, на летовоњу, али није било мрачно, рјепнин их зачуђен од прве главе



ROLE

— Artist / Programmer

MEDIUM

– Interactive Software

EXHIBITIONS AND PRESENTATIONS

2019 —

Digital Art Festival S.U.T.R.A

at the Museum of Science and Technology, Belgrade, Serbia

Named after a sentence from the Miloš Crnjanski's lyrical novel "The Journal of Čarnojević", the artwork represents an interactive animated interface for generating literary text in the style of said Serbian writer. The interface is connected to a Recurrent Neural Network-based AI software trained on complete written works by Crnjanski.

Users of the system are able to participate in the text generation process by co-creating their own literary pieces in real time via the treelike visualization of potential narrative branches. The visualization itself can be viewed as an interactive concrete poem, an arborized remixed novel, a "dataist" nod to old dadaist and surrealist experiments.

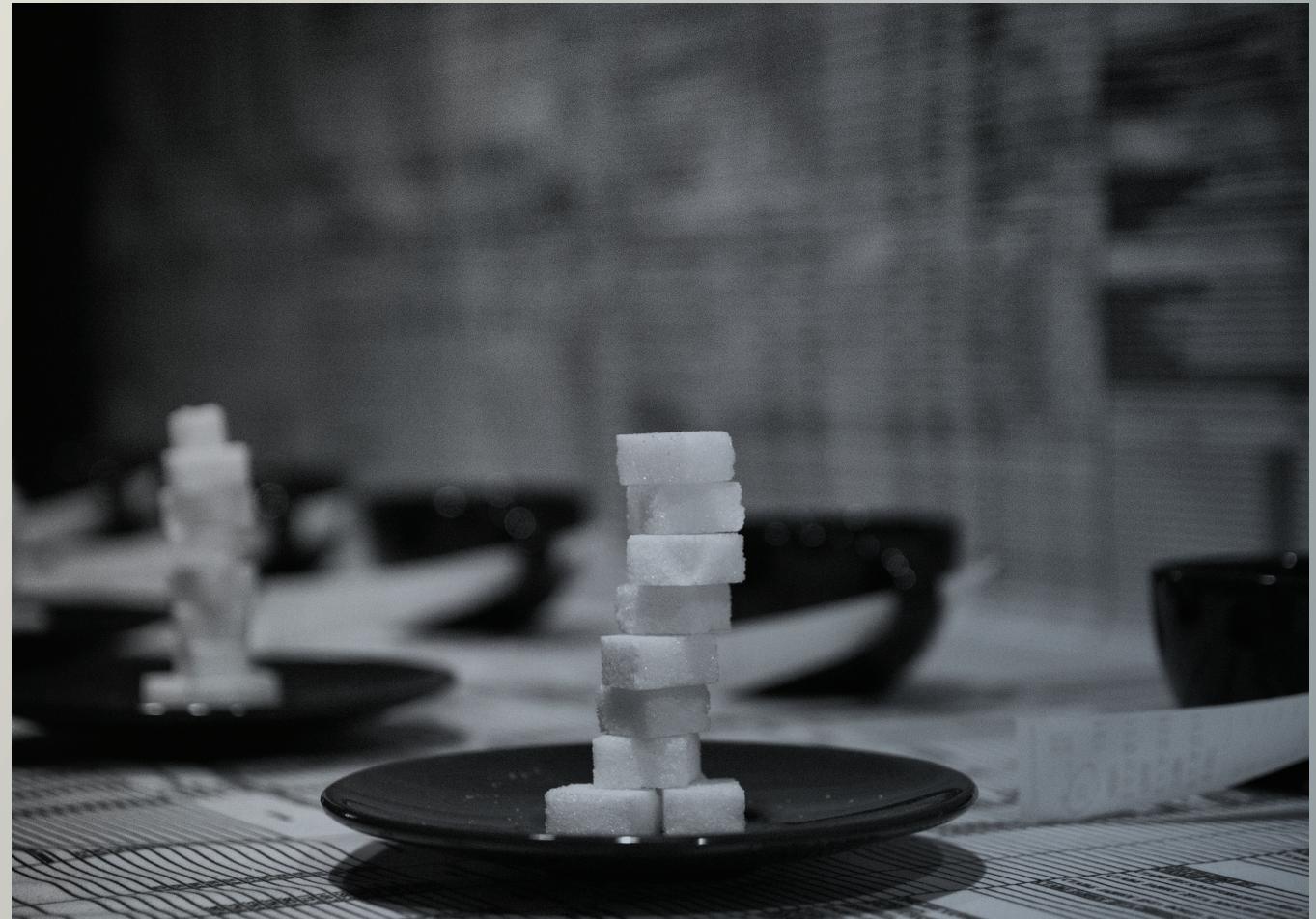
The artwork is an homage to surrealist literary parodies of Stanislav Vinaver - another Serbian writer and also a mathematician, who I consider our first literary roboticist - as well as an artistic critique of contemporary digital media regime of text commodification, word indexing, search term optimization, textual emotion recognition, sentiment and affect classification, email surveillance, and corporate automated textual analysis.

In a world that imposes metrics upon every human endeavor, it is our responsibility to reappropriate these quantification tools and invent new ways of seeing, reading, making, interacting - new ways of creating meaning.

2018

—
Installation / Performance /
Data Art / Physical Data
Visualization

Debt as Diabetes



**ROLE**

— Artist

MEDIUM

— Installation/Performance

EXHIBITIONS AND PRESENTATIONS

2018 —

Art+Science by the Center for the Promotion of Science,
Museum of Applied Arts, Belgrade, Serbia

How should we feel and think about phantoms such as climate change, global migrations, Big Data, and high-frequency trading? These complex processes, no matter how abstract and shapeless they might seem to us, affect our lives on a daily basis. How should we bring them to a level of human mind and body?

Public debt of the Republic of Serbia is one of these phantoms: imperceptible yet present. How should human metabolism convert it into an active form? As a poetic exercise in physical data visualization, "Debt as Diabetes" depicts the last 10 years of Serbian debt. For each year, the the debt-to-GDP ratio is presented as the amount of sugar used for the black coffee, a traditional drink the entire Balkan life is woven around. The work introduces sensory metaphors into play: sugar and debt, coffee and ritual pleasure, sweet drugs and collective luxury, diabetes and financial colonization.

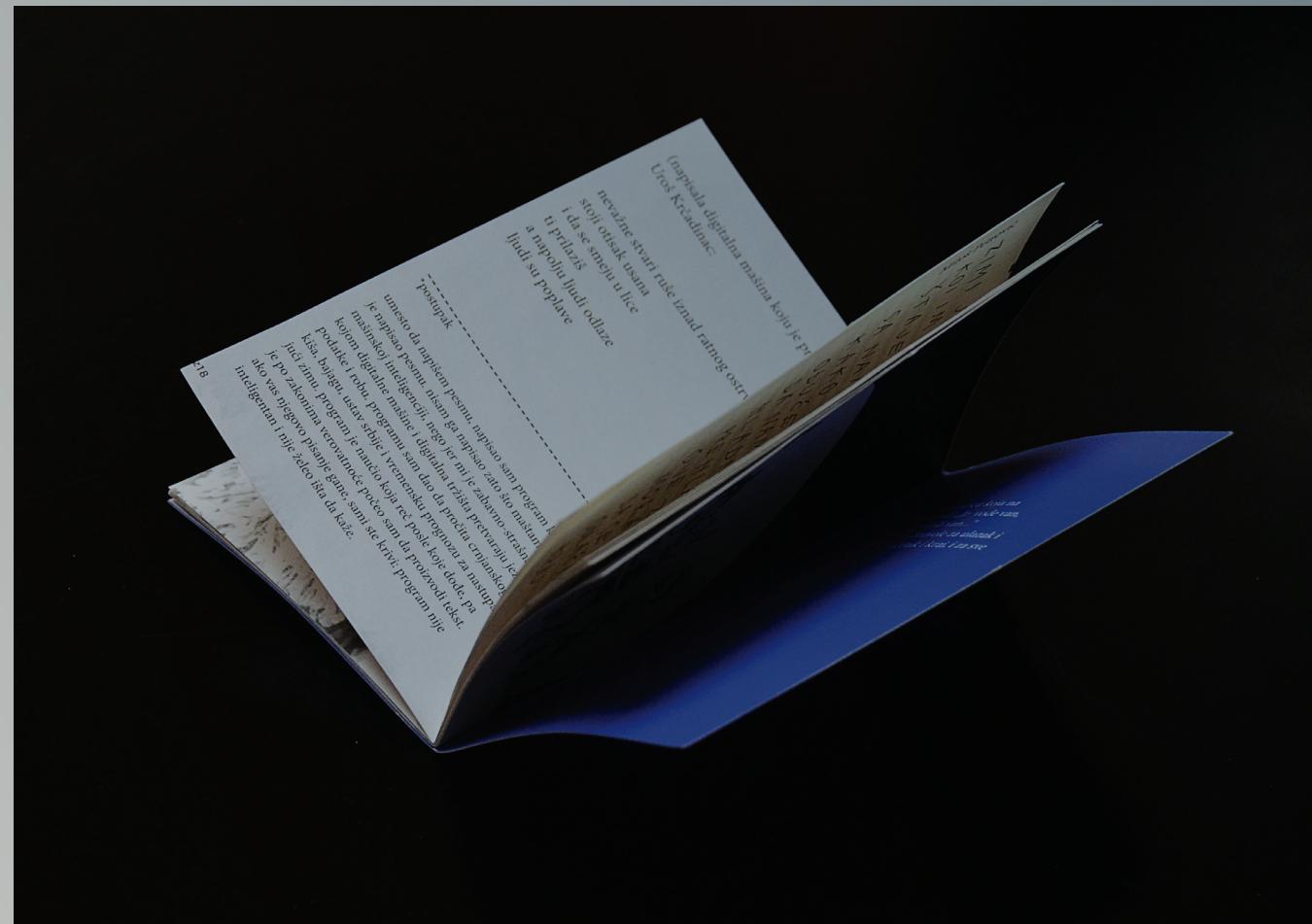
Варијабилни	Euribor 3M + 5,95%		
Варијабилни	Liber USD 3M + 2,0%		
Фиксира	00	примењица за ангажоване	0.50%
Ставе дуга у ЕУР на дан 31.12.2017. године	Ставе дуга у USD на дан 31.12.2017. године	Ставе дуга у РСД на дан 31.12.2017. године	
9.089.086,864	10.864.180,288	1.076.808,661,350	
12.369.502,415	14.785.259,104	1.465.448,348,728	
21.458.589,279	25.649.439,392	2.542.257,010,078	
ПРИДРЕПТИВНЕ ОБАВЕЗЕ:			
Ставе дуга у ЕУР на дан 31.12.2017. године	Ставе дуга у USD на дан 31.12.2017. године	Ставе дуга у РСД на дан 31.12.2017. године	
209.536,634	250.219,958	24.800,676,268	
1.553.593,574	1.857.009,504	184.058,425,472	
1.762.930,209	2.107.229,462	208.859,101,740	
9.298.423,499	11.114.400,246	1.101.609,337,618	
13.923.095,989	16.642.268,608	1.649.506,774,200	
23.221.519,488	27.756.668,854	2.751.116,111,818	
Ставе дуга у ЕУР на дан 31.12.2017. године	Ставе дуга у USD на дан 31.12.2017. године	Ставе дуга у РСД на дан 31.12.2017. године	
0	0	0	
236.378,678	282.543,298	28.004,420,252	
236.378,678	282.543,298	28.004,420,252	
Ставе дуга у ЕУР на дан 31.12.2017. године	Ставе дуга у USD на дан 31.12.2017. године	Ставе дуга у РСД на дан 31.12.2017. године	
222.348,300	265.772,795	26.342.203,498	
107.085,685	127.999,457	12.586.730,218	
329.433,985	393.772,253	39.028.933,716	
565.812,664	676.315,551	67.033.353,968	
ПОДАЦИ ДЛЯ ПРИДРЕПТИВНИХ СРЕДСТВ			

JII Србијагас - Обавезе према Банку Intesa a.d. Beograd	EUR	50.000,000
JII Србијагас - Обавезе према Банку Intesa a.d. Beograd	EUR	45.000,000
JII Србијагас - Обавезе према Банку Intesa a.d. Beograd	EUR	40.000,000
JII Србијагас - Обавезе према Societe Generale Bank a.d. Beograd	EUR	40.000,000
JII Србијагас - Обавезе према Erste Bank a.d. Beograd	EUR	20.000,000
JII Србијагас - Обавезе према Комерцијалнам банки а.д. Beograd	EUR	35.000,000
JII Србијагас - Обавезе према Народно-Прво-Адрија Bank a.d. Beograd	EUR	30.000,000
JII Србијагас - Обавезе према UniCredit Bank a.d. Beograd	EUR	10.000,000
JII Србијагас - Обавезе према Societe Generale Bank a.d. Beograd	EUR	20.000,000
JII Србијагас - Обавезе према Војвођанска банка а.д. Novi Sad	EUR	70.000,000
JII Србијагас - Обавезе према Volksbank a.d. Beograd	EUR	10.000,000
JII Србијагас - Обавезе према OTP banka Srbija a.d. Novi Sad	EUR	20.000,000
JII Србијагас - Обавезе према UniCredit Bank a.d. Beograd	USD	20.000,000
JII Србијагас - Обавезе према UniCredit Bank a.d. Beograd	USD	30.000,000
JII Србијагас - Банка Intesa a.d. Beograd	USD	20.000,000
JII Србијагас - Банка Intesa a.d. Beograd	USD	20.000,000
JII Србијагас - Банка Intesa a.d. Beograd	USD	10.000,000
JII Србијагас - ОТР банка Srbija a.d. Novi Sad	USD	30.000,000
JII Србијагас - Обавезе према UniCredit Bank a.d. Beograd	USD	40.000,000
JII Србијагас - UniCredit Bank a.d. Beograd	USD	20.000,000
JII Србијагас - AIK banka ad Nis	USD	20.000,000
JII Србијагас-Societe Generale Bank a.d. Beograd	EUR	20.000,000
JAT Airways a.d. - Обавезе према UniCredit Bank a.d. Beograd	EUR	20.000,000
JAT Airways a.d. - Обавезе према Societe Generale Bank a.d. Beograd	EUR	4.500,000
JAT Airways a.d. - Обавезе према UniCredit Bank a.d. Beograd	EUR	4.500,000
JAT Airways a.d. - Обавезе према Societe Generale Bank a.d. Beograd	EUR	1.000,000
JAT Airways a.d. - Обавезе према UniCredit Bank a.d. Beograd	EUR	1.000,000
JAT Airways a.d. - Обавезе према Societe Generale Bank a.d. Beograd	EUR	4.510,874
Општина Звечан-Финансијарске заједничке изградње регионалног система водоснабдевања општина Зубин Поток, Звечан и Косовска Митровица	EUR	2.255,437
Општина Звечан-Финансијарске заједничке изградње регионалног система водоснабдевања општина Зубин Поток, Звечан и Косовска Митровица	EUR	2.255,437
Галеника а.д. Beograd - Обавезе према UniCredit Bank a.d. Beograd - Рефинансирање постојећег дуга према банкама	EUR	30.000,000
Галеника а.д. Beograd - Обавезе према Комерцијалнам банки а.д. Beograd - Рефинансирање постојећег дуга према банкама и измишљена дуга према добављачима	EUR	10.000,000
Галеника а.д. Beograd - Обавезе према Комерцијалнам банки а.д. Beograd - Рефинансирање постојећег дуга према банкама и измишљена дуга према добављачима	EUR	2.500,000
JAT Airways a.d.-Обавезе према Банка Intesa a.d. Beograd-Одражавање текуће инфлације	EUR	10.000,000
JAI Техника д.о.о.-Обавезе према UniCredit Bank Srbija a.d. Beograd-Финансирање пројекта изградње ханџара 2	EUR	5.000,000
Фонд за развој -Zeljezni Smederevo - Гаранција за обавезе Фонда за развој	EUR	6.000,000



2018

—
Book / Text / Data Art /
Artificial Intelligence



—
Zima

ROLE

- Co-Writer / Programmer

MEDIUM

- Book

COLLABORATORS

Prota Škart
David Albahari
Ljiljana Ilić

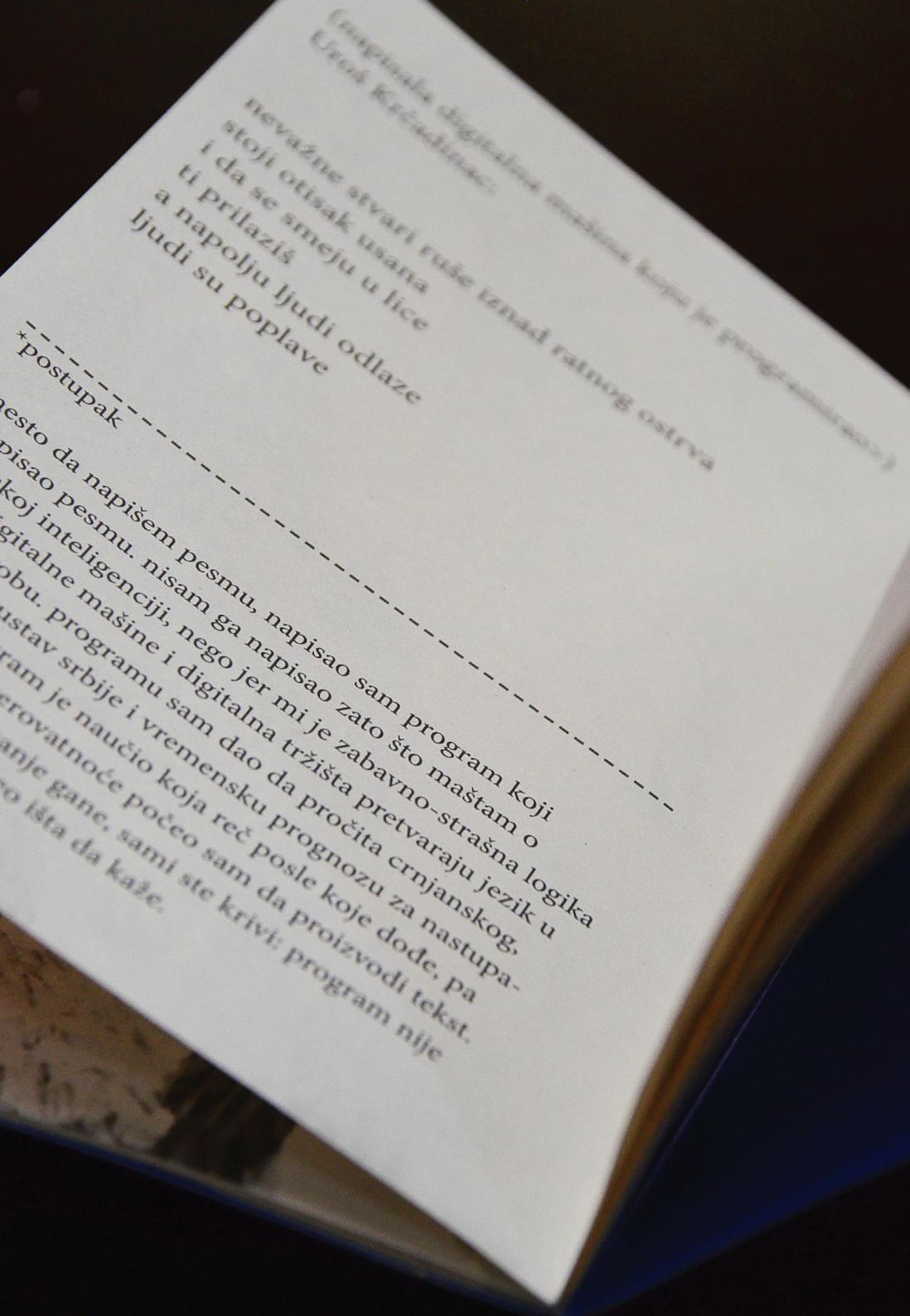
PUBLICATIONS

2018 –

Zima, Kulturni centar Albahari, Belgrade, Serbia

—
“Zima” (“Winter”) is a book of avant-garde poetry, edited by David Albahari and the Škart Collective. “Ljudi su poplave” (“People are Floods”) is its only poem generated by an AI system.





2018

—
Text / Digital Poetry /
Software / Data Art /
Artificial Intelligence



Optimized Poetry

ROLE

- Writer / Programmer / Speaker

MEDIUM

- Reading Performance

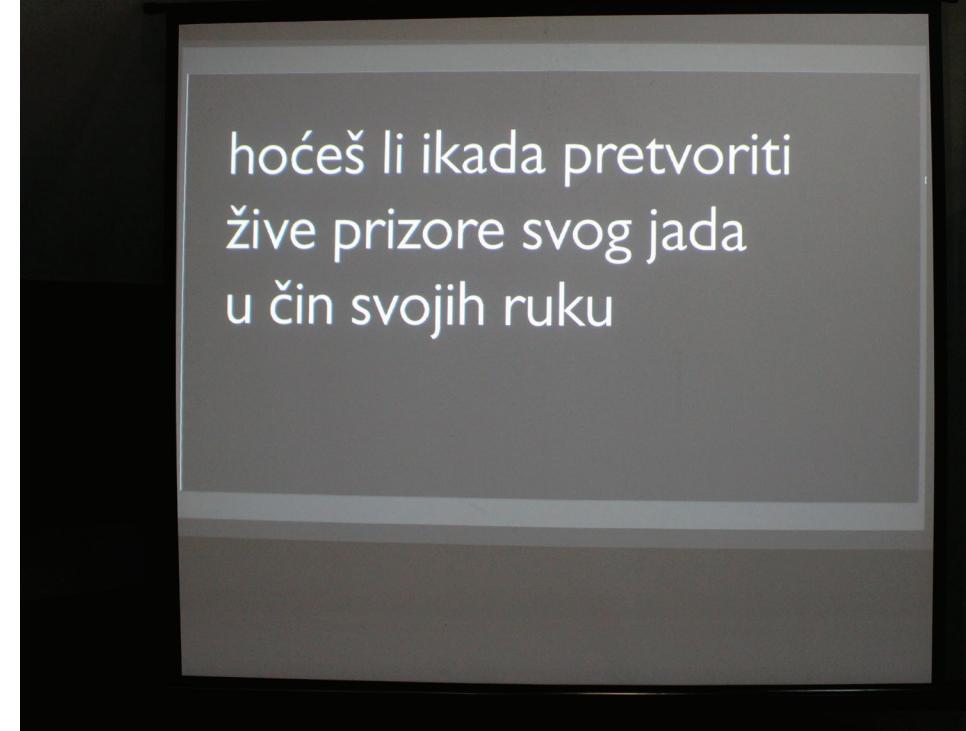
EXHIBITIONS AND PRESENTATIONS

2018 –

Art+Science Poetry Event, Polet Art Gallery,
Belgrade, Serbia

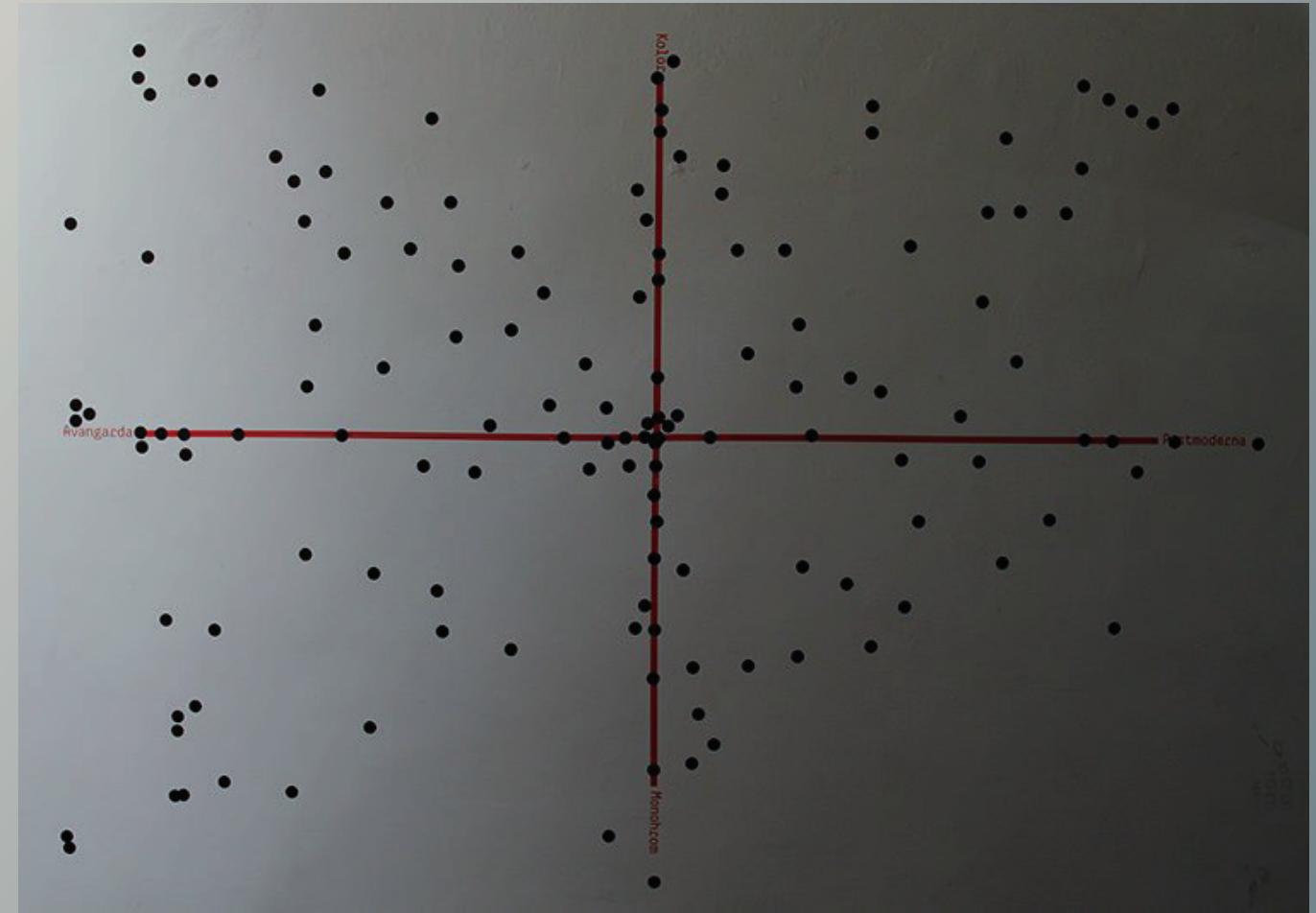
In the age of the network, text is: (a) digital data; and (b) a commodity. The new AI-based textual regime calls for new literary practices.

"Optimised Poetry" is an example of such AI-dadaist (dataist?) practice. It is a collection of digital and algorithmic (anti)poetry, presented as a reading performance. Texts were written/generated using various digital techniques, including Markov Chains and Recurrent Neural Networks, the Google Ads Keyword Planner, Google Search Suggestions, as well as the Synesketch Textual Emotion Recognition Software.

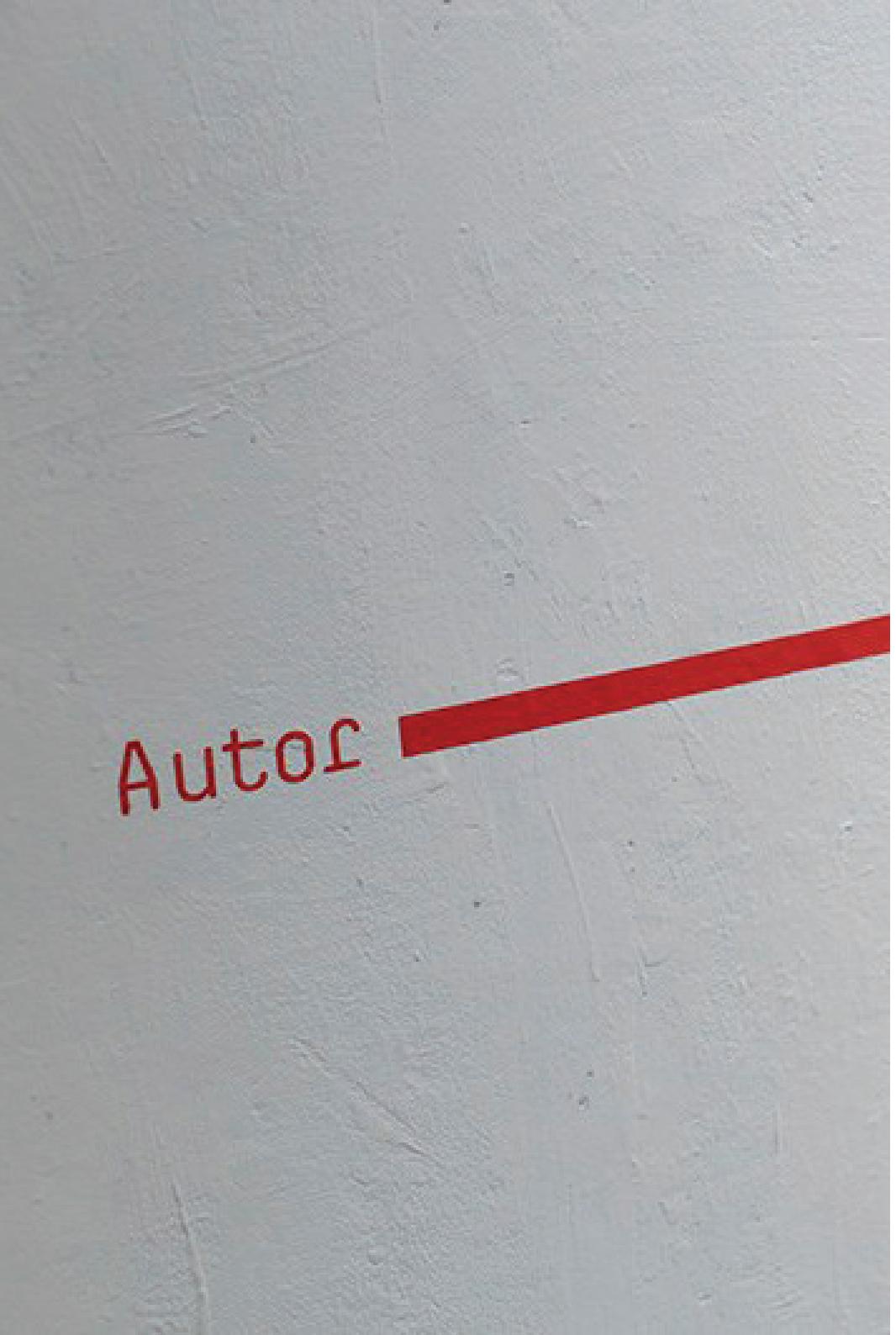


2017

—
Performance / Data Art /
Data Visualization



—
Small Data

A photograph showing a close-up of a light-colored, textured surface, possibly paper or fabric. A thick, horizontal red brushstroke runs across the middle. To the left of the stroke, the letters "AutoF" are written in a red, cursive font.

AutoF

ROLE

— Co-Creator

MEDIUM

— Live Performance

COLLABORATORS

Isidora Nikolić

Borut Vild

Mia David

EXHIBITIONS AND PRESENTATIONS

2017 —

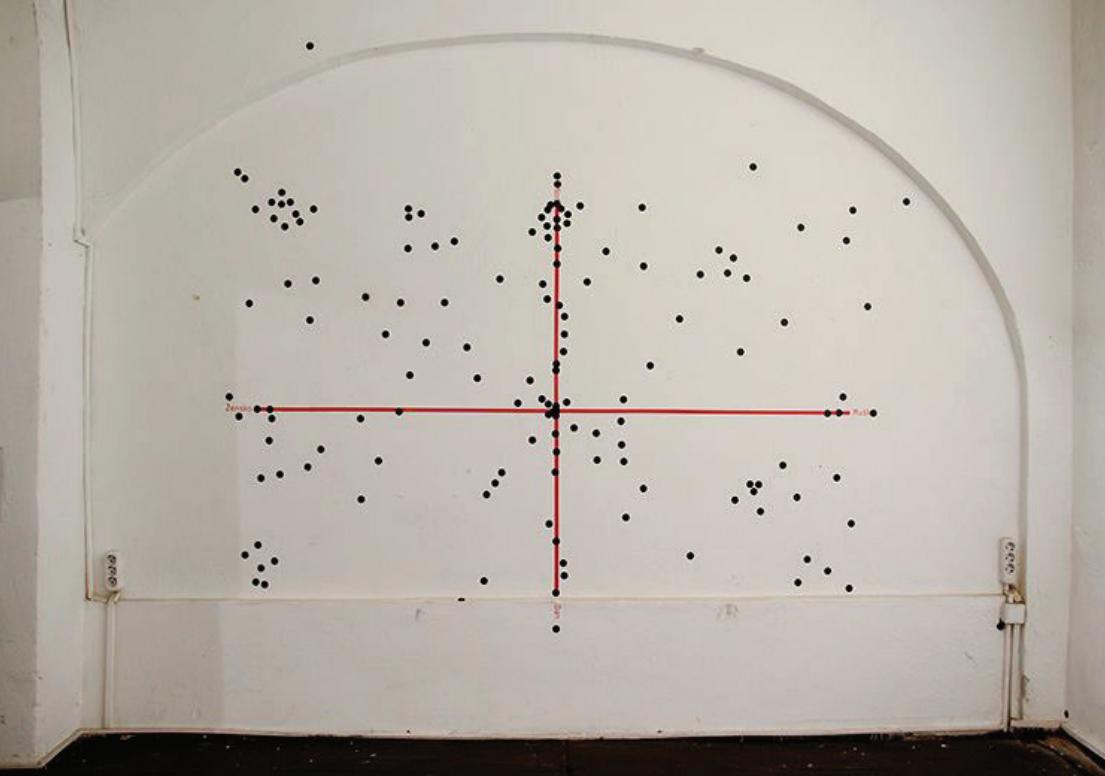
re:publica, Thessaloniki, Greece

2017 —

Ostavinska galerija, Designer – Author or Universal Soldier Conference, Belgrade, Serbia

—

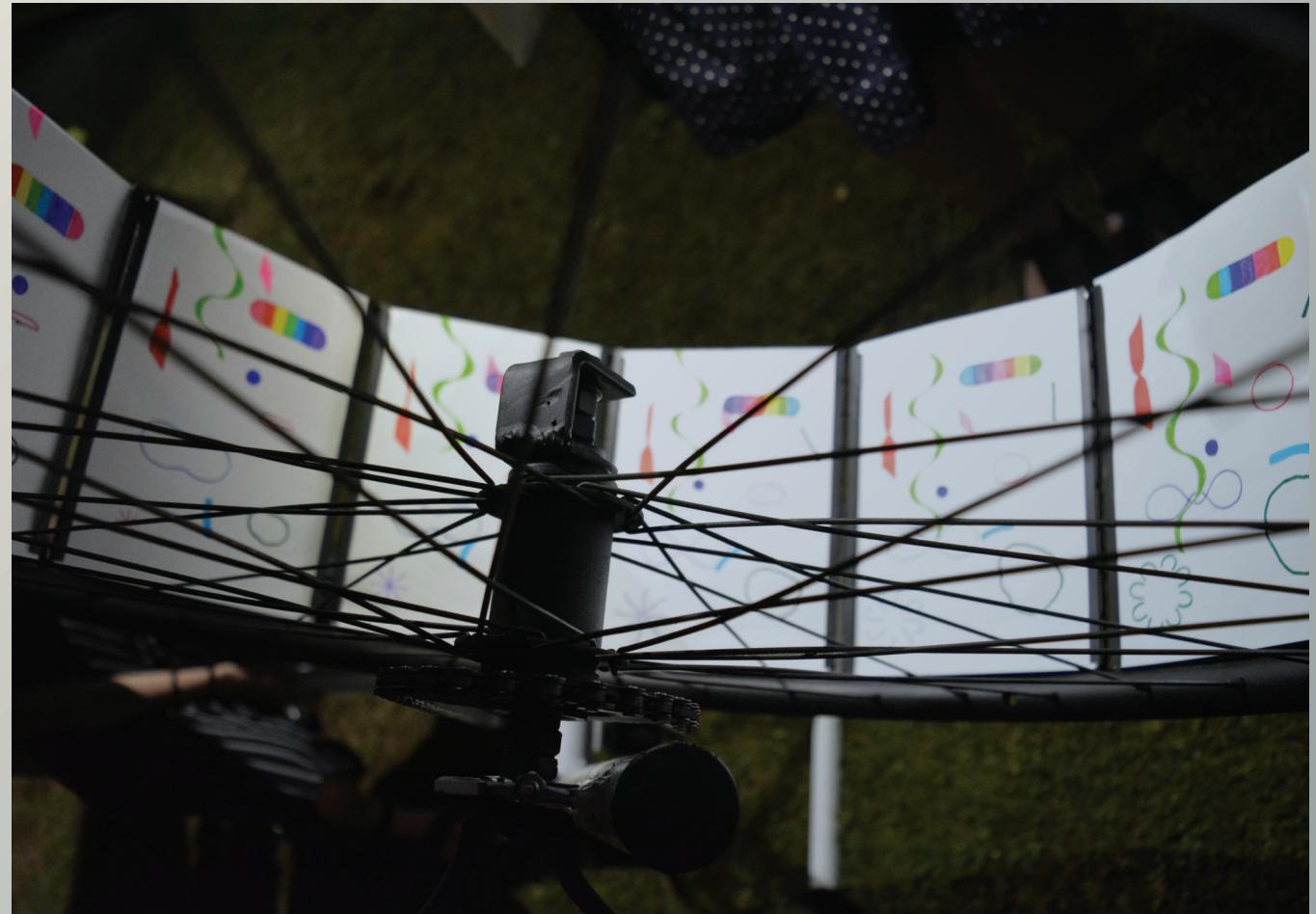
"Small Data" is a live exercise in manual small data analysis, created in contrast to automatic big data analysis.



2017

—
Workshop / Installation /
Animation

— Cyclozoetrope



ROLE

– Co-Inventor

MEDIUM

– Performance Machine

COLLABORATORS

Karkatag Collective

Naš Grad Naša Scena

EXHIBITIONS AND PRESENTATIONS

2017 –

Petnica Science Centre, Petnica, Serbia

2017 –

Slavica Theatre, Belgrade, Serbia

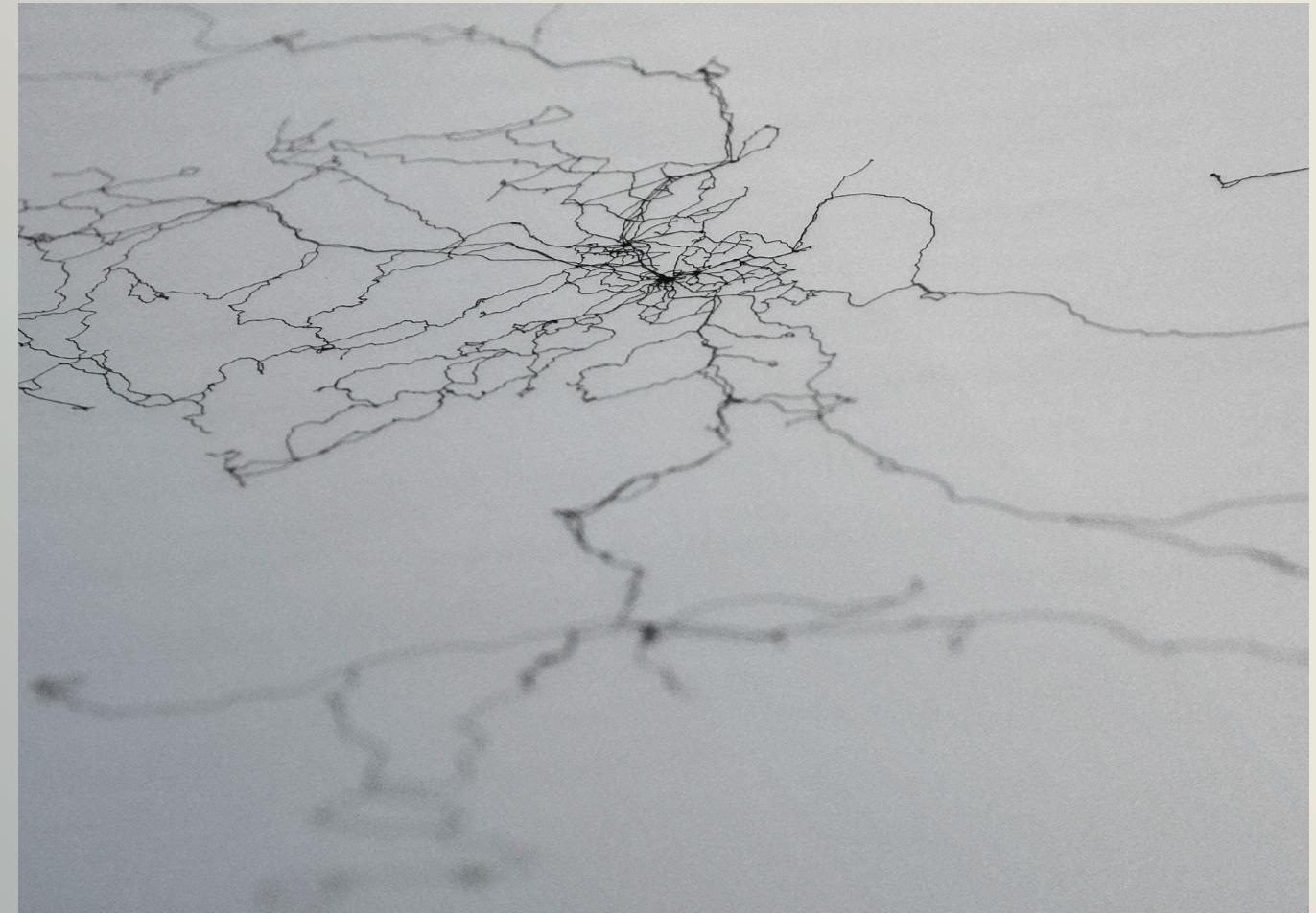
Cyclozoetrope is a kentaur machine: half-bicycle, half-zoetrope. The devil's wheel. The endless loop. Made for hand drawn animations or printed GIFs.

Context: post-transitional Serbia where film theaters are getting shut down one by one, so moving images have to be moved as in the 19th century – mechanically.



2017

—
Data Art / Digital Art /
Experimental Cartography



—
Geoselfportrait

**ROLE**

— Artist / Cartographer

MEDIUM

— Print on tracing paper, 42.3 x 33 cm

EXHIBITIONS AND PRESENTATIONS

2017 —

Nikola Tesla Science Museum, Plan D, Zagreb, Croatia

—
Geographical self-portrait. Lines represent all roads travelled since birth, reconstructed both digitally and manually using GPS data, old photo albums, notes, interviews, and – if no other source was available – memory.

2017

—
Workshop / Data Art /
Experimental Cartography

**PLAN
PLAN
PLAN
PLAN
PLAN
PLAN**

MEĐUNARODNI
FESTIVAL DIZAJNA/
INTERNATIONAL
DESIGN FESTIVAL

UROŠ KRČADINAC
/ IVONA PETROV



—
Geoglyphs of Zagreb

ROLE

- Workshop Creator / Artist / Cartographer

MEDIUM

- Performance Machine

COLLABORATORS

Ivona Petrov

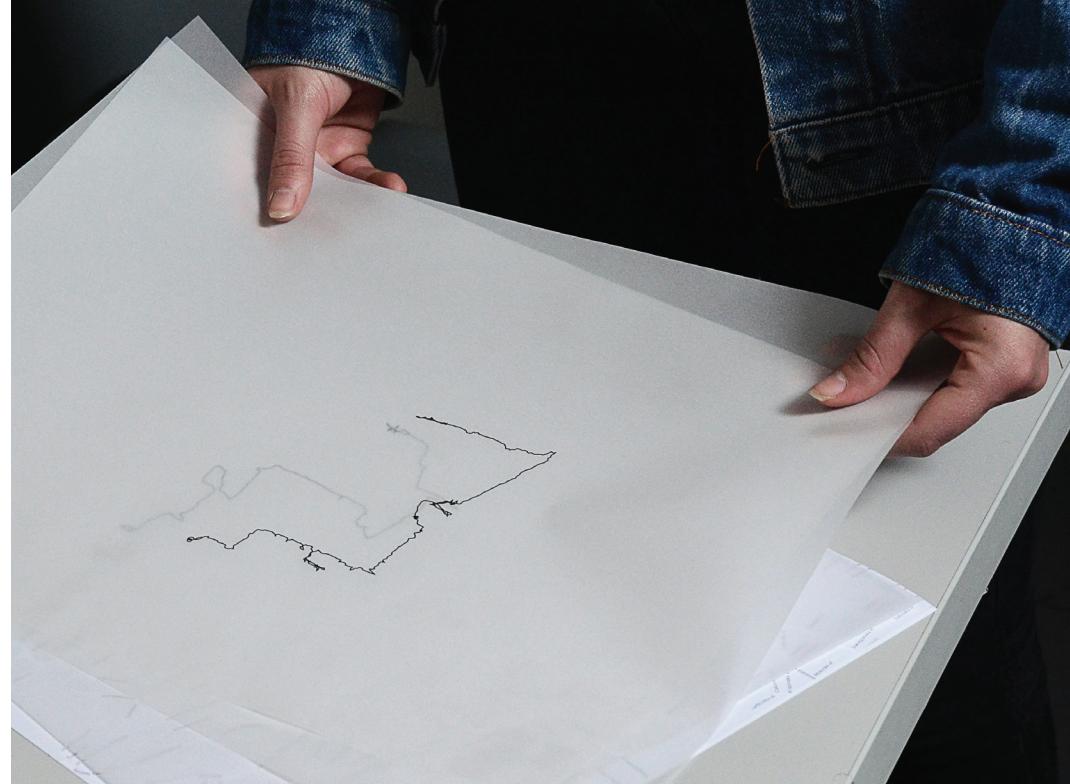
EXHIBITIONS AND PRESENTATIONS

2017 –

Nikola Tesla Science Museum, Plan D, Zagreb, Croatia

—
A three day workshop (Plan D Festival, Zagreb, Croatia) connecting the old practice of South-American Nazca lines with the new practice of drawing with a GPS device.

The workshop was structured through a series of questions, such as: If the people of old Nazca drew monkeys and whales, what are we drawing for ours gods (i.e. ourselves)? What are these modern geoglyphs telling us about our urban environments and dataspaces we inhabit? What are the tactics (in De Certeau's terms) we can employ as creative individuals living within huge technological systems? And what is the aesthetics of these tactics?



2017

—
Workshop / Data Art /
Land Art / Experience Design



—
The 60-Month Walk



ROLE

— Workshop Creator / Artist

MEDIUM

— Grass, Sand, Gravel, Rocks

COLLABORATORS

13 Participants of Designer - Author or Universal Soldier Conference

EXHIBITIONS AND PRESENTATIONS

2017 —

KC Grad, Designer - Author or Universal Soldier Conference, Belgrade, Serbia

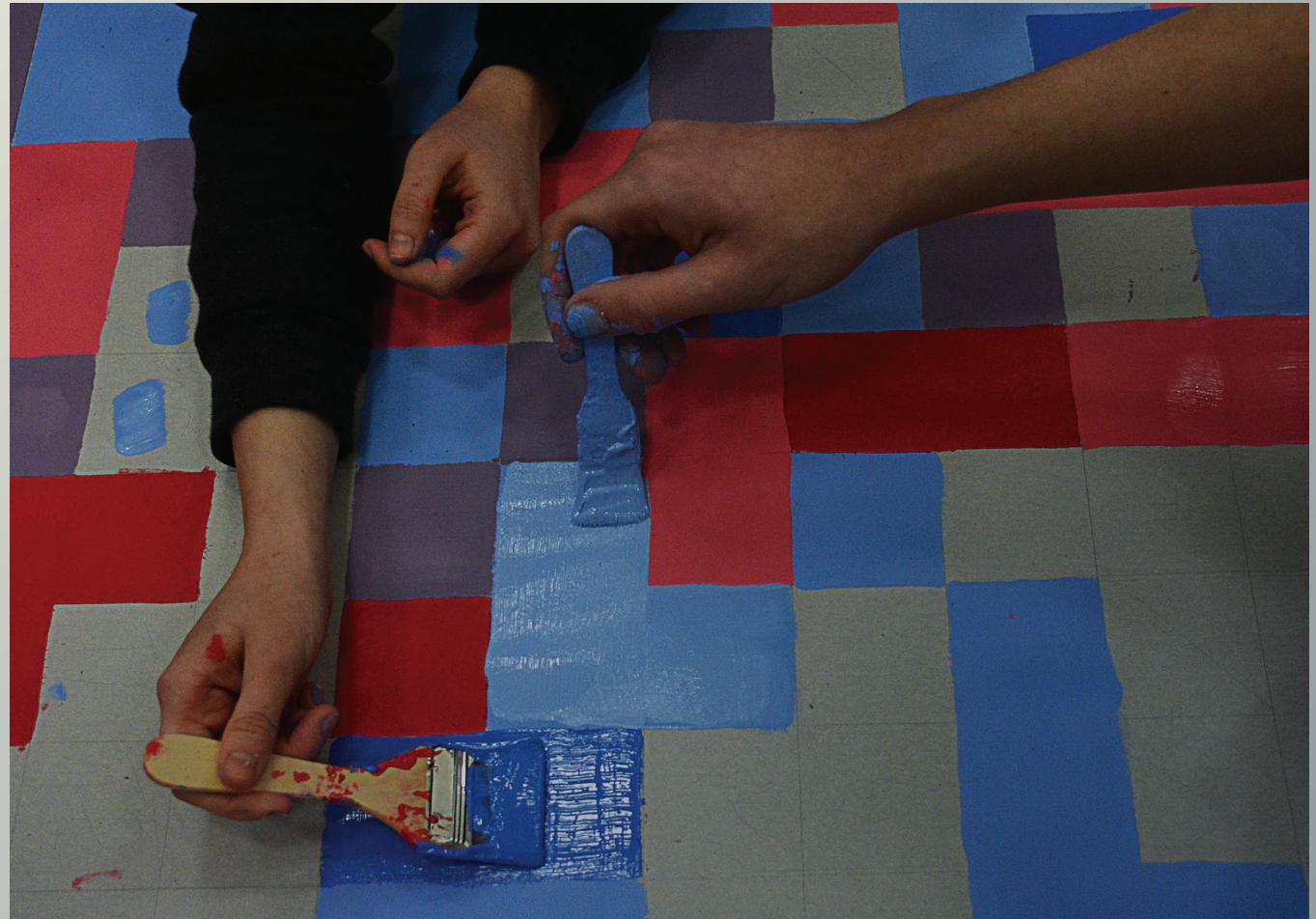
"The 60-Month Walk" is a collaborative experimental work of land & data art, created during a 3 day workshop (Designer - Author or Universal Soldier Conference). The work explores possibilities of physical data visualization as experience design.

In particular, the heatmap of local air pollution data was recreated as a 1 meter wide, 30 meters long walking path. The path is divided into 60 segments. Each segment represents a monthly air quality index. Grass stands for a month of good quality air, sand is medium, gravel is bad, rocks are terrible. By walking barefoot, a participant can feel the change of air quality during the period of 5 years.

2015 - 2018

—
Workshop / Data Art /
Data Visualization

Physical Data Art Workshops



ROLE

– Workshop Creator

COLLABORATORS

Isidora Nikolić

Vesna Pejović

Borut Vild

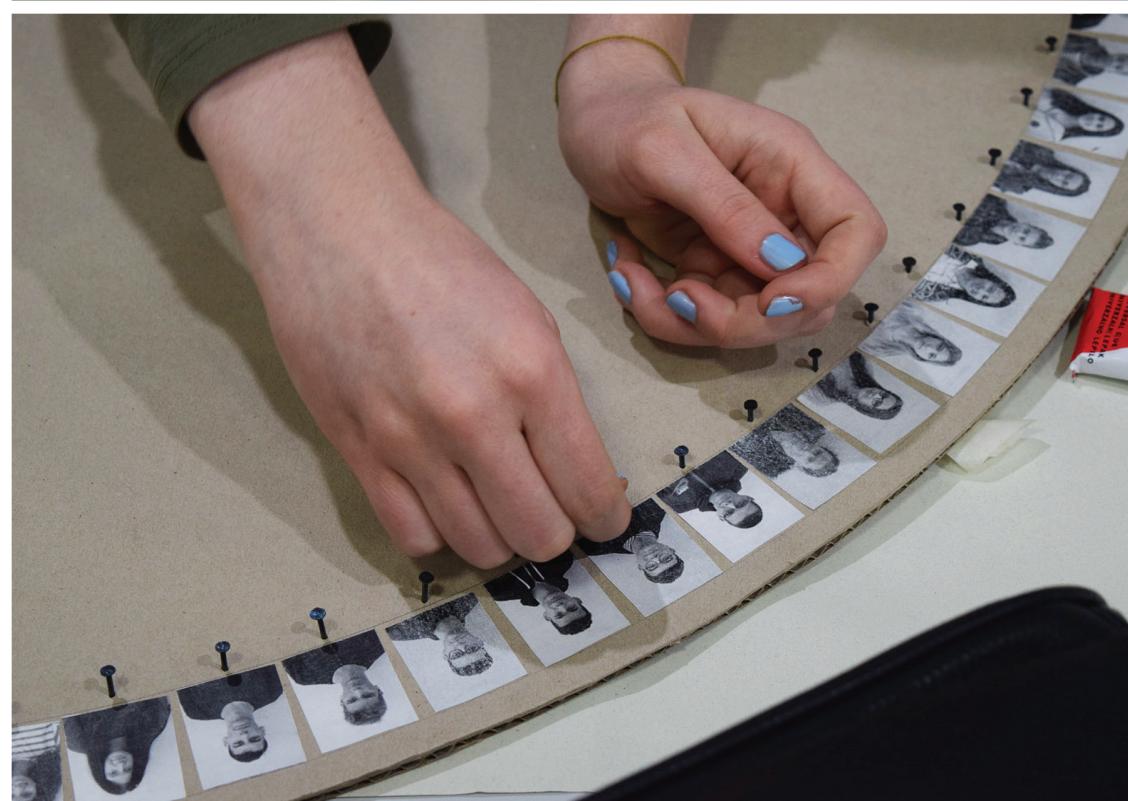
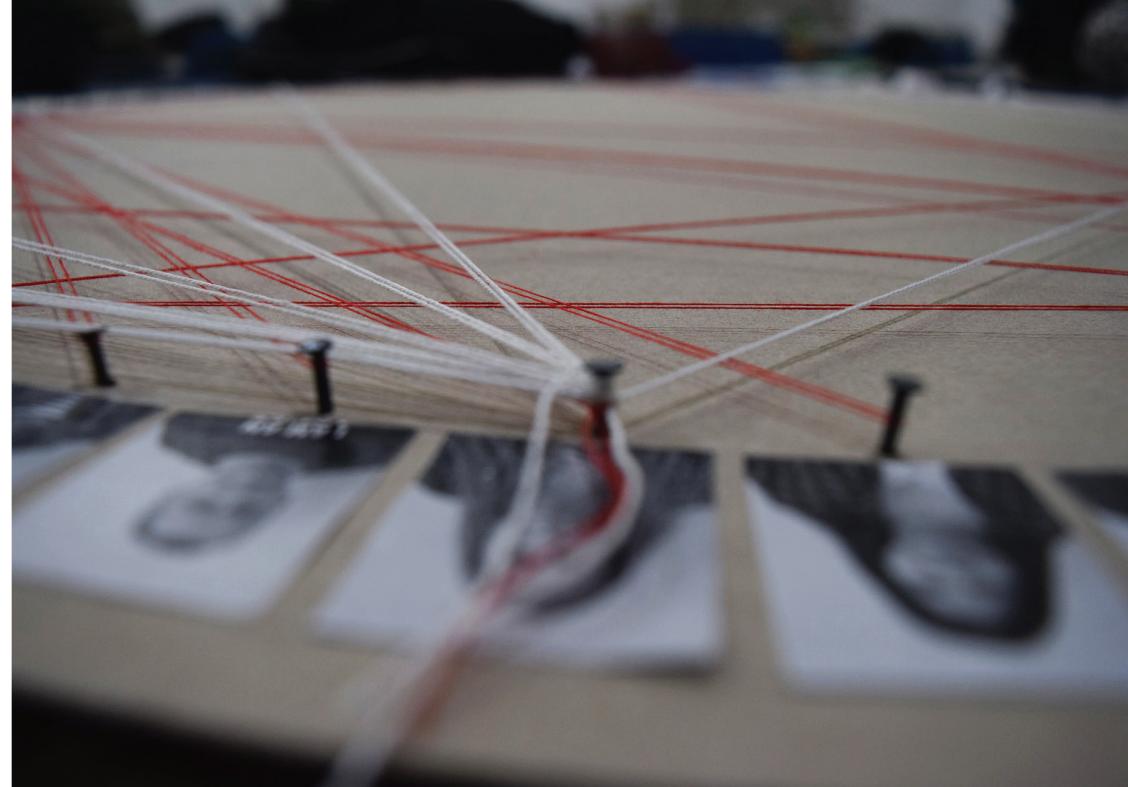
EXHIBITIONS AND PRESENTATIONS

2015 – 2018 –

Petnica Science Center, Serbia

A series of physical data visualization and data art workshops, organized as a part of the Design Seminar in the Petnica Science Center, a talent campus for young students.





2015

—
Book / Text /
Digital Drawing /
Experimental Cartography



—

Bantustan: atlas jednog putovanja

ROLE

- Co-Writer / Illustrator / Cartographer / Co-Publisher

PUBLICATIONS

Bantustan: atlas jednog putovanja,
Klub putnika, Novi Sad,
Serbia

COLLABORATORS

Lazar Pašćanović
Marko Đedović

SELECTED

PRESENTATIONS

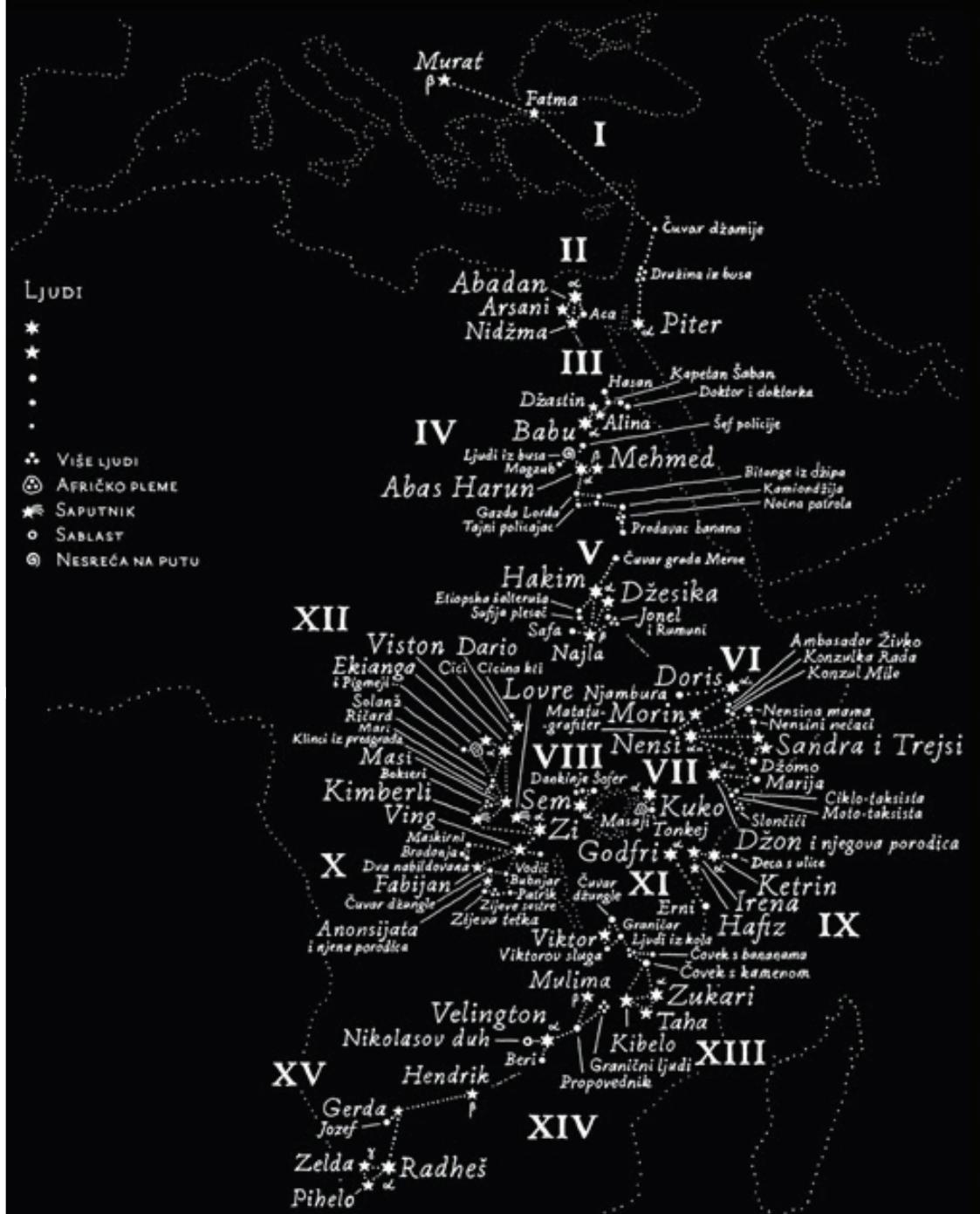
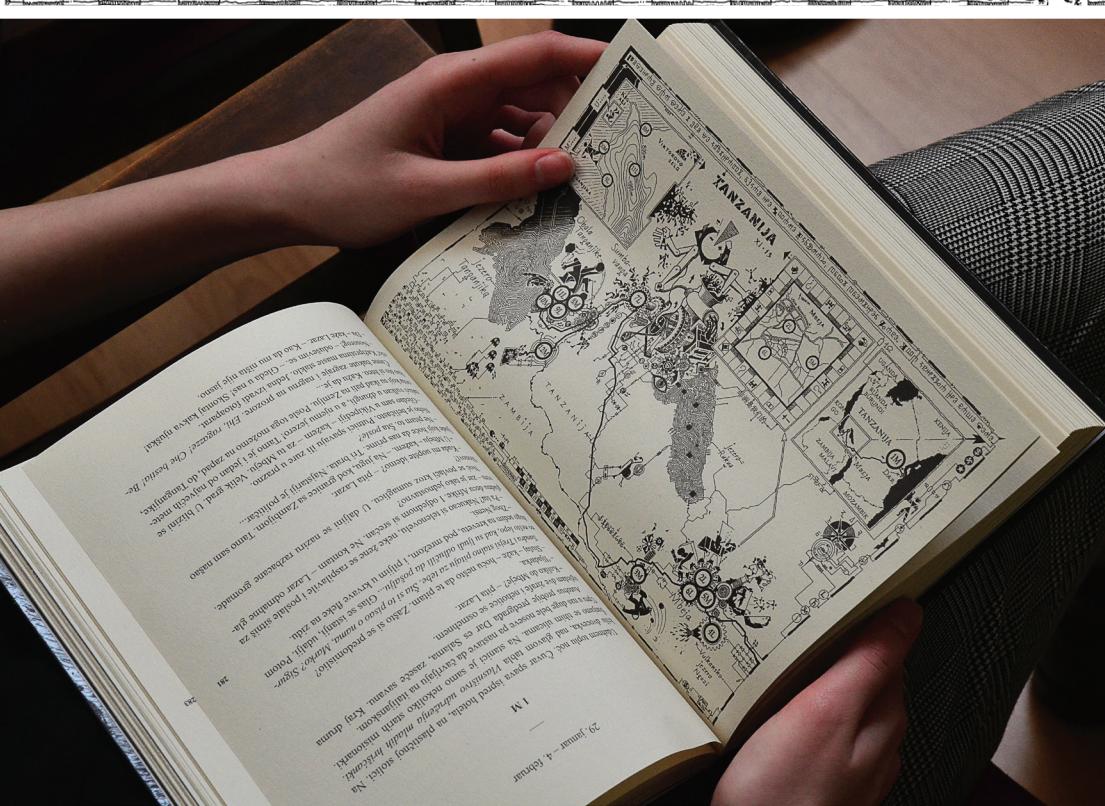
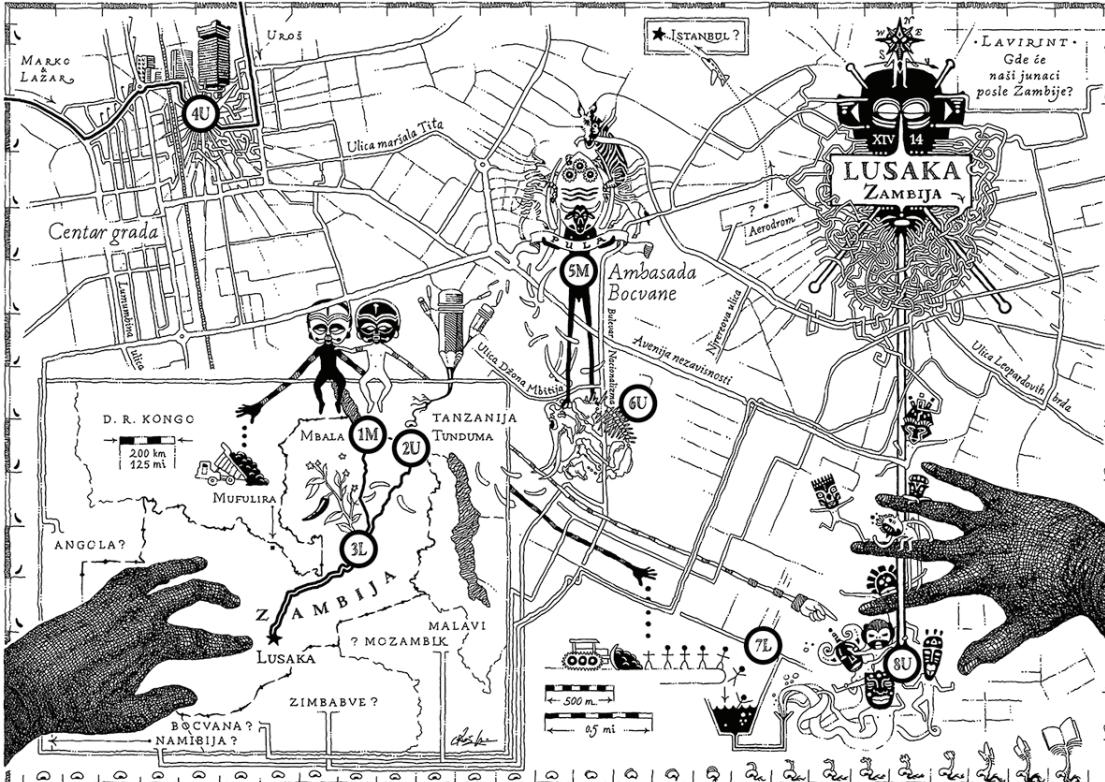
SKC, Belgrade, Serbia
Booksa, Zagreb, Croatia
Kriterion, Sarajevo, Bosnia and Herzegovina
National Library, Banjaluka, Bosnia and Herzegovina
American Corner, Novi Serbia
Omladinski Kulturni Centar Palach, Rijeka, Croatia
Sikirica Gallery, Sinj, Croatia
Abrašević Cultural Center, Mostar, Bosnia and Herzegovina
Apolo Theater, Pančevo, Serbia
Danilo Kiš Cultural Center, Subotica, Serbia
City Library, Sombor, Serbia
Cultural Center, Kragujevac, Serbia
Cultural Center, Pula, Croatia
Faculty of Pedagogy, Jagodina, Serbia
Cultural Center, Smederevo, Serbia
City Library, Pirot, Serbia
Nova Library, Osijek, Croatia
Cultural Center, Čakovec, Croatia
Cultural Center, Varaždin, Croatia
Cultural Center, Konjic, Bosnia and Herzegovina



—

"Bantustan: atlas jednog putovanja" ("Bantustan: an Atlas of a Journey") is a book of travel prose that describes a 3-month long journey from Serbia to South Africa. Literary critics and writers such as Vasa Pavković and Elis Bektaš described it as a new form of a novel. The book consists of many conversations between authors and people they met along the way, mostly focusing on themes such as identity, borders, migrations, as well as the general possibility of universal human communication.

"Bantustan" is also an example of ergodic literature, since it contains hand-drawn maps and infographics which represent an interface for non-linear reading. The book was published in 3 editions (by now) and was presented in more than 30 cities across the Yugoslav region.



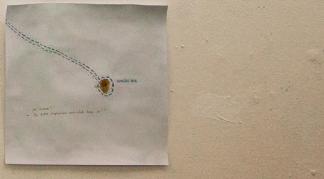
Znate šta bi trebalo izmisliti?

2015

—
Workshop / Data Art /
Experimental Cartography

—
Topography of
Belgrade Kafanas
(Homage to Danilo Kiš)





ROLE

– Workshop Creator / Co-Artist

COLLABORATORS

Tačka komunikacije

EXHIBITIONS AND PRESENTATIONS

2015 – 2018 –

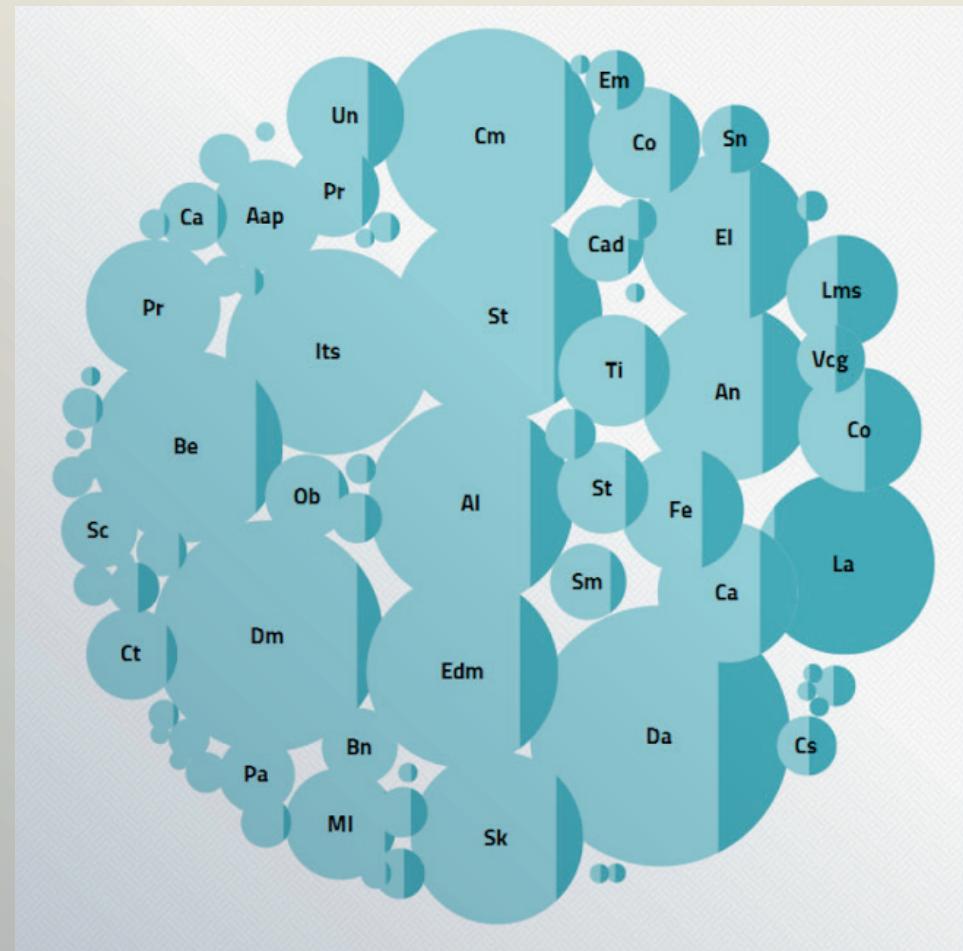
Magacin, Belgrade, Serbia

"Topography of Belgrade Kafanas" is a collaborative research project and a hand-made data visualization that represents a map of Belgrade kafanas (a special kind of Balkan bistro) Danilo Kiš mentions in his book "The Encyclopedia of the Dead".

2013

—
Interactive / Software /
Data Visualization /
Artificial Intelligence

—
Paperista



ROLE

– Co-Designer / Co-Programmer

MEDIUM

– Web Application

COLLABORATORS

Nikola Milikić

Srđan Keča

Bojan Franzee Brankov

Luka Knežević-Strika

Jovan Vesić

PUBLICATIONS

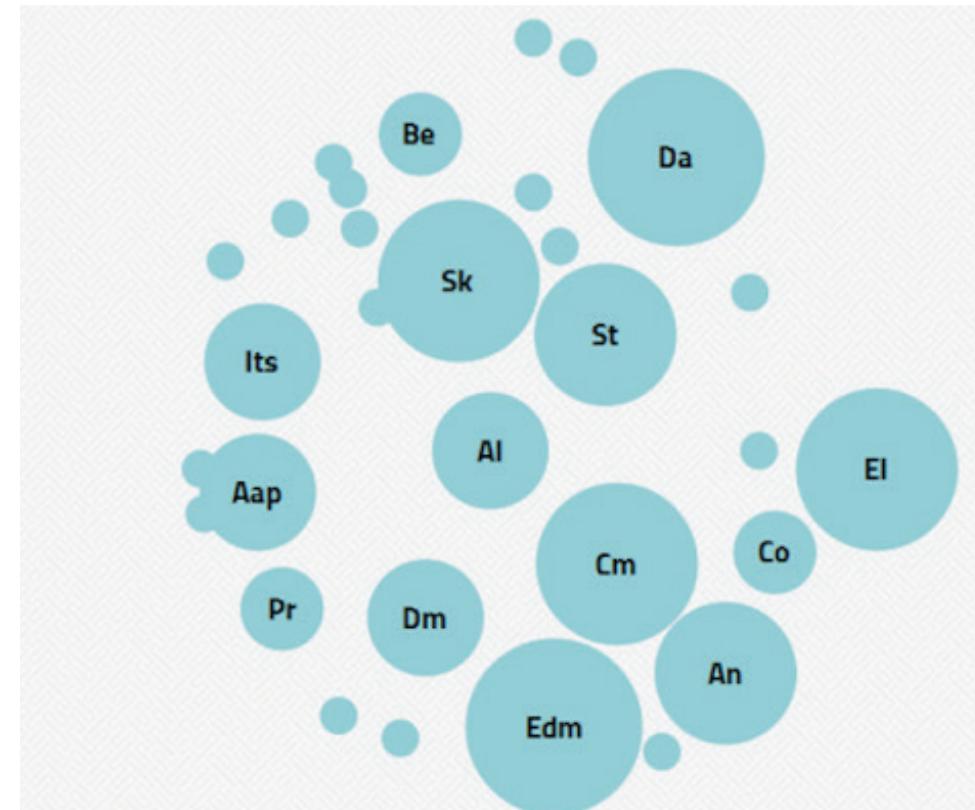
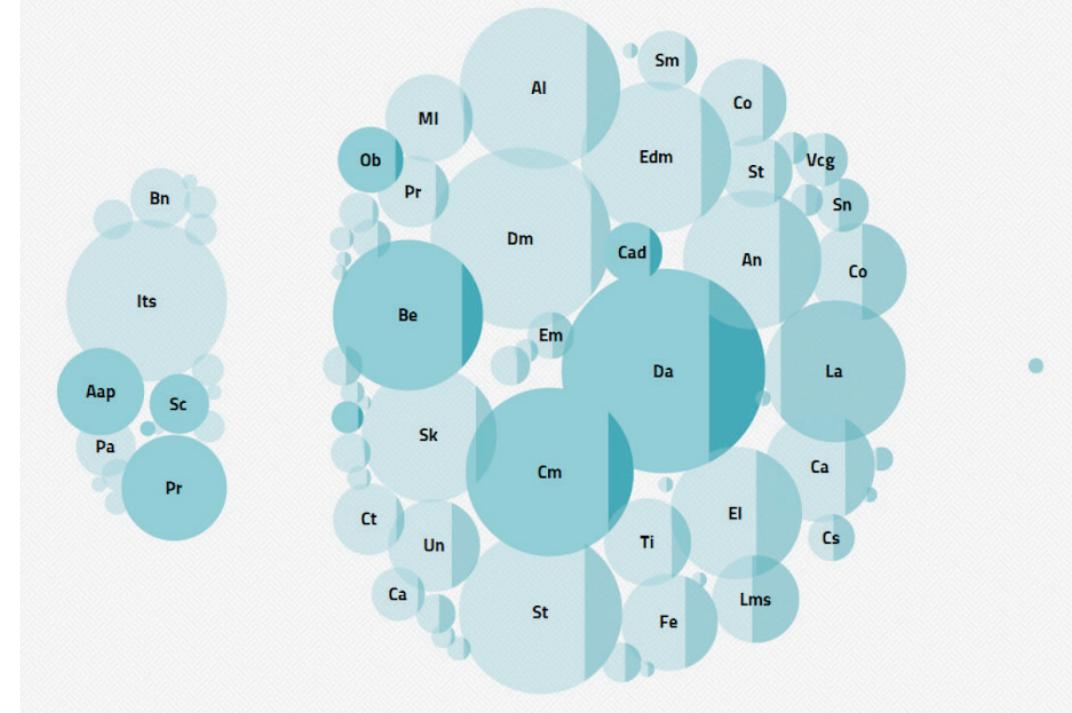
Visual Exploration of Semantically Annotated Research Papers, Learning Analytics and Knowledge. Data Challenge, 2013.

EXHIBITIONS AND PRESENTATIONS

2013 –

International Conference on Learning Analytics & Knowledge,
Leuven, Belgium

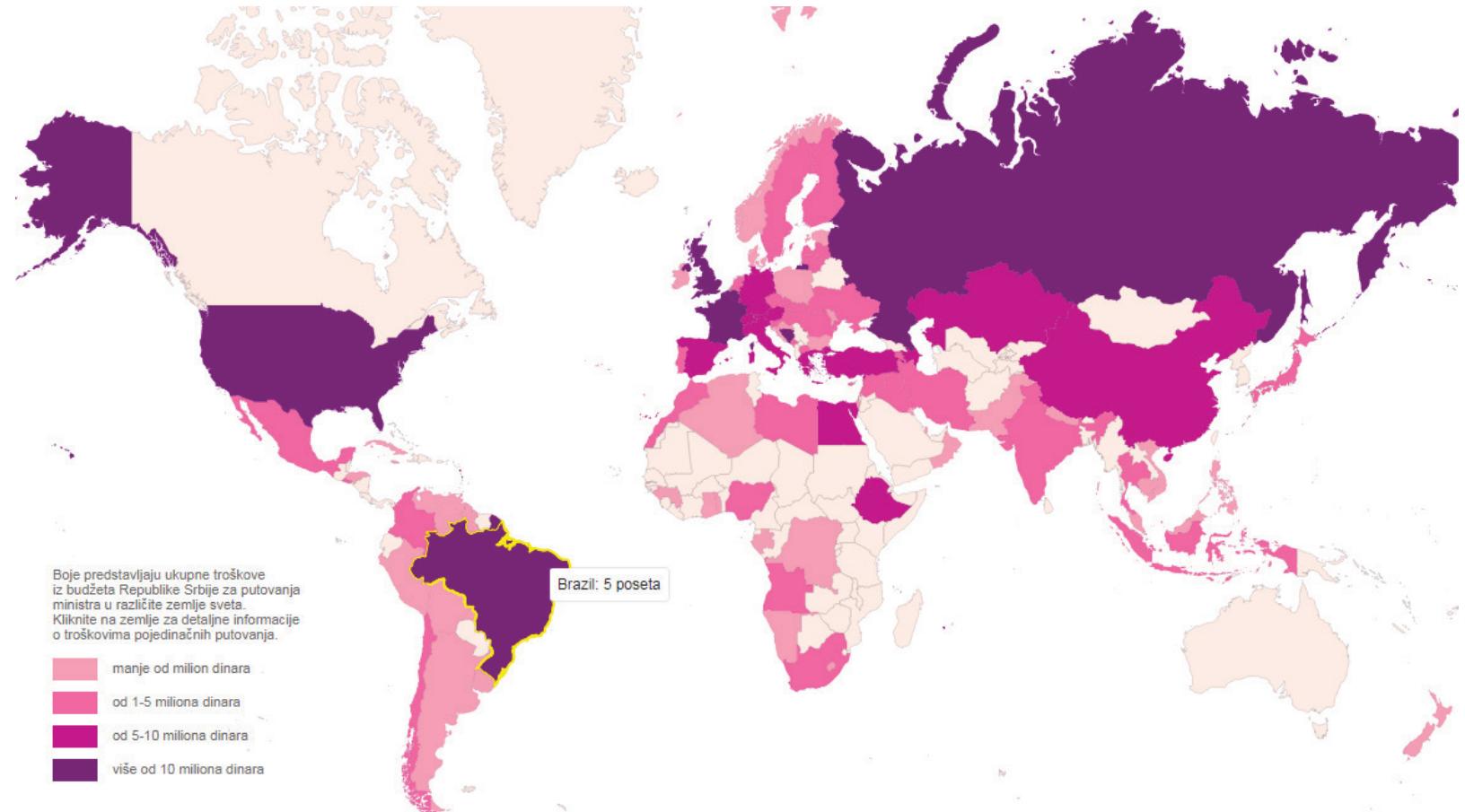
—
“Paperista” is an interactive visual browser for semantically annotated research papers in the field of learning analytics.



2013

—
Interactive /
Data Visualization

Foreign Affairs



ROLE

– Co-Designer / Co-Programmer

MEDIUM

– Web Application

COLLABORATORS

Srđan Keća

Bojan Franzee Brankov

Luka Knežević-Strika

Jovan Vesić

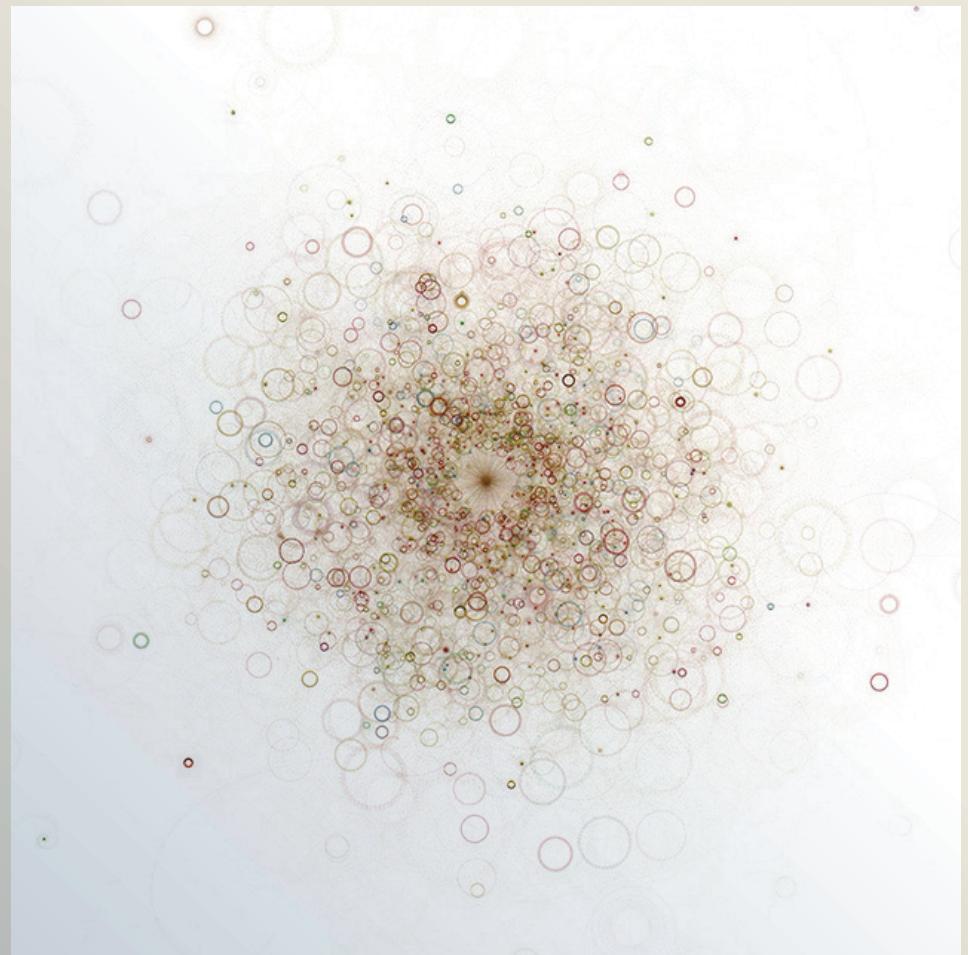
BIRN

“Foreign Affairs” is an interactive data visualization that shows all travel expenses Serbian minister of foreign affairs made during his tenure. It was made in collaboration with the BIRN Research Journalism Team.

2008 - 2016

-
Digital Art /
Generative Art / Software /
Artificial Intelligence /
Installation / Research

Synesketch



ROLE

– Artist / Programmer / Researcher

AWARDS

2009 –

Best Graduation Thesis Award, Belgrade Chamber of Commerce, Serbia

2010 –

Graduate Student Showcase Award, International Digital Media and Arts Association (iDMAa), Vancouver, Canada

PUBLICATIONS

2016 –

Krcadinac U., Jovanovic J., Devedzic V. & Pasquier P. Textual affect communication and evocation using abstract generative visuals, IEEE Transactions on Human-Machine Systems, doi:10.1109/THMS.2015.2504081 [Preprint PDF]

2013 –

Krcadinac U., Pasquier P., Jovanovic J. & Devedzic V. Synesketch: An Open Source Library for Sentence-Based Emotion Recognition, IEEE Transactions on Affective Computing 4(3): 312-325, 2013, doi:10.1109/T-AFFC.2013.18 [Preprint PDF]

EXHIBITIONS AND PRESENTATIONS

2008 –

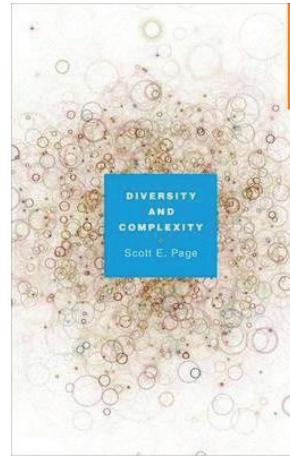
Media Interaction Lab, Upper Austria University of Applied Sciences, Hagenberg, Austria

2010 –

Emily Carr University Gallery, iDMAa, Vancouver, Canada

2012 –

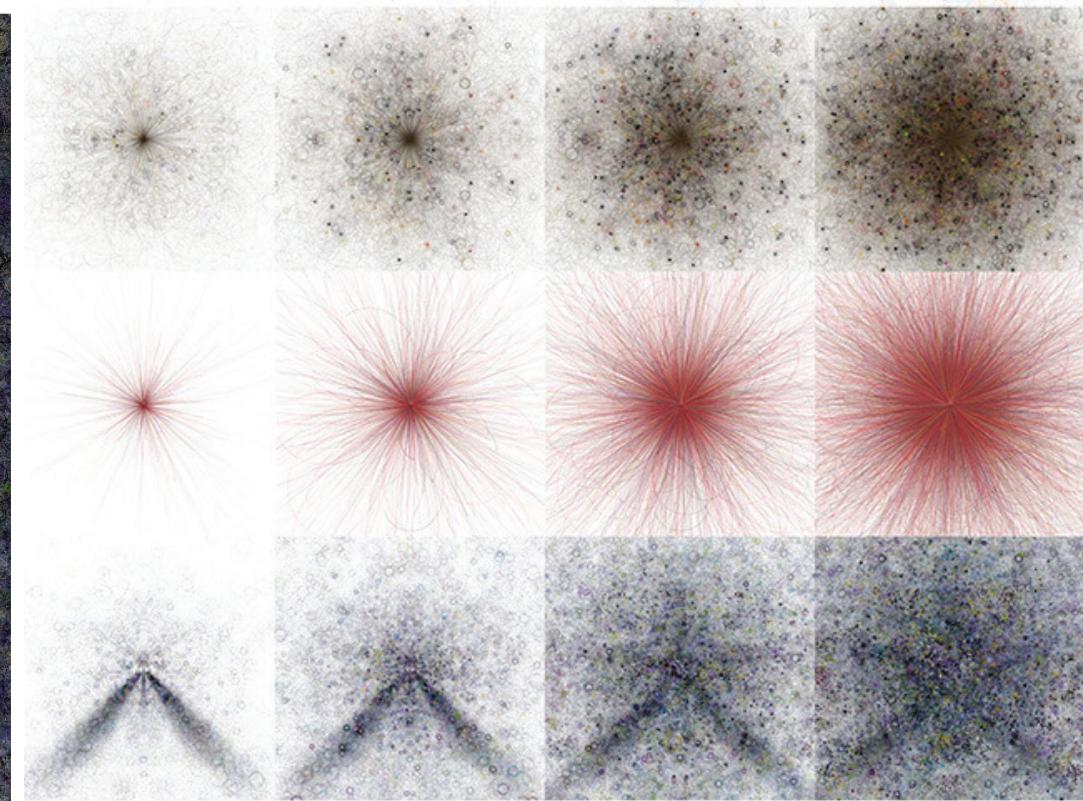
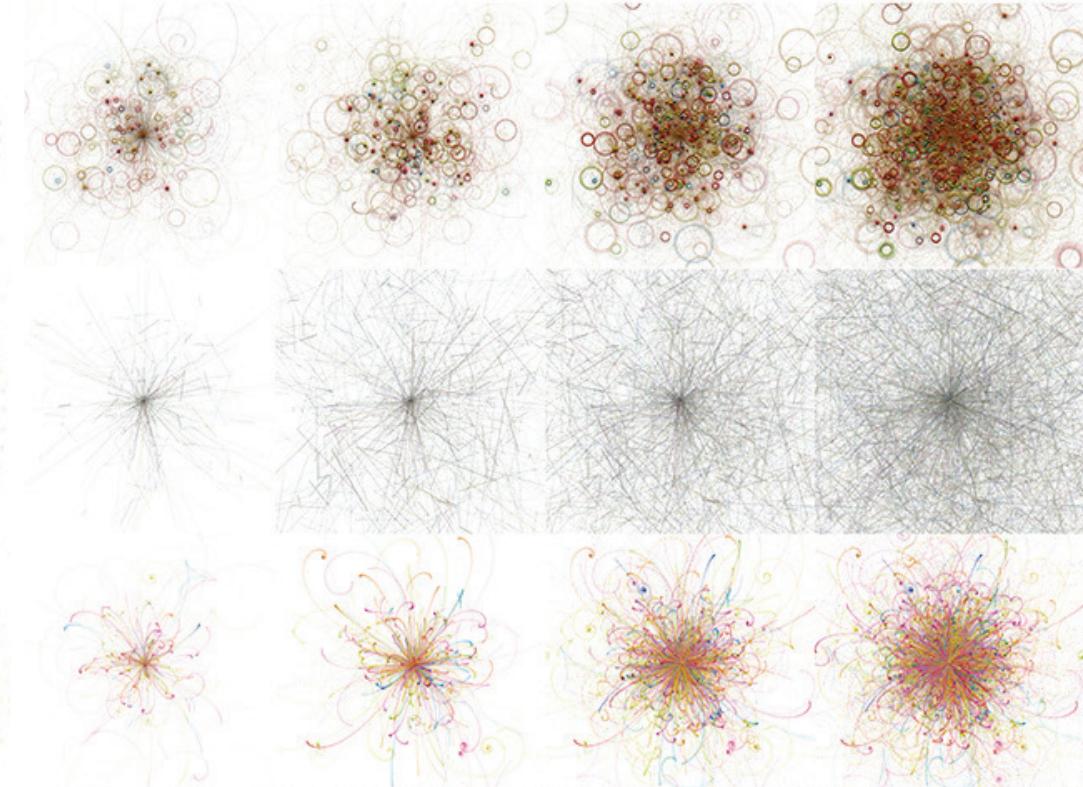
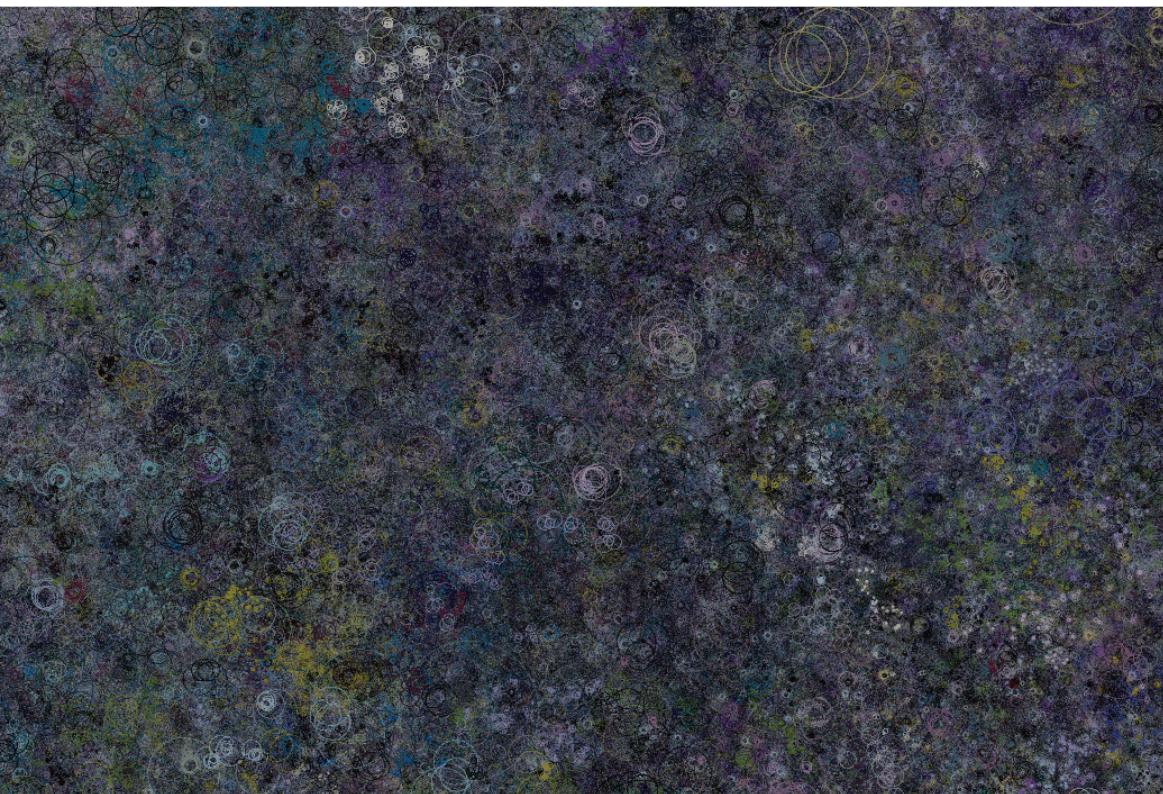
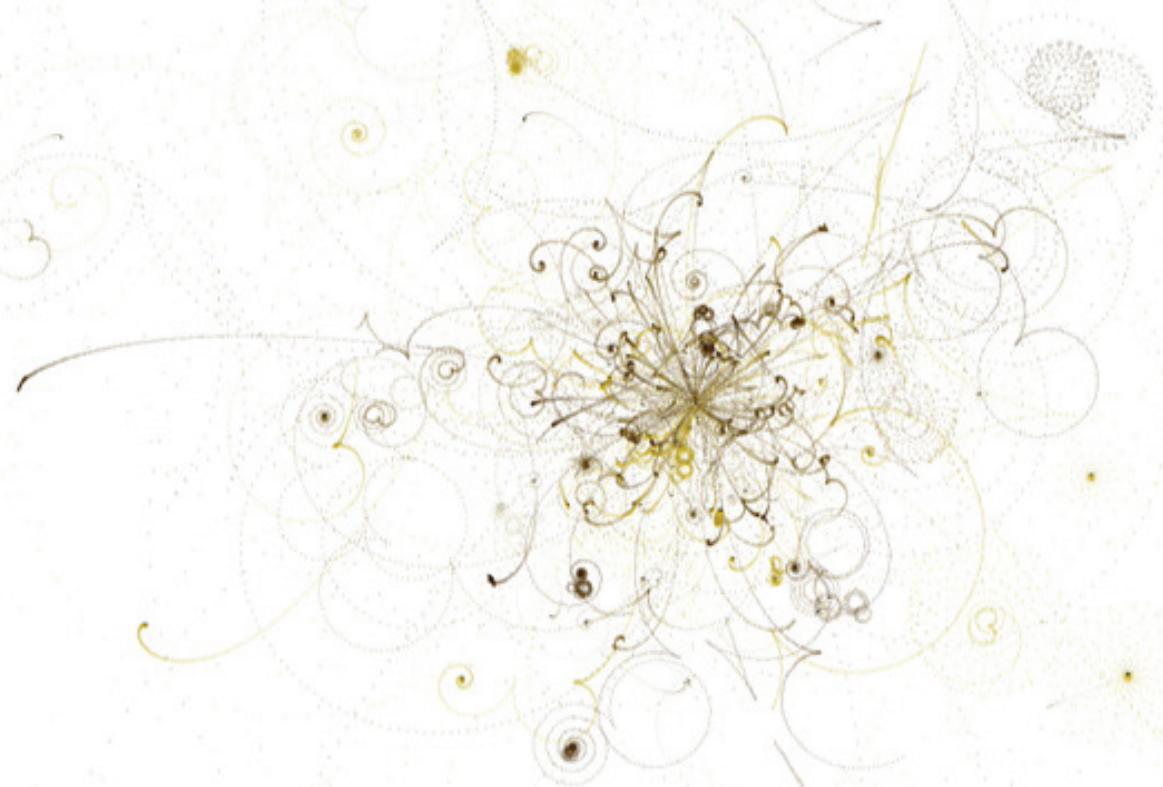
Share Conference, Belgrade, Serbia



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"Synesketch" is the Web's first free open-source software for textual emotion recognition and creative visualization. Synesketch algorithms analyse the emotional content of text sentences in terms of emotional types (happiness, sadness, anger, fear, disgust, and surprise), weights (how intense the emotion is), and a valence (is it positive or negative). The recognition technique is grounded on a refined keyword spotting method which employs a set of heuristic rules, a WordNet-based word lexicon, and a lexicon of emoticons and common abbreviations. The real-time generative animations are partially based on Jared Tarbel's algorithms, itself inspired by the physics graphics of colliding particles.

Research papers about Synesketch were published in the IEEE Transactions on Human-Machine Systems and the IEEE Transactions on Affective Computing. Synesketch was awarded by the International Digital Media and Arts Association, Canada, and the Belgrade Chamber of Commerce, Serbia. It was reviewed by the Creative Review magazine and many data art and visualization blogs, shown on festivals and conferences in Canada, Austria, China, Serbia, and Finland, and used by designers, artists, engineers, and researchers world-wide.



Thank you!
