Sinisa Rudan, MSc | CV

updated on May 2024

Sinisa Rudan, MSc, Computer Sciences/Engineering, Electrotechnical Faculty Belgrade, is an independent researcher and **a senior full-stack IT developer with 20+ years of experience**, **project manager**/leader of several multidisciplinary Socio-IT projects, entrepreneur, international lecturer, and writer/artist.

His work is transdisciplinary - in socio-IT collaborative ecosystems, Collective Creativity and Intelligence, Gamification, IT-supported Education, and (online) Communities. He applies it to CleanTech, well-being, Social Psychology, Art and Literature, Sustainable Development, and the Startup world.

His ITC management/research and full-stack development portfolio consists of projects for the Ag. of the **United Nations** for Human Habitat, the **Ministry** of Civil Engineering Serbia, the University in Belgrade, The **University of Oxford**, Climathon - **biggest climate action**, cultural institutions, and international businesses.

https://github.com/sinisarudan ---- https://github.com/orgs/Cha-OS/repositories ---- https://cha-os.org/en/sini-sha/

He pursues his interests through several **regional and international positions**:

- ex-CEO/co-founder of **IT Dev** studio *MagicWand Solutions*, serving international clients;
- freelance/enterprise fullstack developer for international startups and businesses;
- leading EcoColabo and other digital initiatives related to ***Climathon*** - the world's biggest collective climate action; He is a Chair of the Organizing Committee of Climathon - Belgrade; and he co-led *Climathon Oslo*;
- he leads digitally-supported international **climates- , environment-, cleanTech- and sustainable dev**-related events/projects;
- co-founder of ***ChaOS*** - an NGO uniting artists and scientists to develop cultural and humane projects, supported by customized digital ecosystems/apps;
- Co-founder of "***ReMaking Tesla - Practices that make a Genius***", an Interactive and IT-augmented Education Forum, www.remakingTesla.com;
- www.KnowledgeFederation.org Member: int'l organization for systemic **innovation** and knowledge mng;
- PerformingTheWorld (Community Development / Performance Activism) - organizing leader/committee;
- Awarded **poet/artist/storyteller/presenter** featured in 15+ countries: http://bit.ly/sini-sha-about.

Several projects that Rudan led or co-developed were enterprise, finance, and information-oriented, yet he focuses on the **multidisciplinary** ones - requiring innovation, engineering, and both creative/artistic and scientific approaches - **digital ecosystems for collaboration, gamification, animation, multimedia, and education**. Accordingly, his portfolio covers **Rudan's "Both Sides of Brain - Rational and Emotional" skillset**.

Rudan organized several **international events and workshops** supported by **digital systems** developed by him and his team. He is a project manager and main developer of multidisciplinary projects in the fields of education, collaboration, culture, literature, CleanTech, sustainable dev, environmental protection, and wellbeing.

International grants and institutions support these interdisciplinary projects and events, such as the **Ministry** of Culture and Information, the **Ministry** of Trade, Tourism, and Telecommunications, the **City** of Belgrade, and the Serbian **Chamber of Commerce**.

CV content

IT. Software Development

- Sinisa has **20+ years of experience as a senior full-stack IT developer** and as a project manager/leader of several multidisciplinary Socio-IT projects;
- His current **full-stack development** is focused on the ecosystem of
    - **Backend:**
        - **Python, Django/Flask,** PyTest framework
        - **MongoDB/MariaDB/MySQL/PostgreSQL** databases.
        - **NodeJs** (TypeScript) **+Express**
        - **REST API**, AWS, truly independently deployable microservices, RabbitMQ
    - responsive web/mobile **Frontend**: **VueJS/React** - TypeScript (JavaScript) Frontend Frameworks, **Vuetify** (Material UI) UX framework, Pinia/VueX, Vitest/Jest, Playwright/Cypres, SASS
    - **DevOp**/soft. architecting: Design patterns, AWS services, **CI/CD** tools: GitHub Actions/CircleCi
- **Sinisha** worked across a range of paradigms and ecosystems, using different (MVC) frameworks at different platforms (Flex, JavaScript Frameworks) and APIs (REST, XML-RPC, AMF)
- A range of frameworks/environments used in the past, his business development background, and a wide range of other interests and professional career in creative writing/poetry/painting, enable him to provide very flexible and customizable support as well as communication with his clients.
- He has been dedicated to computers since the age of eleven. From that time he learned and practiced more than a dozen programming languages (*TypeScript/JavaScript, Java, PHP, R, Python, Perl, VB.NET, C++, C, C#, Pascal, Basic, Prolog, Visual Basic for Applications, Macromedia Flash Action Script, Assemblers, SQL, Fortran, ...)*, as well as dozen languages for data description and management and languages of semantics: *HTML, XML, CSS, UML, XLS, DOM, XPATH, RDF, OWL, and SMIL*.
- Some of his work is visible and available online and Open Source at https://github.com/Cha-OS/colabo[1]. Some of his public contributions are visible through his profile https://github.com/sinisarudan
- Rudan was developing hardware interaction through *ColaboWare* - his team approach to **HCI**[2]
- for **IT-Dev projects and experience check the lower paragraph "*Projects and Employment*"**

General Info

- **Master of Sciences in Computer Sciences and Engineering**, Electrotechnical Faculty, Belgrade with thesis "*Creation of Multimedia Multi-User Entertainment Systems and Virtual Worlds - Interactive Advertising*" (average grade 8.88/10 **excellent**)
- He is/was leading teams on/in several transdisciplinary IT Dev + Art + Research projects.
- Most of his work is **transdisciplinary** and suited for **interdisciplinary projects**:
    - He works as a manager and Business Developer in Tech Startups, as well as a project manager of Art + Science + Creativity + Collective Projects/Workshops.
    - He is an IT Researcher and a full-stack Developer focusing on VueJS, Node.js, MongoDB, and other frameworks, with a rich history in Angular, ReactJS, PHP, Perl, and Python.
    - He is a multimedia artist, writer, and performer
- Born: June 4th, 1978, Karlovac, Yugoslavia
- Living: Karlovac, Croatia, EU & Belgrade, Serbia
- Was a **Guest lecturer** on *Graphic Design & Communications*, at **The Faculty of Applied Arts** in Belgrade, teaching **Web design** and **multimedia** and **Internet programming**.
- He was an editor of the multimedia part of **InfoM,** Journal of Information Technology and Multimedia Systems.
- He was a Jury member of *Siemens***'s** *Join Multimedia* contest.
- He participates in PR, (Internet) marketing, advertising, and related workshops and conferences.
- He writes articles and research papers, gives lectures, and participates in scientific expert meetings in Collective Intelligence, Collective Mind, Co-creation, Creativity, Motivation, and Social Psychology.

---

[1] CoLabo - a socio-technical ecosystem of tools and methodologies for collaboration

[2] https://en.wikipedia.org/wiki/Human%E2%80%93computer_interaction

- Through a range of projects, he cooperated with **the renowned Bitef Festival and the Bitef theatre** (including the development of a website/application implemented in Flash frontend with XML back-end content)
- Was an associate member of the **Center for Research and Education RTS** (**Serbian National Radio and Television**)
- holding managerial, entrepreneurial, and leadership certificates issued by international organizations, like CEFE, OSCE, among others, plus certificates for specializations, organized by domestic bodies, like Belgrade City parliament.
- He has taken and is taking part in the organizing of several **international Socio+IT conferences**.
- He writes poetry and short stories and is published and awarded. Member of several festivals.
- In **The National Council for Serbian Language and Script,** he was in the position of coordinator for the academic community
- "Performing the World Conference" (ESI, NYC, USA) - International Organizing Committee Member
- PPLG (Play/Perform/Learn/Grow) Conference - organizing team member

Courses. Certificates. Additional Education

- certified by **Startup Academy** - https://startit.rs/
- **CEFE certificate** issued on "Entrepreneurship/Management/Leadership/Finance workshop"
- **Global Commerce Licence (GCL)** (accredited by AEACAE, value: 30 ECTS)
- Startup Engineering (Stanford University)
- Gamification (University of Pennsylvania)
- Social Network Analysis (University of Michigan)
- **Game Theory** (Stanford University)
- Sharpened Visions: A Poetry Workshop (California Institute of the Arts)
- Introduction to Art: Concepts & Techniques (The Pennsylvania State University)
- Coursera Mentor Community and Training (Coursera Community Team)
- **Qualitative Research Methods** (University of Amsterdam)
- **Quantitative Methods** (a part of the "Methods and Statistics in Social Sciences Specialization", University of Amsterdam)
- **Social Psychology** (Wesleyan University)
- Inspiring Leadership through Emotional Intelligence (Case Western Reserve University)
- Leading Teams (the University of Michigan, Prof. Scott DeRue, Ph.D. & Maxim Sytch, Ph.D.)

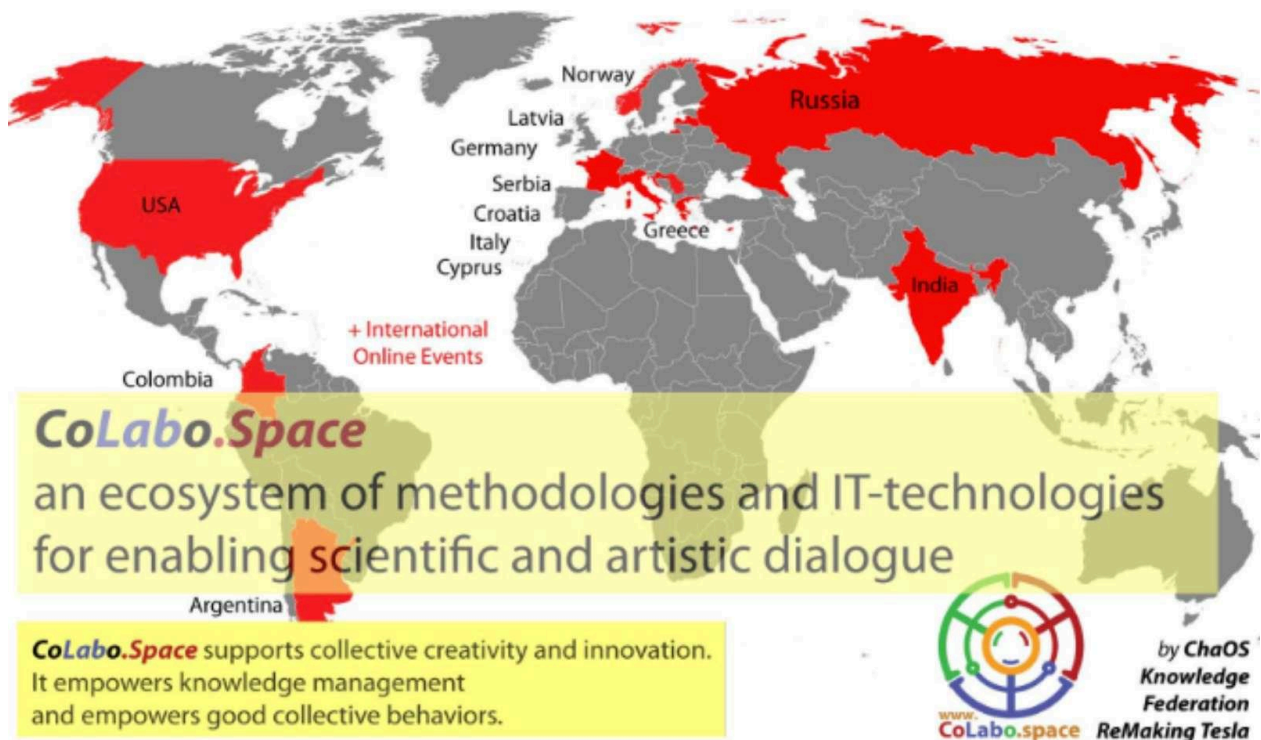# Portfolio: Projects and Employment

Here are selected some of the most representative projects which are developed by and which development is many cases (co-)led by Sinisa Rudan.

The projects more relevant to specific research/dev positions might be highlighted in the *Application (Cover) Letter*.

Colabo.Space

2014-present:
Many of Rudan's projects are unified as **Tools/Apps and Methodologies** under the umbrella of *Colabo.Space* digital ecosystem, being developed for and used by multiple communities and supporting multiple events around the world:

CoLabo.Space
an ecosystem of methodologies and IT-technologies
for enabling scientific and artistic dialogue

CoLabo.Space supports collective creativity and innovation. It empowers knowledge management and empowers good collective behaviors.

by ChaOS
Knowledge
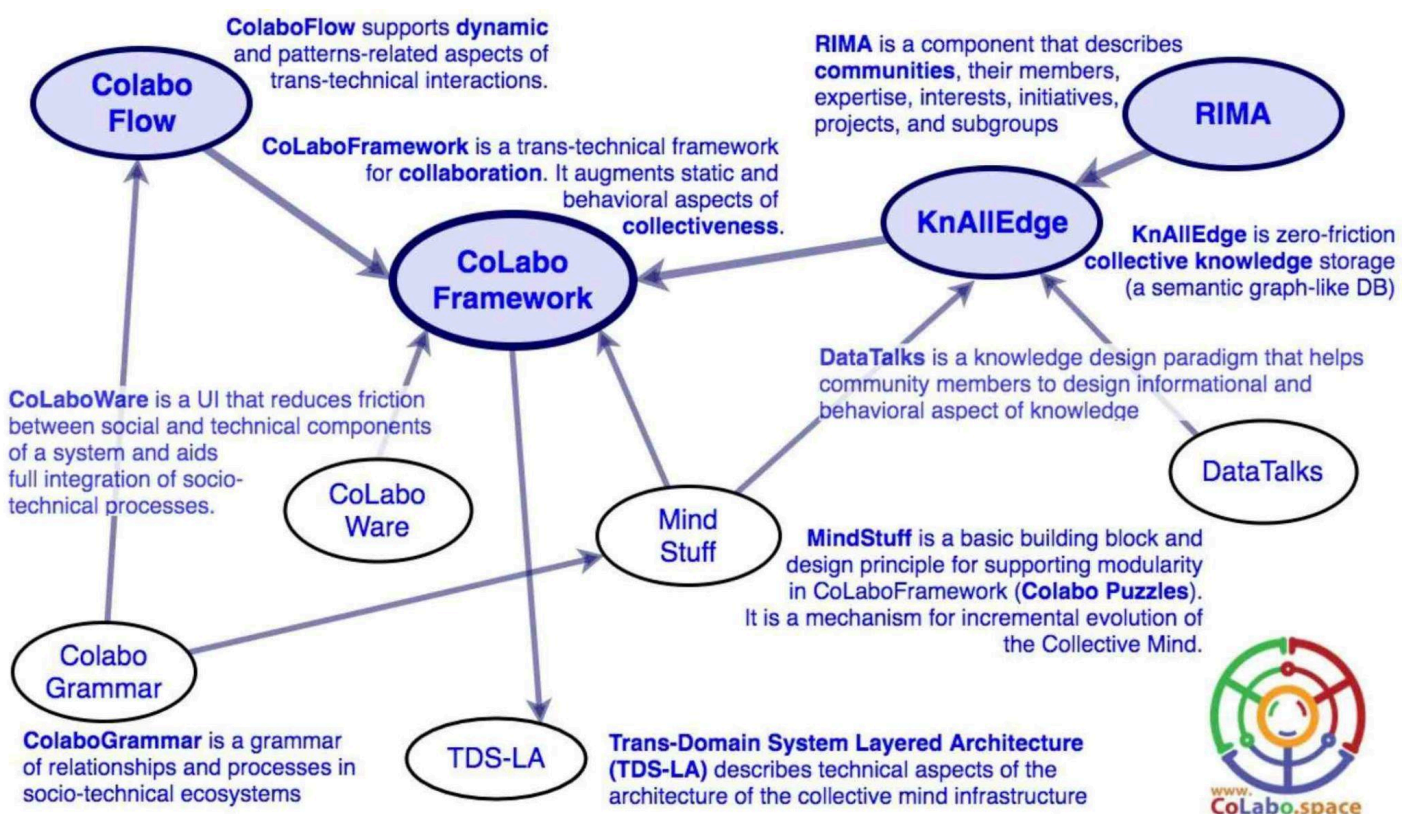Federation
ReMaking Tesla

Skills/Technologies: VueJS/Vuetify/Vuex, Angular 1-7, Angular Material, React, NodeJS, Express, MongoDB, Mongoose ODM, Socket.io (for realtime messaging) Project Management, advanced UX/UI, web design, SVG, D3, HTML/CSS/SASS, Python, ML, Software Architecting, Knowledge Management, Collaborative Methodologies, DevOp, services: RabbitMQ, gRPC + ProtoBuffers, Rpyc.
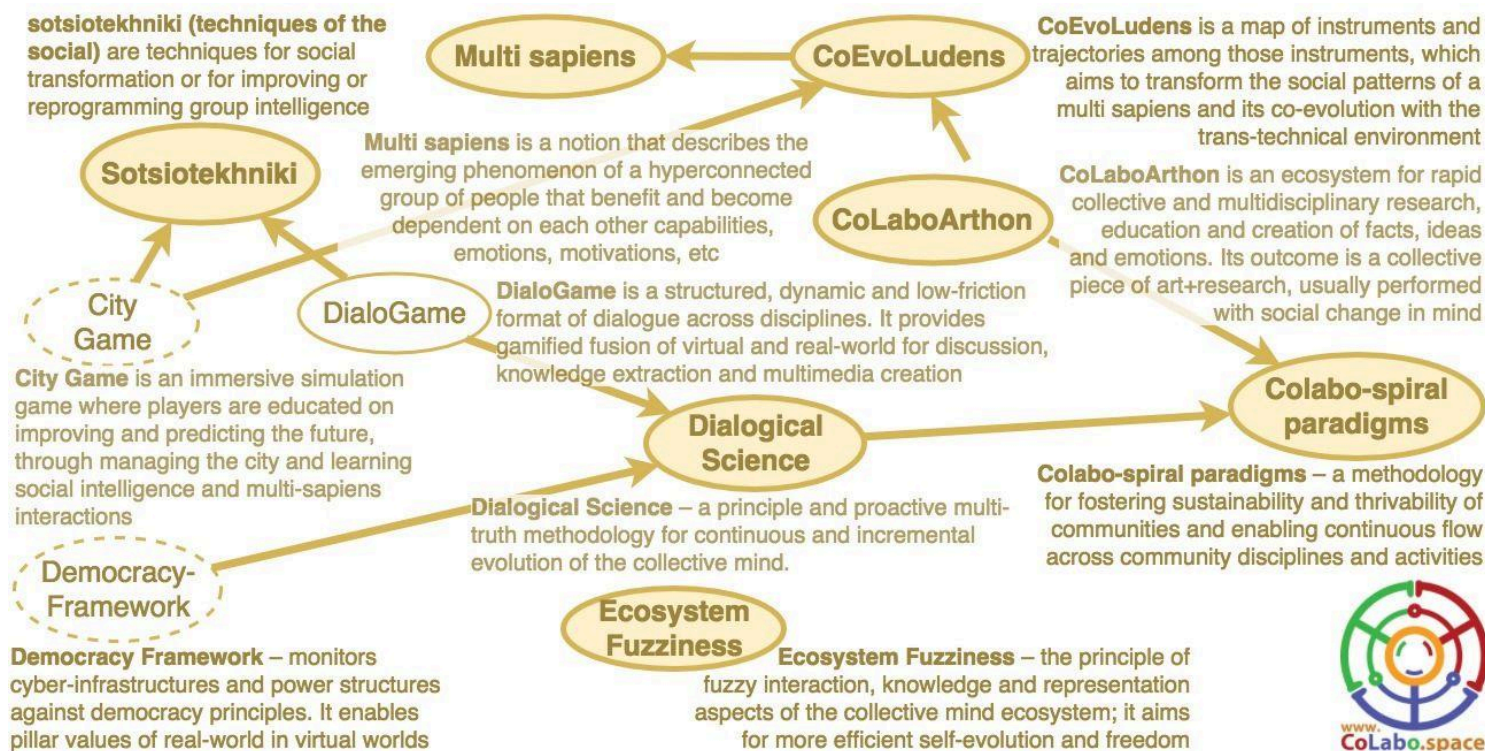
For **interactive components** that combined dynamic HTML superposed with **SVG** and CSS, we used **D3.js**, Billboard.js, Joint.js, and Interact.js. We developed *ColaboWare* (hardware for interaction).

It supports collaboration and augments scientific and creative communities and group processes. It is continuously improved in an agile way through research work, workshops, and adopting the newest socio-technological trends. It is a working and evolving prototype of the Collective Mind.
Several Puzzles (modules) collaborate to create Colabo.Space:

ColaboFlow supports **dynamic** and patterns-related aspects of trans-technical interactions.

CoLaboFramework is a trans-technical framework for **collaboration**. It augments static and behavioral aspects of **collectiveness**.

RIMA is a component that describes **communities**, their members, expertise, interests, initiatives, projects, and subgroups

KnAllEdge is zero-friction **collective knowledge** storage (a semantic graph-like DB)

DataTalks is a knowledge design paradigm that helps community members to design informational and behavioral aspect of knowledge

CoLaboWare is a UI that reduces friction between social and technical components of a system and aids full integration of socio-technical processes.

MindStuff is a basic building block and design principle for supporting modularity in CoLaboFramework (**Colabo Puzzles**). It is a mechanism for incremental evolution of the Collective Mind.

ColaboGrammar is a grammar of relationships and processes in socio-technical ecosystems

Trans-Domain System Layered Architecture (TDS-LA) describes technical aspects of the architecture of the collective mind infrastructure

Colabo.Space was developed by Sinisa Rudan and Sasha Rudan with the assistance of Lazar Kovacevic. Its methodologies and algorithms are developed through longitudinal research and experiments, influenced and brainstormed by a pool of our peer researchers and practitioners:

sotsiotekhniki (techniques of the social) are techniques for social transformation or for improving or reprogramming group intelligence

Multi sapiens is a notion that describes the emerging phenomenon of a hyperconnected group of people that benefit and become dependent on each other capabilities, emotions, motivations, etc

CoEvoLudens is a map of instruments and trajectories among those instruments, which aims to transform the social patterns of a multi sapiens and its co-evolution with the trans-technical environment

CoLaboArthon is an ecosystem for rapid collective and multidisciplinary research, education and creation of facts, ideas and emotions. Its outcome is a collective piece of art+research, usually performed with social change in mind

City Game is an immersive simulation game where players are educated on improving and predicting the future, through managing the city and learning social intelligence and multi-sapiens interactions

DialoGame is a structured, dynamic and low-friction format of dialogue across disciplines. It provides gamified fusion of virtual and real-world for discussion, knowledge extraction and multimedia creation

Colabo-spiral paradigms – a methodology for fostering sustainability and thrivability of communities and enabling continuous flow across community disciplines and activities

Dialogical Science – a principle and proactive multi-truth methodology for continuous and incremental evolution of the collective mind.

Democracy Framework – monitors cyber-infrastructures and power structures against democracy principles. It enables pillar values of real-world in virtual worlds

Ecosystem Fuzziness – the principle of fuzzy interaction, knowledge and representation aspects of the collective mind ecosystem; it aims for more efficient self-evolution and freedom

www.CoLabo.space

EcoColabo

https://cha-os.org/en/ecocolabo/

2021-present; *Skills/Technologies*: VueJS, React, NodeJS, Express, MongoDB, CleanTech, Project Management, Python, ML, advanced UX/UI, web design, HTML/CSS, Software Architecting, Knowledge Management, Collaborative Methodologies, DevOp.

It is a digital and methodological ecosystem that supports collaborations on eco-climate activities, events, and hackathons. More specifically, it is being developed to support **Climathon** events and organizations - the biggest collective climate action taking place in more than 200 cities in 65 countries on all continents.

EcoColabo is a Digital platform for European cross-border climate actions and collaboration. Its mission is to increase the efficiency of online collaboration and augment offline collaboration.

It is built on top of our Socio-IT ecosystem Colabo.Space. Many European and North American organizations, institutions, and academia support it.

Eco CoLabo will bring you:

- Lowered costs to your events;
- **Customization and flexibility**: you choose modules you need;
- **IT/AI assistant/facilitator**: quality, speed, and scaling;
- **Collaborative Tools**: Brainstorming, DialoGame;
- Automatic **Team Formation** based on interests/skills; **Mentors matching**;
- **Tools for Ideas Analysis and Improvement**: SWOT, Value Proposition, Business Canvas, Personas Analysis, Customer Journey Map and others;
- Increasing conversion ratio **from team ideas to implementation**: prolonged team work with **gamified activities**; Management of Teams Progress;
- **Cross-Border Collaboration** and Knowledge Sharing - Digital Analysis of Texts and AI/Machine Learning for cross-language collaboration;
- **Ideas Embodiment. Team Building.** Awarded edu-game *PlaySustainability*! *
- **Automatization**: Data import/export; automated certificates and others printing
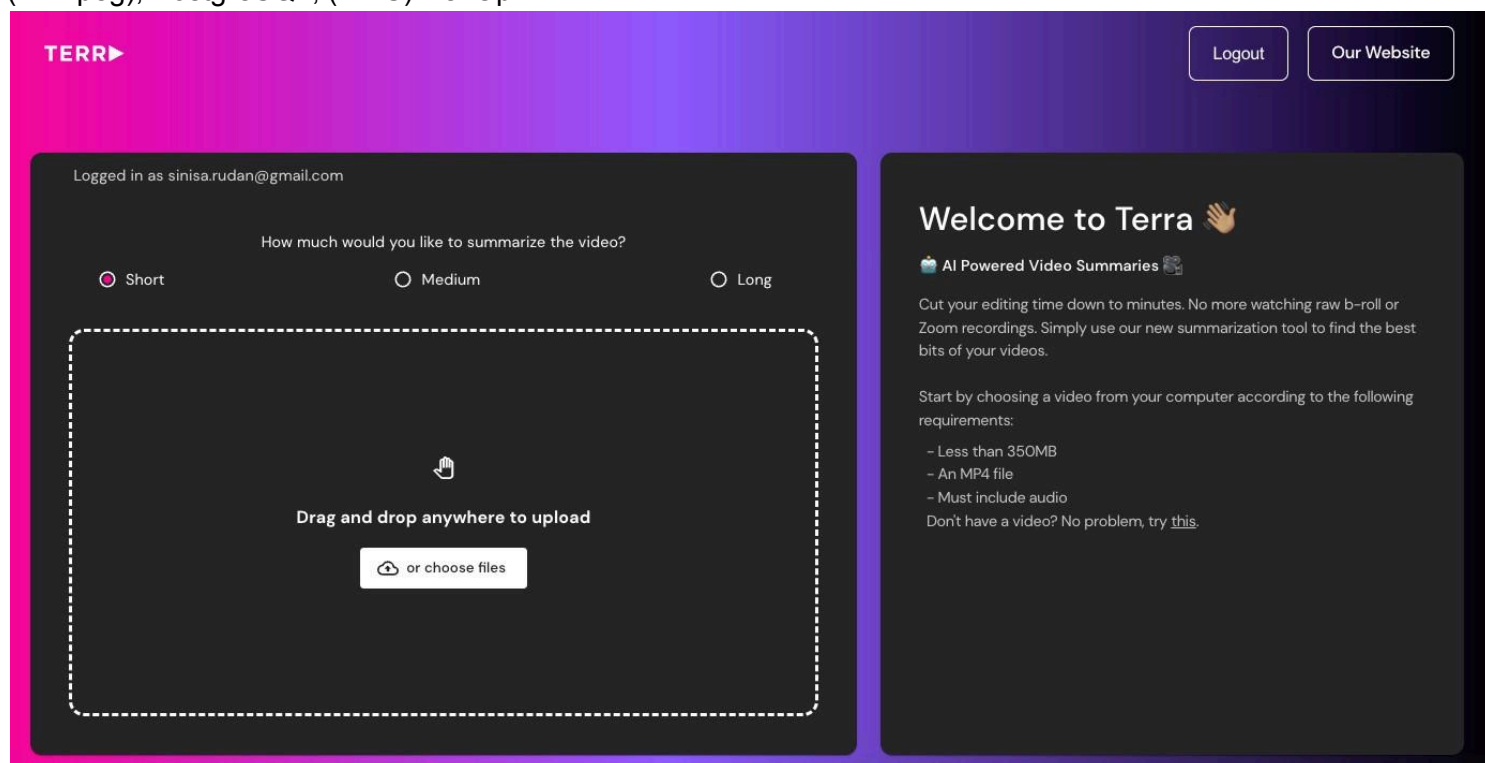
EcoColabo™ - © ChaOS - All rights reserved

* *PlaySustainability*: https://bit.ly/play-sust

Terra

2022-2023; Roles: full-stack developer, business developer.
Technologies, Skills: React, Python, Django, NodeJS, NLP, advanced automatic (programmed) video processing (FFmpeg), PostgreSQL, (AWS) DevOp

Terra was a startup backed by **Antler** investors. The startup successfully exited.
https://www.antler.co/blog/announcing-the-antler-us-fall-2022-showcase-usa
My work on the project included advanced tweaking of video processing driven by NLP/ML processing of text, usage of Amazon translation/audio/video processing services, development of Google auth integrated with Django, development of React frontend for clients as well as a dashboard for managers, performance improvements, processes analysis, etc.
Through an enhanced NLP (natural language processing) machine, Terra can analyze video, determine its category, and pull out the best bits. Simply upload a video and watch the magic!

TickerAI - A Mark Cuban AI-based Financial Market News Aggregator

2021-2022; *Technologies, Skills*: Software Architecture & Design, Startup Consulting, advanced UX & UI (HTML/CSS 3), TypeScript, Node.js+Express, VueJS, Vuetify, MongoDB/Mongoose, FinTech.

Rudan had the role of Project Management, Lead IT Developer, and UX/UI Designer for billionaire and serial investor **Mark Cuban**'s company project, a machine-learning-based and AI-driven, fully personalized Financial Market News Aggregator Technology.
https://markcubancompanies.com/companies/tickerai/?modal

TickerAI.io aggregates the top-trending news articles for the five largest financial markets: *Stocks, Cryptocurrencies, Fixed Income, Forex/Commodities, and Economy/Business.* TickerAI users can **personalize** their custom news portfolios, and our AI-based algorithms aggregate and auto-upload select articles to their customized news feeds daily. Users can select various categories from the five largest financial markets, from individual securities to market topics. TickerAI also updates the top breaking news stories throughout the day in the 'main headline', providing a snapshot of the day's top earnings, movers, and technicals. Development included integration of multiple external FinTech widgets.

FractalPM Project Management platform

2023; Senior full-stack developer, applying Technologies, Skills:
- Backend: Python, Flask, SurrealDB, AWS, truly independently deployable microservices, PyTest, RabbitMQ

- DevOp, advanced Design patterns; CI/CD tools: GitHub Actions, CircleCi
- Frontend: Vue 3, Vuetify, Vite, Pinia, Vitest, Playwright, SASS

POIETO

2019-2021; *Technologies, Skills*: Software Architecture & Design, Startup Consulting, advanced UX & UI (HTML/CSS 3), TypeScript, VueJS.
https://www.poieto.com/
Researching and developing several web Apps for collective training, workshops, and research in (ethics of) AI education. Development a community hub for tech development and education.
POIETO is a California (US) - based AI startup - an exploratory tool for anyone to learn about AI and its social considerations by making, deconstructing, and transforming AI projects.
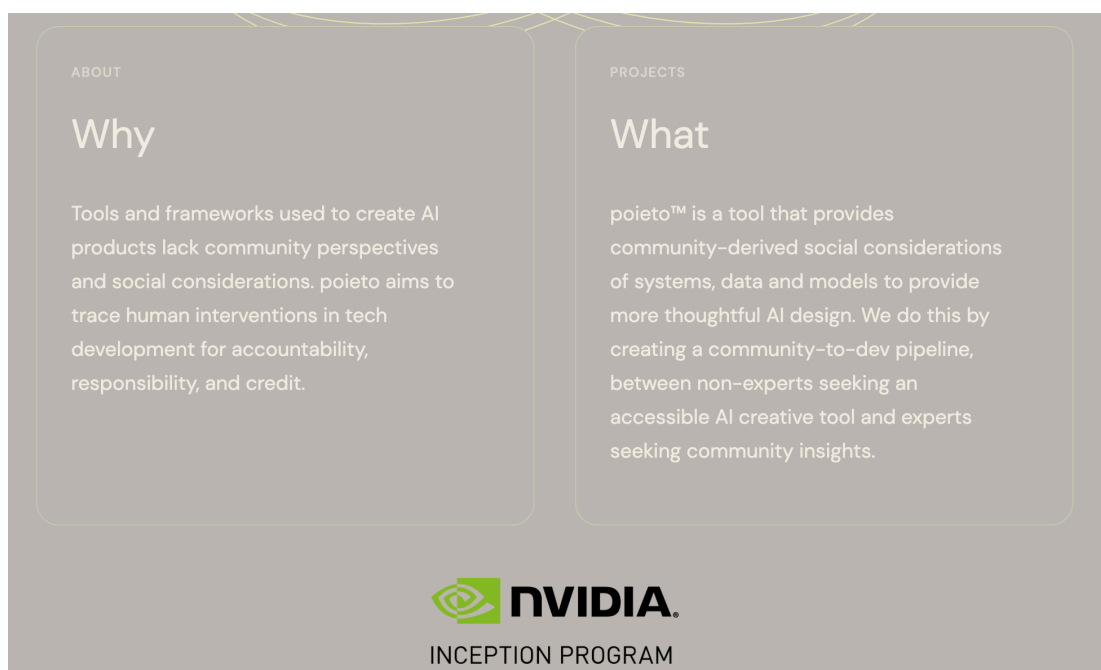
Poieto builds **collective intelligence** for a more **creative and responsible AI future**.

ISEPAH - UN Habitat

An Information System (Internet portal) developed for European parliamentarians for **HABITAT** (an agency of the **United Nations for Human Habitat**). It served as an interactive repository for all European laws in several languages. The complete web-based multiuser system for information management, remote online administrating, CMS, and website administration was developed in **PHP/MySQL**. The final solution was evaluated as providing exceptional customization for non-technically savvy users. I was a project leader and one of two lead programmers. The recommendation letter is provided below in the appropriate CV section.

Catalyst Tool - InCap Corporation

2020-2021; Business Development, Startup Consulting, Customer Research, Project Management, System Architecting
InCap Corporation, California, USA - www.incap.com;

Catalyst is an intelligent software tool that empowers one or more experts who are not programmers, to create knowledge bases in many domains of knowledge quickly. The expert uses Catalyst to create questions, answers, scenarios, rules (IF-THEN-ELSE statements), and decision tables, then associates each answer with one or more rules.

Rudan has done a set of **business and deep customer research** tasks, from customer journey to personas, toward defining the functionality of ver.2 of the Catalyst tool, focused on the healthcare domain of knowledge.

Toolset for Performative Dialogue

https://cha-os.org/en/sustainable-development/#performative-dialogue

A **mobile-based** Socio-Technical Toolset (built on top of our Socio-IT ecosystem Colabo.Space) for Interactive Creation of Collective Performance through a Gamified Dialogue, also known as **Performing Sustainable CoEvolution (PSC).**

Accepted for usage/presentation at several international conferences and EU projects, including
- **PerformingTheWorld** (New York, US)
- **ERASMUS+** Everyday Heroes, Dresden, Germany
- **InSEA** 'Art Education - Conflicts and Connections' Seminar, Malta (more at https://cha-os.org/en/insea-workshop/)

It is supported by **Machine Learning**, and **NLP** (for texts-dreams analyses and matching).

Backend: MongoDB, Mongoose ODM, Node.js, TypeScript, Python

Frontend: TypeScript, AngularJS, Angular Materials, Angular Reactive Forms, D3.js, Billboard.js

Services: Socket.io (Real-time messaging), RabbitMQ, gRPC + ProtoBuffers, Rpyc

NCA - Networking for Collective Activism

https://cha-os.org/en/sustainable-development/#nca

NCA is a toolset enabling networking, ad-hoc groups creation, and clustering, driven by shared interests (built on top of Cha-OS' Socio-IT ecosystem Colabo.Space).

It was initially developed to support 500+ participants in onsite interaction and community building at the Forum Vlasina Forest Eco Camp.

It is used as a **mobile application**, supported by a server-side socio-technical ecosystem, offering **visualization of results** and **gamification of social networking**.

It is used at **several international conferences** and commissioned for **entrepreneurship training.**

Backend: MongoDB, Mongoose ODM, Node.js, TypeScript, Python

Frontend: TypeScript, AngularJS, Angular Materials, Angular Reactive Forms, D3.js, Billboard.js

NCA usage. Illustration of NCA clustering of participants:
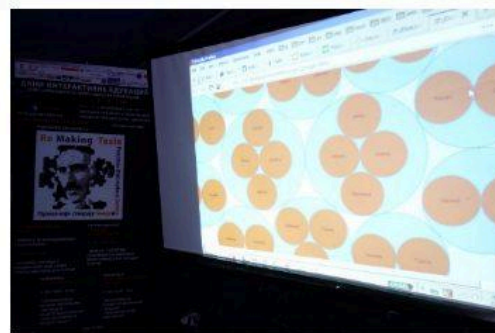
PlaySustainability

Skills/Technologies: Angular, VueJS, NodeJS, Express, MongoDB, Ideation, HTML/CSS, Collaborative Methodologies, Storytelling, IT-Supported education.

https://cha-os.org/en/play-sustainability/

An internationally awarded mobile-supported Edu-game featured at several international occurrences.

Play Sustainability! was acknowledged by honoring "ReMaking Tesla / ChaOS" as a **Cross-Cultural Ambassador of the UNESCO Club at Sorbonne University** (a list including Nobel Prize winners and distinguished individuals).

It won a grant from the UiO : Energy / UiO : University of Oslo, Norway, to be part of the **Oslo European Green Capital** 2019. It was part of Climathon Oslo and Climathon Belgrade's official programs.

CoLaboArthon

Sinisha co-designed (and co-developed **digital tools** for its execution) *CoLaboArthon* (https://cha-os.org/en/colaboarthon), a Socio-IT framework/initiative for rapid collective and interdisciplinary research, education, **collective computer-supported creative writing**, artistic and collective creation of knowledge, collective awareness, ideas, and emotions. Its outcome is a *collective piece of art+research*, usually **performed** for social **innovation and change**.

It features an interactive mobile gallery of poets (currently in development) from the Association of Writers of Serbia (UKS), Bowery Arts + Science, New York, and many others.

The Ministry Of Culture And Information, Republic of Serbia, supports the project.

It is presented at the renowned Electronic Literature Organization Conference & Media Arts Festival, ELO2019, http://elo2019.ucc.ie

Poetry on the Road - CollaboARTive digital toolset

https://cha-os.org/en/poetry-on-the-road/

Digital system that enables interaction of poets and creation of ad-hoc community connections by **SMS texting** (mobile messages).

The system featured ad hoc communities' creation and interaction in environments without the Internet, smartphones, or computers. Its SMS API is built around Twilio SAAS, interacting with the Node.JS backend. It featured custom multilingual support.

It is built for the Festival Internazionale di Poesia di Milano, Italy.

Backend: MongoDB, Mongoose ODM, Node.js, TypeScript

ML/NLP - LitTerra/Bukvik

Sinisha is collaborating on the development of several digital **stylometric platforms** (with **Machine Learning and Natural Language Processing** methods integrated)

https://litterra.net/en/litterra/

http://bukvik.litterra.net/

Skills/Technologies: OpenAI API (ChatGPT and DALL·E), VueJS, NodeJS, Express, MongoDB, D3, Billboard.js, bpmn-js, advanced UX/UI, web design, HTML/CSS.

LitTerra is a digital **world of literature** where readers can explore and walk through books. It is a place where readers are researchers and travelers again; writers are guides, and researchers are explorers.

It provides a big data infrastructure (through ColaboFlow and Bukvik infrastructures) for NLP, stylistic, semantic knowledge analysis and augmentation of big literature corpora (research, translation, reading, creative writing, etc.). LitTerra is implemented through Angular (+material) frontend, with Node.js (TypeScript) backend, and Python data NPL+big data analysis, orchestrated with ColaboFlow and additional Colabo.Space components.

LitTerra is partnering with the **National Library of Serbia**, the **University of Oxford, UK, Upsala, Sweden, and Belgrade** to realize various literal projects through LitTerra.

ChaOS projects

Sinisa is the lead developer and architect of several ChaOS projects: **https://cha-os.org/en/projects/**

MubiS/eUniversity

Students e-Service for the [School of Mechanical Engineering, University in Belgrade](#). It's an enterprise software implemented in *PHP* and *MySQL* (mainly using Zend implementation zAMF which goes with PHP MVC support) by Sinisa Rudan and Sasa Rudan.

NEO7EVEN, Germany

- System for remote and collaborative management of organizing complex prints of magazines and catalogs
- PHP, ActionScript, Flex, MSSQL

Multiple Artistic Multimedia Creative Contents/Websites

Throughout his career, Sinisha was uniting his developing/research knowledge with artistic/creative skills. He devoted several years to multimedia and **RIA** (Rich Internet Applications) research and development and later to dynamic **HTML5**, **SVG**, **D3**, and related **libraries for visualization, animation, and interaction**. It led to his teaching as a **Guest lecturer** on *Graphic Design and communications* at **The Faculty of Applied Arts** in Belgrade, teaching **Web design**, **multimedia,** and **Internet programming**.

Among these projects stand out:

- Promotional visual material for several international conferences.
- A flash-made TV commercial starring the engagement of foreign DJs
- Several multimedia Web presentations for companies and renowned artists, like Bora Dugic, etc
- Socio Topic Maps 3D visualizer: developed in AS3 + PaperVision, used for navigation through social context / personalized space
- Some of the others are mentioned among the projects listed in this CV, including Princess Christina Testament, Bitef, InternetQ - Akazoo games, PlaySustainability, Balkan Floor Games.

Akazoo entertainment and multimedia - InternetQ

Skills/Technologies: Gaming, Adobe Flash ActionScript; Java / Java server plugins for *Electroserver* socket server; Multiuser and distributed/concurrent environments, Project management, security & cryptography, 3D design, animation, Web Services.

Sinisha was a lead developer, project manager, and team leader for several Akazoo entertainment, multimedia, and infrastructure projects at the international company [InternetQ](#). Sinisha developed diverse elements of **Video streaming systems**, like video players, multiuser entertainment systems, and several **multiuser games with rich designs** and **lobbies**.

It included Intensive ActionScript and server communication over Web services and XML (developing **custom support for Flash AS3 Web services**, which didn't support them natively at the
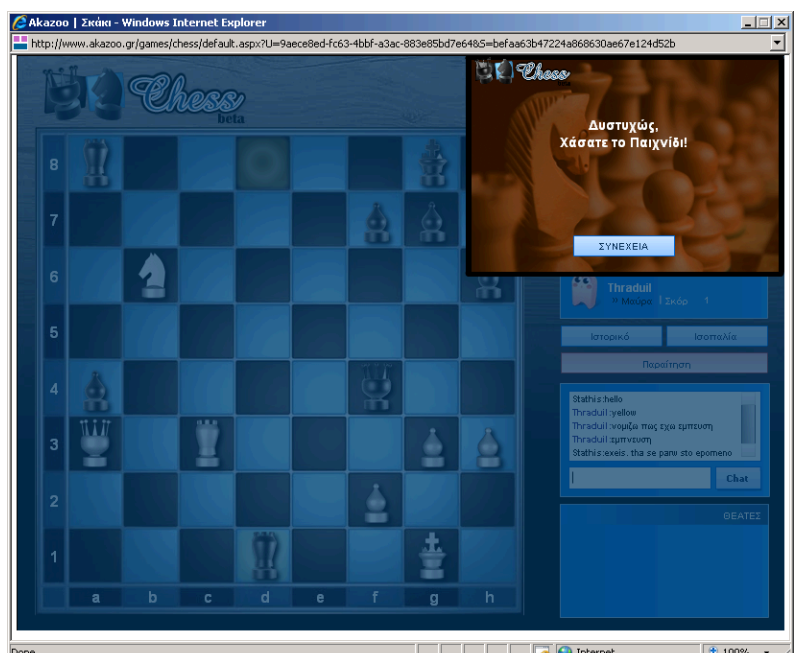
time).

Akazoo services include(d) a social music streaming service, entertainment, gaming, betting, etc. InternetQ was the leading Greek mobile+media company, and as of October 2016, the company runs 24 offices around the globe.
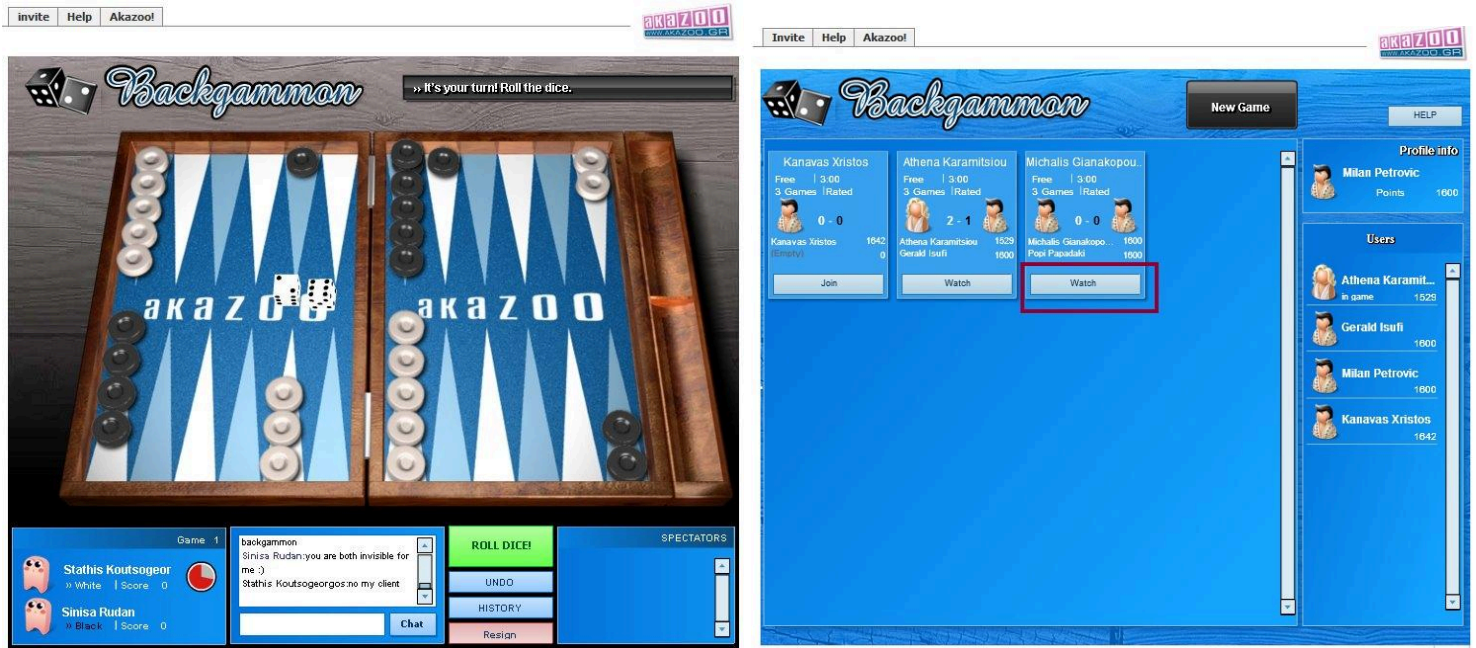
Princess Christina Testament

Skills, Technology: Social gaming, UX/UI Design, Facebook API and integration, Branding, Community building, ActionScript, Project management, Team Leadership, storytelling, artistic and creative skillset;
Client: the Tourist board of the **Spanish Embassy in Norway**

Serious Social game (educational + travel + adventure + marketing) executed as a Facebook social game + campaign. Goal: Promoting Spain as a destination in Norway.
Sinisha was a project manager, researcher, and main IT developer, leading a team of 20+ consultants and volunteers. He programmed the game

and game creation studio (IDE). The game consists of a rich, appealing narrative, accompanied by multiple interactive illustrations and animations: http://www.youtube.com/watch?v=DItfx0dehQA
Client: Embassy of the Kingdom of Spain in Norway
More at *https://cha-os.org/en/princess-kristina/*

Balkan Floor Games

An international dance competition presentation, developed in Adobe Flash, for *The International Break Dance Competition "FloorGames"*. The process of **animated sequence** creation was fairly complex, involving filming a movie and turning it into an animation. **The ASP.NET** back-end was developed, communicating with Flash by accepting the requests initiated with the user's registration. An artistic multimedia registration form was designed and developed.

Audio Commons + ColaboFlow

https://www.audiocommons.org/

Sinisa contributed to just a part of this complex, long-lasting pan-European [Horizon 2020](#) EU-funded project, but he co-developed its [ColaboFlow](#) component. The Audio Commons Initiative aimed at bringing Creative Commons audio content to the creative industries.

The core of the Audio Commons initiative is a mediator that unifies various **sound providers with different APIs** into a **unified semantic API** with predesigned **semantic schema (OWL+RDF)**. [ColaboFlow](#) was integrated to support a sequential and parallel extension of the mediator search **workflow**. Sinisha with his team also provided a **visual and interactive dashboard** for observing the efficiency and aspects of search **workflows**.

ColaboFlow as a service is implemented using
- gRPC + ProtoBuffers services and
- Http API services (load balanced with ColaboFlow through NGINX)

ColaboFlow as the backend is implemented using
  - MongoDB as audit storage, TypeScript (node.js) and express.js
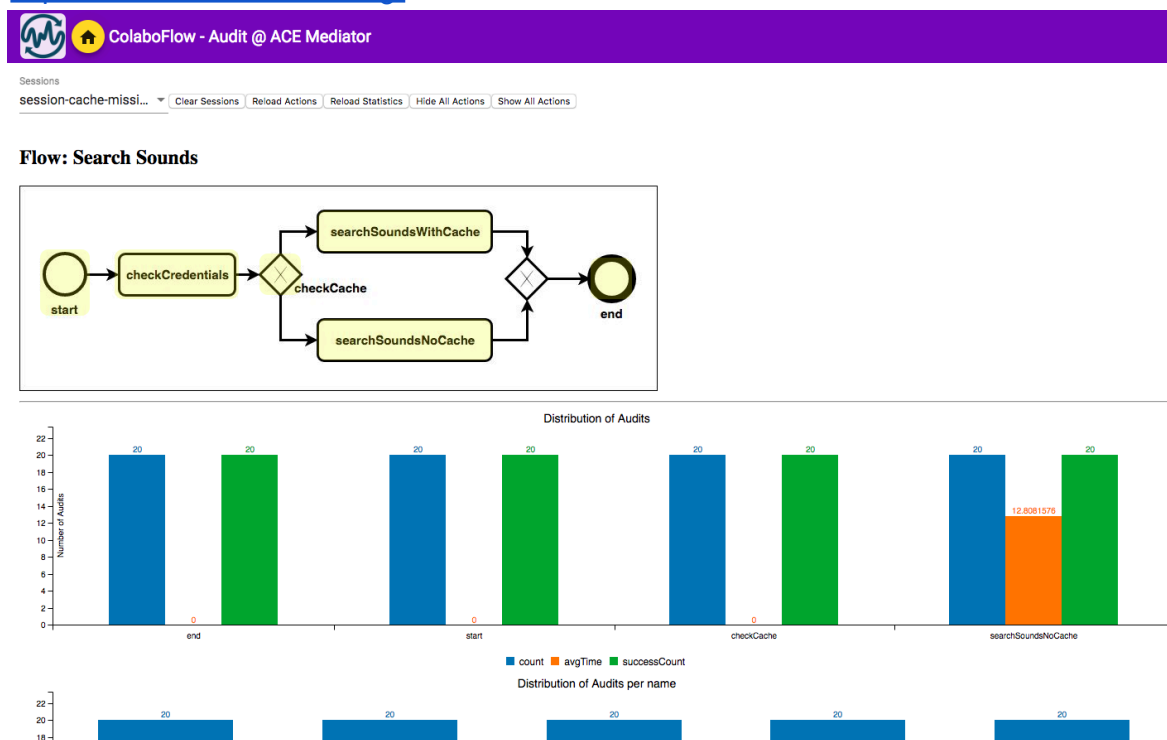
ColaboFlow frontend (dashboard) is implemented using
- Angular, Angular Material, D3.js, Billboard.js

H2020 Deliverable:
https://www.audiocommons.org/assets/files/AC-WP2-QMUL-D2.7%20Service%20integration%20guidelines.pdf

Demo:
- Dashboard: https://m2.audiocommons.org/dashboard/colaboflow-audits
- API: https://m2.audiocommons.org/

MCM - McModelar

https://github.com/mprinc/McMap

MCM is an interactive modeler and models visualization tool for the Earth System Bridge project, **awarded** by **NSF EarthCube** grant schema (*Earth System Bridge*: Spanning Scientific Communities with Interoperable Modeling Frameworks. It was run by Colorado University. The major **technologies** we used to develop it were MEAN, D3.js, Interact.js, and [Colabo.Space](#).

AIM (Academic Information Network)

- The project is important for my career development due to being one of the first professional projects executed, in **1999**, at the dawn of Web programming in Serbia (the country of my Uni study), and through self-learning.
- AIM was a Journalistic Internet Service, supporting multimedia content with the possibility of sophisticated searching of news for that time.

- Developed in *Perl*

Bitef

https://festival.bitef.rs/en
A multimedia Web presentation for one of the world's most significant theatre festivals. It's built using Adobe Flash with rich CMS, developed in **C#,** and relies on rich **XML** manipulations for storage.

HRMSWebPortal

Web layer of **Human Resources Management System** based on Web Services.
ASP.NET, **C#** + Microsoft SQL. Extensive usage of XML.

vCell

AJAX-based tool for online multimedia content capture and management, with intensive **DOM** model, **CSS,** and **JavaScript research**. The created system/algorithm is **patented** by the client, MobileQ (USA).

Flyer Publications Inc, USA.

Technology: **VB.NET**, **ASP.NET, CSS**, **Microsoft SQL server**.
Internet portal for online designing of promotion materials and ads, and management of advertising zones, online shop.

CS Intranet

Technology: **VB.NET**, **ASP.NET, Microsoft SQL server**.
Enterprise Intranet system for management of a US company's accounting and workers.

Democracy Framework

Democracy in the online world - where both IT agents and users are participants. A research work and development of a set of tools (Social analysis, R, etc.)

Chess HooD

Skills/Technologies: Java; Multiuser and distributed/concurrent environments;
Distributed concurrent Chess System for interactive chess playing over the Internet, supporting many concurrent users, with managing and memorizing games, chess moves, and players. The system was developed in Java with rich GUI support using the SWING Java package.
Strong synchronizing techniques secured it; all modules had several **concurrent programming threads**.

Research Publications

- Rudan, S. M., & Rudan, S., Møller-Pedersen, B., (2021, February). Extending BPM(N) to support Face-to-virtual (F2V) Process Modeling. Proceedings of the 8th International Conference on Model-Driven Engineering and Software Development, MODELSWARD 2021
- Sasha Mile Rudan, Eugenia Kelbert, Lazar Kovacevic, Sinisa Rudan, Matthew Reynolds: Twin Talk: Bukvik+LitTerra+Colabo.Space - An Example of the DH Collaboration Across Disciplines, Languages, and Style. TwinTalks@DH/DHN 2020: 15-29
- Sasha Rudan, Sinisha Rudan, Lazar Kovacevic, Eugenia Kelbert, Matthew Reynolds, "Comparative Study of Jane Eyre Translations into the Languages of Former Yugoslavia and Russian – A Digital Humanities augmented Close Reading Approach", ASEEES'20
- Rudan, S., Rudan, S., Peckham, S., Kelbert, A., "MCM tool and Colabo.Space as an approach for collective work on designing geophysical models"

- Rudan, S., Rudan, S., Karabeg, D., Rakovic, D. "Reflections on Tesla's creativity and potential for its replication as an online space for collective creativity and scientific dialogue", Phlogiston, Journal for the History of Science, 2019
- Sinisa Rudan and Sasha Mile Rudan, "CoLaboArthon - Developing Collaborative Art Worldwide", ELO2019, Cork
- Sasha Mile Rudan, Lazar Kovacevic, Eugenia Kelbert and Sinisa Rudan, "LitTerra, by augmenting literature with meaningful connections, turns readers into explorers and researchers", ELO2019, Cork
- Sinisha Rudan, Sasha Rudan, Lazar Kovacevic, Eugenia Kelbert, Bob Holman, "Poetry on the Road: An Intercultural And Multidisciplinary IT-Augmented Dialogue on the Topic of Refugees and Migrants", Comparing e/migrations: Tradition – (Post)memory – Translingualism (2019), Toruń
- Sinisa Rudan, Sasha Rudan, "Augmentation Of Creative Community Practices By Socio-technical Ecosystems (colabo.space: Tools And Methodologies Supporting Colaboarthon)", PPLG18, Thessaloniki
- Sinisa Rudan, Sasha Rudan, Tamara Nikolic Maksic, "Colaboarthon - Inclusive Play - Developing Collective Awareness And Empathy (from Brainstorming To Art)", PPLG18, Thessaloniki
- "CollaboFramework - a framework for sustaining socio-ecological systems through dialogical knowledge and action space", Sasha Mile Rudan, Sinisha Rudan, Dino Karabeg, ISSS'16, Boulder, CA, USA, 2016
- "Reprogramming Anthropocene - crowdsourced governance of trans-technical systems", Sasha Mile Rudan, Sinisha Rudan, Dino Karabeg, ISSS'15, Berlin, Germany, 2015
- Tasovac, T., Sasa Rudan, and Sinisa Rudan, "Developing Morpho-SLaWS: An API for the Morphosyntactic Annotation of the Serbian Language", In: Systems and Frameworks for Computational Morphology (SFCM 2015), Mahlow, C., Piotrowski, M. (Eds.), Springer, 137-147
- "Analysis of a Social Activities Recommendation Model", Sasha Mile Rudan, Sinisha Rudan, Aleksandar Cikaric, ECSM, Brighton, UK, 2014
- Rudan, S. M., & Rudan, S. (2014, April). Democracy framework politics & leadership in online communities. In 2014 First International Conference on eDemocracy & eGovernment (ICEDEG) (pp. 67-72). IEEE.
- "CharityNet - Online Crowd-Charity System Driven by Social Psychology and Performed through Social Dissemination of Charity", Sinisa Rudan, Sasha Mile Rudan, Bojana Radovanovic, GHTC'14, San Jose, CA, USA, 2014
- "Friendship Growth And Management Driven By Social Processes And Activities; Measurements, Stability And Behavior Cascading", Sasha Mile Rudan, Sinisha Rudan, ECCS13, Barcelona, Spain, 2013
- "DataTalks: A Unified Knowledge Pool in SaaS and Mashup Systems, "
  Sasha Mile Rudan, Oslo U; Dino Karabeg, Oslo U; Alf Martin Johansen, Induct AS
  ECKM'13 Conference, Kaunas, Lithuania, 2013
- "SocioTM – Relevancies, Collaboration, and Socio-knowledge in Topic Maps," Sasa Rudan, Sinisa Rudan, TMRA Conference, Leipzig, Germany, 2008
- "MULTIMEDIA 'RIDING MULTI-HEADED DRAGON'", Sinisa Rudan, Proceeding of YU INFO 2005 Conference, Saint Stefan, Montenegro, September 2005
- "Cyrillic vs. Internet," Sasa Rudan, Sinisa Rudan, Predrag Minic, Scientific-Technical Convocation, Serbian National Library
- "SEMANTIC ENRICHMENT OF MULTIMEDIA INFORMATION AND PROCESSES", Sinisa Rudan, accepted at Symposium YU INFO 2006.
- "Internet and Radiation," Sinisa Rudan, Sasa Rudan, Ivana Vukosavljevic, TELFOR 2001, Scientific Convocation at Chamber of Commerce of Serbia
- "Internet IN8 (Internationalization)," Sinisa Rudan, Sasa Rudan, Predrag Minic, Journal "Info M", The First volume, January 2002.
- "NETWORK SECURITY", Sinisa Rudan, YU INFO 2004 Conference, Kopaonik, Serbia, March 2004
- "DIGITAL REVOLUTION OF ELECTRONIC MEDIA. STATE OF THE ART TECHNOLOGIES FOR SUPPORT OF THE REVOLUTION", Sinisa Rudan, work conducted for Research and Educational Center – National Radio and Television of Serbia.
- "CYRILLIC vs. INTERNET (INTERNATIONALIZATION) (problems and solutions)", Sinisa Rudan, Sasa Rudan, P. Minic, Proceeding of YU INFO 2005 Conference, Kopaonik, Serbia, Mart 2005

Conference and Workshop Organization

- [*Climathon Belgrade*](#) and **Climathon Oslo**, 2019-present, a branch of the biggest collective climate action taking place in more than 200 cities in 65 countries on all continents;

- *Tesla Congress* – co-organizer of the Bi-Annual Conference on Nikola Tesla, Belgrade, Serbia, June 2017
- Moderator, Speaker of a multidisciplinary workshop (Scientists, Poets and Artists) "ReMaking Tesla – Practices that Make a Genius", Belgrade, Serbia, June 2017
- *CoLaboArthon* – A rapid evaluation process-driven workshop in creative artistic expression and writing, Futurizer conference, Riga, December 2016
- *CoEvoLudens* – A rapid evaluation process-driven workshop in social-entrepreneurship improvement, Futurizer conference, Riga, December 2016
- Co-organizer of a workshop at "*Future of Education*". 12th FICCI Higher Education Summit, New Delhi, India, November 2016
- Process-mining augmentation of the "*City-game*" (**future trends socio-techniques transformational game**) – Protopia educational event, Saint Petersburg, November 2016
- **Collaborology** – co-organizer of the Bi-Annual Conference of the Knowledge Federation, Dubrovnik, October 2016
- **CoLaboArthon** – Dialogical brainstorming and fostering creative leaps in collective solution findings, Futurizer conference, Pyla, Cyprus, September 2016
- Transdisciplinary workshop "**Un/Balancing complex systems**: Which data to look for? **How to build thriving knowledge communities**?" Ramon Sangüesa, Paz Tornero, Stella Veciana, Dino Karabeg, Sasha Rudan, Sinisa Rudan, BunB'16, Manizales, Colombia, 2016
- "**CollaboFramework** - a framework for sustaining socio-ecological systems through dialogical knowledge and action space", Sasha Mile Rudan, Sinisha Rudan, Dino Karabeg, ISSS'16, Boulder, CA, USA, 2016
- "**CollaboScience** - **Collective Creativity, Collective Intelligence and Scientific dialogue** - Realized through Cyber-Infrastructural Implementation of Collective Knowledge" Workshop at the Tesla Congress, Sasha Rudan, Sinisha Rudan, Dino Karabeg, Lazar Kovacevic, Belgrade, Serbia, June 2015

Invited Lectures and Presentations

- Interactive lecture "*Playformance in Eco-Activism*", Performing the World conference, 2023, NYC, USA
- Keynote address on **AI-driven** society at Indian National Conference on Recent Advances in IT & Computing - NCRAITC-2023
- Keynote address at Indian National Conference on Recent Advances in IT & Computing - NCRAITC-2022
- Keynote address at Indian National Conference on Recent Advances in IT & Computing - NCRAITC-2021
- Keynote speaker, "Project LitTerra: New Travel Through Augmented Digital Book (the next step after digitization)," Sasha Mile Rudan, Oslo U; Eugenia Kelbert, Yale U; Lazar Kovacevic, Inverudio Inc; Sinisa Rudan, Belgrade U; Tamara Butigan, Serbian National Library; Miroljub Stojanovic, NCD'13 Conference, Belgrade, Serbia, November 2013
- "DEVELOPMENT OF MULTIMEDIA AND INTELLIGENT INTERNET PORTALS AND SYSTEMS FOR E-BUSINESS", Sinisa Rudan, lecture held at the FACULTY OF ORGANIZATIONAL SCIENCES at the "Institute for Information systems - FON and IEEE Computer science and engineering chapter Seminar"
  - Also accepted at The International conference e-Trgovina (e-Commerce) "April 5th – 7th, 2006).
- Invited Talk "Systemic innovation and Collaborative augmentation of Journalism", Mediapolygon, Tyumen, Russia, April 2017
- Workshop "Tools and methodologies of Collaborative and Scientifically Structured DH Research" at Digital Humanities in the Nordic Countries, 15-17 March 2016, Oslo, Norway
- Invited Talk "Augmenting Structural Democratic Dialogue with Online and Offline Collaborative Tools", Future Worlds Center, Nicosia, Cyprus, June 2017

Grants, Recognition, and Awards

- Scholarship winner for *Cotrugli Business School* **MBA** Studies (Leading Business School in SE Europe with biggest alumni network).
- 2015, 2016, Ministry of Culture and Information, R. Serbia; two grants to support "Ruka i Glas" (Hand and Voice) project on Socially Engaged Art (supported by **digital ecosystem Colabo.Space** co-developed by Sinisa)

- Ministry of Trade, Tourism and Telecommunications, R. Serbia, supported from its first year, ReMaking Tesla, Forum of Interactive and IT-supported education, co-created by Sinisa Rudan and supported by **digital ecosystem Colabo.Space** co-developed by Sinisa
- 4th place in the State Competition - Serbian Grammar and Literature, among College Students and several other awards and selections of my creative, performative, artistic, and literary work

Languages spoken

- **Serbian/Croatian**: Fluent / Native language
- **English**: Fluent
- **Spanish**: Fluent; **German**: Very well; **Portuguese**: Understanding; **Russian**: Understanding

Selected Recommendation Letters and Certificates

others available on request ...

BELGRADE UNIVERSITY ▪ FACULTY OF ELECTRICAL ENGINEERING

Bulevar kralja Aleksandra 73 ⊗ 11000 Belgrade ⊗ Serbia & Montenegro
⊗ Tel. +381 11 3218 321 ⊗ Fax: +381 11 3218 681

Prof. Dr. Veljko Milutinovic
Fellow of IEEE
Faculty of Electrical Engineering,
Belgrade University, Serbia and Montenegro,
vm@etf.rs

A Letter of recommendation

I've been working with Mr. Sinisa Rudan for over four years.
It is a great pleasure having him on my team.

Before we started our cooperation, Mr. Sinisa had done an excellent project for the United Nations, among many others, and that's how I heard from him. And it came out that all I've heard is just a little part of his skills!

Mr. Sinisa is interested, and is very educated, in a great amount of various scientific and artistic fields so he is made for big multimedia projects. Just a few of his skills are Network Computing, Computer Graphics programming, Internet Computing, and knowledge of various protocols, I18N, and L10N (language Internationalization and Localization) - with many published papers, etc. He is especially educated and experienced in Information systems design.

What makes him such an important member of my team? It is the thing that in situations without a visible solution, he is capable of giving ideas that make the whole project keep going!

We took part together in many conferences and presentations as speakers, and in many other conferences, he is a member of an organizing committee.
Besides that, he presented his work in many technical papers, and scientific meetings, and was referenced and published in a number of electronic issues!

Mr. Sinisa showed to be very creative and intelligent, with a responsible attitude toward work, always open for communication and cooperation. He fits very well in the research team and my co-workers find him a friendly and easy-going person.

Sincerely yours

Prof. Dr. Veljko Milutinovic

induct

Letter of Recommendation

Anne Lill Bjerke
Slemdalsveien 30 B
0371, Oslo

Oslo, 06. April, 2019

Dear Prof. Maja van der Velden, dear Prof. Alma Leora Culén,

An exchange of ideas and visions between Sinisa Rudan and me started in the research context of the Knowledge Federation international conference, many years ago.

Quickly, it was clear that we share entrepreneurial background and problem-solving mindset, so most of our consequent interactions happened around research and innovation in business and business of innovation, more precisely about designing the systems for open innovation, and scaling them.

Thanks to this and to Sinisa's capability of understanding and connecting both worlds of research and business, being equally passionate about both, he was able to address in an innovative way challenges of our business. We even thought of materializing it through an industrial Ph.D. scheme.
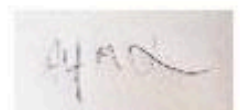
Induct joined Sinisa's ChaOS and his partners in few consortiums, including the H2020 *Scalable Collective Mind* proposal.

An effort, I find especially relevant to this position, was Sinisa's success in co-organizing ProtopiaLabs and the International event *Futurizer*, that gathered representatives of several Innovation Labs (Education and Social Change) from around Europe. Induct and I joined the initiative by co-founding the ProtopiaLab Norway. Later on, it led to co-creation of the international forum ReMaking Tesla, where we jointly design and educate transformation toward more innovative and collectively creative societies.

Due to the ongoing cooperation of Induct with United Nations on **innovation in sustainability**, and Sinisa's and *ReMaking Tesla* work on Sustainable Development, I see this PhD position as additionally relevant and fruitful.

By being on the position of managing the vision of Induct and running the company, I'm excited to see what Sinisa will bring by focusing his effort on this project, which I personally see as an important one.

Sincerely,

Alf Martin Johansen
Induct AS
CEO

UNIVERSITY OF OSLO
FACULTY OF MATHEMATICS AND NATURAL SCIENCES

To Whom It May concern

Dino Karabeg
Department of Informatics

PO Box 1080 Blindern
0316 Oslo

Phone: (+47) 41 29 20 49
Office: (+47) 22 85 2702

URL: http://DinoKarabeg.info

Recommendation for
PhD Scholarship for
Siniša Rudan

Date: 07/04/2019
Your ref.:
Our ref.:

I met Siniša Rudan while participating in IPSI transdisciplinary conferences, where he was one of the core students in the talent pool around Prof. Veljko Milutinović, the organizer. Later when Knowledge Federation was established, (as an international transdisciplinary community of researchers in collective sense making and systemic innovation, developing innovative solutions for education, science, journalism, writing and other core areas), Siniša became a regular creative collaborater,. He contributed to all our biennial workshops at IUC Dubrovnik, and co-organized our 2015 workshop in Belgrade, and our 2017 workshop in Oslo. For the former event Siniša co-developed a socio-technical collaboration platform called Collabo.Space (CollaboFramework), which has since then been tested and improved through a series of applications – in a variety of academic and community projects, on four continents.

Siniša Rudan is multitalented, and capable of handling just about any conceivable task with success – he is an accomplished poet, a graphic designer, a Web programmer and entrepreneur, just as much as a computer scientist, a physicist and a mathematician. Whatever creative task I saw him undertake, he quickly made himself indispensable and achieved remarkable results.

It is therefore a pleasure to give Siniša Rudan my highest recommendation.

With kind regards,

Dr. Dino Karabeg, Associate Professor,
Institute for Informatics, University of Oslo

Knowledge Federation
+47 41 29 20 49

Beograd, 19. 11. 2001

Predmet: Preporuka za Sašu i Sinišu Rudana

Tokom 1999. i 2000. godine bio sam šef na projektima AIM i ISEPAH, a Saša i Siniša Rudan su aktivno učestvovali u oba projekta.

AIM je bio Internet sajt studenata Beogradskog univerziteta čija je osnovna namena bila distribucija vesti na engleskom jeziku i realizovan je korišćenjem programskih jezika ASP, Perl i PHP, na operativnim sistemima Windows i Solaris, kroz IIS i Apache servere. Da bi se omogućilo da novinari, koji ne poseduju nikakva znanja iz HTML-a, samostalno unose i uređuju vesti, sistem je, pored dinamičkog prikazivanja web strana korisnicima sadržao i dinamički web interfejs za autore i urednike.

Saša i Siniša Rudan su na ovom projektu radili kao programeri i webmaster-i. Tokom svoga rada oni su sarađivali i sa kolegama koji nisu imali nikakvo predhodno tehničko obrazovanje. Kroz tu saradnju oni su uspeli da svojim originalnim rešenjima znatno doprinesu kvalitetu usluge i brzini rada sajta, kao i njegovoj fleksibilnosti u okruženju korisnika koji nisu imali nikakva ranija iskustva u korišćenju Interneta.

ISEPAH je razvijen kao Internet sajt Evropskih parlamentaraca za HABITAT (agencija Ujedinjenih Nacija za ljudska naselja), sa zadatkom da obezbedi članovima evropskih parlamenata pristup informacijama od značaja za njihov rad na razvoju ljudskih naselja. Sajt je bio realizovan korišćenjem programskog jezika PHP i baze podataka MySQL na operativnim sistemima Windows i Solaris, kroz IIS i Apache servere. Pored mogućnosti postavljanja upita i dobijanja izveštaja kroz web interfejs, napravljen je i kompletan višekorisnički sistem za unošenje podataka, kontrolu i administriranje sajta. On je realizovan u skladu sa visokim zahtevima bezbednosti, kroz prijavljivanje korisnika putem kriptografisanih lozinki, beleženjem potpunog log-a svih aktivnosti na sajtu i tsl.

Saša i Siniša Rudan su na ovom projektu bili autori programskog rešenja, programeri i webmaster-i. Kroz svoj rad uspeli su da realizuju rešenja koja su sadržala istovremenu primenu relacionog i hijerarhijskog modela baza podataka. Iako je bilo neophodno sarađivati sa ljudima čiji je osnovno interesovanje rad na pripremi zakona iz oblasti ljudskih naselja, konačno rešenje je imalo zavidan tehnički kvalitet i pouzdanost, kao i izuzetnu prilagođenost netehnički orijentisanim korisnicima.

S poštovanjem,

dr Zoran B. Đorđević, dipl. inž.

A recommendation letter for work on **ISEPAH**
- Information system for European parliamentarians for **HABITAT** (an agency of the **United Nations**).

Thank you for your interest, kindly, MSc Sinisha Rudan.