Jelena Tešić: Service Narrative

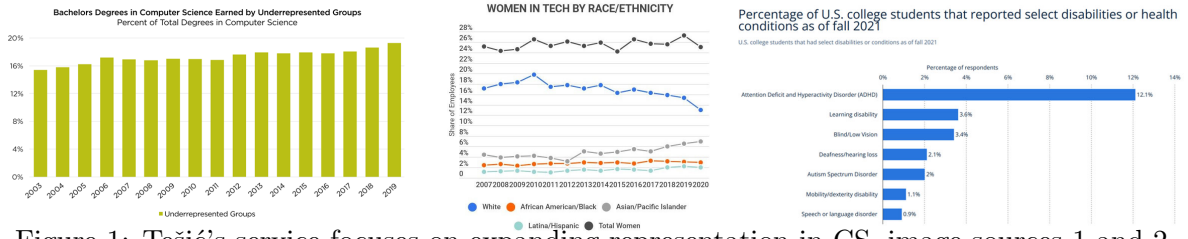

Figure 1: Tešić's service focuses on expanding representation in CS, image sources 1 and 2.

Tešić joined the Computer Science in 2017 to expand representation in the field of AI/ML of students she nicknamed **the "New Kids On the Block" (NKOTB)**. This is an umbrella term for all underrepresented student groups in the field: minority groups (Figure 1(left)), first-generation students, neuro-divergent people who do not fit the mold of the typical CS student (Figure 1(right)), and people who want to work in AI/ML but have no connections, mentors, or means to start the path and are likely to quit or fail. The pandemic erased years of efforts to close the gap, as illustrated in Figure 1(middle). To this end, Dr. Tešić focuses her service effort on increasing representation at the department, college, University, and community levels.

Advising and Mentoring Tešić path of mentoring has been shaped by her experience teaching and mentoring students at graduate school, the industrial research laboratory, and at TXST. In Dr. Tešić's very popular undergraduate classes, half of the student body can be categorized as NKOTB. Such students are reluctant to join coding clubs as they re-emphasize the stereotypes. She actively mentors them to achieve their goals by individually reaching out, scheduling 1-1 sessions, and pairing them for coding projects. She encouraged students to take the courses in sequence for multiple semesters so they could take undergraduate research courses with me during the last semester. She is currently developing the same pipeline at the graduate level. 70% of students pursuing research opportunities with Tešić can be classified as NKTOB, both at the undergraduate and graduate levels. Although their challenges are diverse, they have had a similar effect on their career progression: no real guidance or support system; no networking skills; afraid to ask questions or to ask for help; no job interview skills. The multi-semester educational pipeline allows NKOTB students to improve their data science and coding skills and to add research projects to their resume. Tešić is currently advising five Ph.D. students, and two of them, Muhieddine Shebaro and Debojyoti Biswas, will defend their Ph.D. dissertation proposal in Fall 2023. She was on the Ph.D. committee of Blake Ford and Ghadeer Alabandi from CS, and of Haitao Gang from MSEC. Tešić was the advisor for two Master thesis work, Lia Nogueira De Moira [11,27] and June Yu [1,24], and one Honor's undergraduate thesis from Daniel Payan [28]. She is currently advising one Master's student, Andrew Scouten from CS, and co-advising one Master's student, Evan Ortiz from Biology. She was on Tahsini, Dunstatter, and Trivedi M.Sc CS committee. Prior, Tešić has been NSF REU research advisor for 4 years in a row to 7 students total, resulting in 3 peer-reviewed publications [20,22,34], STEM Undergraduate Research Experience (SURE) advisor to 2 students (Daniel Payan and Mirna Elizondo) and HSMC Mathworks research advisor for 2 summers to 5 students. Tešić has also advised and mentored 10+ undergraduate researchers and four graduate researchers in Data Lab as they worked on various supported and independent research projects. Most of them were supported by NAVAIR, CHERR, startup DoE, and TXST grants, please refer to the CV for grants and Tešić's roles in ensuring over $575K for research support as a PI, and over $1.45K as a co-PI. Tešić has mentored two high school students with their high school honor theses in BASIS Silicon Valley and has led the STEM day resource database and multiple Lego League teams in Eanes ISD.

University Service Tešić led the Data Science to push through Big Ideas in 2019. She is a founding member of the university-level Center for the Data Analytics and Science (CADS) in 2023, and its research co-lead and predictive methods lead. The effort to date resulted in one funded NSF Expand AI proposal where she is the co-PI. Tešić was a THRC CHERR fellow in 2022-23[1,28]. Tešić joined the CoSE dean search committee in 2022 to ensure the new leadership shares the same vision of diversification and inclusion while striving for excellence. Tešić volunteered to join the departmental hiring committee in 2022 and she actively promoted a diverse candidate pool; reviewed 90+ resumes; participated in 54 committees and eleven 1-1 candidate interviews; actively recruited and helped onboard one candidate; advocated for the other two. The efforts contributed to the most diverse new hire cohort in departmental history. For TXST "Run to R1" recruitment, Tešić communicated with over 50 Ph.D. candidates, interviewed the top 20, and supported the top two ones (one joined in Spring 2023 another one will in Spring 2024). She recommended multiple candidates from the pool to MSEC (as she is co-PI on the TxDot and DoE projects), and CS faculty. At the University level, Tešić works with Roundree and Gonzalez from the Division of Research on removing the red tape for research faculty and students in research. Tešić was one of the catalysts who started the genesis of the GPT discussion for the Faculty Development series in 2022, and let the ChatGPT channel through the Faculty Development seminar series in 2023. She provided them with references and syllabus samples that integrate ChatGPT policy. She was a graduate Marshall for the Fall 2022 commencement and she regularly participates in commencement ceremonies on behalf of the CS department. Tešić has advocated for the updated policies and practices within the department, college, and university that support NKTOB students and has adapted her approach based on their individual needs to foster an exemplary environment where all students feel empowered and supported in their pursuit of a CS education. At the TXST level, Tešić has successfully collaborated with Ekin, Musal, and Feng from McCoy; Wang, Faroughi, and Carvalho from Ingram; McLean and Vargas from Biology; Rusnak from Mathematics; and Fulton and Villagran from THRC to advance TXST data science teaming.

Research Service Tešić supported SyData in 2022 and Texas State Analytics Showcase in 2022 and 2023 as her students presented multiple posters respectively (see Supporting documents). She gave an invited talk @ SyData 2022 to raise awareness of the Data Science work at the regional level and has promoted CS Ph.D. program at ACM MM Sys 2022. Tešić has been the Area chair of ACM Multimedia, the premier Multimedia conference, since 2019. She was on the technical program committee on numerous premier conferences and has reviewed journal papers in the field, as listed on her CV. She has worked with Dr. Stoyanovich (NYU), Dr. Ekstrand (Drexel), and Dr. Kamath (LLNL) to advance the data science teaching and experience for STEM NKOTB and non-STEM students. Her research work has provided a state-of-art signed graph benchmark for the community, as described in [2,9,14].

Summary Tešić is actively working to increase representation at various levels in her department, college, and university. All but two of the 22 papers peer-reviewed papers published, and 10 papers under review are co-authored with a total of 23 different students. She has participated in multiple commencements, assisted in recruiting Ph.D. candidates for CoSE Ph.D. programs, joined faculty search committees to increase representation and diversity, and participated in university-level events to support research. The support for NKOTB's unique needs has been slow and incidental, as illustrated in Figure 1. As a high-functioning female with social anxiety who successfully addressed bias and prejudice both in her research lab, corporate startup, and government job experiences, Tešić is in a great position to bridge the gap in computer science representation. She received the Presidential Service Award in 2023 for her efforts.