

XVIII Brazilian Symposium on Collaborative Systems

Introduction

Promoted annually by the Special Commission on Collaborative Systems of the Brazilian Computer Society, the Brazilian Symposium on Collaborative Systems (SBSC) aims to bring together researchers, students and professionals from Brazil and abroad, with an interest in topics related to collaborative technologies. The symposium discusses, from various perspectives, the development and evaluation of collaborative technologies, the investigation of how collaboration mediated by different technologies occurs in practice, and the application of these technologies in different domains. Some current examples of these technologies include: Social Networks, Cooperative Editors, Distributed Software Development Environments, Wikis, File Sharing Systems, Knowledge Management Systems, Virtual Worlds and Communication Tools.

With the popularization of the Internet and collaboration mechanisms via the Web, the importance of theoretical and empirical studies on techniques, technologies and relevant models for the development, use and impacts of collaborative technologies in organizations, communities and society grows even more. These studies need to involve social and technical aspects to support technological development comprehensively in society.

In addition, the discussion on collaborative technologies is multidisciplinary and can benefit from the contribution of several subareas of Computing, such as Software Engineering, Databases, Artificial Intelligence, Information Systems, Computer Graphics, Human-Computer Interaction, Multimedia Systems, Distributed Systems etc.

In 2023, SBSC 2023 is designed as a dynamic space to discuss issues related to collaboration, where the focus is on exchange between participants, cross-discussion and community growth from new relationships between participants. In this edition, SBSC approved research papers, research design, and papers on reflections and innovative ideas. In total, 44 papers were submitted, of which 22 were accepted for publication (50% approval rate). The event also features a short course, a showcase of four international articles and a Theses and Dissertation Competition (CTDSC), whose publications are available in this edition's Extended Proceedings.

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Reflections and Innovative Ideas

Ana Oran – Universidade Federal do Amazonas
Angélica Dias – Universidade Federal do Rio de Janeiro
Bernardo Estácio – Pontifícia Universidade Católica do Rio Grande do Sul
Bruno Gadelha – Universidade Federal do Amazonas
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International Publications

Bruno Gadelha – Universidade Federal do Amazonas
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Jean Rosa – ITI/LARSyS
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Thesis and Dissertation Competition on Collaborative Systems

Ana Paula Chaves – Northern Arizona University
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Isabella Gasparini – Universidade do Estado de Santa Catarina
Juliana França – Universidade Federal do Rio de Janeiro
Rita Suzana Pitangueira Maciel – Universidade Federal da Bahia
Vanessa Nunes – Universidade Federal Fluminense
Vaninha Vieira – Universidade Federal da Bahia

Keynotes

Opening Keynote

Using psychology and Artificial Intelligence to help manage stress and develop talent

Renato Barbosa (Gria)

Psychology along with artificial intelligence can help manage stress and develop talent in collaborative systems. Algorithms identify stressors and suggest customized solutions. AI can also identify potential talent and skills, allowing for strategic investments in employees. A valuable combination to promote mental health and professional development.

Keynote

Collaborative practices in education: old and new challenges

Flavia Santoro (Inteli - Instituto de Tecnologia e Liderança)

Much is said about the importance of collaboration in the educational context. Learning is stimulated when students rely on group work, according to some scholars. Despite being a topic that has been debated for a long time, we still face challenges in the implementation of active and collaborative methodologies in the classroom. The purpose of this keynote is to discuss possibilities for concrete practices and the fundamental role that collaborative systems play in supporting and mitigating educational challenges.

Keynote

Promoting the diversity of digital technologies

Myriam Lewkowicz (Université de Technologie de Troyes, France)

Digital technologies have invaded all aspects of our daily work and life and are essential to sustain economic and social life. However, these technologies are far from diverse; we end up using monolithic technologies not necessarily adapted to our needs, or not aligned with our values. How can we achieve a digital transformation of a society that values social interactions as a common good rather than as a source of income and accumulation? And thus how can we promote a diversity of digital technologies adapted to various situations and aligned with European values (human dignity, freedom, democracy, equality, rule of law, and human rights) –

that go beyond the geographical borders of the continent. In order to meet this challenge, we must adopt a practice-centered approach to the design of digital technologies.

This design approach has existed for more than 30 years and was conceptualized by CSCW researchers. A bit more than ten years ago, a group of researchers and companies based in Europe decided to make this approach more visible to students, researchers, companies, and European institutions by creating the international (but European-based) association EUSSET. In the socio-technical approach we promote, traditional design criteria in computer science such as performance, correctness, robustness, or usability must be complemented by methods and perspectives that illuminate how technology and practice develop each other. The particular emphasis that is put on social practices requires understanding the social characteristics of the context in which the tools are going to be used and integrating the understanding of individual and social activities in the innovative design and development of digital technologies. Getting this rich understanding of the diversity of the world is the only way to take advantage of human and social capacities and to increase them with diverse digital technologies that people find useful, usable, consistent with their values, and respectful of their rights.

Short Course

The benefits of being polarized on social media: are there any?

Ana Paula Pimentel (UFRJ)
Eduardo Gomes de Oliveira (UNIRIO)
Daniel Schneider (UFRJ)
Claudia Motta (UFRJ)

The polarization of ideas is a controversial subject that has returned to the agenda in several scenarios, mainly due to the omnipresence of social networks. Generally considered the great villain in world politics and the pivot in private disagreements between friends and relatives, polarization still raises more doubts than certainties. Despite triggering harmful side effects described and proven in the scientific literature, the polarization of ideas is a natural phenomenon resulting from human interaction and can have benefits. There are numerous solutions tested to mitigate the arid behaviors of lack of communication and cooperation that are a direct consequence of polarization, but nothing is unanimous. Carrying out an analysis of the agents, types, attributes and mechanisms of polarization can provide new reflections on how to develop research scenarios on the dynamics of cognition in social network environments.

In this short course we will conduct a dynamic divided into three parts: presentation of scientific perspectives on the polarization of ideas, presentation of tools for analyzing polarization mechanisms and a collaborative debate on opinions, future studies and conclusions.

Theses and Dissertation Competition on Collaborative Systems

The Theses and Dissertations Competition on Collaborative Systems (CTDSC) is an initiative of the Special Committee on Collaborative Systems (CESC) of the Brazilian Computing Society (SBC) which aims to select and award up to the three best doctoral theses and the three best Master's dissertations in the area of Collaborative Systems concluded (i.e., defended and approved) in the year 2022.

Award-winning works receive an "Award" certificate which explicitly states the position attained and the category. The other finalist works receive certificates of "Honorable Mention", in which only the category appears.

International Publications

Session chair: Juliana França (UFRJ)

The SBSC 2023 International Publications track aims to showcase papers published in international journals/conferences on Collaborative Systems (SC) to the Brazilian community on Collaborative Systems. Therefore, the track opens up a space for those interested in disseminating their work published internationally, with the goals of joining the Brazilian community of Collaborative Systems and increasing the visibility of the research for everyone who works in the area, whether inside or outside Brazil.

Crisis Readiness: Revisiting the Distance Framework During the COVID-19 Pandemic

Original title: Crisis Readiness: Revisiting the Distance Framework During the COVID-19 Pandemic

Clara Caldeira (Indiana University)
Cleudson R.B. de Souza (UFPA)
Letícia Machado (UFVJM)
Marcelo Perin (FGV)
Pernille Bjørn (University of Copenhagen)

Desenho de Linguagem de Chatbots: influência da variação da linguagem na experiência do usuário com chatbot assistente de turismo

Original title: Chatbots Language Design: The Influence of Language Variation on User Experience with Tourist Assistant Chatbots

Ana Paula Chaves (Northern Arizona University)

Uma Abordagem baseada em Análise de Redes Sociais para Melhorar a Presença Social em Ambientes Colaborativos de Aprendizagem

Original title: An Approach Based on Social Network Analysis to Enhance Social Presence in a Collaborative Learning Environment

Francisco Petrônio Alencar de Medeiros (IFPB)
Alex Sandro Gomes (UFPE)

Canais de Comunicação e seus Desafios: uma Análise das Equipes de Desenvolvimento de Software durante a Pandemia de COVID-19

Original title: Communication Channels and their Challenges: an Analysis of Software Development Teams during the COVID-19 Pandemic

Adriano N. de Souza (UFRJ)
Sírius Thadeu F. da Silva (UFRJ)
Juliana B. dos Santos França (UFRJ)
Angélica F. da Silva Dias (UFRJ)
Jonice Oliveira (UFRJ)
Adriana S. Vivacqua (UFRJ)

Accepted Papers

Technical session 1: Collaboration in Software Development

Session chairs: Leticia Machado (UFVJM), Angélica Dias (UFRJ)

The Awareness Assessment Model: measuring the awareness and collaboration support over the participant's perspective

Márcio Mantau (UDESC),
Fabiane Benitti (UFSC)

Elementos de colaboração nos métodos ágeis de desenvolvimento de software

Carlos Stefani (Centro Paula Souza),
Marcelo Duduchi (FATEC-SP / CEETEPS)

Awareness no Desenvolvimento Colaborativo Remoto: Uma Perspectiva Sobre Acessibilidade

Thayssa Rocha (UFPA),
Luciano Teran (UFPA),
Alan Silva (UFPA),
Cleudson de Souza (UFPA),
Marcelle Mota (UFPA)

Recommending Collaborators Based on Co--Changed Files: A Controlled Experiment

Kattiana Constantino (UFMG),
Eduardo Figueiredo (Federal University of Minas Gerais (UFMG)),
Raquel Prates (UFMG)

Supporting the recruitment of software development experts: aligning technical knowledge to an industry domain

Vitor Campos (UFJF),
José Maria David (UFJF),
Victor Stroele (UFJF),
Regina Braga (UFJF)

Technical session 2: Sustainability and Health

Session chairs: Vaninha Vieira (UFBA)

Uma abordagem para suporte à decisão no processo de geração de créditos de carbono em propriedades rurais

Luiz dos Santos (UFJF),
José Maria David (UFJF),
Regina Braga (UFJF)

PANDORA: Uma Plataforma Colaborativa para Transcrição Semiautomática de Boletins de Ocorrência Manuscritos

Gabriel Silva (UFF),
Aline Paes (UFF),
Isabel Rosseti (UFF),
Daniel de Oliveira (UFF)

Uma análise de aplicativos de rastreamento de contato para identificar casos de Covid-19: um Mapeamento da Literatura Multivocal

Jessica Pegorini (UTFPR),
Francisco Carlos Souza (UTFPR),
Alinne Souza (UTFPR),
Luiz Carlos Albini (UFPR)

Smart Plant: uma proposta de desenvolvimento saudável de plantas domésticas por meio de Internet Social das Coisas

Claudene Oliveira Gonçalves (IPT),
Airton Yassushiko Coppini Toyofuku (IPT),
Erica Vilela (IPT),
Alessandro Santiago Santos (IPT)

Plataforma Colaborativa de Denúncias

Claudia Motta (UFRJ),
Cristianna De Ferran (UERJ),
Alexandre Costa (IBM)

Wikicrimes 15 anos depois: Ainda há razões para apostar em mapeamento colaborativo?

Vasco Furtado (UNIFOR)

Technical session 3: Engagement, Gamification and Learning

Session chairs: Maria Teresa Gouvea (UFRJ) e Tadeu Classe (UNIRIO)

Metaverso: Ambiente de Colaboração e Aprendizado em Aula Híbrida

Tadeu Classe (UNIRIO),
Ronney Moreira de Castro (UFJF)

Um Estudo sobre a Aplicação de Técnicas de Gamificação em Aplicativo Crowdsourcing de Micro-tarefas

Iago Machado (UFBA),
Ana Maria Amorim (UFBA),
Ailton Ribeiro (UFBA),
Maria Clara Pestana (UFBA),
Vaninha Vieira (UFBA)

A live bombou? Avaliando métricas para engajamento em live streaming

Paulo Vinícius (UFAM),
Genildo Gomes (UFAM),
Tayana Conte (UFAM),
Bruno Gadelha (UFAM)

TCCFun: Uso de Gamificação como Apoio à Autogestão e Motivação em Trabalhos de Conclusão de Curso

Neyde Karen Botelho (UFBA),
Maria Clara Pestana (UFBA),
Ailton Ribeiro (UFBA),
Ana Maria Amorim (UFBA),
Vaninha Vieira (UFBA)

Dropoutless: plataforma colaborativa de predição de evasão

Laís Pisetta Van Vossen (UDESC),
Maria Teresa Santos (UDESC),
Isabela Gasparini (UDESC),
Luciana Frigo (UFSC)

Technical session 4: Research Design

Session chairs: Bruno Gadelha (UFAM), Rafael Parizi (IF Farroupilha)

Impact of Professional Experience on Information Systems Teams Collaboration

Sofia Bouzon Machado (UNIRIO),
Bruna Diirr (UNIRIO)

Proposta de uma plataforma colaborativa para auxílio na disseminação de informações sobre educação sexual feminina

Leticia Machado (UFVJM),
Karolina Azevedo (UFVJM)

Proposta de um estudo sobre o legado da pandemia para as novas relações de colaboração e modelos de trabalho para o mercado de Tecnologia

Leticia Machado (UFVJM),
Lorena Ávila (UFVJM)

Collaborare: Proposta de Ambiente Colaborativo de Suporte à Iniciação à Pesquisa Científica para Estudantes de Graduação

Rafael Parizi (IF Farroupilha),
Luma Seixas (UFBA)

Jogo Digital Colaborativo como Sistema Adaptativo Complexo para Motivação e Mensuração Cognitiva na Educação Básica

Erica Scheffel (UFRJ),
Claudia Motta (UFRJ)

MetColab - Uma aplicação colaborativa lot para gestão e controle de dados meteorológicos da Cidade de com apoio da Universidade, Rede Escolar Municipal e Defesa Civil

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