



Proceedings of the Eleventh International Conference on
Computational Creativity

ICCC'20
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Preface

Welcome to the proceedings of the 11th International Conference on Computational Creativity, or ICC²20 (see <http://computationalcreativity.net/iccc2020/>). This year has been a year of firsts for many conferences and academic events, and ICC² is no different. Although our eleventh conference was planned as a physical meeting of researchers in Coimbra, Portugal, from June 29th to July 3rd, the response to the COVID pandemic has necessitated both a move in the calendar (September 7-11) and a move online.

“Computational Creativity” is a term that has grown in usage and acceptance in a diversity of technical areas, not least since its recent adoption by industry. Once upon a time it was a term that was the exclusive preserve of our growing band of “CC” researchers, but now we see it used almost as often in corporate press-releases and academic job postings. Although this has broadened the term from its core meaning, our community still defines it, and the field that it denotes, as the computational nexus that unites art, science, philosophy and, to an increasing extent, cognitive and social psychology, in the understanding of generative systems that exhibit responsibilities or behaviours which unbiased critics might label as “creative.” The social relevance of our research field has never been greater, especially now that AI more generally has made the leap from the popular imagination to practical reality.

This 11th iteration of the ICC² event is also the 10th anniversary of the very first meeting of our CC community as a conference in its own right, rather than as a co-located workshop. That very first conference was held in Lisbon in 2010, and so it is with a sneaking regard for symmetry that the conference is once again back in Portugal a decade later. Despite the growing popularity of the term, the ICC² conference remains the only scientific conference that focuses wholly on computational creativity in all its sub-forms and manifestations.

These proceedings contain a peer-reviewed selection of the 76 full papers that have been submitted for consideration this year, across the following categories: *technical papers* that pose and address hypotheses about aspects of creativity in computational systems; *system papers* that describe the building or deployment of a creative system; *resource papers* that describe the creation of a reusable resource on which other systems can build; *study papers* that present studies in creativity, perhaps appealing to broader areas of AI and Computer Science or to fields such as psychology or philosophy; *application papers* that position CC systems in a cultural milieu such as an art exhibition, a concert, a game jam, a poetry or book reading, a cookery demonstration, or some other public-facing outreach event; and *position papers* that articulate a point-of-view on some aspect of the philosophy, theory, practice or culture of CC research.

Each submission was reviewed in the first instance by the main program committee. A metareview was then conducted by senior committee members and program chairs, who debated the relative merits of each submission. Papers were accepted based on quality, academic rigour and relevance to one of the paper categories outlined above. This process has resulted in a diverse program that reflects the changing trends in artificial intelligence and the state of the art in computational creativity research. In all, the review committee accepted 29 full papers for oral presentation and 14 full papers for poster presentation. A subsequent call for short papers later received 67 submissions across the following 11 categories: *Nuggets and Gems*, papers that are succinct enough, or early enough, to warrant a shorter format; *System Demonstrations*, for the Show-and-Tell session; *Debate Sparks*, for provocations that get the community talking; *CC Translations*, for presenting relevant work from other fields; *CC Bridges*, for papers that foster interdisciplinarity by introducing ideas from beyond our conventional horizons; *Late Breaking Results*, for up-to-the-minute work that

missed the earlier deadline; *Pilot Studies*, for initial forays into a new research topic; *Grand Challenges*, for task proposals that aim to bring the CC community together in a collaborative effort; *Meta-Perspectives*, for papers that reflect on how the CC community might do things differently and better; *Field Reports*, on taking CC research into the field; and *Event Reports* that describe the experience of organizing another CC-themed event.

Several of these paper categories are new to the conference this year, and result from the efforts of our community's new *CC Task Force*. This is a group of young and enthusiastic researchers that works on behalf of the community to ensure that our conferences and related events (tutorials, workshops, web-site, and other means of outreach) reflect the voices of all of the community, as well as the best practices of academia more generally.

All short paper submissions were reviewed by the program committee, and papers were again accepted based on quality, academic rigour and relevance to one or more of the conference's short paper categories. The committee accepted 12 papers for short oral presentations, 19 for poster presentation and 10 for a Show & Tell demonstration.

To summarize, then, we received 143 submissions in all, and from these, 84 were accepted for publication in the current proceedings.

The scientific program for ICCC'20 was organised in two stages. In the first, pre-recorded videos for all presentations, including keynote talks, posters and system demonstrations, were made available to the participants one week before the start of the conference. The second stage comprised a series of thematic live sessions across two days, in which the authors of long and short presentations could interact with participants. In addition, two further live sessions were organised with the Keynote Speakers Emilia Gómez (of the European Commission's Joint Research Centre, and the Music Technology Group, Universitat Pompeu Fabra) and Simon Lucas (of Queen Mary University of London). In parallel, two special sessions, one for Posters and another for Show & Tell, allowed authors of these posters and demos to organise live discussions with participants.

ICCC'20 also continued the tradition of hosting several co-located events, including:

- A Doctoral Consortium for up-and-coming CC researchers;
- Three thematic workshops: on *Casual Creators*; on *Future of Co-Creative Systems*; and on *Knowledge-Based Systems in Computational Design*;
- And, for the first time, an interactive, hands-on workshop: *Introduction to Generative Drawing with pencils, paper, C++ and openFrameworks*;
- Also for the first time, a *Digital Sound Art* event, comprising a virtual exhibition with live sessions for exhibitors and conference participants.
- Three tutorials: *A Deep Dive into Latent Space: Image Generation and Manipulation with StyleGAN2*; *Building Generative Art Tools*; and *Quantum Algorithms for Artistic Experiences*.

As in past years, ICCC'20 also made an award for Best Paper and for Best Student Paper as chosen from this year's submissions.

Acknowledgements

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grateful to the program committee and to the senior program committee for their diligence and dedication in carefully reviewing all conference submissions. We also thank all of those involved in the organisation of ICCV'20, including the Local Chair, the Workshop Chairs, the Tutorials Chair, the Doctoral Consortium Chair, the Digital Sound Art Chair, the Proceedings Chair and the ACC steering committee. The CC Task Force has, in its first year of operation, also been a credit to the community and the conference. Finally, the CC community as a whole is also deserving of our gratitude and praise. It is your enthusiasm and energy that has enabled the conference to flourish and grow into what it is today, in its 10th anniversary year: a vibrant meeting place for ideas and possibilities that change the way we think about creativity in both humans and machines.