

# ACM SIGGRAPH Annual Report

## July 2017 to June 2018 Fiscal Year 2018

Submitted by Jessica Hodgins, President

### **Mission:**

ACM SIGGRAPH's mission is to foster and celebrate innovation in Computer Graphics and Interactive Techniques. The organization promotes its vision by bringing people together in physical, on-line, and asynchronous communities to invent, inspire, and redefine the many creative and technical artifacts, disciplines, and industries that are touched by computer graphics and interactive techniques.

### **Five-year Vision: Enabling Everyone to Tell Their Stories**

By **Everyone**, we mean not just our traditional audiences of professional movie, animation, and game makers but everyone with a story to tell, be they trained or novice, with significant time for the development of their story or intending to publish with just a single click.

By **Tell**, we mean all mechanisms of conveying a story: watching, experiencing, interacting, and creating.

By **Stories**, we mean not only our traditional media of movies, animations, and games but also newer forms of media such as augmented, virtual, or mixed reality, or forms of interactive and sensory experiences not yet invented. Stories may be purely digital or they may involve the physical artifacts either through incorporation or creation.

### **Why this vision?**

- Computer Graphics and Interactive Techniques (CG&IT) is about communicating in innovative and inspiring ways.
- Telling stories using CG&IT, whether it's explaining research findings, entertaining huge audiences or helping people understand the world, can change societies and cultures—we want to be the showcase for the existing and emerging fields that use CG&IT to connect people.
- We want to ensure we are relevant and meaningful to our existing diverse communities—this diversity of content and community has always been a strength of SIGGRAPH.
- We want to welcome newly emerging communities—this is critical to our future success.

## **Strategy Work:**

For the past fifteen months, the ACM SIGGRAPH Executive Committee has been directing its work to support the strategic needs of our communities. We devote the majority of in-person meeting time to strategic discussions and save the administrative and operational work for bi-weekly hour-long tele-cons. We have formed six strategy committees within the EC with the assistance of a few non-EC members and some of the standing chairs:

### **Nurturing our Existing Communities**

We added a new Chair and committee for Diversity and Inclusion to our list of standing committees (now 12). As chair, Tony Baylis is running a Diversity and Inclusion Workshop at the North American conference in 2018. He will also help support the existing programs such as Women in Animation. Following the lead of SIGARCH, we have also created a SIGGRAPH Cares group to provide a friendly and supportive ear at the conferences to those experiencing harassment. We are providing training for them on the Saturday before the conference about how to respond “in the moment”, keeping in mind, that all investigations of these situations will be conducted by ACM’s ethics committee.

We have added several awards to our program this year:

- Educators Award (to be awarded in 2019)
- SIGGRAPH Academy (first class inducted this year, comprised of former award winners from our highest-level awards)
- SIGGRAPH Practitioner Award (first awardee in 2018)

We have created a new PACM on Computer Graphics and Interactive Techniques. This publication will include papers from I3D and SCA/HPG in alternation. The first issue included papers from the very successful I3D conference that was held in Montreal in July.

We continue to promote the OpenTOC and OpenAccess models. In particular, we would like to find better ways to drive traffic to all of the content from the SIGGRAPH conferences and sponsor/co-sponsored conferences that is available on siggraph.org.

We are supporting our PhD students via a Doctoral Consortium and a Thesis Fast Forward at the North American Conference this year. The Doctoral Consortium is an all-day event for PhD students who are past proposal but not yet near graduation to provide input from a set of senior professors on their work and research direction. The Thesis Fast Forward is an event to allow PhD students to give a brief overview of their work to an audience of potential employers. The Doctoral Consortium will also be held at SIGGRAPH Asia in the fall.

We are scaling our Mentoring program for women and exploring the possibility of developing a Year-Round Mentoring Program for everyone at all stages of their careers.

## **New Communities**

We are reaching out to new communities to broaden the base of SIGGRAPH to support our members as they evolve their research and industry careers to fit the changing landscape in computer graphics and surrounding areas.

- Sunday Workshops: Full day, interactive workshops on Health for Chronic Conditions, Autonomous Driving, and Truth in Images, Video, and Graphics
- SIGGRAPH Next: Morning talks on Education, Medicine, and Simulations

## **Data**

We have recently begun exploring ways to capture more and better data about our members in order to better understand our audience and how we can best serve them. We are aligning post-conference survey data with the questions asked at registration to develop a picture of which communities we are serving and how well we are serving them. This committee is also collecting existing demographic data from membership renewal to develop a model of our membership.

## **Communication**

We have developed a press release program that showcases about a half-dozen specific pieces of content from each conference. We have contracted with a technical writer to assist in this process.

This committee is also focusing on our year-round message. We have formed the Computer Animation Festival Advisory Board to align the SIGGRAPH Asia and SIGGRAPH North America CAF's, and allow us to use a traveling version of the CAF to build awareness of SIGGRAPH. We are developing a Conference-in-a-Box to allow chapters to put on a "Best of SIGGRAPH" mini-conference with our support. We are planning to use the SIGGRAPH Conference in a Box/content at partner events (UNITE, GTC, Eurographics, and others to be identified).

We have established a mailing list for the graphics community for announcements of positions, conferences, and other relevant material: [graphics-worldwide@siggraph.org](mailto:graphics-worldwide@siggraph.org)

We are considering hiring a Strategic Marketing Consultant to clarify our brand, messages and value of membership.

## Digital Presence

We are improving our Digital Presence by revamping our use of social media to hopefully have increased impact at reduced volunteer labor. We are planning to port our site from drupal to wordpress for easier updating.

We are collecting up existing assets with an eye toward making them more accessible and findable. We are building a knowledge graph of the SIGGRAPH material in the ACM Digital Library.

## Governance

Over the past two years, this committee has extensively revised our bylaws. This revision is now with the voters (election ends 8/15). The major proposed changes are

- All elected positions will be director positions and ACM SIGGRAPH's officers will no longer be elected to specific positions through member elections.
- EC to appoint up to three voting members to its rank from core constituencies as needed
- Elect the directors to specific position (at least two candidates per open position rather than a minimum of N+1 candidates for N positions)

The committee is now revising the policy document in an attempt to prune extraneous information and add documentation of current practice and recent changes (new awards, new standing chair, etc.). This process should be completed in September.

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## Conferences

### SIGGRAPH 2017

The annual North American SIGGRAPH conference is a five-day, interdisciplinary educational experience in the latest computer graphics and interactive techniques. It includes a three-day commercial exhibition that attracts hundreds of exhibitors from around the world. The conference also hosts the international SIGGRAPH Computer Animation Festival, the leading annual festival for the world's most innovative, accomplished, and amazing digital film and video creators. For SIGGRAPH 2017, the festival moved beyond the flat screen to present short films and experiences in a new space, the VR Theater, where attendees experienced the next generation of storytelling in virtual reality.

SIGGRAPH 2017 accepted 127 juried technical papers (out of 439 submissions), an acceptance rate of 28 percent. Forty papers from *ACM Transactions on Graphics* (TOG), the foremost peer-review journal in the graphics world, were also

presented. Quoting the Papers Program Chair, Marie-Paule Cani: “Among the trends we noticed this year was that research in core topics, such as geometry processing or fluid simulation, continues while the field itself broadens and matures. The fourteen accepted papers on fabrication now tackle the creation of animated objects as well as of static structures. Machine learning methods are being applied to perception and extended to many content synthesis applications. And topics such as sound processing and synthesis, along with computational cameras and displays, open novel and exciting new directions.” Of the accepted papers, the percentage breakdown based on topic area was as follows: 30% modeling, 25% animation and simulation, 25% imaging, 10% rendering; 4% perception, 3% sound, and 3% computational cameras and displays.

## **SIGGRAPH Asia 2017**

The 10th ACM SIGGRAPH Conference and Exhibition on Computer Graphics and Interactive Techniques in Asia took place in Bangkok, Thailand, from 27 – 30 November 2017. This was the first time that the conference was hosted in Thailand. The Technical Papers program received a total of 312 submissions, out of which 75 were accepted to SIGGRAPH Asia 2017. The submitted articles represent the collective work of authors from 30 different countries.

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## **Awards**

SIGGRAPH presented seven awards at SIGGRAPH 2017:

### **2017 Steven A. Coons Award: Jessica Hodgins**

Selected as this year’s recipient in recognition of her foundational work in character animation, her support and cultivation of emerging researchers, and her extensive volunteer service to the computer graphics community.

### **2017 Computer Graphics Achievement Award: Ramesh Raskar**

Selected as this year's recipient in recognition of his numerous, impactful research contributions in computational imaging and light transport, Ramesh has advanced the field in a wide variety of areas, including femto-photography, light-field displays, and augmented reality.

### **2017 Significant New Researcher Award: Bernd Bickel**

Selected as this year's winner for his work in computational fabrication and in facial modeling and animation.

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## **2017 Outstanding Service Award: Alyn Rockwood**

Selected as this year's recipient for his long-term and significant contributions to both the ACM SIGGRAPH organization and its conferences.

## **2017 Lifetime Achievement Award in Digital Art: Ernest Edmonds**

Selected as this year's recipient for his major contributions to the development of computational art and to the broader field of contemporary art from the late 1960s.

## **2017 Outstanding Doctoral Dissertation Award: Jun-Yan Zhu**

His dissertation is arguably the first to systematically attack the problem of natural image synthesis using deep neural networks.

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## **Standing Committees:**

### **Chapters Committee**

*Promotes, plans and facilitates the full integration of Chapter activities into ACM SIGGRAPH while identifying and facilitating the flow of additional ACM SIGGRAPH benefits through to Chapters. Provides a link for communication between ACM and Chapters regarding the details of ACM policies and procedures. Devises best "face" for Chapters on ACM SIGGRAPH Web presence. Ensures compliance with all relevant policies and procedures.*

We have 36 active professional chapters and 17 student chapters. The Chair of the Chapters Committee (Jacky Bibliowicz) has been working to help chapter leaders more easily establish and maintain their chapters. He hosts a workshop on chapters at both the North American and the Asian conferences and has created a web page template to make it easier to announce upcoming events and other news.

### **Communications & Membership Committee**

*Recommends and then implements appropriate communication channels for the organization and its constituents. Designs and supervises build out of ACM SIGGRAPH electronic presence. Works with the EC to realize strategic communication and marketing goals. Oversees the SIGGRAPH Village at both SIGGRAPH conferences.*

The Chair of Communications (Barb Helfer) has been kept very busy with the operational tasks of keeping siggraph.org up to date, managing our social media presence, creating our monthly newsletter (Interactions). She has also been participating in our strategy efforts as part of the Communications Strategy Committee.

Over the next year, we need to make our web page much easier to maintain and to find additional support to make this volunteer role more manageable.

### **Digital Arts Committee**

*Fosters year-round engagement and dialogue within the digital, electronic, computational, and media arts. Facilitates dynamic scholarship and creative programming for the digital arts within the ACM SIGGRAPH organization. Promotes collaboration between artists and the larger computer graphics and interactive techniques community. Promotes collaboration between the Digital Arts Committee (DAC) and conference art programs.*

This committee has many activities at the conference and year-round. Those activities include a set of on-line, curated art shows as well as BOFs and a party at the conference for the Digital Arts Community.

### **Diversity and Inclusion Committee (new in 2018)**

*Celebrates the diversity that exists within the ACM SIGGRAPH community and provides opportunities, both in-person and year-round, to connect with others with common backgrounds, ethnicities, and gender for mentoring and inspiration. The goal of this committee is to create a welcoming and nurturing community for everyone working in computer graphics and interactive techniques independent of gender, sexual orientation, ethnic background, or abilities.*

This new committee, chaired by Tony Baylis, will host a workshop on Diversity and Inclusion at SIGGRAPH 2018 and is also interacting with previously existing efforts in support of Diversity and Inclusion.

### **Education Committee**

*Works to support educators in computer graphics and interactive techniques. This encompasses both technical, creative, applied and interdisciplinary studies at all post-secondary levels that intersect curricular areas of computer science, engineering, art, design and related disciplines. The Education Committee undertakes a broad range of projects and activities in support of the computer graphics and interactive techniques education community, such as developing curriculum guidelines, providing instructional resources, organizing SIGGRAPH conference-related activities and outreach.*

The chair of this committee, Ginger Alford, has recently restructured this committee into a much better defined set of sub-committees each with key responsibilities in support of the education community of SIGGRAPH. Those include curriculum, a contest held each year at the conference, and the Education Booth at the conference. This committee also assisted in the writing of the proposal for an Educator's award which will help to demonstrate the central position of this community in SIGGRAPH.

## **External Relations**

*Manages relationships with professional societies and organizations that are external to ACM. Working with the EC this committee identifies and establishes relationships with new organizations according to the current strategic plan.*

We are currently looking for a new chair of this committee as Jeff Jortner, the current chair is now chairing the ACM SGB. Over the next year, we hope to identify new organizations that are further from our traditional base but where the sharing of conference material and registrations will help both communities.

## **Information Technology Services**

*Provides information services support to the ACM SIGGRAPH community. Manages the [siggraph.org](http://siggraph.org) server infrastructure (software/hardware). Works with the ACM IS team as needed on technical issues for ACM SIGGRAPH and ACM. Responsible for maintaining a database of accounts and email aliases for tracking purposes (both creation and deletion as appropriate).*

This year this committee facilitated a migration to team drives within Google which was a significant improvement in productivity for our strategy teams. We will continue to roll this out across the committees over the next year.

## **Nominations Committee**

*Selects slate for the annual Executive Committee election. Recommends candidates for Chairs of Standing Committees to the Executive Committee.*

This committee has a new chair, Rebecca Strzelec, who replaces Scott Owen who had served as chair for the past seven years. This role is no longer automatically assigned to the past president as it has been in the past but is instead selected by the EC.

## **Publications Committee**

*Documents the content presented at our sponsored events, using channels that are efficient and cost-effective. Works with ACM Publications Board as new situations arise and on items with broader implications.*

The chair of this committee, Stephen Spencer, also serves on the ACM Pubs Board. This year, we launched the PACM on Computer Graphics and Interactive Techniques. Over the next year, he will document the processes of this committee to ensure an orderly transition when the time comes.

## **Specialized Conferences Committee (SCC)**



*Approves and monitors specialized conferences to ensure that they are financially and intellectually healthy and aligned with the mission of ACM SIGGRAPH. Promotes awareness of the specialized conferences and the resulting archival content to the broader community and works to improve the integration of the specialized conferences with other SIGGRAPH events. Together with the External Relations Committee, the SCC works to strengthen existing ties and identify new venues, emerging themes or potential relationships with other conferences and organizations to broaden the scope of SIGGRAPH.*

SIGGRAPH sponsors, co-sponsors, or is in cooperation with over 25 specialized conferences/year. A few of these conferences are encountering challenges with reduced submissions, attendance and revenue. This committee is working to ensure that we have a rigorous review of the conference budgets in advance of approving sponsorship and based on historical data from that conference. Next year and going forward, we would like this committee to reach out to new communities to help to broaden the base of attendees at our conferences and allow existing members insight into neighboring fields with problems that might be amenable to the algorithms and techniques of our field.

### **Student Services Committee**

*Plan, develop and facilitate activities that integrate students into the ACM SIGGRAPH community. Provide demonstrable value to student members throughout the year.*

The XSV program (former student volunteers) has now been expanded to SIGGRAPH Asia and they are expanding their efforts in mentorship and portfolio and reel review at the conferences.

### **Sub-Committee of Communications: Media Committee**

*This committee leads our efforts in video capture and streaming and manages our Vimeo and YouTube channels.*

The YouTube channel had over 300K plays this year. The top play was a piece on “War for the Planet Apes” which had about 50K views. Twenty-one events at SIGGRAPH 2017 were streamed.

### **Sub-Committee of Communications: International Resources Committee**

*Support of the international community of SIGGRAPH through events and activities at the conference, particularly the International Village.*

The committee creates blog posts and podcasts about activities in particular regions, as well as maintaining a social media presence for the committee (separate from that

of the organization or the conference). This year they created an infographic for their work which was very well received.

### **Ad-hoc Committee: History Committee**

*The History Committee is a group of individuals each of whom has an interest in the history of ACM SIGGRAPH and its activities, artifacts, and community and stories. Their priorities are (1) to preserve the stories and artifacts of our community and industry, and (2) to make the collected materials broadly accessible by the public.*

Current activities include the scanning of a complete set of course notes from the SIGGRAPH conference and an archiving of past art shows. They are also recording conversations with past Coons Award winners and planning for the 50<sup>th</sup> SIGGRAPH in 2023.

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### **Key Issues facing ACM SIGGRAPH:**

Continued implementation of the five-year strategy for the organization and conferences. Ensuring that all involved groups are aligned with the five-year strategy.

Volunteer development is a continuing issue for all aspects of the organization. We have initiated a new recruitment effort for the organization but it is clear that much more needs to be done to ensure a robust and diverse volunteer base. The jobs have a tendency to grow without bound and we turn to the same volunteers repeatedly.

We plan to work with the Publications Board to ensure that permissions for our submitted content allow the capture of the maximum amount of content into the digital library in video form and to drive more traffic to the DL rather than author's personal web pages.