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SIGGRAPH Conference Visioning Meeting Report

Prepared for

ACMSIGGRAPH

November 20, 2024

Contents

I.   Preface from the SIGGRAPH Chair

In its heyday, the annual SIGGRAPH conference drew almost 50,000 attendees. This year, having celebrated 50 years, we were back in Colorado, where it all began. Amid the impact of generative AI and the changing landscape of research and practice, attendance was closer to 9000. The Executive Committee was compelled to sit up and take notice of both the changing landscape and how conference attendees perceived SIGGRAPH. It moved us to ask the question: where are we headed?

A SIGGRAPH-sized conference takes multiple years to plan. For example, choices for location and service contracts are put into place 3-5 years in advance. These and other decisions contain implicit statements about the feel of the conference, the programs that will be put up, and our target audience. Most of us have passionate opinions on these choices. Without defining a collective vision, it is difficult to make coherent choices about the future.

Like every great SIGGRAPH technical paper that rethinks fundamental representations rather than suggesting incremental optimizations, we responded to the changing landscape by going back to basics.

This is why the Executive Committee got together in November 2024 to engage in a strategic visioning session. In addition to conversations with Executive Committee directors and 2025 and 2026 conference chairs, the preparatory work for this meeting included conversing with key stalwarts of the community as well as gathering data on financials and the history of the conference. While there are possibly several additional things we could have done, for example, surveying our membership, deeper dives into various data sources, more formal comparative analyses with other similar venues, etc., the goal of this session was not to dissect the past but to collectively envision the future. What follows is a summarization of the meeting, including key data-driven trends, insights generated during the discussion sessions, and goals for the future.

Eakta Jain
SIGGRAPH Chair 2024-2025

II. Introduction

On November 8 and 9, 2024 representatives of SIGGRAPH convened to discuss the future vision for the annual North American conference. The following individuals were in attendance.

- Ginger Alford
- Tomasz Bednarz
- Ashley Cozzi
- Marcia Daudelin
- Brenda Dreier
- Irfan Essa
- Hugues Hoppe
- Darin Grant
- Eakta Jain
- Mona Kasra
- June Kim
- Neha Kumar
- Munkhtsetseg Nandigjav (Muunuu)
- Chris Redmann
- Mikki Rose
- David Spoelstra
- Alla Sheffer
- Courtney Starrett
- Ginger (Marisa) Tontaveetong
- Greg Turk

III.   Conference Trends

The meeting began by reviewing past conference trends. Income and expense trends were considered first.   The 2022 conference took place in Vancouver, the 2023 conference took place in Los Angeles, and the 2024 conference took place in Denver.
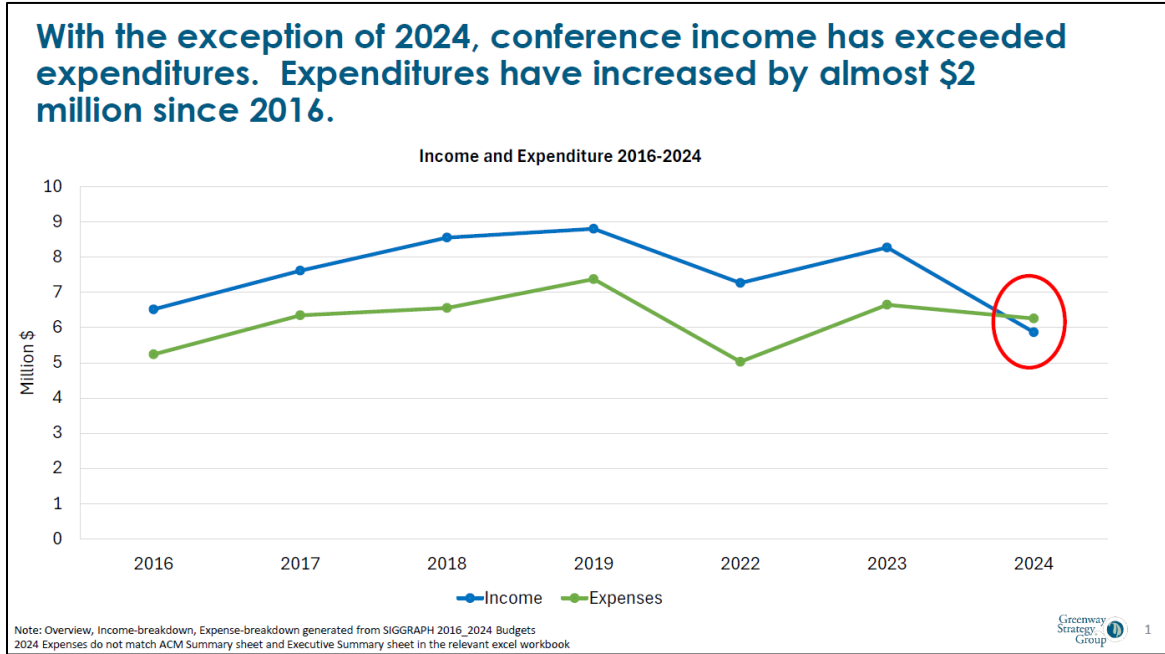
Figure 1.

With the exception of 2024, conference income has exceeded expenditures. Expenditures have increased by almost $2 million since 2016.

Income and Expenditure 2016-2024

Note: Overview, Income-breakdown, Expense-breakdown generated from SIGGRAPH 2016_2024 Budgets
2024 Expenses do not match ACM Summary sheet and Executive Summary sheet in the relevant excel workbook

Figure 2.

Registration income is the largest source followed by exhibits. Both have declined since 2016.

Income 2016-2024

There is a natural co-dependence of registration income with exhibit/sponsorship income.

Figure 3.

Onsite logistics is the largest expense, which has increased by $850K from 2016 to 2024. Conference Management increased by $250K and Exhibits/Job Fair $360K. Other expense categories are relatively flat.

Expenses 2016-2024

Legend: On-site Logistics, Conference Management, Publicity, Exhibits/Job fair, Financial, Committee, Program/Publications, Food & Bev, Registration, Virtual platform

Figure 4.

Using 2023 as a representative year, the Experience Hall and Graphics Net made up more than 50% of the programmatic expenses.

2023 Program Expenses
Total: $568,791

Technical Papers, 1.3%
Misc. Items, 1.5%
Computer Animation Festival, 1.9%
Emerging Technologies, 2.9%
Student Volunteers, 4.6%
Immersive Pavilion, 6.2%
Labs (formerly Studio), 6.8%
VR Theater, 9.4%
Art Gallery, 10.6%
GraphicsNet, 23.1%
Experience Hall, 31.6%

In 2023, an additional $355,929 was spent on a Retrospective/History which was not typical so is not included in the program expense distribution.
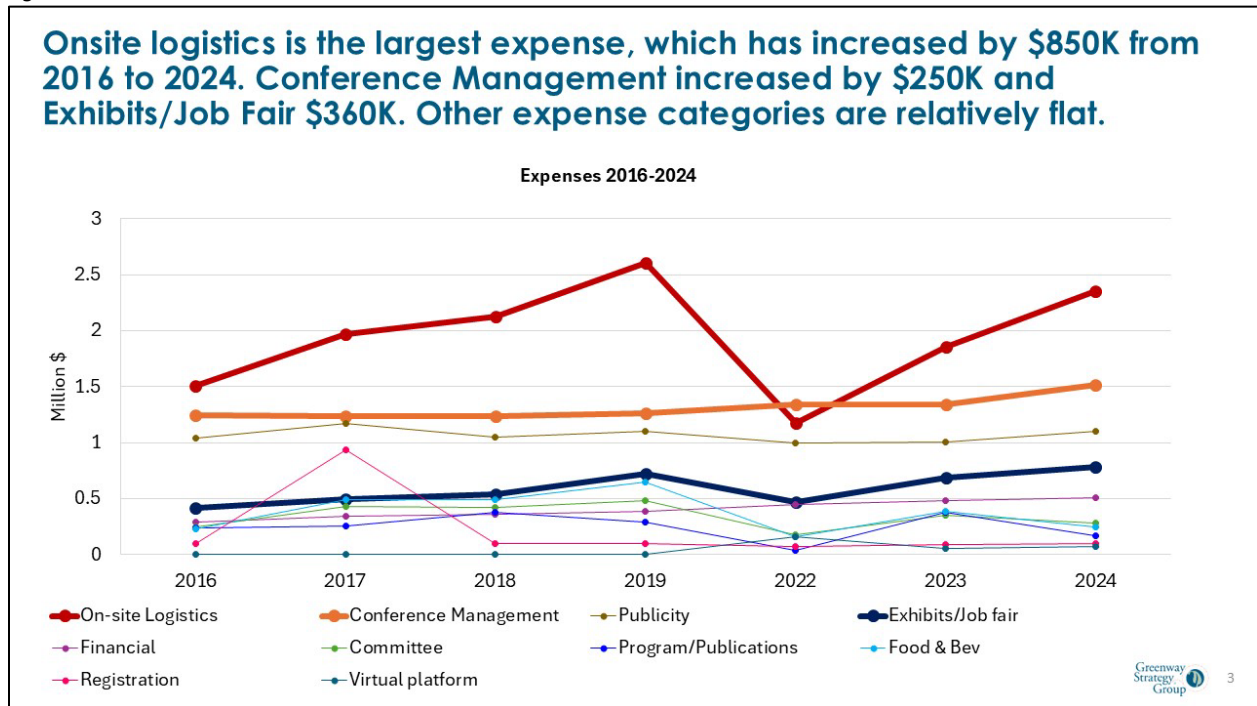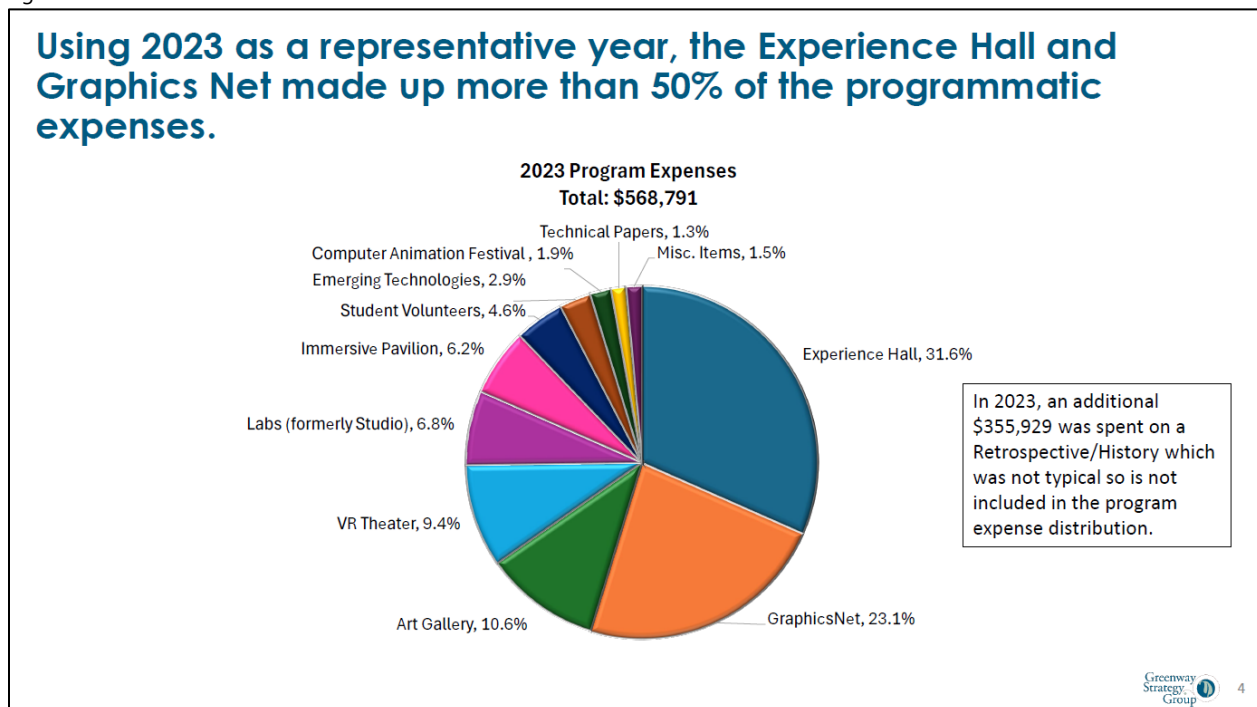
When viewing Figure 4 on program expenses, it should be noted that the Experience Hall and Graphics Net are actually venues with infrastructure (such as staging, audiovisual and lighting) that house many of the other programs shown separately on the pie chart.

After reviewing information on expenses and revenue, the group reviewed information on conference attendees.
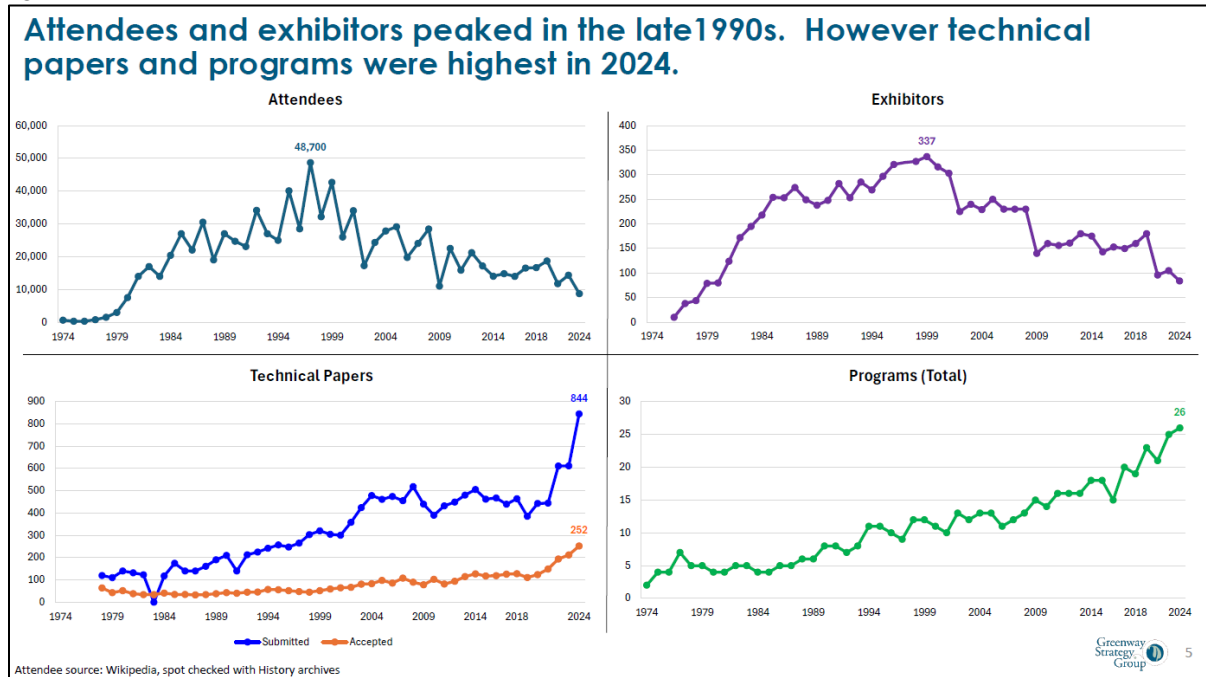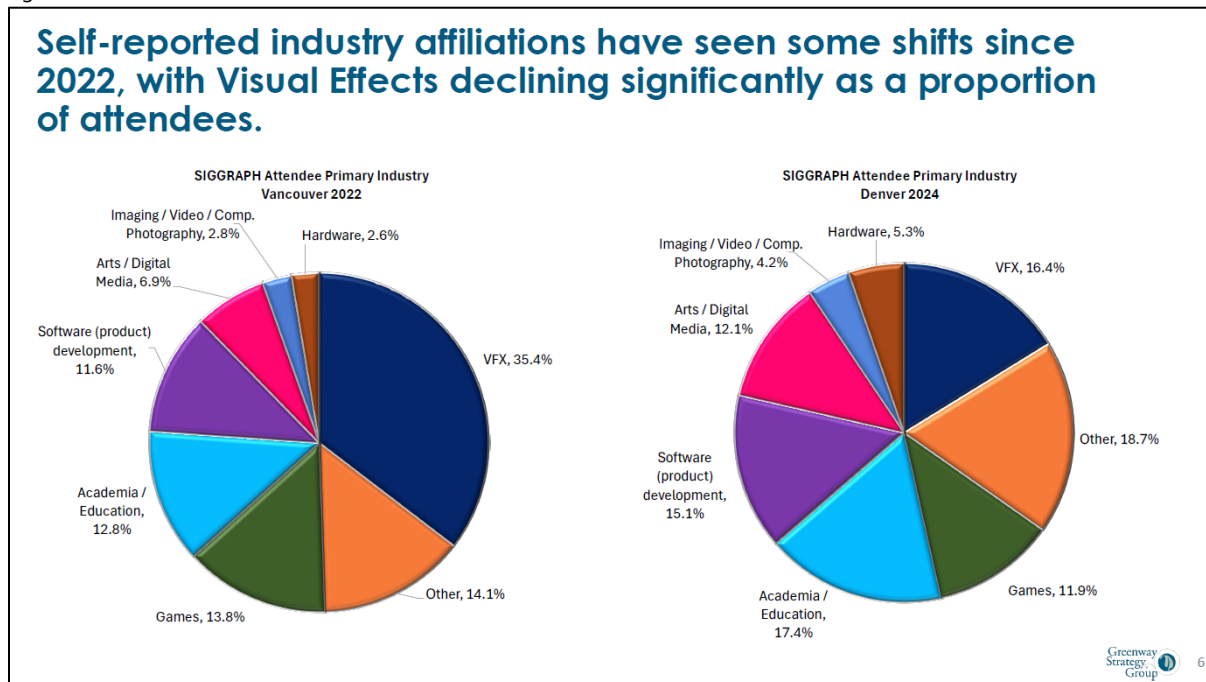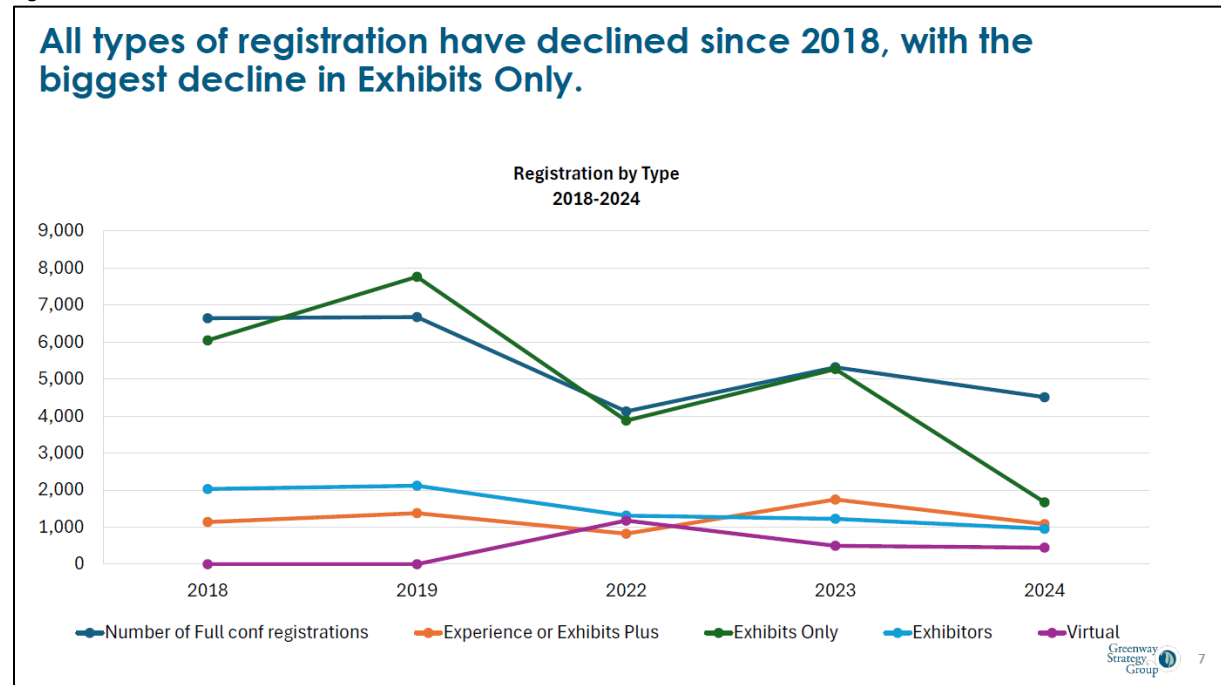
Figure 5.

Attendees and exhibitors peaked in the late1990s. However technical papers and programs were highest in 2024.

Attendee source: Wikipedia, spot checked with History archives

Figure 6.

Self-reported industry affiliations have seen some shifts since 2022, with Visual Effects declining significantly as a proportion of attendees.

The information in Figure 6 represents all attendees, including exhibitors and exhibits-only participants.

Figure 7.

All types of registration have declined since 2018, with the biggest decline in Exhibits Only.

Registration by Type
2018-2024

Legend: Number of Full conf registrations · Experience or Exhibits Plus · Exhibits Only · Exhibitors · Virtual

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IV.   Observations

The participants generated the following observations from these conference trends.

- Registration is the largest source of revenue.
- The strongest attendee base is VFX. When VFX drops, the revenue drops.
- There are massive shifts in the content creation industry that affected attendance.
- We need to find other markets so we are not as dependent upon the content creation industry.
- Location affected attendance.
- What does the trend look like for full registration? Is the trend different? Perhaps partial registration has dropped.
- Partial registration is not ideal from a revenue standpoint, but the number of additional attendees from partial registration is appealing to exhibitors.
- Twenty-six programs are a lot and makes it hard to differentiate a clear value proposition. It also drives up costs. We need to figure out our programs and numbers.
- Need to consider fixed expenses versus variable expenses.
- Fixed costs are often baked into long-term contracts with external vendors. This gives very limited margin that the committee/conference planners can influence.
- Technical papers are strong.
- Technical papers are the primary draw for participants, although technical papers are not the highest rated program area (according to conference evaluation information)..
- AI has influenced technical paper submissions.
- Technical papers don't generate revenue like sponsored programs, apart from the fact that they attract attendees.
- "Real time live" is highest rated program - things that cannot be experienced outside of the conference.
- Correlation of exhibitors verses attendees is really tight - they track together.
- 50% of attendees each year are new
  - How many full conference registrants are new? Roughly, 35-40% of full conference and exhibits only are new.
- The virtual conference is not well attended, but physical attendees also use this to engage in some sessions.

V. PEST Factors That Will Affect Future Conferences

The meeting participants then generated individual ideas for external factors that will influence the future of the conference. A PEST framework was used to identify these factors. The resulting input was categorized as follows:

A. Political

1. **Travel Restrictions**
   - Travel impact due to people not wanting or able to come to U.S.
   - Political uncertainty – borders not as open
   - DHS and nationalization
   - Travel restrictions at borders
   - Visa issues for international community
   - Travel challenges/China and Canada
   - Political situations making it more difficult for international attendees

2. **Geopolitical Challenges**
   - US/China situation
   - Geopolitical tensions (e.g. China vs. USA)

3. **Other**
   - Tariffs
   - Sustainability
   - Globalization

B. Economic

1. **Revenue**
   - Funding availability
   - Labor vs. equipment
   - Partner vs. vendor
   - Changes in government funding
   - Worldwide and national economic funding

2. **Cost of Attendance**
   - Funding limitations (among universities, etc.)
   - Travel restrictions at organization/institute level
   - Travel funding/research funding harder to get and not going as far
   - Costs going up for travel a lot
   - Concerns that conferences are a "boondoggle" for participants at corporate expense
   - Registration costs
   - Hotel costs and travel costs rising (2 mentions)
   - Costs rising to produce a conference (e.g. food costs, labor, facility, etc.)
   - ACM digital access will be open - $700 per conference paper, $1300 per journal – added to conference travel costs

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- "Publish or perish" but publish is tied to travel in the SIGGRAPH model as one needs to be at the conference to publish
- Value proposition for attending conferences – increase in digital consumption has lowered value of in-person attendance.

3. Shifts in Target Audience
- Consolidation in market
- Change of technological horizons results in change in investments
- Strikes and general film/animation downturn
- Downturn/shrinking of games industry
- Consolidation of major M&E software companies

4. Competition
- Proliferation of new conferences in same areas – smaller and more targeted
- Competing events (including SIGGRAPH Asia)

5. Other
- Search for talent instead of sales among exhibitors
- Globalization

C. Social

1. Volunteers
- Fewer people willing to volunteer
- Loss of engagement of volunteers (others in the community)
- Aging volunteers

2. Interaction
- Young people (students) are more socially anxious
- Young people (or perhaps everyone) wears mental health on their sleeve
- Attend to network and listen
- Recognized value of in-person social interactions has increased since the pandemic

3. Access to Information
- Changing preferences of public for how to consume media
- Ease of access to research
- Rich online content vs. value of in-person event?

4. Climate Change / Travel Concerns
- Climate change (travel, etc.)
- Impacts of climate change
- Reluctance to travel / awareness of carbon cost
  - Reluctance to travel / caregiving responsibilities

5. Other
- Fear of AI

- Hype cycles of tech
- Concerns over supporting certain companies
- Unmanageable growth of technical papers submissions

D. Technical

1. AI (3)
- Evolution around AI and Gen AI
- Potential advances in AI
- AI shifting industry and economy
- Climate change and energy consumption due to AI
- GPU
- AI bubble/GPUs
- AI arms race
- AI boom
- AI infusion into every area of research
- Industry has the data and compute power to drive AI, academia does not – we see this in multiple applications
- AI used for writing and reviewing papers

2. Virtual Opportunities
- Buying online – exhibition
- Fewer attendees = less stuff to "see"
- Ability to present online
- Zoom
- Virtual technology enables more "online" conferencing

3. Challenges with Attendance
- Barrier to entry
- Pressure to publish vs. high bar and high cost of publishing at SIGGRAPH
- ACM open – increased costs to some authors - will this influence submission?
- Open access
- Open access ACM

4. New Tech / Changing Tech
- Hype of new technology
- Rapid rise of new technologies and the time it takes us to respond to them
- Which tech are we focusing on? (Are we up to...)
- Valuable content

5. Other
- Specialized conferences
- Physical location of key technology players

VI.   Identification of Target Audience

The group utilized a tool called Thought Exchange to enter responses to the question, "Who are the target audiences for SIGGRAPH 2030?"   Participants then reviewed and rated the responses of others on a five point scale, with 5 indicating agreement and 1 indicating disagreement. The results are grouped into themes reflecting the role of the future target audience and the affiliation of the future target audience. The verbatim responses within each them for both Role and Affiliation are in Appendix A.

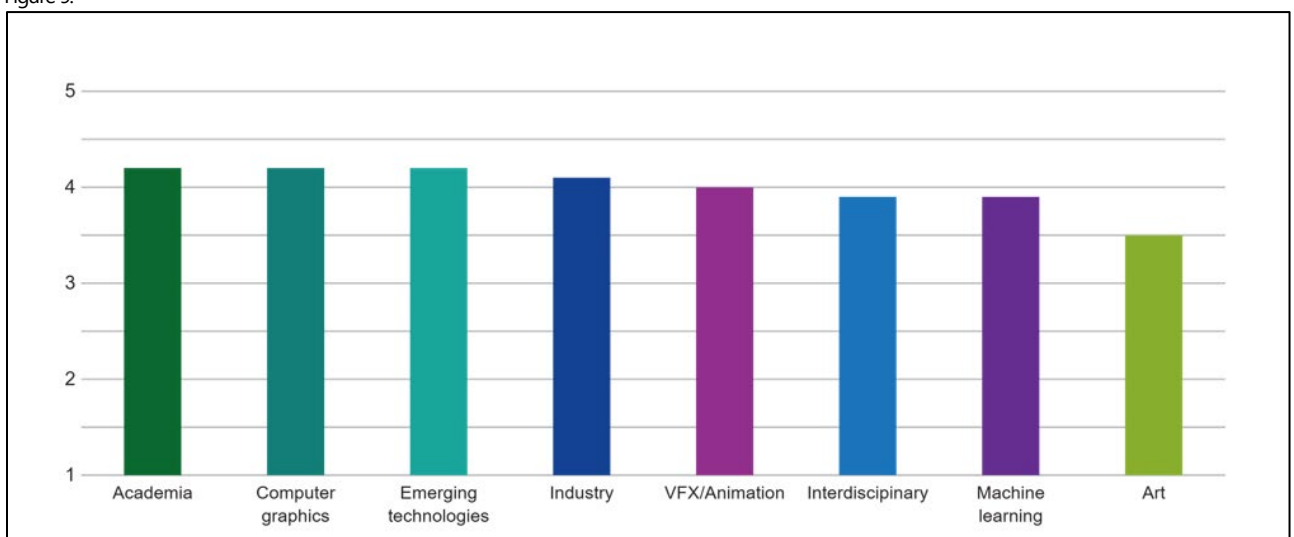## A.   Target Audience by Role

Figure 8.
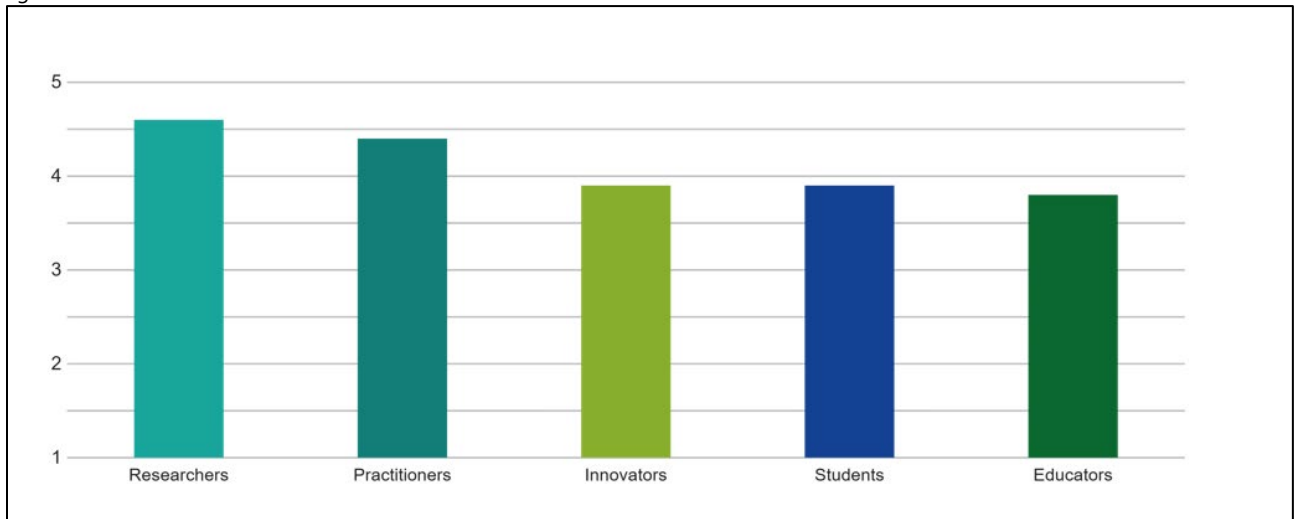
While the ratings for target audience role are fairly close, it is clear that researchers are viewed as the primary audience with practitioners also rated very high. Students and educators are rated lower as target audiences for the future. This does not mean they should be neglected, only that they are not the primary target of marketing and promotion.

B.   Target Audience by Affiliation

Figure 9.

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There is less variability in the ratings of the future target audience affiliation, with academia, computer graphics, emerging technologies and industry all rated above 4.0 on a 5-point scale. In the next set of ideas for affiliation, specific areas of computer graphics are mentioned.

VII. Value Proposition for Program Participants

The participants then had small group discussions to generate shared ideas of the value proposition to compel future attendees in the identified target populations to attend the 2030 SIGGRAPH conference. Each group presented a summary of their ideas.

A. Group 1 (key ideas are in bold)

- Being in person with **community mentorship and support**
- Strong, compelling energy that's unique from other events
- Convergence of art and science / tech (different industries)
- Distinct communities exist within SIGGRAPH but not always easy to find
- Manage scale
- Excellence in quality
- **Innovation and inspiration** are prioritized at SIGGRAPH
- Importance of **publishing** (in light of disruption to publishing in January of 2026)
- Presenting at conference as component of publishing G
- Goal – **in depth conversations and relationship building**

B. Group 2 (key ideas are in bold)

- See the latest **innovations**
- Difference between **excellence** and specialization
    - **Interdisciplinary**
- Meet people that have excellence in their field – not necessarily years – **Inspiration!**
- Hallway conversations very important
- Emerging trends across fields
- How do we want to interact with each other? content delivery and consumption mechanisms
    - **Keynotes, posters, papers, oral, ETech**
    - RTL and ETech are unique
- Robot
- Open up "interactive techniques"
- Keynotes that cover the key areas of our stakeholders - researchers, practitioners and artists
- More social events, mixers – small and large
- **Community – SIGGRAPH is a cauldron**

C. Group 3

- Full cycle (idea to execution)
- Excellence in research and practice (in SIGGRAPH)
- Interdisciplinary
- Future and inspiration

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- The chart below represents the role of SIGGRAPH to incubate and launch interdisciplinary areas of computer graphics innovation and application

Figure 10.
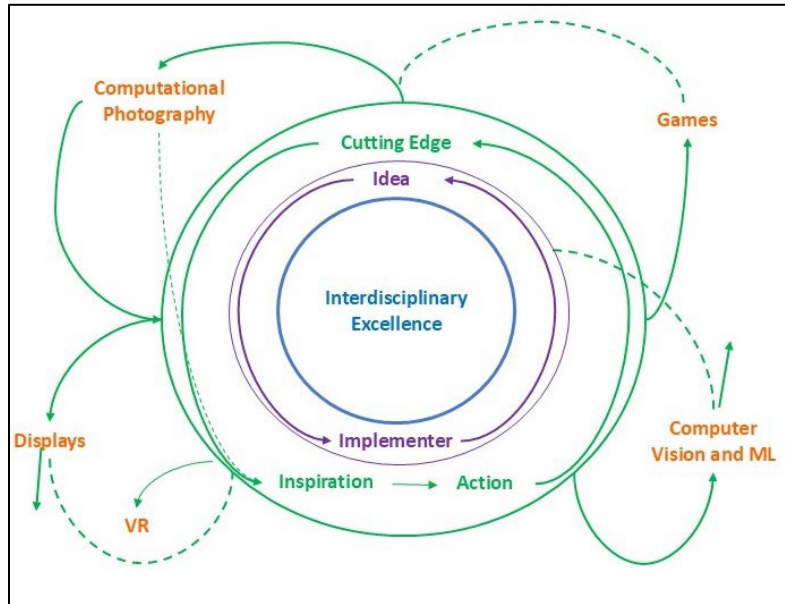
VIII.   Value Proposition for Exhibitors and Sponsors

The group discussed that exhibitors and sponsors have different motivations for attending the conference than program attendees. They generated the following components of the value proposition for this group's attendance at future conferences.

- Access to community
- Access to talent
- Access to data (such as registration list)
- Presentation / keynote opportunities
- Education
- Unbiased and universal access to the community
- Thought leadership
- Stature
- Identification of basic technology and research they can commercialize

IX.   Future Conference Design Elements

Through a process of individual and then small-group consensus building, the participants identified the following priorities for the future conference design to offer the value proposition for participants.

- More "had to be there" moments *
  o Encourage future-oriented, breakthrough ideas
  o Hear about research and the impact on big picture problems
  o Point to the future

- o Connect research and industry
- o The "why" – demonstrate impact of computer graphics field
- More opportunities for smaller, personalized mixing and networking
  - o Create fun activities
- Integrate opportunities for talent recruitment into networking activities – particularly for accomplished and experienced candidates
- Meaningful connections
- Integrate mentoring opportunities with small group networking activities
- Form ongoing mentoring opportunities
- Fewer programs – less is more
  - o Consolidation
  - o Less siloing / more of a continuum of content
- **The** interdisciplinary conference in computer graphics
- In addition to the core component that is juried, be proactive and intentional to develop curated content by the conference committee with a multi-year perspective and intent. This could feature industry or research topics with focused speakers and content. These sessions would require advance work for development and recruitment.
- Use exhibit space to generate interaction around industry needs and interests; offer speaking opportunities on the exhibit floor about specific needs for solutions and talent
- Utilize registration data to match with company needs
- Multi-generational – attract Gen Z and younger, while maintaining "seasoned" community members
- Outrageous hospitality
- Sustainability focus of content and logistics
- Frequent flyer discount for repeat attendees / explore pricing model and align with goals.

X. Future Goals

The participants agreed that SIGGRAPH should set concrete goals for the conference leading up to 2030. However, there is additional analysis required to understand the baseline performance before future goals can be set. Several conceptual goals were identified, particularly for attendees. There is a need for further evaluation of attendee characteristics as well as expenses and income.

A. Goals for Attendees

- Conduct deeper analysis of conference attendees (e.g. trends in primary industry affiliation of attendees (by registration type), trends in types of registration, repeat registrants versus new registrants)
- Fill in targets for conceptual goals once current performance is better understood.
  - o Growth of A% to X total attendees (Note: there is not a desire to grow the total attendees continuously; need to define the target number for conference optimization)
  - o Retention year to year to X%
  - o New attendees growing by B% to X, while continuing to increase repeat attendees
  - o Increase % of female-identifying participants by C
  - o Increase % of under-represented populations by D
  - o Increase % representation of specific industry segments (to be decided once clear baseline is available)

B. Expenses to evaluate

- Contracts (rethink what is needed several years out so there is time to adjust contracts)
- Evaluate publication/publicity line
- Program expenses (reduce and consolidate)

C. Income and revenue-generating activities to evaluate

- Determine targets for conference revenue growth
- Evaluate logic of current tiered registration fees (particularly reduced rate registrations)
- Consider new registration fee categories such as fast/premier registrations and repeat attendee discount
- Assess and set targets for exhibitor income (and numbers of exhibiting organizations)
- Consider new partnerships
- New sponsorship models – sponsorship packages around opportunities not connected to content that offer deeper engagement, companies pooling funds into a consortium that supports research (donations): need to ensure to avoid appearance of or actual conflict of interest
- Intentionality about location as a revenue driver; identify location characteristics that drive revenue
- Consider other sources of conference income
- Look at year-round revenue generation activities for SIGGRAPH outside of the conference.

XI. Immediate Next Steps

The following immediate steps were identified to move forward with the conference vision for SIGGRAPH 2030.

- Prepare summary of meeting and distribute
- Deeper dive on conference expenses
- Deeper assessment of attendee data and past performance trends
- Prototyping some alternative sponsorship models and guardrails/parameters
- Exploring other revenue generation opportunities (registration tiers, incentives)
- Market research
  - o Understand why people return and don't return
  - o Understanding needs of younger population
  - o Competitive analysis of other conferences
  - o Trends in the computer graphics field
  - o Engage industry partners
- Understand opportunities/benefits of program consolidations and/or reduction
- Develop a partnership plan
- Prioritize design elements that are most critical to implement for SIGGRAPH 2030.

Appendix A:
Themes and Details Responses: Who are the target audiences for SIGGRAPH 2030?

PARTICIPATION
Breakdown of Participation

18
Participants

37
Thoughts

420
Ratings

Academic and industry research Core component

4.4 ★★★★☆ (11 👤)

Ranked #1 of 37

Practioners and researchers in the computer graphics community A strength of SIGGRAPH is the symbiotic relationship between industry and research, practical applications of innovation

4.3 ★★★★☆ (12 👤)

Ranked #2 of 37

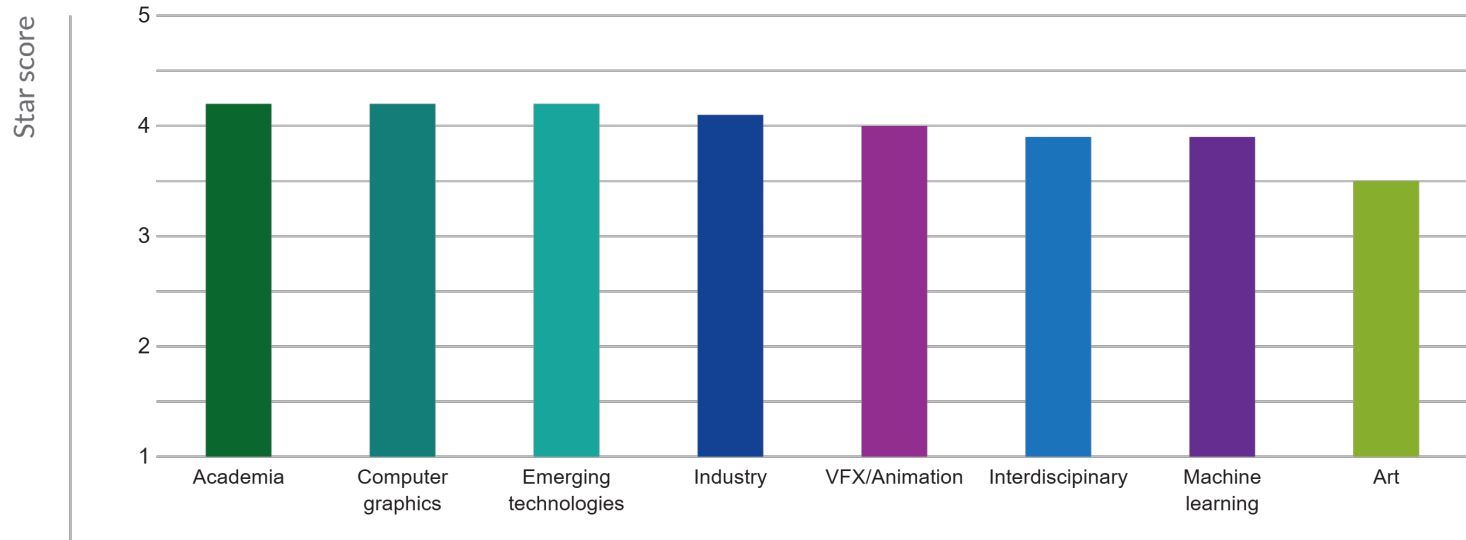**Technical Research Community** At the forefront of graphics advancement

4.3 ★★★★☆ (11 👤)

Ranked #3 of 37

Academic and industry research Core component 4.4 ★★★★☆ (11 👤)

Researchers in academia and industry This audience has been the core since conference inception 4.1 ★★★★☆ (12 👤)

Academics and practitioners Expanding opportunities for both beyond the conference 4.1 ★★★★☆ (11 👤)

Practioners and researchers in the computer graphics community A strength of SIGGRAPH is the symbiotic relationship between industry and research, practical applications of innovation

4.3 ★★★★☆ (12 👤)

leading and emerging groups of researchers and practitioners who excels their research development in Graphics and emerging technologies. Maintain the legacy of excellence which attracts both contributors and audiences.

4.2 ★★★★☆ (12 👤)

Anyone working in "graphics and interactive techniques."

3.5 ★★★½☆ (10 👤)

leading and emerging groups of researchers and practitioners who excels their research development in Graphics and emerging technologies. Maintain the legacy of excellence which attracts both contributors and audiences.

4.2 ★★★★☆ (12 👤)

Practitioners They need to "learn" about new tools and toolings available to them now and in the future.

4.1 ★★★★☆ (11 👤)

Industries that are applying latest advances. (e.g. robotics, medical, digital twins for manufacturing) Financially beneficial. Will keep exhibition floor alive. Will generate revenue. Will provide job opportunities for creators and developers.

3.8 ★★★★☆ (12 👤)

Academic and industry research   Core component   4.4 ★★★★☆ (11 👤)

Researchers in academia and industry   This audience has been the core since conference inception   4.1 ★★★★☆ (12 👤)

Animation and VFX professionals   Because these are the people utilizing the tools and methods that our research community has developed   4.0 ★★★★☆ (12 👤)

Animation and VFX professionals   Because these are the people utilizing the tools and methods that our research community has developed

4.0 ★★★★☆ (12 👤)

Animation and VFX Students   Because we want the next generation of practitioners to join our community

3.8 ★★★★☆ (12 👤)

People working within the space of computer graphics and interactive techniques who are interested in seeing interdisciplinary applications   Because SIGGRAPH is everything and if we can't define it, it is nothing (but confusing and overwhelming)

3.9 ★★★★☆ (13 👤)

People who love challenges and expanding perspectives   So many conferences are focused on discipline specific topics, SIGGRAPH can speak to those who want to break down silos

3.6 ★★★★☆ (10 👤)

Those that care about the advancement of Computer Graphics (not interactive techniques) SIGGRAPH is about the broad community and expanding your echo chamber to hear viewpoints from different individuals with whom you would never interact

3.4 ★★★☆☆ (9 👤)

Cross over researchers from computer vision and machine learning   This is a possible area of expansion, especially if they find their current conferences to be unpleasant
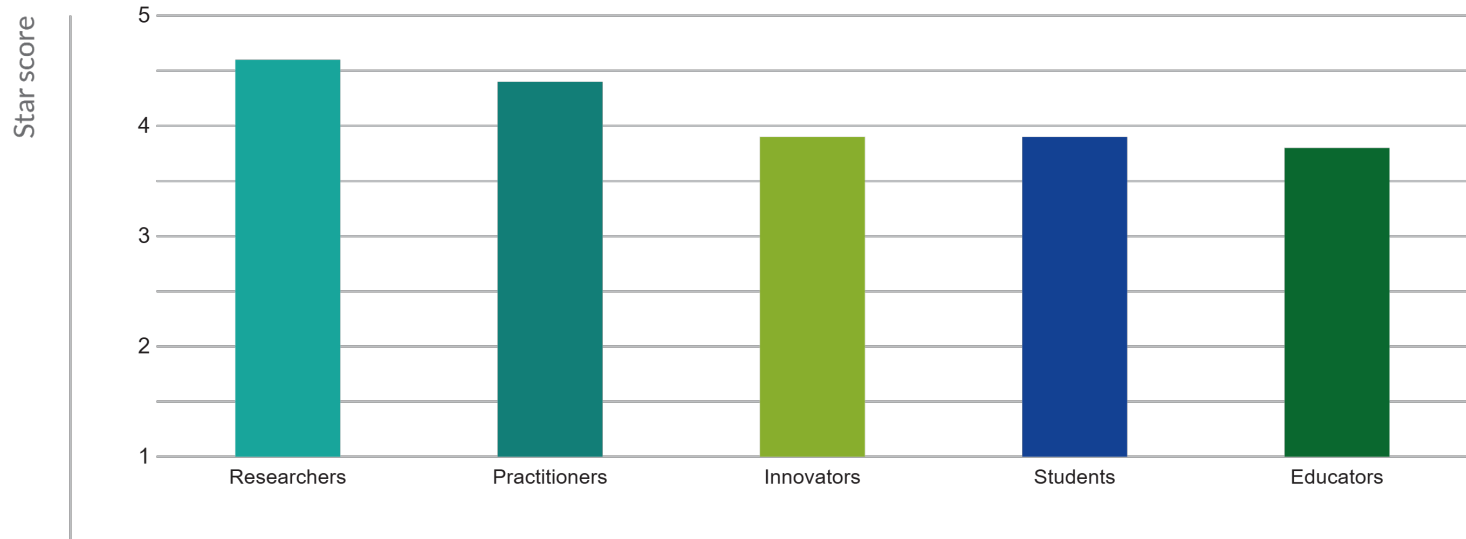
3.9 (11)

Art Papers Community Artists perspective frames technology advances in humanistic view - this distinguishes us from purely technical conferences.

3.5 ★★★☆ (11 👤)

Academic and industry research Core component   4.4 ★★★★☆ (11 👤)

Practioners and researchers in the computer graphics community A strength of SIGGRAPH is the   4.3 ★★★★☆ (12 👤)
symbiotic relationship between industry and research, practical applications of innovation

Technical Research Community At the forefront of graphics advancement   4.3 ★★★★☆ (11 👤)

Practioners and researchers in the computer graphics community   A strength of SIGGRAPH is the symbiotic relationship between industry and research, practical applications of innovation

4.3 ★★★★☆ (12 👤)

leading and emerging groups of researchers and practitioners who excels their research development in Graphics and emerging technologies.   Maintain the legacy of excellence which attracts both contributors and audiences.

4.2 ★★★★☆ (12 👤)

Academics and practitioners   Expanding opportunities for both beyond the conference

4.1 ★★★★☆ (11 👤)

Innovators   Because our field has matured and we need to figure out what's next

3.9 ★★★★☆ (11 👤)

Students To connect with their future community and to join and influence it now.

3.8 ⭐⭐⭐⭐☆ (13 👤)

Animation and VFX Students   Because we want the next generation of practitioners to join our community

3.8 ⭐⭐⭐⭐☆ (12 👤)

Cs researchers and students We are an ACM conference , this is our core mandate

3.8 ⭐⭐⭐⭐☆ (11 👤)

Educators in graphics, real time, AI, etc.   These people teach the next generation of practitioners coming into our community

3.7 ★★★★☆ (13 👤)

Educators.   To remain grounded in what real needs are and how to support and innovate with those in mind.

3.6 ★★★☆☆ (11 👤)