



THE PUBLISHING ECO-SYSTEM AND FORCES DRIVING CHANGES

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SUMMARY

1. The eco-system in Computer Graphics
2. The forces pushing for evolution
3. An empty niche; how to fill it?

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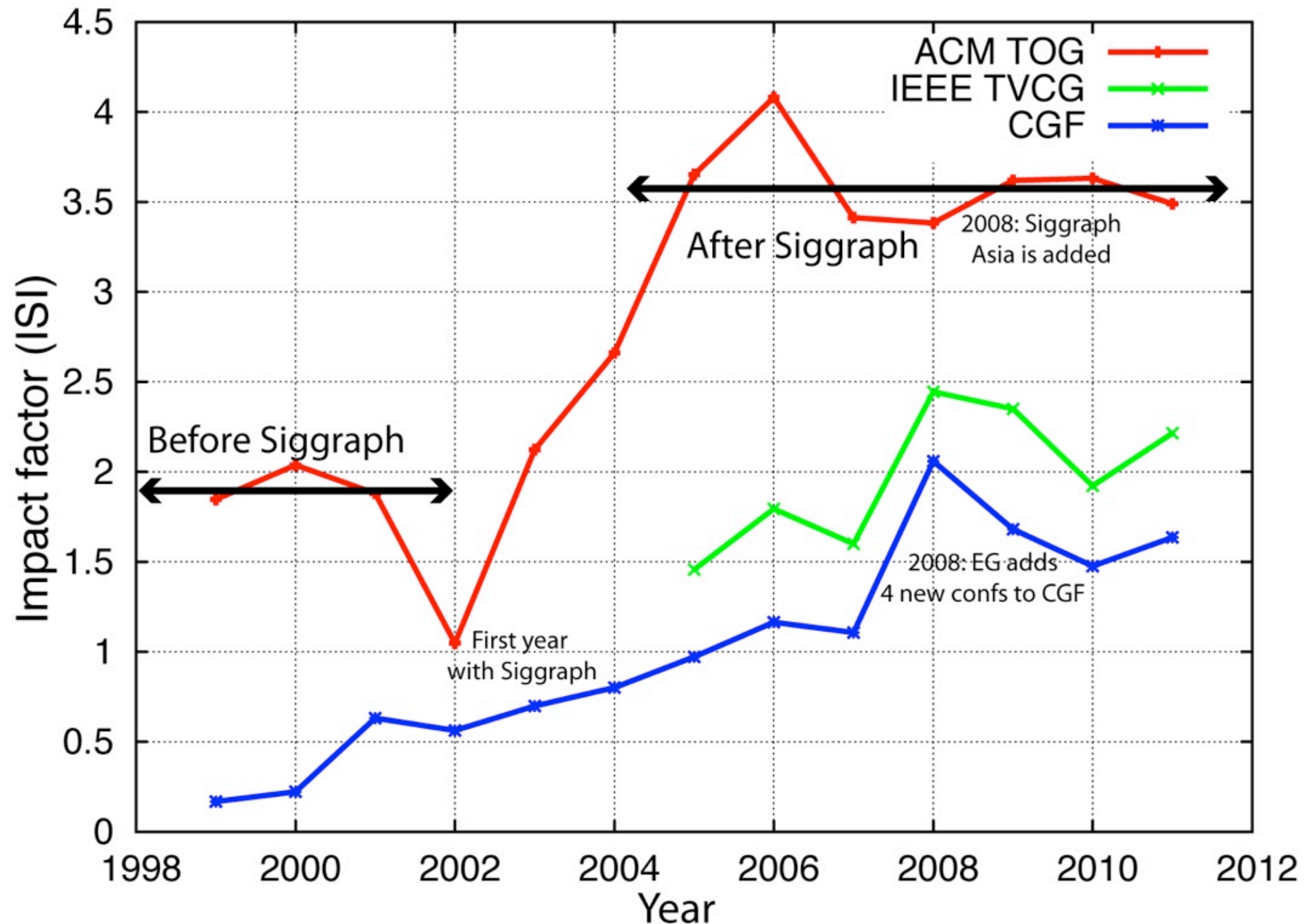
The eco-system in Computer Graphics

- Why Computer Graphics?
 - Interesting eco-system
 - Has been experimenting early, and a lot
 - (also, I happen to know it well)
- Siggraph, the elephant in the room
 - Shapes everything we do, including other conferences
 - Monoculture: ecologically unsafe
 - Attempts to reduce its influence

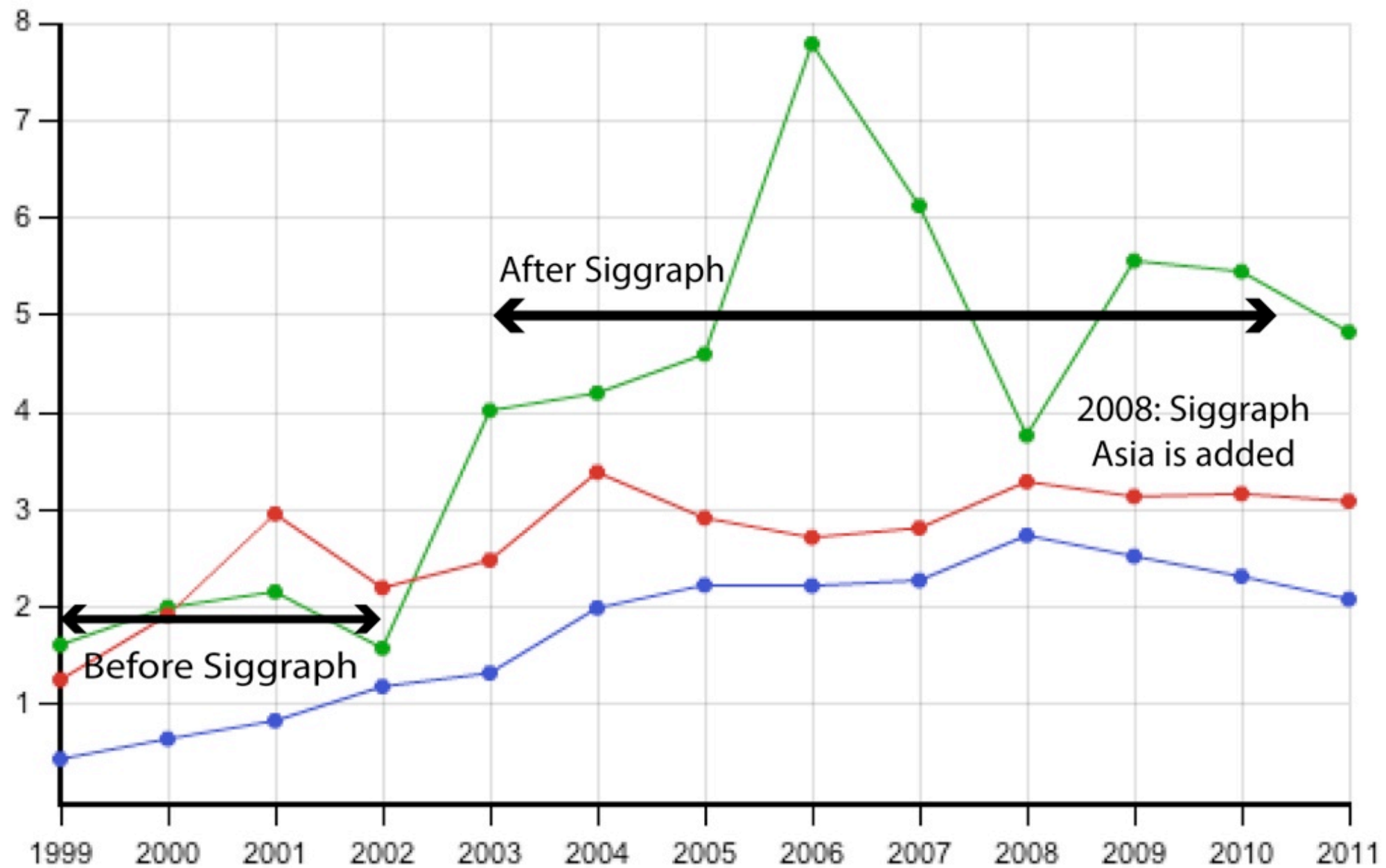
A (short) history of (some) experiments

- Before 1992: Siggraph was issue 3 of *Computer Graphics*
 - (a journal)
- 1992-2001: Siggraph is just a conference
 - Probably trying to reduce its influence
 - Didn't work
- 2002: agreement between Siggraph and *ACM TOG*
 - Siggraph becomes issue 3 of *ACM TOG*
 - Double review system
 - TOG speeds up its review/publishing cycle
 - "reject for Siggraph, accept at TOG" for borderline papers
 - Can present TOG papers at Siggraph
- Experiments with review system: double blind, conflicts, tertiary, rebuttal, discussion board...

An interesting result (ISI)



An interesting result (Scopus)



✓ ACM Transactions on Graphics
✓ Computer Graphics Forum

✓ IEEE Transactions on Visualization and C...

(c) SCImago Research Group

2012: state of the eco-system in CG

- Journal papers can be presented at a conference
 - Agreement between conference and journal
 - Author asks, conference chair decides
 - Separate sessions or mixed with regular conf papers
- Major conferences are issues of a journal
 - Few holdouts, mainly because two associations/publishers
 - Was helped by electronic publication
 - Minor conferences: select papers published in journals
- Exit possibility for papers
 - Rejected at the conference, accepted (w. minor rev) at the journal
- Faster review cycle for the journals
 - First decision in 4 months
 - Publication in 12 months

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Forces pushing for evolution

- Open-Access mandates
- The power of the community
- The industry
- Social networks

Open-Access mandates

- Work by US government employees is public domain
 - (small influence, because universities are private/state)
- Funding agencies push for OA:
 - NIH, UK government, European Union
- Universities & research institutes push for OA:
 - Harvard, MIT, Princeton, Stanford...
- Researchers like OA:
 - More citations
 - Re-use by community, industry

Open-Access mandates

- Different motivations:

- Ethical
- Efficiency (medical research)
- Financial (publishers too expensive)
- Benefit for academics

- Different kind of OA:

- Green, Gold...
- Embargo/immediate
- Institutional repository/larger repository
- Extra services for academics (web page generator)

The power of the community

- Read papers accepted at a conference, *before* the conf
 - Something we'd all like to do
 - With a Green OA publisher & a search engine: easy
 - Researchers started doing this in CG and publish their results
 - November 2009: cease-and-desist letter from ACM
 - Strong show of support from the community (including conf chair)
 - Agreement found within a week
- Eurographics/Wiley-Blackwell
 - Green OA with 12 months embargo
 - Nobody respected the embargo
 - 2010: embargo lifted, becomes Green OA
- It probably helped that ACM & EG are associations

The industry

- Research in CS has a strong connection with the industry
 - Algorithms are implemented, tested
 - Use by industry = another metric for papers
 - Strong research centers (MSR, Intel...)
 - Connections between academia and industry (both ways)
 - 2011: 50% of Siggraph papers had at least one author from industry
 - Possibly specific to Computer Science
- Industry has its own demands:
 - Focus on *things-that-work*
 - Fast in development/review cycle
 - Early adopters (sometimes *before* publication)

Social networks

- Social networks connect industry and academia
 - very strong in CG industry (CS ?)
- Connects and empowers the community
- Discussion of papers before/after publication
 - "hey, you should read that"
 - "I wonder why they didn't do it that way"
 - fast dissemination
- Connects readers and authors:
 - "Well, we tried it, but it didn't work"
- A little like paper discussion at a conference
 - More powerful/interesting
 - Discussants feel more freedom to talk

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An empty niche in the eco-system

- 1990s: "Perfect paper: submit to conference. Imperfect paper: submit to journal"
 - Fast reviewing + publication, highly selective (confs)
 - Better chances of accept + nurture, but slow pipeline (journal)
- 2000s: convergence between journals and conferences
 - Conference papers are also journal papers
 - Journals have fast review cycle (< 12 months)
 - Papers are rejected because nurturing would take too long
- 2010s: who will take the time to nurture papers?

An empty niche in the eco-system

- Industry: wants fast publication & validation
- Researchers: want fast publication & validation
- Little venues for "imperfect" papers
 - Too original, poorly written, hard to explain, wrong venue...
 - "Revise and resubmit" takes time
 - Papers often end up in OA (e.g. as tech reports)
- Combine forces: the e-journal
 - Publish first (through OA), review later
 - Review by journal committee, comments by the community
 - Reviews and comments can be made public
 - Readers can bring attention to a paper

An empty niche in the eco-system

- e-journals:
 - Papers accepted for publication get a stamp (on the paper page)
 - List of accepted papers on journal site/portal
- Requirements for Open Archive system:
 - Versatile, ready to experiment
 - Supplemental material (pictures, code, videos)
 - Comments system, with response and ranking
 - Versioning system for papers (minor/major revision)
- Requirements for e-journal Committee:
 - Strong emphasis on scientific quality (must build trust)
 - Nurturing papers through revisions
 - Avoid negative incentives

Thank you



Dagstuhl Seminar on Publication Culture
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