



# THE PUBLISHING ECO-SYSTEM AND FORCES DRIVING CHANGES

**Nicolas Holzschuch**  
**INRIA**

# SUMMARY

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

# SUMMARY

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

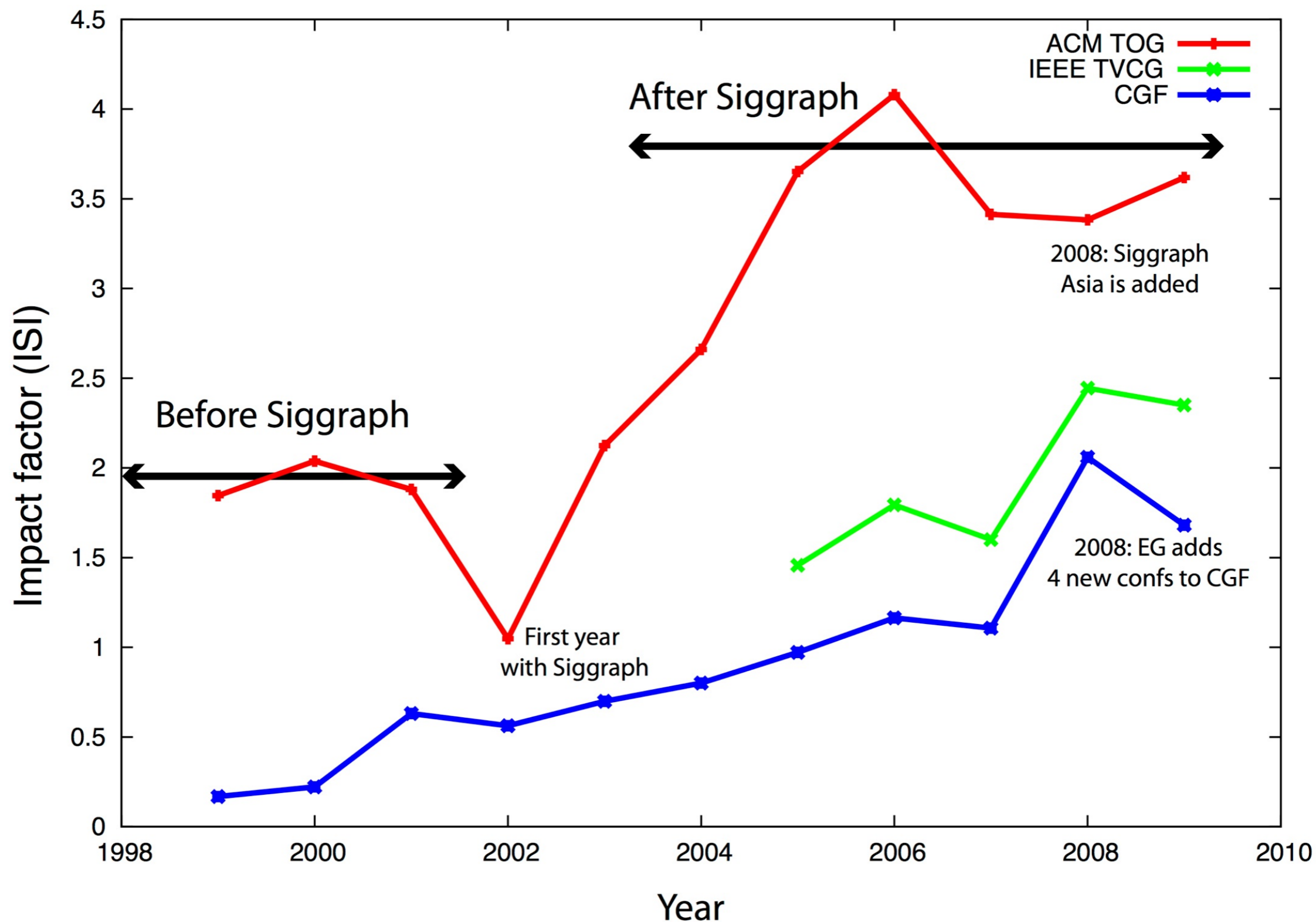
# The eco-system in Computer Graphics

- 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

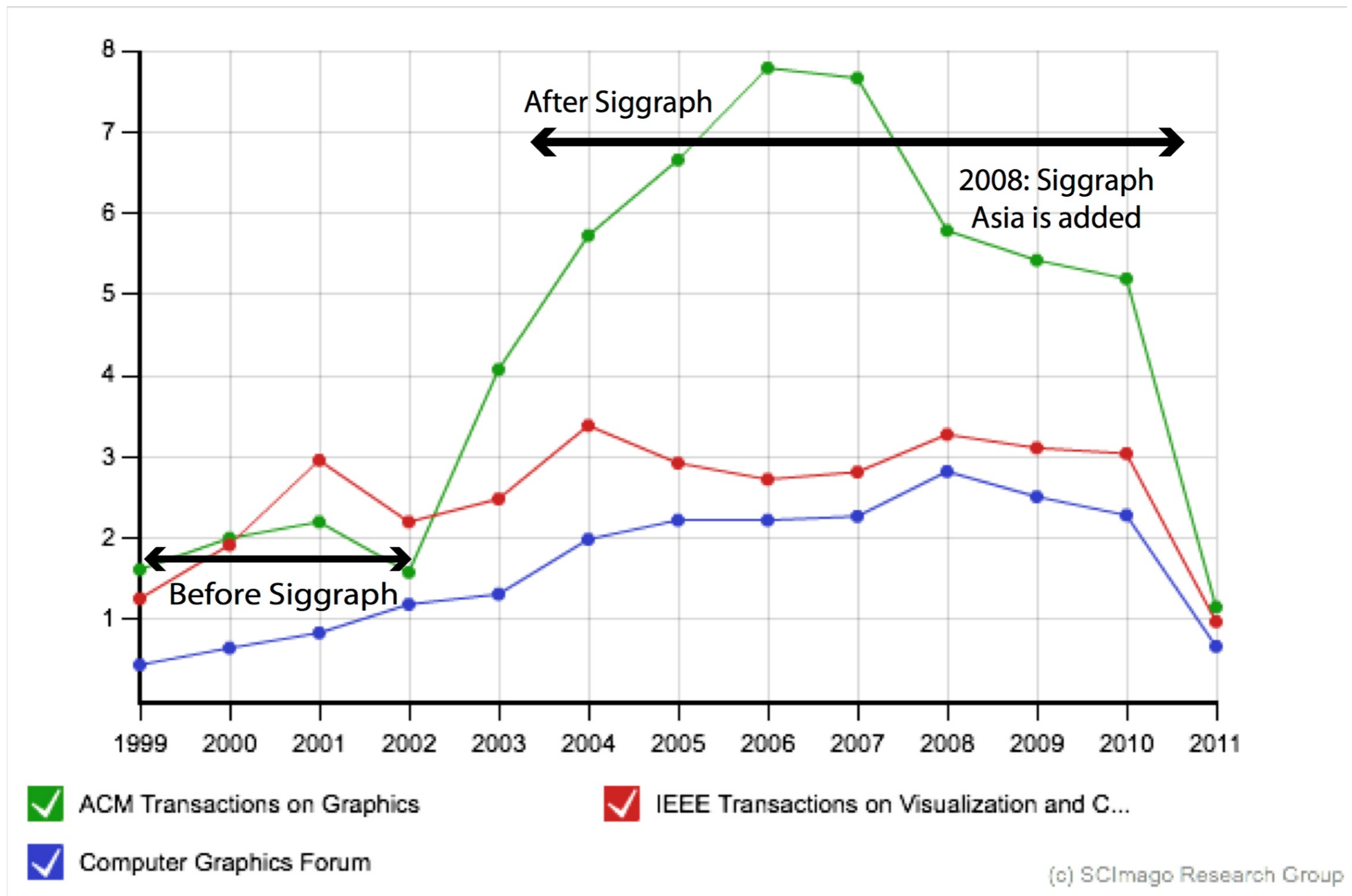
# A (short) history of (some) experiments

- 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)



# 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



# SUMMARY

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

# 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

# SUMMARY

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



# 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

*Inria*  
INVENTORS FOR THE DIGITAL WORLD

Dagstuhl Seminar on Publication Culture  
Nicolas Holzschuch  
[www.inria.fr](http://www.inria.fr)