CineGrid Alternate Endings 🙂

Tom DeFanti & Cees de Laat

University of Amsterdam
University of California San Diego

> They pay Cees's trip!
> Tom was already here.

CineGrid

UCSD

SURF NET

2008

CineGrid is 4k Only Better!

REMEMBER ?

2009

THIS YEARS PHOTO !

Listening carefully

Stirred, not shaken

Networking Group

- Initial participants:
  - Ronald van der Pol (coordinator), Cees de Laat, Tom DeFanti, Brian Dunne, Andrew Howard, Kunitake Kaneko, Michael Krsek, Eduard Siemens, Alan Verlo, Greg Wickham
- Setup mailinglist
- Information gathering:
  - Local connectivity of each exchange
  - Similar networks (e.g. OptIPlanet, HPDMnet, …)
- Write Requirements Document
- Network Design Proposal

CineGrid Exchange Lunch B0F Notes (1)

dec 8 2009

- Partial participant list:
    - Dana Plepys, UIC/EVL
    - Laurin Herr, PII
    - Natalie van Osdol, PII
    - Louise Ledeen, NetAPP
    - Shaofeng Liu, Calit2/UCSD
    - Paul Hearty, Ryerson Univ.
    - Noboru Harada, NTT Labs
    - Andy Maltz, AMPAS STC
    - Ann Gledson, Univ. of Liverpool
    - Ken Arnold, Industrious Media
    - Iara Machado, RNP (Brazil)
    - Prestospace

CineGrid Exchange Lunch B0F Notes (2)

- Congrats for first milestones of the CineGrid Exchange (CX) working group (WG)

- Work with AMPAS, iGRIDS and CollectiveAccess moving forward

- Need to develop Best Practices Guide to help the experimenters (lessons learned)

- Collect and disseminate more metadata for CX repositories upon acceptance

- Difficult to obtain metadata/information from CX Contributors; need to consider incentives (e.g. awards?)

- Discussed alternatives for identifying files within CX archive and registering components (fingerprint methodology was suggested as potential solution)

CineGrid Exchange Lunch B0F Notes (3)

- Need online template to be completed prior to uploading content

- Leverage proposed WG for CineGrid Networking for Best Practices for Networking

- Need a checklist so people don't have to run into the same issues every time

- Supply links to SMPTE and other organizations to gain knowledge on standards efforts for sound/image synchronization, lenses, lighting for 4K, etc.

- Shaofeng has conducted network experiments using iRODS, needs to post and share results via CineGrid website, as well as Basecamp.

- Need to do a better job of presenting and publishing CX work to broader research community.

2014 Ks

Working group for 4k coverage of the
Soccer World Cup 2014 in Brazil

2014 Ks

- The idea:

  Distributing live, produced, 4k coverage of the Soccer World Cup in Brazil to 5 continents.

  (possibly 8k, possibly stereo – we don't know yet)

2014 Ks

- Pitch:
  - It's an experimental research endeavour, a show-off of what can be done.
  - It's a non-commercial activity.
  - It's a target event/s for several strands of research, e.g., parallel produced 4k streams, camera tech, projection tech, distributed 4k stereoscopy etc etc etc.
  - It's a global collaborative work and exploration test-bed
  - The target audience are policy makers, tech providers etc, by VIP-invitation only at each site

2014 Ks

- First steps:
  - Setting up the work group
    - Chair: Alberto Paradisi paradisi@cpqd.com.br
  - Setting up group website
    - December '09
  - Get the go ahead from, particularly, FIFA and CBF
    - Meet with Brazilian Minister of S & T
    - Collect relevant LOI:s from partners
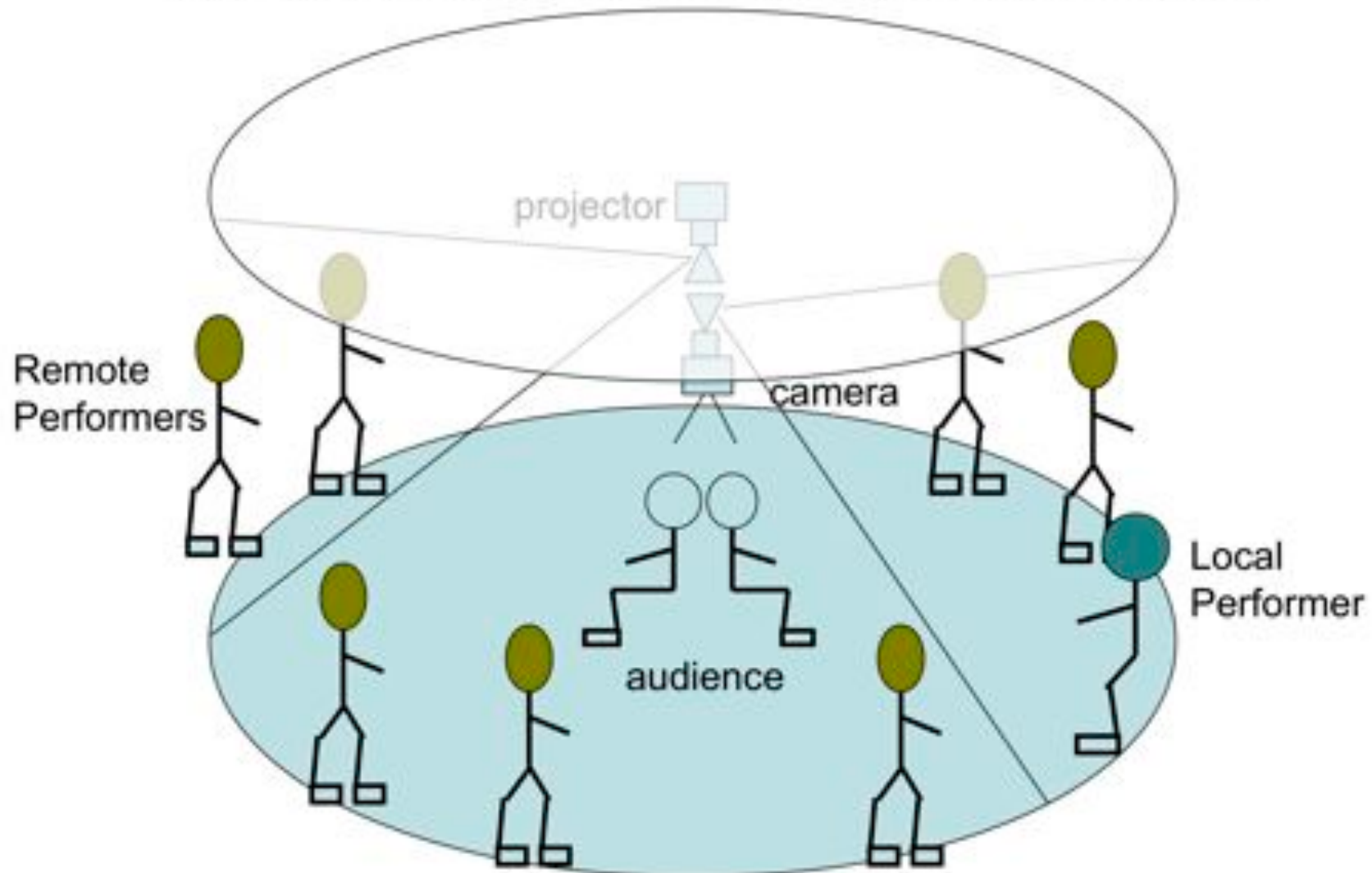   - Meet with FIFA and/or CBF
  - Group meeting in Brazil '10

Challenge:
Scalable Telepresence with 3 or more sites

Constraints:

- Network bandwidth
- No budget for multiple cameras
- No budget for multiple projectors
- Potential to scale to dozens or even hundreds of sites

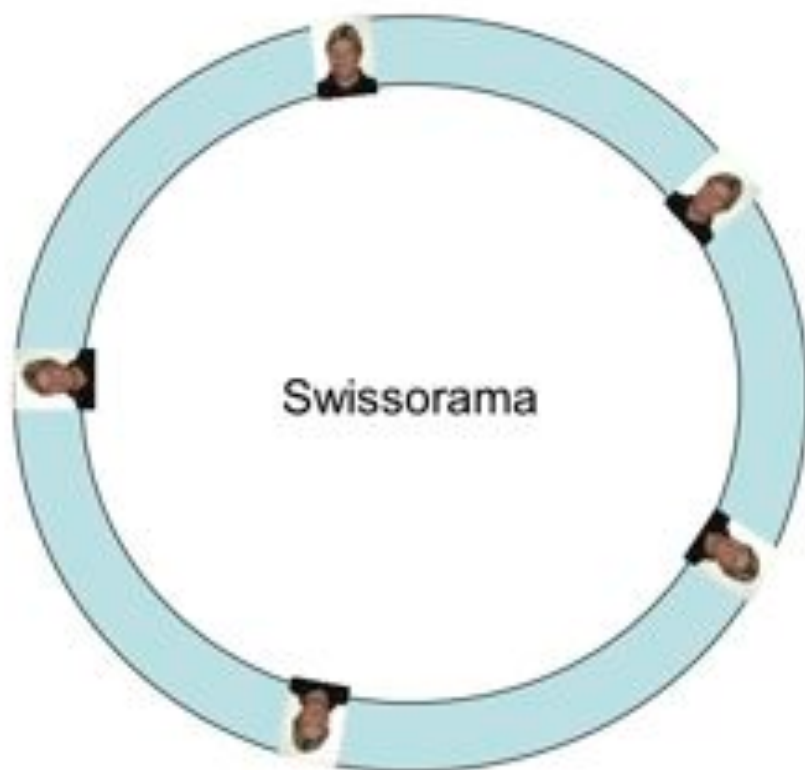# Interactive space with single projector+camera (or more)

Remote Performers

projector

camera

audience

Local Performer

Mirror cone or many flat mirror surfaces will erect the image space.
For a higher quality image from the room we use a standard camera aimed at the participant – but we will loose the option of being seen in all angles.

Benefits

- Remote video layering allows true interaction throughout the entire shared space between all sites

- Continuity between all locations (pointing will work)

- Not necessary to have dedicated hardware/remote node

Circular anamorphosis

by Jan Jacobsen

According to Jan – who built the camera for Swissorama (a one camera/projector circle vision system) it's an idiotic system as it only uses the rim of a bad lens (a fish-eye lens). He suggested an anamorphic layout to use more of the frame. Today we can do it digitally – or if we want less latency with Jans mirror cone lens design.
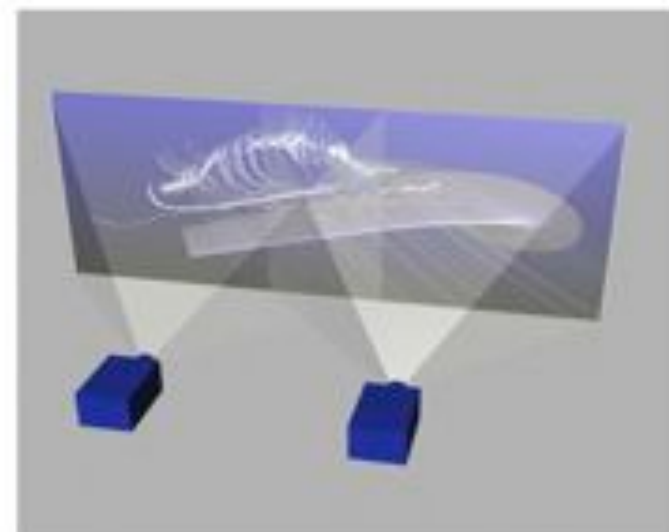
Special Hardware

Point Grey Ladybug

Fish eye lens

Swissorama - 1963

Multiple projectors with soft edge blending

Mirror cone

CREATING A COLLABORATIVE SHORT

ARTIST CONCEIVED, SCIENCE-DRIVEN SHORT FILM USING NETWORK COLLABORATIVE TECHNIQUES
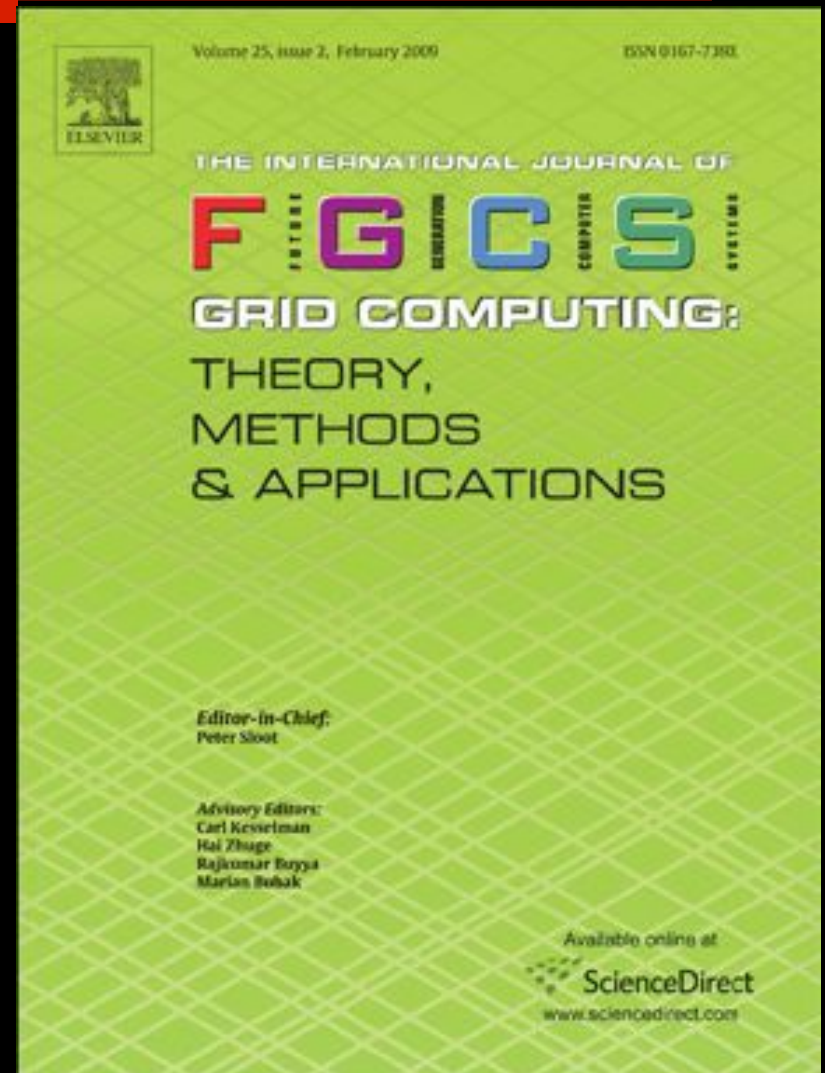
Handelingen
by Maarten Isaäk de Heer
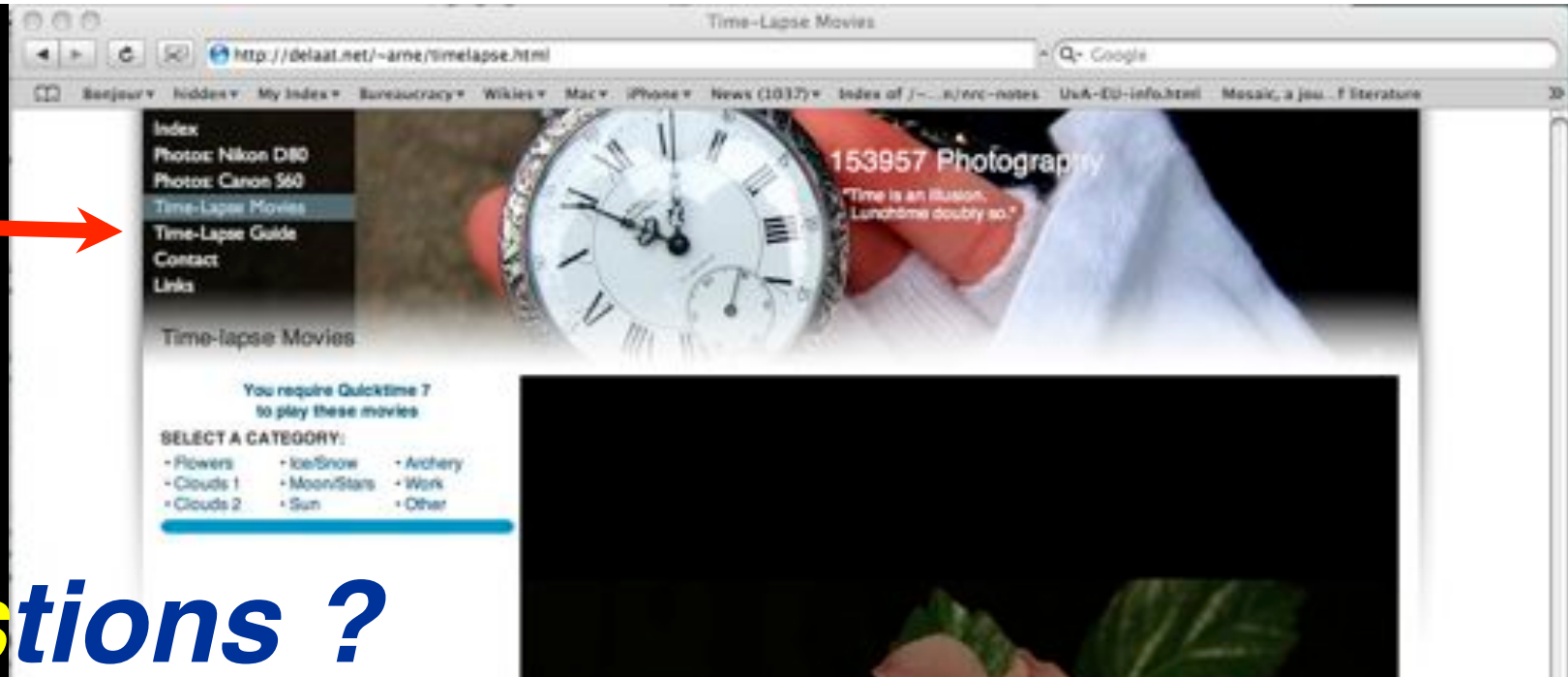
Need for Scientific Publications!
Call for papers!

- Guest Editors:
    - Naohisa Ohta & Paul Hearty
    - & Cees de Laat
- Special section on CineGrid!
- About 6 papers in a section
- Submission via:
    - http://ees.elsevier.com/fgcs/

- Special section submission link may take few weeks to get established.
- Info: delaat@uva.nl
- Submission deadline March 1st 2010

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Questions ?