

Brazilian SAGE Sites

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and
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What is SAGE™?

$$f(x, t) = 2x$$

Euler

$$x(t_0 + \Delta t) = x(t_0) + h f(x, t_0)$$

$$x(t_0 + h) = x(t_0) + h f(x, t_0)$$



- SAGE – Scalable Adaptive Graphics Environment
- Operating System software for organizing visualizations and information on scalable display walls to help researchers deal with problems of scale and complexity in their data.
- Streams visualizations from remote servers / supercomputers.
- Developed by University of Illinois at Chicago, Electronic Visualization Laboratory

Now Developing SAGE2™

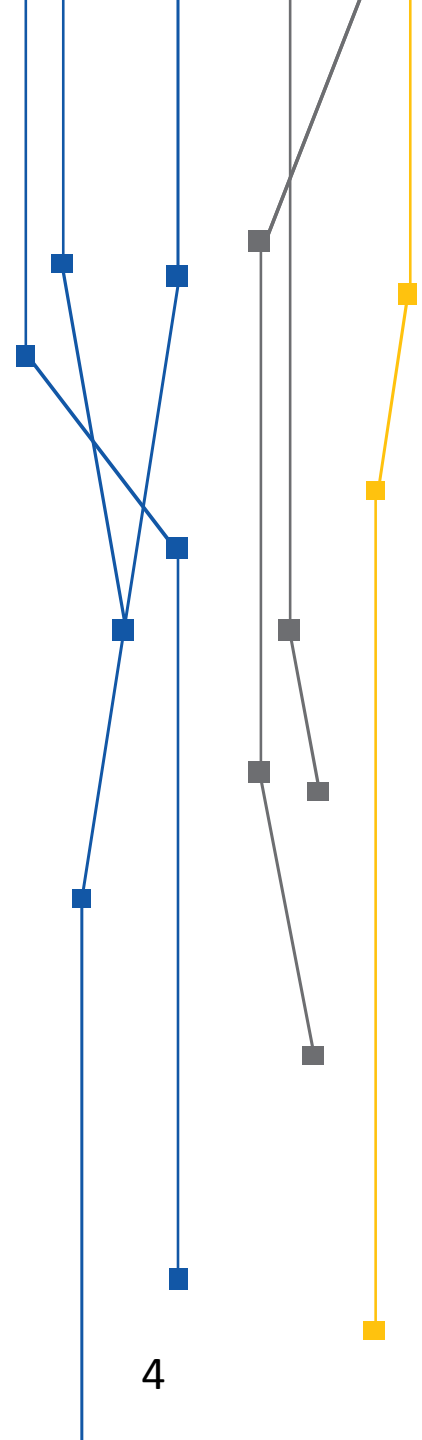
Scalable Amplified Group Environment

- SAGE2 is a total rewrite of SAGE using web technologies
- Middleware to access, display, and share high-resolution digital media on scalable resolution display environments
- Multi-touch interaction (one or many people)
- Push laptop windows or laptop screens onto a wall

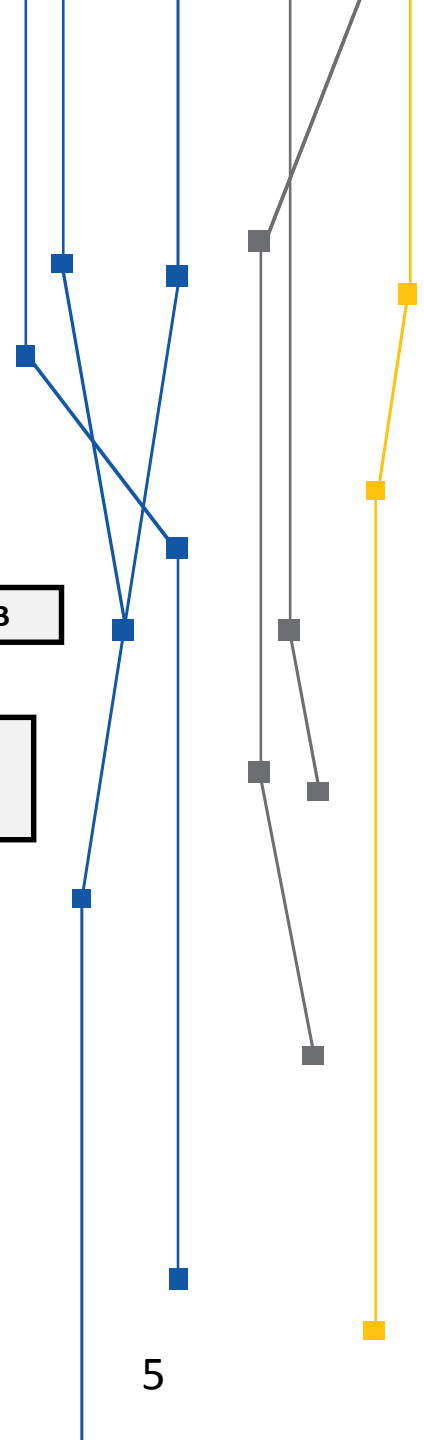
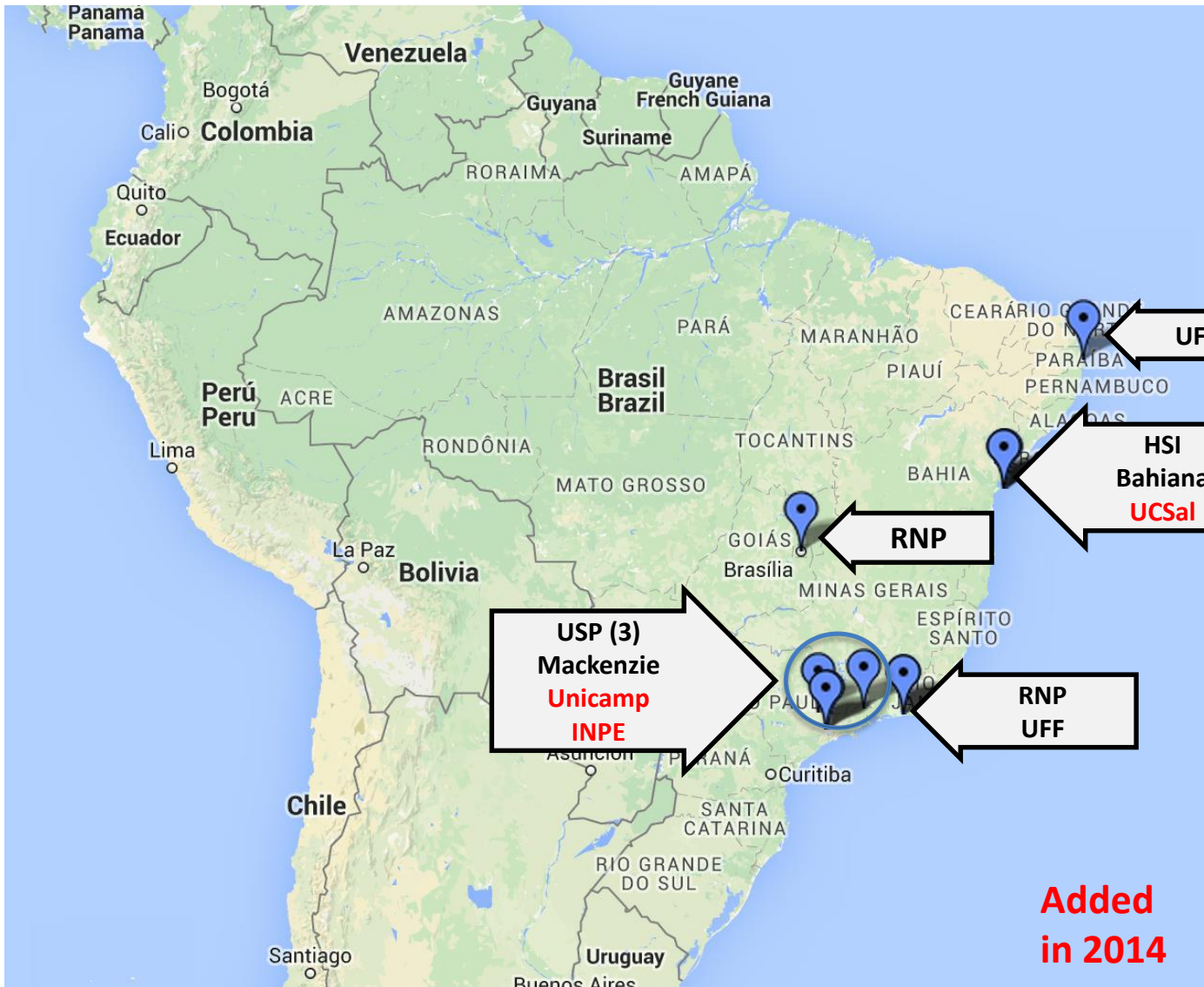


Brazilian SAGE Community

- Created around a RNP (Brazilian NREN) project to foster advanced visualization capabilities in Brazilian institutions
 - One institution selected for prototype development
 - SAGE 'Kit' specification
 - Creating Local Technical Expertise for supporting other institutions
 - SAGE Kits deployment at several institutions for testing with different use cases
 - First kits were deployed at pairs of institutions that already collaborated without SAGE walls, to foster collaborative usage.
 - Dissemination: Kit shown at National & International Conferences held in Brazil
 - Both conferences targeted Research Community and university CIOs
 - Support:
 - Documentation in Portuguese
 - Support through VideoConference/WebConference and SAGE itself



Brazilian SAGE Locations



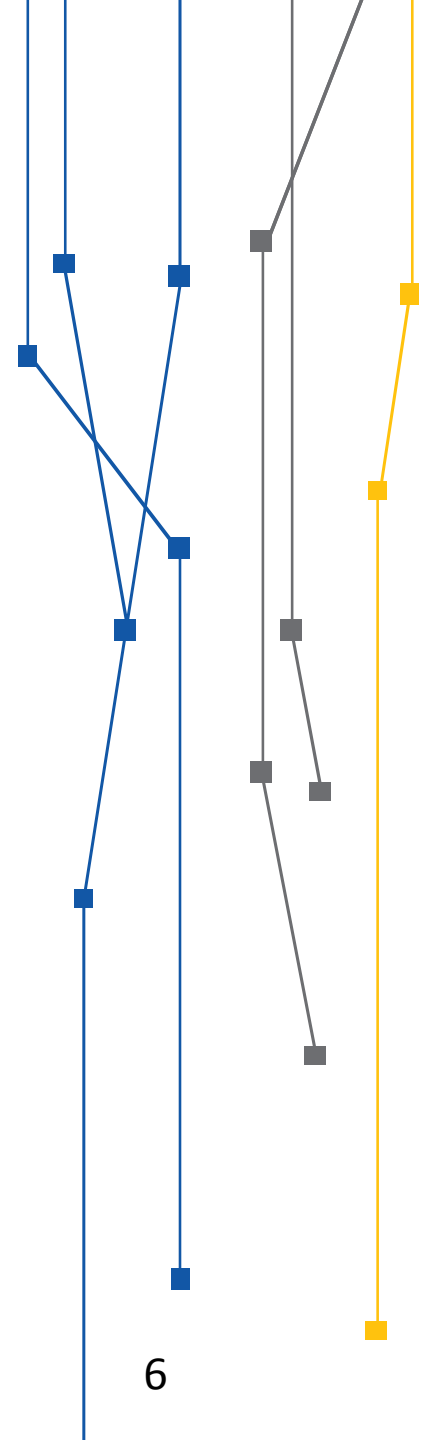
Some Milestones

- **2011**

- Advanced Visualization RNP Project started in 2011
- LARC Laboratory at USP (U of São Paulo) selected for developing the prototype
- 1st Local demo at GLIF 2011 (Rio de Janeiro, Brazil)

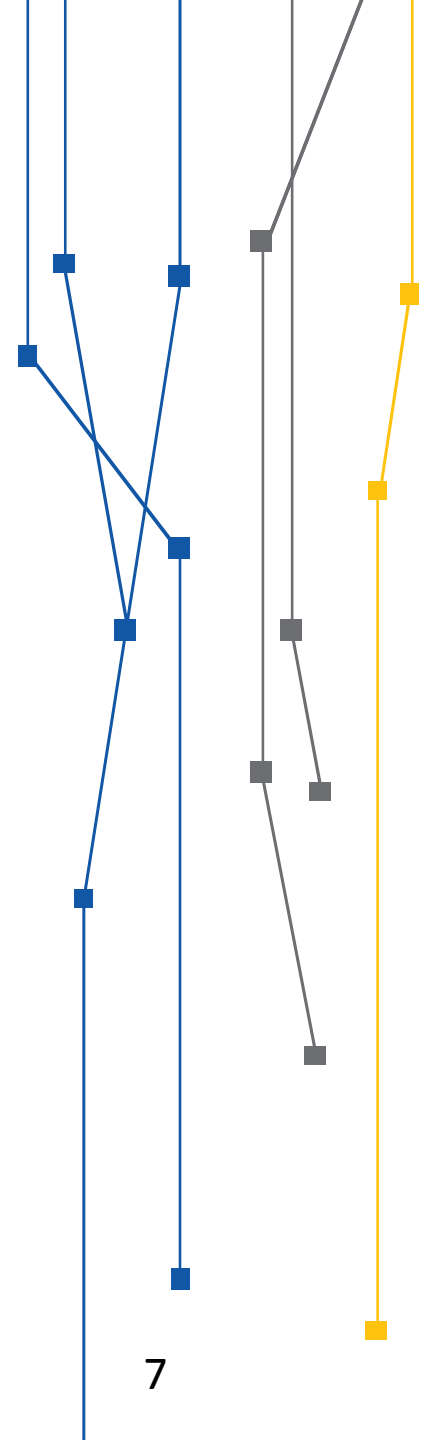
- **2012**

- 1st Call for Users: deployment of SAGE Kits to pairs of Institutions for collaborative use cases:
 - **Remote Simulation**
 - **4K Video**
 - **TeleMedicine**
- Collaborative demos at RNP Workshop and RNP Forum (with remote participation by EVL/UIC)



Some Milestones

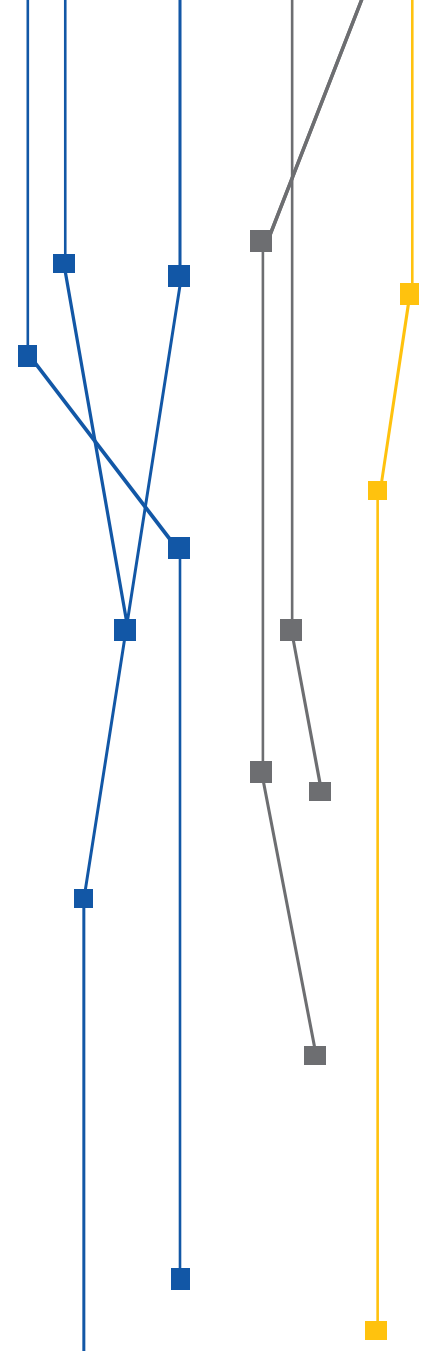
- **2013**
 - Support and evaluation of Use Cases at 2012 Institutions
 - Deployment of new portals at USP and RNP
 - Colaborative demo at RNP Workshop
 - 1st Brazilian Community meeting (with remote presentation by EVL/UIC)
- **2014**
 - 2nd Call for Users
 - 3 institutions selected. Use Cases: Weather Forecasting, Cinema, Geoprocessing
 - 2nd Brazilian Community meeting



SAGE sites (1)

University of São Paulo (USP) – LARC

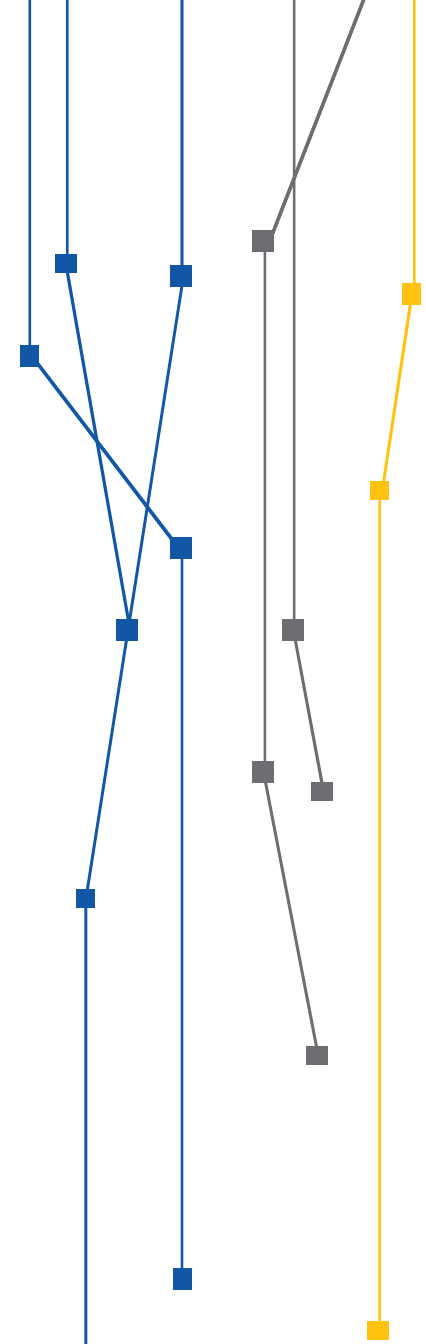
- Laboratory of Computer Architecture and Networks
- 4K Visualization, Development and Demonstrations



SAGE sites (2)

University of São Paulo (USP) – LASSU

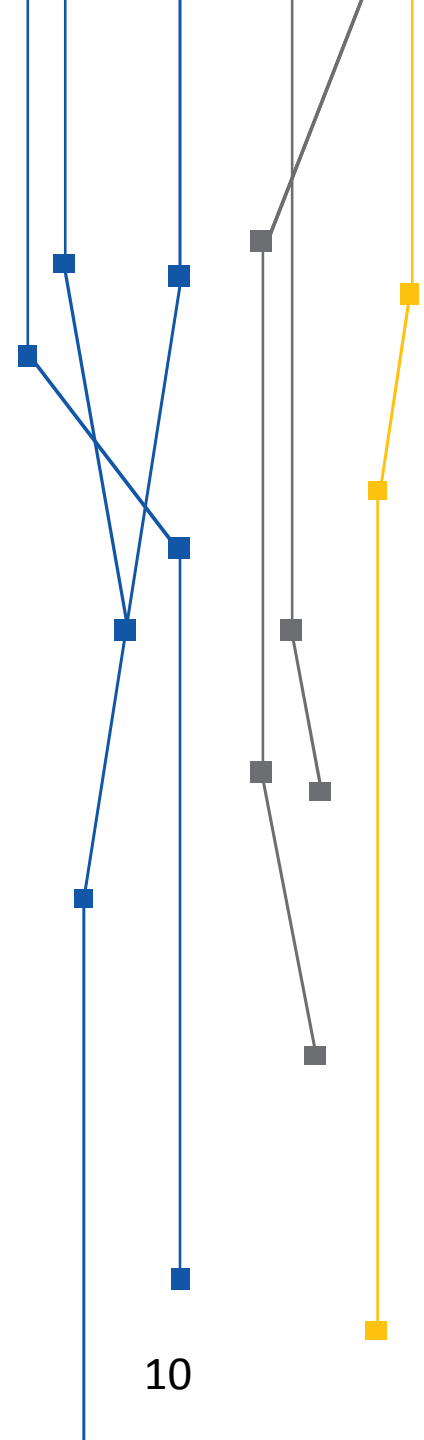
- Laboratory of ICT Sustainability
- Classroom



SAGE sites (3)

University of Sao Paulo (USP) – LASSU

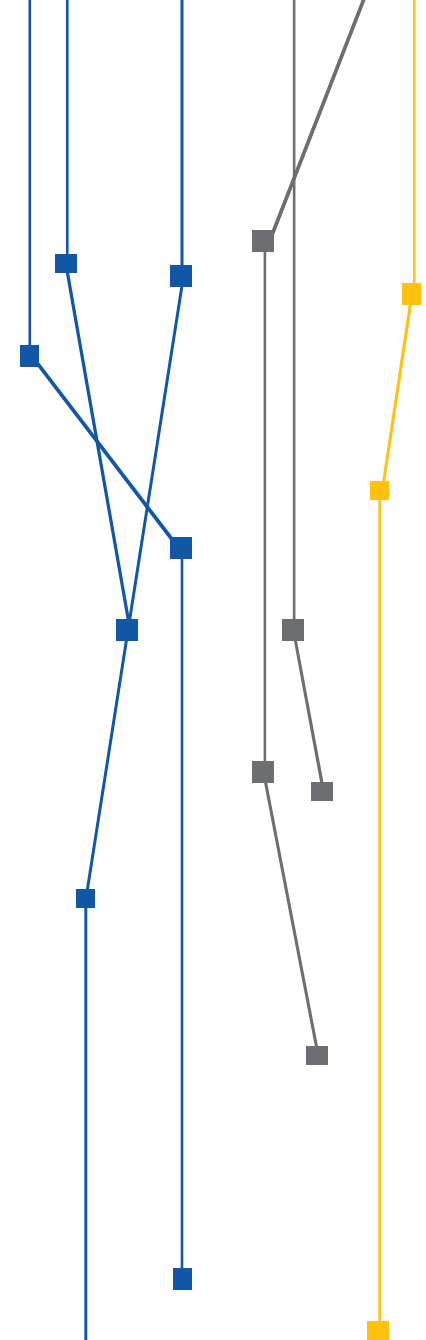
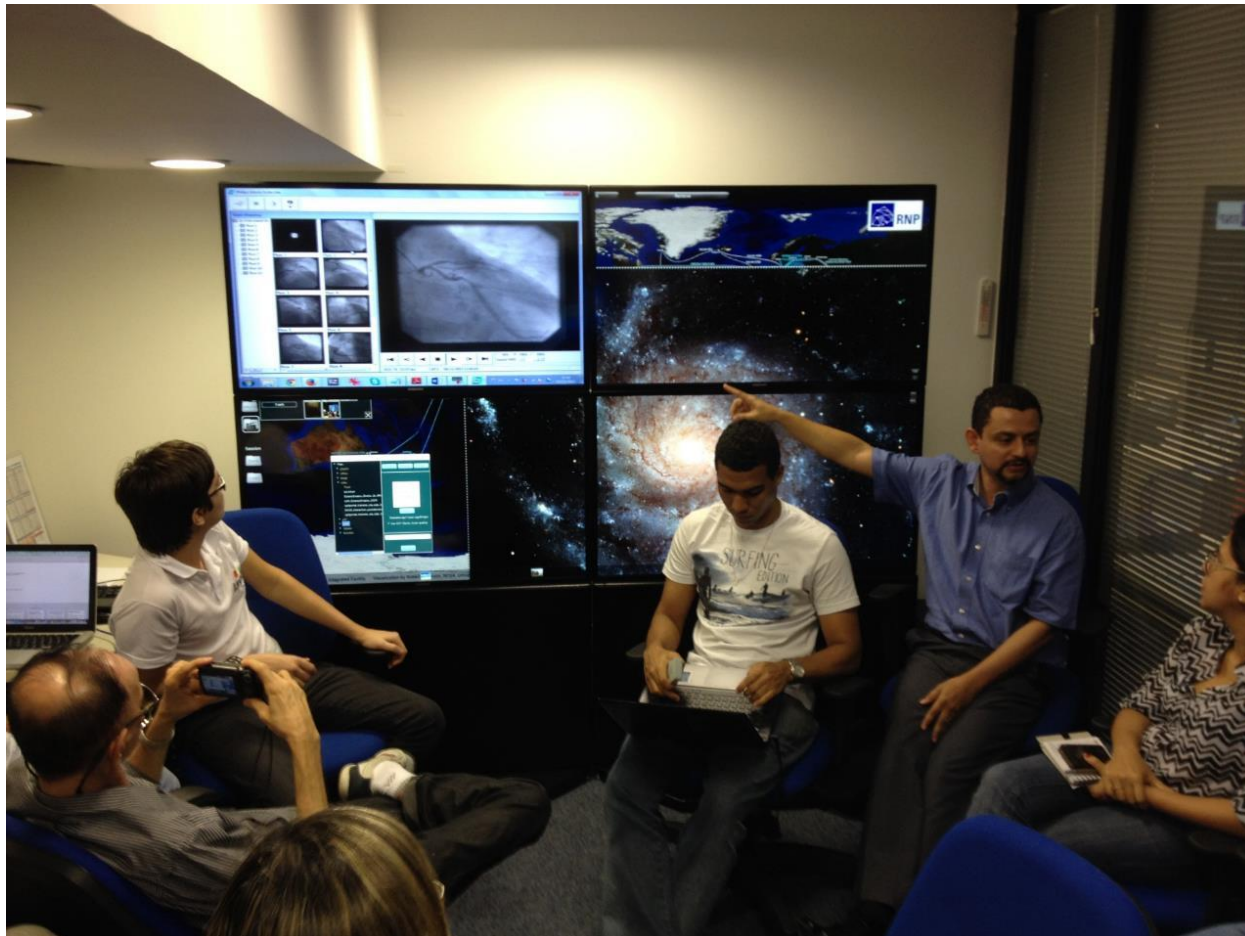
- Laboratory of ICT Sustainability
- Multimedia Conference Room



SAGE sites (4)

RNP – Rio de Janeiro

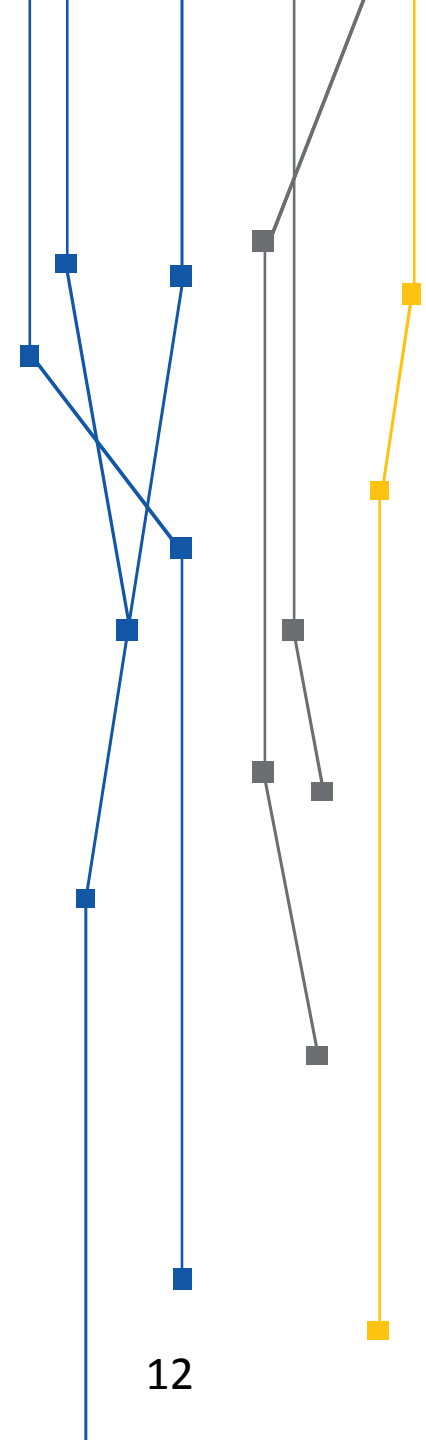
- Brazilian NREN headquarters
- Divulagation and demonstrations



SAGE sites (5)

RNP – Brasilia

- Brazilian NREN branch in federal capital
- Divulagation and demonstrations



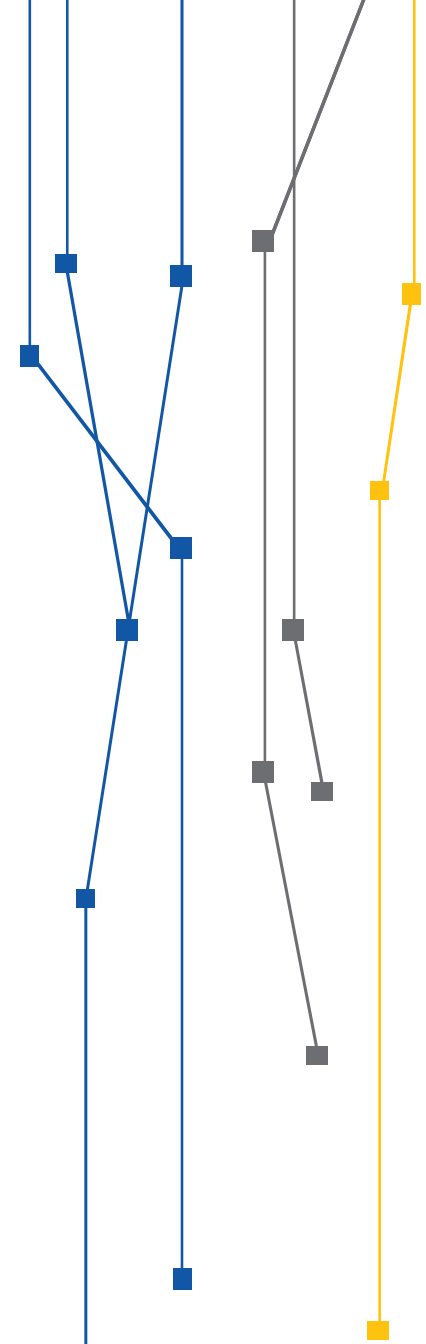
SAGE sites (6)

Fluminense Federal University (Niterói, RJ)

- Games and Simulations Visualization



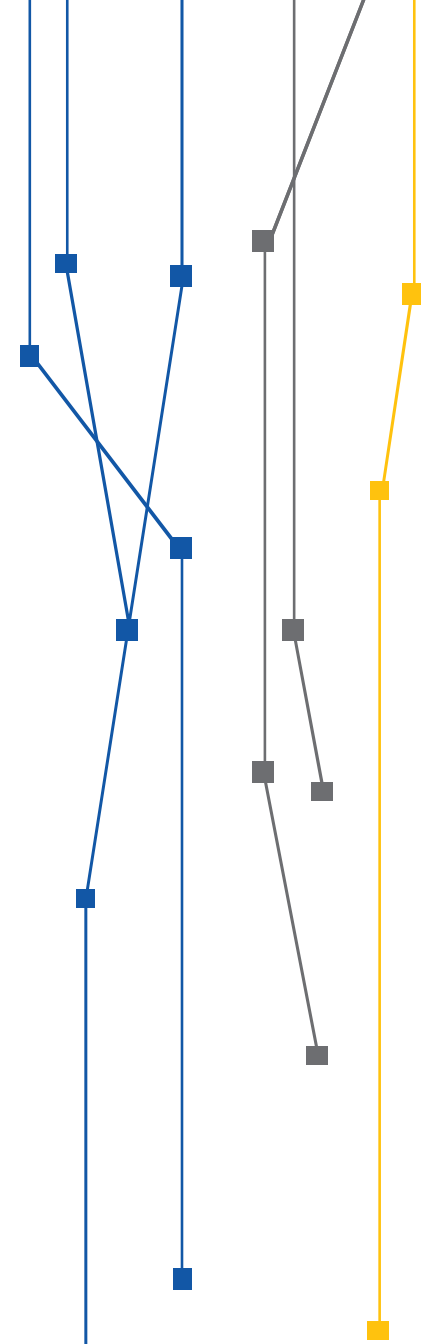
Display wall installed in a classroom



SAGE sites (7)

Mackenzie University – LabCine (São Paulo)

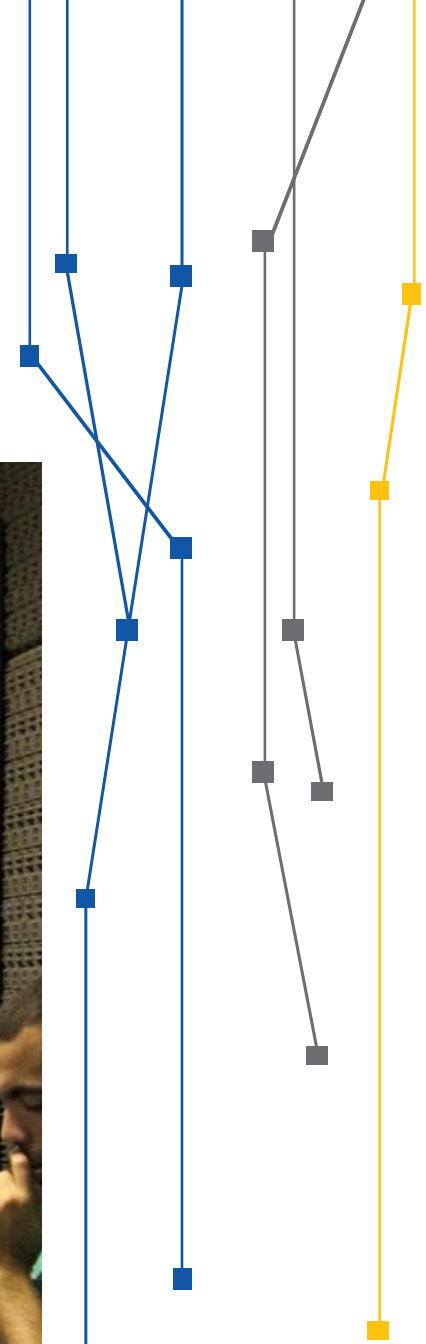
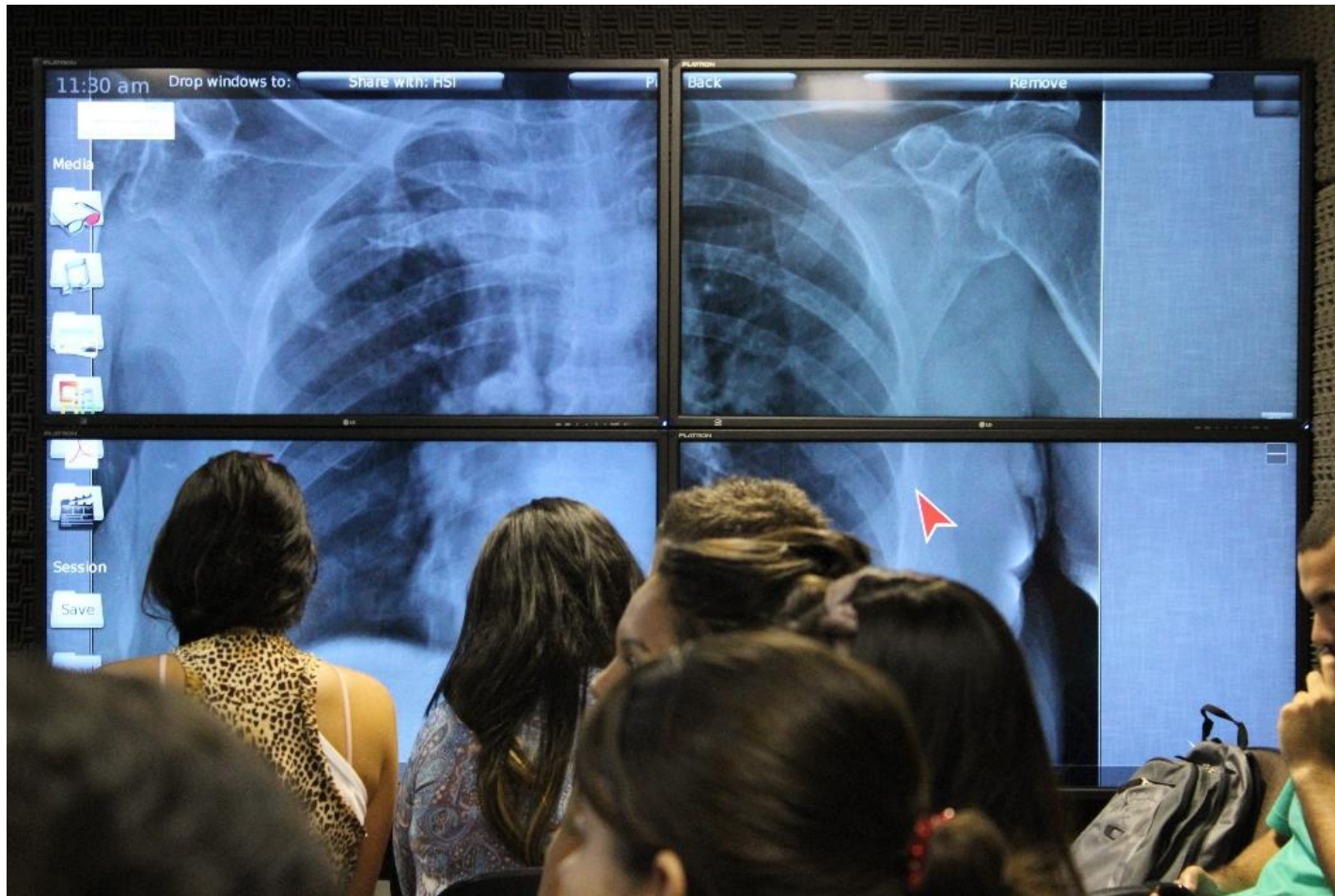
- Cinema and visual arts



SAGE sites (8)

Bahiana School of Medicine and Public Health (Salvador, BA)

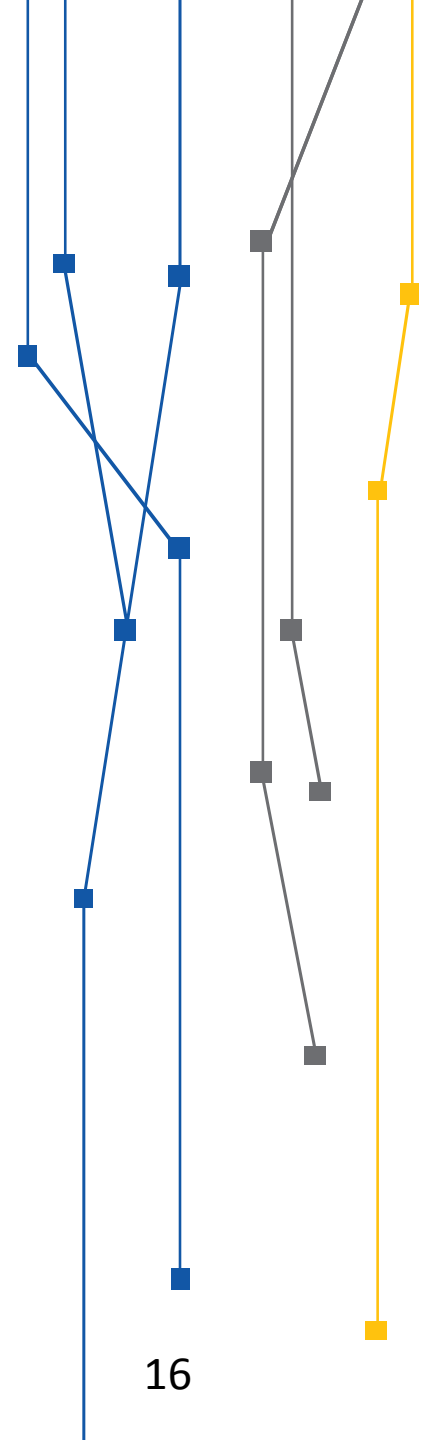
- Telemedicine / medical education



SAGE sites (9)

Santa Izabel Hospital (Salvador, BA)

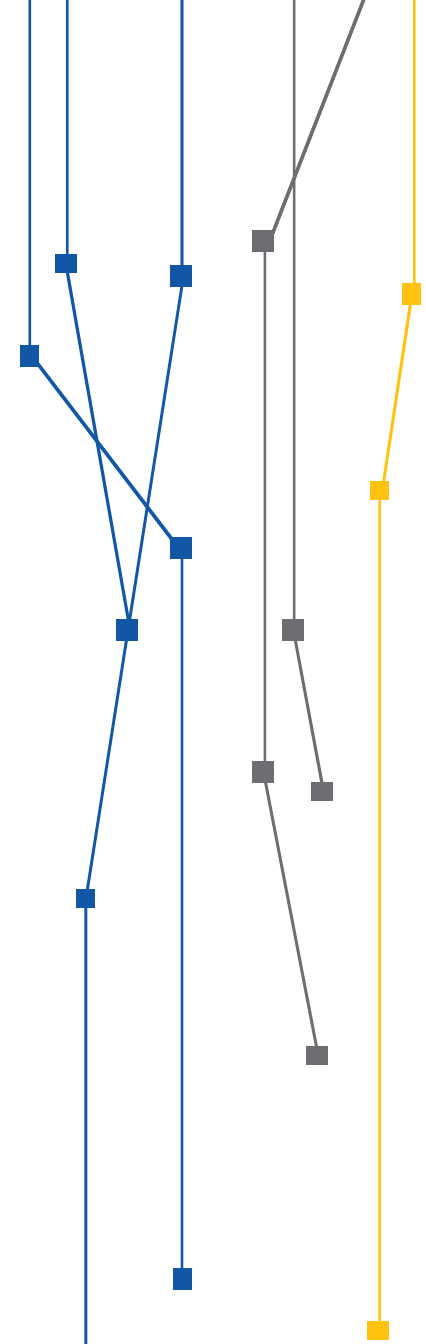
- Telemedicine / medical education



SAGE sites (10)

Federal University of Paraíba – UFPB (João Pessoa, PB)

- Video applications (including 4K)
- Telemedicine



Institutions Under Deployment

Institution		Usage	Wall
Unicamp	Campinas State University	Cinema	2 x 2
INPE	National Institute for Space Research	Weather forecast	2 x 2
UCSAL	Salvador Catholic University	Geoprocessing	4 x 2

- **2015**
 - Upgrade all sites to SAGE2
 - Demonstration in a booth at Brazilian Computer Network Symposium (SBRC) 2015

2014 demo at SBRC



Sage2 Videos from EVL/UIC

1. PR - music - no text titles

0.35 minutes, 24.6 MB, SAGE2 Trailer - Short - Happy.mp4

<https://uofi.box.com/s/2766tnxqcq3gbztivt0aysxbht9r0vw6>

2. PR - music - with text titles that explain what is shown

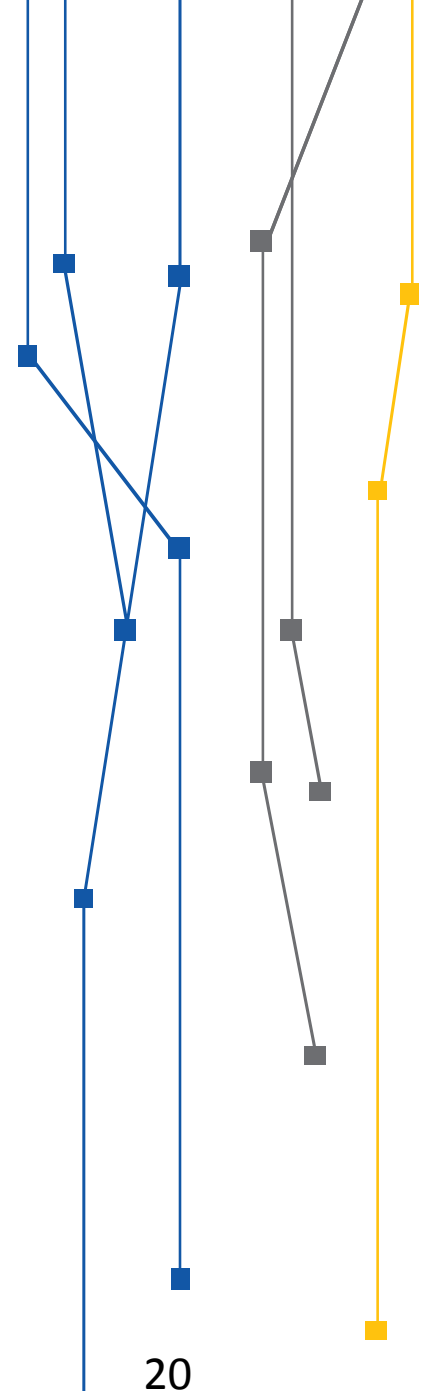
1.23 minutes, 50.4 MB, SAGE2 Trailer - Long - Happy.mp4

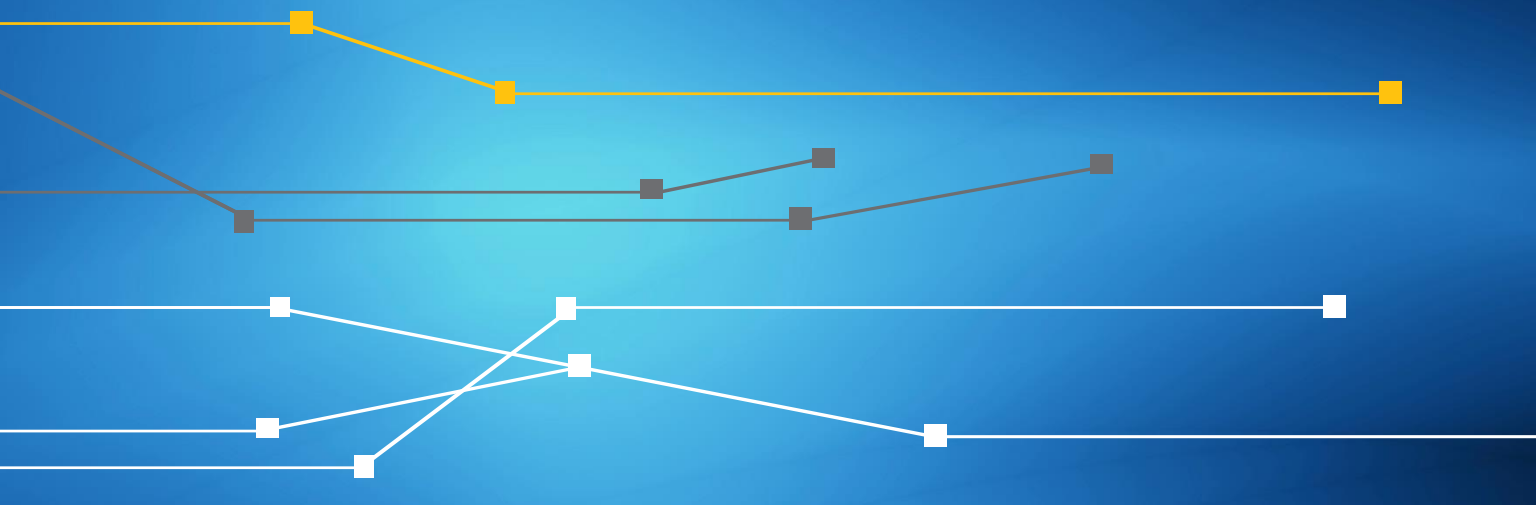
<https://uofi.box.com/s/0737ys8pxfp1xoau84l1kt1xuxemtqj2>

3. voice-over; more educational

2.33 minutes, 2.3 GB, SAGE2-9-DRAFT-021315.mov

<https://uofi.box.com/s/9poqik4u6gpx2mhis75wsrj4bcks0g>





Thank you!
michael@rnp.br

For more information:
www.sagecommons.org



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