Science Cafés in the Internet Era

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History

Science café

- from our community to a national and international level

Community needs

- collected via the local and international network

Science café and internet

- experiments, evaluation of some results

Science cafés

Science cafès have been invented in the '90s by Duncan Dallas, a journalist who worked in conveying popular science by television. He was tired of this non-participatory mode and wanted (to use his words) to bring science out of the "academia" and inside life.
Dallas, D.. "The café scientifique".

D. Dallas, Nature, 399, 120. doi: 10.1038/20118 (1999)

Science cafés

Science cafes were born as a reaction against popularization of science: one-way stream of information, hierarchical disposition (experts leading the discussion), intimidating location (conferences, TV..)

The ingredients of a Science Café are:

- In a place where normal people are at home: a pub, a café, a public place.

- Experts should present themselves and the topic of discussion in a quick way (15 minutes)

- The discussion is driven by questions from the attendees.
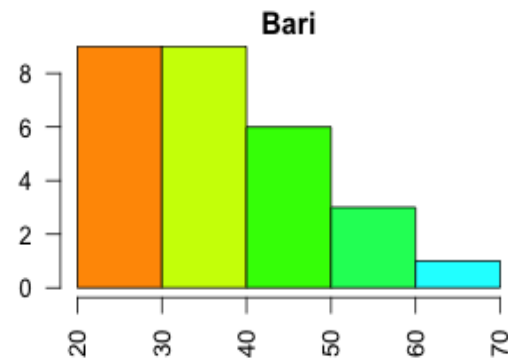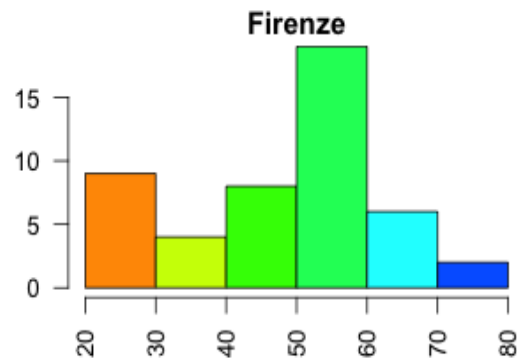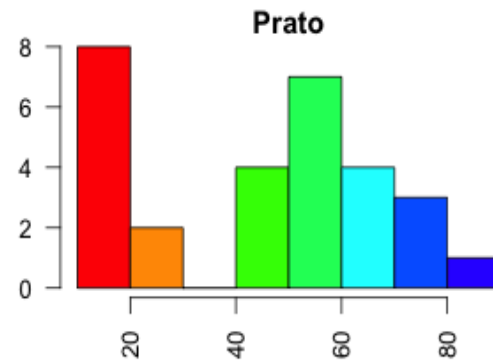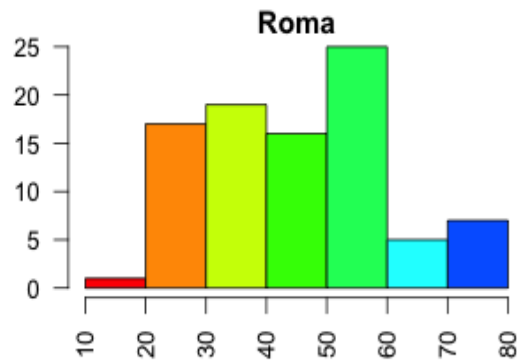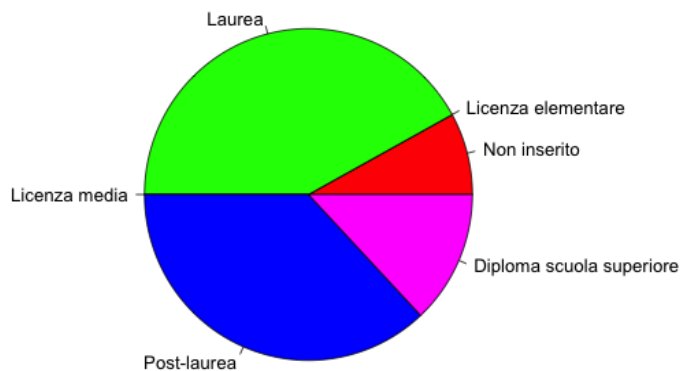
- There is a moderator

Science cafés
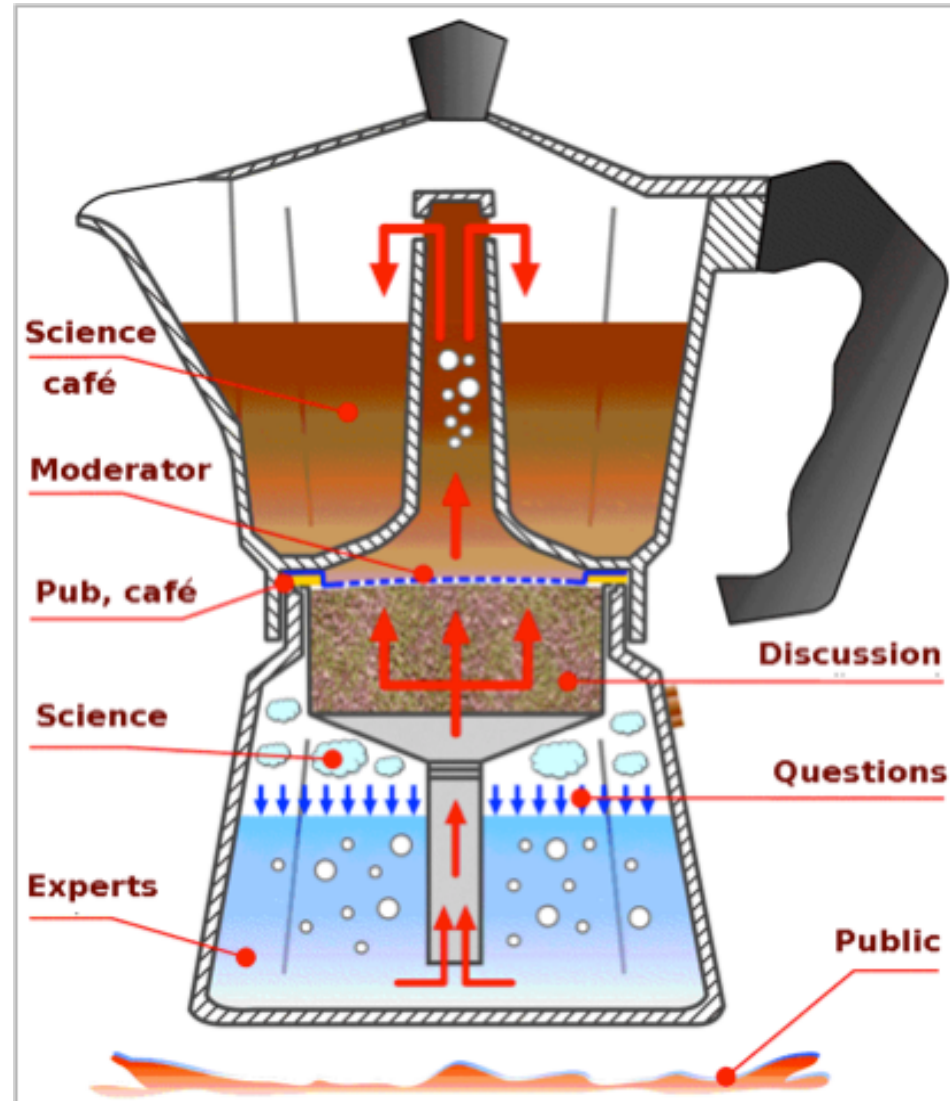
Italian public of Science cafés

	Men	Women	Undisclosed
Roma	50	44	6
Bari	6	25	0
Florence	37	17	0
Prato	12	19	4

Age

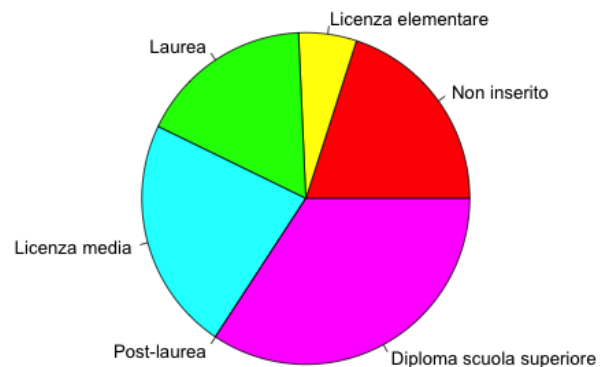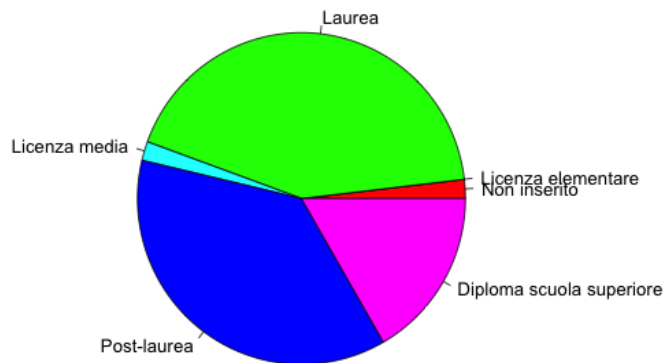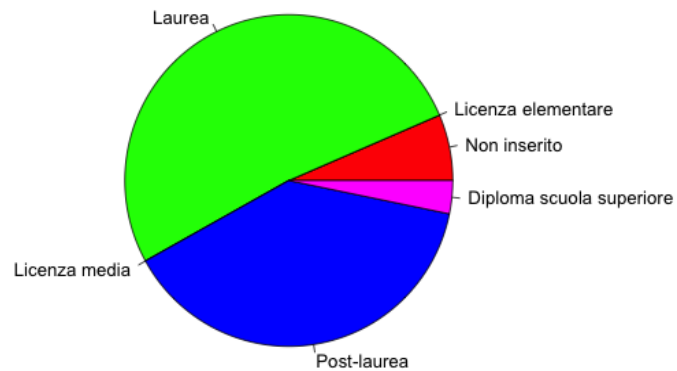# Italian public of Science cafés

Education

Italian public of Science cafés

public	Percentage of respondents indicate that the most important characteristics of speakers and panelists is their **in-depth knowledge of the discipline**
Roma	60.0%
Bari	19.4%
Firenze	74.1%
Prato	68.6%
public	Percentage of respondents indicate that the most important characteristics of speakers and panelists is their **capacity to listen to the public**
Rome	23.0%
Bari	58.1%
Firenze	20.4%
Prato	17.1%

Community needs

We had a series of needs collected:

- How to keep **growing the audience** still keeping the management on a voluntary basis;

- How to **favour the debate** even for **distant participants**; who can't for geographically or healthy reasons, attend to the event in presence

- **Allow people to exploit the "collective intelligence"** produced during a debate also after its conclusion,

Science café Scenarios

The original (British) formula of science cafés, does not make use of any technological support, not even a microphone.

However, this approach severely limits the number of attendees, and, therefore, the benefits (people reached) versus cost (effort spent by organizers and speakers) ratio.

There are several "scenarios" of science cafes, explored, also during the SciCafe and Scicafe 2.0 EU projects.

Science cafés towards Internet

- Standard Science cafés with various flavors

- Internet streaming with distant participation of public (by chat) and/or of experts (skype/google hangout)

- Completely virtual science cafes (few experiences)
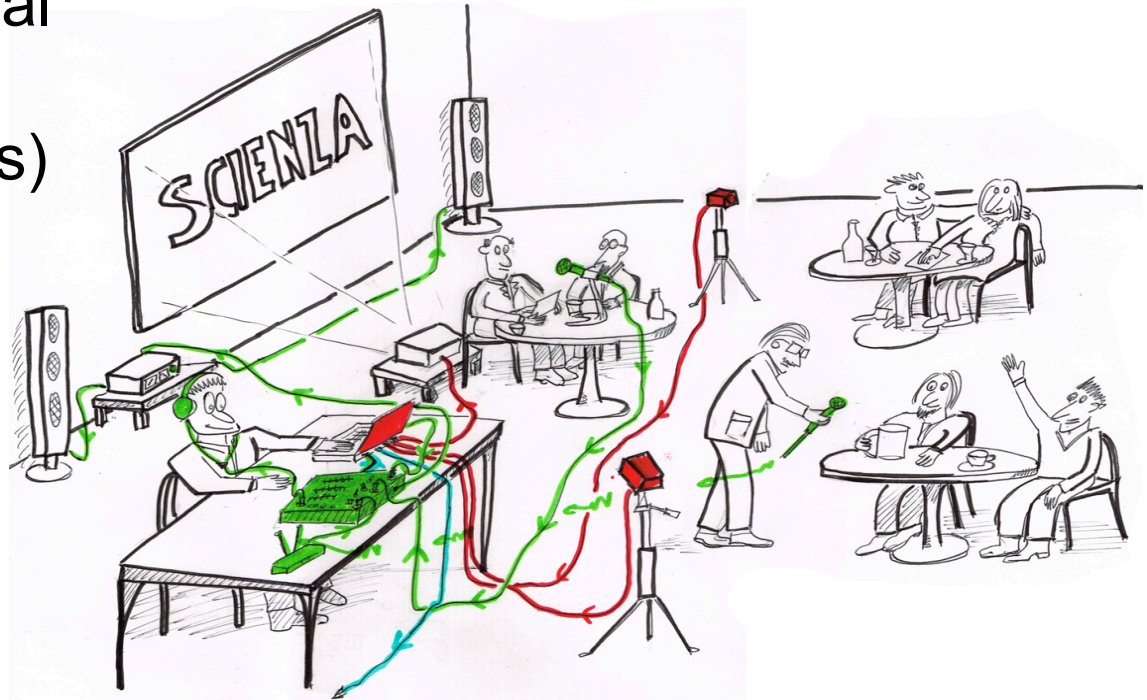
The Internet challenge
(for science cafés)

- Group dimension
- Non verbal communication
- Context perception
- Chat interaction

Human scales

$\simeq 5$

The smallest unit is the chat one: two to four/five people. Everybody interacts in such a group. This is where new ideas are born.

$\simeq 15$

The following size is the small group: five to twelve, fifteen people. This is the typical action unit (in work and military organizations, for instance). The small group is quite dynamic: it oscillates among several configurations (all listening or attacking one, fractioned in many chat units, etc.). This is where new ideas are tested
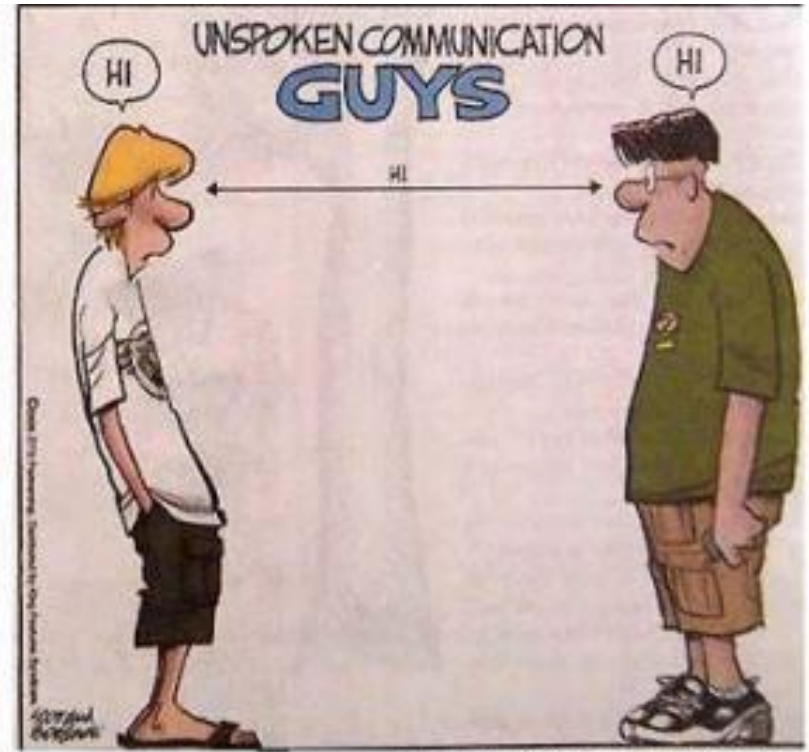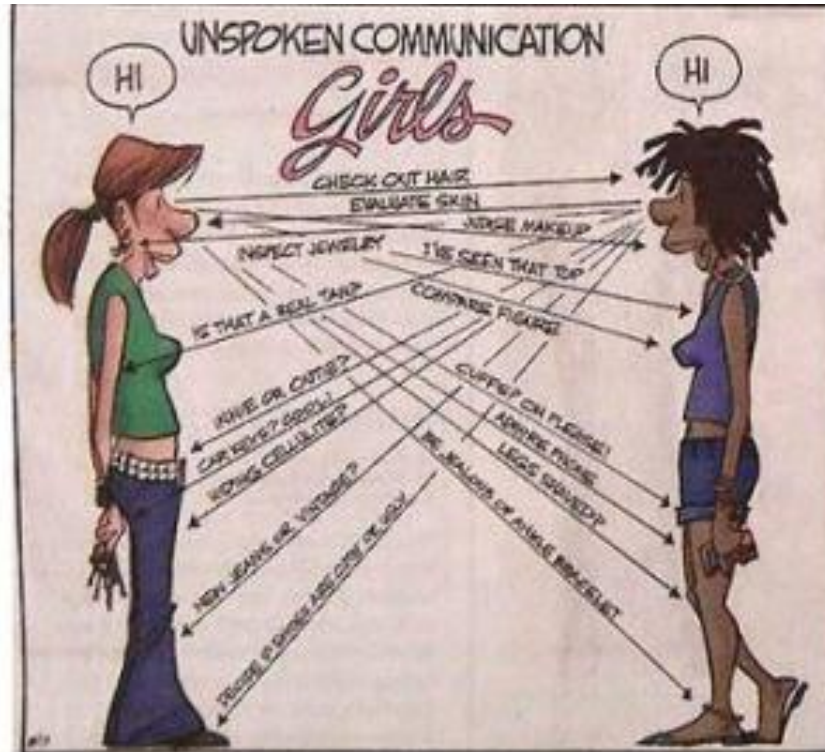
$\simeq 150$ | 150 |

The Dumbar number (150), corresponding to the typical neolitic village size. This is the largest unit in which individuals are still recognizable

The crowd. People feel the crowd as an individual, powerful and intimidating subject.

Nonverbal communication, feedback and context perception
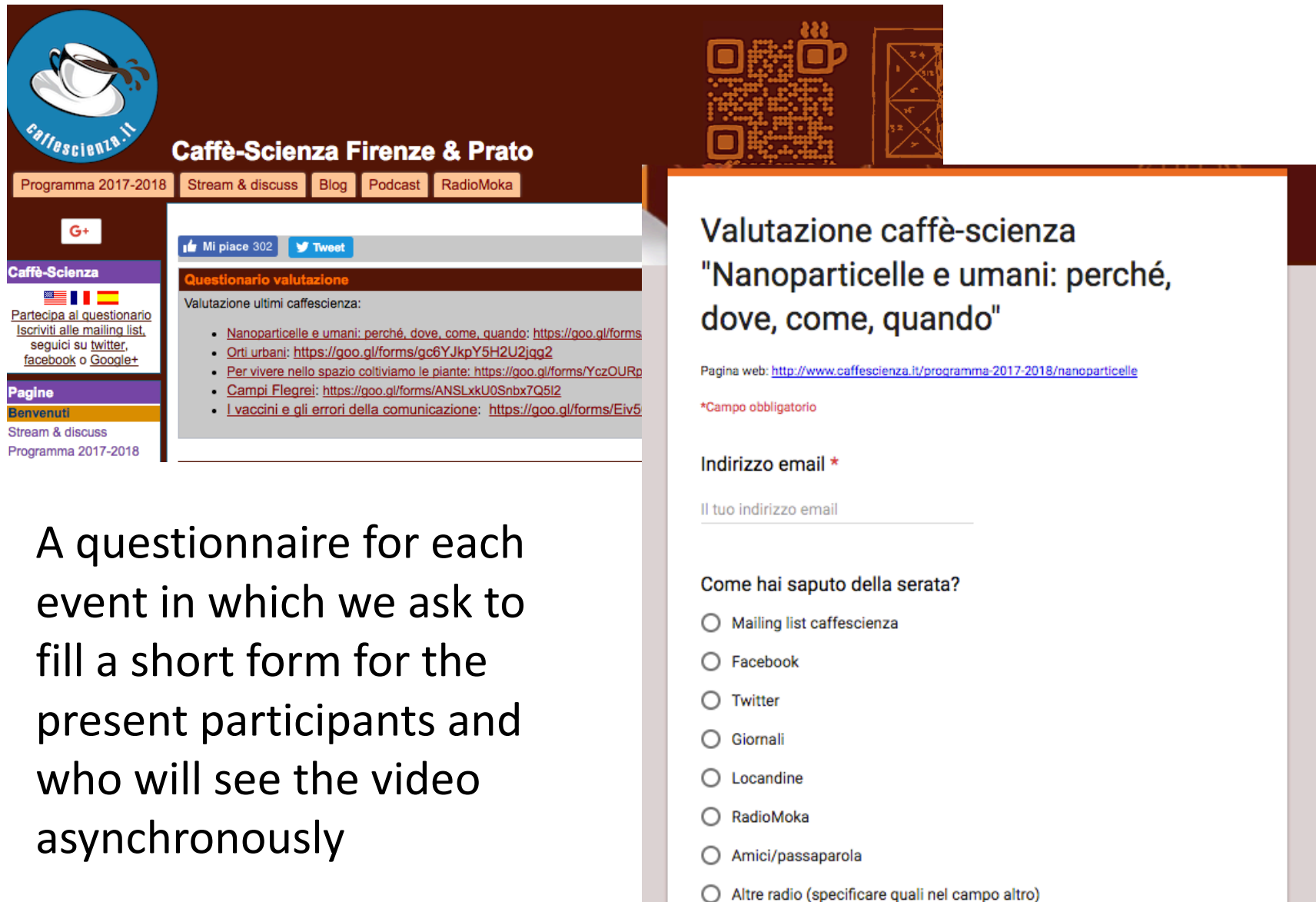

Zits by Jerry Scott and Jim Borgman

Experiments about distant participation

- Streaming (via Google Hangout – minimal requirement)
- Interaction via standard YouTube chat
- Custom threaded chat
- Instant pools (easy, but are they good?)
- Multiple chat rooms?
- Pictures/avatars of distant partecipants?
- Wall/post of ideas?

Evaluation

A questionnaire for each event in which we ask to fill a short form for the present participants and who will see the video asynchronously

Results

All our YouTube streaming events are collected in our YouTubeChannel.

Area geografica	Tempo di visualizzazione (minuti)*	Visualizzazioni ↓
Italia	423.248 (89%)	53.344 (89%)
Spagna	15.617 (3,3%)	1.975 (3,3%)
Germania	5.014 (1,1%)	688 (1,1%)
Svizzera	5.987 (1,3%)	615 (1,0%)
Regno Unito	3.320 (0,7%)	447 (0,7%)
Stati Uniti	2.502 (0,5%)	393 (0,7%)
Francia	1.983 (0,4%)	308 (0,5%)
Brasile	1.416 (0,3%)	252 (0,4%)
Messico	841 (0,2%)	141 (0,2%)
Belgio	766 (0,2%)	128 (0,2%)
Paesi Bassi	582 (0,1%)	113 (0,2%)
Austria	1.493 (0,3%)	110 (0,2%)
Romania	432 (0,1%)	85 (0,1%)
Grecia	815 (0,2%)	84 (0,1%)
Polonia	454 (0,1%)	74 (0,1%)
Canada	1.121 (0,2%)	72 (0,1%)

Results

An example of an event that continues to be seen 3 years after streaming: the dangerous relationships between galaxies and black holes

Caffè-Scienza Firenze ›

Le relazioni pericolose tra galassie e buchi neri

Data creazione: 02/gen/2014 · Durata: 1:43:23 · Impostazione privacy: Pubblico

VIDEO

Intera durata (02/gen/2014 - 21/nov/2017)
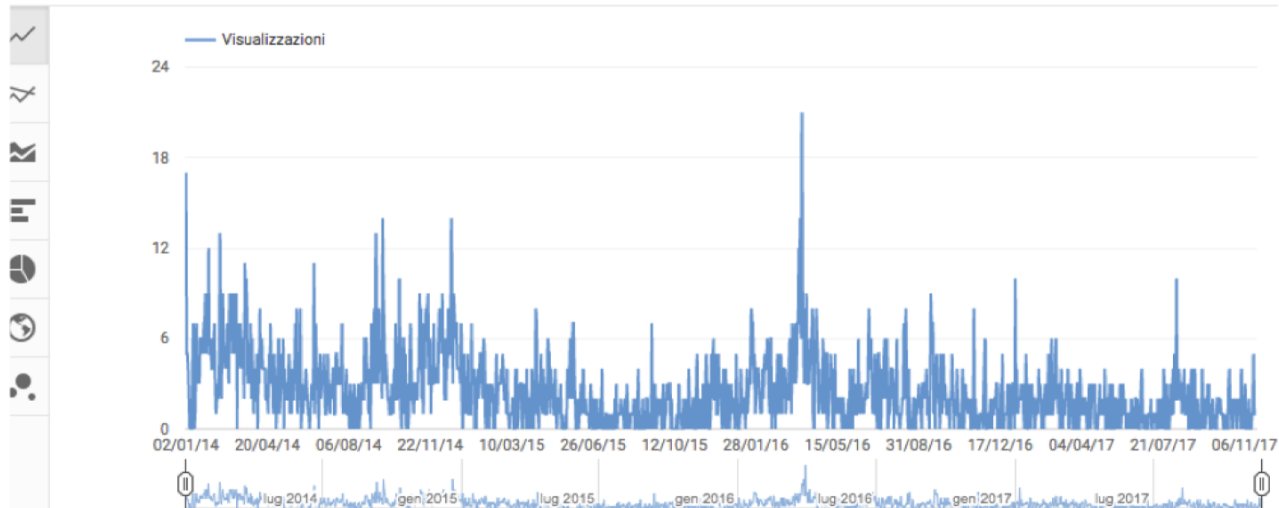
TEMPO DI VISUALIZZAZIONE (MINUTI)
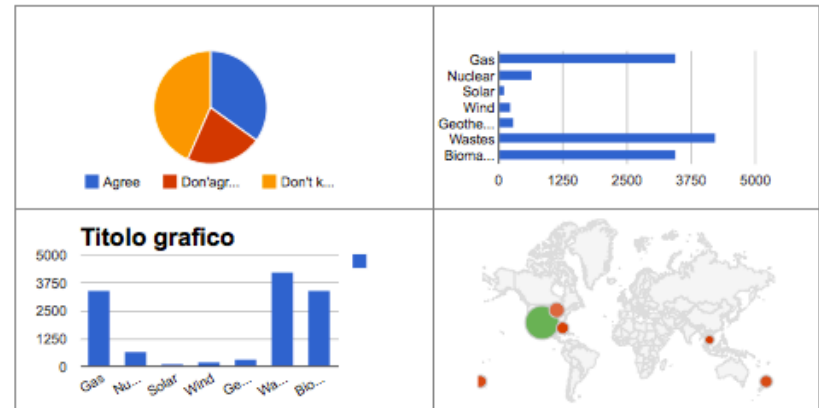51.385

VISUALIZZAZIONI
3.542

Confronta metrica ▾   Giornaliera ▾   ☐ Mostra crescita ⊘

Future scenarios (to be tested)

A possible scicafe2.0 interface