



Astronomy and the Media: A love story?

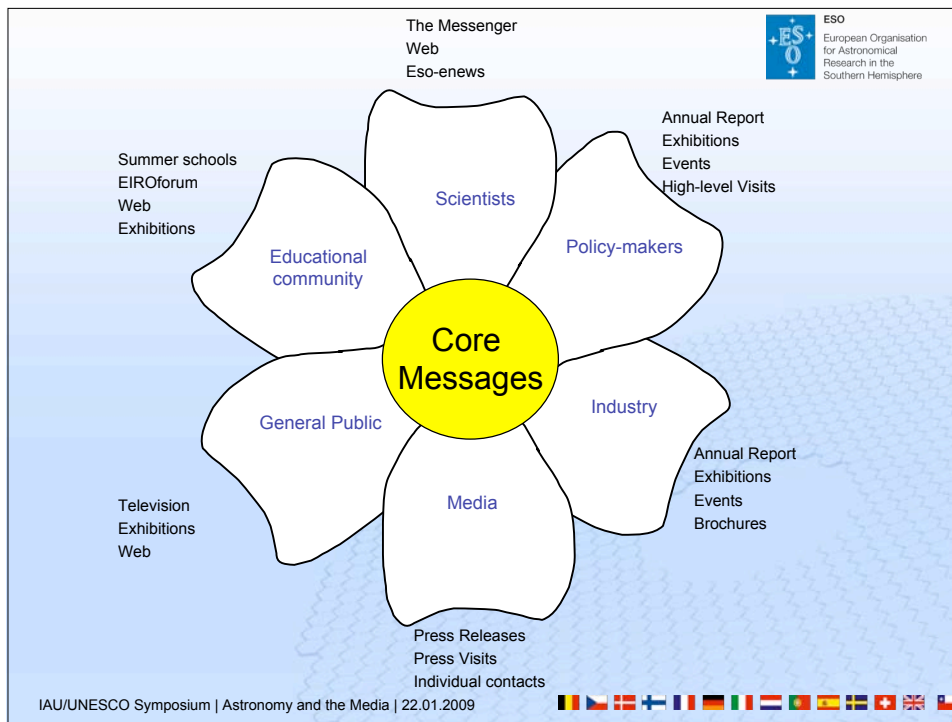
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Why communicate?



- Accountability to the public (tax payers) and policy-makers
- New projects!
The 1-2% spent on outreach is what will give us the 98% to build the telescope
Prof. Gilmore, 2008
- Local community (Chile) – good relations
- Astronomy - among all other sciences
- Support government strategy on recruiting the next generation of scientists and engineers
- EU dimension

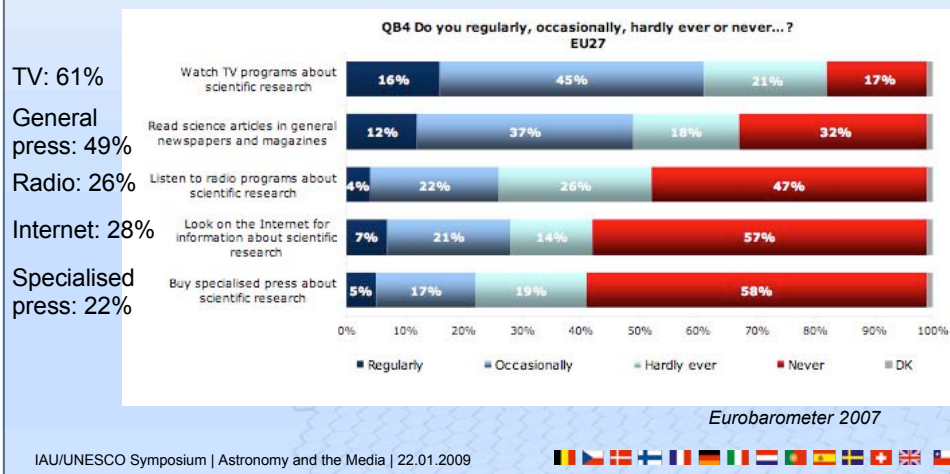


Why We Need the Media

- With limited resources, we need **amplifying outlets** to reach a significant fraction of the targeted audience
- Impossible for us to prepare **all types of desired communication** (material) with different emphasis and levels of complexity
- We do not possess the means to provide the material in all the different languages needed
- **Journalists know their public better than we could try to do!**

Why we need the media (II)

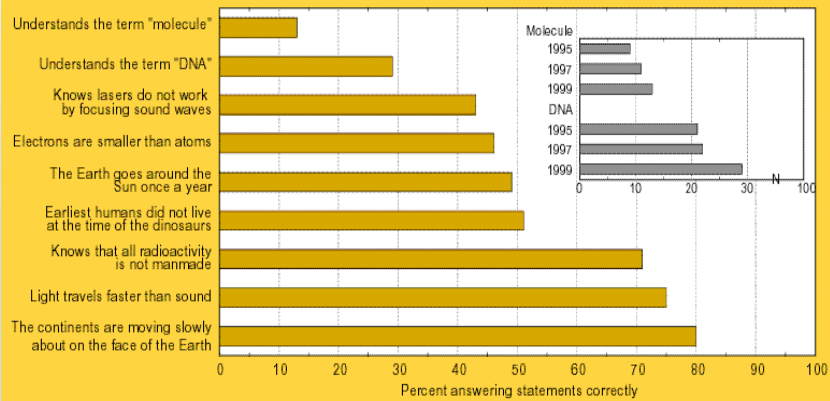
How do people get informed on science?



Raising Public Awareness

- The media play a very important role by raising **public awareness** about science and its results, but
- It is **doubtful** how much the media are really **able to teach** science to the wide public

Figure 8-4.
Public understanding of scientific terms and concepts: 1999



Raising Public Awareness

- The media play a very important role by raising **public awareness** about science and its results, but
- It is **doubtful** how much the media are really **able to teach** science to the wide public
- The scientists must set realistic goals when interacting with the media and the public
- Other activities are required to **transform the curiosity into knowledge**: internet, public events, science centres, ...

Astronomy



Potentially good for media:

- Nice images, wonderful superlative-loaded stories
- Link with science fiction
- Everyone is born astronomer
- Plethora of astronomy magazine demonstrates interest of people
- Huge community of amateur astronomers
- Planetariums in most cities

Astronomy in the media

A love affair? Yes at first sight

- New York Times online science section has two specific subsections: environment and space&cosmos!
- New Scientist has specific Space section
- BBC Sky at Night : largest running television series (since 1957!)

Astronomy
does sell!

A Time cover
every 5 years
or so.

Does not look
too bad



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Biology: 4 covers



Chemistry: 9 covers
(mostly before 1965!)



History: 24 covers



Environment:
60 covers



Medicine:
248 covers

↑
31 times
more than
astronomy!

ESO
European Organisation
for Astronomical
Research in the
Southern Hemisphere

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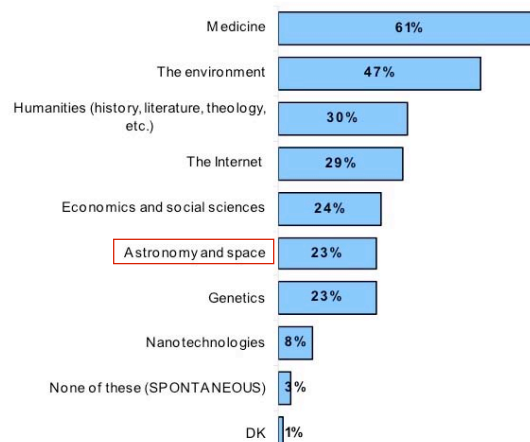


Time stories

• Astronomy	598 articles	(179 long)
• Astrology	208	78
• Archeology	1031	236
• Biology	1503	568
• Physics	2290	730
• Chemistry	2240	802
• Environment	7764	3161
• Medicine	11814	3169

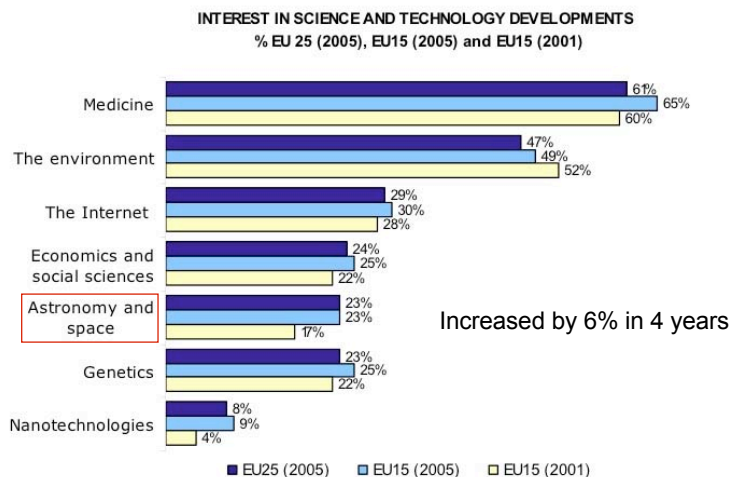
20 times
Astronomy!

IF VERY OR MODERATELY INTERESTED IN 'NEW INVENTIONS AND TECHNOLOGIES' OR 'SCIENTIFIC DISCOVERIES':
Which science and technology developments are you most interested in? % EU 25



Eurobarometer 2005

Interest



The Choice of Themes

- Different themes have different chances of being taken over by journalists
- Science stories should be (Stein 2000)
 - On the leading edge of research
 - Involve real people
 - Intersection of science and public policy
 - Include allegation of malfeasance
- Most likely to cause public impact are **well-known mysterious and catastrophic subjects**, e.g., dark matter, black holes, exoplanets and NEOs on collision course
- Or use a **superlative**: biggest, most distant, closest, brightest, ...
- Nearly impossible to publish negative results – although they may be scientifically very valid, they do not appear conclusive (enough) to the public

Titles in press releases



Some examples from astronomical press releases distributed by AAS in September and in November 2008

- **Closest** Look Ever at the Edge of A Black Hole
- Analysis Begins on Phoenix Lander's **Deepest** Soil Sample
- **First** Picture of **Likely** Planet Around Sun-Like Star
- **Most** Dark Matter-Dominated Galaxy in Universe
- The **Deepest** Ultraviolet Image of The Universe Yet
- Gemini Releases **Historic Discovery** image of Planetary "First Family"
- Gamma-Ray Burst was **Aimed** Squarely **at Earth**

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PR Subjects



Astronomical Press releases distributed by AAS
in September and November 2008 (total=144)

– Solar System	52	
– New Facilities	15	
– Exoplanets	12	
– Awards, fellowships, contests	10	
– Stars, supernovae	10	
– Black holes	9	
– Press photos	6	NASA (or related): 61
– Galaxies	4	ESA: 17
– Dark matter	2	ESO: 15
– Cosmology	2	

80 PRs distributed on AAS list/month

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PR Subjects



Astronomical Press releases distributed by Alphagalileo from 20 November 2008 till 20 January 2009

(total=40 out of 400 Science PRs: 10%)

- Solar System	8
- Exoplanets	7
- Stars, supernovae	5
- Cosmology	3
- Awards, fellowships, contests	3
- Press photos	3
- Galaxies	3
- Black holes	2
- History	2
- New Facilities	1
- Others	3

ESA: 8

(excluding Earth's related)

ESO: 8

STFC: 5

RAS (MNRAS): 3

A&A: 2

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PR Subjects



Press releases distributed by ESO over 5 years (from 2004 to 2008; total=228)

o Awards, organisation, contests	42
o New Facilities	30
o Press photos	43
o Scientific results	154

▪ Solar System	52
▪ Stars, supernovae	38
▪ Exoplanets	20
▪ Distant Universe	11
▪ Gamma-ray bursts	9
▪ Galaxies	9
▪ Black holes	7
▪ Milky Way	6
▪ Dark matter	2



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ESO



ESO Press Releases ~ 50/yr

- Science
- Press Photos
- Instrumentation/Telescopes
- Organisation

ESO telescopes lead to
between 650 and 750
refereed papers per year

→ For science: Drastic selection



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“Stars in the Media” (C. Madsen)



Spring 2001, astronomy and space science,
broadsheet papers in UK, F, D, E, S, DK

Main findings

- Choice of topics is influenced by national (cultural, political) aspects, but the *narrative* (story, rhetoric) is rather uniform
- The strong influence by scientific press releases is confirmed.
- Fundamental research is reported within a narrow scientific frame
 - Space coverage is driven by ‘events’ and focus largely on non-scientific issues and utilitarian aspects

Stars in the Media – Coverage of
Astronomy and Space Science in
the European Quality Print Media



Claus Madsen

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“Stars in the Media” (II)



Main findings

- In Germany, 67 % of articles describe US science (14 % German science)
- In Spain, 85 % of articles describe US science
- In Sweden, 71 % of articles describe US science
- In the UK, 8 % of articles describe US science, 77 % UK Science
- In France, 40% of articles describe F science, 25% US
- 'European science' is virtually absent



The Battle to Be Heard



- Articles on astrophysics/space currently occupy approx. 0.1% of leading European newspapers
- Astronomy and space research are divided ~50-50
- There is much more emphasis on health/environment
- Science is mostly presented in special sections that are accessed by a small audience
- More effort should be invested to show the role of fundamental research for societal development and general culture – this may also attract more interest

C. Madsen, 2001



Astronomy...

*is after all
humankind's
boldest attempt
to understand
the world in
which we live.*



Small survey science journalists

- how often would you run a story related to astronomy per month?

1	11%
2-3	37%
4-5	19%
More than 5	33%*

*(mostly online: "Space is infinite")

Small survey science journalists



- What are the topics most likely to be run?

(several answers possible)

None in particular	55%
Exoplanets	33%
Solar system	29%
Cosmology	15%
Stars and nebulae	11%
Galaxies	7%

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Small survey science journalists



- What is most important when selecting the story?

(several answers possible)

▪ subject	92%
▪ availability of a nice image or video	74%
▪ nationalities of the scientists involved	22%
▪ names and host institutions of the scientists involved	9%
▪ institution issuing the press release	0%

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Astronomy lives by images!



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Making images



Video News Releases

- Associated with important or dramatic PRs
- Use Computer Animations
- Make interviews of scientists
- Broadcast and web quality
- Distributed by web and tapes
- Distributed with Athenaweb, EBS



Small survey science journalists



- Do you find it difficult to run an astronomical story past the chief editor?

NO	80%
YES	20%

“But we don’t make it to the front page!”

“Astronomy is very favourably seen by Editor in Chief”

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Small survey science journalists



- Do you think astronomy has the place it deserves in the media?

YES	62%
NO	38%

“Deserves more but won’t get it”

“At least the breakthroughs are covered”

“Yes, compared to a lot of other science subjects”

“Sometimes I’d say that it is too much!”

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A love story?

A love story!?

- **Definitively!**



- Most journalists are keen to cover astronomy
- Most major breakthroughs are covered
- Astronomy gets more than its share in the media

Yearly presence



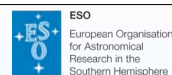
- For ESO, the yearly estimated readership in newspapers and magazines is tens of million people worldwide
- In 2007, ESO appeared in at least 100 TV news reports or documentaries, potentially reaching hundreds of millions of viewers
- Equivalent advertising value:
> 40 million Euros in a year...



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A love story!



- **Definitively!**
 - Most journalists are keen to cover a
 - Most major breakthroughs are covered
 - Astronomy gets more than its share
- **But...**
 - Astronomy should also be dealt outside of science pages, for its society and cultural aspects

IYA09 could help in reaching this!



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