



# Obstacles for following i18n best practices when developing content at INAF

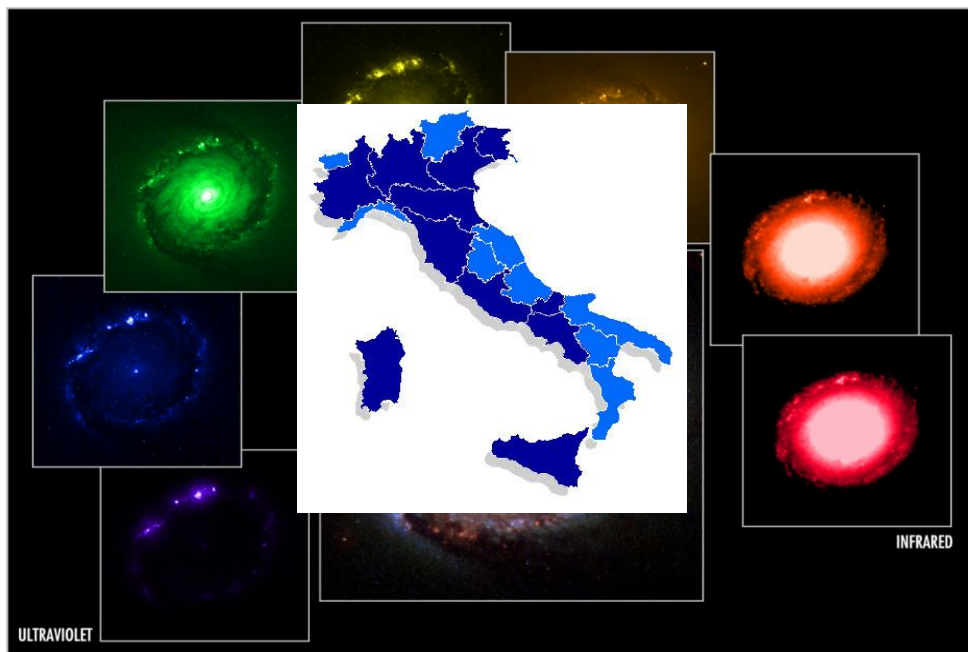
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W3C Workshop – Content on  
The Multilingual Web



## INAF: Who are we



INAF (National Institute for Astrophysics) – an Italian research institute (19 institutes in Italy + 2 main facilities (TNG in Spain and LBT in Arizona, USA))

**Mission: Scientific and technological research in astronomy and astrophysics through international projects designing and implementing infrastructure from earth (i.e. future projects E-ELT, SKA) to space (ESA GAIA).**



Dissemination results through web content

# Web content for astrophysics

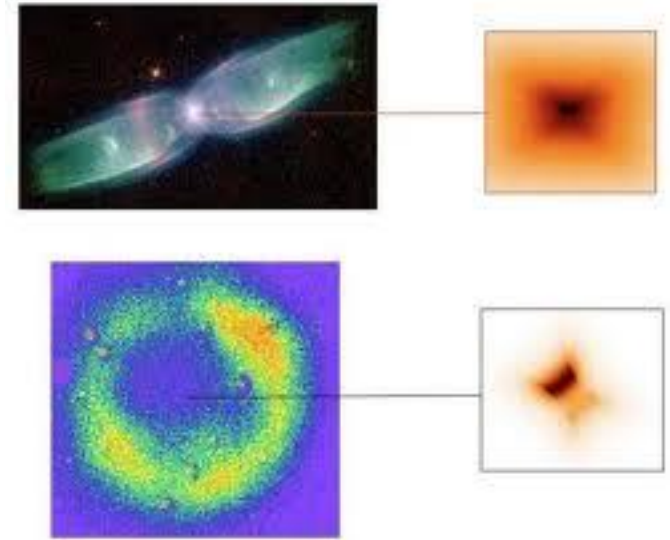
**THE WEB =** Ideal platform to deploy modern astrophysical applications (i.e. web user interfaces) and to disseminate information (i.e. websites).



We need web standards to design, develop and deploy web content



**Web content =** from web pages (including text, images, forms, sounds, web code, etc.) to multimedia format (especially) audio/video solutions) and social objects (i.e. tweets)



# INAF stakeholders and web content authors

## STAKEHOLDERS

- Heterogeneous
- International (different countries)



## WEB CONTENT CREATORS

- Heterogeneous
- Not specifically web skillful

# Why we need internationalization and multilingual content

- Our stakeholders are multilingual
- Science needs international collaboration (even if english is common language, giving content in native language increases communication)



BUT INAF situation is:

- Content/websites in one language (italian or english);
- Several authoring tools for web content (i.e. for websites from «hand-make» code to disparate CMS) and use of proprietary technologies (i.e. Flash) ;
- Content hosted in several web servers



# The obstacles to i18n best practices

*Our content authors and the necessity to be web skillful in order to follow best practices*

- **Authoring tools could not generate automatically web content (i.e. necessity to control the code for example for encoding);**
- **Web CMS-like frameworks used for their simplicity to publish content do not often adhere to web specifications;**
- **Authors do not follow web standards and practices (i.e. most of webpages do not yet fully make use of style sheets separating presentation from content);**

# What we need

## As INAF

- To educate our authors to follow standards and best practices to guarantee added-value to their content (internationalization, usability, accessibility, etc.)
- Produce a simple document that summarizes best practices in achieving such a goal

## From authoring tools makers

- **Automation in generating content that satisfy internationalization and multilingual objectives**



# To conclude

Main questions:

1. What could be the best way to produce multilingual web content to communicate astrophysical science and its projects?
2. How we could educate and persuade our content authors to follows i18n practices while using their preferred web authoring tools or web content management systems ?

**A solution: having automatic tools generating “good” content – however we have to persuade our authors and educate them to web standards**



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