



# How do High Energy Physics scholars search their information?

Anne Gentil-Beccot, CERN – 11 December 2007, GL9 conference



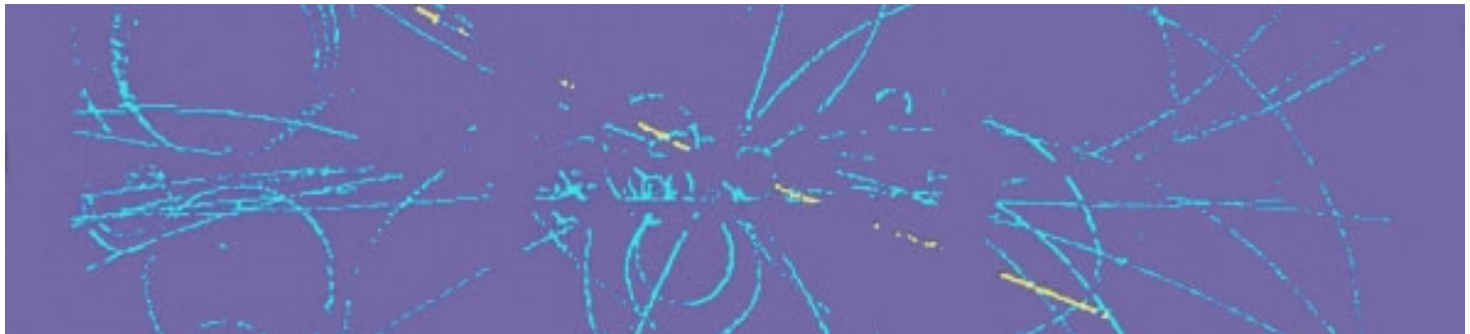
# Overview

- 1- High Energy physics community and grey literature
- 2- A survey: who, what, when, what for?
- 3- Some striking results
- 4- Conclusions



# High Energy Physics (HEP)

- HEP aims to understand how our Universe works  
Two fundamental questions
  - "What is the world made of?"
  - "What holds it together?"
- Small but tightly organised worldwide community
- Experimental and theoretical physicists



# Grey literature and HEP, a long story

- Communication patterns in HEP (Luisella Goldschmidt-Clermont, CERN, 1965 - <http://library.cern.ch/HEPLW/6/papers/1/> )
  - Publication in journals: too long a process
  - HEP scientists need **fast communication** to distribute research results
  - **Preprints** sent by mail all around the world
- **Information needs to be organized**
- The **community** creates its **own tools**:
  - 1974: **SPIRES**: e-catalogue of preprints (SLAC – Stanford)
  - 1991: **arXiv**: first preprint server (LANL – Los Alamos)
  - 1991: Invention of web at CERN
  - 1992: SPIRES, first US web server, links to arXiv full-texts
  - 1993: **CDS** (CERN - Geneva)
  - ....



# Where we are now...

- **Electronic era**, definitively...
- **GL = still main mean of communication...**
  - Physicists submit preprints to arXiv before to a journal
- ... and even **more important**
  - Conference slides



- **Current HEP information systems landscape:**
    - Community-driven systems – developed mainly for GL
    - Commercial services : databases and journal websites – no GL
    - Search engines : Google, Google Scholar – GL and everything
- CERN (~2005)**
- And next?

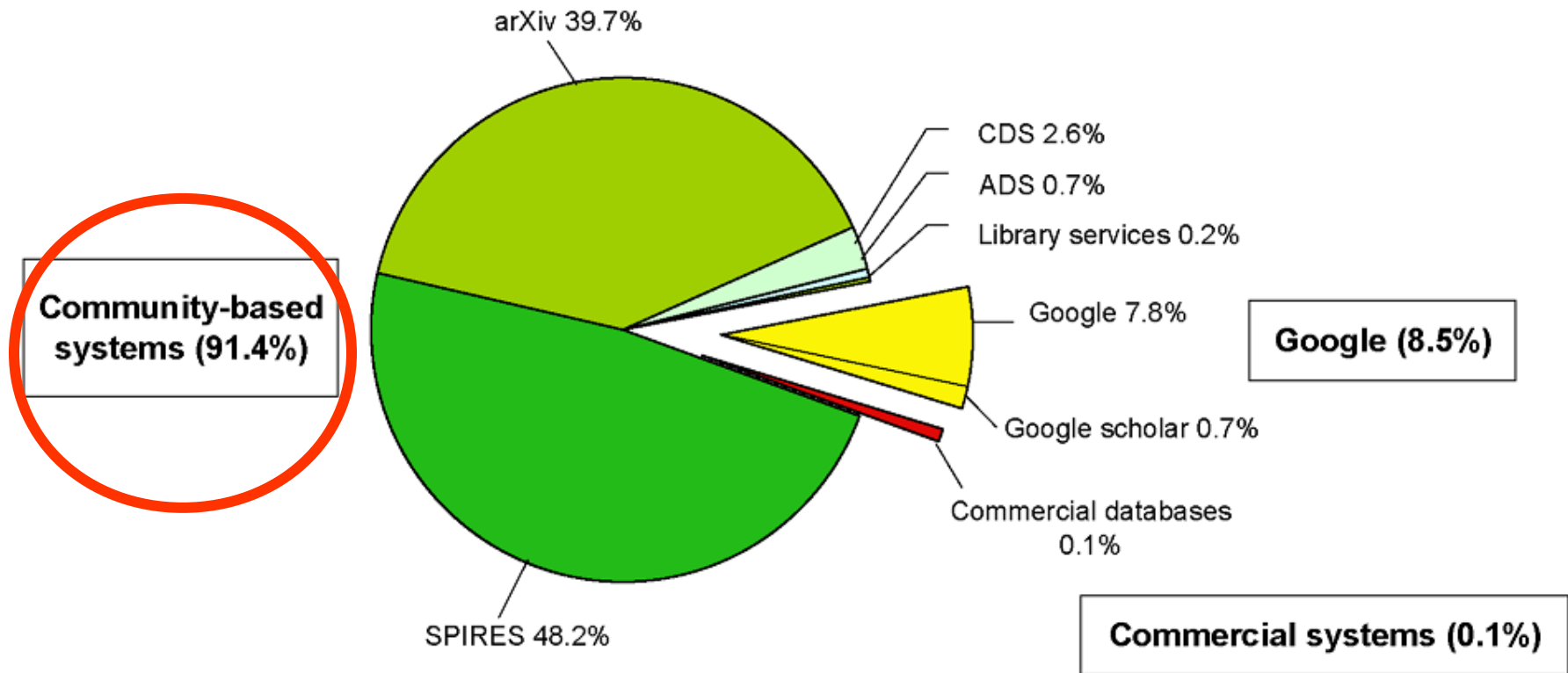


# The survey

- **Who:**
  - A coalition of information providers from main HEP laboratories
  - Publicized through all HEP community-based systems and a few publishers
- **When:**
  - During 6 weeks, in May 2007
- **What for:**
  - Identify snapshot of usage of present HEP information systems
  - Assess user requirements and preferences
  - Try to define future needs
- **2115 answers** in a community of 20,000 scientists, 36 countries, all age groups represented, 90% of respondents wrote free-text answers



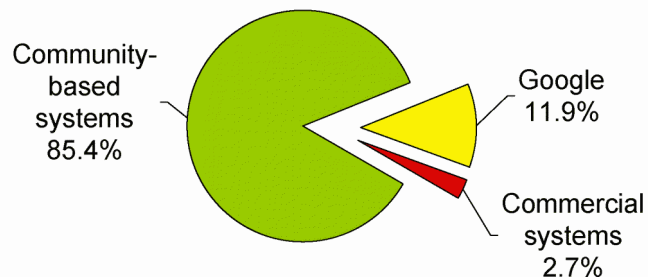
# Which HEP information system do you use the most?



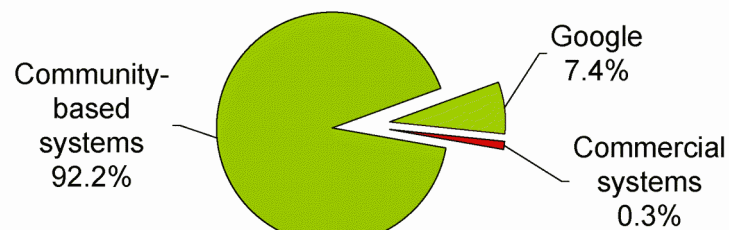


# Variations according to search

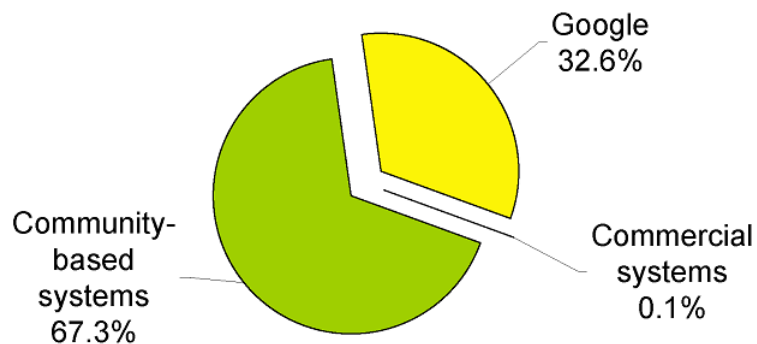
## Articles



## Preprints



## Theses

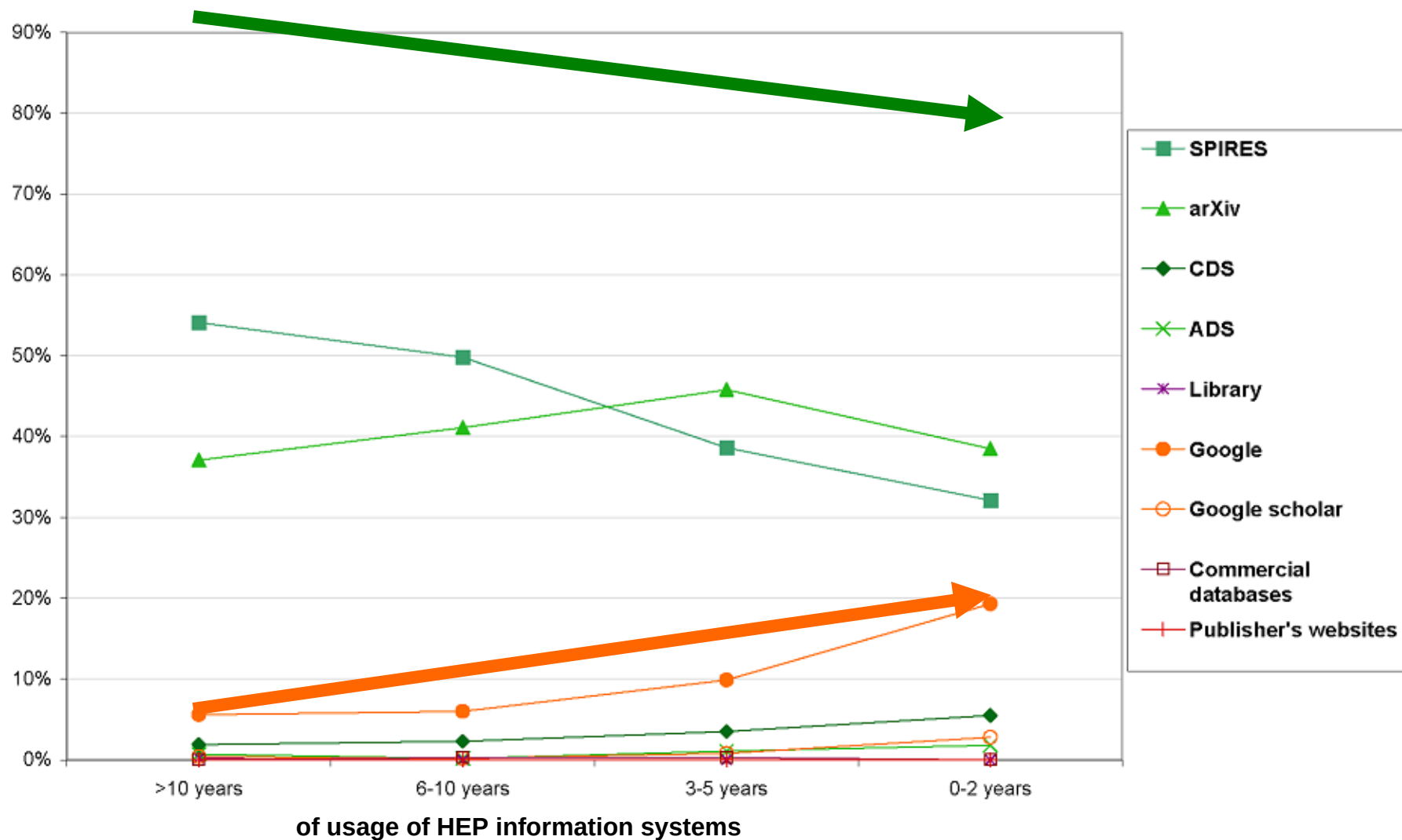






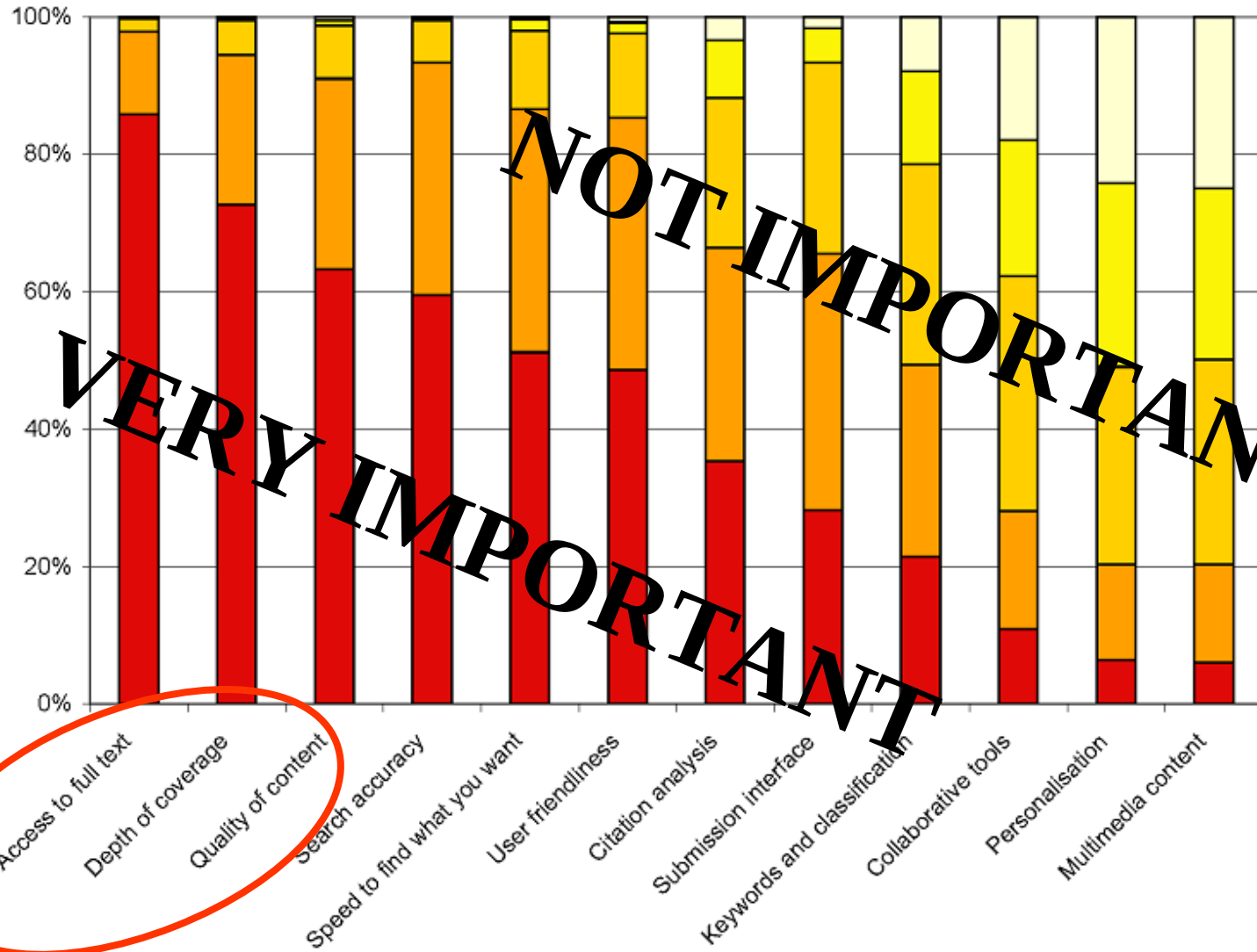
# Usage as a function of experience

What HEP information system do you use the most?





# What feature is important in a HEP information system?



**VERY IMPORTANT**

**NOT IMPORTANT**



# Future expectations: some free-text answers

75% expect changes in information needs in the next five years

Showing top 50 of 2153 possible tags

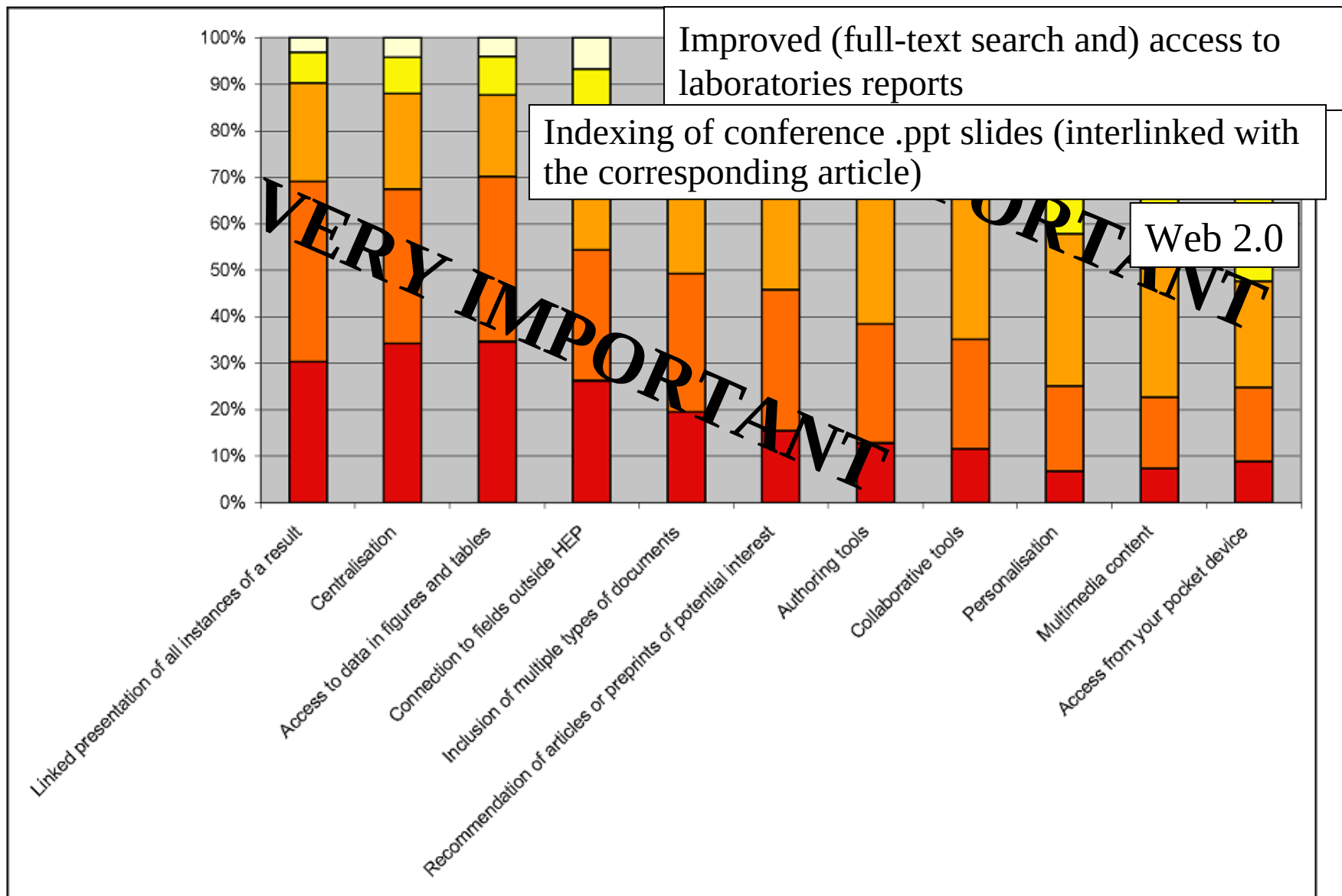
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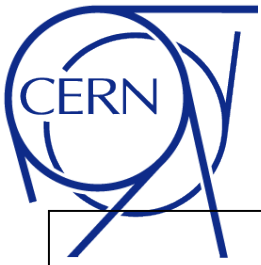
# Some expectations for the future...





# Conclusions

- **What did we learn?**
  - Community-driven systems answer the needs of the community.
  - Listen to the users – they know what they want!
  - Increased importance of a diversifying grey literature...
- **Full analysis still in progress – more coming soon!**
- **What's next:**
  - Create a single information service for the entire community
  - Include new features
  - Survey your users!



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# Thank you!

Any comment, question?

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