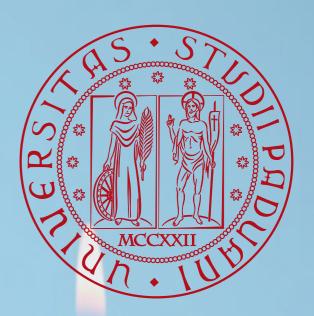


#### The CLEF Association

Conference and Labs of the Evaluation Forum

http://www.clef-initiative.eu/association



# CLEF 20th Anniversary

Nicola Ferro

@frrncl

University of Padua, Italy



## **CLIR: The Grand Challenge**



# AAAI 1997 Spring Symposium: Fully multilingual and multimodal information retrieval systems

[Doug Oard and David Hull]

- capable of processing a query in any medium and any language
- finding relevant information from a multilingual multimedia collection containing documents in any language and form
- and presenting it in the style most likely to be useful to the user



# Carol Peters: When Everything Began







# Classic CLEF: Years+ of History



- 1997 First CLIR system evaluation campaigns in US and Japan:
   TREC and NTCIR
  - CLEF actually began life in 1997 as a track for Cross Language Information
     Retrieval (CLIR) within TREC. Mainly, English centered tasks (EN -> X, X -> EN).

- 2000-2009 CLIR evaluation in Europe: CLEF (extension of CLIR track at TREC)
  - Fully multilingual, multimodal information retrieval systems capable of processing a query in any medium and any language finding relevant information from a multilingual multimedia collection containing documents in any language and form, and presenting it in the style most likely to be useful to the user



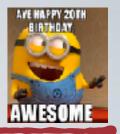
#### Classic CLEF: Achievements



- Stimulation of research activity in new, previously unexplored areas
- Study and implementation of evaluation methodologies for diverse types of cross-language IR systems
- Creation of a large set of empirical data about multilingual information access from the user perspective
- Quantitative and qualitative evidence with respect to best practice in cross-language system development
- Creation of reusable test collections for system benchmarking
- Building of a strong, multidisciplinary research community



#### Classic CLEF: Achievements



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- Creation information
- Quantitative practice in cr
- Creation of ret

Multilingual IR Multilingual IR for European for European languages

ections for system benchmarking

Building of a strong, multidisciplinary research community



#### Where To Go Next?





From Classic CLEF to the CLEF Initiative

The direction depends on the community





#### Mission



The CLEF Initiative is a self-organized body whose main mission is to promote research, innovation, and development of information access systems with an emphasis on multilingual and multimodal information with various levels of structure.

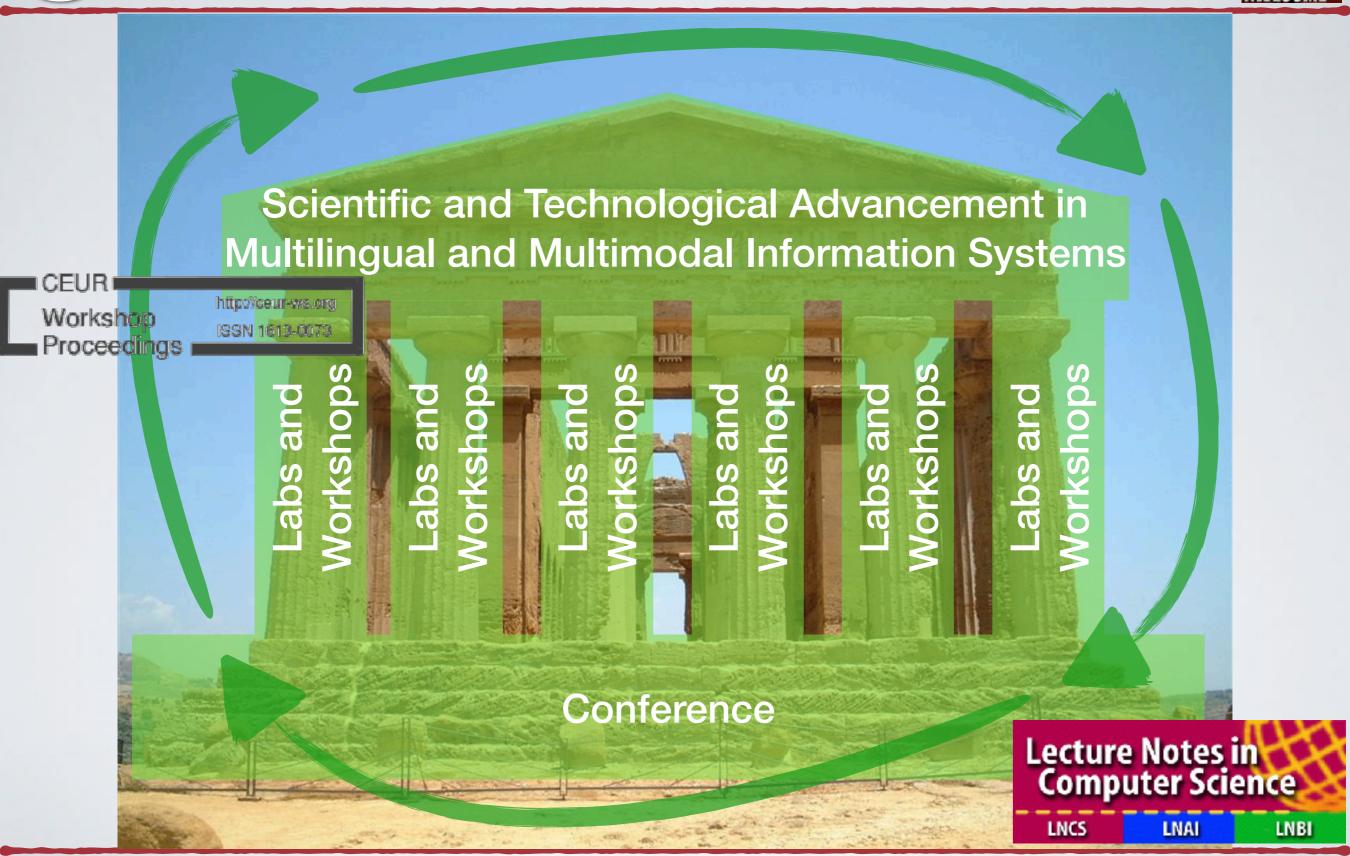
- multilingual and multimodal system testing, tuning and evaluation;
- investigation of the use of unstructured, semi-structured, highly-structured, and semantically enriched data in information access;
- creation of reusable test collections for benchmarking;
- exploration of new evaluation methodologies and innovative ways of using experimental data;
- discussion of results, comparison of approaches, exchange of ideas, and transfer of knowledge.





### Approach







# Participation: Attendees







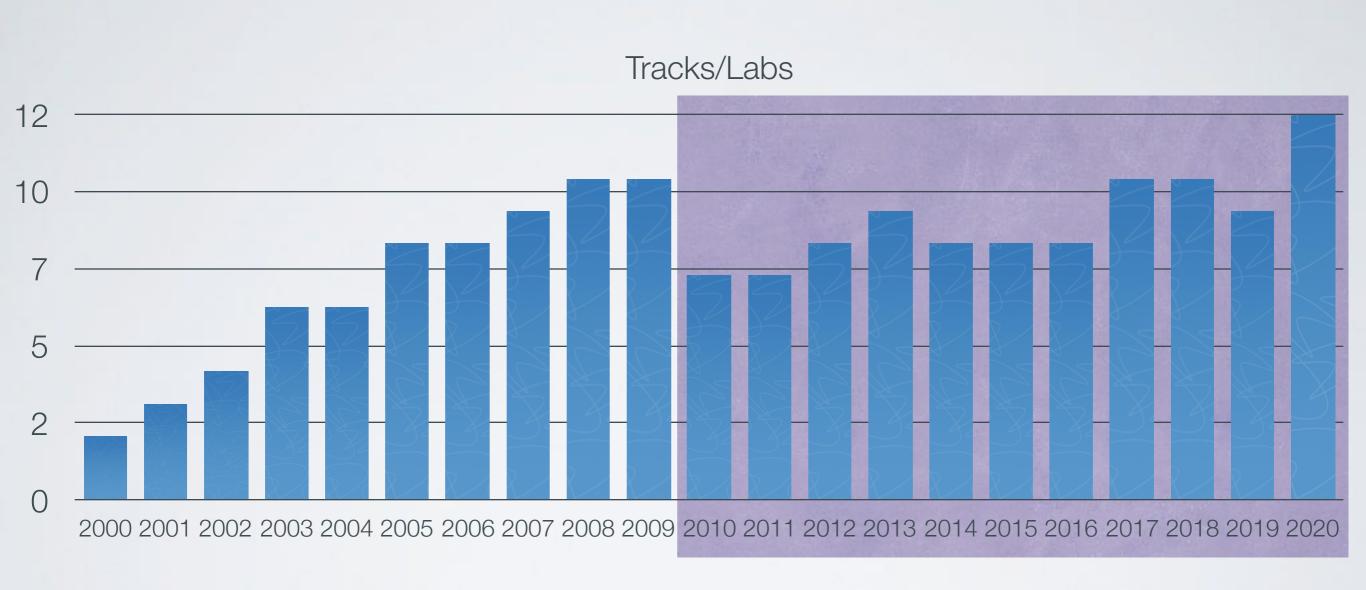
Mainly voluntary effort + project funding





### Labs

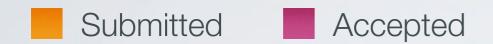


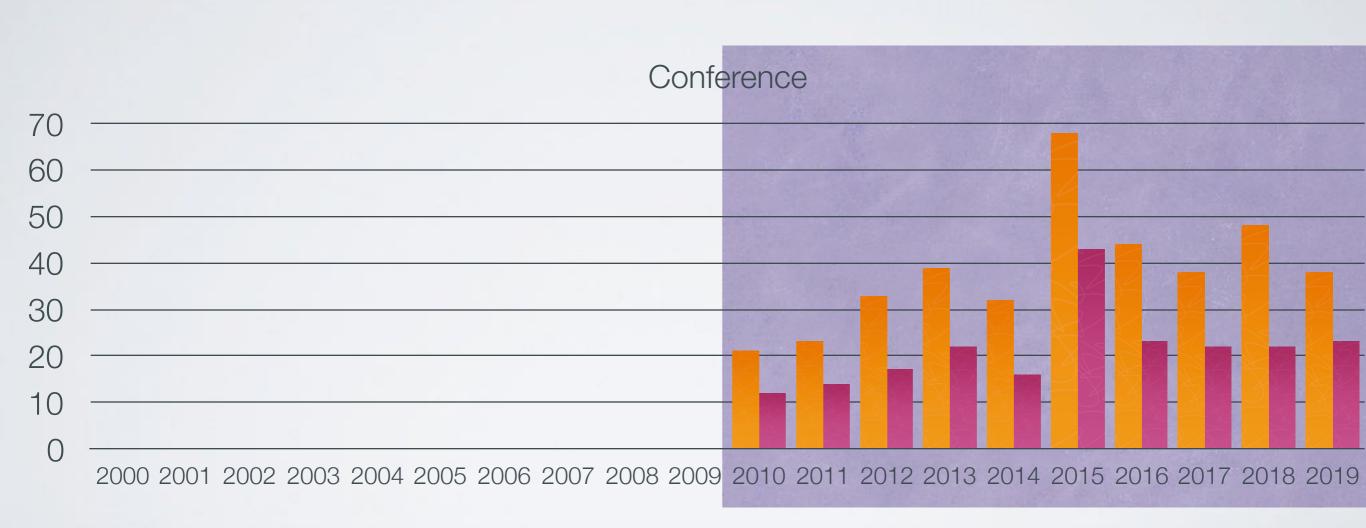




#### Conference



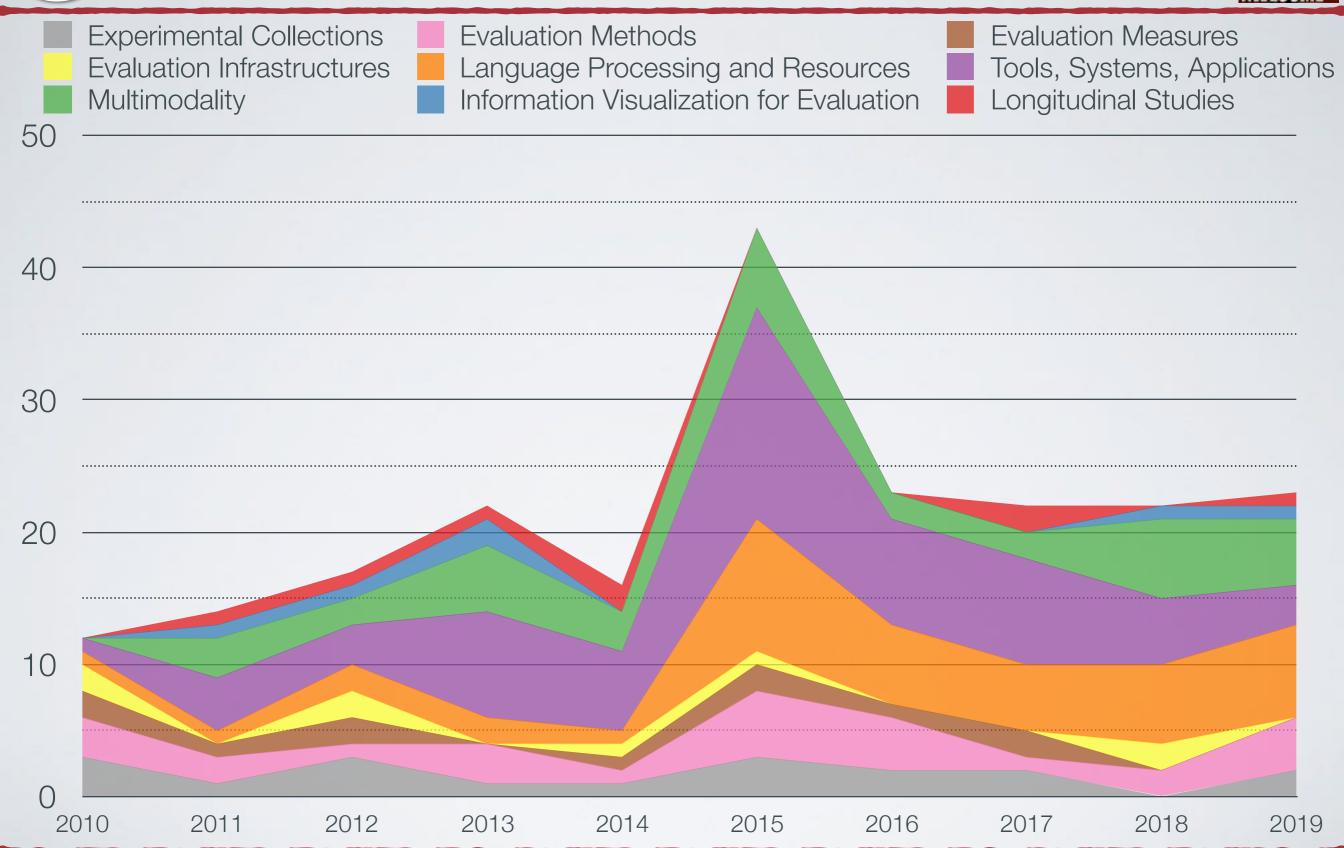






# **Conference Topics**



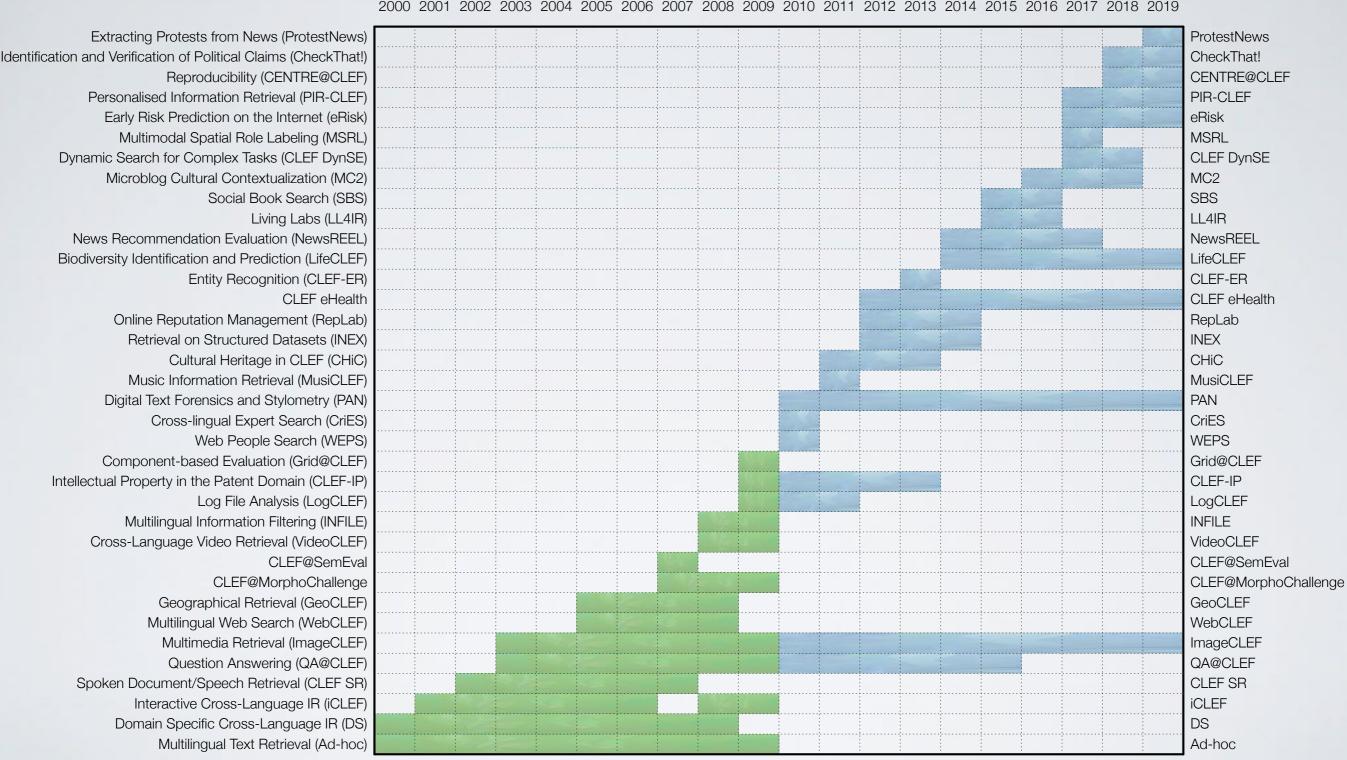




#### Labs over the Years



2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

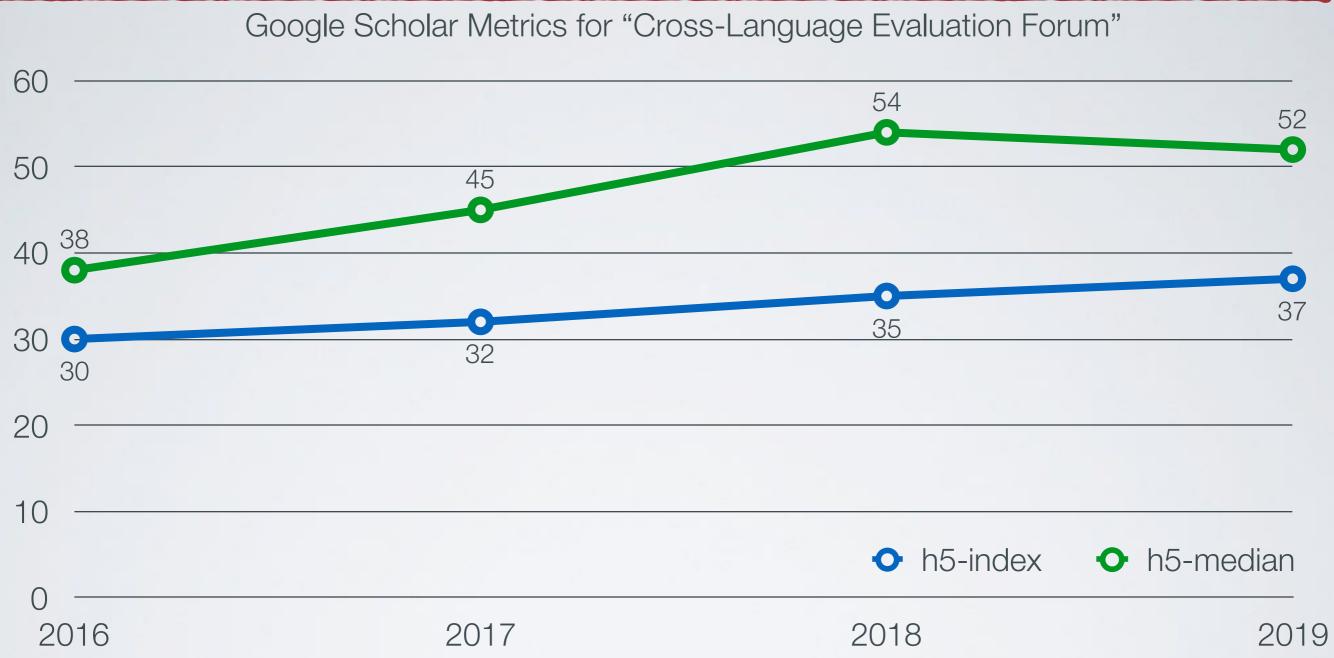


2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019



#### Publication "Universe"





- Google Scholar for "CLEF evaluation"
  - 53,400 hits





## Publication "Universe"



≡ Google Scholar

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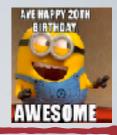


Top publications

Categories > Engineering & Computer Science > Databases & Information Systems =

1.         IEEE Transactions on Knowledge and Data Engineering         27         112           2.         International Conference on Very Large Databases         74         103           3.         International World Wide Web Conferences (WWW)         70         118           4.         ACM SIGMOD International Conference on Management of Data         67         105           5.         ACM SIGIR Conference on Research and Development in Information Retrieval         55         81           6.         ACM International Conference on Web Search and Data Mining         51         85           7.         International Conference on Data Engineering         51         71           8.         ACM International Conference on Information and Knowledge Management         48         76           9.         International Conference on Web and Social Media (ICWSM)         45         82           10.         ACM Conference on Recommender Systems         45         65           11.         Information Systems         45         65           12.         Information Processing & Management         32         58           13.         Knowledge and Information Systems         38         59           14.         ACM Transactions on Intelligent Systems and Technology (TIST)         38         56		Publication	h5-index	h5-median
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	20.	Semantic Web	32	51





- Foreword by Donna Harman
- Part I Experimental Evaluation and CLEF
- Part II Evaluation Infrastructures
- Part III Multilingual and
   Multimedia Information Retrieval
- Part IV Retrieval in New Domains
- Part V Beyond Retrieval
- Part VI Impact and FutureChallenges

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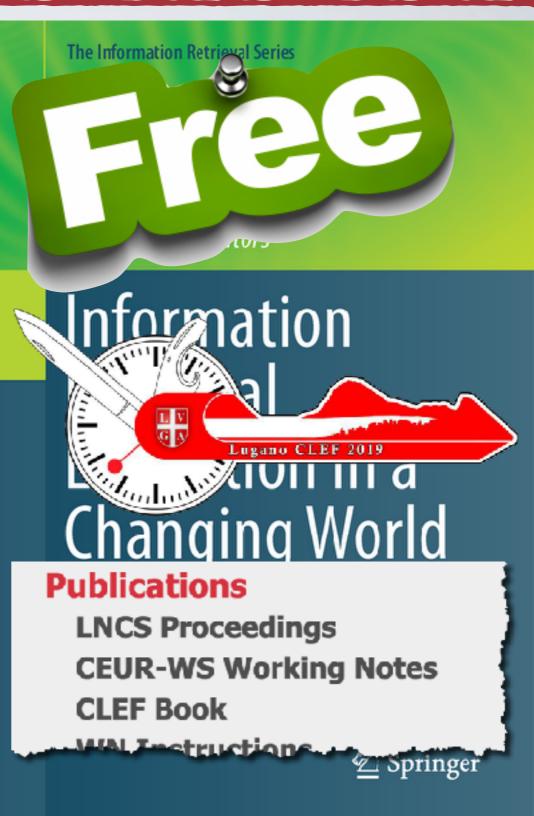
# Information Retrieval Evaluation in a Changing World







- Foreword by Donna Harman
- Part I Experimental Evaluation and CLEF
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   Multimedia Information Retrieval
- Part IV Retrieval in New Domains
- Part V Beyond Retrieval
- Part VI Impact and FutureChallenges







# Part I – Experimental Evaluation and CLEF

- From Multilingual to Multimodal: The Evolution of CLEF over Two Decades
  - N. Ferro and C. Peters
- The Evolution of Cranfield
  - E. M. Voorhees
- How to Run an Evaluation Task
  - T. Sakai

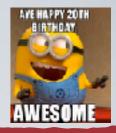
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#### Part II – Evaluation Infrastructures

- An Innovative Approach to Data
   Management and Curation of
   Experimental Data Generated through
   IR Test Collections
  - M. Agosti et al.
- TIRA Integrated Research Architecture
  - M. Potthast et al.
- EaaS: Evaluation—as—a—Service and Experiences from the VISCERAL Project
  - H. Müller and A. Hanbury

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- Part III Multilingual and Multimedia Information Retrieval
  - Lessons Learnt from Experiments on the Ad-Hoc Multilingual Test Collections at CLEF
    - J. Savoy and M. Braschler
  - The Challenges of Language Variation in Information Access
    - J. Karlgren et al.
  - Multi-lingual Retrieval of Pictures in ImageCLEF
    - P. Clough and T. Tsikrika
  - Experiences From the ImageCLEF Medical Retrieval and Annotation Tasks
    - H. Müller et al.
  - Automatic Image Annotation at ImageCLEF
    - J. Wang et al.
  - Image Retrieval Evaluation in Specific Domains
    - L. Piras et al.
  - About Sound and Vision: CLEF beyond Text Retrieval Tasks
    - G. J. F. Jones

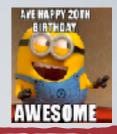
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#### Part IV – Retrieval in New Domains

- The Scholarly Impact and Strategic Intent of CLEF eHealth Labs from 2012-2017
  - H. Suominen et al.
- Multilingual Patent Text Retrieval Evaluation: CLEF-IP
  - F. Piroi and A. Hanbury
- Biodiversity Information Retrieval through Large Scale Content-Based Identification:
   A Long-Term Evaluation
  - A. Joly et al.
- From XML Retrieval to Semantic Search and Beyond
  - J. Kamps et al.

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# Information Retrieval Evaluation in a Changing World







#### Part V – Beyond Retrieval

- Results and Lessons of the Question
   Answering Track at CLEF
  - A. Peñas et al.
- Evolution of the PAN Lab on Digital Text Forensics
  - P. Rosso et al.
- RepLab: an Evaluation Campaign for Online Monitoring Systems
  - J. Carrillo-de-Albornoz et al.
- Continuous Evaluation of Large-scale
   Information Access Systems: A Case for
   Living Labs
  - F. Hopfgartner et al.

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# Information Retrieval Evaluation in a Changing World







### Part VI – Impact and Future Challenges

- The Scholarly Impact of CLEF 2010-2017
  - B. Larsen
- Reproducibility and Validity in CLEF
  - N. Fuhr
- Visual Analytics and IR Experimental Evaluation
  - N. Ferro and G. Santucci
- Adopting Systematic Evaluation
   Benchmarks in Operational Settings
  - J. Karlgren

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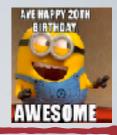
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# Information Retrieval Evaluation in a Changing World





# Steering Committee



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  - Evangelos Kanoulas, University of Amsterdam, The Netherlands

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  - Carol Peters, ISTI, National Council of Research (CNR), Italy -CLEF SC Chair 2000-2009
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  - Alan Smeaton, Dublin City University, Ireland





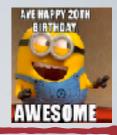
#### Plan for this Session



- The Founding of CLEF
   Martin Braschler, Zurich University of Applied Sciences, Switzerland.
- The Importance of Shared Evaluations
   Donna Harman, National Institute of Standards and Technology (NIST), USA
- The Evolution of Shared Task Evaluation Campaigns Doug Oard, University of Maryland, USA
- CLEF from the Outside
   Bruce Croft, University of Massachusetts, Amherst, USA
- Me, myself and ImageCLEF
   Alba García Seco de Herrera, University of Essex, UK



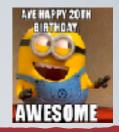
# Summing Up







# **Summing Up**









# Summing Up



