

TREC Video Retrieval Evaluation

TRECVID 2014

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What is TRECVID?

Workshop series (2001 – present) → <http://trecvid.nist.gov>
to promote research/progress in content-based video analysis/exploitation

Foundation for large-scale laboratory testing

Forum for the

- exchange of research ideas
- discussion of approaches – what works, what doesn't, and why.

Focus: content-based approaches

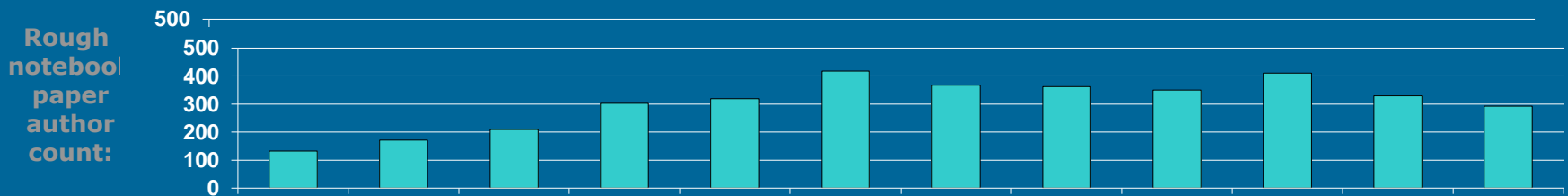
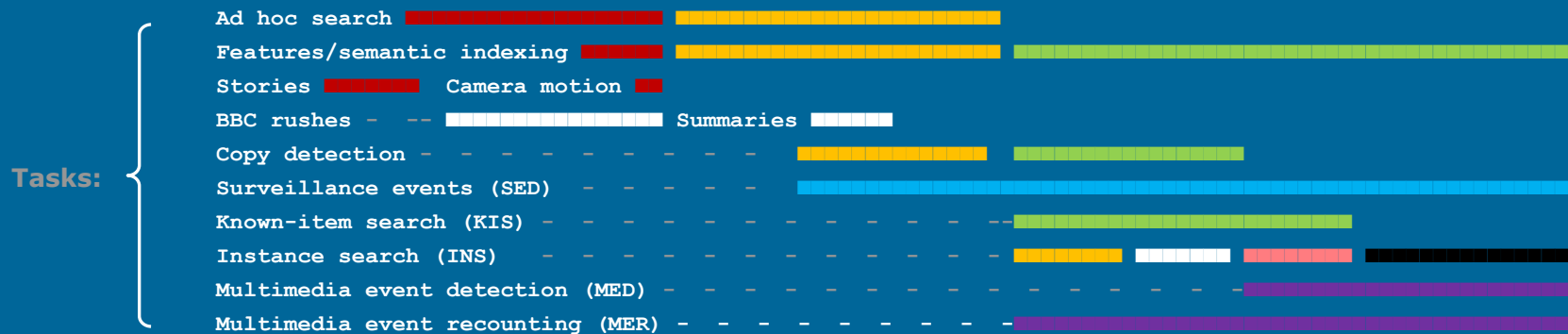
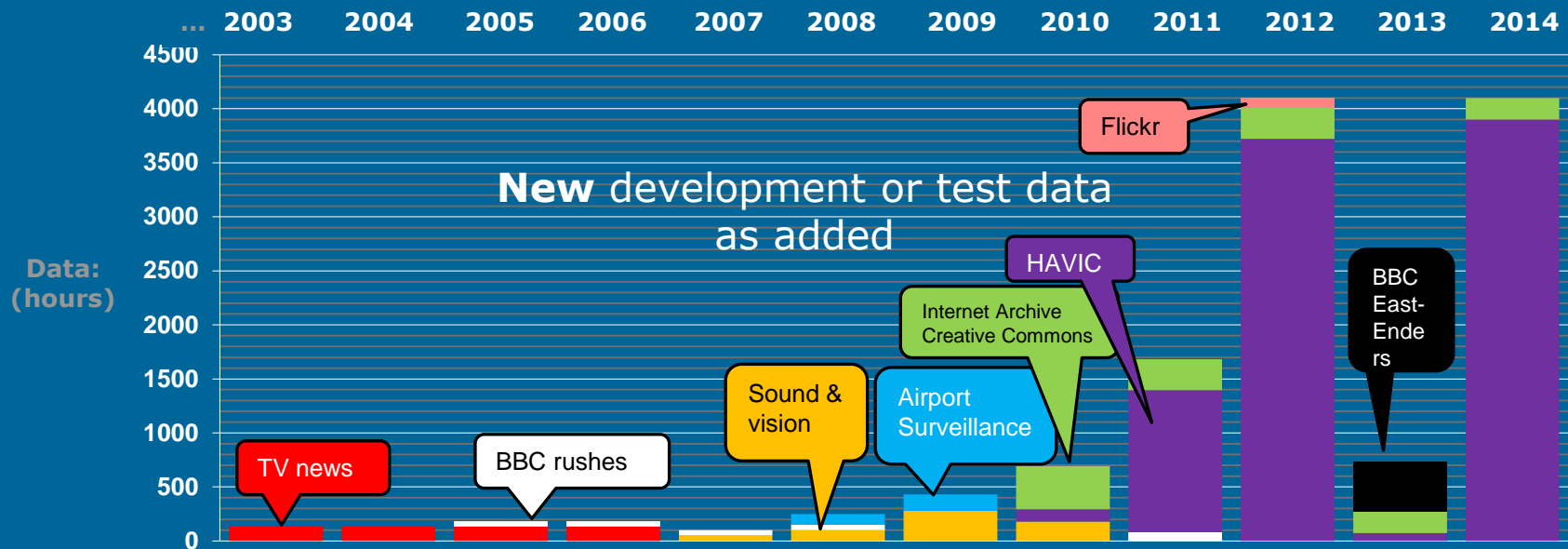
- search / detection / summarization / segmentation / ...

Aims for realistic system tasks and test collections

- unfiltered data
- focus on relatively high-level functionality (e.g. interactive search)
- measurement against human abilities

Provides data, tasks, and uniform, appropriate scoring procedures

TRECVID's Evolution



TRECVID 2014 Tasks and Data

<p>Internet Archive – Creative Commons (IACC)</p> <p><i>200 hours test data, video, title, keywords, description</i></p> <p><i>687 hours dev video, metadata</i></p>	<p>BBC EastEnders</p> <p><i>464 hours divided into 471527 shots</i></p>	<p>Airport surveillance</p> <p><i>50 hours, test video</i></p> <p><i>100 hours, dev video</i></p>	<p>HAVIC - Internet multimedia</p> <p><i>7580 hours, test video</i></p> <p><i>2116 hours, dev video</i></p>
<p>Semantic indexing (60 known test concepts submitted; 30 Evaluated, 10 for localization)</p>	<p>Instance search (27 ad hoc image test queries)</p>	<p>Surveillance event detection (interactive) (7 known test events)</p>	<p>Multimedia event detection (20 pre-specified &/or 10 ad hoc complex test events)</p>
			<p>Multimedia event recounting pilot (10 events)</p>

TV2014 Finishers

PicSOM	---	***	---	---	SIN	Aalto U.
AXES	INS	MED	---	---	---	Access to Audiovisual Archives
ATTLabs	INS	MED	---	***	***	AT&T Labs Research
BUPT_MCPRL	INS	---	---	SED	---	Beijing U. of Posts and Telecommunications
MCIS	---	MED	---	---	---	Beijing Inst. of Tech.; China Inst. for Infocomm Research
CMU	---	MED	MER	SED	SIN	Carnegie Mellon U.
ITI_CERTH	INS	MED	MER	---	SIN	Centre for Research and Technology Hellas
CCNY	---	---	---	SED	---	City College of New York
VIREO-TNO	INS	MED	MER	---	SIN	City U. of Hong Kong; TNO
EURECOM	---	***	---	---	SIN	EURECOM
FIU_UM	---	---	---	---	SIN	Florida International U.; U. of Miami
Fudan	---	MED	---	---	***	Fudan U.
IBM	***	***	---	SED	***	IBM Research
INRIA_LIM_VocR	---	MED	---	---	***	INRIA LEAR LIMSI Vocapia Research
insightdca	INS	***	---	---	SIN	Insight Centre for Data Analytics
IRIM	INS	***	---	---	SIN	IRIM consortium
JRS	INS	***	---	---	***	JOANNEUM RESEARCH
KU_ISPL	---	MED	---	---	---	Korea U.
LIG	---	***	---	---	SIN	LIG consortium
NU	INS	---	---	---	---	Nagoya U.

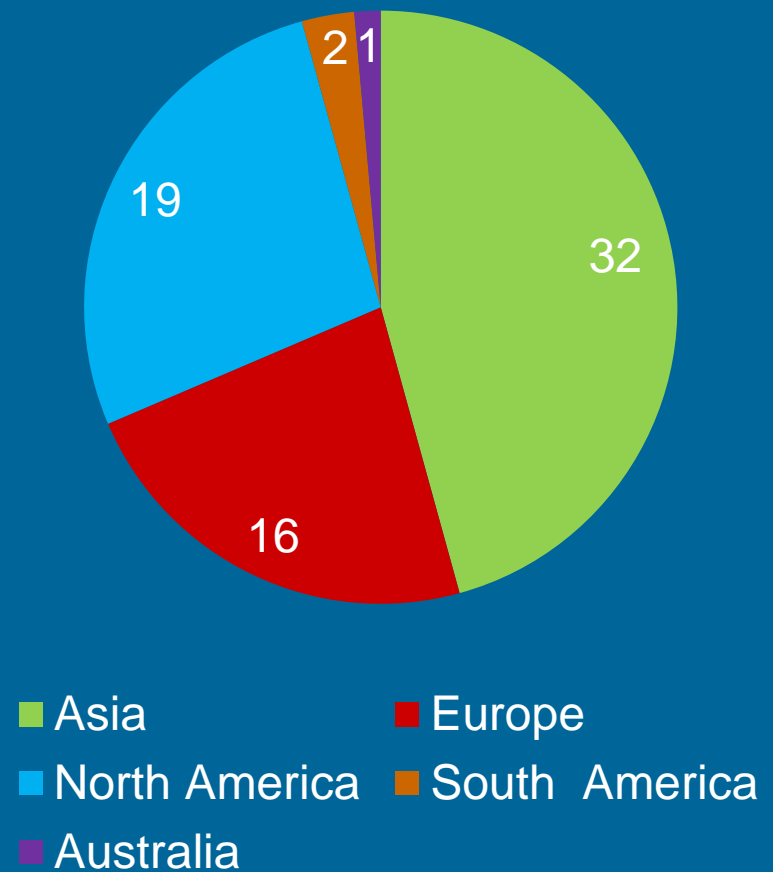
TV2014 Finishers

NII	INS	MED	---	***	***	National Institute of Informatics
NTT_CSL	INS	***	---	---	---	NTT Communication Science Laboratories
ORAND	INS	MED	---	***	---	ORAND S.A. Chile
OrangeBJ	INS	***	---	---	SIN	Orange Labs International Center Beijing
PKU-ICST	INS	***	---	***	***	Peking U. ICST
PKUSZ_ELMT	***	***	---	---	SIN	Peking U. ELMT
BBNVISER	---	MED	MER	---	---	RaytheonBBN; UMD; ColumbiaU.; CMU; intuVisionInc; PolarRainInc.
SRI_SESAMÉ	---	MED	MER	---	---	SRI International; U. of Amsterdam; U. of S. California
SRI_AURORA	---	MED	MER	---	***	SRI International; Sarnoff; UCF; UMass; Cyc
TUC_MI	INS	---	---	---	---	Technische Universität Chemnitz
TelecomItalia	INS	---	---	---	---	Telecom Italia
TokyoTech-Waseda	INS	MED	---	---	SIN	Tokyo Institute of Technology, Waseda U.
MIC_TJ	INS	MED	---	---	---	Tongji U.
Tsinghua_IMMG	INS	---	---	***	---	Tsinghua U.
UEC	***	***	---	***	SIN	U. of Electro-Communications, Tokyo
U_TK	INS	---	---	---	---	U. of Tokushima
MediaMill	INS	MED	MER	---	SIN	U. of Amsterdam
CRCV_UCF	---	---	---	---	SIN	U. of Central Florida
Sheffield_UETLahore	INS	---	---	---	---	U. of Sheffield, U. of Engineering and Technology (PK)
NERCMS	INS	---	---	***	---	Wuhan U.

TV2014 Finishers

Unique finishing teams

Groups Finished	Task code	Task name
4	SED	Surveillance event detection
15	SIN	Semantic indexing
23	INS	Instance search
17	MED	Multimedia event detection
7	MER	Multimedia event recounting



Support

Co-sponsor: University of Central Florida,
Center for Research in Computer Vision

The running of TRECVID 2014 has been funded directly by:

- National Institute of Standards and Technology (NIST)
- Intelligence Advanced Research Projects Activity (IARPA)

TRECVID is only possible because of the additional efforts of many individuals and groups around the world.

Additional resources and contributions

- Georges Quénot and the QUAERO team
 - shared coordination of the semantic indexing task
 - provided the master shot reference for the IACC.2 video
 - arranged for ASR for IACC.2 video
- Koichi Shinoda of the TokyoTechCanon team agreed to host a copy of the IACC.2 data
- The LIMSI Spoken Language Processing Group and VexSys Research provided ASR for the IACC.2 videos
- Noel O'Connor and Kevin McGuinness at Dublin City University along with Robin Aly at the University of Twente worked with NIST and Andy O'Dwyer plus William Hayes at the BBC to make the BBC EastEnders video available for use in TRECVID

Agenda: Day 1

- Arranged by task
- Time for discussion of approaches & evaluation
- Monday
 - Intros, thanks, etc.
 - Semantic indexing
 - Single concepts, localization
 - Lunch (on your own)
 - Instance search
 - Workshop dinner

Agenda: Day 2

- Tuesday
 - Multimedia event detection and recounting
 - Lunch (on your own); CRCV Open House
 - Multimedia event detection and recounting (conclusion)
 - Poster/demo boaster
 - Posters and demos with refreshments

Agenda: Day 3

- Wednesday
 - Surveillance event detection
 - TRECVID planning
 - Workshop close

Miscellany

- If you have registered for the workshop dinner and will not be using your ticket, please turn it in at the registration desk during the break this morning or at lunch so someone else who wants to attend can use it.
- Extra time has been built into the schedule since many of us will be walking to lunch. Links to information about places to eat in the vicinity are included in the agenda. UCF students are ready to help.
- Questions?