NTCIR-11 Core Task: Spoken Query and Spoken Document Retrieval (SpokenQuery&Doc)

Tomoyosi Akiba (Toyohashi University of Technology)
Hiromitsu Nishizaki (Yamanashi University)
Hiroaki Nanjo (Ryukoku University)
Gareth Jones (Dublin City University)
Focus of SpokenQuery&Doc

• Information Retrieval by using “spontaneously spoken query” targeting “spoken documents”.

Overcome it by using Speech!

I'm going to go climbing Mt. Fuji in next summer vacation. Well, I hear the accident um... I hear the news about the accident in the climbing. Well, someone has missed or someone lost one's way in the mountain. So I would like to know what should I prepare for climbing, what equipment, equipment is necessary. I would like to know what should I prepare when I go climbing.
Example of Spontaneously Spoken Query

PROS: provides rich clues for retrieval.
CONS: unclear, ambiguous, redundant, error-prone
Challenges in SpokenQuery&Doc

• How to get benefit from spontaneously spoken queries?
  – Make use of long queries.
  – Disambiguation.
  – Improve ASR for spontaneous speech.
  – Development of specific techniques for such IR.

• Spoken document retrieval (continued)
  – Evaluate spoken term detection (STD) and spoken content retrieval (SCR) at the same time by using common (spoken) query topics.
  – Text queries are also provided (as in SpokenDoc-1 and 2.)
Task Design

Spoken query

Spoken Content Retrieval

Relevant Segments (presentation slides)

Spoken Content (presentations at academic meeting)

Spoken Term Detection

Spoken Terms

Detection Results

SQ-SCR

STD-SCR

SQ-STD
Why participate in SpokenQuery&Doc

• Participants will be provided many resources for IR and spoken language processing research.
  – Real recordings of spontaneously spoken queries.
  – Real recordings of academic meeting lectures.
  – Their rich transcriptions.
    • manual.
    • automatic (with various conditions.)
    • alignment with presentation slides.

• IR and NLP researchers are also welcomed.
  – Easy to apply your existing techniques to provided text transcriptions of speech.

• Web site will be open soon.