

Using videoconference technologies in interpreting:

New challenges, new opportunities and...
new research questions

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Introduction...

Computers may translate in war settings

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Posted 10/12/2006 10:14 AM ET, The Associated Press

One day, a U.S. soldier entering tense situations without the assistance of an Arabic interpreter might rely on two-way translation software in mobile computers.

This year the military's Joint Forces Command has been testing laptops with such software in Iraq. When someone speaks into a microphone attached to the computer, the machine translates it into Arabic and reads that translation aloud over the PC's speakers. The software then translates the Arabic speaker's response and utters it in English. If the software is uncertain about what one party said, it presents choices on the computer screen for the speaker to choose.

The military has had variations on this. But the newer software can facilitate two-way conversations not limited to pre-chosen phrases. Recently the Joint Forces Command began testing one such system, known as IraqComm and produced by SRI International. Now the military is announcing a similar experiment is underway with software known as MASTOR from IBM.

MASTOR's accuracy is not perfect, but "you can communicate a concept and you can elicit a response from someone" — a huge improvement for U.S. troops who rarely have an Arabic linguist on hand, said David Nahamoo, chief of language technologies at IBM Research.

Wayne Richards, overseeing the project for Joint Forces Command in Norfolk, Va., said the systems have been tested in quiet offices in Iraq, not the noisy war zone settings that can hinder computers' speech-recognition abilities. He expects it could be 2009 before real-time translation computers end up supporting the military in raids or other difficult scenarios.

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Telefon-Dolmetscher sind in Spitälern heiss begehrt

Telefon-Dolmetscher am Krankenbett: Immer mehr Spitäler setzen auf professionelle Übersetzung.

Spitäler sind tagtäglich mit Sprachproblemen konfrontiert. Besonders wenn es um komplexe Themen wie Leiden oder Sterben geht, stossen Ärzte und Pfleger bei ausländischen Patienten oft an ihre Grenzen.

Um die Gefahr von Missverständnissen einzudämmen, ziehen immer mehr Krankenhäuser einen Telefon-Dolmetscher bei. «Der Interpret vermittelt via Telefon zwischen Arzt und Patient», sagt Heinrich Neuweiler, Leiter Pflege vom Kantonsspital Chur. Eine geniale Sache, das Spital spare Zeit und der Patient werde kompetent behandelt. Die Kosten von drei Franken pro Minute würden über die Tagespauschale abgerechnet.



Telefon-Dolmetscher im Spital: Die Drähte laufen heiss.

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Der Flughafen Mülhausen feiert sein sechzigstes Jubiläum.



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[The Language Access Network Inc.](#) ↻

The Language Access Network Launches Revolutionary Technology in Retail Pharmacies COLUMBUS, Ohio, June 15 /PRNewswire/ --

An innovative new technology will now allow limited-English proficient and hearing-impaired customers to receive a higher level of service at two Columbus retail pharmacies.

The Personal Assisted Languages (PAL) video interpretation unit, from Las Vegas-based The Language Access Network Inc., has been installed at two retail pharmacies in Columbus. The PAL offers access to real-time video interpreters who are medically proficient in a variety of languages at the push of a button.

"This high-quality on-demand service has revolutionized the world of interpretation, and we are proud to bring it to the pharmacy market and its customers," said Michael Guirlinger, CEO/COO of The Language Access Network. "The transparent technology will allow access to live interpretation in over 150 languages and to help customers receive drug information in their own language."

Introduction...



- **EU legislation allows**
 - ∅ **the use of videoconferences in criminal proceedings, especially for the hearing of witnesses or experts**
Art. 10, Convention on Mutual Assistance in Criminal Matters between EU Member States, 2000
 - ∅ **the use of videoconferences in civil and commercial proceedings for the taking of evidence**
Article 10(4) of the Regulation of the European Council No 1206/2001 of 28 May 2001 on cooperation between the courts of the Member States
- **In June 2007 the European Council confirmed that one of the priorities for future work in e-justice should be to**
 - ∅ **"improve the use of videoconferencing technology for communication in cross-border proceedings, in particular concerning the taking of evidence, and interpretation"**
10509/07 JURINFO 23 JAI 301 JUSTCIV 163COPEN 89

Overview



- 1 Videoconferencing**
- 2 Emerging settings of videoconference interpreting**
- 3 Practice and research to date**
- 4 Emerging questions**

1 Videoconferencing (VC)



- **Synchronous communication across a distance**
 - ∅ Video channel, audio channel, document sharing
 - ∅ Peer-to-peer or multiparty connection
- **Technological basis**
 - ∅ Transmission: Satellite, ISDN, Broadband Internet, Skype
 - ∅ Hardware: VC studio, 'rollabout' units, desktop PC, laptop, ...
- **VC communication**
 - ∅ Interpersonal bi-/multilateral (e.g. small-group discussion)
 - ∅ Interpersonal unidirectional (e.g. conference, lecture)
 - ∅ Mass communication (webcast)

1 Videoconferencing (VC)



- **EU and other international organisations**
 - ∅ Shortfall of interpreting booths in conference rooms
 - ∅ EU wants to reach out to EU citizens via webcast
- **Business / Academic / Educational settings**
 - ∅ Business meetings across distributed locations
 - ∅ Overseas guest speaker at a conference
 - ∅ Global annual meeting via webcast
 - ∅ Distance learning: lectures, seminars (webinars)
- **Public Service settings (legal, medical)**
 - ∅ Internationalisation of crime: witnesses, experts, defendants abroad
 - ∅ Security: avoiding transport of prisoners
 - ∅ Shortage of qualified public service interpreters
 - ∅ Reduction of cost (travel)
 - ∅ Timeliness, unforeseen events, 24/7 need for interpreter
- **Military/Humanitarian crisis settings**
 - ∅ Timeliness
 - ∅ Life-threatening situations for interpreters

2 Emerging settings for interpreting



New communicative situations:

- ∅ Use of VC technology for distance communication
- ∅ If bi-/multilingual, how to integrate the interpreter?

Traditional communicative situations, but:

- ∅ Use of VC technology to integrate an interpreter from a distant location

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- Security of interpreter

2 Emerging settings for interpreting



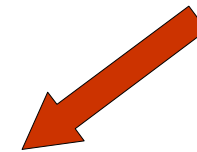
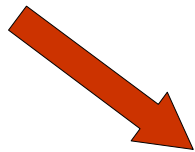
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- Unidirectional, bi-/multilateral, mass communication
 - Conference interpreting and bilateral interpreting
 - Spoken-language and sign-language interpreting
 - Simultaneous/consecutive interpreting



New *interpreting* settings

New challenges for the interpreter

New opportunities?

3 Practice and research to date



1. Extension of traditional interpreting settings:

- ∅ Majority of primary participants and interpreter(s) at the same location
- ∅ Individual 'remote' participants at different locations

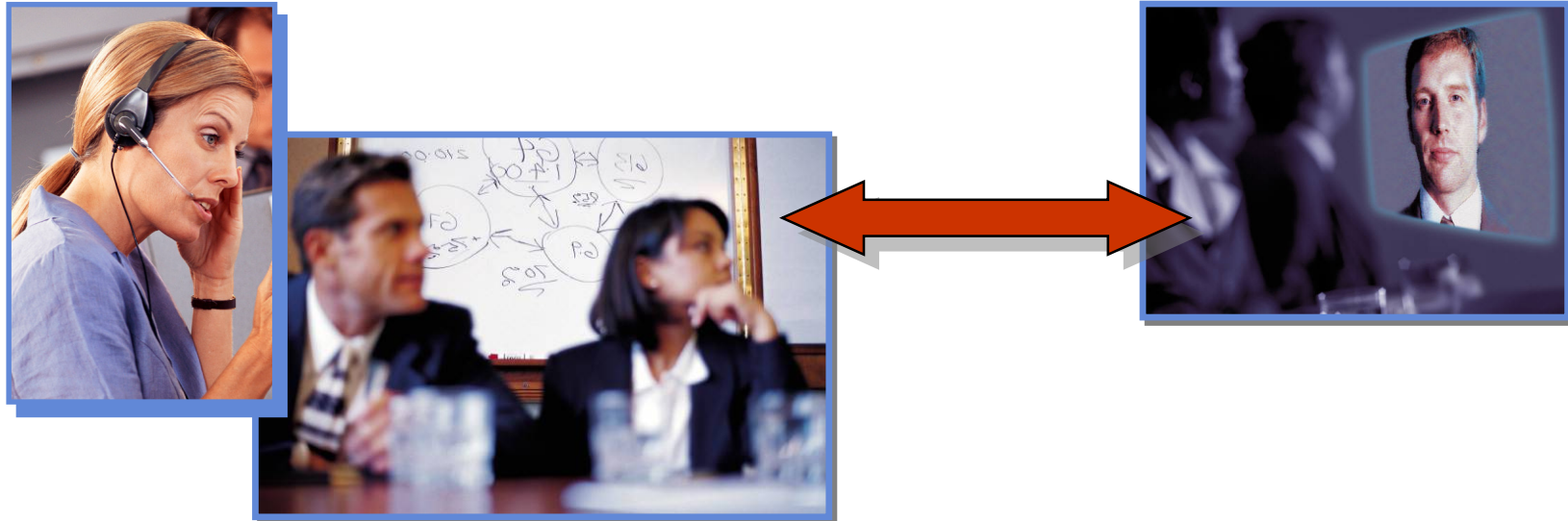
2. Interpreting in a videoconference:

- ∅ Primary participants distributed across different locations
- ∅ Interpreter(s) at one of the participant locations or at third location

3. Remote interpreting:

- ∅ Primary participants together on site
- ∅ Interpreter(s) at a different location

3.1 Extension of traditional interpreting settings



Unidirectional

∅ Consecutive / simultaneous

Kurz (2000)

Bilateral

∅ Consecutive?

3.2 Interpreting in a videoconference



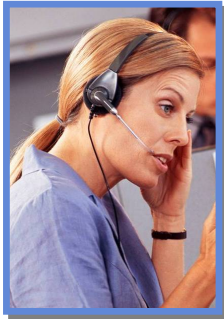
Unidirectional

- ∅ Simultaneous
- ∅ **Videoconference:**
Daly (1985), Kurz (2000)
- ∅ **Webcast:**
European Commission (2003,
2004), Selhi (2000)

Bilateral

- ∅ Consecutive / simultaneous
- ∅ **Videoconference:**
Braun (2004, 2007)
Braun & Kohn (2001)
- ∅ **[Telephone:]**
Oviatt & Cohen (1992)
Wadensjö (1999)
Rosenberg (2004)

3.3 Remote interpreting



Unidirectional

- ∅ Simultaneous
- ∅ **International organisations**
Böcker & Anderson (1993)
Moser-Mercer (2003, 2005)
Mouzourakis (1996, 2003, 2006)

Bilateral

- ∅ Consecutive / simultaneous
- ∅ **Legal system:**
e-Justice (throughout Europe)
'Virtual Court' project UK since 2007
[see also TIP US since 1989, audio]
- ∅ **Hospital:**
Paras et al. (2002)
Azarmina & Wallace (2005) (review)
[see also Hornberger et al 1996, audio]

3.4 Sign-language interpreting



- **Video Relay Service Interpreting (VRS)**
 - ∅ for interlocutors at different locations
(=interpreting in a videoconference)

Registry of Interpreters for the Deaf (2005)
- **Video Remote Interpreting (VRI)**
 - ∅ for interlocutors who share the same location
(=remote interpreting)

Parton (2005)

3.5 Major findings



- **Studies on RI in the EU and UN** point to difficulties including stress, fatigue and demotivation of interpreters, with negative effects on interpreting quality and independent of specific technical parameters (overview: Moser-Mercer 2005, Mouzourakis 2006).
- **Studies on RI in medical settings** are more encouraging, but were mainly conducted from a 'client' as opposed to an interpreter's perspective (overview: Azarmina & Wallace 2005).
- **A study on VC interpreting in business settings** points to the adaptability of interpreters to the VC conditions, but also reveals problems arising from this very technology (Braun 2004 et seq).

4 Emerging questions



- **Impact of technology on interpreting performance/quality**
 - ∅ Influence of technical channels on the interpreter's visual/auditory perception
 - ∅ Effectiveness of technical communication channels (visual/aural perception and cognition)
 - ∅ Contribution of different modes of communication (semiotics, multimodality research)
 - ∅ Impact of remoteness (social psychology: reduced 'social presence')
 - ∅ Consequences of changes in the communicative behaviour of primary participants do to conditions of VC/remoteness

4 Emerging questions



- **Impact of the socio-cultural environment in which VCI/RI is embedded, especially in PSI, involving**
 - ∅ Participants unfamiliar with the legal system of the host country, with medical condition, under stress, vulnerable, not used to public speaking, not used to working with interpreters, using dialects
 - ∅ Emotionally loaded or conflicting-goals communication
 - ∅ Individual-institutional communication, different levels of expert communication
- **Communication management**
 - ∅ In the consecutive/simultaneous modes
 - ∅ Implications of replacing consecutive with whispered interpreting
 - ∅ Interpreter's role

4 Emerging questions



- **Adaptation of interpreters to the technology**
 - ∅ Adaptation processes in different settings; uses for training
 - ∅ What does adaptability depend on, where are its limits
 - ∅ Impact of training and familiarisation
 - ∅ Quality assurance
- **Methodological issues**
 - ∅ Validity: comparative studies face-to-face vs. VCI/RI, longitudinal studies... ?
 - ∅ Research competence (combined linguistic and interpreting studies competence for minority languages)?
 - ∅ Access to data?
- **Further research requirements**
 - ∅ Descriptive: problems, processes, strategies, ...
 - ∅ Applied: teaching methodology; conceptual solutions