

ViSiCAST Meeting Report: 3rd Consortium Meeting

Project Number:	IST-1999-10500
Project Title:	ViSiCAST
	Virtual Signing: Capture, Animation, Storage and Transmission
Document Type:	Meeting Report

Purpose of Meeting:	3 rd Consortium meeting
Dates of Meeting:	29-30 June 2000
Venue of Meeting:	IvD, Thye Netherlands
Work-Package(s):	Full Consortium
Participants(s):	Jan Dobson (ITC) Steve Cox (UEA) Ralph Elliot (UEA) Han Frowein (IvD) John Glauert (UEA) John Low (RNID) Jo Coy (PO) Ian Marshall (UEA) Werner Brükner (IRT) Françoise Prêteux (INT) Margriet Verlinden (IvD) Mark Wells (TV) Eva Safar (UEA) Hortensia Popescu (UH) Eric Borgstein (IvD) Farzad Pezeshkpour (TV) Alan Kennedy (PO) ? (PO)

Summary:

Report of Consortium Meeting held on 29th June 2000 and Project Planning Meeting held on 30th June 2000.

**Agenda for Third Visicast Consortium Meeting
On Thursday 29th and Friday 30th June at IvD
Room (TBA) at 9.15am**

1. Welcome
2. Present/Apologies
3. Agreement of previous minutes
4. Actions from previous minutes
- 5 Business Items
 - 5.1 Work Packages Progress
 - 5.2 Work Plan for Coming Quarter
 - 5.3 Planning for hiring of signers
 - 5.4 Administrative Issues –
 - Quarterly report
 - Marketing/exploitation plan (see attached)
 - Publicity
 - 5.7 Work Schedule dependencies PERT chart*
 - 5.8 AOB

To be dealt with on Friday

**Minutes of the Third Visicast Consortium Meeting on Thursday 29th June 2000 at
IvD Holland and**

The Project Planning meeting on 30th June 2000 at IvD

(Note: work package meeting were held on the 27th minutes available separately)

1. Welcome Jan welcomed everyone especially new comers Eva Safar, Hortensia Popescu, Eric Borgstein, Farzad Pezeshkapour, Alan Kennedy, ?

2. Present/Apologies

Jan Dobson (ITC) jan.dobson@itc.org.uk
 Steve Cox (UEA) sjc@sys.uea.ac.uk
 Ralph Elliot (UEA) re@sys.uea.ac.uk
 Han Frowein (IvD) h.frowein@rdt.IvD.nl
 John Glauert (UEA) J.Glauert@sys.uea.ac.uk
 John Low (RNID) john.low@rnid.org.uk
 Jo Coy (PO) joanne.coy@postoffice.co.uk
 Ian Marshall (UEA) A.Marshall@sys.uea.ac.uk
 Werner Brueker (IRT) Brueckner@irt.de
 Francoise Preteux (INT) francoise.preteux@int-evry.fr
 Margriet Verlinden (IvD) m.verlinden@rdt.IvD.nl
 Mark Wells (TV) televirtual@compuserve.com
 Eva Safar, (UEA)
 Hortensia Popescu, (UH)
 Eric Borgstein, (IvD)
 Farzad Pezeshkapour, (TV)
 Alan Kennedy, (PO) alan.kennedy@postoffice.co.uk
 ? (PO)

3. Previous Minutes

Accuracy agreed

4. Actions from Previous Minutes

Action addressed: 1.1 done 1.2 deleted onus on individuals 1.3 done 1.4 done 1.5 reminder to do this 1.6 Friday 1.7 Friday 1.8 Done 1.9 Done 1.10Done 1.11	1.12 1.13 done 1.14 moved to AOB 1.15 done 1.16 done 1.17 done 1.18 moved to AOB 1.19 moved to AOB 1.20 continuing action (done) 1.21 ?? 1.22 no further action
2.1 WP1 meeting 27/6/00 meet this action point done 2.2 done	2.20 done 2.21 done 2.22 in progress

2.3 done 2.4 brought forward to this meeting WP1 progress 2.5 done 2.6 done 2.7 superceeded 2.8 in progress 2.9 in progress 2.10 in progress 2.11 in progress 2.12 –2.15 in progress duplicate 2.15 and 2.16 avatar description, player version, datafile format re-actioned 2.17 brought forward in WP1 progress 2.18 selected an initial target domain on going 2.19 still evolving ongoing	2.23 done 2.24 done 2.25 partially done on-going re-actioned 2.26 Consortium agreement re-actioned on some partners, in progress 2.27 Partner’s page (each organisation) carried forward WP8 2.28 Text to be signed carried forward under WP8 2.29 carried forward wp8 2.30 carried forward wp8 2.31 2.32 done 2.33 in progress duplicate 2.33 brought forward to this meeting WP7
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5 Business Items

Agenda approved

5 Work Package Progress

Work Package 1

Jan said that a meeting was held the previous evening by WP1 team to determine the specification and action for the end of year deliverable 1.1 She asked for a report

Francois detailed 3 options

1. 15.2 Mbps unencoded maskvr / compressed MaskVR to Mask VR decoder at receiver
2. Mpeg-2 maskvr to Baps – gain factor higher than 10 in encoded Baps (240 kbps)with no degradation (minimal gain factor 62) decode BAPs to MaskVR at receiver
3. Develop within Mpeg-4 framework further increased compression. Transmit in Mpeg4 and use mpeg4 player at receiver end

Farzad said that the uncompressed maskvr was less than 1Mbps for signing as it didn’t need to transmit the bottom half of the body. Compressed it should reduce to by a factor of 10. Farzad to experiment

Jan reported ITC aware from P. Merchant who is a consultant to TDN the management body for UK digital multiplexes that ITN closed system (5%) 500kbps has been turned down as it uses too much bandwidth. They are searching actively for a solution for a minimal bandwidth closed solution. BBC have proposed a 180kbps (250kbps probably) system which may be adopted if there is no viable alternative. If it is we will have great difficulty introducing the Visicast system later. Peter Marchant has given us an opportunity to demo the prototype broadcast system in Oct. It is imperative that we do so if we want it to be kept at the forefront as an option for the future Jan outlined what the previous evenings WP1 meeting agreed

- Transmission to be streamed
- TV to produce a compressed version of MaskVr output for mpeg2 streaming to a receiver with MaskVR presentation software
- IRT to provide the streaming technology and decoding at the receiver end
- This will form the basis for the Oct demo and December deliverable

- INT to work closely with TV to determine if an mpeg4 version can be developed in parallel and if ready demonstrate it at the same time. She reports INT have a provisional Baps to maskvr converter and an Mpeg 4 player
 - Francoise has evaluated different levels of quantisation on synthesis. More needs to be done Francoise asked for the optimum bit rate. Jan said that it is the lowest possible for acceptable quality of intelligibility of signs
- Jan said she would contact colleague to obtain an mpeg4 streamer and player
 Jan concerned about commitment of resources to pursuing multiple solutions Others express concern too. WP1 delayed in specifying a workplan and the resource commitment to counter its delay should not impinge on other WP deadlines.

Actions	Who	By
3.1 Optimise motion data and compress Maskvr output to maximum	Farzhad	August
3.2 Refine specification of demonstrator/Dell1.1	TV/IRT	July
3.3 Send spec and schedule to Jan	Werner	July
3.4 Refine spec for Mpeg4 route prepare to demo in parallel for Oct	IRT/INT	August

WP2

WP2 work on schedule

Production of standard Dutch sentences (in text): A model for weather forecasts has been constructed. The model exists of 20 patterns and 248 concepts (words and short phrases). This model was translated into English and sent to the UEA and UH analysing the structure of signs and of sign sequences is easier when a transcribed version of the signs is used. The students have recorded the concepts and example sentences on video. For some weather terms they recorded more than one sign. For these cases they will contact the Dutch Sign Center, and determine the (most) standard signs.

User requirements for plugin: working on the user requirements for the website-application.

Dutch weather reports model converted into SLN lexicon/template.

Verification against SLN human signed form

SLN motion capturing last week of August

IDGS looked at human signing of Dutch weather reports

Reported M.Hough's interest in exploitation of web based technology for disability groups

Agreed Link to web site ONLY if anything is available at this stage

Motion Capture System installed at UEA, reported first motion capture session 25/26 June,

Captured motion high quality – calibration known bottleneck

Motion capture last week of August, which avatar is to be used? 3 possibilities

PO agreed in principle to use of Tessa-2 with minor modifications if required.

(ITC need to renew licensing agreement letter with PO)

Need for requirements for browser plugin.

SiGML – avatar can be driven by SiGML as a provisional proof of concept

Questioned if SiGML will meet standards, John stated it is planned later in project.

Action	Who	When
3.5 Complete user requirements for web application	IvD	August
3.6 Complete verification of human sign form	IvD (IDGS?)	August
3.7 Capture necessary signs using Tessa 3	IvD UEA	September

WP3

Jo and Steve gave a general report:

RNID/PO/UEA completed evaluation of first prototype (D3.1)

System performed satisfactorily Evaluation report in WP6

Comments on form of signs lead to recapture of a number of signs 25/26 June
 Exploration of an alternative speech recognizer software
 Words to sign phrase mapping being explored.
 Evaluation criteria has to incorporate notion of efficiency of transaction
 Speech recognition side needs to be more flexible.
 Police, legal services, retailers etc interested in what they have seen of PO system

Action	Who	When
3.7 Construct new avatar -Tessa 3(PO) for next prototype	TV	August
3.8 Determine and Capture new signs	UEA/RNID	August
3.9 Determine possible product development costs (with ICL)	PO	August
3.10 Research and development for unconstrained speech input	UEA/PO	ongoing

WP6

Mel reported on the PO system evaluation by RNID. Report to be circulated confidentially internally for comment and submitted month 7 See slides on website work packages->wp6

Summary

details of Deaf participants summarised from differing regions of UK (6 in total)
 intelligibility evaluation methodology detail

- 61% accuracy deviation +-20% of phrases
- 81% accuracy deviation +-9% of meaning units of errors
- 30% attributed to inappropriate signs, 70% due to unclear sign

Ease of identification / Acceptability results reported

- (Discussion of benchmarking with a human signer - see below)

Transaction success evaluation reported

- Twice as long with Tessa than without

Reasons

- Unfamiliarity with system by clerks
- Speech to sign delay not negligible
- Communication with Tessa more difficult and less acceptable than without

Questionnaires to Deaf users and Clerks

- Methodology
- Mixed results
- + suggestions for improvements

Discussion

- Video of a live signer as control was suggested
- Regional effect ?
- How essential is reality?
- Status of report – unpublished, partners access only INT

Action	Who	When
3.11 PO/UEA to comment on report to RNID (Mel) prior to Action 3.12	UEA/PO	7/700
3.12 Identify points which need addressing-feedback to RNID (Mel)	All partners	July

WP4

Mark reported on progress:

Demonstrated BT/TV/channel 5 virtual newsreader - example of non signing virtual humans

The use of VH in general comms is growing rapidly. BT interested in VH for WAP apps

New avatar - Tessa2 produced in response to some of PO 3.1 evaluation feedback

Facial tracking/morph target for improved facial expressions (compatibility with underlying

concepts of HamNoSys/GML) may lead to potential bandwidth reduction.
 Duplicate Motion Capture System installed at UEA Updating calibration software
 Ihost playback Transmission/Eye-gaze-head control /improved lighting-camera position control
 Problems with laptops taken offline
 John said that UEA not comfortable with the potential demands for repeated motion capture sessions. Calibration still a problem and unacceptably time consuming
 Mark said that TV do not inexhaustible resources John agreed that UEA did not want to depend upon TV presence but needed a system sufficiently easy to apply so that it did not consume staff time unnecessarily. Other techniques to be explored.
 Discussion followed concerning versioning, TESSA 3 (TESSA 2 without PO uniform) to be used by all partners as a benchmark until an updated version officially adopted
 WP2 Ihost needed as a plug-in within next quarter.

Action	Who	When
3.13 Ihost needed as a plug-in within next quarter	IvD/TV	Sept
3.14 Resolve the motion capture set up/control issues	TV/UEA	August
3.15 Produce TESSA 3 and distribute (INT asap)	TV	July
3.16 Improve calibration	TV	ongoing

WP5

Reported that

(a) SiGML

Renamed GML as SiGML (or SIGML)
 Prototype being developed for modeling individual signs

Discussion followed on extensions to handle co-articulation, mouthing over word boundaries etc.

(b) Tools

Continue investigations
 Need for an avatar which can be driven by SiGML
 Given absence of sign language grammars, feedback from Deaf needed via avatar

presentations

(c) DRSS progress as proposed
 But with proposition ordering
 Maintenance of sentential boundaries.

(d) Initial problem domain Toy domain involving an object world has been selected .
 Will test lexicon and synthesis of signs for directional verbs etc.
 Reported that application potentially discardable.

(e) From Jan/Feb onwards need for an avatar for synthesis even if robotic
 INT can provide an intermediate avatar to run SiGML

Action	Who	When
3.17 Initial SiGML definition to published via Jan to partners.	UH	August
3.18 Selection of Grammar Tools	UH	August?
3.19 INT to provide partners with their avatar	INT	August
3.20 John Lowe / Ralph Elliott to liaise re SiGML 'evaluation'	UEA/RNID	July
3.21 Clarification of RNID role in WP5 evaluation of SiGML and Lexicon/Grammar development for BSL	UH/RNID/UEA	July

WP7

Jan reported:

Web site being modified to support progress statement and Quarterly Reports changes.
 Monitoring of activities showed all progressing to schedule despite recruitment problems

WP1 caused some concern with the delay of Del 1.1 specification and work plan due to discussion to determine appropriate transmission methods but this has been determined and ground will be made up. Jan/Mark to monitor to ensure that it does not effect the work of other projects

Reminder that 6.1 effort table in progress statement should be in decimal man months, 6.2 in man hours with planned hours shown for each work package not for each individual for that period

Jan had made an approximation for the last quarter using each partners productive hours for that quarter spread in proportion to man effort for each work package. Only Han and John had come back to her with amendments so these had been submitted for Quarter 1

Reminder of minute of last consortium meeting that management reports to the Commission will be submitted on time even if partners fail to send their information on time.

John confirmed that this was necessary and that the majority of partners should not suffer from one or two defaulting on their contributions

John also asked that effort in 6.1 and 6.2 be phrased as indicative

Discussion followed on Annual carry-over of man-power effort.

Action

	Who	When
3.22 Jan to check contract/Carl regarding Annual carry-over of man-power effort.	ITC	July
3.33 Partners to submit by 4 July combined 3 month statement for this quarter only using form Jan had already emailed (with objectives already filled in in 1.1)	All Project Man	4/7/00
3.34 July statement onwards to be submitted via website	All PM	4/8/00
3.35 Phrase effort as 'indicative' on 6.1 and 6.2 of Quarterly Report	ITC	July

WP8

Jan reported that she had circulated Del 8.1/8.2 Marketing and exploitation Plan and thanked those that had sent her contributions.

Discussion followed on the document and minor alterations were suggested

Jan said that she had it "vetted" by a marketing consultancy that ITC used and they said the framework captured everything needed. They had suggested that it was now important to implement the framework.

Discussion followed as to when this should happen for each of the application products (Jan had given a timetable in the document)

Jan proposed that the consortium could involve these marketing consultants at an appropriate time, She would distribute their PP presentation

Han thought that the work was not far ahead enough to think of marketing Steve disagreed and said that the marketing work being done by the PO now had been very useful in defining the way the work should go and in getting feedback

Jan said that we should try to adhere to the timetable suggested in the framework and not leave it to the last minute Many of the activities need considering now as they will be queried at the annual review

John/Han suggested avoid implication that EEC 'help' essential (rather than desirable)

Partners agreed to discuss at the next consortium meeting

Thomas suggests identifying competition in different areas

Deliverable to be submitted in next 2/3 weeks. Therefore feedback required imminently.

Public Relations

Jan and RNID had had a series of meeting with BDA and See Hear producer to establish permanent communication channels with UK deaf community. This had been sensitive and a crucial activity before broader publication

Those channels now set up There will be an article in British Deaf News hopefully in August

Bryn Brooks producer of See Hear had been anti-virtual signing was now very supportive and See Hear was to broadcast an article in their programme on 15th July

Both channels now have links to the Visicast web site Jan had provided a precis of the project Material –digi tape of PO system and new TESSA had to be with Bryn next week PO to confirm permission

Discussion followed re RNID exhibition 30 October and IST Conference 6-8th Nov.

Partners agreed to attend if costs are met from project budget

ITC will produce brochures (IST required English only)

Mark said he would be doing posters for the Deaf Awareness exhibition which could be used for the others

Jan asked partners to send photographs relevant to project to her by 15 July

Jan asked that the action minuted last meeting be done and partners tell her which bits of text on the website should be signed. This was for human signing. It was agreed last meeting to add VH signing later But if text identified it could be done at the August capture session

We have reserved an hour session at BDA 4 year annual conference August 2-6 → in Belfast Wednesday Aug 2 arts and media day. Partners agreed that we should participate. RNID to act as coordinator PO willing to attend

Functionality and Presentation of ViSiCAST website commented upon. Particular points should be sent to Jan in next week .

Action **Who** **When**

3.36 Jo Coy to confirm permission and parts to be used by See Hear and tell Mark Wells RNID
5/7/00

3.37 Mark to prepare tape and send to Bryn TV
9/7/00

3.38 John Low to identify suitable ‘commentator’ to appear on See Hear RNID 7/7/00

3.39 IDGS/IvD/RNID to identify text on web site to sign.
UH/IvD/RNID

3.40 Produce human signed videos to be produced and capture signs for avatar
TV/UEA August

3.41 Liaise re PO/RNID workshop at the BDA conference
PO/RNID July

3.42 Send Jan particular problems re website All partners July

5.3 Planning for hiring of signers.

John Lowe advised that the budget and arrangements for signers needed to be apportioned effectively. He requests coordination and advance notice of any need for BSL deaf signing.

Meeting Closed at 4.45 (In time for Han to see Holland V Italy!)

Dates of next meeting

October 5 / 6 2000 at Munich as originally agreed

January 11/12 2001 at RNID London

April 26/27 2001 at Paris

July 5/6 2001 at Winchester

Project Planning meeting on Friday 30th June 2000 at IvD

Present/Apologies

All Partners were represented

Han Frowien

Margriet Vanlinden

John Gluert

Werner Bruekner

Francoise Preteux

Mark Wells

Jan Dobson

Jo Coy and John Low sent their apologies but both submitted their dependencies

Business Item: Project Plan Dependencies

Aim of the session:

To determine the dependencies for the Visicast project Plan and re Formulate

Method

The group worked from the project application work package schedules and determined the research activities upon which they depended

They then looked at cross dependencies

Result

A new project plan was formulated

Action

Jan to write up and circulate to partners

Partners to check and feedback and remaining discrepancies

Who When

Jan July

Partners July