

ViSiCAST Milestone M8-1: Project Awareness

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Abstract:

This report follows project discussion at the IST Conference at Nice in November 2000. It addresses ways in which ViSiCAST avatars can be made familiar to the Deaf community.

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ViSiCAST Strategy and Exploitation : Branding and Awareness

Nick Lodge

This note summarises the conclusions from an informal discussion of ViSiCAST partners held in Nice during the time of the IST exhibition. It is intended to contribute towards an on-going consideration of commercial issues, and does not yet represent any formal policy decision by the consortium. In fact the discussion raised more questions than it produced answers, but the recording of such questions will hopefully cause us to focus attention on key long-term issues. The consortium welcomes further debate on any of the topics discussed here, especially in the form of short written papers.

It is important to recognise that the issues here must take us beyond the bounds of the current project, in terms of time, resources, applications and organisations.

Present at the discussion were: Andrew Bangham (UEA), Christoph Dosch (IRT), Han Frowein (IvD), John Glauert (UEA), Alan Kennedy (UKPO), Nick Lodge (ITC), Nicolas Rougon (INT), Rolf Schulmeister (U Hamburg) (part-time), and Mark Wells (Televirtual).

The Market

Between 0.05% and 0.1% of the population uses deaf signing. This is not a sufficiently large market for ViSiCAST products, even if the cost of these products is met by charities or government health services. Our market must be companies who wish to promote their own products or services to the deaf community (through the web, over-the-counter, or through TV advertising), or who wish to be *seen* to be aware of their deaf customers. There are millions of these and they have the resources to afford the products.

How likely is it that such companies will buy the products? Or conversely, what is the risk that sales will be very small? It has been suggested that companies may initially adopt VH signing to steal a PR advantage over their competitors, and then the competitors will become adopters in order to negate this advantage. The hope is then that all the companies will sustain their support of signing after the competitive advantage has gone - this might be likely because they still want to appear to be caring organisations and could not afford to suffer the adverse publicity associated with discontinuation.

Of course, disability discrimination legislation means that service providers must make reasonable efforts to provide access to their services by disabled people. This is undoubtedly the most powerful advantage for us, but what does it mean for people who use deaf signing? Might it not be sufficient for companies to comply with legislation by providing textual support? After all, the vast majority of deaf people who rely on signing, can manage to understand text in their national language, even though they may not be as proficient readers as the population as a whole. This remains a significant risk for the exploitation of VH signing technology. Experience from the US, where the Americans with Disability Act (ADA) has been in force for over 10 years reveal that it has had very little impact. Service providers and disability groups are mutually afraid of the possible implications of litigation, leading to a 'stalemate' situation.

The discussion revealed the consortium's ignorance about the progress with which the European directive is being incorporated in the legislation of the EU member states. I spent some time without success trying to find the text of the Directive itself on the web. It is very important that we understand the international situation with regard to this and I would like to suggest that

we conduct a short study on this, to culminate in a report. It should address: What are the key implications and realistic expectations of the Directive for deaf people? What progress is being made on legislation in each EU member state? What timescales will be applied to the legislation in each member state? What is the current situation on the ADA and are there lessons that can be learnt? Is there any European lobbying activity to which ViSiCAST, or any of its partners, should contribute? Han has agreed to start the ball rolling by talking to Mr Wesenman of the European Union for the Deaf.

The only firm legislation that we know of, anywhere in the world, which requires deaf signing is in the UK's 1996 Broadcasting Act (anyone know any other?). Attempting to meet this requirement through VH signing rather than through use of other methods (eg MPEG-2-coded video) has been, and should remain, a key exploitation objective. Demonstrating success in one country is the best hope that we have of encouraging take-up in other EU countries. Lessons from audio description services for blind people (also required by the 1996 Act and currently being broadcast) are not encouraging; no other EU country has adopted it. Also, despite the facts that audio description could improve TV viewing for at least 20 times as many people as signing, and that receiving technology is far simpler, the production of audio description set-top box adaptors in the UK has not begun! The broadcasters have spent about _1M designing the adaptor and are paying for programmes to be described, but nobody is prepared to guarantee the _2M necessary to back the first production run of 20,000 adaptors.

Diversification

One of the fundamental long-term exploitation challenges facing ViSiCAST is that our systems lend themselves easily to diversification across many markets. These may represent commercial opportunities, but at this stage it is difficult to plan to exploit them all. We should focus on the most immediate ones while developing the strategy and alliances necessary for diversification in the long term. It is important that, as *the* major developer of VH signing, we do promote a common approach which is compatible across applications and media.

(a) Diversification of language

- national deaf languages (obviously ASL is a big potential market);
- Paget-Gorman or Makaton-type simplified language for those who have lost the power of speech;
- Cued lip-reading (a new one we heard about in Nice – does Mark remember the www reference for this?)

(b) Diversification of application

- 'Broadcast' applies to information displays, theatre, movies, mobile services, DVD metadata, etc
- 'Multimedia' applies to dictionaries, learning tools, TV electronic programme guides, etc
- 'Face-to-face' applies to video conferencing, UMTS, etc

(c) Diversification of support services

- sale, distribution and support of ViSiCAST software
- signing content and capture services
- creation of SiGML content
- sign language teaching
- continued development of dictionaries and improving linguistic processing

Standardisation

An important consideration is to what extent the exploitation of ViSiCAST technology would be improved by the presence of supporting international standards. Clearly, we shall use existing

standards, where these satisfy our requirements, but to what extent can we rely on forcing *de facto* standards, and to what extent do we need to influence the standardisation bodies? This latter activity is difficult, time consuming and relies on gaining wide international support but would need to be started during the life of the project.

Standardisation issues are most likely to affect the broadcast application, since here we have transmission considerations and set-top box specifications involving companies outside our consortium. Related and important considerations would be the ambitious goal of influencing DVD standards to incorporate signing, and possible applications involving mobile communications.

- (a) Do we need avatar standards or can we expect to promote our own?
- (b) To what extent do we need to fix gesture capture so that future expansions can be accommodated and so that future capture technologies (eg marker-less optical systems)?
- (c) How should we promote SiGML and how should it be standardised? Is there an MPEG-7 route?
- (d) Is it necessary to standardise signals which are carried in the private broadcaster capacity within the MPEG-2 multiplex?
- (e) Do we need an encryption system to deny access where VH signing is offered as a subscription service? The likely answer here is 'no' since there is not a sufficiently large market among the deaf community to make subscription services viable.

Brand Awareness

A key issue is the development of a familiarity with our products, on whichever medium they appear, as opposed to those of potential competitors. The best way to achieve this is to associate ourselves with an instantly recognisable avatar which can become an icon of ViSiCAST (even when it is not signing). We decided that this should be Visia and that (allowing for technical advancements) the basic character should not change. We have not decided whether this should be the existing Visia or whether changes should be made before it is finalised. Initial concern was expressed about the suitability of the name across European languages (especially Dutch) but there is now confidence that no close homophones will cause embarrassment.

It has been suggested that we should now trade mark 'Visia'. Worldwide? Who will pay? We also need a deaf sign for Visia. Suggestions?

We decided that, although Visia would be the first-level icon of the project, Visia herself should be a member of a family. This allows us to introduce a series of characters, including the family pets, with which individual users may feel happier. The characterisation can be improved by the creation of biographies, as is done by Seamless Solutions.

Intellectual Property

The aim here is to build upon existing IPR ownership and the mutual exploitation rights defined within our EC contracts and our consortium agreement, so that future exploitation will not be complicated by the need to negotiate licences with individual partners.

Currently, most partners own background IPR relevant to potential exploitation, and (except where modified by other contracts) partners own the IPR on the work that they generate. All partners have to make available royalty free rights to other partners for R&D purposes and have to give licences for access to their IPR for exploitation on fair and reasonable terms.

If we were developing a single, well-defined product we could agree to share any royalties earned from the intellectual component of the product, according to negotiated proportions. This is exactly the way that royalties relating to complex systems such as MPEG-2 and digital TV modulation are shared. These systems typically encompass tens of patents owned by very many companies. Searches are conducted for relevant third party IPR, and financial provisions also have to be made to cover the possibility that, even after exploitation has begun, undiscovered third party claimants may emerge. This arrangement has become known as a GIE (is someone going to remind me what this French abbreviation stands for?).

We have an opportunity to organise something similar, but an arrangement which recognises contributions to IPR by partners whose role in ViSiCAST means that they would not expect to create registered IPR eg patents (most GIE arrangements only recognise patents).

As our exploitable applications are being developed in 3 areas: television, multimedia and face-to-face, it has been suggested that we draw-up 3 separate proportionate sharing arrangements to reflect contributions made to each. This approach has the advantages of being simple and fair but, of course, negotiating the proportions will not be easy (GIEs tend to use simple counting of patents even though the relative values of patents varies greatly).

Options for exploitation beyond ViSiCAST

We considered a number of possible organisational structures for the promotion and exploitation of ViSiCAST products beyond the project term. These were: (i) strategic alliance, (ii) licensing or sale to third parties, (iii) formation of a limited company, (iv) establish a foundation.

The idea of forming a strategic alliance with companies outside ViSiCAST to tie-in specific expertise or effort, only seems useful to me if we have a strong exploitation base of our own. This is not the case – no company in ViSiCAST currently produces, markets and supports software products.

Licensing or sale of our IPRs to a software company is the easiest option, but income from IPRs is likely to be small, transfer of the knowledge will be difficult, and if we were not intending to continue to carry out further developments (in for example: vocabulary, linguistics and avatar technology) the value of our IP would decline quickly with time. In fact it is likely that we would encounter difficulty in trying to licence or sell our IP unless we do provide on-going support, because the area of ViSiCAST is too specialised (and possibly, risky) for most companies to devote effort to.

The formation of a limited company specifically to develop and market ViSiCAST products is a possibility but raising capital would not be easy. We would need to have a clear understanding of the potential market based upon carefully conducted surveys. It would therefore be important to keep the operation small and focused, and concentrating on the core business without diversifying too much. We considered that there would be 3 core areas:

- (i) Maintenance of on-going development work in: the lexicon, linguistics, capture technology and avatar technology;
- (ii) Production and distribution of professional software and support documentation; and
- (iii) Production, procurement, sale and support of professional capture systems.

Having established this core, it would then be more practical to diversify through licensing arrangements, for example to specialist UMTS companies and through alliances with facilities houses which specialise in the production of signing.

Nicolas viewed the formation of a foundation as attractive but little discussion in the meeting was devoted to how this might operate as a commercial concern. In the UK foundations have no

legal status, organisations using the name (eg Nuffield Foundation or Wolfson Foundation) operate as charitable trusts. Trusts (which also have no statutory definition in the UK), are established by a person who places assets in the control of trustees for the benefit of persons or for a specific purpose (which must be charitable). A trust may undertake research: if the subject matter is 'useful'; if it is contemplated that all knowledge acquired will be disseminated to others; and if it is created for the benefit of the public (or a sufficiently important section of the public). I do not know if French law formerly defines foundations, but in the British situation, profit-making concerns cannot be recognised this way. Perhaps Nicolas would like to provide more information on this concept.

Specific promotions

In a separate afternoon discussion, at which Rolf was present, we considered special promotional activities which may sow seeds for exploitation during the span of the current project.

The UK terrestrial broadcasters recommendation to use ViSiCAST – we have been requested to provide 'a roadmap' indicating a credible timescale for the provision of the technology. I have been invited to present this to the TDN group at its next meeting on 14 December.

The UK set-top box initiative – a bid has been submitted to the UK government for partial funding of a virtual human-based set-top box. The bid (strictly confidential at this time) is made by the ITC, Televirtual, ON-Digital, Philips, Univ of Manchester and Univ of Hertfordshire. The latter universities are concerned with human factors issues in the design for blind and elderly people. All work on deaf signing for the box will come from ViSiCAST activities and where IPR is sought from the consortium, partners will be rewarded through the licensing arrangements.

SNetLine – this is the initiative for the provision of a VH signing demonstration on the portal being established by the north German Länder. ViSiCAST has decided that it is strategically important to support this and has scheduled a signing and editing session at UEA to create the content for it.