

Galilean Nemesis: Notes on Video Ethics in HCI

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These reflections were originally stimulated by the brouhaha that followed the introduction of video data into HCI's research methods in the late 1980s and early 1990s and have lain mouldering in my filing cabinet ever since. When I look at them now, I see that the same order of consideration could well be offered to illuminate or give pause for thought to many current research endeavours associated with investigations of collaborative tools and technologies such as multi-user agents, recommender systems and of course knowledge management systems. They too traffic in personal information which is not so much given as 'given off'. So in the hope that its arguments remain fresh and lively, I have rescued this Note from the oblivion which would otherwise have been its fate.

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The increasing collection and use of video data in the general field of HCI has led to a concern for a regulatory code of practice. The need for a code is explained by reference to specific cases where video materials were “misused” or the subjects of such materials “misled” about the use to which they might be put. There is no doubt this concern is real and the instances discussed are, naturally, very disturbing. However, whenever I have come away from these kinds of meetings, my worries seem to have grown, not diminished. I have acquired more questions than before, and certainly more problems than solutions. Somehow, the issue as it is raised and the proposal as it is outlined, seem out of kilter. In these notes I want to try and tease out why this might be. In doing so, I am well aware that I will not be directly addressing what ought to be contained in a code of ethics for video data, let alone the pragmatic considerations (How? Who? Where? When?) of actually instituting one. This may well annoy or even frustrate some people anxious to get something done now. (Enough of this theorising! Off with their heads!) Yet, in my view, it is important to be sure that a code of ethics will actually do what is wanted. And it is around that issue, I think, that my doubts revolve.

The questions I have form three fairly distinct clusters, so I will take them in turn.

Who needs an ethics?

The general idea of a formally constituted set of ethical principles for research (or in any other domain, for that matter) leaves me just a little suspicious. It smacks of attempts to resolve ethical problems by fiat and hence raises the spectres of MiniTru and The Commission for the Propagation of the Faith. The responsibility for making ethical choices is to be taken away from the individual and given to some formally constituted body which then legislates on the individual’s behalf. All the individual has to do is look up the case in the schema and an appropriate course of action is laid down. The net result of this is, of course, to create a social institution which exists in order to extract the dilemmatic character from moral dilemmas, making them simple matters of choice.

The reason I find this suspicious is not so much that such formal devices are open to misuse and are usually repressive (although both of these are generally true). It is rather that it demonstrates a distrust of our ordinary intuitions about moral matters. And yet, for the most part, such intuitions are quite good enough for us to go on when faced with ethical choices. We know that generally we should not lie, break promises, deliberately exploit others, or cause harm and pain unnecessarily. We (as normal adults in our society) do not need to be told this. We also know that, on occasion, it may be necessary to do any or all of these things in order to achieve some greater good. What we might have difficulty with is explaining why we should or should not do these things. That is, we might well have difficulty offering a consistent and coherent *justification* for the ethics we hold to. Providing such a justification is usually thought of as the task of Ethics or Moral Philosophy. Attempting to provide a consistent and coherent *specification* rather than justification of ethical choices is likely to lead to a system which is

inflexible in the extreme (because it is designed to cope with any foreseeable case no matter how far-fetched) and hence is likely to be repressive.

We have, then, three entirely different, but obviously closely interrelated, sets of considerations to keep our eyes on. The first is the system of ethics — the framework of principles — which guides our intuitions about right and wrong. Second, we have the scaling process by which we compare alternative actions with regard to their relative ethical status. Third, there are the actual courses of action which we might feel impelled or be recommended to take. The first provides us with the grounds of justification. The third encompasses the *specific* codes of practice we might follow. The second, of course, is the way we get from the one to the other.

Reliance on our intuitions seems to be the *modus operandi* for scaling in areas most closely related to the one under discussion. Bill Buxton (in a personal communication), for example, draws the comparison with our practice in regard to authorship. We know what we are supposed to do and most of the time this reliance works. While we may all know of cases where individuals feel peeved because they were excluded from authorship even though they felt they had made major contributions, or where undue merit was given for heavily borrowed or even plagiarised work, in general terms we know how the rules are to be applied. If individuals are tempted to infringe them knowingly and blatantly, the potential effect on reputation, etc. of discovery acts as sanction enough. The same is true for the instance of synchronous submission of the same paper to multiple journals. Again, intuition reinforced by the possibility of negative sanction works most of the time.

If we think about the issue of video data from the point of view of intuitions, then perhaps what is going on is not that those collecting, editing and showing video don't have the right sensibilities, but that these are not always shared elsewhere within the HCI community. As a consequence, our use of video does not always generate the reaction we would prefer. While we might wish not to exploit or hold our subjects up to ridicule, we feel helplessly responsible when our audience (the rest of the community) insists on laughing when mistakes are made or at impressions that are given off. I think of this as the reverse of the Living Desert phenomenon. In those Disney films, every effort was made to anthropomorphise the creatures being shown. We were (and are) encouraged to relate to their potentially human characteristics, and thus find them to be cheeky, friendly, cute, funny, and so on. The gopher popping in and out of his hole reminds us of some Charlie Chaplin escapade. Reverse anthropomorphising occurs when we treat the subjects of video clips in a strictly uni-dimensional way — as *performers* and nothing else. Their sociality is undercut and it becomes possible to enjoy their performance as if it were just that, a performance put on for our benefit.

The really tricky thing here is that we who use video are ourselves often guilty of colluding in this outcome since we choose our examples to have the maximal effect with regard to our own performance. We have found new ways to observe the old maxim “always leave ’em laughing”.

However, this collusion may be more a matter of good taste (or even good science) than ethics since it has more to do with the style of presentation than it does with the character of the relationship between researcher and those whose activities are documented in the video materials.

Of course the intuitions and sensibilities which we all have are inculcated in us, more or less (let's not get into that!), by those with whom we interact. Our parents and other adults, children and institutionalised General and Significant Others all play their part. It is here that we who use video may be able to act effectively. I for one am waiting eagerly for the first presenter at a conference who rounds on a giggling audience and declares "If you can't all behave yourselves and watch sensibly, I'm going to turn the video off!" In fact, I'd probably pay money to see that.

What are the relevant comparisons?

From what is often said, it appears that a set of ethics or guiding principles is expected to provide for:

- (a) the preservation of 'trust' between researcher and subjects; and
- (b) a professionally enforceable canon of good practice.

These two are crucially different. It is by no means clear that a formal scheme is going to do anything to help with (a), since that has to be based on a personal relationship. You can't legislate for trust. Indeed, the introduction of a contractual aspect into HCI (and other experimental procedures) is likely to break down the trust relationship and replace it by the considerations relevant to a commercial transaction where 'trust' may be precisely what is not in play. This tendency has very interesting and important interconnections with our conception of our subjects which I will come back to. In effect we end up treating them as clusters of properties which can be bought and controlled.

The principles of good practice have much more to do with attempts to regulate and control "professional expertise". Those who submit to the enforcement of the scheme are licensed (and hence legitimated). One aspect to the ethics issue is, then, the professionalisation of HCI which is of course strongly related to the professionalisation of psychology and of computer science. But more of that below.

Medicine

The domain of medicine is often used as an exemplar for both the value and the pitfalls of a canon of professional ethics. The need for a set of medical ethics seems to stem from the possibility that Doctors could be placed in situations where they face ethical *dilemmas*. Should their obligations to their patients override their obligations to the local community (e.g. in AIDS cases)? Should they reveal "the truth" to patients or hide it "in their best interests"? These

instances correspond to some of the types which Alisdair Macintyre¹ uses to mark the distinction between moral dilemmas and moral choices. This distinction is based in the availability of ways of coming to determine what the right way to proceed might be.

The first type concerns cases where an individual is faced with a conflict of duties derived from roles which he or she might perform. The AIDS case is clearly this. The doctor has duties both to the patient and to the community within which he or she lives. The second relates to an inescapable failure resulting from following the generally accepted norms for human relationships as such, independent of the roles in play at any particular time. Thus we should tell the truth: but we should also seek to avoid hurting or causing others anxiety. The third case is, in many ways, the most interesting. Here we are faced with alternative ideals of character. In pursuit of excellence in sport, say, we exclude any considerations of friendship, compassion, and so on.

These dilemmas are not the same as cases where we have to exercise moral choices. If I have a conflict of duties with regard to, say, arriving for work in good time as opposed to fulfilling my commitment to the household by completing the breakfast washing up, I have available strategies for making the choice. I can crave indulgence. I can stay late at the office, or whatever. A second case from which they are to be distinguished is that of the drowning twins (otherwise known as the mother and baby) story. If we can only save one, there is no moral dilemma. The only relevant choice is to save one or none, not *which* of the two we save.

The point is that, for most cases they face in day to day medicine, no dilemmas arise for Doctors. They can use their own intuitions quite easily. Children and certain categories of adult, for example, generally are not expected to be able to give “informed consent” to medical procedures. Where dilemmas do arise, the profession offers stipulations about which principle is supervenient on or overrides which and thus what to do.

It is hard to see where a similar order of ethical dilemma arises in the case of video data in HCI. We might want to make a comparison to Macintyre’s third type, that of excellence. But surely we are not going to say that the demands of a (peculiar) kind of rhetoric which places primacy on “realistic”, “naturalistic”, “immediate”, and “convincing” data constitutes “scientific excellence” and is equivalent to, let alone supervenient upon, our obligations to respect our subjects? If our colleagues are not convinced by our arguments, why should they be convinced by our (carefully chosen) examples?

¹ Alisdair Macintyre. Moral dilemmas. *Philosophy and Phenomenological Research*, vol. 1, Supplement, Fall 1990, pp 376-382.

But perhaps what is at issue is the fear that such data are really just being collected to be shown — as vivid anecdotes. However, isn't this possibility covered under the same sort of rubric as plagiarism and acknowledgements? Couldn't we criticise analyses which fail to do anything with their data except display them simply on those grounds alone? Couldn't we accuse them not only of bad taste and bad manners but of bad science too?

The medical comparison also offers the notion of 'informed consent', although it is hard to see what this could possibly mean in the case of video data. In the medical case, what the patient is consenting to is a procedure or course of treatment in the light of what is known or not known about its consequences. If this treatment is part of a clinical trial, then that is what is consented to, that it is a trial. What is a subject of an experiment which is videotaped being asked to consent to? The showing of a clip of their behaviour in public? How can they know what they are consenting to in advance of the analysis let alone the presentation, since what the clip is or is about can only be determined in the context of the viewing? In fact what we are asking permission to do is to detach what might be thought of as 'agent meaning' (what they thought they were up to) from 'displayed meaning' (what we say they are about) in the materials. Since we, presumably, are collecting the materials in advance of the analysis, we cannot know what they will be for us, let alone what we will say about them on any future occasion of use. The procedure of informed consent, then, is a ritual which has more to do with easing the flow of research activity than it does with the use of the data. Which is not, of course, to say we shouldn't do it. But we ought to be clear why we are doing it.

Psychology

The comparison to Psychology is much more interesting, not simply because of that discipline's concern with its professional status. What it highlights is the possibility of a plurality of values within the psychological community and by extension in HCI as well. The norms which governed academic research in behaviour modification, for example, are not isomorphic with those which govern professional therapy. Admittedly this is a tendentious comparison, but if forced to choose between academic research and professional practice, which would HCI design opt for? Could anyone say? Trying to do both might lead to dilemmas or moral choices of the kind we just described. But it is not clear that as yet things are that well developed. In much the same way, the norms which hold for commercial research may not map on to those whose purpose is primarily the pursuit of knowledge rather than profit. (These are slippery distinctions and I don't want to be held to them. The point is that psychology is a heterogeneous pursuit. And so is HCI.) If the intuitions underwritten by norms of traditional professional conduct cannot be enforced in traditional ways by reference to a tight cluster of shared values (e.g., by collective shunning, embarrassment, failure to gain esteem and approval), then all that may be left is to resort to formal bureaucratic procedures (rules and regulations). But then what is at issue is not really the ethics of video data per se but the heterogeneous goals and value systems in play. And who is to say the professional marketer of HCI interfaces is wrong to use video clips in demos?

Why should he or she share the same values as, say, the academic researcher or the professional therapist? The trouble is that a set of unenforceable guidelines is not going to be of much value. And without a professional institution for HCI, how can they be enforced? Where does ACM stand on this?

The comparison with Psychology is tricky in an altogether different way as well. The American Psychological Association (APA) guidelines appear to be an institutional response to certain (bizarre) experiments and their political consequences. So, at first sight, it does not look to have anything to do with ethical dilemmas, as is clearly the case for the guidelines used in medicine. Second, it is not an issue of the collection and use of particular types of data either, but rather on the identification of subjects from data sets. This is cast as an issue of the ethics of privacy (which it is not) for the comparison of data from psychological experiments with medical records is a spurious one, but nonetheless interesting from the point of view of the history of psychology (and its ambitions). The experimental situation is not the same as the medical consultation in any relevant respect, a fact which is even more forcibly brought out when involvement in the experiment is motivated by commercial considerations. You might almost say that Milgram did the psychology profession a service, since the outcry over that *cause célèbre* allowed APA to act as a regulatory professional body rather than a loose interest group.

Law

If there is a comparison, it might be with the Law. Here there is a direct comparison between legal and medical consultations concerning the use of information gained. But, in addition, lawyers are expected to be self-sacrificing where there is or is likely to be a conflict of interest. That is, lawyers have to forego certain opportunities because they have accepted other opportunities. Now here we might say that if researchers have chosen to collect and analyse video data, they might have the professional responsibility to bear certain costs, for example by forgoing the presentation of that data in public unless certain safeguards are in place (or even at all). Now, it seems to me, we are back with our intuitions. And, no doubt, they will serve us well.

Are any of these the root issue?

I suggest that behind the unease over the use of video in HCI, is a much larger issue which I'll call the Galilean Nemesis. Essentially what the unease is about is a jarring between our generally accepted ways of transforming the activities of our subjects into "data" and our ordinary ways of relating to one another as co-members of our social worlds. Somehow video material seems to resist being easily transformed into 'data' in the normal sense.

Why is this? To understand the reasons we need to step back and ask about the character of 'data' in experimental (and other scientific) pursuits. Essentially, modern science is a 17th century creation. Although many contributed, it was above all Galileo (hence the metonym

‘Galilean’) who shaped the emergence of natural science from natural philosophy and natural history. The Galilean turn in the natural sciences involved, in essence, the formalisation of nature and hence the translation of knowledge about natural phenomena into abstract terms. Once this translation took place, it was a short step to apply branches of mathematics to these abstract descriptions. Galileo himself famously used Geometry. The Cartesian algebraic transformation of Geometry in turn itself defined the possibilities for classical Physics. The primacy of measurement, of experimental design and control of variables, and all the rest is derived from this. *Qualia* had become *quantia*.

The phenomenon of Psychology and related disciplines (Sociology, Economics) is subjectivity, that is, subjectively motivated courses of action. Modelling themselves on the paradigm of the natural sciences, these disciplines sought a similar translation to the Galilean. Under it, human behaviour is to be conceived as a vector whose trajectory is a function of clusters of interacting forces (variables). The envisaged model is similar to that of a ball rolling down an inclined plane. The ambition is to model the trajectory by weighting the variables. The eventual outcome is, of course, the transformation of the human subject into a *mathematised object*.

This transformation reaches its apotheosis with the commodisation of subjectivity — when behaviour simply as behaviour can be bought and sold. The creation of a market for subjectivity is an amazing achievement in expropriation. In this sense, with the practice in the social and related sciences of paying for subject panels, the contractual relationship so entered serves to define the obligations and rights on each side. Along with the transaction goes the transfer of property (proprietary?) rights and a system of valuation (cash). Once the transaction takes place subjects no longer ‘own’ their behaviour. This is why the ‘informed consent’ approach holds so much appeal since it looks to be an analogue of regulatory mechanisms governing other commercial transactions. Before you ‘sell’ your behaviour you should know what is going to be done with it.

The Galilean transformation which enables the transformation of subjective action into ‘data’ creates the possibility of distancing ourselves from our subjects. One does not relate to a matrix of counts of operant or other responses, nor to graphs of scores on attribute scales. However, when our data appear in our analyses seemingly un-transformed, we are forced to relate to them as we would to the actions of others in the social world, and we feel the transformation breaks. Some deeply embedded boundaries between the social and the non-social have been violated. We as analysts may well necessarily have developed procedures for ‘de-humanising’ the data (compiling collections of ‘instances’, anonymising transcripts, pixelating faces, etc., etc.), thereby restoring the requisite boundaries, but our colleagues are often left without the resources to reproduce our strategy. They do not know how to look at our video materials as ‘data’ and so reach for the nearest categorisation to hand, that of performance; hence the Living Desert phenomenon.

The impulse is to look for a set of principles to regulate the collection, editing and presentation of video data, then, because if presented as 'data' it has the effect of dehumanising our subjects. But, isn't this upside down? Oughtn't we really to be looking for a set of principles to regulate scientific practices which begin by dehumanising their subjects? Isn't the video issue simply forcing that transformation out into the open? What this might require us to do is to reflect on why we need these kinds of data. Putting things the other way round, are the data we want to collect directly related to the phenomena we are interested in? Such phenomena are derived from the theoretical frameworks or pre-suppositions we work with and within. Collecting video data should be the consequence of research design, not its premise. We should be impelled to that data because they make our phenomena tractable, not because they make for good presentations.

If the debate over video ethics were to raise this issue to the level of the HCI community's collective consciousness, it might go some way towards reducing the Living Desert effect. On the other hand, we could just ban the use of video materials in public presentations altogether. While that would resolve the problem, it hardly goes to the root. For, in as much as and as long as HCI unthinkingly incorporates the Galilean attitude, how to constitute data is likely to remain its nemesis.