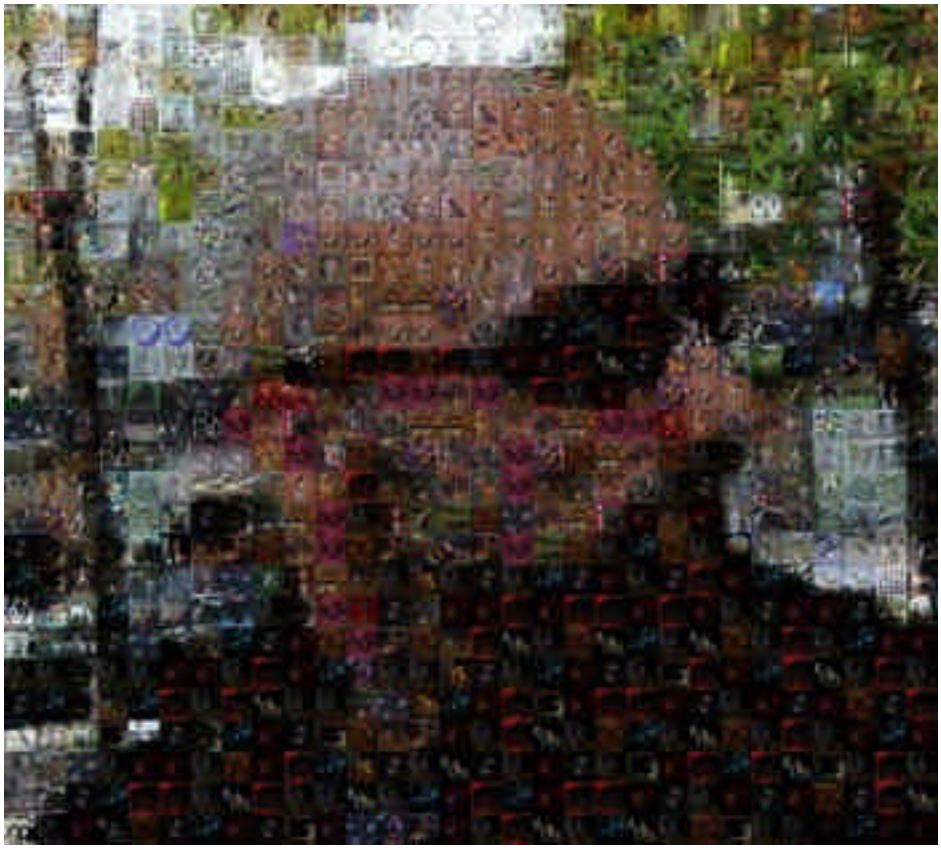
Internet Artwork, Artists and Computer Analysts: Sharing the Creative Process

Jean-Paul Fourmentraux



Overview

Internet artwork no longer refers to the concept of a finalized object, but rather to a dynamic process, a collective, open, and interactive device. Due to the increasing sophistication of tools, its design now requires hybrid skills. The necessary cooperation with computer analysts in order to create suitable programs thus brings about a status change of the artwork and the author. This paper presents an ethnographic case study of cooperation between a computer analyst and an artist. It is aimed at understanding the processes of shared design,

negociated authorship, and artwork appropriation. From an analysis of the means of communication, of various technical media and "intermediary tools", we focus our attention on role allocation, task sharing, and artwork appropriation as it is modified throughout the creative process.

Plan

Introduction†:

The collaborative situations between artists and an important ´ extra personnel ª, composed by all those who, in various ways, compete for the realization of the work, are numerous in the history of artistic practice (Becker, 1988). If this practice is indeed the result of a collective activity, the different contributions to the production are often erased to benefit the mythical figure of the singular author, final guarantor for ´ the cardinal activity of art ª. In the case of Net Art, the interactivity postulate as a technical imperative of the work

requires computing competences that the artist does not always possess (Fourmentraux, 2001). Thus, computerists are needed for the algorithmic programming of the artistic devices.

By this way, the digital arts, because of the constant evolution of the practical knowledge they need, imply unknown modes of cooperation between artists and computer analysts. This paper is concerned with these forms of collaborations. It consists of a systematic outline of an artistic plan supervision, from its initial conception to its realization. A thorough examination of dialogues and interactions allows us to take a better hold of the often implicit methods, by which the processes of translation between these actors possessing different skills work. Indeed, these same actors have different cultures, codes, and vocabulary, thus it implies efforts of communication and of non ambiguous representation. Far from being predefinite, the artistic plan enters into the dynamics of these necessary reformulations. As far as the resolutions of the problems and the coming to a decision are concerned, the observation of the spaces of mediation, translation and negotiation, enables us to have a better understanding of the way in which the individual initiative of a plan can become progressively a shared work, the product of choices taken by consulting each other under the pressure of technical constraints. From this point of view, the digital arts are liable to involve a simultaneous redefinition of the artwork localization and of the responsibilities of its authors.

On the one hand, what is it that makes us consider it as a work of art†? In other terms, where is the work of art according to the artistís eye and from the point of view of the computer analyst†?

On the other hand, how, in concrete terms, these different partners proceed to share the activities of conception†? What are the tasks attributed to each one at the beginning of the

plan†? What are the tasks that each one takes care of in practice†? Who is responsible of what†? Who is the author†?

In this art of relationship (Bourriaud, 1998) or dialogue (Kisseleva, 1998) the work of art is less located in what is to be seen than in the device that gives it life. The following analysis deals with one of the plans held up within the framework of a larger study[1], which purpose is the examination of these processes of conception distributed in different institutional contexts (Art Centers, Computer laboratories, schools of architecture, etc). This plan is the conception of an artistic device called ´†des_frags[2]†ª. Its development, through the CICV[3] (International Center of Video Creation), associates the artist Reynald Drouhin[4] with the computerist in this institution. Our study focuses on the supervising of this artistic work and on the distribution of roles, the sharing out of tasks and the different ´ takes ª (Bessy et Chateauraynaud, 1992) and appropriations of the work that it presents. We take a close look at the role of the instruments of dialogue in this process, the various technical mediations and ´ intermediary objects ª (Vinck, 1999), mobilized by the different partners to translate their individual interests on common purposes. These media aids for communication and action can become negociation partners. They act upon the conception process through their anticipation and description values, but also upon the control and authentication of the plan. In order to get closer to these ´†translation†ª processes (Callon, 1986), our choice was, in this text, to restrict our study to the observation of the shared activity of the conception of a

[1] ***Between the Artist and the Computer Analyst : A space of mediation, translation and negotiation*,** Research Contract financed by the Plastics Arts Delegation of the French Ministry of Culture and Communication. Contemporary Art and Scientific Culture program, 2001. In colaboration with Anne Sauvageot (Cers, Toulouse II University) and Michel LÈglise (Li2a, Toulouse School of Architecture).
[2] ´†**des_frags**†ª, the artwork/device†: http://www.cicv.fr/creation_artistique/online/des_frags
[3] ´†**CICV**†ª, the institution, ´†International Center of VidÈo Creation†ª†: http://www.cicv.fr/
[4] **Reynald Drouhin**, The artist†: reynald@ensba.fr

definite ´ socio-technical ª (Akrich, 1993) device : the user interface. The Des_frags device interface plays a central role in the development of the plan. I have chosen here to limit the study to the shared conception of the ´†des_frags†ª interface. Indeed its complex conception mobilized all the different partnersí competences involved in it. Computer progamming, ergonomic development, aesthetic coherence, and design are concurrently called for during this work of technical as well as aesthetic production. The ethnographic observation of this work of conception have been mainly made during three pieces of residence research at the CICV. The material for the survey is†: an observation report†; different computer models, diagrams, interfaces, specification notebooks used by the different actors ; a series of interviews with the artist and the computerist, and all the e-mail conversations (n=90) that could guide the activity of conception.

"des_frags" : Context

Des_frags is an on line work of art provided by the CICV. The principle is†that each user is invited to select on the Internet or in his own archives an image whatever its subject may be. This image will then be used as a matrix to create a kind of mosaic. Indeed, thanks to a search engine set at his disposal, he will be able, from keywords, to collect on the net a great number of other images, which, once they have been reduced, will be gathered ñ such as vignettes ñ onto the main image. So, des_frags is, according to its author, a plastic work concerned with a basic computer characteristic†: fragmentation and defragmentation. This computer manipulation deals with the themes of appropriation and diversion of webdata to make them have another meaning ñ the profusing, the ephemereal, etc. The collaboration plan with the CICV focuses on†the development of a computer program realizing the gathering of different pre-existent fragments of netíapplications, and on the conception of the user

interface. The interface would thus allow to configure jointly this research of images and the submission of the matrix.

We can give an outline of this by considering three main stages†: the expert evaluation of the artistic plan (its conceptualization), then its computer development (technical and aesthetic solutions) and finally its valuation/exhibition (its final aim). Each one of these stages goes through numerous mediations ñ technical, human, institutional ñ and indicates a progression in the interactional process.

The sociological aim is here to consider the technical problems and the social contexts together, and so to produce simultaneously an analysis of aesthetic and/or technical debates and a sociological analysis of the implied actors.

The Institutional Inscription of the Cooperation: Delimitation and Stability of the Positions

The first encounter between the artist and the CICV staff was, according to this point of view, particularly rich because its main purpose was to make the artist specify what the characteristics of the plan were as this same plan was only in a state of gestation. Little by little, a situation of mutual demand is to take place between the different partners. At several occasions in the course of the evaluation, the artist is asked to reframe his plan and to make choices to develop it technically, as he is himself waiting from the technicians that they enlighten him on the possible options. The artist is going to be compelled, even though he is asking for information, to come to a decision on options on which we can wonder who formulates them, precises them, retains them, transforms them or abandons them as the interactions become so much entangled. This first encounter between the artist and the CICV staff, ritualized through the shape of a pseudo evaluation, settles the problematization phase

during which a system of associations is weaved between the actors. This system defines the identities and roles of each person, makes clear the expectations and purposes, and enlightens the difficulties. Thus, a really entangled web of problems and options (aesthetic, institutional, ethical, technical,etc) is built, which resolution, in the name of a purpose progressively given to be common, is engaged by some of the actors according to their status. Anybody cannot ask any question, as anybody cannot answer any question.

The CICV roots the cooperations in an institutional context which contributes to the structuration of activities and thus, in putting the different actors in clearly distinct roles, tends to limit the eventual ambiguity or the ambivalence of positions. The technical partners are ´†in the service†ª of the artistís plan, sole designer and legitimate initiator. The different knowledges and pratices are thus inscribed in a history of specialities†: the art history on the one hand and more precisely the plastic thought†; the history of discoveries and the technical innovation on the other hand. But these knowledges and practices which appear as stable and delimited will be susceptible of contagions and hybridizations during their actualization in the apparent ´†immediacy†ª of concrete collaborations. So it is within the artist/objects/technical stuff triangle that the more accomplished definition and the plan actualization must be realized. From that moment, the course of action opens up to the multiple transaction which will lead to various constraints ñ time, budget, practice ñ that will give the plan its true face. We may thus suspect that these transactions become as much displacements that will make of the artistic plan the result of collaborative action submitted to the game of mediations, translations, and negotiations.

The Intermediary Space of the Collaboration :Interference and Hybridization of Roles and Functions

The whole of these transactions comes within the scope of a shared work space carried round an art/technique axis, on which the transfers of competences, the displacements of knowledges and practices at the junction of these two domains of belonging will be played. Therefore it is often difficult to delimit what is strictly the concern of the computeristís competences against the ones of the artist†; even if in a more or less conscious way, these two partners try to create an intermediary space of exchange, a territory ´†in between†ª where the confrontation of interests and work methods will take place. If the institutional context of the exchange puts on the stage actors who are predefinite, endowed with interests, knowledges, needs, in part stabilized, the shared activity during the conception puts these same actors battling with objects and technical devices which ´†perform†ª at the same time the relations and the terms in relations : the knowing actors and the known world, the seekers and the objects of their search, the acting actors and the acted elements, the users and the uses. The interface will constitute the support and the medium from which the shared conception will be led. This technical object is here viewed as much as one of the ´†actants†ª working towards the artistic plan as an ´†analyzer†ª - support and mediator ñ of the conceiving action. In this sense it constitutes a boundary open object linking the opposing actors and helping them.

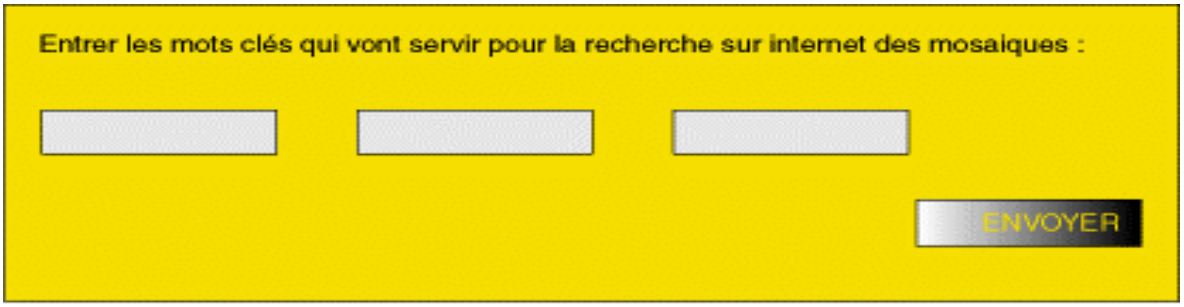
Conception of the Interface: Negotiations of Technical and Aesthetic Choices

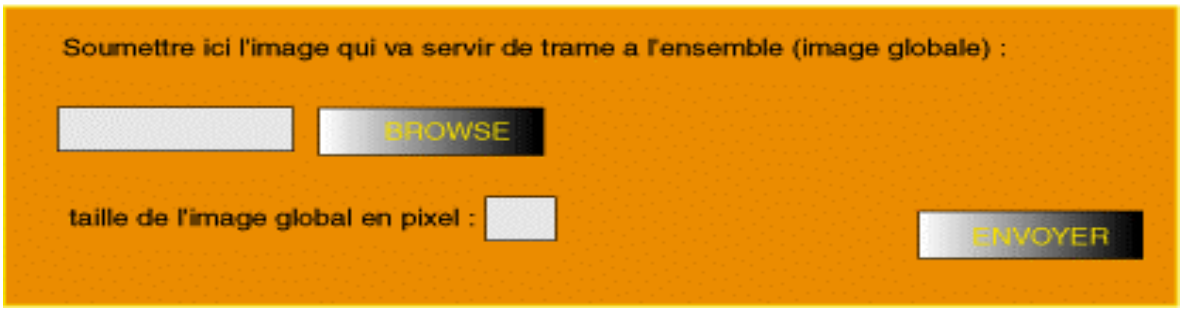
If the design of the interface constitutes, a priori, the final stage of the conception, its necessary anticipation will lead successively the artist and the computerist to outline intermediary profiles. Indeed, as the technical choices are collectively evaluated, kept or

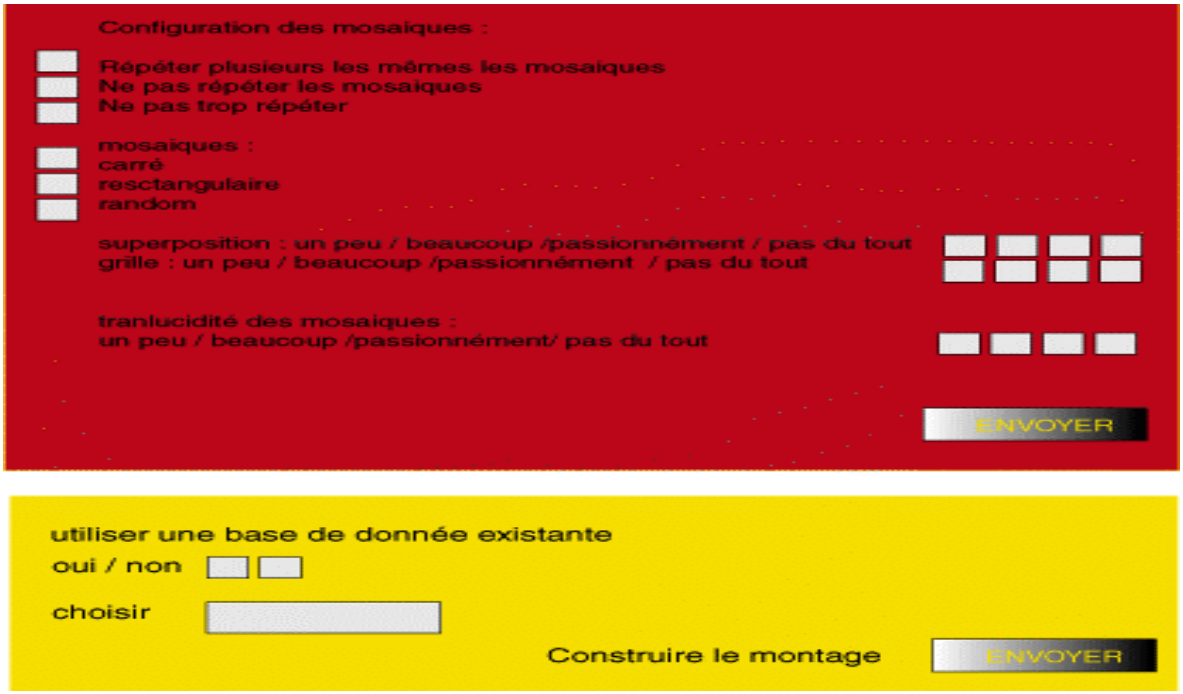
dissmissed, the anticipation of the interface uses asks for a listing and a definition of its formal parameters and its technical options. Throughout the activity of conception, the simultaneous negotiation of the interface ergonomy one the one hand (appropriateness between its functionalities or technical options and the condition of their activation) and of its appearence on the other hand (its properly aesthetic and plastic design) will take place.

Plastic Form, Logical Pratices <-> Technical Options, Aesthetic Effects

With regard to this, two attempts of designing will precede the definitive conception of the interface. The first, initiated by the artist, will be strictly functional and clearly imperfect as far as its formal appearance is concerned.







The second attempt will be the result of the computeristís work. This ´†latter†ª will be confronted to the necessity to redesign the interface with the double aim to experiment it technically and to submit it to uses. The initial model will turn out to be in many ways too technical and abstract for a non initiated user. The different parameters and functions that the device proposes to experiment suggest choices and manipulations left to the otherís free will as long as this latter cannot take hold immediately of the implications and the coherence. The model number two which will be realized ´†on the sly†ª by the computerist will tend to correct these imperfections, that is, it will offer to accompany each of the interactive parameters with a visual illustration giving to the user an anticipated exemplification of the possible results for each of the interface functions.

> **S. Courvoisier** *(Computer Analyst)†:* There was a moment when a lot of persons at the heart of the CICV did not really understand what was the use and meaning of the inteface functions and options. So it was at that time that I settled small images, little icons which tried to prove, in the easiest possible way, the results that this could give according to the different parameters. Reynald told me that it was something he didnít thinkabout and heís going to integrate it in the final interface. So

there maybe, thereís an influenceÖ

Thus this initiative goes far beyond the strictly technical responsibilities supposed to be the ones of the computerist. This latter will be led to renew the ordering of the different elements of the interface, thus contributing to give an orientation and a technical sense to the whole interactive process, but also to give a plastic and visual form which will influence, in an important way, the design of the final interface. However, if the artist seems sensitive to the readability offered by the addition of the illustrative vignettes, he will nevertheless be cautious as regards the characters judged too descriptive for each of this functions.

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R. Drouhin (Artist)†: The way the options are setÖ I donít think that iíll present them this way when iíll redo the interface. He didnít have the vocation neither to present things nor to draw the interfaceÖ Whatís funny by the way is that he did not put it crudelyÖ He put red characters on a black backgroundÖ And even if itís sure that we wonít keep any of these elements, itís interessting that he presented it this wayÖ Itís ugly. Itís not a value judgement butÖ Itís presented as a technician would do it, thereís no vocation to be aesthetic here.

He will thus be attached to the reappropriateness of that which seems to belong to him, as coming under the field of his own competences. The third version of the interface, its definitive form, will thus be completely assumed by R.Douhin. Its plastic design will be minimal and sober, black characters on a white background. Each of the menus will be thought of by the artist. The different options will be referred to by simple terms, with no descriptive or explanatory overstatement. Nevertheless, the path covered from the first model to the final version of the interface is the result of a long process of borrowings and shared suggestions, readable through this final, hybrid and collective design.

des frags

reynald drouhin

defragmentation of the internet

follow steps # 1 to # 9 to defragment the internet with images... or just # 9 to generate an image which is randomly fragmented.

#

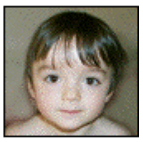
key word(s) 01

pictures search engine

image source 02

440 pixels (jpg, gif, png, bmp)

Parcourir...



size of mosaics 03

in pixel

width (20-200) = 50 height (20-200) = 50

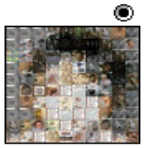
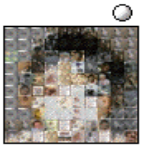
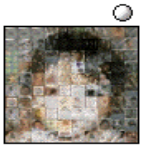
size of mosaics 03

in pixel

width (20-200) = 50 height (20-200) = 50

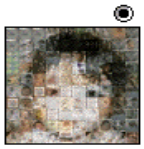
repetition of the same mosaics 04

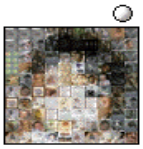
a little *a lot* *not at lot*

transparency of mosaics 05

a little *a lot* *not at all*





title 06

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end 09 send * reset 00

des frags reactions contractions information credits contacts

Thus, the collaborative realization of the artistic and technical device, both artwork and tool, leads to plural collective and individual appropriations of the different dimensions of the plan. During this conception in the ´†in-between†ª of the exchange, the artwork is well and truly this unlimited ´†everything†ª invested as much by the artist as by the computer analyst. At the boundaries of the cooperation, the interests and motivations are intertwined. The artist becomes the initiator and discoverer of computer solutions, the computerist claims his creative sense and intervenes in the aesthetic choices and in the plastic appraisal of the plan and its interface. Between the artist and the computerist, compromises are thus negotiated, governed by the two opposite logics†: the one of coherence with the artistic plan - its aesthetic concept and its plastic form- , the one of the adaptation to computer constraints - its feasibility and technical implications.

Reconstruction of the registers and levels of competences, status and roles

If these registers of action may have been crossed, displaced and upset during the shared activity of conception, they then re-appear as intensified in the artistís and the computeristís reflexive discourses on their own practices and values. So, in the ´†information†ª column of the des_frags site, the positions re-emerge as delimited and re-inforced by a separation and confrontation of points of view.

The artistic information roots the work in a history of art and artistic practice. The technical information inscribes the device development in the technical innovation and the history of computer programming. Thus, the various contributions appear a lot more from the angle of complementarity than from the one of their possible hybridization.

This discrepancy of points of view finds its equivalent in differentiated modes of designation of the artwork by the artist and the computerist. Des_frags, following the examples of digital creations on the net, thus does not constitute one but several works set together which are superimposed and interact narrowly†: on a first level the initial concept, where the translation and the inscription of the creative intention in the technological substructure take place, through a hidden and invisible computer program†; on a second level the artwork, perceptible as such, is to be seen, through the interface, but even much more to be lived and performed, in its displayed form on the web†; on a third level, the work as it is

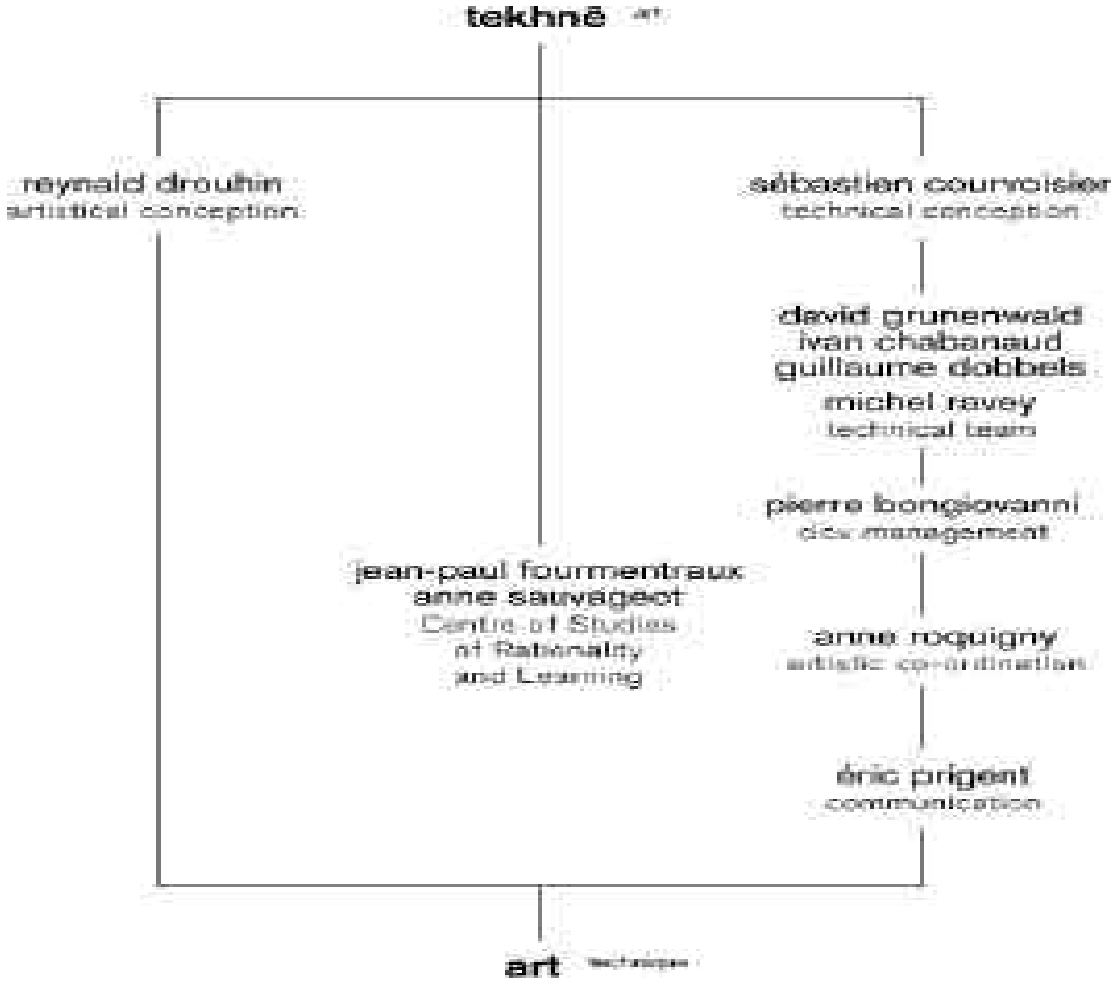
acted or perceived, and as the result of the device implementation via the interface. This multiple and fragmented character of the work then promotes differents levels of reappropriation by the artist and the computer analyst, various appropriations for each of the multiple dimensions of the device. From the artistís point of view, the artwork is within this ´†everything†ª that makes its possible†: the idea, the concept, the interface, the engine, but also what the user sends and the result of this, are part and parcel of what he calls the plastic plan in its wholeness. The computerist will agree with the artist on the idea of a plural existence of the work but maybe he will be more concerned about isolating his own contribution.

> **S. Courvoisier** (Computer Analyst) : Thatís the problem because, in a certain way, we can say we work in an equal way. That is, the work would not exist without the concept that aroused it, but the work would also not exist without the technical equipment that is set to realize it. When you know that itís the concept that comes before the artworkÖ At this level, we can say that whatever happens, the artist is always the real creator of the workÖ Even if sometimes we can wonder if finally the work is related more to what I did or what he wanted to do ?

In other respects, if he recognizes in R.Drouhin the artwork initiator and if he experiences the feeling of having produced a program in the service of a work of art, he has nevertheless conceived this program in a perspective of autonomy and openness. For the computer analyst, the requirement of modularity and autonomy of the program is liable to separate the tool from the artwork. The realization of the des_frags plan thus promotes simultaneously the production of a plastic creation and a computer application, of a software tool liable to be used again. If the problem of appropriation has remained implicit all along the plan development, it becomes inescapable when the signature of the artwork intervenes at the close of the plan. What can the artist claim to be his property†? If the work is this ´†everything†ª which constitutes the whole device, can the artist, for all that, stay master of

it†?

> **R. Drouhin** (Artist)†: I cannot say that he is a ´ co-artist ª because thatís not his function. He does not present himself this way either. I donít know how to say it. Itís true that thereís a problem here. If I know what to ask him, I donít know how to define his position. No, but Iím going to put myself above him in the credits, sure, because I initiated the plan and then, at the end, the form it takes. But perhaps Iíll put Sebastien above the CICV, I donít know, or on the same levelÖ Earlier I didnít know how to name him because I didnít want to say ´ technician ª. It doesnít please me at all. Itís true that itís rather simplistic and reducing in comparison with the work heís doing, but we give a greater importance to the one who has the idea and thatís obvious. But as far as the implications and exchanges we have are concerned, he enters the plan here, he gives ideas.



The solution adopted by R.Drouhin consisted in distributing on the teknÈ/art axis the different contributions and actors of the collective conception of the des_frags device. Thus, as in the film credits, the whole ´†additional†stuff†ª who competed for the artwork

realization are mentioned†: from the direct actors of the artistic and technical conception to the institutional partners, communication agents and even to the actors of the sociological study. As opposed to the film credits, the ´†cast†ª is meant not to be hierarchical but shared on the vertical axis that goes from the tecknÈ(art) (which refers to the practices) in which artistic conception and technique are put on a same level, to the art(technique) (wich refers to the ´†rules of art†ª) where the inscription and the artistic recognition occur.

Conclusion

The realization of the plan implied a contract on a mutual agreement between the artist and the computer analyst. The one and the other, alternately have made choices, taken initiatives, and contributed widely to the orientation and to the definition of the des_frags plan. The different intermediary objects have alternately been built, talked about, manipulated, interpreted and transformed throughout the conception process. The constitution of a common language, of its vocabulary and its referents, turned out to be the sine qua non of the cooperation. Indeed, the shared activity has superimposed a multiplicity of descriptions, inscriptions and symmetrical interpretations, and thus needed constent operations of translation between the artist ant the computerist, so that each of them could express in his own words what the other says and wants. From technical translation to artistic translation, displacements of aims and interests, or also displacements of devices, of human beings, occurred. At the various stages of the plan ñ its conceptualization, its development and its valuation ñ each translation describes and qualifies a space of problems and possible solutions, displaces and transforms the creation as it simultaneously redefines the concerned actors and the forms of their relations, specifying both its contents and the world in which it will take place.

From this point of view, the successive interfaces constitute intermediary objects of the conception activity. We can think that they are true mediators (Hennion, 1993) or co-actors (Vinck, 1999), that is, they can add or draw out something to the action and modify its course. The different negociations focus alternately on the aesthetic and technical stakes of the work and of the programme, on the realization of the interface in its plastic (formal) and technical (functional) dimension, its appearance, ergonomics, options, and at last on the appropriation and signature of the device.

At the close of the plan desires and often frustrations re-emerge, encouraged by the demand of reflexiveness that the interview situation implies. At the boundaries of the cooperation, the plan gets his meaning and its form in this constant displacement of roles and functions unifying the actors of the plan. Thus, it is during these successive appropriations - then revised as we have seen by the institution of new demarcation and of a rebuilding of positions - that the agreement between the artist and the computerist is negotiated and built. At the close, the artwork, as it is to be seen, stable and structured, would have been incessently crossed by multiple effects of translation and negotiation, that we have tried to described and that have contributed to build the collaboration as well as to define or re-define the roles, functions and status of the different actors of the plan.

Links

- CICV : International Center of VidÈo Creation†: http://www.cicv.fr/
- "des_frags" : the artwork/device†: http://www.cicv.fr/creation_artistique/online/des_frags
- Reynald Drouhin : the artist†: reynald@ensba.fr
- Sebastien Courvoisier : the computer analyst†: phasme@cicv.fr
- Jean-Paul Fourmentraux : the sociologist†: fourment@univ-tlse2.fr

References

Akrich M., 1993, "Les objets techniques et leurs utilisateurs. De la conception ‡ l'action", in *Raisons pratiques* n_4 -Les objets dans l'action. De la maison au laboratoire-.

Becker H.S., 1988 "*Les mondes de l'art*", Paris, Flammarion.

Bessy C., Chateauraynaud F., 1992, "Le savoir-prendre. EnquÍte sur l'estimation des objets", *Techniques et culture*, n_20, pp.105-134.

Bourriaud N., 1998, "*EsthÈtique relationnelle*", Dijon, Les presses du rÈel.

Callon M., 1986, "…lÈments pour une sociologie de la traduction. La domestication des coquilles Saint-Jacques et des marins-pÍcheurs dans la baie de Saint-Brieuc", *L'AnnÈe Sociologique*, vol.36, pp.171-208.

Callon M., Latour B., 1989, *"La science et ses rÈseaux"*, Paris, La DÈcouverte.

Callon M., Latour B., 1991, *"La science telle qu'elle se fait"*, Paris, La DÈcouverte.

Conein B., Dodier N., et ThÈvenot L., coord., 1993, *Les objets dans l'action. De la maison au laboratoire*, Paris, Ed. de l'EHESS, coll. "*Raisons pratiques*", n_4.

Collins†H, Kush M., The shape of actions. What human and machines can do, Cambridge, MITpress.

Dodier N., 1993, "Les appuis conventionnels de l'action. …lÈments pour une pragmatique sociologique", CNET, *RÈseaux* n_62.

Dodier N., 1995, *Les hommes et les machines. La conscience collective dans les sociÈtÈs technicisÈes*, Paris, Ed. MÈtaillÈ.

Fourmentraux, JP., 2001. "Habiter l'Internet : Les inscriptions artistiques du Cyberart". In : *Solaris*, mars 2001. [internet]. ConsultÈ en mars 2001 : <http://www.info.unicaen.fr/bnum/jelec/Solaris/d07/7fourmentraux.html>

Fourmentraux, JP., L'Artiste et l'Informaticien : ExpÈrience sensible et esthÈtique de la cause, (‡ propos du dispositif autonome et interactif ´†avec dÈtermination†ª d'Antoine Schmitt), Revue Èlectronique *Chair et MÈtal,* dans le cadre de la *Veille planÈtaire díart en rÈseau* - 2001 : http://www.chairetmetal.com/vpar/index.php

Hennion A., 1993, *La passion musicale. Une sociologie de la mÈdiation*, Paris, Ed. MÈtaillÈ.

Jeantet A., 1998, "Les objets intermÈdiaires dans la conception. …lÈments pour une sociologie des processus de conception", *Sociologie du travail*, N_3/98.

Jeantet A., 2000, "…volution du processus de conception de produit : une approche interdisciplinaire sociologues-mÈcaniciens", texte support de communication, CongrÈs AISLF "*Une SociÈtÈ Monde*", QuÈbec, Juillet 2000.

Kisseleva O., 1998, "*Cyberart, un essai sur l'art du dialogue"*, Paris, L'Harmattan.
Latour B., 1989, *La science en action*, Paris, la dÈcouverte.
Latour B., 1991, *Nous n'avons jamais ÈtÈ modernes. Essai d'anthropologie symÈtrique*, Paris, La DÈcouverte.
Latour B., 1994, "Une sociologie sans objet ? Remarques sur l'interobjectivitÈ", In. *Sociologie du travail*, 4/94, pp. 587-608.
Sauvageot, A ; Fourmentraux, JP., 1998, "Culture visuelle et Cyberart". In *Champs Visuels*, n_10, 1998, L'Harmattan.
Shapin, S., 1989, The invisible technician, *American scientist*,Vol.77.
Strauss, A , 1992, "*La trame de la nÈgociation. Sociologie qualitative et interactionnisme*", Paris, L'Harmattan, Coll. Logiques Sociales, 1992.
Vinck D., 1999, "Les objets intermÈdiaires dans les rÈseaux de coopÈration scientifique - Contribution ‡ la prise en compte des objets dans les dynamiques sociales", In. *Revue FranÁaise de Sociologie*, XL-2, pp 385-414.