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The "transfer" model in science communication has been addressed critically from different perspectives, while the advantages of the interactive model have been continuously praised. Yet, little is done to account for the specific role of the interactive model in communicating "unfinished science." The traditional interactive methods in museums are not sufficient to keep pace with rapid scientific developments. Interactive exchanges between laypeople and experts are thought mainly through the lens of a dialogue that is facilitated and framed by the traditional "conference room" architecture. Drawing on the results of a small-scale experiment in a gallery space, we argue for the need for a new "architecture of interaction" in museum settings based on art installation and simulation techniques, which will enhance the communication potentials of science museums and will provide conditions for a fruitful even-handed exchange of expert and lay knowledge.

1. Introduction: can science museums challenge the interactive model?

Museums and science centers are faced with the growing challenges of displaying contemporary science, i.e. of keeping up with the speed of scientific research (Farmelo and Carding, 1997; Farmelo, 2004). At first sight, the rhythm of current research seems to be incompatible with the very nature of the museum display, which lacks the responsive flexibility of the media and the resources to update exhibits at a sufficient pace. Nevertheless, many museums and science centers tackle these difficulties upfront; some new programs or even institutions emerged from this growing concern, materializing a recent shift from the Public Understanding of Science (PUS) to the Public Understanding of Research (PUR).

According to Lewenstein and Bonney (2004) PUR covers two different, though not opposite facets: on one hand, initiatives that focus on cutting-edge research and their social, ethical and political implications; on the other hand, activities that help the lay audience understand research processes, underlining the methods that form the common ground of all scientific endeavors. Both of these objectives can be achieved through a range of activities, which we can locate along an Engagement Continuum: from the deficit model of communication, where passive recipients are viewed as empty vessels to be filled with knowledge, and therefore a transfer is needed; to the interactive model, where active learners are viewed as experts in their own right, whose experience is recognized as a valid way of knowing. On the passive side, scientific

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facts are presented as hard textbook knowledge out of its context, whereas the interactive model considers science in its social, political, economic and environmental contexts (Einsiedel and Einsiedel, 2004).

The "transfer" paradigm was the dominant model of science communication in the last sixty years (seen as a one-way transfer of knowledge from experts to laypeople). Museums actively incorporated this communication philosophy in various settings: scientific information was translated into the language of lay groups and exhibits offered simplifications of scientific developments (Durant, 1992; Macdonald and Silverstone, 1992). These events consisted basically in taking ideas and topical issues from the scientific community and bringing them to the public attention of a broader audience of non-experts.

This "transfer" model has been addressed critically from several perspectives. On one side, sociologists have argued that science communication also needs a transfer from popular, non-specialized arenas, instead of keeping the expert–layperson direction of transfer as the only possible one (Lewenstein, 1995a, 1995b; Bucchi, 1996, 1998). On the other side, the reception of scientific knowledge is not a passive process, but triggers complex processes of transformation (Wynne, 1989, 1995; Epstein, 1996). In opposition to the transfer model, many scientists tried to develop and define a better interactive model of communication between science discourse and public discourses (Bucchi, 1998; Callon et al., 2001). Interactivity was also claimed by science museums and science centers, but was understood in the narrow sense of even-handed action: a machine compels, and with a mere button-click we respond to its attempts to communicate knowledge to us. The "hands-on" exhibit philosophy suggests such an action–reaction technique, in which the main premises of the transfer model were maintained: the machine incorporates and possesses the monopoly of expert knowledge, and tries to communicate it to lay users; the repertoire of possible answer–question modules remains, however, restricted. Yet, the spatial museum settings, in which a mutual encounter and the shaping of both public and specialist discourses can be triggered, and even-handed exchanges can flourish, are not questioned enough.

The expert juries and consensus conferences, which pioneered the interactive model in the 1990s, suggested a two-way information flow and exchange of opinions (Joss and Durant, 1995). They acted as forums where common decisions are taken and consensus is reached. However, these events always take place in "conference space" architecture, i.e. in a space with limited potential for interaction, while the highly interactive settings of many science and technology museums seldom hosted these mixed lay/expert audiences.

Why is the development of science museums lagging behind the swift course of research ventures and science and technology debates? Why does the interaction model of science communication, presuming an unbiased exchange between laypeople and experts, never quit the "conference room" setting instead of relying on the rich potentials of museum architecture?

Dealing with ongoing research i.e. "science in the action" as Bruno Latour has termed it, "unfinished science," as John Durant has termed it (in opposition with science museums and science centers' only preoccupation in the past to celebrate the great scientific and technological achievements i.e. the "finished science," see Durant, 2004), science museums are led to engage, since the early 1990s, with science and scientists in new ways. Few attempts have been made by museums to introduce the public understanding of research onto the museum floor in a vivid way: the Welcome Wing of the Science Museum in London, the Science and Technology program at the Museum of Science in Boston, the program "Science Actualités" in La Villette, Paris. These PUR initiatives faced the challenge of dealing with incomplete stories that are changing and whose significance is unclear, with knowledge uncertainty and interim results that are disputed, as well as with scientists and experts that often disagree.

Following this trend, the Gallery of Research in Vienna staged an experimental event that aimed at testing different ways of communicating scientific controversies. Discussing the results of this event, we will argue in this paper that the contemporary science and technology museums need to develop new spatial settings to foster expert–lay dialogue, drawing on the development of installation art in the last two decades (Davies, 1997; Suderburg, 2000). These settings will be accommodated to host "hybrid forums" (Latour, 1999; Callon et al., 2001). Forum refers to those particular spaces in which various groups can meet and debate different issues and technical choices of importance to the community. They are hybrid, because the people involved and their representatives are heterogeneous: experts, politicians, clients, technicians and laypeople concerned. Hybrid, also, because the questions to be tackled are of a complex nature: from political to ethical, from physiological to electromagnetic, through to mechanical engineering and particle physics. In this paper, we will discuss the "architecture of interaction" of the particular "hybrid forum" created at the Gallery experimental event. We will argue for a new architecture of display and interaction that could engage experts and non-experts in a process of mutual learning and exchange, and would allow science museums and science centers to stay abreast of contemporary science development, and to respond to its rhythm with events that would follow the open-ended pattern of current research: temporary, tentative, experimental and repetitive.

2. A test on science museums' interactivity

The objectives

The Gallery experimental event "Mapping Controversies: The Case of Genetically Modified Food" began with a number of assumptions: what if we bring researchers out of their laboratories and invite them to work, in the Gallery spaces, with artists, architects, designers, filmmakers? Would this collaboration trigger new forms of visual presentations of scientific results and processes—instead of the traditional digital and print publications through books, articles or web databases? What if we ask the scientists to abandon the monologue model of communication with the public, and immerse into a dialogue setting? What if we encourage scientists and the public to meet in forums, shows, performances, demonstrations, and engage in inquiry-based settings where an active, even-handed exchange of opinions and "expertise" will be facilitated?

Thus, we invited the public to explore the polemic aspects of science, based on the example of the genetically modified (GM) food debate. Following science studies, it has been shown that science, generally thought of as a practice of calm and studied observation is rife with complex disputes and ambiguity (Latour, 1989). The Gallery brought together researchers and artists—from Austria, Holland, France, Canada and the United States—engaging them in a dialogue on how to present results on the GM food debate in a more understandable and visually compelling way. They developed clear, attractive types of maps analyzing the complex networks of actors involved in science and society debates, their arguments, positions, agreements and disagreements. These novel methods for mapping scientific controversies (issue-oriented web crawlers, scientometric tools, and data analysis engines) have been developed over the last couple of years, but have never been used by a science communication institution (Cambrosio et al., 2004; Rogers, 2004). Collaborations between artists and scientists that led to creation of artworks with a scientific flavor, or beautiful scientific exhibits, are nothing new (Ede, 2005; Frankel, 2002). However, what distinguished the Gallery of Research endeavor from past examples of so-called "SciArt" alliances is that this initiative

meant to create a setting in which artists and scientists can work on the basis of an equal exchange, not only of ideas and concepts, but also on a very concrete level: they should fabricate "things" together, neither art nor scientific pieces, but hybrid art-science works that would convey scientific arguments in a stronger visual way.

The presentational tools

The Gallery fostered the development of the visual quality of existing network maps, but also real inquiry-based interfaces that allow the lay audience to explore a wealth of issues through the analytical lens of the cartography maps. In the past few years, sociologists have used the "RéseauLu" mapping developed by Aguidel, and "Issue Crawler" developed by Richard Rogers, to examine the dynamics of bio-safety research in the European Union and the USA. Their aim was to analyze how cognitive, scientific and technical factors, as well as regulations and the public debate, interact and shape a research field that is relevant to policy-making. The mapping allowed them to enlarge the scope of their work to a worldwide comparison, making patterns emerge in a visual way. On the basis of this study, the Gallery invited a methodologist (Andrei Mogoutov) to work with an artist-designer (Patricia Reed) to develop new types of maps: more understandable for a general public, more readable, more appealing. The purpose was to turn these cartography techniques from specialized scientific tools into communication instruments to the lay public.

The designer and methodologist were inspired, for example by musical and choreographic work to develop the "sonogram," a new type of map resembling a sheet of music. The sonogram displays different clusters of keywords and actors in the debate on GM food on a vertical axis, with the timeframe on the horizontal axis. Through colors and sizes of words, the relative prominence and frequency of keywords appear clearly. Eventually, the sonogram would obviously exploit the possibilities of sound, and one could literally "play the map," listening to the succession or cacophony of keywords over time. This supposes a livelier context of interaction with the maps in a museum setting, and the mobilization of more senses for the maps' appreciation. This example shows the direction of the design work, and namely its analytical dimensions—chronological and geographical. Thus, the redesigned maps are significantly more readable, familiar and therefore effective for the public understanding of these research results.

The Gallery team worked in close collaboration with the designer and methodologist to conceive an installation—an irregular geometric platform, envisaged as a direct replica of an existing "network map." The visitor could inhabit this space, engrossed within the social, ethical and political aspects of the debate in the actual, physical event space. The vectorial space of the whole installation was endowed with various tensions echoing the dynamism of the research cartography.

Throughout the trials of our "Mapping Controversies" experiment, the Gallery asked all participants to take an unusual position and play the "guinea pigs" in the experiment. For the researchers, the event was a departure from traditional lecture and conference formats: they were encouraged to make simple arguments through compelling visuals projected on to large screens, and a lively talk—no more than 3 minutes. That is to say, the researchers had to take on the role of performers, in an unusual visual setting. Moreover, they were supposed to demonstrate in public how they gained and manipulated data and how they made assumptions about the GM food debate in their own countries as well as at the European level. The artist also had to integrate various challenging facets in her work. She had to deal, of course, with aesthetic and conceptual concerns; but above all, she had to embrace a different intellectual background and mode of reasoning, as well as the scientific requirements of accuracy.

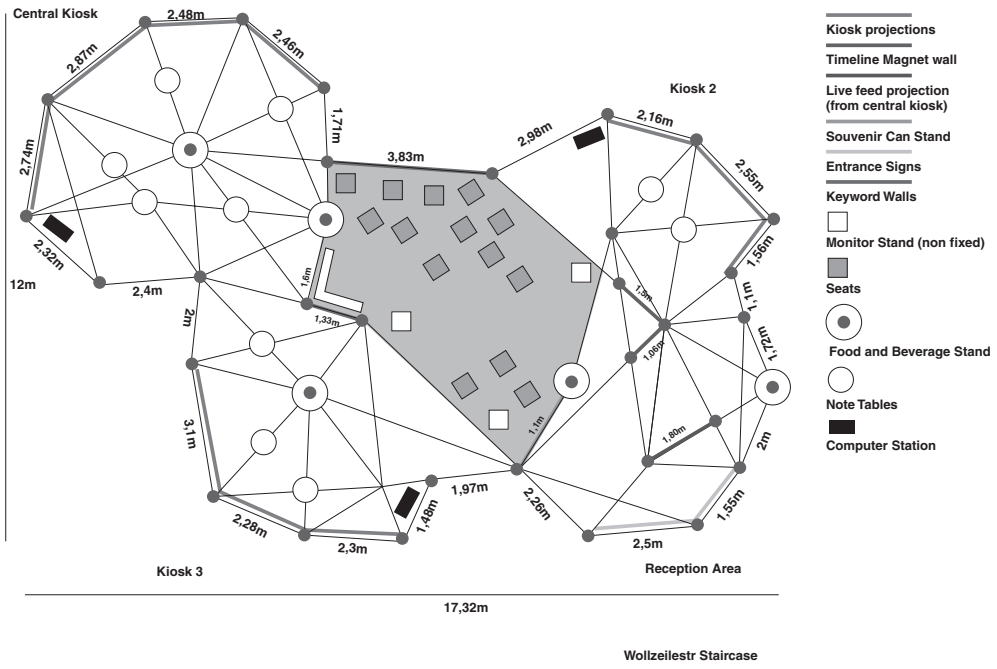

Figure 1. Installation topography (design/drawing: Patricia Reed).

The audience members came from various backgrounds: policymakers, researchers, journalists, representatives of museums, and other laypeople. Owing to the security constraints, the number of visitors was restricted to 49 people and attendance was on invitation. For these visitors, the experience was atypical too: they were invited to enter a debate in a setting that was largely tentative in itself, as the building of the Gallery was undergoing renovation works at that time. However, we strived to use these constraints to our advantage, stressing throughout the idea of "work in progress." Immersed within the social, ethical and political aspects of the controversies on GM food, the visitor was not a passive viewer or listener, but became an actor in the debate.

The spatial setting

The mapping methods were used in an installation setting to trace the history and complexity of networks of scientific, socioeconomic, political and ethical actors in the GM food debate. This blend of art installation, original scientific research and live performance aimed at positioning the visitor in a simulated public space, where the variety of protagonists in the debate was made present. In the three kiosks of the installation, the researchers (Ulrike Felt, Richard Rogers and Christophe Bonneuil) presented their findings about the GM food debate. Explaining their methodology, they made scientific arguments with visual tools. In the middle of the installation, a lounge area with small visual design pieces was specially conceived to catch the visitor's attention and provide her with an overview of the statements of the various protagonists involved in the food debate—from the consumers' point of view to the major political actors. This area lent itself to exchanges with fellow visitors—for a variety of design pieces, as integral parts of the installation architecture, invited the participants to continue discussions on the topic:

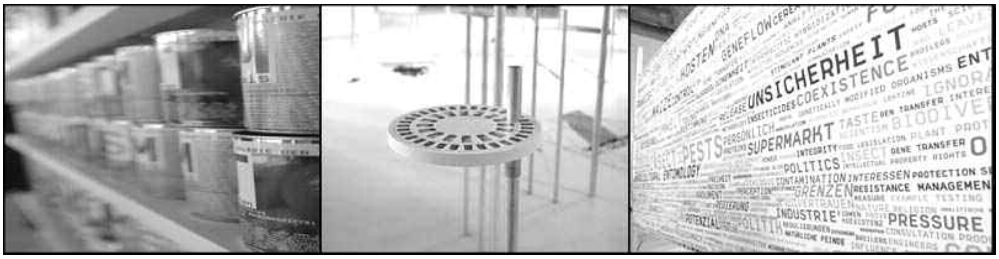

Figure 2. Sequence of images to illustrate some of the installation parts.

- A short slide show combined images, sounds and quotes from the big anti-GM activists' demonstration in Seattle in 1999. The materials were collected by the American anthropologist Chaia Heller, who did extensive fieldwork on this debate following its heated moments in Europe and the USA. Playing on a loop on three monitors placed on the floor, the video literally aired the voices of the protests.
- An installation of shelves displayed empty tins, with specially designed labels of three major GM crops (maize, soybean and tomato). The labels drew the visitors' attention to the EU labeling policy and its special requirements. Visitors were invited to take a tin as a souvenir. Playing with the imagery of advertisement and the supermarket culture, tins could be taken as information materials on GM regulations, as real consumption goods, as art-science objects.
- A keyword wall turned out to be the central point of the visitors' attention. Offering a graphic interpretation of an existing map on the dynamics of GM research, the words' colors signified different clusters of meaning. Also, the size of the words indicated the frequency with which they appeared in the debate: the bigger the size, the bigger the role of this keyword. Scientific terms mingled with day-to-day words, showing the complex influence of scientific and social factors on each other.
- The timeline wall installation presented stepping stones in the GM history. This installation showed, in a pop-art fashion, the entanglement of different political, scientific and legal actors. It suggested in a convincing way that there is no neat chronological axis of the debate, but rather complex assemblages of actors with various ontologies.
- Even functional elements of the installation had an informational role. Thus, some events of the timeline were developed on so-called "footnote tables," printed with a short text and visual elements about key episodes in the GM debate.

As the genre of the whole event was that of a Gallery test, an alternative format for the press conference preceding the event was created. We invited journalists to a guided tour through the installation, offering them the opportunity to experience the installation in an informal, interactive atmosphere.

3. Challenging the science museums to communicate controversies

At each stage of the event organization and realization, new data were gained, not only about the GM food debate and the different science communication patterns, but also about all the participants in this test: the researchers, the random visitors (who played as a test-public of

the Gallery), the artists, the display, the mapping methods, the journalists, etc. These actors were all rethought in the Gallery test and were also given the opportunity to redefine their roles.

We witnessed that the cartography techniques are able to provide a realistic overview of debates and their complexity, and combine the depth and precision of qualitative case studies with the statistical analysis of quantitative data in a visual, instant way. That is what makes us consider "Mapping Controversies" as a powerful tool for the public understanding of research and democracy. Nevertheless, the cartography needs considerable, continuous development in order to provide a clear and accessible interface with the lay public to be used in installation settings, in which visitors would be given the unique possibility to follow up lively cartographies of polemic topics in science and technology.

Researchers need to embrace their essential role in this dialogue. Challenged to leave their familiar territory—the university auditorium—they showed a skeptical attitude at the beginning, but later on felt comfortable in the new "theatrical" setting. We tried to tackle the two facets of PUR described by Lewenstein and Bonney, focusing on both cutting-edge research findings and the very nature of scientific work (Lewenstein and Bonney, 2004). We noticed that, whilst journalists were curious about methods, researchers felt more comfortable discussing ready results than providing a general insight into methodological issues and the "cuisine" of scientific work. Some researchers remained doubtful about the unusual scenography of presentation and stated their preferences for the lecture format; others enjoyed the unusual visitors' and journalists' attention, but remained reluctant to disclose methods (results were more valorized than processes). Scientists were not enough prepared to use the potential of this setting for communicating research in interactive ways: breaking the traditional spatial barrier between the orator and her public, between savant and ignorant, the setting created some confusion among them. This means that a long-term, ongoing work is necessary to fine-tune expectations, develop a coherent collaboration, and change the "architecture of interaction" between experts and laypeople by introducing and developing new spatial settings for communicating research processes in museums.

Through the trials of our experiment researchers gained a new experience: scientists were not only expert sources of knowledge, but also performers, communicators; this new role requires a desire to assume a visible position, as well as the willingness to train oneself. Moreover, scientists should be open recipients of all sorts of "unpolished" lay knowledge present in the "hybrid forum" exchanges. This makes the choice of researchers particularly crucial and challenging, and the need for training as well as constant communication acute. This network of scientists would need the complementary competencies of professional artists and communicators—designers, writers, actors, filmmakers, painters, architects, performers, etc. Researchers bring their scientific knowledge, method and experience; artists bring their creative vision and are more used to exposing and endangering their work, as well as themselves, in public situations. A tangible, direct relationship between scientists and the audience is necessary if appealing and powerful displays are to be developed.

Most of the science museums and science centers today mainly target school groups and families, and fail to address young adults (in the region of 18 to 40 years old), an "often-forgotten audience with science centers" (Cansfield-Smith, 2004: 258). These visitors also "want to challenge and understand what scientists do and what drives them to do it" (Mazda, 2004: 129). A real encounter with researchers is one way to make the most of this curiosity, delving into the complexity of research work as a human endeavor. To deepen the understanding of the audience in its diversity of desires and reactions, programs adapted to the background of this particular target group of visitors, and their expectations, should be developed.

"The narrowing of the PUR vision around science news seems to be driving a corresponding narrowing in choices of suitable presentation media" (Pohlman, 2004: 335). We believe that a flexible approach to programming has to guarantee a full use of the possibilities of three-dimensional displays, rather than performing redundant functions that other media already fulfill. In this pilot event, we tried out a number of ways of entry into the installation and the debate. The center of attention was the overwhelming installation setting: with the maps on large projection screens and the researchers' talks in three focus points, which we hoped would open up to questions and answers; in addition, we expected tin labels to be a witty trigger for discussion and movements, whilst images and text on tables, panels and television monitors were more designed for viewing. This variety of information materials would provide some original gates into the event, creating an atmosphere propitious to dialogue and allowing the visitors to make the topic their own. What we learned from the "Mapping Controversies" test is that the public can be less recalcitrant to new ways of science communication than the scientists. However, used to the poster presentation and the interactive touch screens, the public is not yet comfortable enough to explore new methods of science communication, based on art installation techniques, simulation and fair, i.e. to stroll, to ask questions to the presenters, to engage in communication, to question the reason for the existence of every single installation piece and their mutual relations, to look "behind-the-scenes." This questions the methods of science communication in museum settings: besides the repertoire of artifacts-oriented and hands-on methods (using static and moving images: pictures, panels and video screens), the science museum should mobilize more recent developments in installation art (sounds, and textile installations, but also the very latest tendencies of use of water, sand and other unusual "natural actors" and hybrid creatures in the installation settings). This is all about objects' participation in the making of artistic arguments, but one that is distinct from the static role of objects and is able to create a radically different museum experience (Hein, 2000). The very notion of *installation* in contemporary art stresses the temporary power of an assemblage of objects, a multiple sculpture, to dominate physically a broader spatial environment, and requires the active engagement of visitors and their perceptions, including sounds, music, and different odors along with images, objects, collages, recycling and all sorts of mixed techniques.

All in all, despite the unsettling context, the cold, the roughness of the site, the demanding content, we were pleased to see a genuine interest on both the visitors' and the researchers' side. The researchers praised the discussion with an interested audience and saw new ideas arising from this encounter between science and art, experts and laypeople. They remarked that this event format allows the live production and display of research processes, a marked contrast to conventional museums whose exhibits are often already out of date at the time of their opening. Many visitors pointed to the importance of making well-founded scientific insights generally accessible, and considered similar events as being potentially an important source of input in public discourse. Most of the visitors outlined the successful use of installation art to create a pleasant ambiance that facilitated and enhanced interaction and participation in a natural fashion, whilst remaining ready for unexpected openings. Exploring the setting, the visitor found herself compelled because its intellectual design made her feel that her experiences, questions and views were valid and valued.

The event was covered by all major national outlets. We envisaged the role of journalists in this event as twofold. First, as the number of invitees was strongly restricted, the journalists allowed us to reach a wider audience. Secondly, the journalistic feedback was a valuable appraisal of the strong and weak points of this event and its methods—a necessary basis for improvement. Rather than providing ready answers, the Gallery posed more questions, interrogated the limits of knowledge and the nature of research work. This can conflict with the culture and purpose of news

Figure 3. A view of the installation and the visitors to the event.

journalism, based on the imparting of facts. The journalists should be provided with the possibility to meet the developers and designers of interactive maps as well as with the scientists who use mapping methods in their work, to learn more about these methods and research in progress and witness the process of preparation of a show.

The public of our event was not randomly selected, but organized and made effective by means of representatives. When one says that the "public reacts and expresses its opinion," this does not mean that some mysterious collective agency is making decisions, but that a few representatives are acting in a concrete situation, according to the specific architecture of carefully conceived museum settings. The experiment allowed us to observe the actions and reactions of the public. Immersing into the installation, researchers not only exposed to the public their main points about the GM food debate, but also had the possibility to share and consider the knowledge supplied by other participants in the installation: consumers, activists, representatives of non-governmental organizations and ecological organizations; responding to the different parts of the installation architecture, these participants expressed immediate opinions, judgments and public concerns *in situ*, instead of communicating it after-the-fact. Thus, we witnessed the constitution of a particular "hybrid forum" that involved heterogeneous actors and tackled a variety of issues in this still topical debate. The mesh-installation setting stimulated them to interact and exchange properties, in a way that no strict distinction between those who came to the event as experts and those who came as lay audience was maintained after they left the Gallery. This experiment allowed us to see how the scale of the event and the spatial constraints of the installation suggested interactive proximity and facilitated intense exchange among the dissimilar groups of the museum public, which without this event would have never been incited to communicate with ease and spontaneity.

A better architecture of interaction will contribute to the essential need for improvement of the methods and conditions of debate, discussion and persuasion—what the political philosopher John Dewey (1927) has called "the problem of the public." This improvement, as we have witnessed it, depends essentially upon freeing and perfecting the process of inquiry and the dissemination of conclusions. The architecture of this "hybrid forum" conditioned an interactive display, which was not constructed once and for ever, and as such manifests intrinsically its properties to a larger public.

Only through constant scrutiny and criticism by various publics (researchers, museum curators, journalists, designers, etc.) can the interaction model become successful and efficient in a long-term perspective.

4. Conclusion: how should science museums tackle controversial science?

Authors who dealt with the difficulty of staging "unfinished science" in museum settings argued that some of the strategies intended to foster public understanding of science create problems for the representation of scientific controversies (Macdonald and Silverstone, 1992). With "Mapping Controversies," we witness that one of the main challenges of presenting science in the making remains the difficulty of telling a story full of uncertainty and disagreements. To tackle this difficulty, we have chosen first, to transform the exhibit into a huge installation setting that is more effective than the traditional exhibit form: it allows many voices to be heard and many spaces to be explored simultaneously. Installation art bestows a stronger potential for communicating unfinished science and controversial vantage points than do the traditional forms of display (showcase, posters, and hands-on techniques). Immersing into the complex installation, the visitor is given the chance to recall her own partial, provisional and controversial story (without linear storyline, or any textual guidance in the space). Thus, instead of just exhibiting, from one side, in the exhibition room, and animating debates on this topic, from the other side, in the specially allocated spaces of museum auditoriums, we suggest to museums to "architecture" a new, hybrid, space that is suitable to accommodate, mix and even amplify the interaction potentials of these two genres of science communication. It will also make possible a different museum experience to be generated in immediacy and spontaneity, in emotional intensity, in intersubjective agreements and disagreements. This can enhance the efficiency of the lecture and exhibit techniques and can contribute to sustaining these genres as attractive for visitors even if museum professionals are led to return to their traditional use after-the-event.

Second, to attract visitors' attention to the process by which scientific knowledge is established and scientific facts are gained, museums should engage scientists, artists and the audience in a different way:

1. By inviting scientists to present the hidden sides of scientific work: the difficulties, the unpredictable turns, the way they gain data and manipulate databases and by giving them a different role—the visible role of performers. Developing an appealing "architecture of interaction" with purpose-developed design tools is a departure from the colorful, playful approach of science centers that promote fun and promise excitement. This approach, although having many virtues, may shape an inaccurate vision of the nature of research work (Cansfield-Smith, 2004): along with the excitement of the scientific endeavor, come many frustrations and failures, pitfalls and debates that are just as interesting as the smooth success stories of textbook science.
2. By inviting artists to work in close collaboration with scientists to help them strengthen the visual power of their scientific statements and engage in a process of translation of these tentative scientific results to the language of the lay audience, and by so doing, to become the first mediators in this dialogue. This experiment created a "trading zone," to take an expression of the historian of science Peter Galison, among scientists, artists and lay public and required scientists to adopt a more artistic attitude to communication, whereas artists were led to using more scientific tools in translation.

3. By making art and science professionals sit in roles they are not used to having and breaching their routine expectations, the experiment suggested also a different type of visitors' engagement: it gave the chance to our audience to feel as genuine contemporaries of science in action, and not as mere consumers of finished techniques and products. Inciting active participation in science museums in a long-term perspective would allow citizens to engage in decision-making concerning scientific issues of public importance.

This experimental event allowed us to argue that traditional interactive methods in museums are not sufficient to keep pace with rapid scientific developments, and to provide spaces for fruitful communication and even-handed exchange of expert and lay knowledge. To promote interactivity it is not enough to add new interactive displays and touch screens into the museum space, but to literally reshape the museum for the purposes of better science communication, and reconsider the role of every actor in it. The successful formula is still to be found by merging the communication potentials of established spaces and introducing more dialogue methods with inquiry-based interfaces in a meticulously designed "space of interaction" where hybrid forums of actors can emerge and explore together the recent developments in science and technology.

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