Translating Theater Online -- the Webwright

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ABSTRACT
Theater and website architecture have a great deal in common. Dramatic action can help website designers identify key factors in making their website effective for purposes of increased traffic and/or e-commerce. This article explores meeting points between the work of playwrights and that of "webwrights."

Keywords
playwright, webwright, drama, theater, scripting, website design, website architecture, interactivity

WEBSITE AS A STAGE MAKES FOR A STRATEGY
If, "all the world's a stage," and the Net is a world wide web, then, the Net is a stage. Importing clichés into a program of logic may not compute because mixing apples and oranges is illogical.

Regardless of such nonsense, consider perceiving the online world as one that is closer to live theater than film or television. Some of those who have thrown a great deal of money at the film/television model of the Net, but no matter -- they can afford it. Innovations will eventually turn the online world from an experimental playground of code and a way highlighting a new litter of puppies into a fully interactive arena that can advocate global change, educate beyond comprehension and of course, keep us entertained.

Theater is about interaction and connection. So is the Net. Doesn't it make sense that the two would share various properties? Wouldn't understanding what makes theater work encourage innovations in online interactivity? Now THAT is logical.

Playwrights take many years to refine their craft so that they can make it look easy. That's not to say they have an infinite number of plots from which to choose. They don't. Central plots have been reduced to a number somewhere around 15. The success of their work comes from effectively fulfilling the needs of a play in a unique way. Introducing, the webwright -- the creator of websites that meet some of the same requirements as playwrights.

IDENTIFY THE MAIN CHARACTER
Audiences will identify with one character more the others. For the purposes of being able to compare the needs of a play with that of a website, consider that one character and ask a few questions:

What does he/she want?
What are his or her hopes and fears?
What is his or her most prominent fatal flaw?

The webwright knows that first key to a dramatic website is giving the visitor an opportunity to identify themselves by directly and indirectly asking these questions and inviting them to actively explore the answers.

IDENTIFY THE SETTING/CONTEXT
The setting of a play is indicated by the set design and/or the dialogue and action. When visitors visit a website they share the questions:
Where am I?
Why am I here?

Webwrights who are master webmasters as well can design websites that are more than sets, they are stages for interactivity and ultimately, e-commerce.

IDENTIFY THE "OTHER"
In most plays, the "other" comes in the form of another character, the antagonist. Sometimes, the "other" is indicated rather than performed by another actor. The questions of the protagonist include:
Who are you?
What makes you different from me?
How and why do you challenge me?

If asked, will answering to these questions alienate the visitor of a website? Not at all. Contrast is what defines what is known and what is not known. Therefore, the "other" of a website is that information the visitor has yet to learn. The webwright finds creative and dynamic ways of presenting an antagonist to engage the visitor.

IDENTIFY THE CONFLICT BETWEEN THE MAIN CHARACTER AND THE OTHER

Conflict is the root of effective theater, or any written material for that matter. Conflict seduces the attention of an audience. Conflict provides significant moments of thrill and excitement that spring forth from the psyches of both characters and audience. It's the beginning of the rush.

The webwright knows conflict is a tricky business. Assuming visitors are blind romantics who want to fall in love with anything is folly. Pushing visitors too far will alienate them. Finding the balance separates the popular websites from the millions of others. It is both a technique and an art.

IDENTIFY THE CHARACTER'S RESISTANCE TO OVERCOMING WHATEVER IS NEEDED TO RESOLVE THE CONFLICT

Resolving the conflict means the character must overcome his or her fatal flaw. Unless the goal is tragedy, in which case, he/her succumbs to failure.

The webwright assures that the visitor is provided with enough information to let him/her know how the conflict can be resolved, but not enough to resolve it unless they continue participating in what the website has to offer.

UPPING THE STAKES

The tension initiated by the conflict when the character has more to lose if he/she does not overcome his/her resistance to resolving the conflict.

No, this does not translate into making a website challenging to navigate. That would be kin to dim lighting so that the action seems mysterious. However, this can come in the form of free value-added danglings of resolution a website can offer a visitor to help him/her resolve the conflict. Whether it be downloads, contests or directions on how to build a better mousetrap, when the webwright assures the website is offering a taste of the magnificence what can be, it whets the appetites of visitors.

IDENTIFY THE SIGNIFICANT MOMENT

A significant moment is like an orgasm. Whether at the theater, a game of sports viewed or played, a walk in the park or a hot date, we seek moments that inspire, illuminate or spark the imagination. It is this moment of release that makes all of the hard work proceeding it worth the effort. There's nothing like a good "ah ha."

If the webwright can create the illusion that the website is witness to a significant moment for the visitor, that visitor will have demonstrated investment and commitment to the website. The website can offer chat, autorespond email, CGI or Perl scripted surveys, tests or evaluations to engage the audience. The only question left is: if a website doesn't witness this significant moment, did it ever really happen? And if it did, how can a website capitalize on such attention?

DETERMINE THE PATH OF THE DENOUEMENT

During the aftermath of release, the playwright resolves the play slipping in additional dogma if desired. This is that vulnerable moment where the webwright can direct the visitor towards the revenue streams of the website. Capitalizing on the significant moment is what advertising and commerce are all about offline, so why wouldn't these axioms apply to the online world? The webwright knows there are no easy answers to making this happen, but is committed to shaping this process. Why? Because this is where the future of the online world is evolving.

CONCLUSION

The techniques that have been used by successful playwrights can be applied to building effective websites. Aristotle, given the chance, would probably have taken up participatory website design as a way of validating and furthering his philosophical theses. Shakespeare and his other actors might have thought of using the Net is a different way. All we can do today, is work who we are.

Website designers AKA webwrights are only beginning to determine how to apply the techniques of other performance and/or interactive venues. So far, the Net more resembles CSPAN or some of the old variety shows as far as finding interactive forms that both utilize the evolving technology and reinforce community that results in e-commerce. The possibilities are endless.

We may all be merely players, but at one time, the producers, directors and playwrights were also players. In other words, the delineation of roles in creating the future of the Net are open for grabs.

Z. Sharon Glantz when not translating the world of theater onto the the Net for purposes of website design, marketing and revenue generation, writes and produces industrial plays -- live theater for trainings on issues of sexual harassment, HIV/AIDS, aging and diversity (she writes comedies) for corporations and government. She is working on a novel, 3X, that focuses on love, business and scientific discovery online. She is also a self-proclaimed chat junky.

New Technology, Gender And Employment: Mechanisms for Change

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INTRODUCTION

Developments in microelectronics have resulted in the introduction of a range of computer based new technologies into the workplace over the past thirty to forty years, but most dramatically in the past decade. The resulting automation of work and changes in working conditions are among the most important employment issues for both men and women. Initially studies of the introduction of new technology tended to focus on areas where mainly men were working. More recent studies of women's work show that the experiences of women as workers cannot be separated from their wider lives and that the domestic and employment spheres have effects which mutually reinforce each other.

This text introduces some of the issues that will be considered in more depth in the workshop. It is hoped that readers will approach it critically and test any assertions made against their own knowledge and experiences. Space limitations mean that not all significant issues can be highlighted. Therefore readers should bear in mind:

♦ Mechanisms and causes - the how and why.
♦ Likely and possible consequences for female workers, male workers and society as a whole.
♦ Whether these consequences are desirable and, if not, how they can be challenged and changed.

THE INTRODUCTION OF NEW TECHNOLOGY

There are three main theories of the effects of new technologies which can be categorised as upskilling, deskilling and skill polarisation. In some countries, such as Britain and the US, new technology has been introduced with the deliberate intention of deskilling and reducing the workforce. However this has frequently been found to result in inefficiency. Thus attempts by employers to take

control away from the work force may be counterproductive. The introduction of new technology can lead to polarisation of the work force, giving a core group of highly skilled workers with secure jobs and a (smaller) group of peripheral workers, who carry out tasks that have not yet been automated with poor working conditions and little job security. These peripheral workers are frequently women agency and home workers.

The introduction of new technology has tended to confirm the position of women in low status jobs. However social changes and equal opportunities legislation have enabled relatively small numbers of women to climb occupational ladders. Since computer based automation has resulted in a number of jobs being replaced by data entry, the low status of typing as a female skill has played a role in these jobs being considered low status and receiving low pay. However the introduction of personal computers has led increasing number of male professionals and managers to acquire keyboarding skills and input their own data. The main difference seems to be whether workers input their own or someone else's data. Therefore the 'gender' assigned to occupations and expectations that women will carry out 'servicing' tasks at work can be more important than job skill content in determining status and pay. This raises questions about the nature of skill and the relationship of the social content of skill to more objective indicators of skill, such as training requirements, as well as the relationship of skill status to sex and class issues.

MECHANISMS AND CAUSES

The introduction of new communications and information technology has tended to reinforce existing gender based occupational segregation. It may seem paradoxical that the most up-to-date thinking with regards to technology can be combined with very old-fashioned ideas about job designation along sex (and class) lines. New technology has also used occupational segregation and divisions between male and female workers to undermine existing skill bases and replace skilled male craft workers by low paid, frequently part time women, doing routine jobs. In the short term employers and male workers may both

benefit from the introduction of new technology reinforcing occupational segregation. New technology has helped employers to increase control of labour processes and workers, through computer surveillance and monitoring of workers. However this often leads to increased stress, resulting in absenteeism and may be counterproductive for employers in the long term.

Historically male craft and other workers have organised to exclude women rather than organise for better conditions for them. Many male workers are still benefiting from higher wages and skill levels which are based on lower female ones and female domestic labour. There are still fairly wide-spread stereotypical beliefs about appropriate work for the two sexes and women's lack of technical facility. However under the former state communist regimes of Eastern Europe relatively large numbers of women became engineers, though this did not have a positive effect on their status, pay or prime responsibility for unpaid domestic labour. Other issues relate to the interaction between paid employment and other responsibilities, particularly family commitments. It is frequently assumed that male self image is more dependent on employment status, whereas women have other sources of identity and sense of worth. If this is the case, it raises the question of whether it is a result of socialisation or an inherent difference. In addition, even if men put greater weight on their paid employment than women, it is a strange logic which consider this a valid reason for paying them more or considering a job more skilled because it is generally done by a man rather than a woman.

This then brings up the question of the role of new technology. It is the way that information and communications technology is used in the workplace and the reasons for this, rather than the technology itself, that are significant. It can easily lend itself to applications which reduce the workforce, increase management control through computer monitoring and downgrade and replace more highly skilled jobs by data entry. However, there are no technical reasons or barriers, though plenty of others, to it being used to improve working conditions, increase worker control and make jobs more interesting and varied.

Workers of both sexes could probably benefit from an end to sex typing of jobs and skills, since this would make it more difficult to use new technology to increase management control and replace skilled male professional and craft workers by low paid female office workers. However this would require skilled male workers to renounce existing skill hierarchies and their greater status and pay. The fact that new technology is already being used to dismantle male craft skills could give them a strong incentive to do so. There would be clear advantages to society as a whole from using the skill, creativity and potential of all workers to the full rather than limiting them

on gender lines. However pressures on employers to increase competitiveness and reduce costs, as well as the desire of many employers for increased control over labour processes and workers, are a strong barrier to using technology in a more worker friendly way. There are also questions as to whether benefits to employers from increased motivation and less absenteeism, with the resulting reduction in waste and increased productivity, as well as a greater pool of skilled workers to call on will offset increases in (short term) costs.

WORKSHOP ORGANISTION

The organiser is a lecturer in an Electrical Engineering Department where she has worked for the last ten years. She is also actively involved in her union and a wide range of community, women's and alternative organisations.

This workshop is intended to be highly interactive. The suggested structure is:

♦ Introduction and identification of main themes and questions to be considered
♦ Discussion of participants' relevant experiences and/or case studies, possibly in small groups with feedback
♦ Small group discussion of previously identified questions, with feedback
♦ Brain-storming followed by discussion to obtain recommendations
♦ Summary and conclusions.

AIMS OF THE WORKSHOP

♦ To discuss some of the ideas presented and questions raised in the workshop text.
♦ To increase understanding of how and why new technology affects workers in gender specific ways.
♦ To make recommendations for the gender neutral, worker friendly introduction of new technology.
♦ To make suggestions as to what participants can do in their own workplaces to effect the way new technology is introduced & its consequences for them.

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Workshop: Tools and Strategies for Citizen Participation in Design and Planning

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ABSTRACT

The purpose of this workshop will be to provide hands-on experience with a variety of tools designed to engage community clients in design decision-making. Workshop participants will learn about a variety of techniques and experiment directly with at least two strategies in group problem solving activities. Through the process of application participants will:

- become aware of several different strategies to encourage citizen participation in design and planning

- learn how to make appropriate choices concerning application of each techniques

- understand how these techniques fit into the broader context of effective citizen participation programming

- share insights about the effectiveness of various tools

Participants will be organized into small groups and provided with a case study problem to solve using one of the prescribed methods. The context for the workshop activities will be representative of both the architectural and community planning scales.

Activities are designed to facilitate communication of both concrete and abstract information between community clients and their design consultants. For example one strategy will demonstrate how citizen participants can communicate commonly held values to architects and planners using graphic media. Other strategies will target the need to solicit more concrete information from community clients to assist the design process. Use of the strategies can empower participants to visualize design opportunities based on commonly held values and make concrete decisions through group consensus.

Keywords
Community decision-making, planning, architecture, design, visualization

Using High Tech for High Touch: A Participatory Approach to Data Analysis

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ABSTRACT

In this mini-workshop participants will experience a form of interactive data analysis that is being used in a Participatory Action Research (PAR) program in New York State focused on local economic development. This approach engages non-professionals in the formulation, data collection and interpretation of information upon which to base action strategies. Workshop participants will work interactively, as a group, with data originating from among themselves as a basis for learning about the technology and PAR techniques that are the foundations for this approach.

Keywords

Participatory Action Research (PAR), action learning, interactive, data analysis, survey development, technology

INTRODUCTION

Participatory approaches are becoming more common in strategic and action planning at both the organizational and community level. Examples are the use of large group processes, such as Search Conferences, Open Space Technology, and Real Time Strategic Change [1]. These methods rely upon on the existing knowledge of participants to set strategic direction. But if new information is required for decision making or better understanding, these research efforts are often delegated exclusively to outsiders—usually academics or research professionals.

The inherent assumption that people are incapable of systematic data collection and analysis if they don't have formal research training is at best, a tenuous one. *Direct* involvement of the users of the information being generated benefits the research and decision making process [2, 3]. Consequently, we are seeking and finding ways of opening up the research arena to those without formal training, utilizing structured group processes and the responsiveness of new computer technology.

HIGH TECH/HIGH TOUCH WORKSHOP

This workshop will demonstrate a tool of Participatory Action Research (PAR) that is being used in the Cornell Job Retention and Expansion Program (JR&E). The JR&E is a program conducted at the county level with Cornell University support. It assists counties in determining how to most effectively retain and grow jobs. A task force of local economic development agencies and organizations designs its own survey instrument, collects the data and comes to its own interpretations and conclusions. Based on these conclusions, an action strategy is developed for implementation. In this program, participation is full cycle.

JR&E uses workshops to introduce and ease participants into the realm of the research process. Roles are well defined: participants provide content expertise while university-based personnel provide group process and research knowledge and skills. Consequently, the learning is both content and process. As participants learn the research process by experiencing it firsthand, their level of content knowledge also increases and they develop a sort of 'research literacy' [4]

Firsthand experience is facilitated through the use of technology in the workshops – computers installed with appropriate word processing and statistical software, a projection unit to enable participants to see actual questionnaire construction, data entry, analysis, etc. The energy and commitment to action that is generated by self-discovery in this manner exceeds that of research findings delivered by an outside source, no matter its quality or reputation. This is so because of: 1) the seamlessness of the process where participants are continuously involved, 2) the group ownership of the data and findings derived from it, and 3) the relationships that develop while participants are engaged in the action learning experience with one another.

In the workshop...

Participants will experience the types of sessions conducted with task force members in local settings, on an abbreviated basis (a typical JR&E program involves about 10-12 workshop sessions). To enhance this approximation, participants will begin by completing a brief questionnaire

Figure 1. Workshop Flowchart
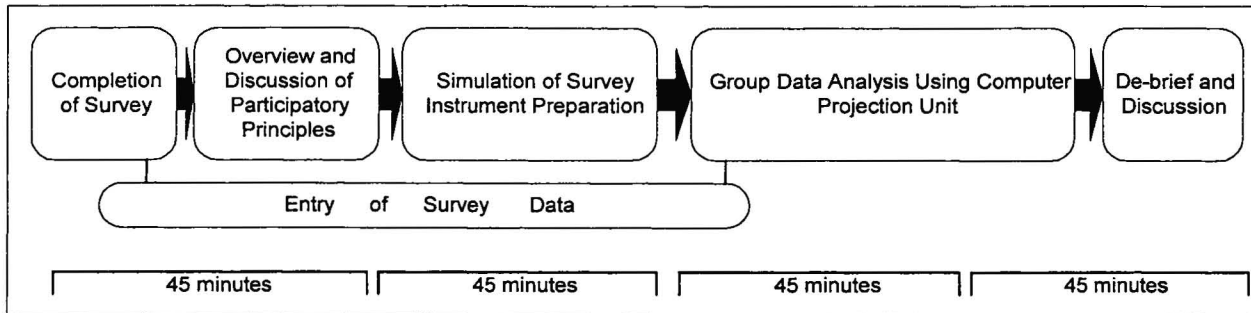
relating to the interests of the conference. Then, while an orientation is provided about this work, the data will be processed, making it accessible for analysis by the group on an interactive basis. This will be done using a large screen projection unit which will demonstrate the real time nature of this activity. Also during this time, participants will engage in a simulation session of the development of a survey instrument that replicates what is done in the field.

The session will conclude with an evaluation of the data analysis session, discussion of the advantages and challenges of group data analysis and the interface of this type of computer technology in group processes.

Above is a graphic representation of the flow of the workshop (see Figure 1) which translates to the following agenda (assumes 9am start):

9:00 am	Welcome and Introductions
9:15 am	Completion of Survey
9:30 am	Discussion of Participatory Principles
9:45 am	Simulation of Survey Instrument Development
10:30 am	Break
10:45 am	Real Time Data Analysis
11:30am	Evaluation and Discussion
12 noon	Adjournment

It might seem counterintuitive that the introduction of computer technology actually increases the level of human participation in the action learning process. That is, however, what we are finding. New, much more responsive and user friendly statistical software, along with projection capability enables full group participation in real time. Participants engage in the research tasks with enthusiasm, and, more importantly, commit to follow-through efforts at levels that we have not seen using traditional study approaches. The engagement of the users in deciding what data to collect and making meaning of it themselves seem to be the ingredients that create this effect.

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Video-Based Interaction Analysis (VBIA) in Distributed Settings: A Tool for Analyzing Multiple-Site, Technology-Supported Interactions

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ABSTRACT

In 1995, we initiated a study at the headquarters of a corporation with multiple geographically distributed business units. This organization was in the process of integrating remote communication technologies such as video conferencing and shared desktop applications into their everyday work practices. We adapted VBIA, traditionally used in single-site settings, to help us to capture and analyze the complex, distributed activities enabled by these technologies.

This workshop is intended to build on our experience by showing and discussing examples from our work and adapting the ideas and techniques we have developed to the projects and interests of workshop participants.

Keywords

Interaction Analysis, video analysis, collaboration, work practices, remote communication technologies, distributed teams

ISSUES

How can tools for understanding work practices be developed that enable us to capture and analyze complex, distributed collaborative activities? Below we outline the contributions of one particular method, Video-based Interaction Analysis (VBIA).

VBIA IN THE DISTRIBUTED WORKPLACE

Video-based Interaction Analysis (VBIA) is a method for investigating the interaction of human beings with each other and with the physical objects in their environment. It has been used widely for the analysis of work practices in the physical and social context in which they occur.

For example, VBIA has supported the analysis of telephone service representatives responding to customer inquiries, new employees taking computer-based training courses, and workers engaged in on-the-job learning. It has been used in medical settings to analyze doctor-patient interactions, and in airports to map out the complex coordination required for real-time schedule management.

We have now extended the technique to settings in which work is carried out by geographically distributed groups. These group use remote communication technologies such as video conferencing or shared desktop applications with an audio link in order to carry out collaborative work. Synchronized taping of action at multiple sites allows us to capture local activities, and to later on piece together the complex actions and interactions that formed the full, distributed group activity.

In 1995, we initiated a study at the headquarters of a corporation with multiple geographically distributed business units. Our interest lay in the integration of advanced information and communication technologies with the work of the staff at headquarters. We were particularly interested in the use of video-conferencing and shared-desktop applications implemented to overcome the barriers of space and time.

As part of our broader ethnographic work, we collected a series of video tapes that captured the activities on both sides of remote interactions such as routine staff meeting and application prototype demonstrations. VBIA has enabled us to analyze not only the activities at both sites involved in each interaction, but to analyze their synchronization and divergence as groups on one side of the link act and react in response to their perceptions of what is happening on the other side.

This technique enables us to make powerful statements about the affordances of specific technologies and their broader contexts of use.

Example 1: Delay-Generated Trouble

The one-second delay people experience when using the video-conferencing system affects their ability to effectively and appropriately manage turn-taking within the interaction. Potential consequences include feelings of discomfort, misalignment of parties, and breakdown.

Example 2: Global "Yes" = Local "No"

Audio-only, shared electronic workspace settings enable group members to engage in two interactions at once: one with the distributed group as a whole, one limited

to local members. A "collaborative" distributed dialogue can be undercut by a simultaneous local-only dialogue discounting the comments or actions of remote members.

As these examples indicate, video can be used to capture and analyze complex patterns in ways that would be impossible with other techniques for data collection and analysis. Conducted within a broader ethnographic analysis, VBIA can contribute to a deeper understanding of complex, distributed phenomena.

It is also ideal for involving participants in developing a deeper understanding of the ways in which these communication technologies affect their interactions. This understanding can form the basis for collaboratively devising ways in which the group can constructively overcome obstacles.

WORKSHOP CONTENTS
The workshop is structured as three modular activities, separated by brief "stretch+yak" periods.

Part I: An introduction to the principles of Video-Based Interaction Analysis (VBIA) as we use it for the microanalysis of work practice in technologically and interactionally complex work environments. We discuss the process of data collection and analysis, including selection of sites, content logging and transcribing, and collaborative tape analysis. We also discuss the pros and cons of VBIA, and how they manifest themselves in specific settings.

Part II: A joint viewing of excerpts from multi-site videotapes of distributed groups using two different kinds of technologies to support group work. We will discuss ways of managing, representing, and analyzing data collected simultaneously in multiple settings. We will also discuss the complexities of working in distributed settings where part of the interaction takes place within a shared virtual space.

Part III: Discussion of the ways in which this kind of analysis could be adapted to workshop participants' own projects or settings. We will examine both the opportunities afforded by these settings and the difficulties they may present, paying attention to the technical and analytical problems that may arise.

Part IV: Drawing on prior experience, we discuss potential difficulties encountered when involving participants in review and analysis of their own interactions. We will also consider the ethical considerations underlying this kind of fieldwork and subsequent analysis. We will provide recommendations for optimal participatory involvement.

Preferred limit on participants: 20

HANDOUTS
We will provide a variety of handouts, consisting of:

- several papers (our own and others') on the topic of VBIA, including those listed below;

- informational statements and forms, used to communicate project goals and procedures to participants;

- consent forms, used with videotaping to caution participants and advise them of their obligations and rights;

- a set of templates we have found useful for various phases of tape analysis, including content logging, transcription of single- and multi-site interactions, and hypothesis tracking.

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ORGANIZERS
Brigitte Jordan is a senior researcher at Xerox PARC and has been a pioneer in the development of Video-Based Interaction Analysis. She is an anthropologist with interests in the participatory design of productive and supportive work settings. She has done research in industrial and pre-industrial communities, tracing the influence of social and technological innovations on work practice, quality of life, and organizational change. Her long-range interests revolve around the changing nature of work under the impact of the new communication and information technologies. Current projects focus on understanding and improving complex work settings in the production and service sectors, the support of organizational learning, and tool building to support work redesign.

Karen Ruhleder is a faculty member at the University of Illinois, Urbana-Champaign. Her work lies in the interdisciplinary area of social informatics. Her research and teaching crosses the areas of information technology, the ethnography of information systems, and organizational theory. Her past work has included evaluations of the integration of scholarly workstations into humanistic and scientific disciplines. Current research projects focus on the impact of information and communication technologies on work practices and organizational design, especially the emergence of socio-technical infrastructures to support geographically-distributed collaborative work. The venues for her work have included both academic and corporate settings.

Focus Troupe: Mini Workshop on Using Drama to Create Common Context for New Product Concept End-User Evaluations

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ABSTRACT

In this Mini-Workshop we wish to explore further the use of live performance in early concept development. At CHI '98 we offered this technique as a late breaking result [**]. The idea of a focus troupe is to use performance to elicit contextually relevant, personally experiential user feedback for products that do not yet exist. While traditional marketing techniques, e.g., focus groups and surveys, appear adequate for evaluating existing products with which customers have direct experience, these existing techniques offer only limited satisfaction for evaluating new product concepts where there is no customer experience. Focus Troupe is a technique whereby dramatic vignettes are presented to an audience of potential customers in which the new product concept is featured merely as a prop or even as a dramatic element, but not as an existing piece of technology. The vignette casts familiar situations where the particulars differ based on the new invention, thereby contextually highlighting the new concept against a familiar and common background. eliciting relevant comments from otherwise naïve customers about products that do not exist. Obviously there are many more directions this type of work can adopt, and many more ways to involve the audience and the designers. However, we have not had the time to explore any of these. In this workshop, we hope to explore some of those directions, by dividing the group into segments who will each develop their own "focus troupe" format while maintaining a focus on testing/evaluating new product concepts.

BACKGROUND & INTRODUCTION

Focus groups--where half a dozen ordinary folks are assembled to discuss Brand X while observers busily scribble notes behind a one-way mirror--may still

dominate research into selling everything from dish soap to politicians, but they are slowly losing cachet. Explains Jim Spaeth, president of the Advertising Research Council, the race is on to find methods that dig beyond what consumers can articulate to what's "deeper in their mind."
Newsweek 8/18/97 Business/Marketing: Enough Talk

Art therapists have known for years that it's possible to access deeper structures of the mind using various forms of inquiry and presentation, especially concerning queries of personal experience [3,4]. However, in the development of radically new products and specifically of new high technology products, potential customers have not had *any* experience with the concept being investigated. Since having experience is an assumption of existing techniques, they are limited in their use for evaluating a new product concept. It's like asking people if they'd want a personal computer in their home in 1977, at which time Digital Corp. Chairman Ken Olson quipped, "There is no reason anyone would want a computer in their home."

The current technique differs from existing applications of theatrical techniques in the computing industry primarily with regards to its purpose. Laurel's *Computers as Theatre,* for instance, emphasizes how the actual *design* of a computing product, e.g., an application, would benefit from the application of dramatic technique, encouraging not a false interaction, but one based on thousands of years of interactive theatrical experience [5]. In another theatrical technique called "informance", product designers use dramatic action as a technique for actually working through the design of a product or product line [1]. The critical difference between these two applications of theatrical technique and the present methodology is that the latter *elicits contextual feedback from an audience of novitiates,* whereas the former do not appear to elicit feedback in this way, but rather rely on dramatic technique as a design tool *for the designers,* per se.

Short, dramatic vignettes are presented in which the new product concept is featured. The vignette casts a familiar scenario demonstrating how the new product

concept might be used. The audience then engages in several conversations about the concept armed with a full understanding of the implications, operations and expectations of what the product would do. A fuller description of process is in the CHI 98 proceedings.

THE MINI WORKSHOP: PURPOSE

In focus troupe's we've conducted, a product concept is illustrated through the use of a dramatic vignette. In all cases thus far, the outward experience of a focus troupe looks not unlike a focus group. There are about 25 people in the room, they all focus on the performance, and then comment in the whole and in small groups. Comments and discussion are recorded. However, these are the only things in common -- the content, which is the important part, differs dramatically. Both the presentation content differs in that it is fully engaging, uses a contextually rich story to portray the product (often incidentally) and provides a common ground for the audience as well as usurping their individual experiences. The performance acts as a bridge between their experience and our new concept. However, at this point, the technique is not as participatory for the audience as one might wish. The goal of this workshop is to identify reasonable and/or practical techniques for further including audience participation before, during or after the actual focus troupe events.

A little thought shows that there are many ways to engage audiences and designers using performance. The issue is to construct a viable format for various purposes, where the format supports the purpose. In each case there will be advantages and disadvantages. For example, one possible scenario is where a company or group has many product concepts and wishes to pare the list into those that best resonate with the end-user. A possible format is to fill a theatre with end users and present a series of vignettes (each 5 minutes or less) and each about a different product concept, and let the audience answer a series of questions following each performance. How might this work? What are the advantages and disadvantages, etc. One group in the mini-workshop may decide to adopt this format and work out the details. Other examples might include the addition of improvisation capabilities and engaging

individual audience members (or the product team) in the experience, or the audience telling the actors an alternative way to conduct the performance, etc. This offers additional challenges for the actors and the corporate representatives. There, of course, many variations and it is our hope that the workshop participants can open the design space for creating truly interactive theatrical experiences for the purpose of evaluating product concepts that do not yet exist.

THE MINI WORKSHOP: FORMAT

The three hours will be divided roughly as follows: First hour or less is a presentation and discussion regarding the current focus troupe format as presented at CHI'98. Papers will be distributed beforehand to conference participants. The second hour will be dedicated to the consideration of a new product concept evaluation dilemma and the construction of an performance based format citing advantages and disadvantages. The third hour will be dedicated to presentation of the second hour's work with discussion. Results will be compiled and presented in proceedings format within 24hours of the workshop.

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Participatory Expression through Image Collaging: A Learning-by-Doing Experience

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ABSTRACT

In response to feedback from participants in the workshops conducted by the first author at the two previous PD conferences, we decided to focus on one of the methods we use frequently to uncover the more emotional components of user needs. We call this method Projective Expression through Image Collaging. Our intent this year is to help the workshop participants learn how and when to conduct it on their own. We also plan to use the workshop as a forum for further exploring the uses of this technique.

We understand that the previous workshops led to some controversy regarding the ethics of collecting information that could be used in advertising and other activities that some people in the PD community consider to be manipulative. We plan to raise this issue explicitly so that participants can explore and exchange their views.

Keywords

Participatory Design, projective, image, collages

PROCEDURE

The workshop will begin with a 20-minute presentation of Image Collaging as a participatory design research method. We will show how this method has been used early in the design development of many types of products, systems, and spaces. Through examples, we will also discuss the places in the design development process where we have found this set of tools to be most appropriate and effective. We will also provide a brief explanation of how to use this method in conjunction with other methods (both traditional as well as participatory).

The remaining two-and-a-half hours will be a learning-by-doing experience in which workshop participants will design, implement, and analyze collage using the Image Collage tool kit. In Part One, we will introduce a hypothetical design inquiry such as the design of information organization and management tools for knowledge workers.

(The topic will be one for which all workshop participants could possibly be actual research participants.)

Participants will define the questions they hope to answer through the research (and specifically through this method). They will then choose appropriate tool kit "parts" for a given set of respondents. The educated selection of the words and images in the development of this tool kit is crucial to its success. We will discuss guidelines for putting together the right set of "parts" and then draft a discussion guide for the moderator using the tool kit. We will focus on the mood and language that elicits the most effective and in-depth response from the respondents, both in a one-on-one and group setting.

In Part Two, the participants will segregate into teams and be given a real data set to analyze. Some of the more lengthy steps from the process of summarizing the image collaging data will already have taken place before the workshop (*e.g.,* data frequencies, transcripts of verbal protocols, key words in context, etc.) Workshop participants will use the summary materials provided to analyze, draw interpretations, and develop design criteria from the data. Each team will then present their findings, and a comparison of the team findings will take place.

We will finish with a group discussion about other ideas for analyzing the data that emerges in the use of image collaging tool kits. We would also like to extend the discussion to ideas about new additions to the image collaging tool kit, as well as ideas about new situations of use. We will discuss the ethical implications of collecting information that could be used in advertising and invite the participants to explore and exchange their views.

PARTICIPANTS

Because of the "props" needed in these methods, it will be necessary to limit the number of participants to about 12. People with any kind of background are welcome.

RESULTS

Instruction in the preparation and analysis of a new participatory method: teamwork, hands-on-learning, fun!

More Participation or Better Representation?

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ABSTRACT
When is the goal of making design more responsive to users' needs better achieved via improved <u>participation</u> and when is it better achieved via improved <u>representation</u>? This mini-workshop examines the possibility that the goals of participatory design often require more representative expertise, and that pursuing increased participation without pursuing improved representation may be a serious error.

Keywords
Representation, representative expertise, disagreement, coping with uncertainty.

THEME
Is the term "participatory design" misleading in crucial respects? Is it possible that the spirit behind what is known as participatory design actually requires qualitatively better representation by experts more than it requires quantitatively more numerous participation by non-experts?

METHOD OF INQUIRY
To investigate this hypothesis, the mini-workshop will examine cases illustrating six major categories of design failures. These include failure to envision needed designs and failure to modify designs in a timely way following negative feedback. For each type of failure we will be asking: Which would be more likely actually to head off or correct design failures, improved representation among expert participants or expanded participation by clients and other impact constituencies? And which is more feasible, in principle, to arrange?

To help keep the exercise on track, and to keep it interesting, we will work mainly in terms of particular cases -- some suggested by workshop participants, some supplied by the facilitator. In addition to typical PDC cases involving computing and communications, possible cases may include: Green Chemistry (design of safer chemicals); traffic calming and bicycle/pedestrian amenities; new pharmaceuticals for tropical diseases; and innovative products utilizing carbon dioxide as a constituent material, to help reduce the amount of that greenhouse gas discharged to the stratosphere.

By selecting a variety of cases and by working from a somewhat comprehensive framework of design challenges, we will try to force ourselves to confront the diversity of the design world rather than sticking close to our own fields of specialization. This should allow workshop participants to reach more reliable conclusions about the relative merits of participation compared with representation as approaches to improved design.