IMPROVING CANCER PREVENTION AND COMMUNICATION

TWO CASE STUDIES FROM THE PORTFOLIO OF DESIGNMATTERS

Mariana Amatullo Elena Salıj

INTRODUCTION

This paper presents insights about a few of the design research strategies, pedagogical methodologies, and lessons learned from two distinct case studies for cancer prevention campaigns developed under the aegis of Designmatters, the social impact department at Art Center College of Design.

A brief articulation of the design research agenda for social change and cross-disciplinary partnerships that Designmatters champions within the realms of art and design education precedes a comprehensive overview of the creative approaches and initial conceptual outcomes from the "Es Tiempo" campaign for cervical cancer prevention among underserved Hispanic communities in Los Angeles. "Es Tiempo" represents the outcomes of collaboration with the Keck School of Medicine and the Annenberg School for Communication and Journalism at the University of Southern California. The case study follows a summary of key research methodologies behind the "Family PLZ!" campaign to advance public awareness about the importance of family-history knowledge as it relates to colorectal cancer prevention. The latter campaign is the result of collaboration with the Mayo Clinic Center for Innovation, the American Cancer Society, and the National Colorectal Cancer Roundtable.

Both case studies illustrate the compelling relevance of design thinking in the arena of cancer communication in particular, and in public policy and global healthcare overall – two of Designmatters' topical areas of inquiry and practice. Both campaigns promote cancer prevention and screening and underscore the value of culturally informed, empathic messaging and contemporary media vehicles to heighten awareness about behavioral changes that can contribute to effectively curbing incidence rates of mortality from the disease.

DESIGNMATTERS AT ART CENTER: SOCIAL IMPACT THROUGH ART AND DESIGN EDUCATION

Founded in 2001, Designmatters is currently a non-degree granting educational department at Art Center College of Design dedicated to art and design education with a social impact agenda. Designmatters oversees multidisciplinary courses, research initiatives, and student internships that are characterized by real-world assignments integrated into the curricula of the college, and cross-sector alliances involving a broad spectrum of organizations and institutions of complementary expertise encompassing the gamut of

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engineering, technology, business, healthcare, and international development. These partnerships focus on four pillars of investigation – sustainable development, global healthcare, public policy, and social entrepreneurship – and expose students to a meaningful range of expertise and experience. The strategic alliances forged by Designmatters are noteworthy, especially if one considers the concept of partnership as a means to create space for individuals and communities of people to seek different types of leadership, which include new ways to express progressive values in addressing societal changes.¹⁾ In 2003, the United Nations Department of Public Information designated Art Center an NGO (non-governmental organization) in recognition of Cesignmatters' service to society. Other unique affiliations include civil organization membersh.p with the Organization of American States, another NGO designation by the United Nations Population Fund (UNFPA), and a Collaborating Center agreement with the Pan American Health Organization/World Health Organization (PAHO/WHO)

These international affiliations and strategic partnerships are uniquely distinctive for a college specialized in art and design education and have provided the Art Center community of students, faculty, and alumni access to a prominent stage in which to offer original solutions to many critical issues of our time – with the outcomes of the work by students widely disseminated beyond the classroom walls. At the same time, the engaged agenda of Designmatters is part and parcel of a growing movement within the professional design community, and design schools, to align research and practice with the exploration of social and sustainable concerns and find a new focus grounded in the power of design thinking – which taps into our ability to be intuitive, to recognize patterns and arrive at solutions that take into account emotional factors as much as functional ones – for social innovation and change.²¹

With each Designmatters brief, students are invited to grasp the complexity of the task at hand within an educational framework that is designed to provide for an enriching and challenging learning experience imbued with critical content brought by partners and guest experts who engage in a co-participatory process with the faculty team guiding the students. Project partners are called upon to share data and approve of conceptual developments at key junctures throughout the traditional 14 weeks that span the academic term at Art Center. From a pedagogical perspective, the objective is to foster an educational environment that allows students to create relevant, implementable outcomes "Research transformed by action" could be considered the motto guiding all Designmatters collaborations, in that the design research processes that students embark upon in the studio must translate into actionable concepts. Ultimately, every design proposed will need to adhere to the various production and dissemination criteria outlined in each collaboration. In fact, the "real-world" component of Designmatters projects implies a shift that resides from simply expecting students to design stylistically proficient and persuasive messages for individual portfolio purposes, to creating campaigns - such as those discussed in this paper - that are rigorously grounded in scientific data and cultural relevance. The following testimonial by Dr. Sheila T. Murphy of the Annenberg School for Communication and Journalism, who oversaw the focus group testing that informed the development of the "Es Tiempo" campaign, refers to the clear advantage in the distinctive participatory aspect of Designmatters project methodologies: "As a researcher, I am often involved at the outset of a campaign in formative research to identify potential pitfalls or at the very end of the process in evaluating a campaign's success or failure. The collaboration with the Designmatters class at Art Center provided me with a rare opportunity to have direct input and impact throughout the entire campaign development process. "3)

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The collaborative framework of Designmatters extends beyond the partner organizations, guest faculty experts, and Art Center staff and faculty teams that manage any given project: it also infuses the humancentered research that student teams frequently undertake at the inception of their assignment. Beyond access to data from traditional social science focus groups, students are encouraged to conduct thorough observations of target audiences and their contexts by questioning assumptions with provocative *Why? Why not?* and *What if?* queries, and through experimentation – by trying out ideas in search of insights that might drive the ideation of concepts. These iteration steps within the design research process are, in this sense, akin to how innovation is articulated in the current leading literature.⁴⁾ Of note for the cancer communication projects at stake, we find that the informality of the design observation processes can also reveal pertinent information about patient behavior and target audience concerns, which do not necessarily always get captured by the reliance of more analytical approaches within the medical establishment

ES TIEMPO CAMPAIGN CASE STUDY

The upper-term advertising studio led by Elena Salij, with Maria Moon as adjunct faculty, during the summer 2009 academic term included seven students from different majors at Art Center (graphic design, photography, illustration, fine art, and graduate media design) and challenged them to create advertising communications to persuade Hispanic/Latinas in underserved communities of Los Angeles to comply with clinical guidelines for cervical-cancer screening

"Cervical cancer is one of the most preventable causes of death and disease. Yet many women do not receive the needed screenings to detect cervical cancer early. In the Hispanic/Latino community in particular, many women come in with late diagnosis where the possibilities of survival become more limited. Cervical cancer among Hispanic/Latinas is an issue that needs to be addressed across multiple generations, economic strata, and acculturation levels. Some women are paralyzed by the fear of cancer. Many go into denial." The multilayered design challenge facing the students is encapsulated in this moving statement by guest faculty expert Dr. Lourdes Baezconde-Garbanati, professor in Preventive Medicine. Furthermore, as emphasized by Dr. Robert W. Haile, USC Keck principal investigator and lead for this collaborative study, the potential impact of reaching this population successfully cannot be underestimated: "When women are screened every year the incidence (of cervical cancer) is reduced by 94%, when screened every five years, by 84%, but when the interval between screening is increased to 10 years, the reduction in incidence is only 64%."

Preliminary research gathered by project partners at USC Keck and the Annenberg School for Communication and Journalism indicated that the problem to be solved was broader and more complex than any conventional advertising campaign could hope to address: to be successful, the program would have to engage a range of social, emotional, and (most important) practical barriers, including the obvious one that many of these women can't afford to take time from work to get preventive medical care, even if that care is offered at low cost or for free. Students responded with a proposal for an integrated advertising campaign that was both culturally sensitive and hard-headed in its confrontation of the barriers that prevent women from getting tested.

THE RESEARCH PROCESS

the challenge into focus

As already mentioned briefly in the context of our discussion of Designmatters methodologies, students are encouraged to begin with research - not only with "library" research, but with primary (survey) research, visual research, and research that's more improvisational and experiential - designed to generate impressions and hypotheses as well as suggest solutions. The students therefore began their work broadly. and without any specific objective other than immersion: by visiting the USC Norris Cancer Center (and even by administering mock pap tests on training dummies, in order to better understand the particular environment of the exam room), by visiting local clinics, by studying Spanish-language television and radio (and by extension advertising), and by documenting the visual and material culture of East Los Angeles. On the basis of this early research, the students created "rapid prototypes" of their very preliminary ideas for the project. Rapid prototypes are incomplete, necessarily imperfect sketches, generated under tight time pressure - simple notations of the concept, designed to capture the essence of the idea. But these sketches are valuable in the creative process in that they require the creator to give form to thought. The next step of the process was extremely productive - in fact definitive, in terms of this project. Dr Murphy and researchers at Annenberg conducted a small handful of focus groups with at-risk Latinas. dedicated to addressing issues that the students had identified during their preliminary research, and incorporating specific these of inquiry that the students had devised (including getting reactions to some of the more promising rapid-prototype ideas) Their findings, more than any other piece of the puzzle, brought

The focus groups revealed that our most fundamental assumption – that these women were not aware of the Pap smear or its importance – was simply incorrect: virtually all the women in the focus groups knew what a Pap test was, and they knew they should be screened regularly. However, through the course of the discussion, it became clear that there were a range of *other* barriers – cultural, institutional, and practical – that had to be addressed if we were to succeed.

- First, the women disliked discussing medical matters in general, and had a particular distaste for discussing reproductive health; they usually referred to the reproductive organs as "down there," and shied away from open discussion. This posed an obvious problem for advertising, which by definition brings matters out into the open. We therefore had every reason to believe that women would shut out advertising for Pap testing that was too explicit.
- Those who had experienced a Pap test found it uncomfortable and undignified and were naturally
 reluctant to repeat the experience. It was obvious that we would have to provide reassurances that
 the lest was easy or, at least, not as difficult as they remembered or had heard and to the extent
 possible make the experience more palatable
- Most of the women didn't have any regular relationship with a primary-care physician: in fact, they
 were far more likely to see their children's pediatrician than see a doctor for themselves. That meant
 there was no obvious structure for issuing reminders or follow-ups the campaign would have to
 build in that structure.
- Many tended to *distrust physicians*: indeed, most of these women said they had more confidence in the medical advice given by their mothers, sisters, and female friends than in the advice they got from doctors. This was a particular problem, since all written materials to date had featured physicians-as-authorities. We began to understand that we would have to drop the doctor, and instead tap into the network of family and friends that these women relied upon.

- Many tended to *rely on outside authorities* for instruction, however, some noted that the Mexican
 government routinely issues health-care reminders and directives, and as a result they didn't keep
 track of screening schedules on their own. This suggested that the audience would be more passive
 than we had hoped, requiring more than the usual amount of prodding, delivered in a way that felt
 authoritative
- Many were reluctant to provide personal information even phone numbers to any authority: as a
 result, no reliable database of at-risk women could be established for the purposes of issuing
 reminders or for follow-ups. This meant we couldn't simply collect names, numbers, and email
 addresses to build a database, as we might in another community, and that we would have to
 provide more than the usual reassurances of privacy to participants.
- Many *didn't know where to go* for low- or no-cost Pap tests in their neighborhood. It was obvious that providing basic information and maps, literally, would be important.
- Many couldn't afford to take the day or half-day from work, even to visit a local clinic where a Pap test could be low-cost or even free – obviously, an enormous impediment. It became obvious that providing financial incentives, offering at least some compensation for time taken from work, would be essential if we were to generate the kind of compliance we were seeking

As part of their work, students were required to research examples of prominent public-service advertising campaigns that took on similarly intractable issues – complex, multi-barrier problems, like ours, that could not simply be addressed comprehensively by even the most compelling slogan or poster. These examples provided substantial inspiration, since many stretched the definition of advertising – and what advertising could hope to accomplish – and thereby encouraged the students to think more expansively and set a higher bar for their own work.⁶⁾

THE SOLUTION

In the end, the students of the studio settled on a three-part program, which is currently undergoing further development for implementation by project partners, designed to address the largest elements of the problem: first, salience and way finding (raising awareness and giving directions, literally and figuratively), second, incentives (compensating women while tapping into their existing social networks); and third, fundraising.

1. Salience and way finding

Students in the studio focused on the need for a visual identity system that was visually distinctive – of course – but explicitly non-medical. For this purpose, the students appropriated the jacaranda tree – the beautiful, beloved, purple-flowered tree that blooms in southern California, and in Central and South America, each spring. In Los Angeles, the sudden blooming of the jacaranda – the flowers seem to appear overnight – is celebrated as a welcome sign of spring.

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In the first part of the campaign, the jacaranda tree is linked, as directly as possible, to Pap screening: posters, video, and radio advertising remind women that "when the jacaranda tree blooms, it's time to schedule your Pap test." Maps and environmental graphics, visible at bus shelters and distributed in shops, workplaces, and libraries – again, featuring the jacaranda tree logo – direct women to local clinics where they can obtain low- and no-cost Paps. The purple dots can even be painted on the sides or sidewalks of clinics, reminding women that this is yet another place where you can get tested. All communications are signed with the tagline *"Es Importante, Es Fácil, Es Tiempo"* "It's Important, It's Easy, It's Time."

The value of the jacaranda in this context is simple: it blooms every year, for free. As long as communications can succeed in linking the jacaranda to the Pap test, the jacaranda acts as free media, reminding to women to get tested, without relying on a database or a doctor to do the work of communication.

2. Incentives

To ease the financial burden of missing work during to get tested, students devised the Es Tiempo VISA Gift Card. These cards, holding no initial value, would be distributed for free in shops, workplaces, and libraries. The accompanying materials explain the system. When a woman gets her Pap test, her card is credited with \$20. When she calls back to obtain her test results, her card is credited with another \$10. If she persuades a friend to get a Pap test, her card is credited with another \$5. If any participant receives a positive test result – that is, suspicion of a cancerous or pre-cancerous condition, requiring a follow-up colposcopy (a more invasive and time-consuming procedure), incentives are escalated as necessary, to ensure compliance. The balance can be spent anywhere VISA is accepted.

In addition, an easy-to-use Web site allows the woman to check her test results and card balance online, and offers videos of a friendly young woman explaining what Pap results mean, and encouraging the visitor to follow up. Women who can't or won't go online can call in anonymously, key in their VISA card's code, and obtain their results and check their card balance.

It's critical that in all aspects the messaging is light, friendly, and approachable: there's no fear-mongering, no hectoring, no doctors present at all – just a social network of women friends helping and encouraging each other. The VISA card system encourages women to talk to each other, help each other, and support each other for their mutual benefit.

3. Fundraising

To subsidize the effort, the students proposed a themed fundraising campaign. In it, corporations committed to women's health and well-being – OPI. Avon, others – would offer *Es Tiempo* jacaranda-themed products (nail polish, perfume, room fragrance) to their customers; profits from sales would support the incentive program. By engaging the women everywhere, the fundraising effort continues and expands the central motive of the Es Tiempo campaign: women helping other women.

Finally, a series of ancillary products and services – t-shirts, tote bags, even warm socks for the exam room – perpetuate and amplify the campaign's theme, ensuring that the campaign remains present in the audience's consciousness.

FAMILY PLZ! CASE STUDY

According to the Centers for Disease Control (CDC), among cancers that affect both men and women, colorectal cancer is the second leading cause of cancer-related deaths in the United States. The American Cancer Society estimated that there were about 108,070 new cases of colon cancer and 40,740 new cases of rectal cancer in 2008 in the United States. Combined, they will cause about 49,960 deaths (American Cancer Society, Cancer Facts and Figures, 2009). Colorectal cancer (CRC) screening has been demonstrated to be effective and cost-efficient, but remains underutilized within the general population. Incomplete (or absent) awareness of colorectal cancer risk continues to be a major barrier. Novel communications approaches are needed to emphasize the importance of past medical history, family history, diet, and lifestyle so that screening services can be provided, and personalized, to individuals who are most likely to benefit.

In this Designmatters multidisciplinary studio led by a faculty team from the Graphic Design Department at Art Center (which included Allison Goodman, Jason Brush and Dr. Dirk-Mario Boltz, Berlin FHW School of Economics Visiting Professor), students from the graphic design and environmental design departments worked with medical experts and communications professionals from the Mayo Clinic Center for Innovation, the American Cancer Society, and the National Colorectal Cancer Roundtable (NCCRT) to create an innovative mixed media creative campaign that resulted in "Family PLZ!" The chief objective for communication that the students focused on was to support evidence-based cancer education and awareness about the importance of accessing family history for colorectal cancer prevention.

The design brief that project partners gave the team started from a relatively broad point of departure 1) develop an intergenerational communications strategy that can include a younger demographic that is currently not a priority audience with targeted colorectal cancer prevention and screening (as opposed to the 50 plus age group); 2) emphasize a user-centered approach to create messaging that will resonate with a younger audience and support evidence-based colorectal cancer education and awareness; and 3) maximize how people are already using new technologies and social media networks for communication and community building in a way that creates movement beyond awareness to direct action in overcoming practical barriers to screening.

SALIENT RESEARCH METHODS

The faculty guided the students through a participatory, human-centered approach to the research (which benefited from focus testing results also overseen by Dr. Murphy from USC Annenberg) in order to develop an integrated campaign with materials and communication interventions that would focus on the realities of everyday life for the target audiences in question. Primary to this research phase for the team was identifying the relationships between behaviors, the material and built environments, and use and influence of relevant communications media and storytelling networks

Communications strategies during the conceptual and ideation phases of the studio included the study of community lead or asset based interventions that amount to participatory interventions. This method of communication includes community members as part of the creative, production, and dissemination processes. This typically allows for the development of a communication voice and access that comes from – and is created by – the community it is serving. Such a strategy assures a more integrated and sustainable engagement with the community overall. In the case of "Family PLZ!," conceptually the campaign becomes a platform to address, in the words of Maggie Breslin, Senior Designer and Researcher

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from Mayo Clinic Center for Innovation. "why people have a hard time putting together a family history, how we might be able to help them make sense of the information they do have, and how to help them gather information that is not likely to come up in the average family conversation".⁷

The "big idea" of the communication behind the "Family PLZI" campaign is to promote, through contemporary media channels and social networks, that family history is a key factor in the need for colorectal cancer screening. To that end, the student team devised an integrated system of messaging that is envisioned to take on Web, print and environmental applications in the forthcoming stages of implementation of the campaign by project partners. Prior to arriving at the conceptual framework of this system, the student and faculty team iterated a number of potential paths that the campaign could follow. Early concepts studied the impact of humor as a means to create a large societal dialogue around CRC, as well as the adoption of special characters and gaming to encourage health communication. The team presented to project partners midway through the 14 weeks of the term, articulating all strategies with a diagram of an orchestra (see figure 5) which, as Professor Boltz explained, symbolized the hierarchy of the concepts as well as the channels through which messaging could flow. The remainder of the term was spent in fully fleshing the approved "conducting idea" into a campaign that adopts the Internet vernacular across several media to explore how we might empower families to have important conversations about their health, and in turn have those conversations drive heightened awareness about colorectal cancer, screening and prevention

CONCLUSION

Cancers that can be prevented or detected earlier by screening account for at least half of all new cancer cases diagnosed each year in the United States (American Cancer Society, Cancer Facts and Figures, 2009).

The focus of the Designmatters case study campaigns "Es Tiempo" and "Family PLZ!" represent design thinking exemplars of the long-term benefits that stem from strategic and human-centered communication campaigns. By tapping into community based models and adopting contemporary media portals, both campaigns attempt to offer innovative solutions: in some cases to reduce health disparities, and in others to bring down barriers that can, hopefully, curb the burden of disease in years to come

ACKNOWLEDGEMENT

In addition to the lead faculty of these projects and the student teams in each project listed, the authors wish to acknowledge and thank several individuals who were instrumental in the successful management and development of both projects

"Es Tiempo" Case Study: Students: Camille Onteveros, Chris Lack, HaeLee Kang, Lucia Loiso, Mark Brinn, Phillip An and Tracy Hung. Contributors: Maria Moon, Teaching Assistant, Adjunct Faculty, Graduate Media Design, Art Center College of Design; at the University of Southern California: Dr. Lourdes Baezconde-Garbanati, Institute for Health Promotion and Research, Keck School of Medicine; Sheila T. Murphy and Meghan Bridgid Moran, Annenberg School for Communication and Journalism; Dr. Laila I. Murderspach, Department Obstetrics and Gynecology, Keck School of Medicine, USC/Norris Comprehensive Cancer Center; Dr. Victoria Cortessis, Department of Preventive Medicine, Keck School of Medicine, USC/Norris Comprehensive Cancer Center, and Dr. Robert W. Haile, Keck School of Medicine/ Norris Comprehensive Cancer Center.

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Family PLZ! Case Study: Students Suzanne Kim, Youllie Kim, Lindsey Leigh, Joy Liu, Christina Nizar, Rachel Thai and Kris Yoo. Contributors: Dr. Paul J. Limburg, Mayo Clinic Innovation Center; Jerry Malagrino, Mayo Clinic Innovation Center; Dr. Lisa Boardman, Mayo Clinic College of Medicine and Consultant, Division of Gastroenterology and Hepatology; Mary Doroshenk, National Colorectal Cancer Roundtable, American Cancer Society; Dr. Durado Brooks, Cancer Control Science Department, American Cancer Society; Jasmine Greenamyer and Tammi Ashton, Coton Cancer Alliance; Sandra Robinson, California Division/Early Detection Programs, California Colorectal Cancer Coalition: Kristen Sullivan, Medical/Scientific Communication, American Cancer Society and Debbie Kirkland, National Office, American Cancer Society (Health Promotions, Prevention and Early Detection, Focus on Colorectal Cancer); Amy Manela, Blue Star Task Group, ACS/NCCRT; Meggan Hood, American Cancer Society; Dana Russotto, Corporate Communications, American Cancer Society; Dr. Daniel "Stony" Anderson, President, California Colorectal Cancer Coalition ; Dr. Sheila T.Murphy and Meghan Bridgid Moran, Annenberg School for Communication and Journalism; Dr. Robert Haile, USC Keck School of Medicine/Norris Comprehensive Cancer Center.

Finally a special word of thanks to Art Center alumna and Mayo Innovation Center Designer Christine Chastain who was a tireless advocate for the collaboration and at Art Center's Designmatters Department: Elisa Ruffino, Producer and Senior Associate Director

FOOTNOTES

- 1. For further reading about partnerships, see Henri Bartoli and Jane Nelson, Building Partnerships, Cooperation Between the United Nations System and the Private Sector (New York, United Nations Publications, 2002), p. 40
- 2. For a comprehensive discussion of case studies about design thinking, see Tim Brown, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation. (HarperCollins, New York, 2009)
- 3 Sheila T. Murphy quoted in correspondence with Maria Moon, summer 2009, for the Designmatters publication. Es Tiempo: Raising Awareness about Cervical Cancer Prevention among Latinas (forthcoming, Spring 2010).
- 4. "Associating, or the ability to successfully connect seemingly unrelated questions, problems, or ideas from different fields, is central to the innovator's DNA" For further reference see the Harvard Business Review, volume 87, number 12 (December 2009):"The Innovators DNA," by Jeffrey H. Dyer, Hal B. Gregersen and Clayton M. Christensen.
- 5 Dr Robert W Haile, for the Designmatters publication: Es Tiempo: Raising Awareness about Cervical Cancer Prevention among Latinas (forthcoming, Spring 2010).
- 6 Each of the following innovative campaigns, represented a sochisticated and integrated communications program designed to knock down barriers as well as to communicate; they provided important inspiration to the student team: Million (developed by Droga5), currently in a pilot program in New York City, was proposed as a response to the perpetual problem of low achievement and high drop-out rates in New York City Public Schools. Rather than simply produce posters haranguing students to stay in school-an approach that had demonstrably failed, decade after decade-the creators leaned into students' love of cell phones and need for connection. They actually gave students cell phones, and offered them free minutes as a reward for good attendance and school performance; as a bonus, teachers could stay connected to their students by providing tutoring and assignments over the same phones. LIVEStrong was a fundraising initiative for the Lance Armstrong Foundation, in which donors were rewarded with the now ubiquitous yellow silicone braceletextremely cheap to produce and distribute, but allowing the donor to make manifest their association with the

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cause. And, finally, UNICEF's *Tap Project*, launched in 2007, was a fundraising project designed to support UNICEF's efforts to bring clean and accessible water to millions of children around the world. Rather than merely ask for donations – the usual dynamic of fundraising – the Tap Project asked upscale restaurants if they would ask their patrons to donate \$1 or more for the tap water they usually enjoy for free. This concept was simple but sensible: ask donors for help for the Third World, while their wallets were already open, enjoying the taken-for-granted privileges of living in the First World.

7. Maggie Breslin, Mayo Clinic Center for Innovation, Sr. Designer/Researcher in email correspondence with Mariana Amatullo, October 2009

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ES TIEMPO CAMPAIGN CASE STUDY

The upper-term advertising studio led by Elena Salij, with Maria Moon as adjunct faculty, during the summer 2009 academic term included seven students from different majors at Art Center (graphic design, photography, illustration, fine art, and graduate media design) and challenged them to create advertising communications to persuade Hispanic/Latinas in underserved communities of Los Angeles to comply with clinical guidelines for cervical-cancer screening.

"Cervical cancer is one of the most preventable causes of death and disease. Yet many women do not receive the needed screenings to detect cervical cancer early. In the Hispanic/Latino community in particular, many women come in with late diagnosis where the possibilities of survival become more limited. Cervical cancer among Hispanic/Latinas is an issue that needs to be addressed across multiple generations, economic strata, and acculturation levels. Some women are paralyzed by the fear of cancer. Many go into denial." The multilayered design challenge facing the students is encapsulated in this moving statement by guest faculty expert Dr. Lourdes Baezconde-Garbanati, professor in Preventive Medicine. Furthermore, as emphasized by Dr. Robert W. Haile, USC Keck principal investigator and lead for this collaborative study, the potential impact of reaching this population successfully cannot be underestimated: "When women are screened every year the incidence (of cervical cancer) is reduced by 94%, when screened every five years, by 84%, but when the interval between screening is increased to 10 years, the reduction in incidence is only 64%.

Preliminary research gathered by project partners at USC Keck and the Annenberg School for Communication and Journalism indicated that the problem to be solved was broader and more complex than any conventional advertising campaign could hope to address: to be successful, the program would have to engage a range of social, emotional, and (most important) practical barriers, including the obvious one that many of these women can't afford to take time from work to get preventive medical care, even if that care is offered at low cost or for free. Students responded with a proposal for an integrated advertising campaign that was both culturally sensitive and hard-headed in its confrontation of the barriers that prevent women from getting tested

THE RESEARCH PROCESS

As already mentioned briefly in the context of our discussion of Designmatters methodologies, students are encouraged to begin with research – not only with "library" research, but with primary (survey) research, visual research, and research that's more improvisational and experiential – designed to generate impressions and hypotheses as well as suggest solutions. The students therefore began their work broadly, and without any specific objective other than immersion: by visiting the USC Norris Cancer Center (and even by administering mock pap tests on training dummies, in order to better understand the particular environment of the exam room), by visiting local clinics, by studying Spanish-language television and radio (and by extension advertising), and by documenting the visual and material culture of East Los Angeles. On the basis of this early research, the students created "rapid prototypes" of their very preliminary ideas for the project. Rapid prototypes are incomplete, necessarily imperfect sketches, generated under tight time pressure – simple notations of the concept, designed to capture the essence of the idea. But these sketches are valuable in the creative process in that they require the creator to give form to thought. The next step of the process was extremely productive – In fact definitive, in terms of this project. Dr. Murphy and researchers at Annenberg conducted a small handful of focus groups with at-risk Latinas. dedicated to addressing issues that the students had identified during their preliminary research, and

incorporating specific lines of inquiry that the students had devised (including getting reactions to some of the more promising rapid-prototype ideas). Their findings, more than any other piece of the puzzle, brought the challenge into focus.

The focus groups revealed that our most fundamental assumption – that these women were not aware of the Pap smear or its importance – was simply incorrect: virtually all the women in the focus groups knew what a Pap test was, and they knew they should be screened regularly. However, through the course of the discussion, it became clear that there were a range of *other* barriers – cultural, institutional, and practical – that had to be addressed if we were to succeed:

- First, the women disliked discussing medical matters in general, and had a particular distaste for discussing reproductive health: they usually referred to the reproductive organs as "down there," and shied away from open discussion. This posed an obvious problem for advertising, which by definition brings matters out into the open. We therefore had every reason to believe that women would shut out advertising for Pap testing that was too explicit.
- Those who had experienced a Pap test found it uncomfortable and undignified and were naturally
 reluctant to repeat the experience. It was obvious that we would have to provide reassurances that
 the test was easy or, at least, not as difficult as they remembered or had heard and to the extent
 possible make the experience more palatable.
- Most of the women didn't have any regular relationship with a primary-care physician in fact, they
 were far more likely to see their children's pediatrician than see a doctor for themselves. That meant
 there was no obvious structure for issuing reminders or follow-ups the campaign would have to
 build in that structure
- Many tended to *distrust physicians*: indeed, most of these women said they had more confidence in the medical advice given by their mothers, sisters, and female friends than in the advice they got from doctors. This was a particular problem, since all written materials to date had featured physicians-as-authorities. We began to understand that we would have to drop the doctor, and instead tap into the network of family and friends that these women relied upon.

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- Many tended to *rely on outside authorities* for instruction, however- some noted that the Mexican
 government routinely issues health-care reminders and directives, and as a result they didn't keep
 track of screening schedules on their own. This suggested that the audience would be more passive
 than we had hoped, requiring more than the usual amount of prodding, delivered in a way that felt
 authoritative
- Many were reluctant to provide personal information even phone numbers to any authority; as a
 result, no reliable database of at-risk women could be established for the purposes of issuing
 reminders or for follow-ups. This meant we couldn't simply collect names, numbers, and email
 addresses to build a database, as we might in another community, and that we would have to
 provide more than the usual reassurances of privacy to participants
- Many didn't know where to go for low- or no-cost Pap tests in their neighborhood. It was obvious
 that providing basic information and maps, literally, would be important.
- Many couldn't afford to take the day or half-day from work, even to visit a local clinic where a Pap
 test could be low-cost or even free obviously, an enormous impediment. It became obvious that
 providing financial incentives, offering at least some compensation for time taken from work, would
 be essential if we were to generate the kind of compliance we were seeking.

As part of their work, students were required to research examples of prominent public-service advertising campaigns that took on similarly intractable issues – complex, multi-barrier problems, like ours, that could not simply be addressed comprehensively by even the most compelling slogan or poster. These examples provided substantial inspiration, since many stretched the definition of advertising – and what advertising could hope to accomplish – and thereby encouraged the students to think more expansively and set a higher bar for their own work.⁶¹

THE SOLUTION

In the end, the students of the studio settled on a three-part program, which is currently undergoing further development for implementation by project partners, designed to address the largest elements of the problem: first, salience and way finding (raising awareness and giving directions, literally and figuratively), second, incentives (compensating women while tapping into their existing social networks); and third, fundraising.

1. Salience and way finding

Students in the studio focused on the need for a visual identity system that was visually distinctive – of course – but explicitly non-medical. For this purpose, the students appropriated the jacaranda tree – the beautiful, beloved, purple-flowered tree that blooms in southern California, and in Central and South America, each spring In Los Angeles, the sudden blooming of the jacaranda – the flowers seem to appear overnight – is celebrated as a welcome sign of spring.

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In the first part of the campaign, the jacaranda tree is linked, as directly as possible, to Pap screening: posters, video, and radio advertising remind women that "when the jacaranda tree blooms, it's time to schedule your Pap test." Maps and environmental graphics, visible at bus shelters and distributed in shops, workplaces, and libraries – again, featuring the jacaranda tree logo – direct women to local clinics where they can obtain low- and no-cost Paps. The purple dots can even be painted on the sides or sidewalks of clinics, reminding women that this is yet another place where you can get tested. All communications are signed with the tagline *"Es Importante, Es Fácil, Es Tiempo"*: "It's Important, It's Easy, It's Time."

The value of the jacaranda in this context is simple, it blooms every year, for free As long as communications can succeed in linking the jacaranda to the Pap test, the jacaranda acts as free media, reminding to women to get tested, without relying on a database or a doctor to do the work of communication

2. Incentives

To ease the financial burden of missing work during to get tested, students devised the Es Tiempo VISA Gift Card These cards, holding no initial value, would be distributed for free in shops, workplaces, and libraries. The accompanying materials explain the system: When a woman gets her Pap test, her card is credited with \$20. When she calls back to obtain her test results, her card is credited with another \$10. If she persuades a friend to get a Pap test, her card is credited with another \$5 If any participant receives a positive test result – that is, suspicion of a cancerous or pre-cancerous condition, requiring a follow-up colposcopy (a more invasive and time-consuming procedure), incentives are escalated as necessary, to ensure compliance. The balance can be spent anywhere VISA is accepted.

In addition, an easy-to-use Web site allows the woman to check her test results and card balance online, and offers videos of a friendly young woman explaining what Pap results mean, and encouraging the visitor to follow up. Women who can't or won't go online can call in anonymously, key in their VISA card's code, and obtain their results and check their card balance.

It's critical that in all aspects the messaging is light, friendly, and approachable: there's no fear-mongering, no hectoring, no doctors present at all – just a social network of women friends helping and encouraging each other. The VISA card system encourages women to talk to each other, help each other, and support each other for their mutual benefit.

3. Fundraising

To subsidize the effort, the students proposed a themed fundraising campaign. In it, corporations committed to women's health and well-being – OPI, Avon, others – would offer *Es Tiempo* jacaranda-themed products (nail polish, perfume, room fragrance) to their customers; profits from sales would support the incentive program. By engaging the women everywhere, the fundraising effort continues and expands the central motive of the Es Tiempo campaign, women helping other women

Finally, a series of ancillary products and services – t-shirts, tote bags, even warm socks for the exam room – perpetuate and amplify the campaign's theme, ensuring that the campaign remains present in the audience's consciousness

FAMILY PLZ! CASE STUDY

According to the Centers for Disease Control (CDC), among cancers that affect both men and women, colorectal cancer is the second leading cause of cancer-related deaths in the United States. The American Cancer Society estimated that there were about 108,070 new cases of colon cancer and 40,740 new cases of rectal cancer in 2008 in the United States. Combined, they will cause about 49,960 deaths (American Cancer Society, Cancer Facts and Figures, 2009). Colorectal cancer (CRC) screening has been demonstrated to be effective and cost-efficient, but remains underutilized within the general population. Incomplete (or absent) awareness of colorectal cancer risk continues to be a major barrier. Novel communications approaches are needed to emphasize the importance of past medical history, family history, diet, and lifestyle so that screening services can be provided, and personalized, to individuals who are most likely to benefit.

In this Designmatters multidisciplinary studio led by a faculty team from the Graphic Design Department at Art Center (which included Allison Goodman, Jason Brush and Dr. Dirk-Mario Boltz, Berlin FHW School of Economics Visiting Professor), students from the graphic design and environmental design departments worked with medical experts and communications professionals from the Mayo Clinic Center for Innovation, the American Cancer Society, and the National Colorectal Cancer Roundtable (NCCRT) to create an innovative mixed media creative campaign that resulted in "Family PLZ" The chief objective for communication that the students focused on was to support evidence-based cancer education and awareness about the importance of accessing family history for colorectal cancer prevention

The design brief that project partners gave the team started from a relatively broad point of departure: 1) develop an intergenerational communications strategy that can include a younger demographic that is currently not a priority audience with targeted colorectal cancer prevention and screening (as opposed to the 50 plus age group), 2) emphasize a user-centered approach to create messaging that will resonate with a younger audience and support evidence-based colorectal cancer education and awareness; and 3) maximize how people are already using new technologies and social media networks for communication and community building in a way that creates movement beyond awareness to direct action in overcoming practical barriers to screening

SALIENT RESEARCH METHODS

The faculty guided the students through a participatory, human-centered approach to the research (which benefited from focus testing results also overseen by Dr. Murphy from USC Annenberg) in order to develop an integrated campaign with materials and communication interventions that would focus on the realities of everyday life for the target audiences in question. Primary to this research phase for the team was identifying the relationships between behaviors, the material and built environments, and use and influence of relevant communications media and storytelling networks.

Communications strategies during the conceptual and ideation phases of the studio included the study of community lead or asset based interventions that amount to participatory interventions. This method of communication includes community members as part of the creative, production, and dissemination processes. This typically allows for the development of a communication voice and access that comes from – and is created by – the community it is serving. Such a strategy assures a more integrated and sustainable engagement with the community overall. In the case of "Family PLZ!," conceptually the campaign becomes a platform to address, in the words of Maggie Breslin, Senior Designer and Researcher

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from Mayo Clinic Center for Innovation, "why people have a hard time putting together a family history, how we might be able to help them make sense of the information they do have, and how to help them gather information that is not likely to come up in the average family conversation"⁷

The "big idea" of the communication behind the "Family PLZ!" campaign is to promote, through contemporary media channels and social networks, that family history is a key factor in the need for colorectal cancer screening. To that end, the student team devised an integrated system of messaging that is envisioned to take on Web, print and environmental applications in the forthcoming stages of implementation of the campaign by project partners. Prior to arriving at the conceptual framework of this system, the student and faculty team iterated a number of potential paths that the campaign could follow. Early concepts studied the impact of humor as a means to create a large societal dialogue around CRC, as well as the adoption of special characters and gaming to encourage health communication. The team presented to project partners midway through the 14 weeks of the term, articulating all strategies with a diagram of an orchestra (see figure 5) which, as Professor Boltz explained, symbolized the hierarchy of the concepts as well as the channels through which messaging could flow. The remainder of the term was spent in fully fleshing the aperoved "conducting idea" into a campaign that adopts the Internet vernacular across several media to explore how we might empower families to have important conversations about their health, and in turn have those conversations drive heightened awareness about colorectal cancer, screening and prevention

CONCLUSION

Cancers that can be prevented or detected earlier by screening account for at least half of all new cancer cases diagnosed each year in the United States (American Cancer Society, Cancer Facts and Figures, 2009)

The focus of the Designmatters case study campaigns "Es Tiempo" and "Family PLZ!" represent design thinking exemplars of the long-term benefits that stem from strategic and human-centered communication campaigns. By tapping into community based models and adopting contemporary media portals, both campaigns attempt to offer innovative solutions: in some cases to reduce health disparities, and in others to bring down barriers that can, hopefully, curb the burden of disease in years to come

ACKNOWLEDGEMENT

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Family PLZI Case Study Students: Suzanne Kim, Youllie Kim, Lindsey Leigh, Joy Liu, Christina Nizar, Rachet Thai and Kris Yoo, Contributors: Dr. Paul J. Limburg, Mayo Clinic Innovation Center; Jerry Matagrino, Mayo Clinic Innovation Center; Dr. Lisa Boardman, Mayo Clinic College of Medicine and Consultant, Division of Gastroenterology and Hepatology; Mary Doroshenk, National Colorectal Cancer Roundtable, American Cancer Society; Dr. Durado Brooks, Cancer Control Science Department, American Cancer Society; Jasmine Greenamyer and Tammi Ashton, Colon Cancer Alliance; Sandra Robinson, California Division/Early Detection Programs, California Colorectal Cancer Coalition; Kristen Sullivan, Medical/Scientific Communication, American Cancer Society and Debbie Kirkland, National Office, American Cancer Society (Health Promotions, Prevention and Early Detection, Focus on Colorectal Cancer); Amy Manela, Blue Star Task Group, ACS/NCCRT; Meggan Hood, American Cancer Society; Dana Russotto, Corporate Communications, American Cancer Society; Dr. Daniel "Stony" Anderson, President, California Colorectal Cancer Coalition ; Dr. Sheila T.Murphy and Meghan Bridgid Moran, Annenberg School for Communication and Journalism; Dr. Robert Halle, USC Keck School of Medicine/Norris Comprehensive Cancer Center.

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FOOTNOTES

- 1. For further reading about partnerships, see Henri Bartoli and Jane Nelson, Building Partnerships, Cooperation Between the United Nations System and the Private Sector (New York, United Nations Publications, 2002), p. 40
- 2. For a comprehensive discussion of case studies about design thinking, see Tim Brown, Change by Design. How Design Thinking Transforms Organizations and Inspires Innovation. (HarperCollins, New York, 2009).
- 3 Sheila T. Murphy quoted in correspondence with Maria Moon, summer 2009, for the Designmatters publication: Es Tiempo. Raising Awareness about Cervical Cancer Prevention among Latinas (forthcoming, Spring 2010).
- 4. "Associating, or the ability to successfully connect seemingly unrelated questions, problems, or ideas from different fields, is central to the innovator's DNA." For further reference see the Harvard Business Review, volume 87, number 12 (December 2009):"The Innovators DNA," by Jeffrey H. Dyer, Hal B. Gregersen and Clayton M. Christensen.
- 5 Dr. Robert W. Haile, for the Designmatters publication: Es Tiempo: Raising Awareness about Cervical Cancer Prevention among Latinas (forthcoming, Spring 2010).
- 6. Each of the following innovative campaigns, represented a sophisticated and integrated communications program designed to knock down barriers as well as to communicate; they provided important inspiration to the student team: Million (developed by Droga5), currently in a pilot program in New York City, was proposed as a response to the perpetual problem of low achievement and high drop-out rates in New York City Public Schools. Rather than simply produce posters haranguing students to stay in school-an approach that had demonstrably failed, decade after decade-the creators leaned into students' love of cell phones and need for connection. They actually gave students cell phones, and offered them free minutes as a reward for good attendance and school performance; as a bonus, teachers could stay connected to their students by providing tutoring and assignments over the same phones. LIVEStrong was a fundraising initiative for the Lance Armstrong Foundation, in which donors were rewarded with the now ubiquitous yellow silicone braceletextremely cheap to produce and distribute, but allowing the donor to make manifest their association with the

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cause. And, finally, UNICEF's *Tap Project*, launched in 2007, was a fundraising project designed to support UNICEF's efforts to bring clean and accessible water to millions of children around the world. Rather than merely ask for donations – the usual dynamic of fundraising – the Tap Project asked upscale restaurants if they would ask their patrons to donate \$1 or more for the tap water they usually enjoy for free. This concept was simple but sensible: ask donors for help for the Third World, while their wallets were already open, enjoying the taken-for-granted privileges of living in the First World.

7 Maggie Brestin, Mayo Clinic Center for Innovation, Sr. Designer/Researcher in email correspondence with Mariana Amatullo, October 2009

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Finally, a series of ancillary products and services – t-shirts, tote bags, even warm socks for the exam room – perpetuate and amplify the campaign's theme, ensuring that the campaign remains present in the audience's consciousness

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- Many tended to *rely on outside authorities* for instruction, however: some noted that the Mexican
 government routinely issues health-care reminders and directives, and as a result they didn't keep
 track of screening schedules on their own. This suggested that the audience would be more passive
 than we had hoped, requiring more than the usual amount of prodding, delivered in a way that felt
 authoritative.
- Many were reluctant to provide personal information even phone numbers to any authority; as a
 result, no reliable database of at-risk women could be established for the purposes of issuing
 reminders or for follow-ups. This meant we couldn't simply collect names, numbers, and email
 addresses to build a database, as we might in another community, and that we would have to
 provide more than the usual reassurances of privacy to participants.
- Many *didn't know where to go* for low- or no-cost Pap tests in their neighborhood. It was obvious
 that providing basic information and maps, literally, would be important.
- Many couldn't afford to take the day or half-day from work, even to visit a local clinic where a Pap test could be low-cost or even free – obviously, an enormous impediment. It became obvious that providing financial incentives, offering at least some compensation for time taken from work, would be essential if we were to generate the kind of compliance we were seeking.

As part of their work, students were required to research examples of prominent public-service advertising campaigns that took on similarly intractable issues – complex, multi-barrier problems, like ours, that could not simply be addressed comprehensively by even the most compelling slogan or poster. These examples provided substantial inspiration, since many stretched the definition of advertising – and what advertising could hope to accomplish – and thereby encouraged the students to think more expansively and set a higher bar for their own work.⁶⁾

THE SOLUTION

In the end, the students of the studio settled on a three-part program, which is currently undergoing further development for implementation by project partners, designed to address the largest elements of the problem: first, salience and way finding (raising awareness and giving directions, literally and figuratively); second, incentives (compensating women while tapping into their existing social networks), and third, fundraising

1. Salience and way finding

Students in the studio focused on the need for a visual identity system that was visually distinctive – of course – but explicitly non-medical. For this purpose, the students appropriated the jacaranda tree – the beautiful, beloved, purple-flowered tree that blooms in southern California, and in Central and South America, each spring. In Los Angeles, the sudden blooming of the jacaranda – the flowers seem to appear overnight – is celebrated as a welcome sign of spring.

THE RESEARCH PROCESS

As already mentioned briefly in the context of our discussion of Designmatters methodologies, students are encouraged to begin with research – not only with "library" research, but with primary (survey) research, visual research, and research that's more improvisational and experiential – designed to generate impressions and hypotheses as well as suggest solutions. The students therefore began their work broadly, and without any specific objective other than immersion: by visiting the USC Norris Cancer Center (and even by administering mock pap tests on training dummies, in order to better understand the particular environment of the exam room), by visiting local clinics, by studying Spanish-language television and radio (and by extension advertising), and by documenting the visual and material culture of East Los Angeles. On the basis of this early research, the students created "rapid prototypes" of their very preliminary ideas for the project. Rapid prototypes are incomplete, necessarily imperfect sketches, generated under tight time pressure – simple notations of the concept, designed to capture the essence of the idea. But these sketches are valuable in the creative process in that they require the creator to give form to thought.

The next step of the process was extremely productive – in fact definitive, in terms of this project. Dr. Murphy and researchers at Annenberg conducted a small handful of focus groups with at-risk Latinas, dedicated to addressing issues that the students had identified during their preliminary research, and incorporating specific lines of inquiry that the students had devised (including getting reactions to some of the more promising rapid-prototype ideas). Their findings, more than any other piece of the puzzle, brought the challenge into focus.

The focus groups revealed that our most fundamental assumption – that these women were not aware of the Pap smear or its importance – was simply incorrect: virtually all the women in the focus groups knew what a Pap test was, and they knew they should be screened regularly. However, through the course of the discussion, it became clear that there were a range of *other* barriers – cultural, institutional, and practical – that had to be addressed if we were to succeed:

- First, the women disliked discussing medical matters in general, and had a particular distaste for discussing reproductive health: they usually referred to the reproductive organs as "down there," and shied away from open discussion. This posed an obvious problem for advertising, which by definition brings matters out into the open. We therefore had every reason to believe that women would shut out advertising for Pap testing that was too explicit.
- Those who had experienced a Pap test found it uncomfortable and undignified and were naturally
 reluctant to repeat the experience. It was obvious that we would have to provide reassurances that
 the test was easy or, at least, not as difficult as they remembered or had heard and to the extent
 possible make the experience more palatable.
- Most of the women didn't have any regular relationship with a primary-care physician: in fact, they
 were far more likely to see their children's pediatrician than see a doctor for themselves. That meant
 there was no obvious structure for issuing reminders or follow-ups the campaign would have to
 build in that structure.
- Many tended to *distrust physicians*: indeed, most of these women said they had more confidence in the medical advice given by their mothers, sisters, and female friends than in the advice they got from doctors. This was a particular problem, since all written materials to date had featured physicians-as-authorities. We began to understand that we would have to drop the doctor, and instead tap into the network of family and friends that these women relied upon.

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The collaborative framework of Designmatters extends beyond the pariner organizations, guest faculty experts, and Art Center staff and faculty teams that manage any given project: it also infuses the humancentered research that student teams frequently undertake at the inception of their assignment. Beyond access to data from traditional social science focus groups, students are encouraged to conduct thorough observations of target audiences and their contexts by questioning assumptions with provocative *Why? Why not?* and *What if?* queries, and through experimentation – by trying out ideas in search of insights that might drive the ideation of concepts. These iteration steps within the design research process are, in this sense, akin to how innovation is articulated in the current leading literature.⁴¹ Of note for the cancer communication projects at stake we find that the informality of the design observation processes can also reveal pertinent information about patient behavior and target audience concerns, which do not necessarily always get captured by the reliance of more analytical approaches within the medical establishment.

ES TIEMPO CAMPAIGN CASE STUDY

The upper-term advertising studio led by Elena Salij, with Maria Moon as adjunct faculty, during the summer 2009 academic term included seven students from different majors at Art Center (graphic design, photography, illustration, fine art, and graduate media design) and challenged them to create advertising communications to persuade Hispanic/Latinas in underserved communities of Los Angeles to comply with clinical guidelines for cervical-cancer screening.

"Cervical cancer is one of the most preventable causes of death and disease. Yet many women do not receive the needed screenings to detect cervical cancer early. In the Hispanic/Latino community in particular, many women come in with late diagnosis where the possibilities of survival become more limited Cervical cancer among Hispanic/Latinas is an issue that needs to be addressed across multiple generations, economic strata, and acculturation levels. Some women are paralyzed by the fear of cancer. Many go into denial." The multilayered design challenge facing the students is encapsulated in this moving statement by guest faculty expert Dr. Lourdes Baezconde-Garbanati, professor in Preventive Medicine. Furthermore, as emphasized by Dr. Robert W Haile, USC Keck principal investigator and lead for this collaborative study, the potential impact of reaching this population successfully cannot be underestimated: "When women are screened every year the incidence (of cervical cancer) is reduced by 94%, when screened every five years, by 84%, but when the interval between screening is increased to 10 years, the reduction in incidence is only 64%.

Preliminary research gathered by project partners at USC Keck and the Annenberg School for Communication and Journalism indicated that the problem to be solved was broader and more complex than any conventional advertising campaign could hope to address: to be successful, the program would have to engage a range of social, emotional, and (most important) practical barriers, including the obvious one that many of these women can't afford to take time from work to get preventive medical care, even if that care is offered at low cost or for free. Students responded with a proposal for an integrated advertising campaign that was both culturally sensitive and hard-headed in its confrontation of the barriers that prevent women from getting tested.

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engineering, technology, business, healthcare, and international development. These partnerships focus on four pillars of investigation – sustainable development, global healthcare, public policy, and social entrepreneurship – and expose students to a meaningful range of expertise and experience. The strategic alliances forged by Designmatters are noteworthy, especially if one considers the concept of partnership as a means to create space for individuals and communities of people to seek different types of leadership, which include new ways to express progressive values in addressing societal changes.¹⁾ In 2003, the United Nations Department of Public Information designated Art Center an NGO (non-governmental organization) in recognition of Designmatters' service to society. Other unique affiliations include civil organization membership with the Organization of American States, another NGO designation by the United Nations Population Fund (UNFPA), and a Collaborating Center agreement with the Pan American Health Organization/World Health Organization (PAHO/WHO).

These international affiliations and strategic partnerships are uniquely distinctive for a college specialized in art and design education and have provided the Art Center community of students, faculty, and alumni access to a prominent stage in which to offer original solutions to many critical issues of our time – with the outcomes of the work by students widely disseminated beyond the classroom walls. At the same time, the engaged agenda of Designmatters is part and parcel of a growing movement within the professional design community, and design schools, to align research and practice with the exploration of social and sustainable concerns and find a new focus grounded in the power of design thinking – which taps into our ability to be intuitive, to recognize patterns and arrive at solutions that take into account emotional factors as much as functional ones – for social innovation and change.²

With each Designmatters brief, students are invited to grasp the complexity of the task at hand within an educational framework that is designed to provide for an enriching and challenging learning experience imbued with critical content brought by partners and guest experts who engage in a co-participatory process with the faculty team guiding the students. Project partners are called upon to share data and approve of conceptual developments at key junctures throughout the traditional 14 weeks that span the academic term at Art Center. From a pedagogical perspective, the objective is to foster an educational environment that allows students to create relevant, implementable outcomes. "Research transformed by action" could be considered the motio guiding all Designmatters collaborations, in that the design research processes that students embark upon in the studio must translate into actionable concepts. Ultimately, every design proposed will need to adhere to the various production and dissemination criteria outlined in each collaboration. In fact, the "real-world" component of Designmatters projects implies a shift that resides from simply expecting students to design stylistically proficient and persuasive messages for individual portfolio purposes, to creating campaigns - such as those discussed in this paper - that are rigorously grounded in scientific data and cultural relevance. The following testimonial by Dr. Sheila T. Murphy of the Annenberg School for Communication and Journalism, who oversaw the focus group testing that informed the development of the "Es Tiempo" campaign, refers to the clear advantage in the distinctive participatory aspect of Designmatters project methodologies "As a researcher, I am often involved at the outset of a campaign in formative research to identify potential pitfalls or at the very end of the process in evaluating a campaign's success or failure. The collaboration with the Designmatters class at Art Center provided me with a rare opportunity to have direct input and impact throughout the entire campaign development process. " 3)

IMPROVING CANCER PREVENTION AND COMMUNICATION

TWO CASE STUDIES FROM THE PORTFOLIO OF DESIGNMATTERS

Mariana Amatullo Elena Salij

INTRODUCTION

This paper presents insights about a few of the design research strategies, pedagogical methodologies, and lessons learned from two distinct case studies for cancer prevention campaigns developed under the aegis of Designmatters, the social impact department at Art Center College of Design.

A brief articulation of the design research agenda for social change and cross-disciplinary partnerships that Designmatters champions within the realms of art and design education precedes a comprehensive overview of the creative approaches and initial conceptual outcomes from the "Es Tiempo" campaign for cervical cancer prevention among underserved Hispanic communities in Los Angeles. "Es Tiempo" represents the outcomes of collaboration with the Keck School of Medicine and the Annenberg School for Communication and Journalism at the University of Southern California. The case study follows a summary of key research methodologies behind the "Family PLZI" campaign to advance public awareness about the importance of family-history knowledge as it relates to colorectal cancer prevention. The latter campaign is the result of collaboration with the Mayo Clinic Center for Innovation, the American Cancer Society, and the National Colorectal Cancer Roundtable.

Both case studies illustrate the compelling relevance of design thinking in the arena of cancer communication in particular, and in public policy and global healthcare overall – two of Designmatters' topical areas of inquiry and practice. Both campaigns promote cancer prevention and screening and underscore the value of culturally informed, empathic messaging and contemporary media vehicles to heighten awareness about behavioral changes that can contribute to effectively curbing incidence rates of mortality from the disease

DESIGNMATTERS AT ART CENTER: SOCIAL IMPACT THROUGH ART AND DESIGN EDUCATION

Founded in 2001, Designmatters is currently a non-degree granting educational department at Art Center College of Design dedicated to art and design education with a social impact agenda. Designmatters oversees multidisciplinary courses, research initiatives, and student internships that are characterized by real-world assignments integrated into the curricula of the college, and cross-sector alliances involving a broad spectrum of organizations and institutions of complementary expertise encompassing the gamut of