

IML 543 TRANSDISCIPLINARY MEDIA DESIGN PRACTICUM

INSTRUCTOR:

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- Do you want to design and adapt interactive media for community health and happiness?
- Do you want to improve your empathy, observation, and collaboration skills?
- Do you want to evaluate your media-based interventions in real-world settings?

We will design and evaluate three interventions based on this year's theme:

Living, Loving, and Dying a Meaningful Life with Others.

**Register now for
FALL 2015.**

USC Cinematic Arts

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Section 37458R | Public Health, Neuroscience & Medicine

THURSDAYS - 1-4:50PM

IML 543 - Transdisciplinary Media Design Practicum

Thursdays 1-4:50pm | Instructor: Marientina Gotsis, MFA

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(a preliminary syllabus is posted on the USC schedule of classes)

Living, Loving, and Dying a Meaningful Life with Others

This year's themed design challenge, asks us to think about how interactive entertainment can help us make sense of all the small and big things in our lives. The class will be asked to work on three interventions: a board game, an embodied experience for one-time use, and a mobile experience for multiple uses. Each intervention will bring together a different set of experts, consultants, and resources. Here is what we propose to work on together:

A shared mobile experience for breast cancer survivors.

Life after breast cancer is not so simple. *Survivor* is a word that evokes many thoughts and feelings. Everything changes after a diagnosis, and depending on what your health was like before breast cancer, it can now be even more complicated. Cancer brings about many changes in one's life and that of one's social network. Individual and shared experiences of cancer change our brains, bodies, and minds. Managing recovery and survival is a complicated cognitive, emotional, and physical task. Could a mobile experience help cancer survivors and their loved ones move away from *surviving* and into *living*? What could that experience be? How can this change be measured?

A board game about secret loves and pleasures.

We can't really choose who we love, or what gives us pleasure, or where we find our greatest inspiration. What we *can* do is share our secrets and create a shared experience that can help us have the difficult conversations that we could not otherwise have. Inspired by and honoring LGBTQ heritage and its allies, we seek to celebrate all of the things, people, and places that we *love*. We will design a board game about "coming out" on everything that matters to us. Could sharing what we love bring us closer together? How can we measure empathy, compassion, and closeness through such an experience?

An embodied experience about legacy and resilience.

Nobody wants to talk about dying, but it is the only event in our lives that cannot be prevented. Nobody wants to really think about getting sick, death, or one's funeral, but doing so can help people prioritize what matters. The palliative care movement brought more than choices about dying into our lives: it helped people learn to recognize what matters to them and how they want to live their last week, month, year, decade or second half of life. *Dying*, just like *living*, is a shared experience. How you perceive your own life and the stories you tell and leave behind to others can change what feels like a tragedy into a celebration. What are the ingredients of a life well lived and can we teach that to others through an embodied experience? How do we measure a life well lived?

Our current partners:

USC mHealth Collaboratory
USC Institute for Integrative Health
The Lavender Effect
...and more!

Challenges may need to change to adapt to new resources in Fall 2015.

**USC School of Cinematic Arts
Creative Media & Behavioral Health Center**

**IML 543
Transdisciplinary Media
Design Practicum**

**Fall 2015
4 Units**

**Instructor:
Marientina Gotsis, MFA
gotsis@usc.edu**

Day/Time: Thu 1-4.50pm
Classroom: SCI L104
Class Number: 37458R

Office Phone: 213-740-3159
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Office Hours: TBD/By appointment

Course Rationale

What are the “necessary ingredients” for design of interactive entertainment-based products that aspire to have a positive impact on human health and happiness? Perhaps more importantly, is there an interactive entertainment-based product that does not have impact in some area of the human experience, even if through unintended consequences? The challenge of answering these questions becomes very real in the case of designers collaborating with scientists and health professionals. These collaborations face challenging barriers for transdisciplinary communication due to differences in mutual understanding of even the most basic of vocabulary between artist, designers, engineers, scientists and health professionals. Moreover, there is confusion on whether one is designing a “process”, making a “product” or improving “outcomes”. Generally, most everyone agrees on wanting to generate positive impact even if they disagree on how to measure it, or even on what is “positive”.

You can't wipe the slate clean and we won't ask you to forget everything you know from your previous training, but you will have to stay open and find ways to integrate new ways of thinking, seeing, making, and being with your prior identity as an artist, designer, engineer, scientist, health professional, or any other identity you have worked hard to construct. In this course, you may design and evaluate experiences that lead you outside of your comfort zone. We will cross the lines between experience design, experiential design and participatory design. You will have to learn to balance your prior training alongside your senses and emotions. In this class, you will need to tolerate “subjective” and “objective” truths. You will appreciate what Epicurus advocated: “all sense-perceptions are true” (Vogt, 2011). You will have to find satisfaction in designing experiences as a catalyst for the emergence of “self-structures, deeply affective”, which can in turn empower an individual towards successful steering of “a satisfying, cognitive course through future emotional jungles of lived lives” (Panksepp, 2009, p. 6-7).

Consider replacing “interactivity” with “intersubjectivity”. Stern (2010, p.243) defines the “intersubjective field”, “intersubjective orientation” and “lived story” as follows:

Intersubjective field is the domain of feelings, thoughts, and knowledge that two (or more) people share about the nature of their current relationship. Not only is this intersubjective domain shared, but the sharing is also validated between them, implicitly or explicitly. This field can be reshaped. It can be entered or exited, enlarged or diminished, made clearer or less clear.

Intersubjective orientation is both the need to test and the act of testing the intersubjective field, knowing "where it stands" between two people, sensing "where the relationship is at" at this moment, knowing "where the two people are going with each other." It functions to orient one in the intersubjective field and to evaluate the nature of the field at the moment. It is an almost continuous process and at times has an imperative feel (when lost and intersubjective anxiety arises). It is akin to spatial orientation, but in an intersubjective space.

Lived story (or micro-lived story) refers to the structure of the experience that unfolds during a present moment. It consists of a narrativelike plot and a line of dramatic tension that rises and falls during the present moment. It is a lived, felt, or experienced story that is not verbalized or narrated. Later, real narratives can be forged out of these stories.

In this course, our focus is on the “intersubjective field” and “lived story” regardless of whether we can observe and/or measure these “objectively”. Rest assured that someone will always find a way to argue with your evaluation methodologies, but one can never question one’s own “felt experience”. As a designer and interpreter of “lived story”, you will traverse the vast universe of methodologies in the arts, design, engineering, humanities and sciences to collect what you need and use as appropriate. Comfort is to be found in the “virtuous” pleasure experienced by the individuals who inhabit a domain of your creation, and in the blurred boundaries between observing that experience and becoming part of that experience. Comfort is to be found when you observe a change in affect, when you hear reflective language as a result of your intervention, when two people agree that something changed. You will always be aware that even the placebo effect is a result of something profoundly human and real: the imagination. Within the proper time and place of intersubjective orientation, you will be able to ask the right question about who, what, why, where, and how, and you will find the right instrument and method to measure them. And even then, you will have to remember that even statistical methods are designed to estimate uncertainty not measure truth.

References:

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Syllabus

Recommended Preparation:

CTIN 541 Design for Interactive Media and CTIN 503 Interactive Entertainment Intersections. At least one of the following skills: design, prototyping, programming, interviewing, data collection, data analysis; instructor permission. Open only to graduate students.

Course Overview:

This course will give students a unique transdisciplinary perspective in a group design practice format focused on pre-selected topics in neuroscience, public health and medicine. Students will design, develop and evaluate interventions using interactive entertainment and transmedia. This course will also introduce emerging technologies, techniques and methods for transdisciplinary innovation. Students will develop skills for collaboration with scientists, health professionals, and industry experts through hands-on design inquiry and practice.

Course Objective:

The purpose of this course is to immerse students in transdisciplinary collaboration with teams of artists, designers, scientists, health professionals, and engineers, whose joint mission is to develop and evaluate interventions focused on improving human health and the experience of living. Students will practice creative design skills through a series of focused challenges meant to diversify their analysis and synthesis capabilities. As appropriate for each challenge and team, students may use idea brainstorming, storyboarding, wireframing, rapid prototyping, observation, interviews, focus groups and surveys to design, deploy and evaluate experiences. Depending on the challenge will be opportunities to work on informal and informal evaluations in clinical and community settings. Students will learn when and how and to apply experience, experiential and participatory design practice methods. Students will be exposed to new problems, populations and settings each time the course is repeated; they will understand the basic mechanics of planning evaluations, data collection and data analysis.

Course Requirements:

Readings and Resources – Assigned readings and a resource bibliography will be available via Blackboard and ARES. In addition to readings, resources such as websites, videos, and interactive works will be available. Such works are not considered optional or supplemental, but are extremely critical for experiential design processes.

Grading Criteria: Course will be graded Credit/No Credit, and that students will need to do B-level work or better to get a grade of Credit.

The following will count toward your grade:

- 90% group projects (Challenge I, II and III, 30 points each)
- 10% in-class active participation

Each project is worth 30 points, which will be rated on a combination of factors related to innovation and potential impact, experience design, use of resources, presentation, evaluation strategy, documentation, and collaboration. The instructor, external advisors, stakeholders and students will fill out anonymous surveys with fixed criteria to rate the aforementioned factors. The instructor will analyze and return a summary of the evaluation to the students. Students will receive the list of criteria ahead of project assignment.

Group Practicum Format

The students will tackle three design challenges organized through broad thematic areas, with a focus on a specific population, setting, and group of outcomes for each challenge. Experts and stakeholders will visit classes to present research findings, specific issues, and/or case studies, and to participate in critique and presentations. Short workshop on preferred technologies and toolkits may also be offered. Although the course welcomes the design and development of new interactive experiences, adapting existing technologies and experiences for the purpose of meeting the challenge is acceptable for this class. Off-site visits to clinical and community settings may be required during the working group meetings for prototype evaluation and data collection. The class may split into multiple groups if there is adequate skill duplication, at the discretion of the instructor. The final class will be dedicated to an open house at the lab, with students expected to demo and present findings to an invited guest panel.

Challenge Selection

The instructor will solicit topics before the class begins from the wider community of researchers and health practitioners associated with the Creative Media & Behavioral Health Center (CMBHC), as well as associated centers, such as the Clinical Translational Science Institute, the mHealth Collaboratory, the Institute for Integrated Health, and the Center for Technology and Innovation in Pediatrics. Information from an intake form will determine whether the challenge is appropriate for the class. If the class is sufficiently large, more than three challenges may be selected. Selection criteria will take into account student skills, as well as whether the community team submitting has enough resources, including time to come testify on the need, as well as provide subject matter expertise and mentoring during the duration of the design challenge. Access to stakeholders is also a criterion, as all prototypes will need to be tested with the target population at least once.

I – “Ethical Persuasion: Storytelling, Reframing & Metaphor”

This challenge is focused on developing stories and systems that use reframing, narrative and/or metaphor for shifting knowledge and influencing attitudes. The exercise may be used to bridge a gap between experts and the public, between experts and policymakers, between scientists and educators, or between diverse stakeholders. The instructor will present current and emerging research in a particular topic, and/or invite experts to testify, as well as present the views of other stakeholders. Students will be asked to design a simple board game or transmedia campaign, and to devise a strategy for evaluating the impact of the intervention in a particular setting with a particular target audience. They will receive feedback on their intervention, revise it and be expected to complete a basic evaluation by the end of the semester. Ethical design practice guidelines will be issued on how to respect culture and identity, how to prevent interpersonal conflict, and how to balance transparency and didacticism.

Sample Project & Scope: The Pediatric Trauma’s education and outreach program at Children’s Hospital Los Angeles is focused on preventing injuries in children. Research in this area has shown that caregiver conscientiousness and fatalism are associated with reducing medically attended injuries in children. Conscientiousness is not a skill that be acquired via brochures and fatalism is a complex attitude with personal and cultural roots. We developed a paper board game prototype (20 minute experience) that teaches parents how to safety-proof different rooms in a home based on developmental age of a child, using a limited number of props and child safety products. A player must secure a minimum number of items in a room before the child can come into the room to have fun. The goal is to create a safe room without depriving the child of a stimulating environment important for development of healthy brain architecture. First-time parents would be the target audience for this intervention, which can be administered by hospital staff educators, but can also be used in parenting classes. A one-time game play session

evaluation with a convenience sample of parents (N=5) may assess whether parents can quickly identify high priority safety issues in a room through pictures. A pre/post survey may measure how likely they are to use child safety products.

II – “Cognitive/Affective/Sensorimotor Experiences & the Mind”

This challenge is focused on developing interactive experiences that use real-time sensors for measuring biological movement, or other biological function for increasing embodied awareness and integrating internal awareness with external awareness. This exercise may be used to bridge the gap between body, brain, and the mind through mindfulness meditation, or to practice a cognitive/affective/sensorimotor task that has applications in prevention, assessment, rehabilitation, and/or treatment (e.g., injury, trauma, neurodevelopmental/neurodegenerative disorders). The instructor will present current and emerging research in a particular topic, and/or invite experts to testify, as well as present the views of other stakeholders. A short workshop on a preferred technology may also be conducted. Students will be asked to design a 3-6 minute embodied user experience, and devise a strategy for evaluating the impact of the intervention in a particular setting with a particular target audience. They will receive feedback on their intervention, revise it and asked to complete an evaluation by the end of the semester.

Sample Project & Scope: A group of researchers working on Parkinson’s disease is focused on developing a gait evaluation and training tool for patients. Freezing of gait is particularly common in Parkinson’s. Music and sound based feedback devices have been used before to assist with daily walking. The disease also affects the sensory process and reward mechanisms of the brain so it is important to be able to customize parameters of the experience and accommodate for experimental conditions for research. Since depression is also common with this disease, sonic environments that can improve mood are highly desirable. Physical activity with gradually increasing intensity and cognitive challenge may improve symptoms and functional outcomes. We developed a pressure-sensor based walking meditation (12 minute experience) with a time-based sonic environment. Walkers can customize the audio environment, volume and duration. An observation study with 5 different patients was completed, as well as interviews with patients, families and health professionals. One patient (n=1) was given the prototype to use each day for two weeks with pre/post measures to evaluate improvement in gait as a single case study.

III – “Often Enough To Make a Difference”

This challenge is focused on developing interactive experiences for short-term, medium-term or long-term behavioral change through social mobile applications. This exercise may be used to bridge the gap between a desired outcome and all the steps that are required to get there, which may include shifting knowledge and attitudes, creating and/or modifying habits (e.g., prevention or treatment of chronic illness). The instructor will present current and emerging research in a particular topic, and/or invite experts to testify, as well as present the views of other stakeholders. A short workshop on a preferred technology may also be conducted. Students will be asked to design a socially enabled mobile experience that targets a specific set of behaviors or chronic illness issues, and to devise a strategy for evaluating the impact of the intervention in a particular setting with a particular target audience. They will receive feedback on their intervention, revise it and asked to complete an evaluation by the end of the semester.

Sample Project & Scope: Sedentary lifestyle is one of the greatest threats to human health, well-being and lifelong resilience. Physical inactivity is a result of a complex set of factors, including knowledge, attitudes, beliefs, behaviors, resources, limitations, environment, etc. Research exists for how to measure physical activity, how much is necessary, which factors influence behaviors, how the physical and social environment influence behavior, and other critical findings that are specific to groups of similar characteristics, as well as how to tailor to individuals. Tracking physical activity and leveraging social support are two strategies that can help with increasing

physical activity. We prototyped a socially networked physical activity diary with game elements. We conducted a 1-week feasibility study in which 2 pairs of individuals (n=4) were asked to use the diary once per day (5 minutes) to report activity or inactivity. We measured participant body fat and BMI before and after the study and tracked physical activity through self-report and accelerometer data in their phones. We conducted interviews with participants at the end of week 1 to evaluate their experience of using the application.

Class participation (10 points) – Although your physical presence may not always be possible in the class, absenteeism will naturally result in your inability to meet course objectives. “Mental absenteeism” through excessive email and social media use will influence reviews by your peers and will deprive you of valuable hands-on time with your project. The instructor may issue a warning to you if your team contribution begins to suffer. Unexcused absences or regular tardiness will affect this portion of your grade and bring down your overall grade. If you have an unavoidable conflict, please contact me via email or phone as far in advance as possible. Two unexcused absences will reduce the final grade by a half-grade.

Diversity of Human Experience

The definition of health and happiness varies greatly from individual to individual, family to family, community to community. While considering the design and evaluation of interventions, you must consider factors of diversity of the human condition and human experience. This may mean by age, gender, sexual orientation, ethnicity, religion, race, socioeconomic status, location, literacy, ability/disability, health status, access to services, and other variables. While designing your intervention and evaluation, consider how these variables may affect the experience and impact.

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards*<https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Support Systems

A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute*

<http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

Disruptive Student Behavior:

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office of Student Judicial Affairs for disciplinary action.

Syllabus Updates:

This syllabus is liable to change up to the beginning of class and possibly over the semester. Please check the posted syllabus regularly, and note all changes that are shared by the instructor in class.

Incomplete Grade (IN):

Grades of incomplete are given when a student cannot complete the course requirements as a result of a documented illness or an emergency occurring after the twelfth week of the semester. The instructor, the school, the department owning the course, or the student can initiate an Assignment of Final Grade for Completion of IN when the coursework has been completed. No more than one year is allowed for completion of an IN. The end of the twelfth week is the withdrawal deadline from the course.

About the Instructor

Marientina Gotsis, MFA is a Research Assistant Professor of Interactive Media & Games at the USC School of Cinematic Arts, and director and co-founder of the Creative Media & Behavioral Health Center. Gotsis has a broad background in arts, design and engineering with special interest in medicine, public health and health behavior. She and her team have developed several innovative applications using games for health behavior change in topics such as child development, wellness, obesity, nutrition, exercise, autism, PTSD, rehabilitation, and eye disease. Gotsis has developed partnerships and projects with funding by the Robert Wood Johnson Foundation, Norlien Foundation, National Institutes of Health (NIH), US Department of Defense, US Department of Education-NIDRR and the Shafallah Center for Children with Special Needs. Formerly the Media Lab Manager for the Interactive Media Division, Gotsis managed technology infrastructure and contributed to several research projects funded by Electronic Arts, Intel, Microsoft and Nokia. She has taught at USC (School of Cinematic Arts, School of Social Work, Roski School of Fine Arts), Northeastern Illinois University, Columbia College Chicago and Harold Washington College, and she has consulted for small businesses and not-for-profits. Gotsis has 18 years of experience as a designer and technologist. She received a BFA in photography/film/electronic media and an MFA in electronic visualization from the Electronic Visualization Laboratory at the University of Illinois at Chicago.

About the Creative Media & Behavioral Health Center

Founded in 2010 following the success of the USC Games for Health Initiative, the Creative Media & Behavioral Health Center (CM&BHC) is a unique incubator for innovation in the use of entertainment applications at the intersection of behavioral science, medicine and public health. As an organized research unit between the USC School of Cinematic Arts and the Keck School of Medicine of USC, its mission is to increase public awareness of critical issues in mental health and behavioral science, and to provide hands-on creativity-based educational opportunities for health researchers and practitioners. CM&BHC relies on sponsorship from individual, foundation, federal and international organizations to support infrastructure, research and production. As of 2013, CM&BHC members have completed several research milestones, published and disseminated ideas and findings, trained and mentored a remarkably diverse cohort of alumni, and provided consulting to partners locally, nationally and internationally. Our lab space (SCI 308) is affectionately known as *The Garden*, is named to honor the Ancient Greek philosopher Epicurus (341–270 B.C.E.), whose school and community garden were dedicated to the social and emotional welfare of its students and friends. Epicurus' letters include some of the earliest inquiries into the role of homeostatic balance of pleasure (akin to contemporary concepts of affect regulation), the definition of happiness as the absence of mental and physical suffering (tranquility), and examples of practicing mindfulness in daily living.

Course Schedule & Readings List subject to change.

COURSE SCHEDULE BY WEEK

- 1 Introduction**
Course objectives, concepts of experience design, experiential design, participatory design through case studies
- 2 Challenge I: “Ethical Persuasion: Storytelling, Reframing & Metaphor”**
Bridge an existing gap between public and “experts” through a board game or transmedia campaign
- 3 Working groups**
- 4 In-Class Prototype Presentation & Critique**
- 5 Challenge II: “Cognitive/Affective/Sensorimotor Experiences & the Mind”**
Promote mindfulness through an embodied interactive experience
- 6 Working groups**
- 7 Working groups**
- 8 In-Class Prototype Evaluation & Critique**
- 9 Challenge III: “Often Enough To Make a Difference”**
Foster a new habit through a social mobile application
- 10 Working groups**
- 11 Working groups**
- 12 Working groups**
- 13 Working groups**
- 14 In-Class Prototype Evaluation, Findings Presentation & Critique**
- 15 Lab Open House – Demos and Posters**

Sample Bibliography

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