

Irem Gokce Yildirim

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Education

Michigan State University

M.A. (with thesis), Media and Information, Jan 2016 - Dec 2017
Specialization: Human-Computer Interaction (CGPA: 3.91/4.00)

Middle East Technical University

M.Sc. (with thesis), Game Technologies, 2015. (CGPA: 4.00/4.00)
B.Sc., Computer Engineering, 2011. (CGPA: 2.75/4.00)

Theses

M.A.: "The Effects of Mental and Physical Load in Exergames on Gameplay Experiences"
Advisor: Dr. Taiwoo Park

Committee: Dr. Taiwoo Park, Dr. Wei Peng & Dr. Rabindra Ratan
The interaction between cognitive and physical load in exergames will be investigated to improve gameplay experiences.

M.Sc.: "Time Pressure as Video Game Design Element and Basic Need Satisfaction"
Advisor: Dr. Ahmet Uysal, Co-Advisor: Dr. Hüseyin Hacıhabiboğlu

Committee: Prof. Kürşat Çağıltay, Dr. Ahmet Uysal, Dr. Hüseyin Hacıhabiboğlu,
Dr. Banu Cingöz-Ulu & Dr. Murat Yılmaz
Using Self-Determination Theory, the relationships between time limit and players' autonomy, competence, and gameplay experiences were observed.

Professional Experience

Department of Media and Information, Michigan State University, USA

Graduate Research Assistant, AY 2017

- Virtual reality and video games, Supervisor: Dr. Taiwoo Park
- Collective intelligence and online communities, Supervisor: Dr. Joshua Introne

Graduate Teaching Excluded Assistant, AY 2016

- Server-Side Web Development, Supervisor: Dr. Joshua Introne
- Intro. to Applied Programming, Supervisor: Dr. Joshua Introne
- Intro. to Interactive Media Development, Supervisors: Dr. Taiwoo Park & Patrick Shaw

Arcelik A.S., Turkey - R&D Software Engineer

2012 - 2014 (Full-time)

I worked on AppStore development, application development and data analytics of usages for Grundig/Arcelik/Beko Smart TVs.

ToDem Informatics, Turkey - Software Specialist

2011 - 2012 (Full-time)

I developed web-based medicine catalog and created applications for Samsung Smart TVs.

Research Experience

Media and Information, Michigan State University

STUDY: VIRTUAL REALITY-BASED COUNSELING FOR PEOPLE WITH MILD DEPRESSION

Supervisors: Dr. Taiwoo Park, Dr. Farha Abbasi

In this project, we are using virtual reality (VR) with an immersive interactive storytelling method for mental health promotion. We used 360-degree videos to reproduce a counseling session in VR that provides users an opportunity to vent out, without the fear of stigma or discrimination.

Skill Set: 360 VR Development, Unity3D, Adobe Premier, Experimental Design

PROJECT: HIV SOCIAL PLATFORM

Supervisor: Dr. Joshua Introne

The goal of this project is to create an online social support platform for HIV patients. I am currently working on the development of this web platform and implementing a narrative matching algorithm for the platform users.

Skill Set: Ruby on Rails, Ember.js, JavaScript, HTML, CSS, PostgreSQL, RubyMine, Scrum

STUDY: MSU WHITEBOARDS

Supervisor: Dr. William Dutton

We have conducted a survey, focus group, interview and content analysis on social media to understand the views about MSU's policy decision on banning whiteboards from dormitories due to cases of bullying through boards.

Skill Set: Mixed Research Method, Research Team Leader, Research Paper

STUDY: INSTRUCTIONAL MODES OF ONLINE VIDEOS

Supervisor: Dr. Serena Carpenter

In this study, our goal is to understand the best instructional mode to use in online educational videos among (1) written text, (2) spoken text and (3) both. We aim to help the learners have less information overload, more recall and more satisfaction with online educational videos.

Skill Set: Survey, Experimental Design, Annotated Bibliography, Literature Review, Research Team Leader, Research Paper

STUDY: EVOLUTION OF PSEUDO-KNOWLEDGE IN ONLINE CONVERSATIONS

Supervisors: Dr. Joshua Introne, Dr. Luca Iandoli

The purpose of this case study is to observe the life of a pseudo-knowledge and its impact on collective intelligence. I contributed to the coding of the posts in an online conspiracy theory discussion forum for narrative analysis.

Skill Set: Content Analysis, Coding

STUDY: PHYSICAL AND COGNITIVE LOAD IN EXERGAMES

Supervisors: Dr. Taiwoo Park, Dr. Wei Peng

The purpose of this study is to observe how the interactions between physical and cognitive load in an exergame affect players' game play experiences. I designed and developed the target game for the study and contributed the design of the experiment. We are currently in the data collection process.

Skill Set: Unity3D, C#, Exergame Design, Experimental Design, Research Team Leader

Research
Experience
(cont.)

PROJECT: YETI RUN

Supervisors: Dr. Taiwoo Park, Dr. Constantinos Coursaris

Yeti Run is an exergame that incorporates the principles of High Intensity Interval Training. I contributed in design, development of the game and conducting the playtest.

Skill Set: Unity3D, C#, Exergame Design, Prototyping, User Testing, Playtesting, Scrum

PROJECT: CROWD CAUSAL CODING

Supervisor: Dr. Joshua Introne

This project aims to identify the causal knowledge within the posts shared by people in online forums using Amazon Mechanical Turk. I designed and developed a web-based online training platform for this purpose.

Skill Set: JavaScript, HTML, CSS, PHP, IntelliJ IDEA, Grails, PostgreSQL, Heroku, Documentation, Project Leader

PROJECT: DECISION MAKING BAND

Supervisor: Dr. Joshua Introne

We created a paper prototype of a wearable wrist band to help groups of people who cannot make agreement on something with decision making.

Skill Set: Interview, Field Observation, Affinity Diagrams, Personas, Sketching, Interaction Design, Transition Diagram, Prototyping, Product Design, User Testing

PROJECT: A STRATEGIC PLAN OF CRM FOR NONPROFIT ORGANIZATIONS

Supervisor: Dr. Young Anna Argyris

For non-profit organizations it is much more difficult to get attention from the public (donors, volunteers, clients) and keep this interest for long period of time. In this project, with a new CRM platform we proposed for NAMI Michigan, the National Alliance on Mental Illness Michigan branch, to address request line and program accountability problems.

Skill Set: Social Media Plan, SWOT Analysis, Literature Review, Prototyping, Marvel App

PROJECT: WORLD OF RIDERS

Supervisor: Dr. Taiwoo Park

It is an hybrid multiplayer exergame developed for virtual reality and mobile platform in which the goal is to simulate high intensity interval training. I contributed the design and mostly development of the game.

Skill Set: Unity3D, C#, Exergame Design, Networking, VR, Playtesting, Scrum

PROJECT: LONG-DISTANCE COMMUNICATION

Supervisor: Dr. Carrie Heeter

We conducted an ethnographic research to gather, define, and prioritize the requirements for a new experience design for long-distance communication for international students and their families who stayed in the home country. Moreover I conducted a competitive analysis for a new mixed-reality video chat application design to improve the communication experience.

Skill Set: User Observation, Ethnographic Research, Competitive Analysis, Team Leader

Research
Experience
(cont.)

Game Technologies, Middle East Technical University

PROJECT: SUCH A RUSH

Supervisor: Dr. Veysi Isler

I designed a game with an inspiration of Red Bull's Flugtag event.

Skill Set: Unity3D, #C, Game Design, Playtesting, Presentation at GATEWay'13

PROJECT: EXPLORING THE APPLICABILITY OF GAME DESIGN HEURISTICS

Supervisor: Dr. Kursat Cagiltay

In this term paper whether Heuristics to Evaluate the Playability of Games (HEP) is applicable for different gaming platforms is observed.

Skill Set: Heuristic Evaluation, Playtesting, Literature Review, Research Paper

PROJECT: 3D LEARNING ENVIRONMENT DESIGN: BRAIN TRAINING CENTER

Team: Irem Gokce Aydin (Yildirim), Rukiye Altın, Tuğba Altan, Yasaman Alioan

We developed a virtual environment in OpenSim aiming that the participants can improve their abilities of memory, attention, speed and problem solving.

Skill Set: OpenSim, LSL Scripting, 3DLE Design Principles, Research Proposal

Computer Engineering, Middle East Technical University

PROJECT: BRAINWAVE BASED CONCENTRATION ENHANCING SYSTEM

Team: Berk Eserol, Evin Aslan, Irem Gokce Aydin (Yildirim), Ustun Yildirim

In this graduation project we integrated a Brain-Computer Interface device, Emotiv EPOC, with a Flash based game to optimize player's level of concentration based on the BCID input by dynamic difficulty adjustment.

Skill Set: Brain-Computer Interface Device, Game Design, Graphic Design, Java, Eclipse, Flash, Documentations of Software Design Description and Software Requirements Specification, Literature Review

Publications

Book Chapters

Uysal, A., & **Yildirim, I. G.** (2016). Self-Determination Theory in Digital Games. In *Gamer Psychology and Behavior* (pp. 123-135). Springer International Publishing.

Conference Papers

Hussain, S. A., Park, T., **Yildirim, I. G.**, Xiang, Z., & Cockman, A. (2018). Virtual Reality-based Videos to Relieve Depression. *68th Annual ICA* (accepted). Prague, Czech Republic.

Hussain, S. A., Park, T., **Yildirim, I. G.**, Xiang, Z., & Cockman, A. (2018). Virtual Reality-based Counseling for People with Mild Depression. *HCI International 2018* (accepted). Las Vegas, NV, USA.

Introne, J., Iandoli, L., DeCook, J., **Yildirim, I. G.**, & Elzeini, S. (2017). The Collaborative Construction and Evolution of Pseudo-knowledge in Online Conversations. In *Proceedings of the 8th International Conference on Social Media & Society* (SMSociety17). ACM, New York, NY, USA.

de Souza, L. M., **Yildirim, I. G.**, Kolesnichenko, A., & Park, T. (2016, October). World Of Riders: Exercising is Fun. In *Proceedings of the 2016 Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts* (pp. 55-60). ACM.

Yildirim, I. G. (2016, May). Time Pressure as Video Game Design Element and Basic Need Satisfaction. In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (pp. 2005-2011). ACM.

Presentations **Conference Presentations and Showcases**

de Souza, L. M., **Yildirim, I. G.**, Kolesnichenko, A., & Park, T. (2016, October). "World Of Riders: Exercising is Fun". *Meaningful Play*. East Lansing, MI. Presented 10/20/2016.

de Souza, L. M., **Yildirim, I. G.**, Kolesnichenko, A., & Park, T. (2016, October). "World Of Riders: Exercising is Fun". *ACM CHI Play, Student Design Competition*. Austin, TX. Presented 10/17/2016.

Yildirim, I.G. (2016). "A Psychological Approach to Video Game Enjoyment". *A hundred years of Film theory. Münsterberg and beyond: Concepts, Applications, Perspectives*. Leipzig, Germany. Presented 07/01/2016.

Reviews

Reviewer for the *ICA Game Studies Division Pre-Conference*, 2016, Tokyo, Japan

Awards and Fellowships

Lillian Kumata Scholarship
Michigan State University, 2017

Nancy Seidman Dempsey Memorial Scholarship
Department of Media and Information, Michigan State University, 2016 & 2017

Charles J. Strosacker Foundation Research Fund for Health and Risk Communication
Department of Media and Information, Michigan State University, 2016

Memberships

ACM SIGCHI
Association for Psychological Science (APS)

Skills

Research: Qualitative and Quantitative UX Research, Data Analysis, Research Paper
Technical: Web Design & Development, Game Design & Development, VR, Linux
Design: Interaction Design, Digital Design
Management: Project Management, Research Study Lead
Languages: Turkish (native), English (advanced)

Interests

Drawing, photography, web design, crafting, philosophy, sailing, blogging, board games

Activities

- *Web Design/Development/Content Management*: For personal or external entities
Examples: HomeinAway, HCI Studies, GGTI, iVerse Lab, TEMA Engineering
- *Volunteer for STEM Night at Pinecrest Elementary School*, East Lansing, USA(Nov 2017)
As members of MSU iVerse Lab, we introduced kids (~50) to the VR technology.
- *MSU Global Festival Gift Shop Volunteer*, Michigan State University, USA(Nov 2017)
Helped a scholarship foundation with selling gift items to raise money for students.
- *Attendee of Student Organizations' Events*, Michigan State University, USA
Joined to the events organized by University Activities Board and Astronomy Club.
- *Interview with Dr. Richard Stallman*, Michigan State University, USA
- *Volunteer Google AdWords Project Member for NAMI Michigan*, MSU(Nov-Dec 2016)
Contributed with campaign management, website management and graphic design
- *Google Solve for X Participant*, Turkey (2015)
Brainstormed on a project suggesting a wearable equipment for hemolysis.
- *Google CSI Workshop Participant*, Turkey (2014)
Practised design thinking on effective class environment.
- *Global Game Jam(GGJ) Participant*, Turkey (2013)
Created a game,"Come Back to Me", in 48 hours working as a team.
- *Computer Club Board Member*, Middle East Technical University, Turkey (2010-2012)
Helped organization of programming contests, design group leader, columnist in e-bergi.
- *Fine Arts Community Member*, Middle East Technical University, Turkey (2008)

Certification Human Research Protection Certification
Michigan State University

References

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